Soham

Design Guidance and Codes

Final report

August 2022

Delivering a better world

Quality information

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Revision History

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Introduction

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1. Introduction

Through the department for Levelling up, Housing and Communities (DLUHC) Neighbourhood Planning Programme led by Locality, AECOM was commissioned to provide design support to Soham Town Council. The support is intended to provide design guidance and codes based on the character and local qualities of the area to help influence future development.

1.1 Purpose of the report

The government is placing significant importance on the quality of design through the development of design codes which aim to set standards for design upfront and provide firm guidance on how sites should be developed. The role of design guidelines and codes in the development of a Neighbourhood Plan is expressed in the NPPF 2021, paragraph 128 which states that:

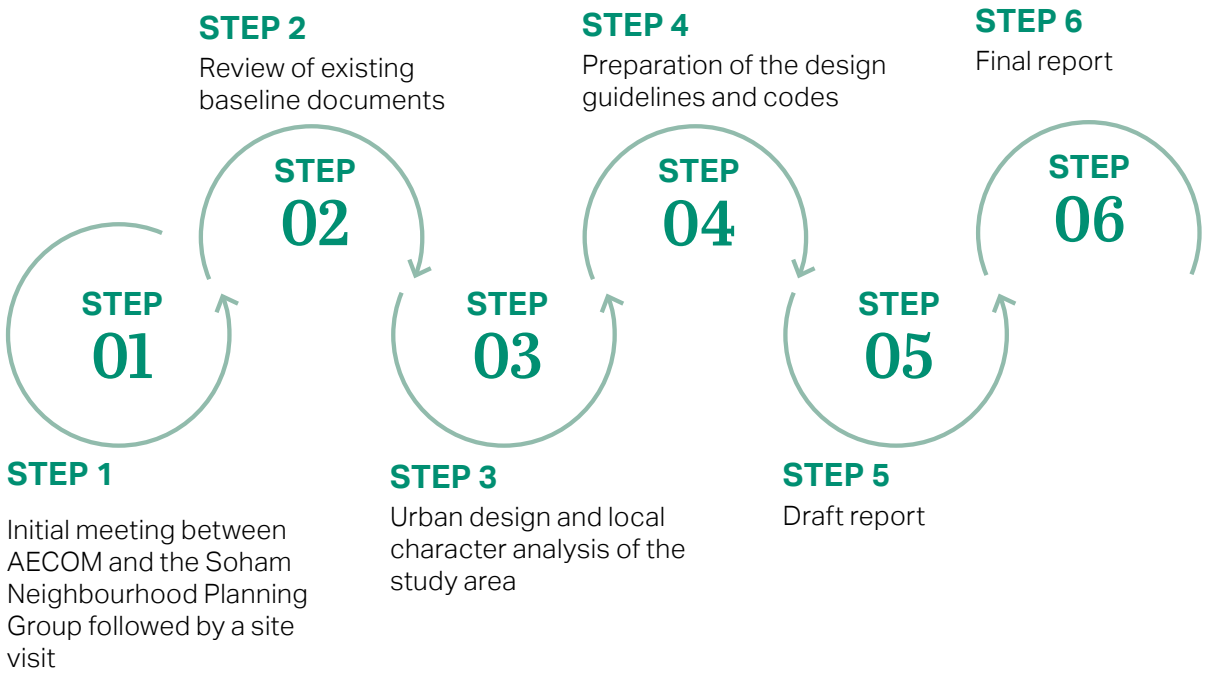
'To provide maximum clarity about design expectations at an early stage... design guides or codes consistent with the principles set out in the National Design Guide and National Model Design Code, and which reflect local character and design preferences. Design guides and codes provide a local framework for creating beautiful and distinctive places with a consistent and high quality standard of design. Their geographic coverage, level of detail and degree of prescription should be tailored to the circumstances and scale of change in each place, and should allow a suitable degree of variety.'

The design guidelines and codes set out in this report are consistent with the principles set out in the National Model Design Code, 2021 and tailored to reflect the local character of Soham to provide a detailed framework that should be followed by any future design proposals that come forward within the town to ensure it meets a consistent, high-quality standard of design and positively contributes to the unique character of Soham.

It is intended that this report becomes an integral part of the Neighbourhood Plan by informing policies that will influence the design of new development and have weight in the planning process.

1.2 Preparing the report

The following steps were agreed with the Neighbourhood Plan Steering Group to produce this report, which draws upon policy development and engagement work undertaken by the Group:



1.3 Area of study

Soham is a town and civil parish in East Cambridgeshire, England located south of the Cathedral City of Ely and north of Newmarket which are connected by the A142 that runs north to south. Soham has a railway station that was reopened in 2021 after being shut since 1965 which provides services to the Ipswich, Peterborough, and Cambridge.

To the west of the town lies Barway a small rural village which forms part of the neighbourhood area. The village is set around the village green and is compact with no significant services, therefore residents travel to Ely or Soham for goods and services. Barway has seen infill development with a significant number of large properties in recent years. However, there is no other additional growth planned.

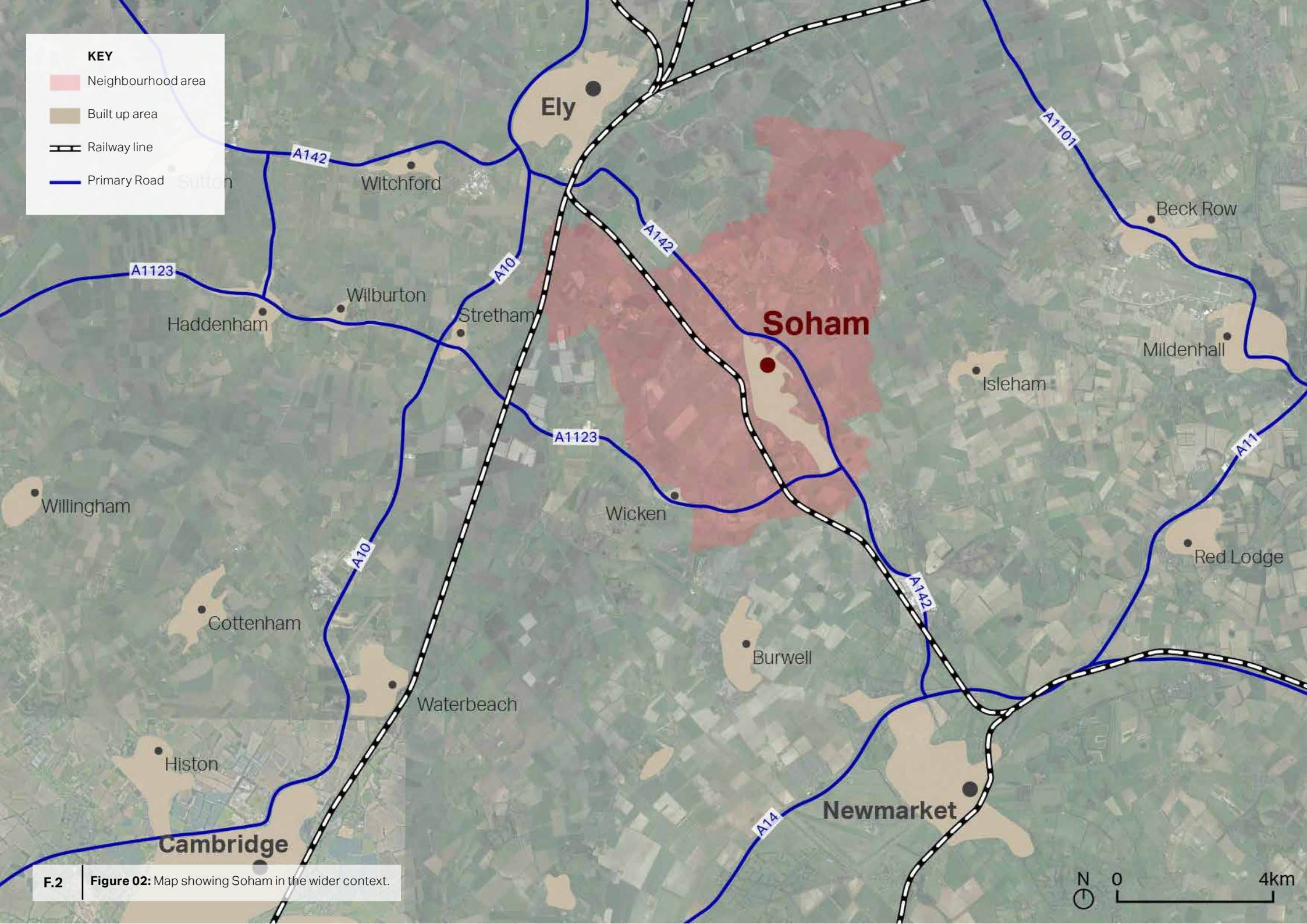
Soham is an ancient market town with people settled here from the Bronze Age. Although the town was occupied by the Romans, its modern core survives from the Saxon era when it was named Saegham meaning promontory on an inland sea.

The low-lying land that surrounds Soham was known as Soham Mere, an inland sea with a great expanse of water. In this time Soham was a successful trading port, dealing with cargoes from Europe via the great port of Kings Lynn. Many of the old merchant houses still exist in the town centre however most are hidden behind mid-nineteenth century facades.

The landscape surrounding Soham was once marshland, known as the Fens, however they were drained for agricultural use in the late 18th and early 19th century.

The town centre has a historic core which forms part of the Soham Conservation Area. The rest of the town, which has been built over time, is predominantly residential and has a largely suburban feel. In recent years the town has seen high levels of development and the East Cambridgeshire Local Plan (2015) allocated a total housing requirement of 2890 of which approximately 554 are still to be delivered once allocations, completions and commitments are taken into account, as of July 2021. As Soham is set to grow substantially it is important that the character of the town is retained and enhanced through the new development.

Figure 01: Public house in the historic core of the town.



F.2 **Figure 02:** Map showing Soham in the wider context.

Policy Review

02

2. Policy Review

2.1 National planning policy and guidance

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

National and local policy documents can provide valuable guidance for bringing about good design and the benefits accompanying it. Some are there to ensure adequate planning regulations are in place so that development is both fit for purpose and able to build sustainable, thriving communities. Other documents are more technical and offer specific design guidance which can inform design codes and masterplanning activities.

Developers should refer to these key documents when planning future development in Soham. The following documents at a national level have informed the design guidance within this report:

2021 National Model Design Code DLUHC

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.

2021 - National Design Guide DLUHC

Planning practice guidance for beautiful, enduring and successful places. It was first published in 2019 but was updated in 2021 to ensure the guidance was in line with the National Model Design Code.

2021 - National Planning Policy Framework DLUHC

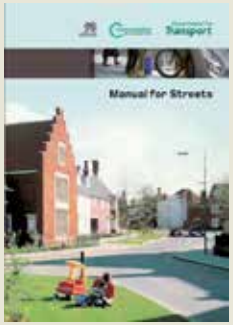
Development needs to consider national level planning policy guidance as set out in the National Planning Policy Framework (NPPF) and the National Planning Policy Guidance (NPPG). In particular, NPPF Chapter 12: Achieving well-designed places stresses the creation of high-quality buildings and places 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 to ensure that new developments are well-designed and focus on quality.

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.

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.



2.2 Local planning policy

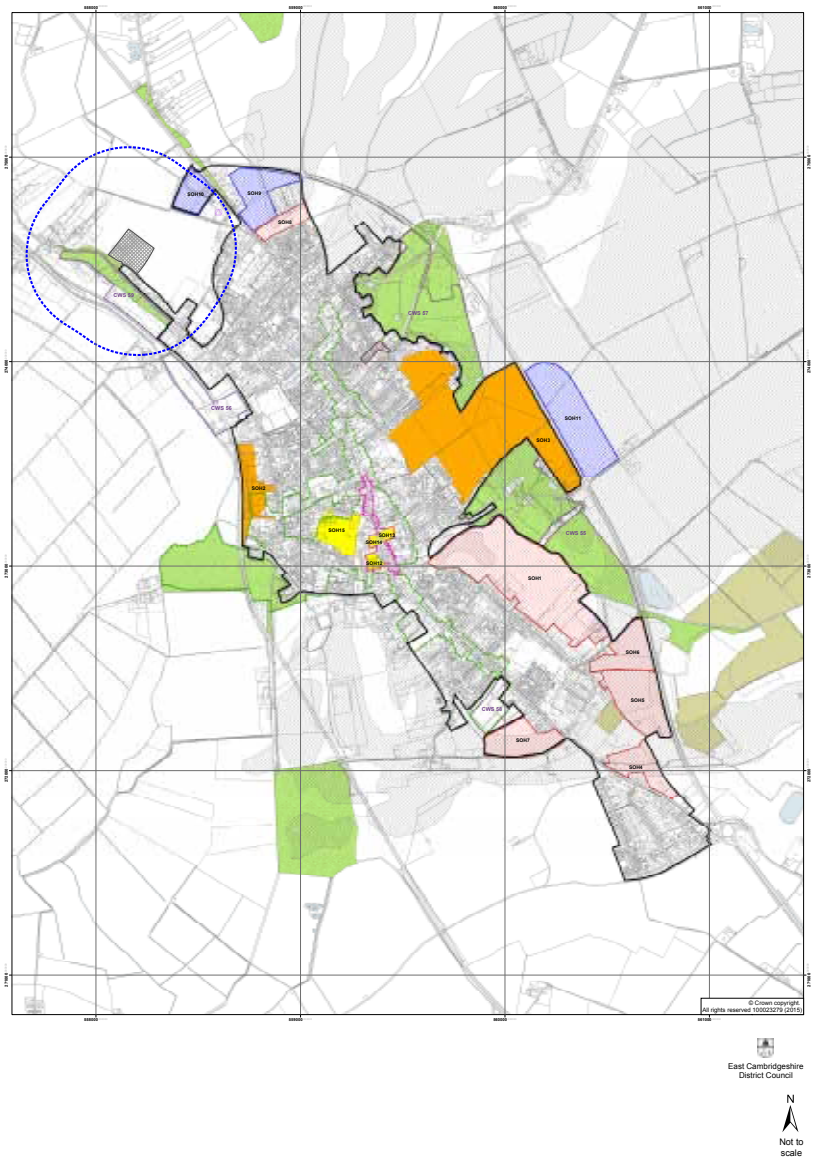
Soham lies within the East Cambridgeshire district and has an adopted Local Plan covering the period from 2011 to 2031. The East Cambridgeshire Local Plan was adopted in 2015 and has since been subject to a Single Issue Review.

The Single Issue Reviews aims to re-examine the housing requirements for the plan period and ensure that the plan remains up to date. However, the majority of the Local Plan 2015 will not be amended and does not affect this Design Code.

2015 - East Cambridgeshire Local Plan

East Cambridgeshire District Council

The Local Plan sets out the vision, objectives, spatial strategy, and policies for the future development of the district. It also identifies land and allocates sites for different types of development, such as housing and employment, to deliver the planned growth for the district to 2031. As such the Local Plan's requirement for Soham for 2011-2031 is estimated to be 2890 dwellings and the allocated sites can be seen in the plan to the right.



Policies Map (April 2015) Soham (In Key:

- SOH X Local Plan Policy
- Town centre boundary
- Development Envelope
- Conservation Area
- County Wildlife Site
- Housing led/mixed use allocation
- Housing allocation
- Employment allocation
- Town centre opportunity site
- Mobile Home Park
- Site of Special Scientific Interest
- Common Land
- Water Treatment Works Safeguarding Area
- Mineral & Waste Existing Site
- Mineral Safeguarding Area

Neighbourhood Area Context Analysis

03

3. Neighbourhood Area Context Analysis

This section outlines the broad physical, historic and contextual characteristics of the Neighbourhood Area.

3.1 Access and movement

Soham is located just to the west of the A142 bypass that runs parallel to the town north to south. There are a number of gateways that allow vehicle access to the town. Two of these gateways are to the north and south of the town off of the A142, providing more direct access to the heart of the town centre. These gateways have an open character and become gradually more built up towards the town centre acting as a transitional space from the countryside to the urban area.

There are a further three gateways to the east of the town from the A142 bypass which lead across the Commons. These gateways are marked by a cattle grid and open up onto the common land with views to the urban area.

The key primary route through the town runs along the high street and can become congested at times. The streets that lead off of this main route offer more localised routes to the residential and employment streets that make up the rest of the town.

These local and residential streets often have green verges and trees. Many of the residential streets are cul-de-sacs with no through routes.

Soham and the surrounding area provides a good terrain for cycling due to the flat landscape. The national cycle byway runs through the centre of Soham leading out to the north east and the south east. The cycle byway connects to Ely to the north but follows rural roads and riverside cycleways rather than the most direct route.

Along Fordham Road cyclists are separated from the traffic providing a safer route. Furthermore, this route leads to the Soham Downfields cycle bridge offering a safe crossing over the A142 roundabout and providing good views of Soham from the bridge.

Even though there are only a few designated cycle routes within and around Soham, cycling is generally safe and attractive around the residential

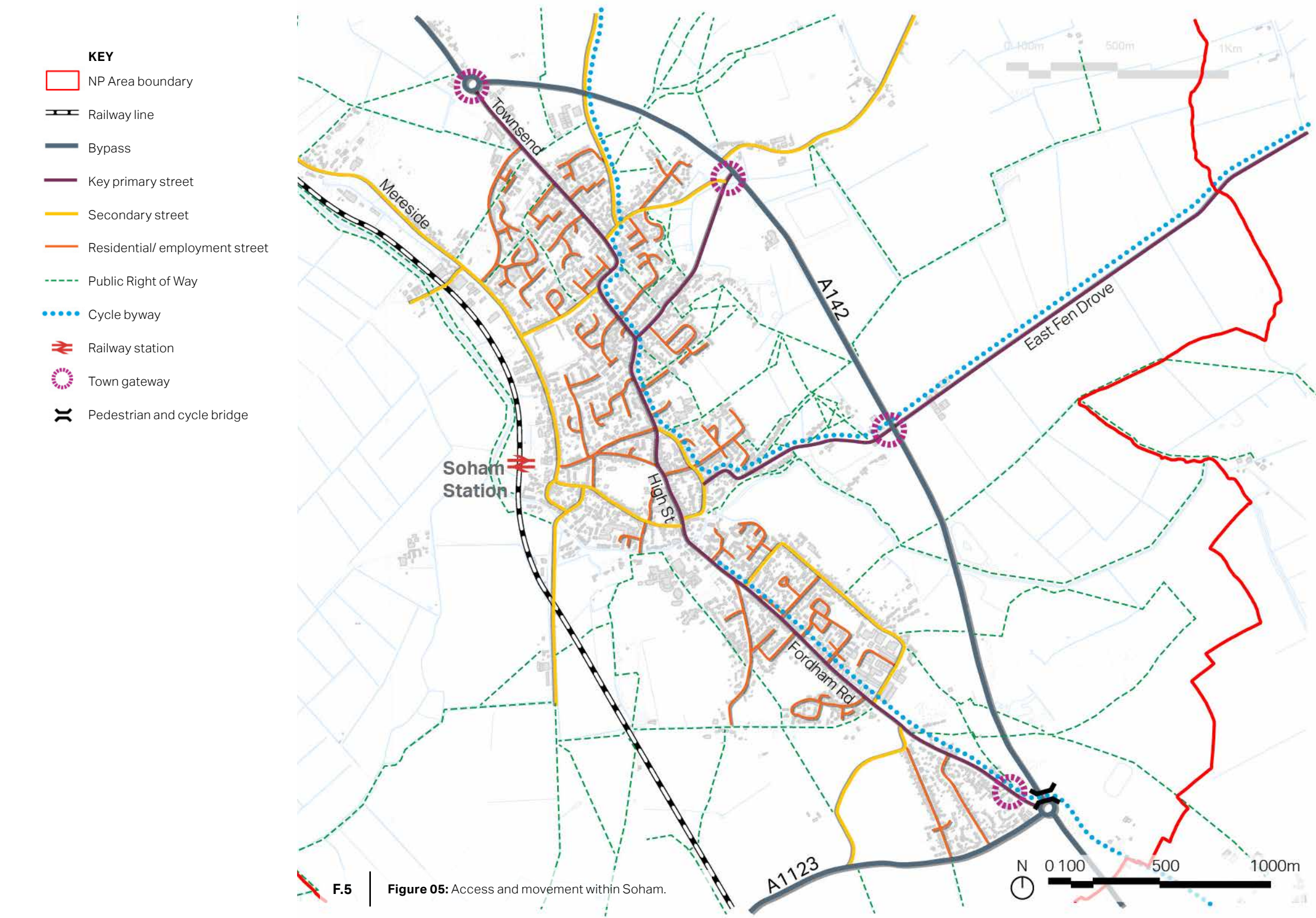
streets, however along roads with higher levels of traffic it may be a less attractive option. Furthermore, there are potential opportunities to connect the current cycle routes and create new ones that provide a direct link to Ely to the north and to the national cycle route that runs parallel to the town to the west.

Soham has an extensive network of Public Right of Ways connecting the town to the surrounding countryside. These paths link into the town from many different points on the town's edge providing easy and convenient access for residents. Within the town centre, particularly along the high street, the pedestrian environment could be improved and made more pedestrian friendly to encourage people to spend time there. The surrounding streets generally have a footpath on one or both sides of the street making it a safe pedestrian environment, however the numerous cul-de-sacs could be seen as a barrier to pedestrian movements.

The railway station within Soham was closed to passengers in 1965, however it has recently reopened following local campaigning. The newly opened train service provides travel to Ipswich via Bury St Edmunds as well as to Peterborough via Ely. The reintroduction of the railway station provides better accessibility to public transport options for locals. There is also a bus service that runs from Ely through the centre of Soham along the high street and then continues to Newmarket. The bus services run on an hourly basis, therefore are fairly regular.

Figure 03: Gateway to Soham from the bypass to the east.

Figure 04: Pedestrian and cycle bridge crossing the A142.



F.5 | **Figure 05:** Access and movement within Soham.

3.2 History and heritage

Scheduled Monuments

There is one scheduled monument within the parish of Soham, this is known as Roman site near Old Fordey Farm, Barway and is located to the south of the current Barway settlement.

There are two other scheduled monuments nearby however they lie within neighbouring parishes. The first is a Moated site 215m south of Chancel Farm which is in Wicken and located to the south west of Soham.

The last scheduled monument known as Moor Farm Bowl Barrow is located to the east of Soham in the parish of Isleham. The monument includes a Bronze Age bowl located 90m to the north east of Moor Farm. To the north the ground descends gently towards the southern edge of Soham Fen. The barrow is unexcavated however the surrounding area has produced considerable evidence of prehistoric activity across the margins of the fen.

Archaeology

Soham and the surrounding landscape is rich with archaeological evidence ranging from the Bronze Age, Iron Age, early Roman and Anglo-Saxon times. Some of the most recent finds include an Anglo-Saxon village and burial ground discovered along Fordham Road in 2016. These yielded items including a knife, girdle hanger and coins.

In 2018 a Bronze Age ring ditch was found containing flints, pottery, and metal dating from Palaeolithic to Medieval times on the land between Qua and East Fen Commons. In 2020 further evidence of Bronze Age activity as well as human remains were found on the land between Clipsalls Field and The Washes.

Settlement development

Soham used to be like an island rising a few metres above the surrounding marshy wetlands and large lakes or meres with Soham being located on the edge of what was known as Soham Mere. Before the Fens were drained the settlements were easy to defend meaning communities were slow to accept intervention from outsiders.

The king ordered the Fens to be drained in the 17th Century despite resistance from the locals and the land was used to create vast tracts of fertile land ideal for arable farming on a large scale. The agriculture of the region was generally characterised by a small number of large farms that use intense agricultural methods and modern technology, which is still the case today.

As a result of the additional farmland in the area the population of Soham increased in the beginning to mid-1600s to accommodate the many farm employees working around Soham. In this time Soham

grew as a market town with mills and distribution centres for local produce. Despite growth at this time most of the development occurred along the central street with no encroachment onto the Fens or common land.

Until the mid-1800s the population grew at a steady pace, peaking at 4706 in 1851. The pressure on population was relieved with the mass emigration of unemployed labourers and small farmers leaving for Australia and America.

The development pattern of Soham then retained the same shape from 1900 to the middle of the 20th Century with the long central spine making up the main street and a series of side streets lined with less affluent housing. From the 1950s the council built extensively throughout the parish with over 500 council houses built by 1975. One of the earliest large developments was Downfields which is located south of the village centre on former farmland. Furthermore, there was rapid development between the late 1960s and early 1980s extending the village to the east and the west by creating new streets beyond the existing lanes off the main street. In 1983 Soham was designated as a town.

This modern development to the east and west of the town is encroaching further upon the Commons and forms denser housing with tightly packed groups of houses and bungalows that are not characteristic of the village.

Conservation area

The old village centre was designated as a Conservation Area in 1975 to preserve the historic interest and special architecture seen in the historic core of the town. The Soham Conservation Area is made up of the main commercial street as well as some of the surrounding residential streets that make up the oldest part of the town.

The main space within the Conservation Area is the churchyard and adjacent Recreation Ground that are a pleasant green respite from the busy commercial streets; the churchyard is a quiet secluded area whilst the Recreation Ground is an open grassed area of activity.

The odd commercial property is found along Hall Street and Pratt Street. Nonconformist Chapels and their associated Sunday Schools and Manses tend to be located just off the central spine, the exception being the former Wesleyan Methodist Chapel, which is on Churchgate Street.

Key Listed Buildings

The majority of the listed buildings are Grade II and lie within the Conservation Area. Most of the buildings date from the 19th Century and later with not many earlier examples surviving. Most of the listed buildings are either along the main commercial street or in one of the nearby surrounding streets which is consistent with the historic pattern of development.

St Andrew's Church

The streets surrounding St Andrew's Church are wider than other streets as they reputedly follow the enclosure of a Saxon Cathedral, however the Grade I listed church that is now situated here originated in the 12th Century and was extended in the 15th Century. The church is made of rubble and pebblestone with flint and clunch. Much of the building has been restored over time to ensure the original features are retained.

Downfield Windmill

Built in 1726 the Grade II* listed windmill was originally timber framed smock. After falling into disrepair, it was restored in 1975 and is a working mill. At four storeys in height, it is visible from the surrounding streets and open space making it a landmark within the residential Downfield area.

Northfield Windmill

Another Grade II* listed windmill, to the north of the A142, was an early 18th Century smock windmill used for drainage and was moved to its current site in the 19th Century. The windmills present in Soham are important as they help characterise the region and make it special.

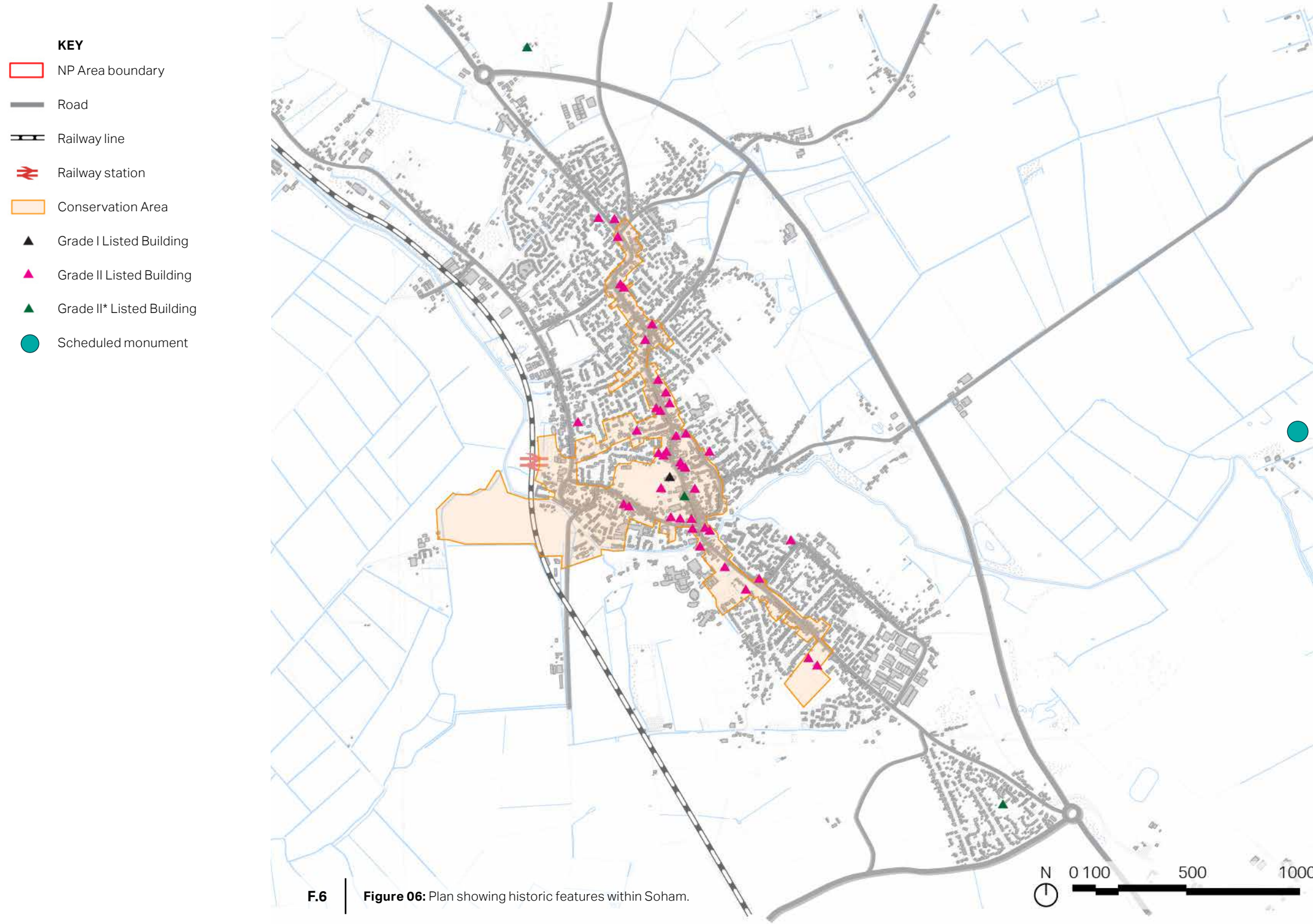


Figure 06: Plan showing historic features within Soham.

3.3 Landscape and green infrastructure

Landscape character

Nearly all of the neighbourhood area, apart from a small corner to the south, is made up of The Fens National Character Area as described by Natural England. The Fen areas have distinctively large-scale, flat, and open landscapes with extensive vistas and panoramic views. The landscape includes many drainage ditches, such as Soham Lode which runs through the town as well as dykes and rivers that lead to The Wash. The landscape surrounding Soham comprises of low-lying, level terrain with elevations only varying by one or two metres over long distances. This level, open topography creates the effect of huge skies, conveying a strong sense of place and tranquility. Due to the flat landscape any tall buildings or structures create a strong vertical, visual influence often dominating the surrounding land and creating a landmark within the landscape.

The Commons

The common land areas that lie to the east and west of Soham are a distinctive landscape feature of the town and are of considerable nature conservation importance. This network of Commons includes a Site of Special Scientific Interest (SSSI) known as Soham Wet Horse Fen as well as a number of County Wildlife Sites, East Fen, Qua Fen and Broad Piece which have a principal nature conservation interest of neutral grassland (lowland meadow).

The Commons provide a legal right of open space which historically has been used for grazing livestock but also draws people in for recreation, particularly dog walking, due to their open nature. The large amount of proposed development for the town, much of which would be directly adjacent to the Commons to the east, would increase the number of people using the Commons making the urban effects more acute.

There is a clear need to balance the level of access with nature conservation as the connectivity between the Commons and the town through historic alleyways is an important characteristic of Soham.

There is a historic and ongoing issue with encroachment onto the Commons which has been exacerbated by a lack of enforcement. This encroachment, particularly parking, needs to be seriously discouraged otherwise it would negatively affect the character of the Commons.

It is important to help residents of new developments to understand the value of wildlife and the history of the Commons so it can be preserved, as a lack of understanding could lead to a lack of respect for the Commons, resulting in ssues such as dog fouling not being picked up or fly tipping and eventually lead to a loss of Common land.

Recreation ground and allotments

At the heart of the town centre, Soham recreation ground, which is tucked behind St Andrew's Church, provides a large public green space with a playground, a basketball court and a skate park as well as a building used by scouts, brownies, and guides. Its central location within the town makes the recreation ground is a valuable resource and green space.

To the east of the recreation ground is St Andrew's church and surrounding cemetery. The green setting of the church is a prominent feature along the high street as it provides key views to the church for the high street. The high street generally has a strong sense of enclosure which transitions to a sense of openness once you reach the church and cemetery providing visual interest along the street and a strong connection to open green space within the town centre.

There is another recreation ground to the south of the town within one of the more recent developments. This area provides green space and a children's play area which is overlooked by houses creating good natural surveillance. This recreation ground serves nearby residents whereas the central Soham recreation ground serves the whole town.

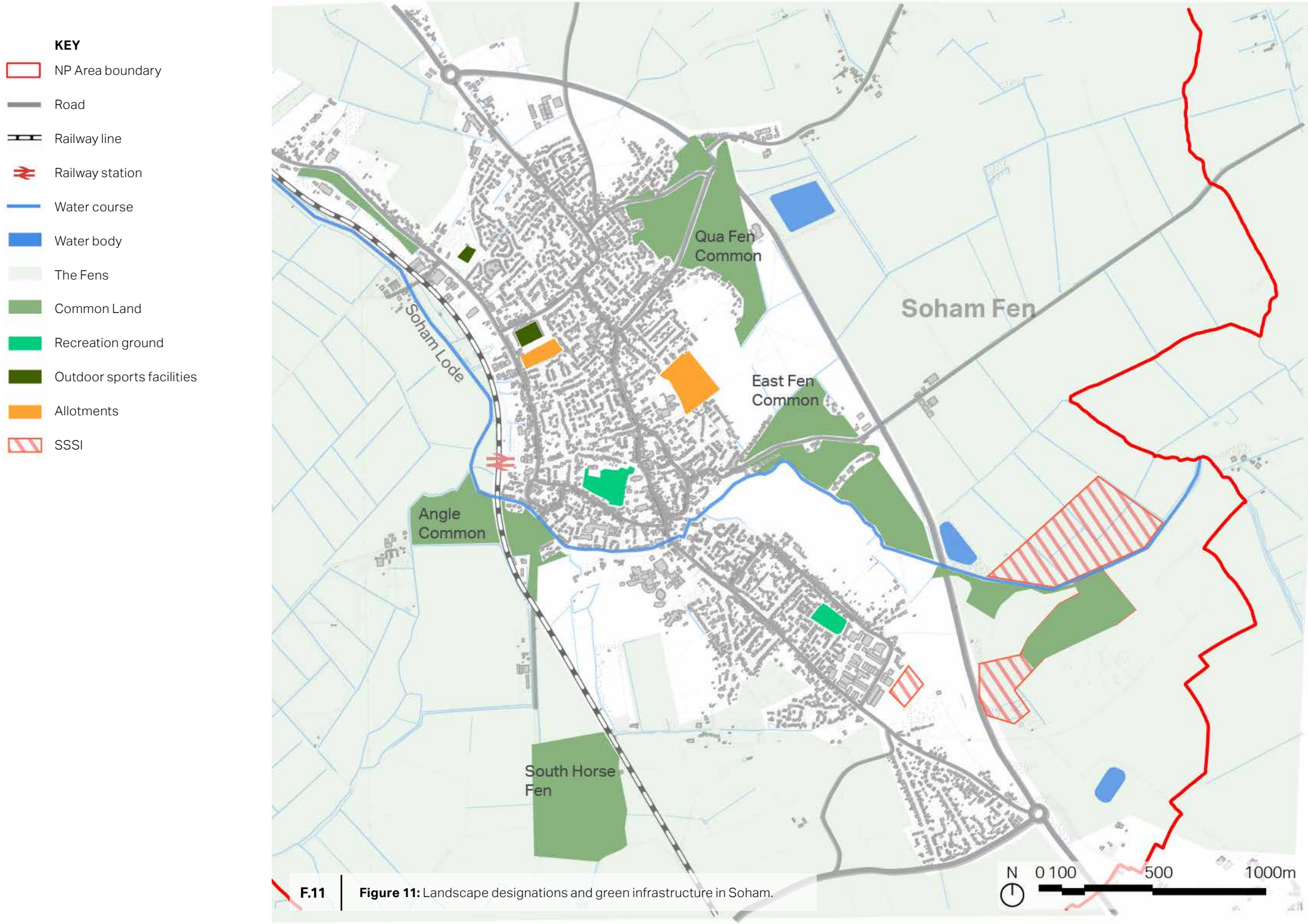
There are two statutory sites for allotments, both located in the northern half of the town with one on the eastern edge of the town and the other towards the west. They are both adjacent to another open space and provide a break in the urban form.

Figure 07: View across the common land.

Figure 08: Recreation ground within Soham.

Figure 09: Weatheralls allotments.

Figure 10: Berrycroft allotments.



F.11 | **Figure 11:** Landscape designations and green infrastructure in Soham.

3.4 Topography and flood risk

Typical of settlements within the Fens, the main urban area of Soham is located on an 'island' of higher ground than that of the surrounding landscape. Therefore, the urban area of the town is not directly affected by flooding but can still be impacted by the flooding of the surrounding landscape.

The bypass running alongside the town to the east has the potential to be severely impacted by flooding which could lead to vehicles being diverted through the town. The increase in traffic through the town would increase congestion, particularly along the high street, increasing air pollution and creating a less pedestrian friendly environment. The two roads that lead to the town from the east, crossing the Commons are also likely to be affected by flooding which could further exacerbate the traffic problems along the north south route of the town. There is a small section of ribbon development in the Broadpiece area to the north of the town, adjacent to the railway line which could potentially be affected by flooding.

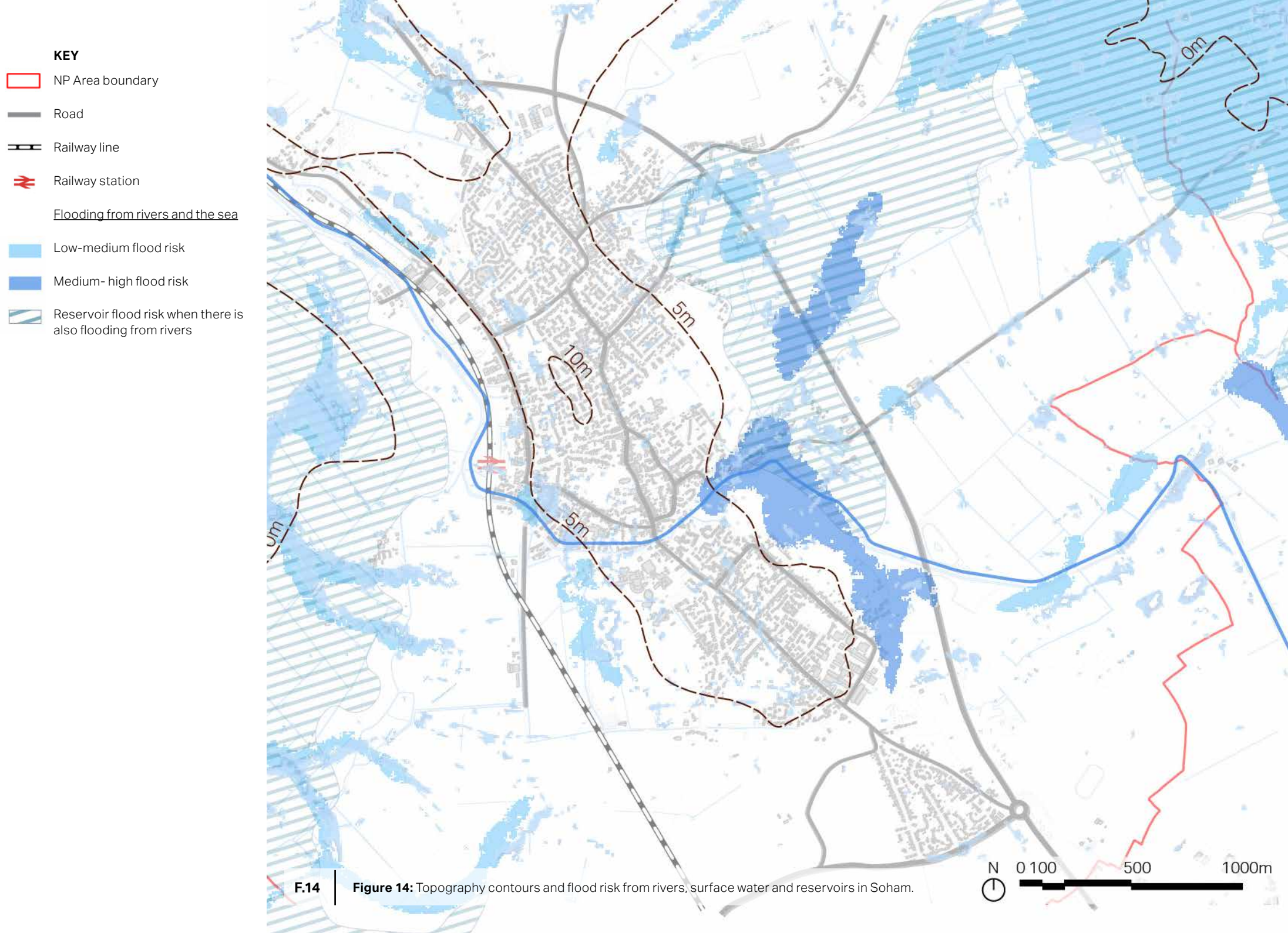
Due to the flood risk surrounding the town the location, design, and mitigation measures of any new development will need to be carefully considered to ensure the existing town is not negatively affected by flooding as a result of additional development.


F.12

Figure 12: The Fens being uses as farmland.


F.13

Figure 13: View across the Fens with a flat landscape.



F.14 | **Figure 14:** Topography contours and flood risk from rivers, surface water and reservoirs in Soham.

3.5 Character typologies

This section provides a character analysis of the town which will be used to inform the design codes in Chapter 5 to ensure development within each area conforms to the local character. Five distinctive character typologies have been identified within Soham reflecting unique built and natural qualities of each area.

Character typologies have been used instead of character areas because certain parts of the town exhibit a similar character even though they are not directly next to each other. This is due to the way the town has developed, firstly with ribbon development along the high street and then expanding to the east and west. This led to encroachment development at the edges of the Commons and then most recently piecemeal modern developments at the town's edges. The five character typologies are:

Town centre

The town centre has both historical importance as part of the Conservation Area and a community focus, with shops and cafes along the high street as well as a large recreation ground and church. There are high levels of traffic along the high street and in places there is a car dominated streetscape due to the number of parked cars. Therefore, the pedestrian environment in this area should be improved to create pedestrian friendly streets and a place people want to spend time in.

Town gateways

The town gateways are located along the northern and southern strips of the main street. These areas act as a transition from the open countryside to the town centre by gradually building up the density towards the centre of the town. These areas could become vulnerable to infill development which would create a hard edge with the countryside. There are roundabouts at the northern and southern gateway to the town which could be improved for pedestrians and cyclists.

The Commons

The Commons character typology consists of the Commons and the low-density housing that overlooks the green space and countryside beyond. The Commons are important in maintaining a strong rural character, allowing the countryside to permeate into the heart of the town. Furthermore, the Commons to the east of the town provide a transition space and two entrances to the town but have a more open green character than the town gateways typology. One of the key challenges for the Commons is encroachment and the proximity of potential development, increasing the number of people using the Commons which could negatively affect wildlife.

General neighbourhood

The general neighbourhood typology describes the residential areas with a suburban typology. These areas are mostly residential and generally have good levels of greenery along the street and in front gardens. One challenge for this typology may be the paving over of front gardens to create additional on plot parking. Another potential challenge in the future could be the conversion of bungalows to two storey houses.

Modern estates

The modern estates typology describes residential areas that have been separated from the general neighbourhood typology because they have a higher density and their layouts and designs are often not in keeping with the existing character of Soham. One challenge for this typology is the lack of legibility and pedestrian connectivity to other parts of the town. The areas within this typology can also lack greenery in places giving these areas a more urban feel not in keeping with the character of Soham.

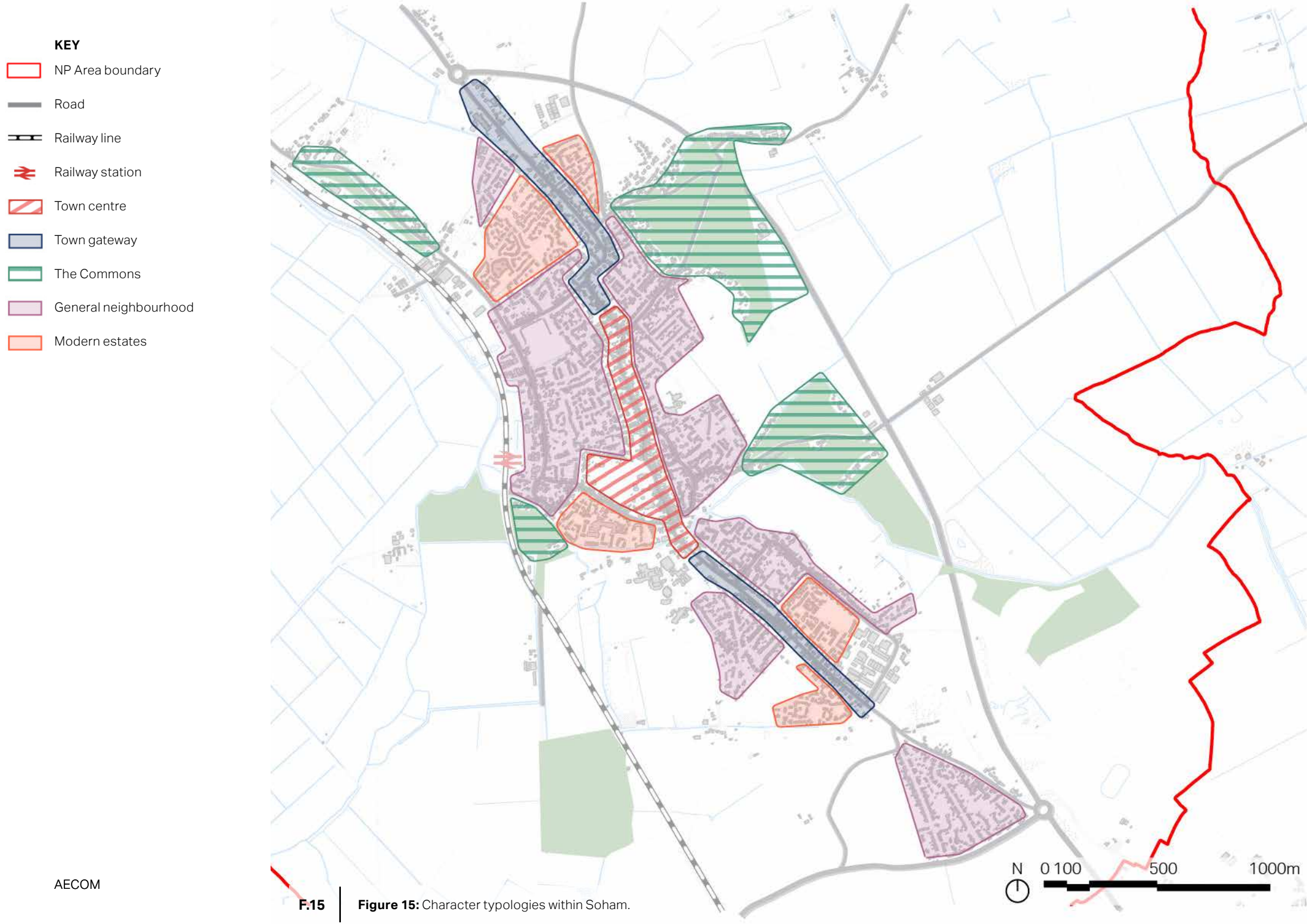


Figure 15: Character typologies within Soham.

01

Character Typology 1: Town centre

Category	Area characteristics
Land use	A mixture of uses including retail, cafes, take aways and pubs along the high street as well as St Andrew's Church and the adjacent recreation ground creating a commercial centre and a community hub.
Layout	Linear ribbon development along the high street running north to south with streets branching off to residential areas behind. The linear form is interrupted by St Andrew's church which is set within a large plot surrounded by a cemetery and recreation ground to the west creating an open green space in the centre of town.
Building heights and roofscape	There is a mixture of two and three storey buildings along the high street with varying roof types including pitched roofs, gable ended pitched roofs and hipped roofs. The variety of roof types and building heights creates a varied roofline and visual interest along the street with a strong connection to Soham's history. Chimneys provide rhythm and a sense of cohesion along the street.
Streets	Consistent building lines and narrower roads provide a high level of enclosure along the street apart from around the church where there is a sense of openness provided by the church being set back from the street and surrounded by greenery. The width of the footpaths vary along the street with some being fairly narrow. Some parts of the high street are dominated by parked and moving cars.
Buildings	The buildings form a continuous frontage along the street with doors opening onto the street providing easy access to the shops and other services. At the ground floor there are shopfronts with large windows. Some of the cafes have small areas of outdoor seating on the street. The most common materials found in this area are brick and painted or rendered brick with slate roofs. Aside from the church grounds and recreation ground there is little greenery within the streetscene.

Figure 16: View along High Street.

Figure 17: Outdoor seating outside a cafe.

02

Character Typology 2: Town gateway

Category	Area characteristics
Land use	Predominately small scale residential with scattered commercial and retail units.
Layout	Continued linear ribbon development from the town centre to the north and the south with larger plots and buildings more spread out along the street creating gaps and filtered views to the surrounding landscape. Roundabouts to the north and south mark two of the entrances to the town via car. To the south there is also a pedestrian and cycle bridge leading to the town. The entrances, particularly to the north are not pedestrian and cycle friendly.
Building heights and roofscape	Within this typology the buildings are mostly two storeys in height with the occasional bungalow which help to create the transition from the countryside to the urban centre of the town.
Streets	The streets are wide and dwellings have a large setback from the street with large front gardens contributing to the sense of openness along the street. The streetscene has high levels of greenery provided by front gardens, green verges and street trees which help create the transitional space from the countryside. The streets generally have a consistent building line bringing cohesion and a sense of formality. The streets have traffic calming measures in places to slow down traffic as cars travel at speed.
Buildings	The town gateway typology has a large variation of building types ranging from small rows of terraced housing to semi- detached and detached houses. Most of the buildings have a boundary treatment with the most common materials being brick walls, wooden fences and hedges. The predominate building materials are brick, render and hung tiles as well as the occasional thatched cottage.

Figure 18: Dwellings within the town gateway area.

Figure 19: Wide road with traffic calming element.

03

Character Typology 3: The Commons

Category	Area characteristics
Land use	The Commons typology consists of protected open green space which is used for some recreational purposes such as dog walking and occasionally for grazing by cattle and horses. There are dwellings located at the edges of the Commons. The Commons have a rural character and allow the countryside to permeate the town.
Layout	Dwellings are orientated to overlook the Commons often with an unmade road separating the houses from the common land. Encroachment of existing properties onto common land and the proximity of potential development proposals could threaten the character of the Commons and have a detrimental effect on their relationship with the town. The Commons to the east Qua Fen and East Fen have roads cutting through the middle of the open space acting as gateways to the town.
Building heights and roofscape	The buildings in this area are generally two storeys in height often with pitched roofs and the occasional dormer window. Some dwellings have chimneys however it is not a consistent feature of the area.
Streets	The unmade roads at the edge of the Commons follow the landscape creating an informal character. The paths that cut through the open space create a straight, direct link to the centre of the town. There are numerous Public Right of Ways that are crucial for ensuring the network of Commons remains connected. Strengthening these connections will be important for ensuring the Commons survival and allowing them to thrive.
Buildings	There is a mixture of detached and semi-detached houses, as well as some small terraces. The buildings vary in age and materials with the most dominant material being brick. There are also some white rendered buildings with clay tile roofs. Most of the buildings are orientated with their primary frontage facing the open space.

Figure 20: View to the houses that overlook the Commons.

Figure 21: Edge street facing the Commons.

04

Character Typology 4: General neighbourhood

Category	Area characteristics
Land use	The areas within the general neighbourhood typology are mostly residential with some open spaces including allotments and outdoor sports facilities.
Layout	The layout is a mixture of through routes leading off from the main street and cul-de-sacs. The plots are generally regular with buildings set back and front gardens creating a suburban character.
Building heights and roofscape	The buildings are predominately two storeys in height with a few bungalows, however, there are some areas that are dominated by bungalows or have bungalows on one side of the street and two storey houses on the other.
Streets	The streets have some level of enclosure provided by consistent building lines as well as maintaining a sense of openness and greenery typical of suburbs. The streets have footpaths on one or both sides of the road and the streets have less parked cars than other areas of the town making it a pleasant environment for pedestrians. A sense of continuity and cohesion is provided along the street by the boundary treatments that are at the property boundaries. Common materials include brick walls, fences, and hedges. The greenery is provided by green verges and vegetated front gardens.
Buildings	The buildings are mostly detached and semi-detached houses with gaps between the buildings. The most common materials are brick and render as well as clay and slate roof tiles

Figure 22: Bungalow with green front garden.

Figure 23: Mix of two storey houses and bungalows with green verges and front gardens.

05

Character Typology 5: Modern estates

Category	Area characteristics
Land use	The modern estates typology are predominately residential areas with houses and flats, built in the late 20th or early 21st century.
Layout	This typology often has one access point into the development with one main route and a series of cul-de-sacs. These areas are not well connected to the rest of the town with low levels of permeability. The plots are generally smaller, and the houses are packed closer together creating a higher density of housing, not in keeping with the densities of the rest of the town.
Building heights and roofscape	Many of the buildings are two storeys in height, however they can reach up to four storeys which is not in keeping with the heights of the rest of the town and gives the area a more urban feel. The roofs are a mixture of hipped and pitched roofs.
Streets	The streets generally have a high level of enclosure again creating a more urban character that is not in keeping with the other residential streets of Soham. There is a lack of greenery in the streetscene with no green verge or planting. Some of the buildings are not orientated to face the street which leaves blank facades and back fences facing the street. Many of the dwellings do not have boundary treatments and have only a small set back from the street.
Buildings	There is a mixture of buildings typologies, there is a larger number of terraced housing found in these areas compared to the rest of Soham, giving these areas a more compact feel than the other residential areas. The main building material used in the modern estates is brick, like the rest of the town, however the colour of the bricks fail to be in-keeping with the existing colour palette of the town. The buildings in these estates generally do not offer the variation in form, architectural details, and materials featured across the rest of the town.

Figure 24: Local example of a detached house using sympathetic materials.

Figure 25: Four storey flats that are out of scale with Soham.

General design guidance & codes

04

4. General design guidance & codes

This section sets out the principles that will influence the design of potential new development and inform the retrofit of existing properties within the Neighbourhood Area. A combination of local images and best practice examples have been used to exemplify the design guidelines and codes.

4.1 Introduction

The guidance and codes provided in this section outlines expectations that applicants for planning permission in the town will be expected to follow in relation to design.

This section sets out the guidelines and codes that can be applied to the whole town in relation to the local pattern of streets and spaces, building traditions and materials as well as the natural environment. These will help to determine the existing character and identity of Soham and would form the basis for design that new developments should reference.

4.1.1 The Codes

This section introduces a set of design principles that are specific to Soham. These are based on:

- Baseline study of the town in Chapter 3;
- Understanding national design documents such as the National Design Guide and National Model Design Code documents to inform the design guidance and codes;
- Discussion with members of the neighbourhood plan steering committee.

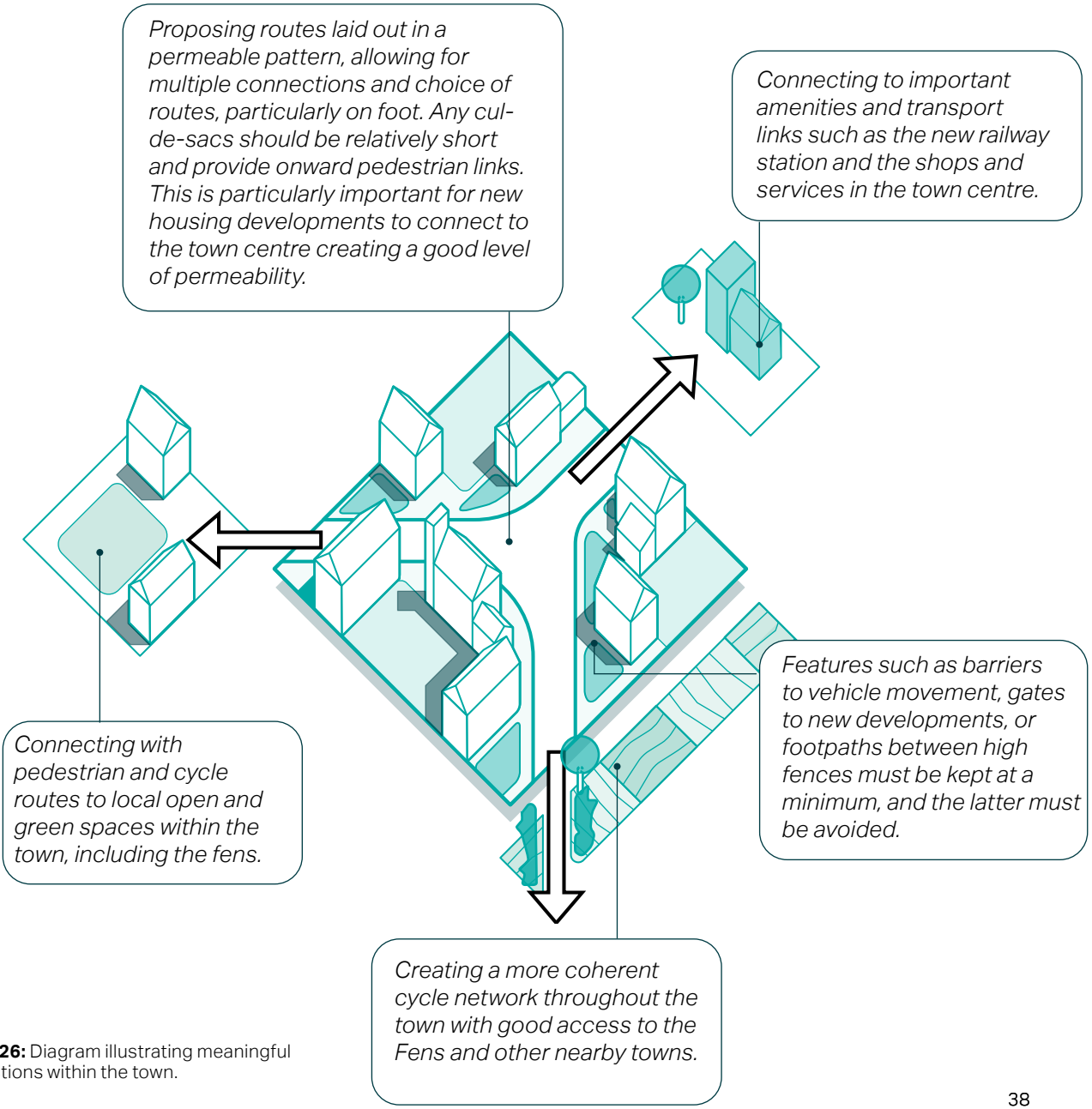
The codes are divided into four sections by theme, as shown on this page, each one with a different number of subsections. A short introductory text with more general design guidance is provided at the beginning of each section followed by a series of more prescriptive codes and guidance. At the end of this section there is a set of questions to consider when presented with a development proposal.

Theme	Code	Title
Strategic design codes	SD1	Provide meaningful connections
	SD2	Buffer settlement edges
	SD3	Gaps and views
	SD4	Heritage assets
	SD5	Density
Built form	BF1	Enclosure
	BF2	Building lines and boundary treatments
	BF3	Corner buildings
	BF4	Public space
	BF5	Roofline and building heights
	BF6	Architectural details, materials, and colour palette
	BF7	Waste storage and servicing
	BF8	Extensions and alterations
	BF9	Adaptability and space standards
Access and movement	AM1	Prioritise walking and cycling
	AM2	People friendly streets
	AM3	Parking typologies
	AM4	Legibility and wayfinding
Landscape, nature, open space	LO1	Create a green network for wildlife and biodiversity
	LO2	Landscaping and trees
Sustainability and climate change	SC1	Sustainable buildings
	SC2	Water management

4.2 Strategic design

SD1. Provide meaningful connections

A well-connected street pattern creates a 'walkable neighbourhood' were routes link meaningful places and key amenities together. Any new development within Soham will need to provide direct routes for walking and cycling to key parts of the town including the town centre, the railway station and the Fens. This can be achieved by:

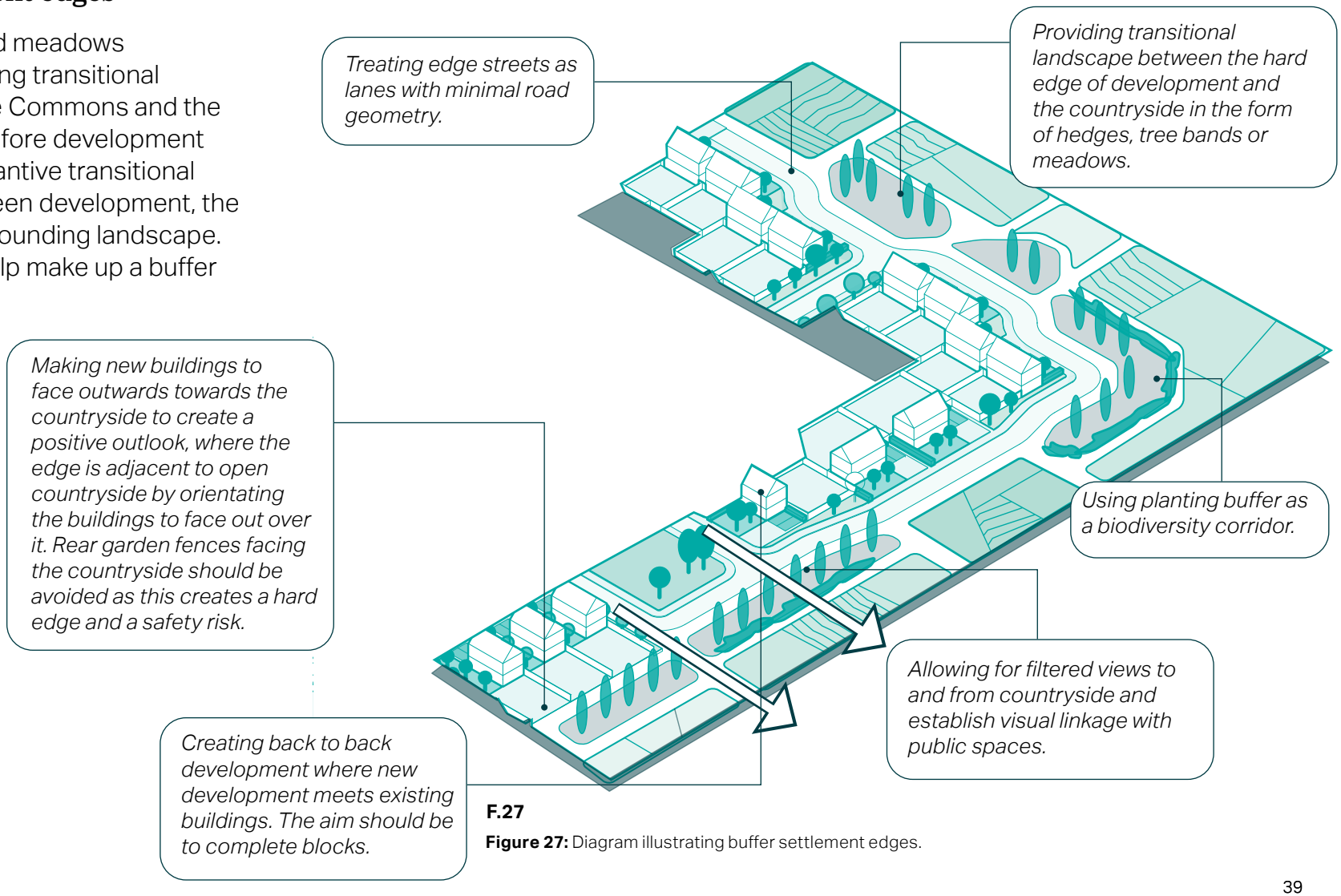


F.26

Figure 26: Diagram illustrating meaningful connections within the town.

SD2. Buffer settlement edges

Hedges, tree bands and meadows are important in providing transitional landscape between the Commons and the settlement edge. Therefore development should provide a substantive transitional landscape buffer between development, the Commons and the surrounding landscape. Design features that help make up a buffer edge include:



F.27

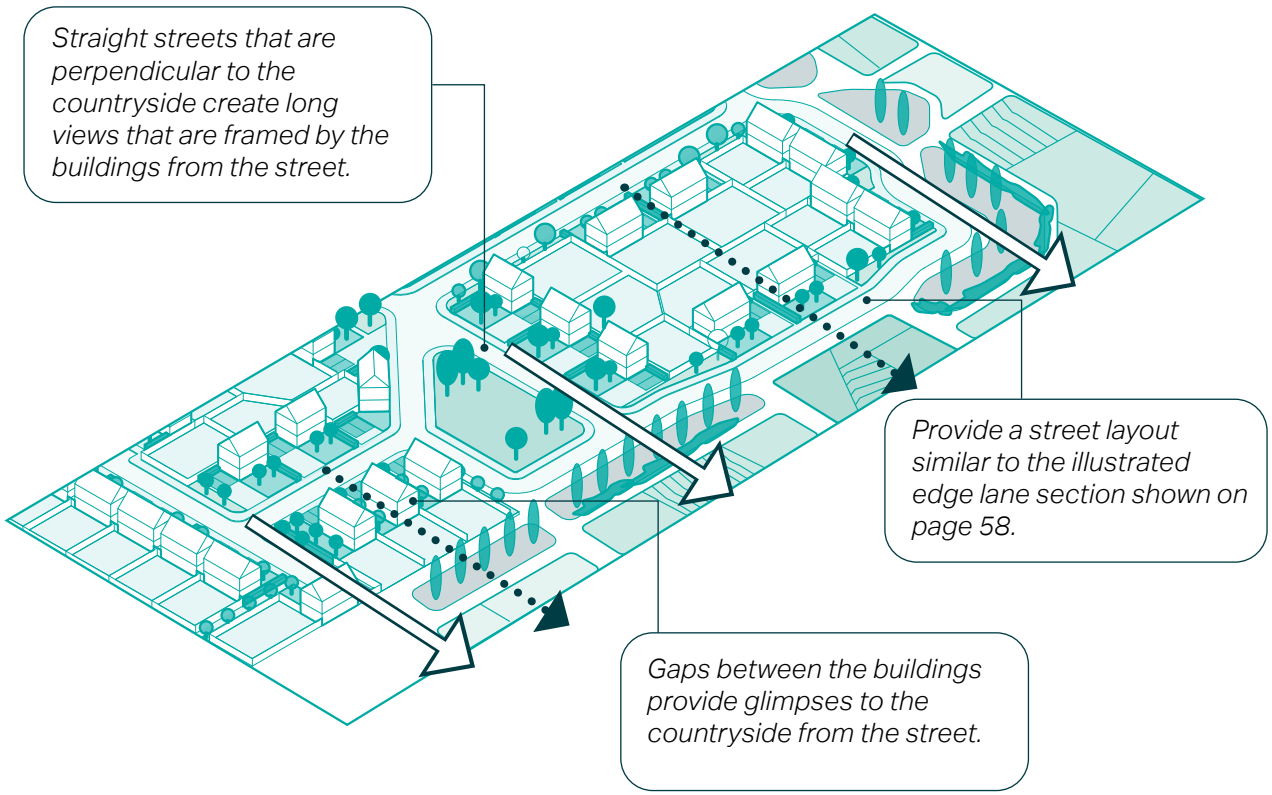
Figure 27: Diagram illustrating buffer settlement edges.

SD3. Gaps and views

As Soham is located on a flat topography, the built environment can help to create views by framing distinctive features within the built environment, such as landmarks or the scenic open countryside.

Generous gaps between buildings should be created to provide glimpses and filtered views to the countryside and beyond. This will connect people and the built form with nature and contribute to maintaining the rural character in the built environment.

Streets should be perpendicular to the open countryside to create long views along the street. This would maximise views to the open countryside for pedestrians and residents alike, whilst enhancing legibility through appropriately orientating of buildings to respond to the context of the landscape setting. Some specific design principles to consider are:



SD4. Heritage assets

Soham is home to a range of heritage assets that carries significant historical value, particularly those located within the Conservation Area together with the landscape surrounding the town, all of which contribute significantly towards Soham's townscape and character. The Conservation Area, the fenlands and the Commons within the neighbourhood area, along with their historic features must be respected by new developments.

There are several Grade II listed buildings, mostly located within the Conservation Area as well as one Grade I listed building and along with two Grade II* listed buildings. These designated heritage assets are protected, and any proposed development should be sympathetic to their design and historical significance. Some key design considerations include:

- New development will need to respect and respond to the historical context, particularly within the Conservation Area;
- Development should respect the significance of any designated and non-designated heritage asset. Particular consideration shall be given to maintaining their role in framing, punctuating or terminating key views through, out of and into the town, as well as key views. As well as key views to the surrounding landscape.

Figure 28: St Andrew's Church, Grade I listed building.

Figure 29: View to the Commons.

SD5. Density

The density of housing in Soham varies throughout the town with the individual character typologies having different levels of housing density that contribute to their character.

For example the town centre has the highest housing density between 40-50 dph (dwellings per hectare) as there are more terraced buildings on smaller plots. This higher density contributes to the more urban character of the town centre.

The general neighbourhood and the town gateways have a more modest housing density between 20-35 dph. This creates a more suburban character with dwellings more spread out than in the town centre.

The Commons have the lowest density in the town at 15- 35 dph with generous gaps between houses surrounded by greenery creating a countryside character.

The modern estates have a large range of housing densities from 35-52 dph. Due to some of the higher densities these areas have been overdeveloped and have an urban character which is out of place for a residential area of Soham. Therefore, some key considerations for density include:

- Ensure that new development provides similar densities to that already existing within the town.
- Ensure that the proposed densities do not alter the character of the town, for example by proposing a high density that would create an urban setting.
- Any new development will need to consider the densities of the areas directly adjacent and should not greatly exceed these.
- Any new residential development should look to the general neighbourhood typology for appropriate densities.

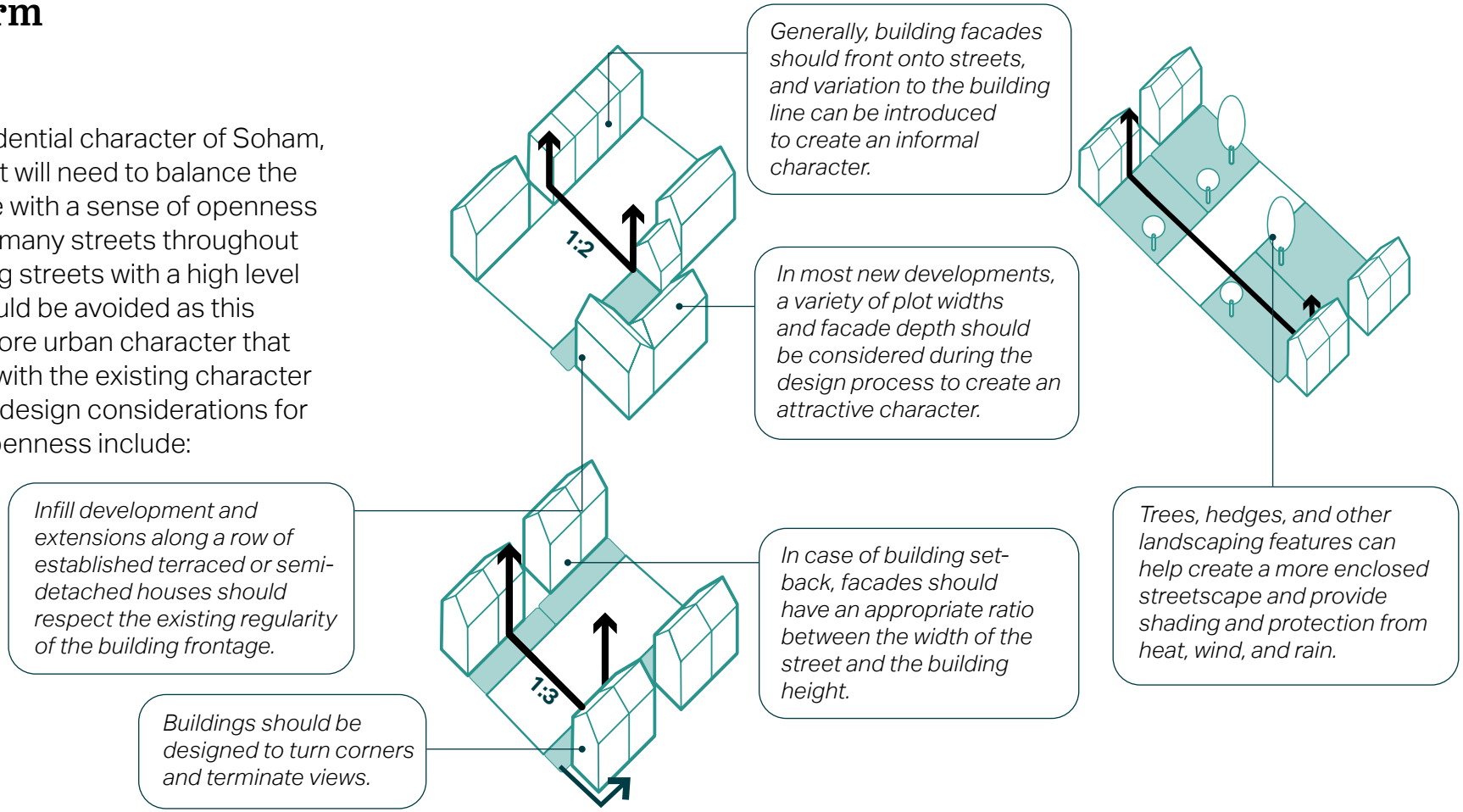
Figure 30: Modern estate with a housing density of 51 dph.

Figure 31: The Commons with a housing density of 15 dph.

4.3 Built form

BF1. Enclosure

To retain the residential character of Soham, new development will need to balance the level of enclosure with a sense of openness which is found in many streets throughout the town. Creating streets with a high level of enclosure should be avoided as this would create a more urban character that is not in keeping with the existing character of Soham. Some design considerations for enclosure and openness include:



F.32

Figure 32: Diagrams showing different levels of enclosure created by building heights and street widths.

BF2. Building lines and boundary treatments

Building Lines

Within Soham there is often a strong building line along streets which reinforces the sense of continuity and helps to define the character of the street.

The building line along a street should generally be consistent and form a unified edge, incorporating subtle variations with recesses and protrusions of buildings from the building line. This provides variety along the street to maintain a dynamic streetscape. Some other guidelines for building lines are:

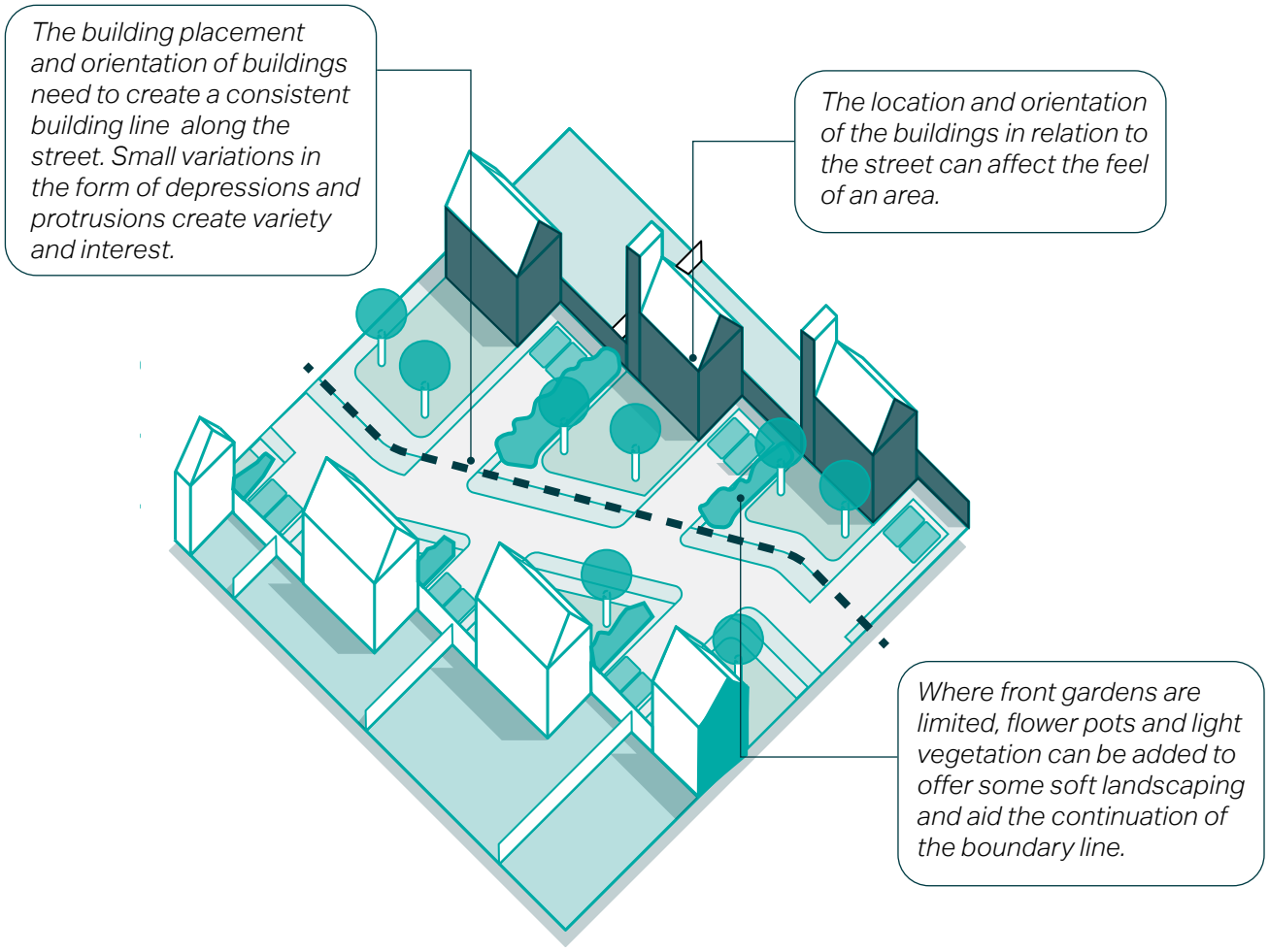


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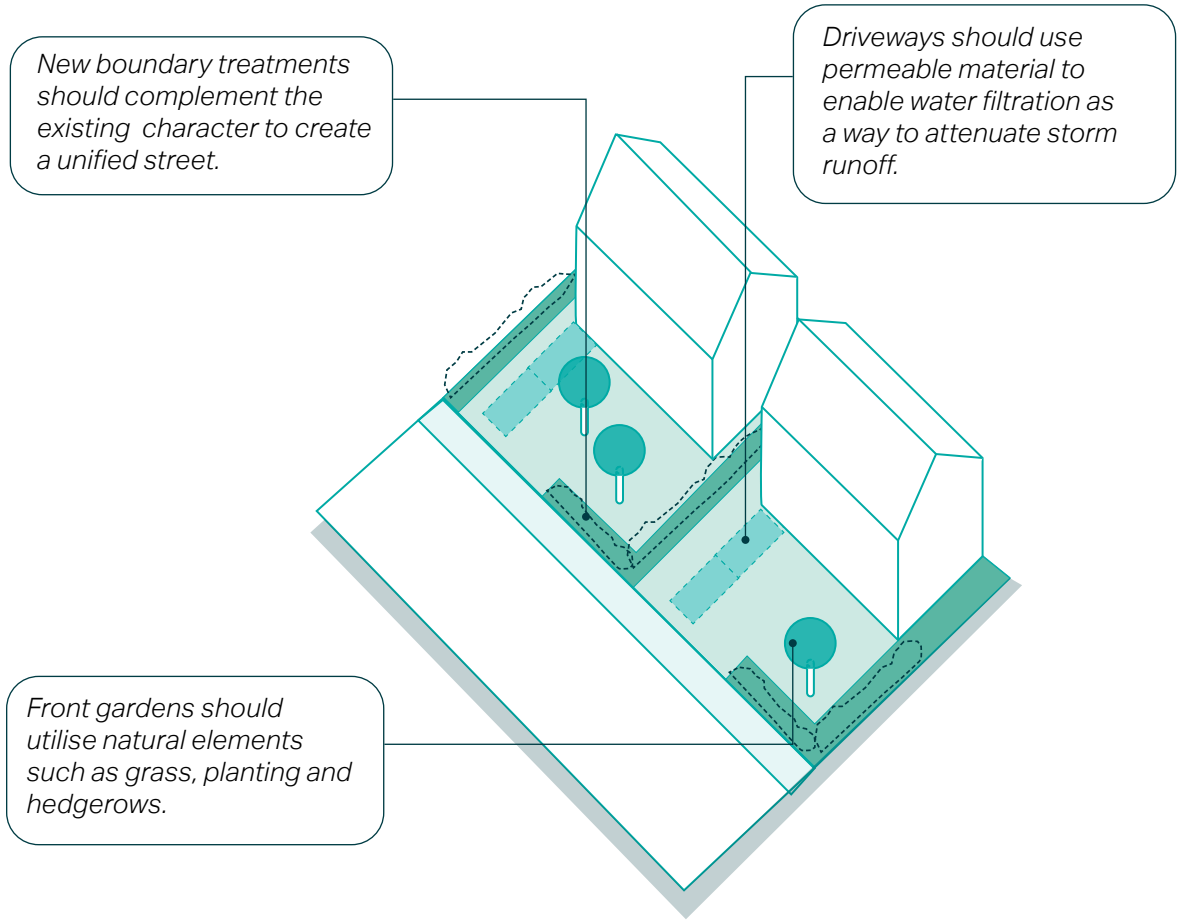
Figure 33: Diagram showing a continuous building line.

Boundary Treatments

Boundary treatments should be used at the plot edge to provide a sense of continuity and cohesion to the street. Boundary treatments also offer a way to delineate between the public and private domains. Therefore, designs that do not incorporate boundary treatments should be avoided.

Properties should have a front garden or privacy strip ranging from 1 to 6m in depth to create the desired amount of enclosure along the street.

Using a range of high-quality materials such as brick, hedgerows, ironmongery, planting, or a combination of these along the property edge could maintain cohesion and provide visual interest. In addition, the height of the boundary treatment should not intrude on neighbouring views or overshadow adjacent dwellings. Some specific design principles to consider include:

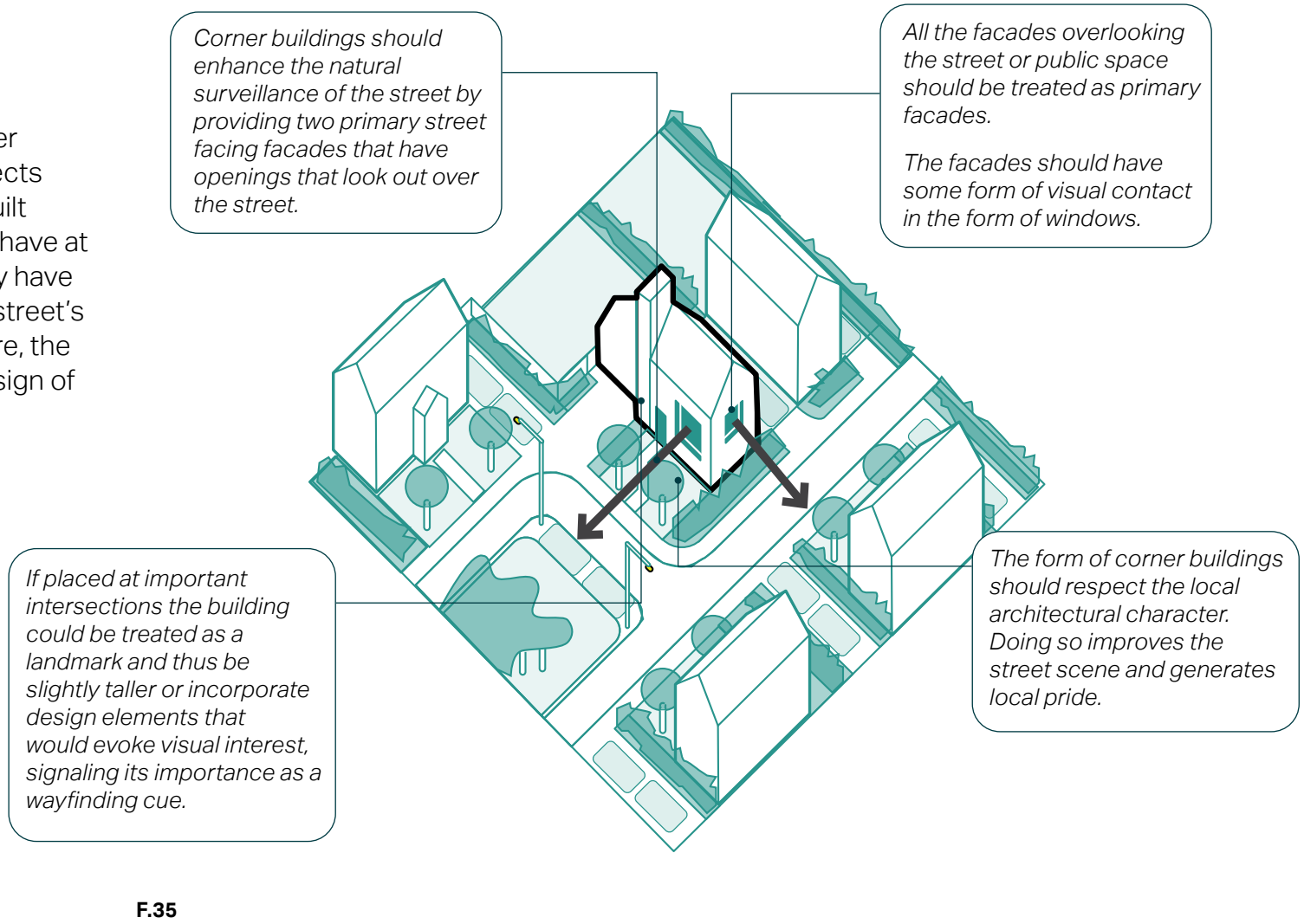


F.34

Figure 34: Diagram illustrating boundary treatments.

BF3. Corner buildings

Well-positioned and designed corner buildings are one of the crucial aspects of a successful visual setting and built environment. Since these buildings have at least two public facing façades, they have twice the potential to influence the street's appearance and character. Therefore, the following guidelines apply to the design of corner buildings:

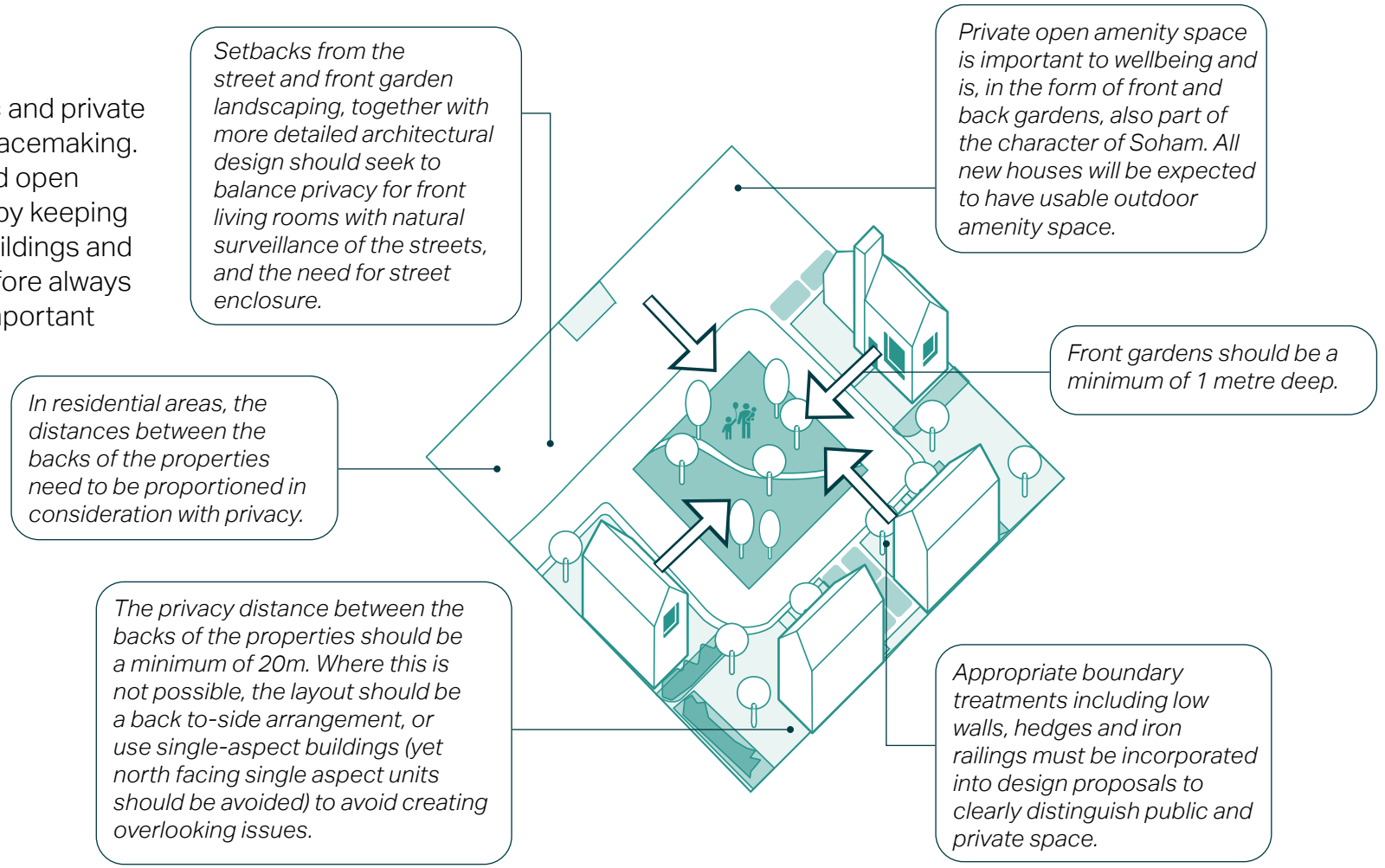


F.35

Figure 35: Diagram showing a corner building with windows on both street facing façades.

BF4. Overlook public space

A clear definition between public and private space is fundamental to good placemaking. Buildings fronting the streets and open spaces enliven the public realm by keeping it dynamic. Primary access to buildings and principal frontages should therefore always face onto public space. Some important design considerations are:



F.36

Figure 36: Diagram showing public and private spaces.

BF5. Roofline and building heights

Roofline

Creating a good variety in the roofline helps make a place attractive. Within Soham there are a number of different roof types but the most common are pitched and hipped roofs. Along the High Street the pitches and height of the roofs vary the most, creating an interesting streetscape. Some considerations for rooflines are:

- Roofline should be well articulated and in proportion with the dimensions of the building with subtle changes to avoid monotonous elevations.
- Local traditional roof detailing elements should be considered throughout the design process.

Building heights

Throughout the town there is a mixture of two-storey and one storey dwellings with some three-storey buildings in the town centre. Furthermore, some of the more recent development in the town has buildings up to four storeys in height, however they are generally not in keeping with the character of the town giving some areas a more urban feel which is out of character. Therefore, some design considerations for building heights are:

- New development should not exceed two and a half storeys in height to reflect the existing character of the town.
- Taller buildings up to three storeys in height can be used at key nodes and locations to aid legibility, however the buildings should not dominate the streetscape.

Figure 37: Variety along the roofline on the high street.

Figure 38: Four storey development not in keeping with the town's character.

BF6. Architectural details, materials and colour palette

The combination of architectural features, materials and the colour palette found in Soham are unique to the place and create an important link between the built environment and the town's history. Therefore, development within the town should closely align with the materials and colour palette set out in the next few pages.

The architectural details have been split into four categories. They include roofs, facades, ground materials and property boundary treatments.

Roof materials and colour palette

The most common roof forms found in Soham are pitched and hipped roofs. Therefore, future development should replicate these styles using similar materials.

Roof materials seen throughout Soham include slate or concrete tiles, some clay pantiles as well as the occasional thatched roof although not many remain. In addition, the roofs tend to have a steeper pitch along the High Street, whereas the buildings in the surrounding streets tend to have shallower pitches. The colour palette is generally darker, with colours such as dark grey, brown or red.

Slate tile

Concrete tile

Clay pantile

Thatch

Materials

Brown

Dark grey

Red

Colour Palette

Facade materials and colour palette

Facades contribute to Soham's character through their materials and colour palette. Brick is one of the most dominant materials used throughout the town. Different coloured bricks can be seen in different parts of the town, for example some of the more modern developments use yellow and brown bricks. There are also red brick and gault brick, with some instances of flint, painted or rendered facades that are usually cream or white, as well as the occasional weatherboarding.

The colour palette is generally warm including facades with red, yellow and brown as well as white and cream rendering.

Brown Brick

Red brick

Flint

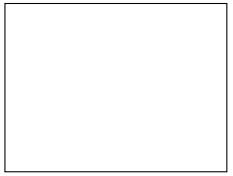
Cream render

Materials

Red

Brown

Yellow



White

Cream

Colour Palette

Ground materials and colour palette

Ground materials include concrete, concrete pavers, permeable gravel, and some unpaved roads. Which materials are used depends on the street typology, with concrete used mostly for main streets and residential streets.

Concrete pavers and permeable options may be used on quieter streets and edge lanes depending on their context and road requirements.

Roads are generally dark grey in colour, owning to the concrete material used, though concrete pavers and gravel roads can be lighter in colour - either honey or buff coloured.

Concrete

Concrete pavers

Gravel road

Materials

Dark grey

Honey

Buff

Colour Palette

Property boundary materials and colour palette

Within Soham, there is a mixture of boundary treatment materials. Some of the most common materials are brick walls and green hedges. There are some instances of wooden fences and flint walls.

Colours for boundary treatments are similar to those seen in the facades section and include red, brown and yellow as well as green for the natural elements.

Brick wall

Green hedge

Timber fence

Materials

Red

Brown

Yellow

Green

Colour Palette

BF7. Waste storage and servicing

With modern requirements for waste separation and recycling, the number and size of household bins has increased causing issues with the aesthetics of properties. Some guidelines for future developments are:

- Bins should be located away from areas used as amenity spaces;
- Create a specific enclosure of sufficient size for all the necessary bins. Cycle storage should also be integrated where appropriate;
- Bins should be placed within easy access from the street and, where, possible, open on the pavement side to ease retrieval;
- Bins should be placed as close to the dwelling boundary to the public highway, such as against a wall, fence or hedge but not in a way as to obstruct pedestrian and vehicle movements; and
- The materials palette described in section BF6. should be referred to in order to select suitable materials for enclosures.


F.40

Figure 40: Waste storage along the boundary treatment.


F.39

Figure 39: Example image showing bins are stored in the front of the house in a discrete way.


F.41

Figure 41: Positive example on how to conceal the presence of bins in back gardens.

BF8. Extensions and alterations

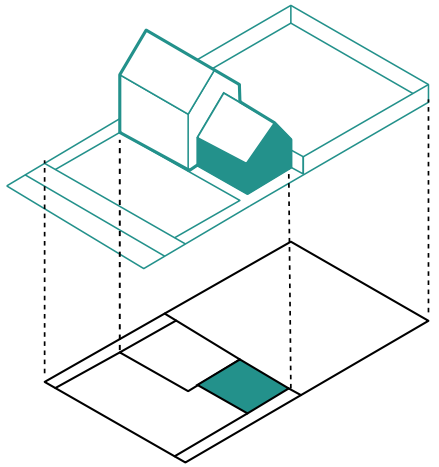
Side Extensions

Side extensions are another popular way to extend a building to create extra living space. However, if they are ill-designed, they will detract from the appearance of the building and the wider townscape. Single-storey and double storey side extensions should be set back from the main building and complement the materials and detailing of the original building, particularly along the street elevation. The roof of the extension should harmonise with that of the original building; flat roofs should be avoided. Side windows should also be avoided unless it can be demonstrated that they would not result in overlooking of neighbouring properties.

Rear Extensions

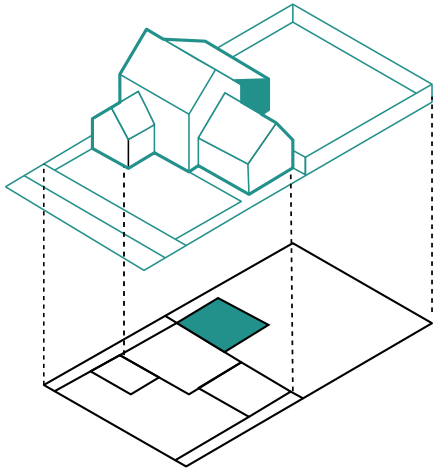
Single storey rear extensions are generally the easiest way to extend a house and provide extra living space. The extension should be set below any first-floor windows and designed to minimise any negative effect on neighbouring properties, such as blocking daylight. A flat roof is generally acceptable for a single storey rear extension.

Double storey rear extensions are not common as they usually affect neighbours' access to light and privacy, however, sometimes the size and style of the property allows for a two-storey extension. In these cases, the roof form and pitch should reflect the original building and sit slightly lower than the main ridge of the building.



F.42

Figure 42: Diagram showing a side extension.



F.43

Figure 43: Diagram showing a rear extension.

BF9. Adaptability and space standards

Houses should be designed to meet the differing and changing needs of households and people's physical abilities over their entire lifetime. One way to achieve this is to incorporate all the standards- M4(1), M4(2) and M4(3)- of the approved document M4 of the Building Regulations in the design of new homes and to assess whether existing properties can be retrofitted to meet these standards.

All new dwellings should meet the national minimum space standards for room sizes and for the amount of storage space per bedroom.

There has been a shift in the number of people choosing to work from home which was accelerated by the Covid 19 pandemic. Therefore, new dwellings will need to ensure there is adequate space within the home to accommodate home working.

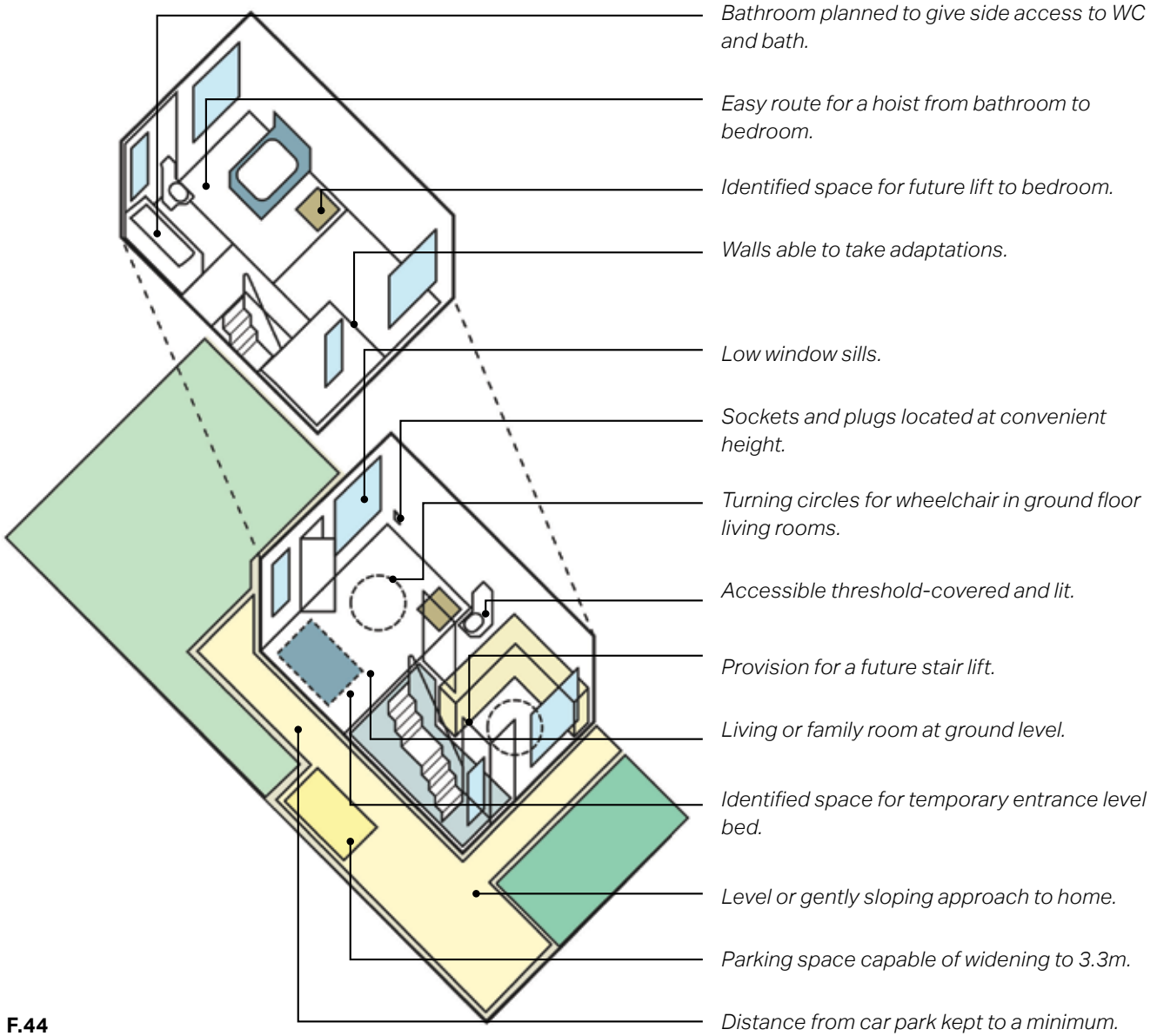


Figure 44: Diagram showing the design considerations for a lifetime home.

4.4 Access and movement

AM1. Prioritise walking and cycling

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

- Routes must be laid out in a connected pattern, whilst cul-de-sacs must be relatively short and provide onward pedestrian and cycle links to key locations such as the town centre and the Commons;
- Streets must incorporate opportunities for street trees, green infrastructure, and sustainable drainage;
- Crossing points must be placed at frequent intervals on pedestrian desire lines and at key nodes;
- Junctions must enable good visibility between vehicles and pedestrians. For this purpose, street furniture, planting, and parked cars must be kept away from visibility splays to avoid obstructing sight lines; and
- Sufficient width of footway should be provided to facilitate a variety of mobilities, such as young family with buggies, mobility scooter, wheelchairs, etc. The Department for Transport Manual for Streets (2007)[1] suggests that in lightly used streets, the minimum width for pedestrians should generally be 2m.

Figure 45: Footpath within a residential area that creates alternative routes for pedestrians and cyclists, Great Kneighton.

Figure 46: Footpath separated from the road with a hedgerow.

1. Manual for Streets (2007). Available at: https://www.gov.uk/government/publications/manual-for-streets

AM2. People friendly streets

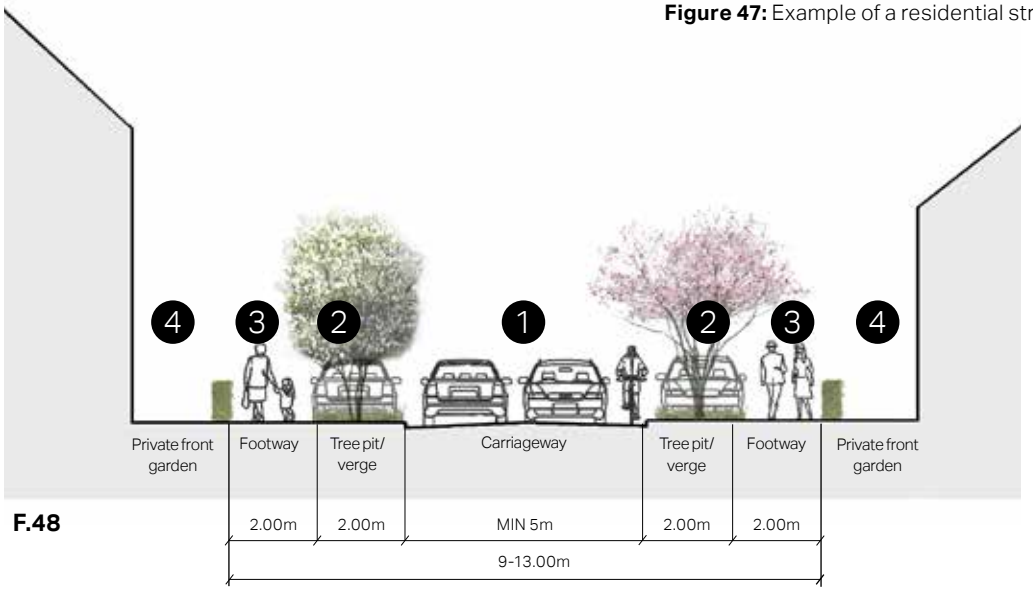
The following pages introduce suggested guidelines and design features including a range of indicative dimensions for street types that may be found in smaller developments.

Residential street

Residential streets should provide access to homes from the surrounding primary roads.

- The carriageway should accommodate two-way traffic as well as cyclists and parking bays. Traffic calming should be achieved by design through traffic calming measures such as landscaping and building layout, avoiding the traditional forms of engineered traffic calming such as humps, cushions and chicanes.
- Residential streets should have a good level of enclosure, created by built form with consistent building lines and setbacks.
- Where possible, street trees and greenery should be provided along the street.
- New developments should have streets that offer direct vehicular routes to the town centre and the station.

Figure 47: Example of a residential street.



F.48

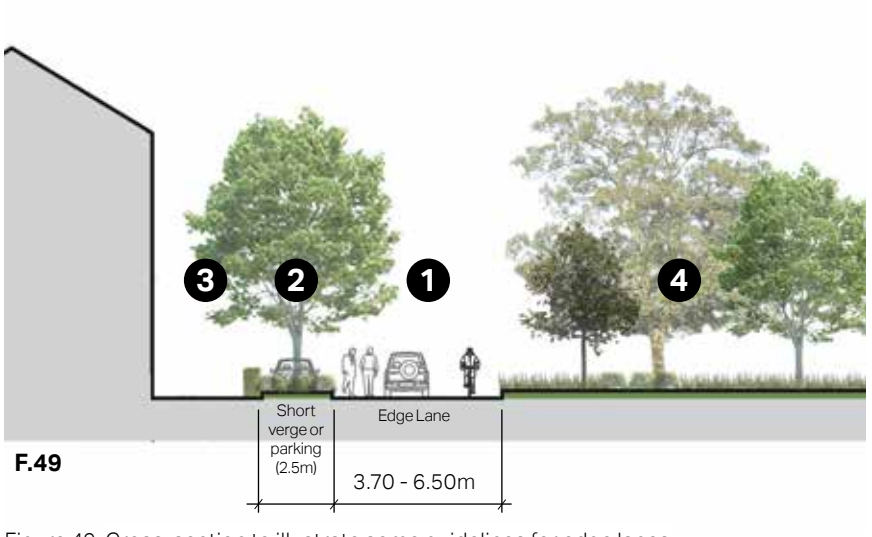
Figure 48: Cross-section to illustrate a residential street.

1. Carriageway should accommodate both vehicles and cyclists(local access). Traffic calming measures may be introduced at key locations.
2. Tree verge or pit with small trees. The latter are optional but would be positive additions. Parking bays on both sides of the carriageway to alternate with trees to avoid impeding moving traffic or pedestrians.
3. Footway.
4. Residential frontage with boundary hedges and front gardens.

Edge Lane

Any development opposite to a green edge should be treated as an edge lane where traffic volume is lower and there is an immediate connection with nature. Some guidelines for edge lanes are:

- Edge lanes are low-speed streets that front houses with gardens on one side and a green space on the other. Carriageways typically consist of a single lane of traffic in either direction, and are shared with cyclists;
- The lane width can vary to discourage speeding and introduce a more informal and intimate character. Variations in paving materials and textures can be used instead of kerbs or road markings; and
- Edge lanes should be continuous providing high level of connectivity and movement. Cul-de-sacs must be avoided.



1. Shared lane (local access) - width to vary.
2. Green verge with trees. It is optional but would be a positive addition. Parking bays to be interspersed with trees to avoid impeding moving traffic or pedestrians.
3. Residential frontage with boundary hedges and front gardens.
4. Green space and potential for implementing swales into the landscaping.

Figure 49: Cross-section to illustrate some guidelines for edge lanes.

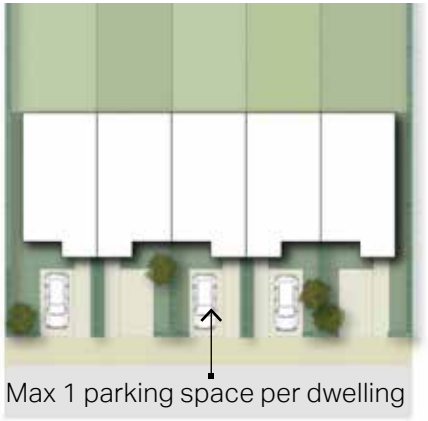
Figure 50: Examples of an edge lane, UK.

AM3. Parking typologies

The following pages introduce suggested guidelines and design features for residential parking.

On-plot parking

- On-plot parking can be located to the front or the side of the main building and can be a covered or open car port.
- High-quality and well-designed soft landscaping should be used to increase the visual attractiveness of the parking.
- Boundary treatments such as hedges, trees, flowerbeds and low walls also increase attractiveness and provide a clear distinction between public and private space.
- Hard standing and driveways must be constructed from porous materials to minimise surface water run-off.



F.51

Figure 51: On-plot front parking.

F.53

Figure 53: On-plot side parking.

F.52

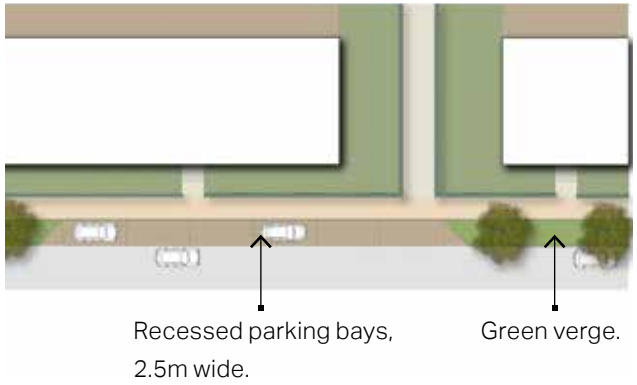
Figure 52: On-plot front parking, Bath.

F.54

Figure 54: On-plot side parking, Barnet.

On-street parking

- A parallel car parking space should be 2.5m x 6m long. There must not be more than 6 spaces in a row without a break.
- Potential negative impacts on the streetscene can be mitigated by the use of recessed parking bays with planting in between.



F.55

Figure 55: Diagram showing on-street parking.

F.56

Figure 56: On-street inset parking bays.

Cycle parking

A straightforward way to encourage cycling is to provide secured covered cycle parking within all new residential developments and publicly available cycle parking in the public realm.

Dwellings without garages

- For dwellings without an on-plot garage, covered and secured cycle parking should be provided within the domestic curtilage.
- Cycle storage must be provided at a convenient location with an easy access.
- When provided within the footprint of the dwelling or as a free-standing shed, cycle parking should be accessed by means of a door at least 0.9m wide and the structure should be at least 2m deep.

Dwellings with garages

- The minimum garage size should be 7mx3m to allow space for cycle storage.
- Where possible, cycle parking should be accessed from the front of the building either in a specially constructed enclosure or easily accessible garage.
- The design of any enclosure should integrate well with the surroundings.
- T bicycle must be easily removed without having to move the vehicle.

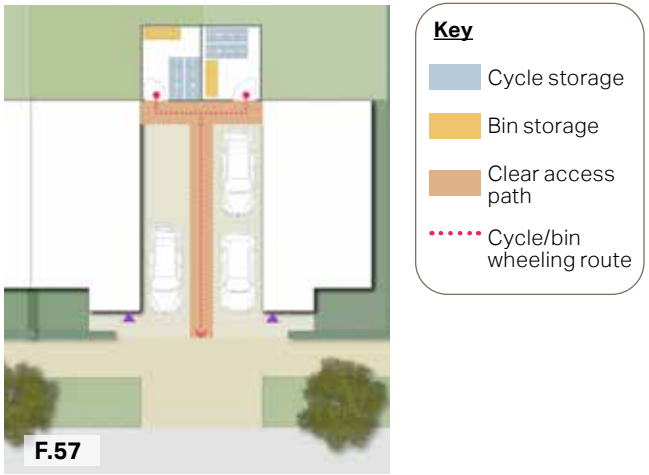


Figure 57: Diagram showing integrated cycle parking and bin storage with off street parking.

Figure 58: Enclosed cycle storage.

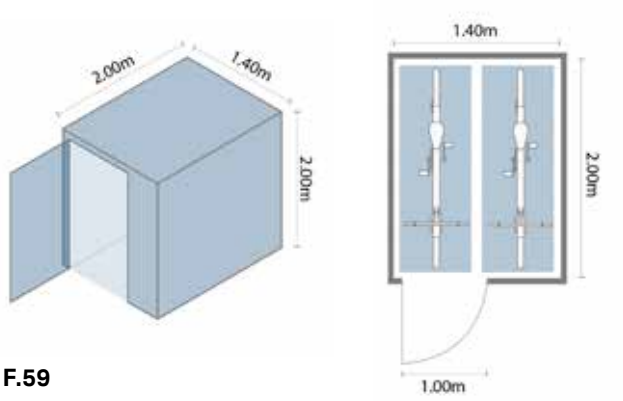
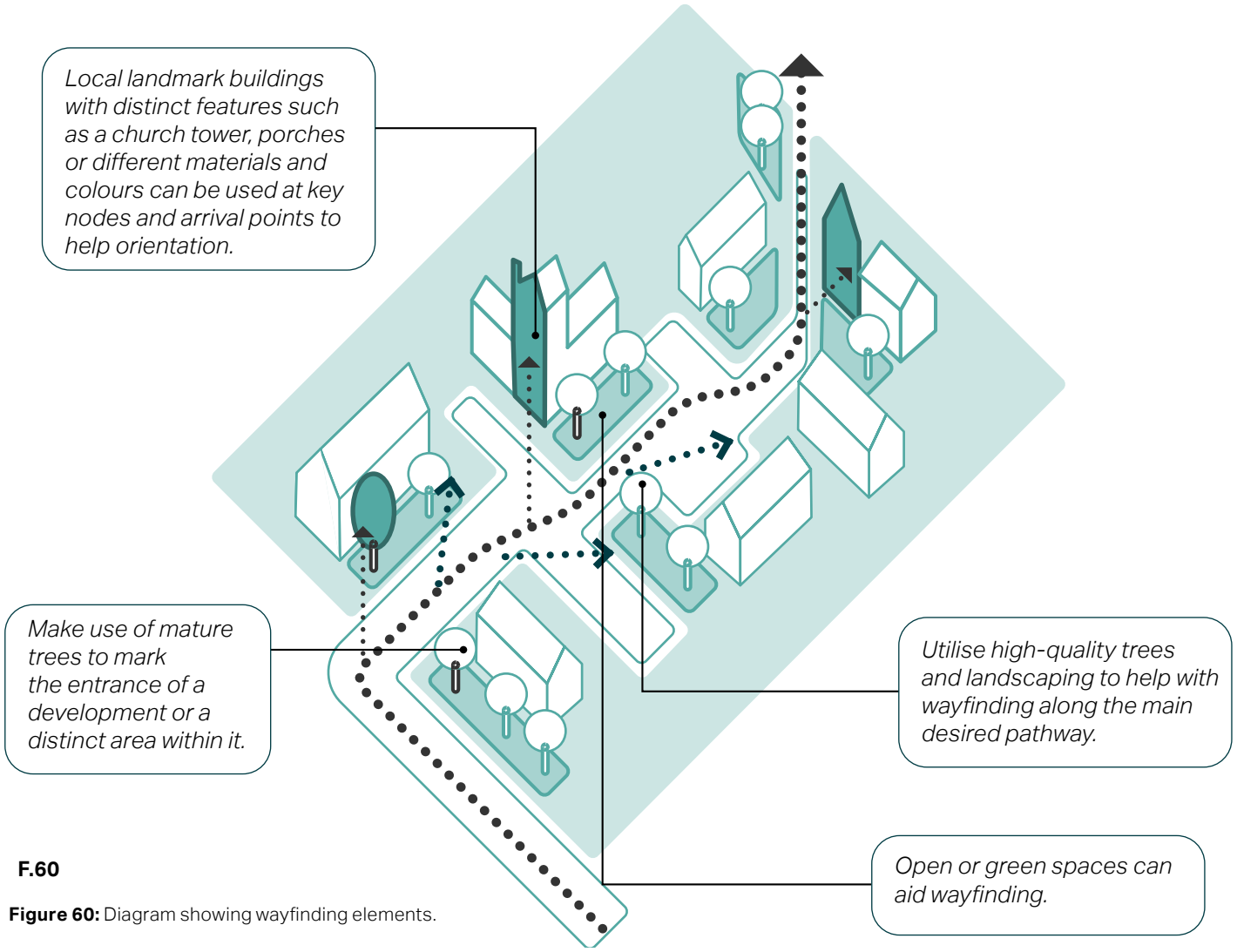


Figure 59: Diagram showing cycle storage dimensions.

AM4. Legibility and wayfinding

Signage and wayfinding techniques are an integral part of encouraging sustainable modes of transport as they make walking and cycling easier by ensuring that routes are direct and memorable.

- Places should be created with a clear identity and be easy to navigate.
- Highlight local landmark buildings or distinctive building features such as a church tower.
- Landscape features, distinctive trees and open spaces can also be used as wayfinding aids as well as providing an attractive streetscape. Other key principles related to legibility and wayfinding are:



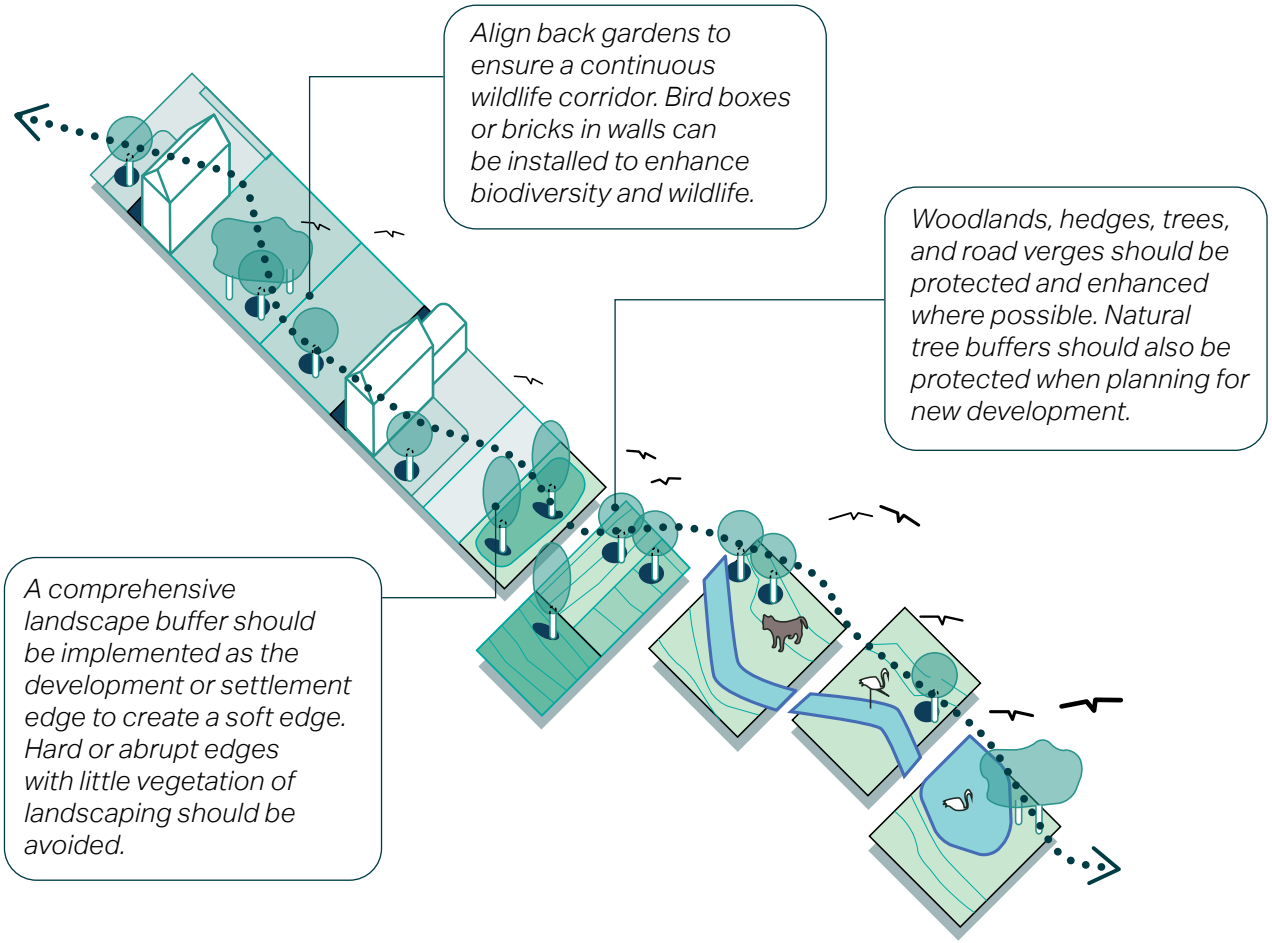
F.60

Figure 60: Diagram showing wayfinding elements.

4.5 Landscape, nature and open space

LO1. Green network for wildlife and biodiversity

Soham has rich green infrastructure surrounding the town, with common land to the east and west alongside the surrounding Fenlands. Within the town itself, there are some green spaces as well as front and back gardens of houses, street trees and landscaping that all contribute to a green network and provide important habitat for wildlife and biodiversity. Some key design considerations to establish green networks and maintain biodiversity include:



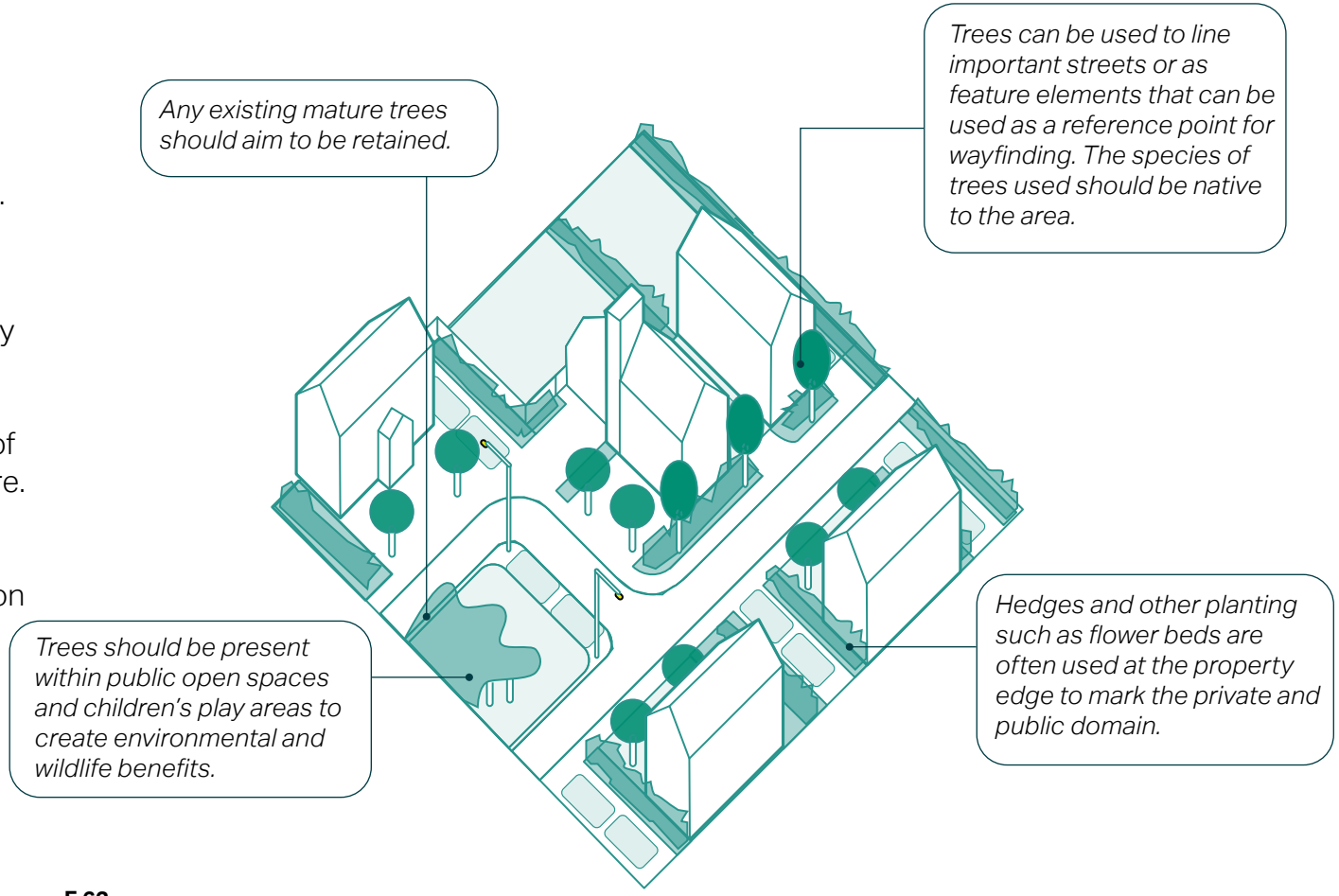
F.61

Figure 61: Diagram showing a green network for wildlife and biodiversity.

LO2. Landscape and trees

Providing street trees and landscaping within the built environment creates an interesting and varied streetscape and brings physical and mental health benefits.

The inclusion of street trees within the urban areas of the town can also bring many benefits. Firstly, they are aesthetically pleasing and create variation and visual interest along the street for pedestrians. Furthermore, they can add to the identity of a place and act as a traffic calming measure. These natural elements are also integral for the physical and mental health of local residents. Some design principles in relation to landscaping and street trees are:



F.62

Figure 62: Illustrative diagram of landscaping and trees in a residential area.

4.6 Sustainability and climate change

SC1. Sustainable buildings

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.

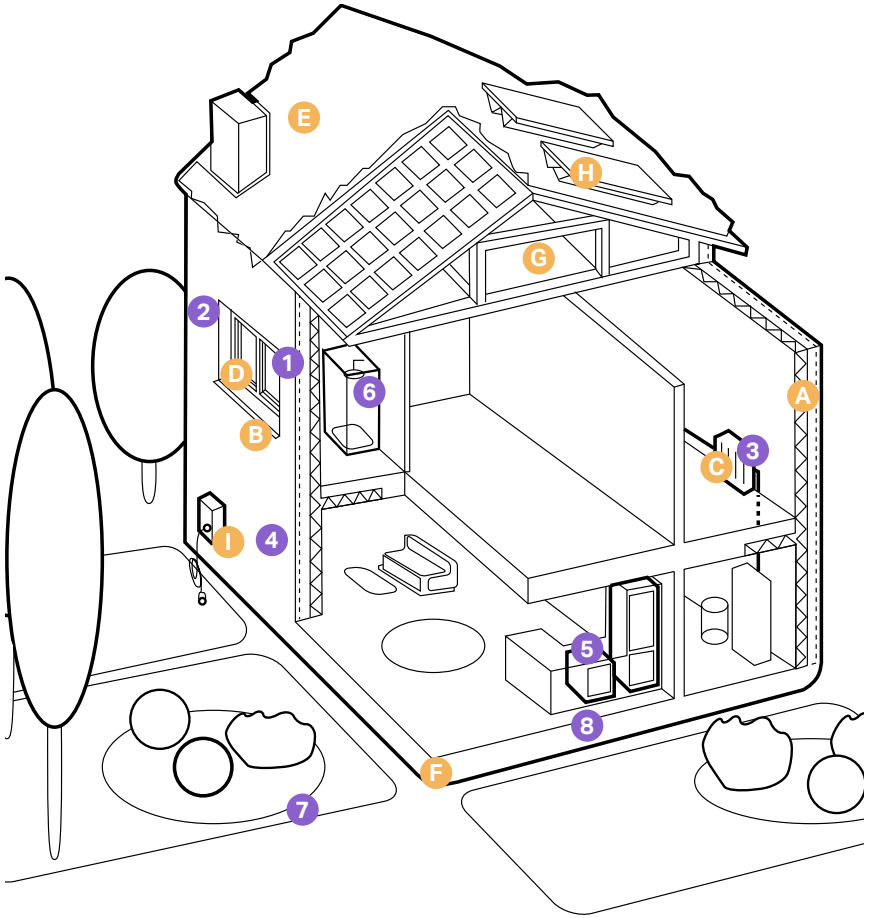
Starting from the design stage, there are strategies that can be incorporated towards passive solar heating, cooling and energy efficient landscaping which are determined by local climate and site conditions. The retrofit of existing buildings with eco design solutions should also be encouraged.

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. A wide range of solutions are also available to retrofit existing buildings, including listed properties, to improve their energy efficiency[1].

- Buildings must be built with high levels of energy efficiency. Construction materials should be effectively reused, recycled and locally sourced. Materials should be transported on site in the most sustainable manner and have low embodied energy.
- Buildings must achieve at least a minimum level of carbon reductions through a combination of energy efficiency, on-site energy supply and/or (where relevant) directly connected low carbon or renewable heat and choose from a range of (mainly off-site) solutions for tackling the remaining emissions.

1 Historic England. https://historicengland.org.uk/advice/technical-advice/energy-efficiency-and-historic-buildings/



F.63

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

Existing homes

1 **Insulation** in lofts and walls (cavity and solid)

2 **Double or triple glazing with shading** (e.g. tinted window film, blinds, curtains and trees outside)

3 **Low- carbon heating** with heat pumps or connections to district heat network

4 **Draught proofing** of floors, windows and doors

5 **Highly energy-efficient appliances** (e.g. A++ and A+++ rating)

6 **Highly waste-efficient devices** with low-flow showers and taps, insulated tanks and hot water thermostats

7 **Green space (e.g. gardens and trees)** to help reduce the risks and impacts of flooding and overheating

8 **Flood resilience and resistance** with removable air back covers, relocated appliances (e.g. installing washing machines upstairs), treated wooden floors

Additional features for new build homes

A **High levels of airtightness**

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

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

D **More fresh air** with mechanical ventilation and heat recovery, and passive cooling

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

F **Flood resilience and resistance** e.g. raised electrical, concrete floors and gardens

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

H **Solar panel**

I **Electric car charging point**

Layout and orientation for solar gain

The layout of a site and individual buildings should be designed to maximise solar gain, daylight and sun penetration while avoiding overheating. Therefore, passive solar design principles should be incorporated from the start of the design process taking into account the topography and surrounding existing buildings. These principles include:

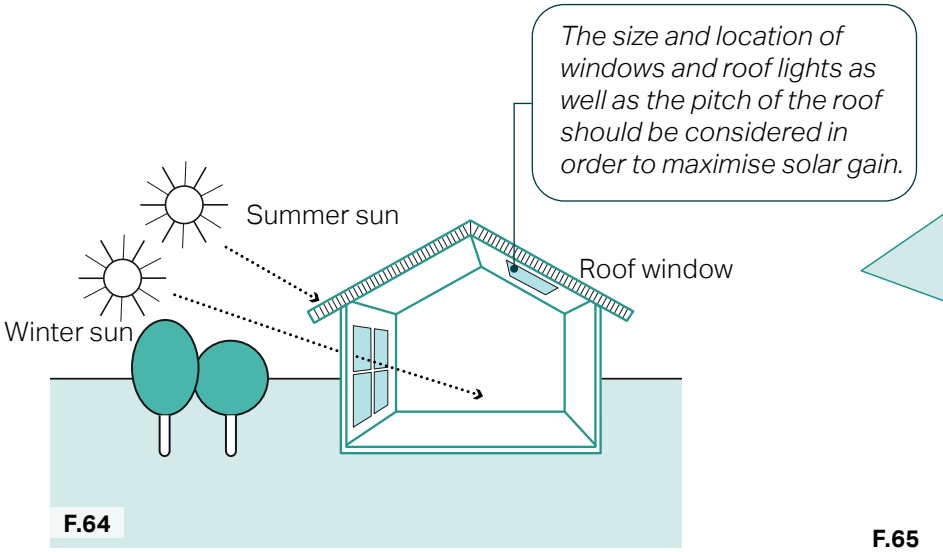


Figure 64: Diagram illustrating the sun light at different times of year.

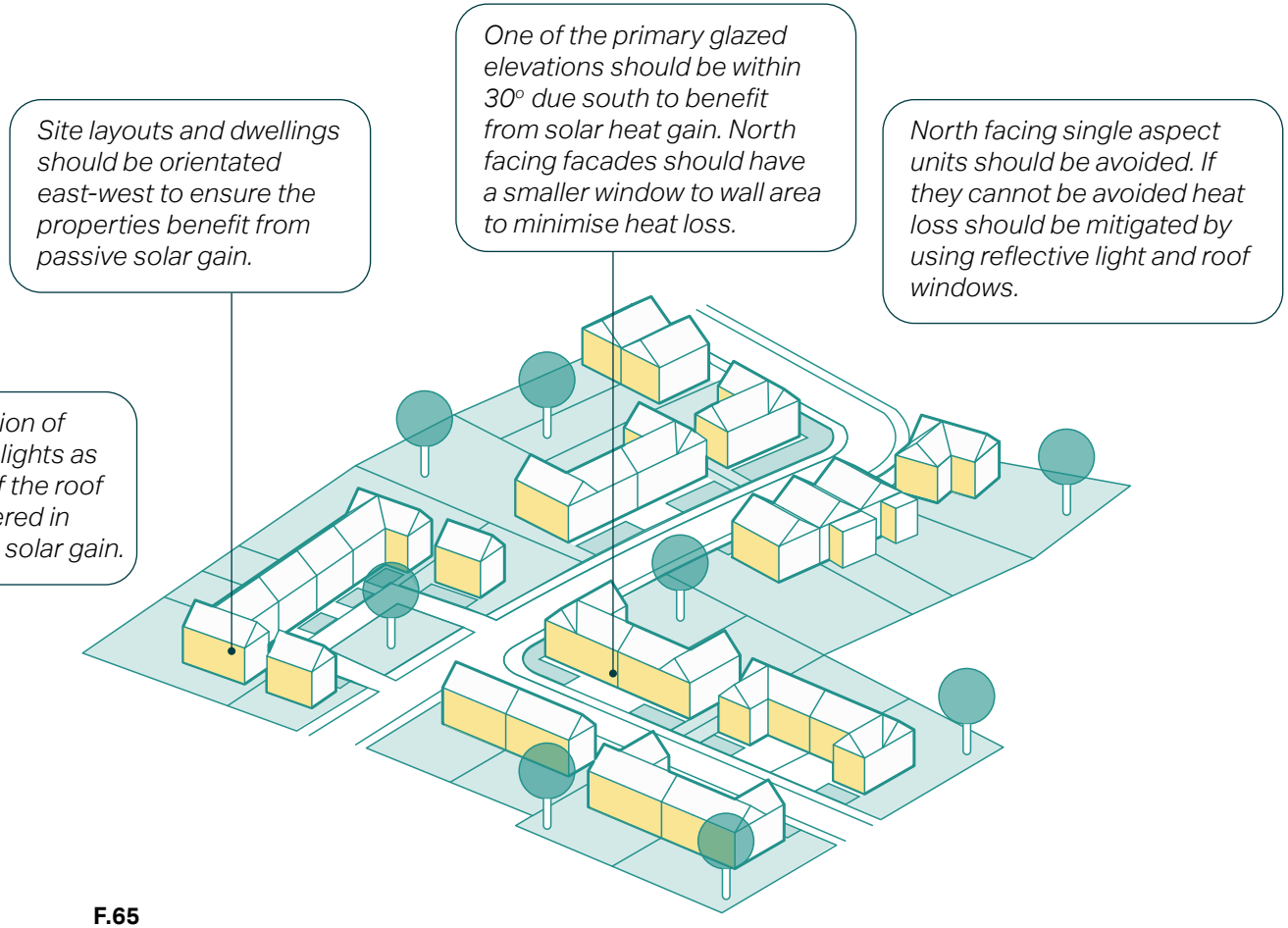


Figure 65: Diagram illustrating the elevations that benefit from passive solar gain.

Electric vehicle charging points

New development should cater for electric vehicles on both on-street and off-street car parking spaces. Some guidelines for each typology are:

On-street car parking

- Car charging points should be provided next to public open spaces;
- Where charging points are located on the footpath, a clear footway width of 1.5m is required next to the charging point, for a wheelchair user and a pedestrian to pass side-by-side; and
- Charging points should be located in a way that are not blocked by petrol or diesel vehicles.

Off-street car parking

- Mounted charging points and associated services should be integrated into the design of new developments; and
- Cluttered elevations, especially main façades and front elevations, should be avoided.

Figure 66: Examples of on-street car charging points.

Figure 67: Examples of off-street mounted car charging points.

SC2. Water management

The term sustainable drainage system (SuDs) covers a range of approaches to surface water management that reduce flood risk and improve water quality in a more sustainable way. Collecting water for reuse is the most sustainable option and has the added benefit of reducing pressure on important water sources. Where reusing is not possible, the most effective type of SuDs to employ would depend on site-specific conditions such as the underlying ground conditions or topography. However, a number of overarching principles can be applied:

- Reduce runoff rates by facilitating infiltration into the ground or by providing attenuation that stores water so that it does not overwhelm water courses or the sewer network;
- Integrate into development and improve amenity through early consideration in the development process and good design practices;
- SuDS are often as important in areas that are not directly in an area of flood risk themselves, as they can help reduce downstream flood risk by storing water upstream;
- Some of the most effective SuDS are vegetated, using natural processes to slow and clean the water whilst increasing the biodiversity value of the area;
- Best practice SuDS schemes link the water cycle to make the most efficient use of water resources by reusing surface water;
- SuDS must be designed sensitively to augment the landscape and provide biodiversity and amenity benefits; and
- Any proposed development should seek advice from the local water authority, Anglian Water.

Sustainable Drainage Systems

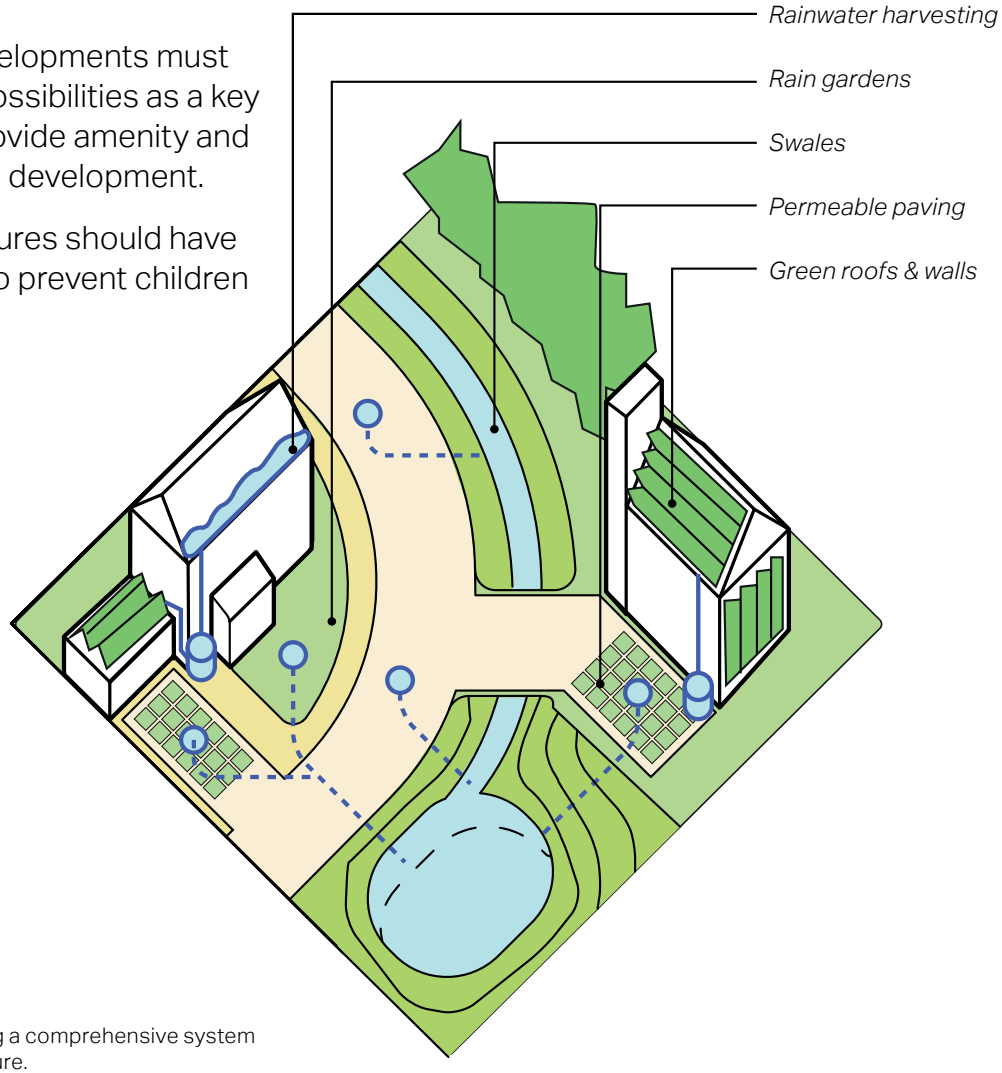
Any development should seek to reduce flood risk overall through the creation of multi-functional green infrastructure and sustainable drainage systems. It is essential to demonstrate that the development will be safe and it does not increase the flood risk elsewhere.

It is important to challenge the traditional approach to managing flood risk and change to one that recognises the value of water as a resource and maximises its benefits through the design process.

New developments should consider the amenity and aesthetic value of surface water in the urban environment alongside long term environmental, biological and social factors in the context of climate change and urbanisation.

SuDS should be considered as a key design tool to achieve those wider goals and not a mere functional requirement.

- New and existing developments must capitalise on SuDS possibilities as a key design element to provide amenity and aesthetic value to the development.
- All water storage features should have appropriate fencing to prevent children falling in.



F.68

Figure 68: Diagram showing a comprehensive system of green and blue infrastructure.

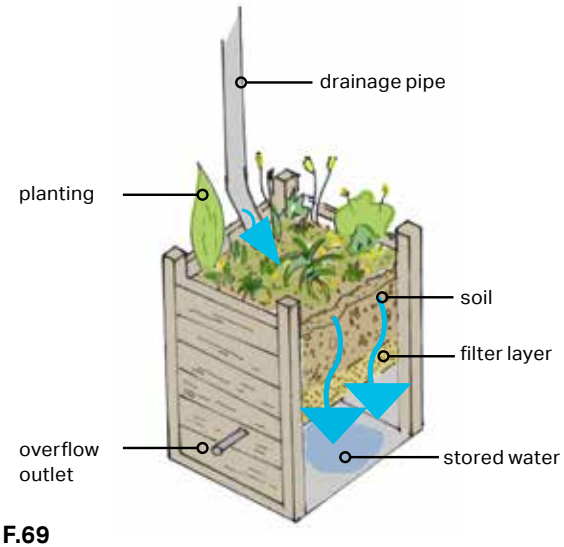
Storage and slow release

Rainwater harvesting refers to the systems allowing the capture and storage of rainwater as well as those enabling the reuse on-site of grey water. Simple storage solutions, such as water butts, can help provide significant attenuation. To be able to continue to provide benefits, there has to be some headroom within the storage solution. If water is not reused, a slow release valve allows water from the storage to trickle out, recreating capacity for future rainfall events.

New digital technologies that predict rainfall events can enable stored water to be released when the sewer has greatest capacity.

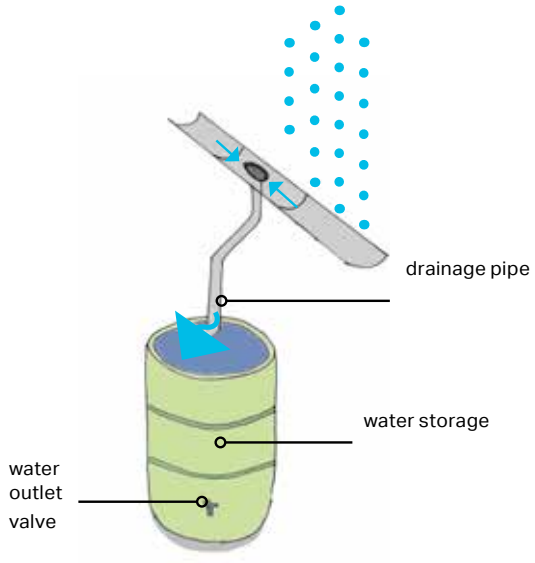
These systems involve pipes and storage devices that could be unsightly if added without an integral vision for design. Therefore, some design recommendations would be to:

- Conceal tanks by cladding them in complementary materials;
- Use attractive materials or finishing for pipes;
- Combine landscape/planters with water capture systems;
- Use underground tanks; and
- Utilise water bodies for storage.



F.69

Figure 69: Diagram showing how a stormwater planter.



F.70

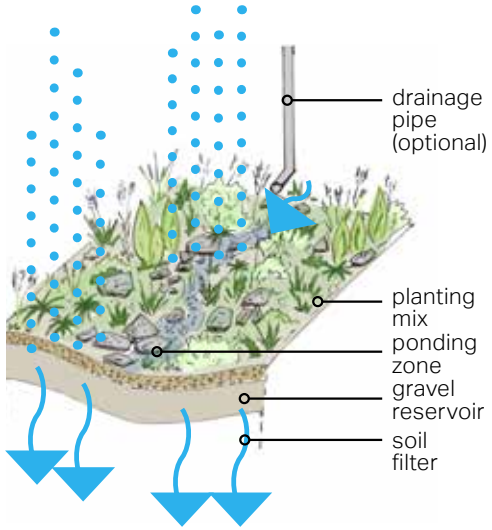
Figure 70: Diagram showing how a water butt works.

Bioretention systems

Bioretention systems, including soak away and rain gardens, can be used within each development, along verges, and in semi-natural green spaces. They must be designed to sit cohesively with the surrounding landscape, reflecting the natural character of the town. Vegetation must reflect that of the surrounding environment.

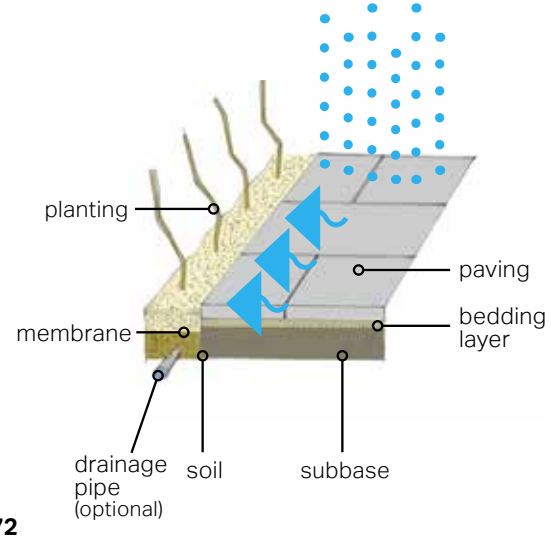
They can be used at varying scales, from small-scale rain gardens serving individual properties, to long green-blue corridors incorporating bioretention swales, tree pits and mini-wetlands, serving roads or extensive built-up areas.

These planted spaces are designed to enable water to infiltrate into the ground. Cutting of downpipes and enabling roof water to flow into rain gardens can significantly reduce the runoff into the sewer system. The UK Rain Garden Design Guidelines provides more detailed guidance on their feasibility and suggests planting to help improve water quality as well as attract biodiversity.[1]



F.71

Figure 71: Diagram showing how a rain garden works.



F.72

Figure 72: Diagram showing how a soak away garden works.

1 UK Rain Gardens Guide. Available at: https://raingardens.info/wp-content/uploads/2012/07/UKRainGarden-Guide.pdf

Character typology design guidance and codes

05

5. Character typology design guidance and codes

This section provides more specific design guidance and codes for the five character typologies identified in Chapter 3.

5.1 Introduction

The more detailed guidance and codes provided in this section relates specifically to the five typologies identified in chapter 3 which are based on the earlier analysis in chapter 3.

A diagram and table have been created for each typology to identify the relevant codes from chapter 4 with a description offering detail on how the code can be applied specifically to that typology to ensure its character is retained and enhanced.

5.2 Town centre

The priority for the town centre is to create a high-quality public realm which complements the historic features of the high street and Conservation Area.

BF1. Enclosure

BF5. Rooflines and building heights

LO1. Create a green network

SD4. Heritage assets

SD3. Gaps and views

SD1. Meaningful connections

AM3. Car parking typologies

LO2. Landscaping and trees

BF6. Architectural details, materials and colour palette

BF3. Corner buildings

BF2. Building lines and boundary treatments

AM1. Prioritise walking and cycling

Code	Applying the code to the Town Centre
SD1. Provide meaningful connections	• The town centre should be highly accessible for pedestrians and cyclists. The town centre should provide direct, attractive, and safe routes to and from the station, the Commons, and the surrounding neighbourhoods. • Particular attention should be given new developments to ensure they have good connections to key points in the town centre. • Developments with over 50 houses must have more than one vehicular access and at least one of those should lead towards the town centre.
SD3. Gaps and views	• Views to St Andrew's Church from the high street should be retained along with the open nature of this part of the street.
SD4. Heritage assets	• There are a number of heritage assets within the town centre including many listed buildings and the Conservation Area. Therefore, these assets and their settings should be preserved and where possible enhanced.
SD5. Density	• The town centre should retain a higher density in order to preserve a more urban built up character.
BF1. Enclosure	• The town centre should retain the high level of enclosure along the streets by maintaining the strong building lines and the building height to width ratio. The exception to this is the area around St Andrew's church which has a more open feel which should also be retained as it provides contrast to the high street as well as greenery.

Figure 73: View to Grade I listed St Andrew's Church from the high street.

Figure 74: Strong sense of enclosure along the high street.

Code	Applying the code to the Town Centre
BF2. Building lines and boundary treatments	• The building line should remain consistent along the street with few protrusions and setbacks. • The buildings should not be setback from the street, they should be located at the front property boundary to allow easy and direct access from the street to the building.
BF3. Corner buildings	• Buildings that are located on corners should have primary facades on both street facing elevations. This is particularly important for shops and other services which should have shop windows on both street facing facades.
BF5. Rooflines and building heights	• Buildings within the town centre should not exceed three storeys in height and should continue to provide variation in the heights along the high street to create visual interest. • The varied roofscape along the high street should be retained. While pitched and hipped roofs are the most common, they are of different heights and angles and often have a chimney adding another visual element.
BF6. Architectural details, materials and colour palette	• The materials and colours used along the high street are important for retaining the character of the town centre as well as retaining the historical and architectural importance of the heritage assets. Therefore, the main materials that should be used are brick which can be painted or rendered and slate roofs.

F.75

Figure 75: Corner building addressing the street on two sides with the door located on the corner.


F.76

Figure 76: Variation of building heights and roofscapes creating an interesting roofline.

Code	Applying the code to the Town Centre
AM1. Prioritise walking and cycling	• Ensure any new development outside of the town centre has direct, attractive, and safe routes for pedestrians and cyclists to the high street and key amenities to encourage walking and cycling as well as reduce car use in the town centre. • Improve walking and cycling routes to the Commons and the surrounding countryside from the town centre.
AM3. Car parking typologies	• Look to reduce the amount of on-street car parking along the high street as it is currently a car dominated environment. This could be achieved by providing more on street parking at the ends of the high street allowing the central section to be free from parked cars.
LO1. Create a green network for wildlife and biodiversity	• The recreation ground and cemetery provide the main green spaces within this area therefore they should be retained and their opportunity to provide habitat for wildlife should be enhanced where possible.
LO2. Landscaping and trees	• The high street currently does not have much greenery within the streetscene, however the Town Council have started to plant trees along the high street. Any additional trees and greenery are encouraged in the area, provided the species used are native to the area.

Figure 77: High levels of car parking along the high street dominating the streetscape.

Figure 78: Recreation ground providing green space in the town centre.

5.2.1 Shop fronts

- The fascia is the most important area of a shopfront for advertising the business. Maintain the signage within the established proportions and confines of the fascia board. Large box signs or additional flat boards should be avoided as they create disproportionate depth and height;
- The most appropriate signage at fascia level is individual letters applied or painted directly onto the fascia board;
- Hanging signs should be appropriately sized in relation to the building and street but should not dominate the pavement space and only use appropriate materials and shapes;
- Hanging signs should be held by slender, well-designed brackets using a high quality material;
- In the case of corporate brands, these should be sensitive to the existing context, size, scale, use of materials and textures from the local vernacular of the area;
- Avoid using visually distinct sources of illumination that result in disproportionate signage, such as internally-illuminated box signs; and
- Avoid using external roller shutters and grilles. Favour the use of internal open grilles which cover only the glazed part of the shop front.

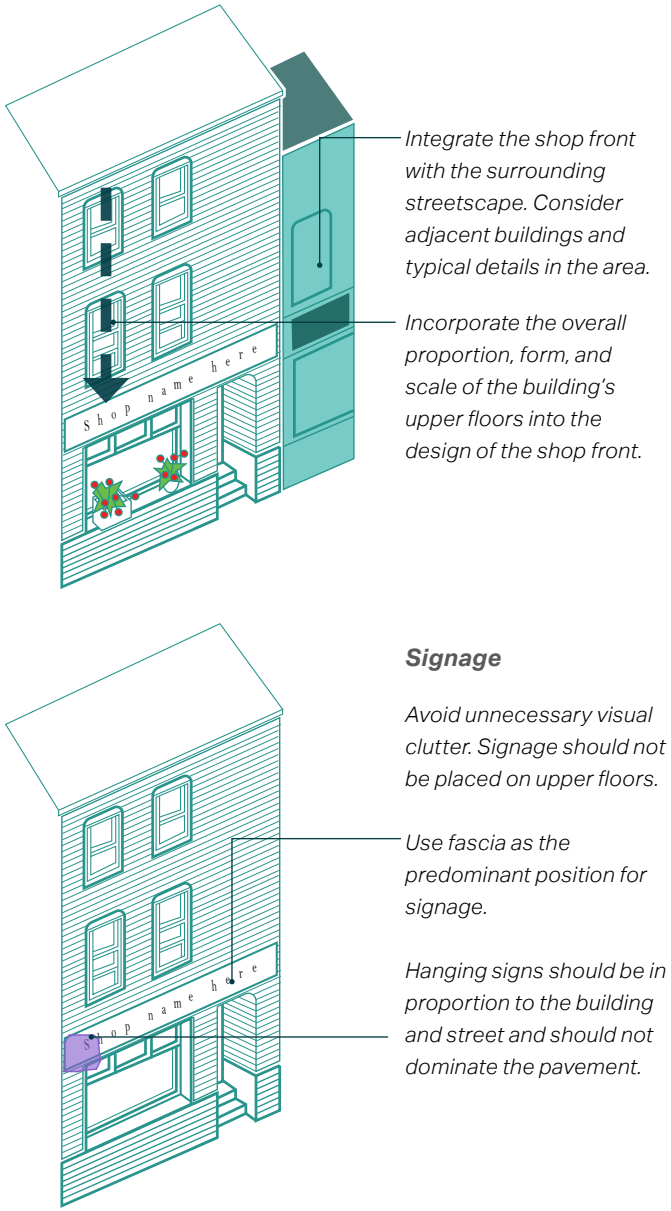
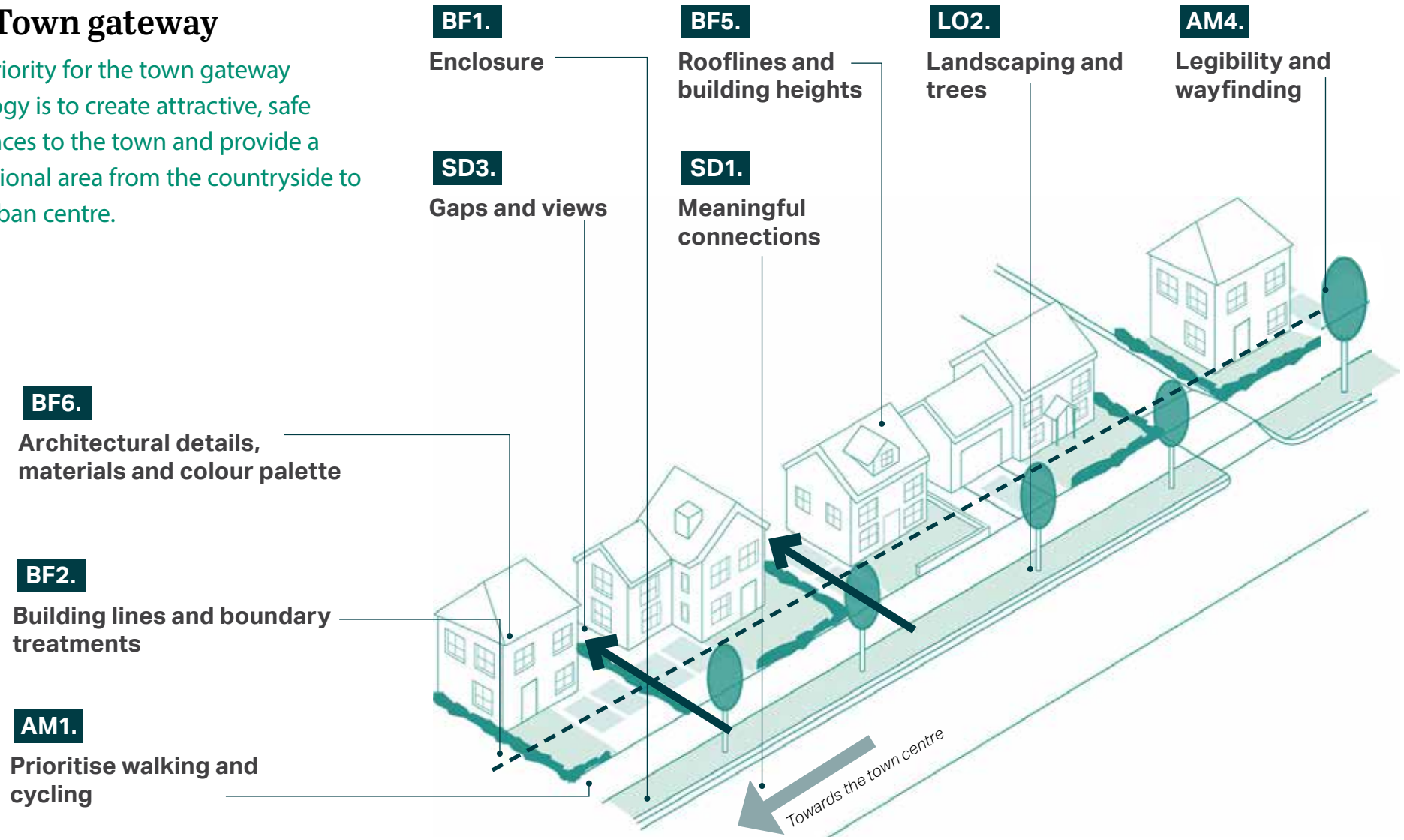


Figure 79: Diagrams of shop fronts showing different design features.

5.3 Town gateway

The priority for the town gateway typology is to create attractive, safe entrances to the town and provide a transitional area from the countryside to the urban centre.



Code	Applying the code to the Town Gateways
SD1. Provide meaningful connections	• As the main access route to the town centre from the north and the south the street should remain direct. Cycle and pedestrian connections should be enhanced to allow safe and direct routes from the surrounding area to the town.
SD3. Gaps and views	• Generous gaps between buildings should be retained to allow for filtered views to the countryside. Any infill development will need to have a gap between the new and existing buildings.
SD5. Density	• The town gateways should have a lower density towards the edges of the town and higher densities towards the town centre to retain the transitional space between the countryside and the town.
BF1. Enclosure	• The streets should maintain a sense of openness by setting the buildings back from the street and maintaining a wide carriageway with footpaths.
BF2. Building lines and boundary treatments	• The building line should remain consistent along the street allowing for only small variations. Existing boundary treatments should be retained, and new development should implement a boundary treatment using either a low brick wall, fencing or a hedge.
BF5. Rooflines and building heights	• Buildings should not exceed 2 storeys in height to be in keeping with the existing buildings. The roofline can be varied along the street and new buildings should use pitched or hipped roofs.

Figure 80: Generous gaps between buildings.

Figure 81: Mixture of bungalows and two-storey housing with pitched and hipped roofs.

Code	Applying the code to the Town Gateways
BF6. Architectural details, materials and colour palette	• There is some variation in the building materials and colours found within this typology however any new development should include the main building materials that include brown brick and rendered buildings with concrete or slate roofs. There is the occasional thatched cottage.
AM1. Prioritise walking and cycling	• The northern town gateway area should be made more pedestrian and cycle friendly in order to connect Soham to Ely to the north. A similar approach to that taken to the south of Soham could be taken at the northern edge of the town, where a pedestrian and cycle bridge provides a safe route over the road.
AM4. Legibility and wayfinding	• The town gateway areas should have clear signage indicating the beginning of Soham and can use distinctive features to mark the entrances to the town.
LO2. Landscaping and trees	• The streets should maintain greenery in the form of green verges, street trees and front gardens. Front gardens should not be paved over to create more parking space. Where possible additional street trees should be introduced, provided the species used are native to the area.

Figure 82: Pedestrian and cycle bridge over road to the south of Soham.

Figure 83: Potential for direct cycle and pedestrian link from Soham to Ely.

5.4 The commons

The priority for the Commons is to ensure the open space is protected and enhanced to improve the pedestrian experience as well as allowing the wildlife to flourish.

SD4. Heritage assets

LO1. Create a green network

SD2. Buffer settlement edge

AM4. Legibility and wayfinding

AM3. Parking typologies

AM1. Prioritise walking and cycling

BF4. Overlook public space

SD3. Gaps and views

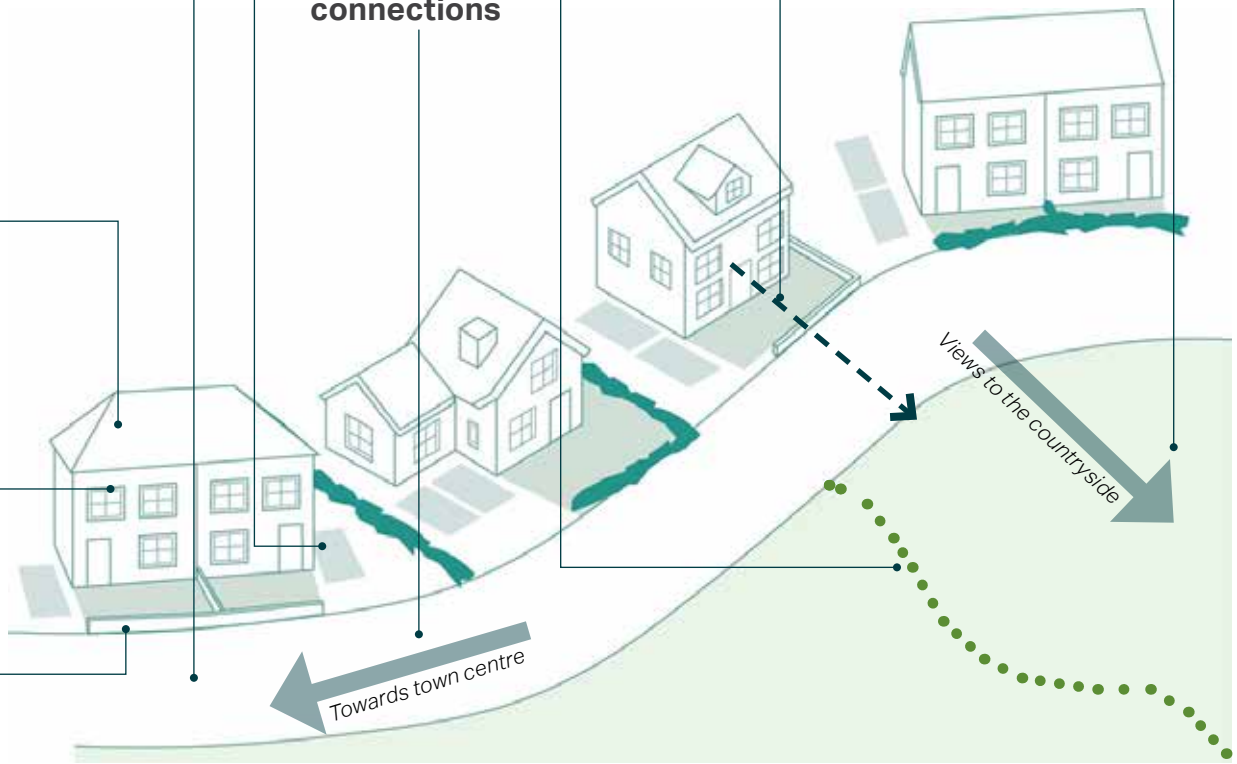
BF1. Enclosure

SD1. Meaningful connections

BF5. Rooflines and building heights

BF6. Architectural details, materials and colour palette

BF2. Building lines and boundary treatments



Code	Applying the code to The Commons
SD1. Provide meaningful connections	• Existing Public Right of Ways that connect the Commons should be retained along with the routes to the town centre from the east. Additional access points can be created at strategic points on the Commons to improve connectivity for pedestrians. Furthermore, these important links should not be negatively affected or lost to development.
SD2. Buffer settlement edge	• Any development will need to ensure there is a substantive transitional landscape buffer between the development and the Commons.
SD3. Gaps and views	• Views across the Commons and in places to the countryside beyond should be protected. Furthermore, any development should consider the impact it will have on the views from the Commons.
SD4. Heritage assets	• As the Commons have a cultural and conservation interest signage and interpretation, materials should be used to convey to visitors the key message that they are cared for, and responsible access is welcomed. This is to discourage certain behaviours that can have a negative impact and ensure the Commons continued importance.
SD5. Density	• The Commons should retain a low density with limited or no new development in the area in order to retain the sense of openness and countryside character.
BF1. Enclosure	• The Commons should retain their feeling of openness and greenery. There is some enclosure provided by trees and hedges at the perimeter which should also be retained.

Figure 84: Sense of openness with views across the Commons.

Figure 85: Cattle grid used to mark the entrance of the Commons.

Code	Applying the code to The Commons
BF2. Building lines and boundary treatments	• The houses are the edge of the Commons should have clear and consistent boundary treatments to establish a clear boundary between the property and the Commons land. The boundary treatment can use low brick walls or hedges. • The building line should be informal with the houses following the curve of the landscape to retain a rural character.
BF4. Overlook public space	• The houses at the perimeter of the Commons should be orientated so their primary façade looks out over the Commons. This provides activity and natural surveillance of the Commons.
BF5. Roofline and building heights	• The building heights should not exceed two storeys in order to retain the rural character of the Commons. • A variety of roof types can be used including pitched, gable ended pitched roofs and hipped roofs to create interest and an informal character.
BF6. Architectural details, materials and colour palette	• Building materials should be kept simple and include brick, render, and clay roof tiles.
AM1. Prioritise walking and cycling	• Any new development will need to provide pedestrian and cycle routes to the Commons to enhance connectivity and the network within the Commons.
AM3. Parking typologies	• Parking on the Commons and creating additional parking space at the front of a dwelling should be avoided so there is no encroachment onto the Commons land.
AM4. Legibility and wayfinding	• Signage should be implemented to provide information and particular messages, for example what ponds dogs are allowed in. Distinctive features such as cattle grids can also be used to mark the entrances to the Commons.
LO1. Create a green network for wildlife and biodiversity	• Areas of the common that are key for wildlife such as the Soham Wet Horse Fen SSSI should have restricted access, so the wildlife is not disturbed. • Some areas of the Commons can be used for grassland restoration to encourage wildlife. • Any development should not be located in close proximity to the Commons or disrupt the network of green spaces they provide.

5.5 General neighbourhood

The priority for the general neighbourhood areas is to retain their residential character with uniformity and high levels of greenery.

BF1.
Enclosure

AM1.
Prioritise walking and cycling

LO1.
Create a green network

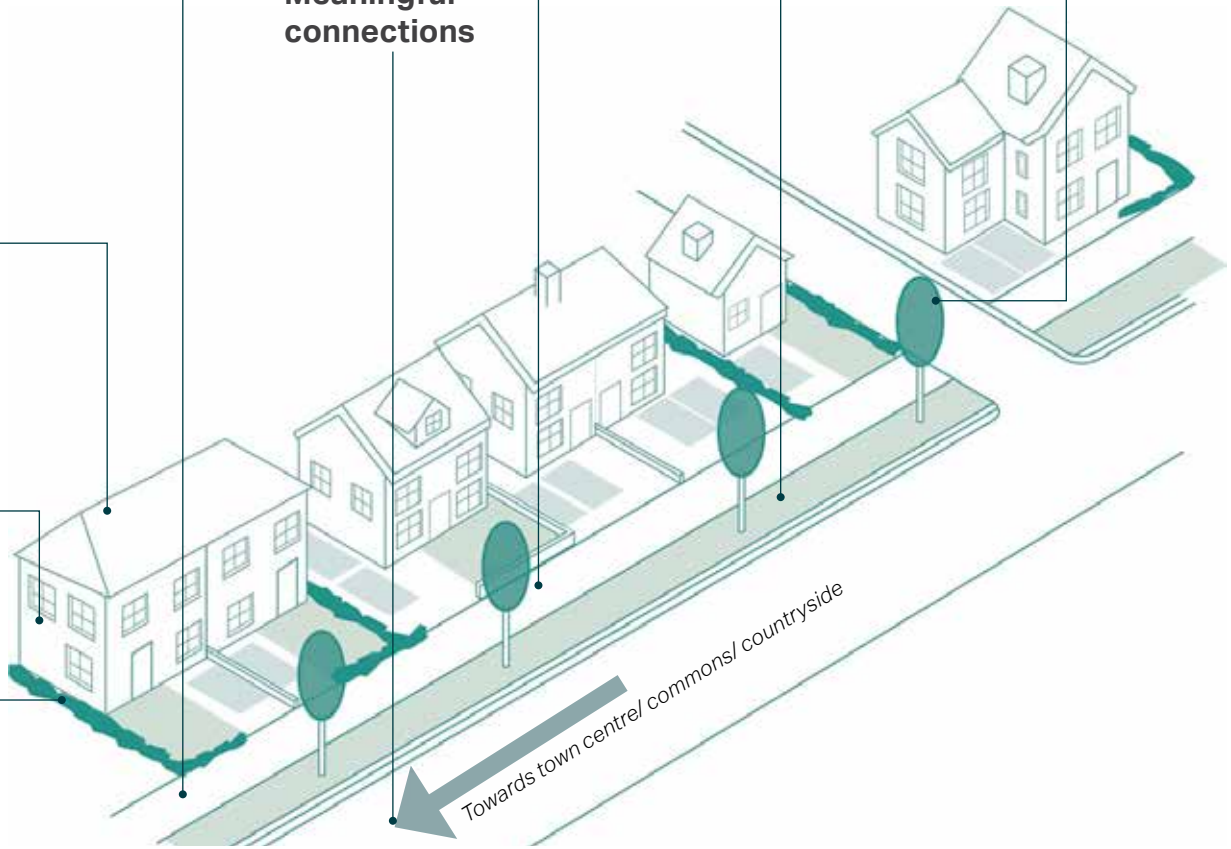
LO2.
Landscaping and trees

SD1.
Meaningful connections

BF5.
Rooflines and building heights

BF6.
Architectural details, materials and colour palette

BF2.
Building lines and boundary treatments



Code	Applying the code to General Neighbourhood
SD1. Provide meaningful connections	• It is important for the general neighbourhood area to maintain good connections to the town centre, surrounding residential areas and to the Commons and countryside beyond.
SD5. Density	• The current housing densities within the general neighbourhood should be retained.
BF1. Enclosure	• The streets should retain a good balance of enclosure and openness along the street by maintaining consistent building lines as well as the greenery within the streetscene.
BF2. Building lines and boundary treatments	• Strong and consistent building lines should be retained along the street with only small variations in protrusions and setbacks. • Consistent boundary treatments should also be retained using low brick walls, hedges or planting bringing cohesion to the street.
BF5. Rooflines and building heights	• The general neighbourhood should retain a mixture of bungalows and two storey dwellings, therefore bungalows should not be converted to taller buildings and buildings should not exceed two storeys in height. • Within the general neighbourhood areas, the rooflines should be fairly consistent with similar roof types used along existing street. This could be pitched roofs or hipped roofs.

Figure 86: Low brick wall with a hedge as a boundary treatment.

Figure 87: Variation in building heights and roof typologies.

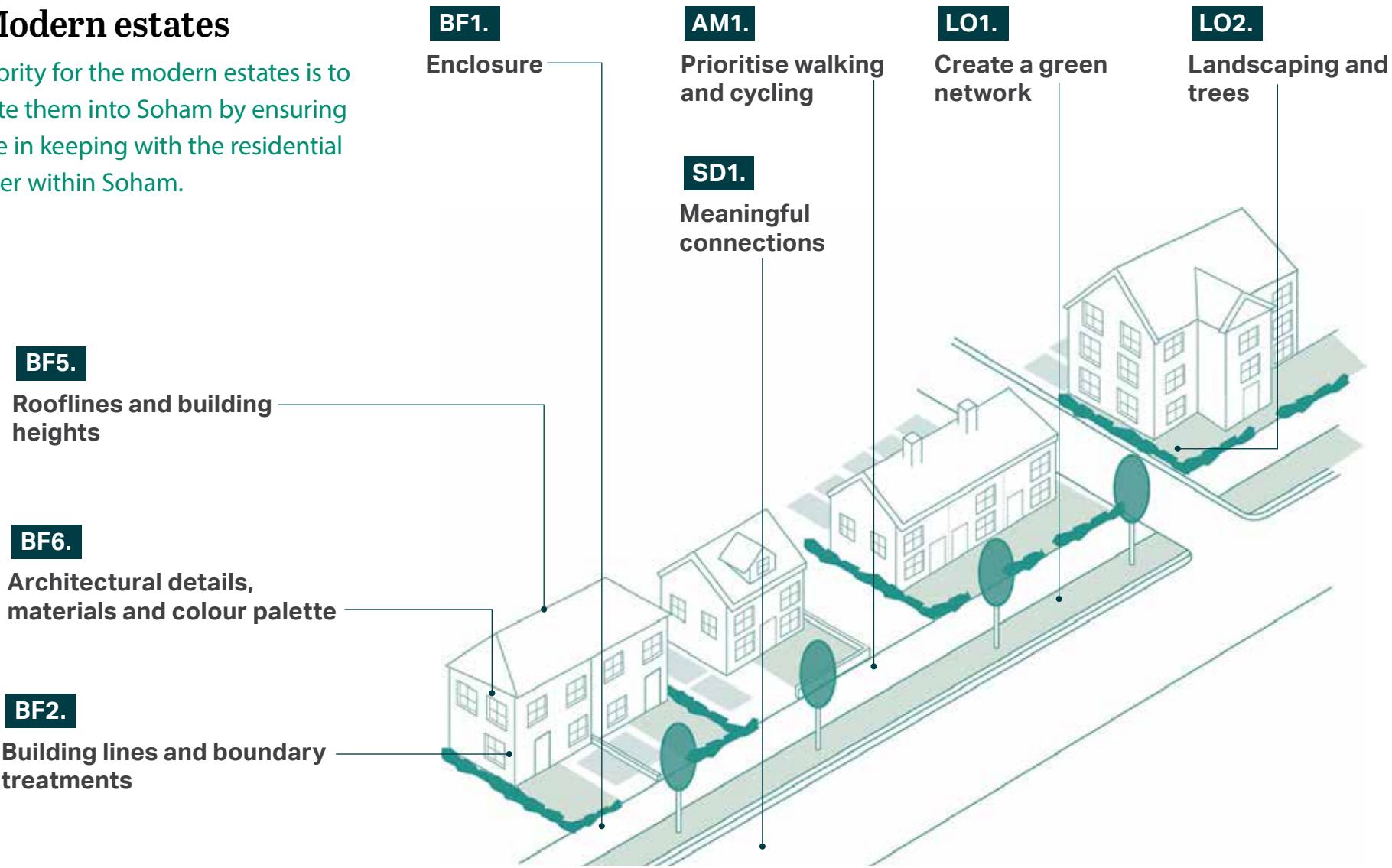
Code	Applying the code to General Neighbourhood
BF6. Architectural details, materials and colour palette	• The building materials vary throughout this typology although the most common material is brick and clay or slate roof tiles.
AM1. Prioritise walking and cycling	• Ensure there is sufficient footpaths on both sides of the street as well as safe routes for cyclists.
LO1. Create a green network for wildlife and biodiversity	• The outdoor sports facilities and allotments should be retained as well as any other open green spaces.
LO2. Landscaping and trees	• Green verges along the street should be retained and street trees added where possible. Front gardens should have some greenery and vegetation and should not be paved over.

Figure 88: Green space within one of the general neighbourhood areas.

Figure 89: Green verge along side the footpath.

5.6 Modern estates

The priority for the modern estates is to integrate them into Soham by ensuring they are in keeping with the residential character within Soham.



Code	Applying the code to Modern Estates
SD1. Provide meaningful connections	• Pedestrian and cycle connections should be made from the modern estates to the surrounding neighbourhoods offering safe and direct routes to key locations such as the town centre and the Commons. • There also needs to be vehicular connections to the town centre and the train station.
SD5. Density	• The lower densities within the modern estates should be retained and areas with higher housing densities should provide high levels of greenery and wider streets to help create a sense of openness.
BF1. Enclosure	• A sense of enclosure should be retained along the street, but greenery should be added to the streetscene to ensure they are in keeping with the character of Soham.
BF2. Building lines and boundary treatments	• The consistent building line along the streets should be retained. • Boundary treatments should be introduced using materials such as brick the same colour as the buildings or hedges and planting.
BF3. Corner buildings	• When a building is on a corner it should have two primary facades with windows and doors on both of the street facing sides to provide natural surveillance of the street.

Figure 90: Existing front garden should introduce a boundary treatment.

Figure 91: Dwellings overlooking central green space.

Code	Applying the code to Modern Estates
BF5. Roofline and building heights	• The building heights can reach up to four storeys within the existing modern estates, however any new development should have predominantly one and two storey buildings, going up to three storeys at certain points if necessary. • The roofs are generally pitched, however more variation could be added in new development for visual interest.
BF6. Architectural details, materials and colour palette	• The predominate materials within this typology are yellow and red brick and some weatherboarding and concrete roof titles.
AM1. Prioritise walking and cycling	• There should be footpaths on one or both sides of the street and where there is a cul-de-sac there should be a route for pedestrians and cyclists making the estates more permeable.
AM3. Car parking typologies	• Car parking should be provided on-plot either in front or to the side of the building. Where there is on-street parking it should be set within bays to avoid a car dominated streetscene.
LO2. Landscaping and trees	• Greenery in the form of green verges, hedges and trees should be added to the streetscene to ensure the modern estates are in keeping with the character of Soham.

Figure 92: Little variation in the roofscape.

Figure 93: Cars parked on curbs and footpaths should be avoided.

Development proposal checklist

06

6. Development proposal checklist

As the design guidance 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 proposals should be evaluated.

5.6.1 General questions to ask and issues to consider when presented with a development proposal

The aim is to assess all proposals by objectively answering the questions below. Not all the questions will apply to every development. The relevant ones, however, should provide an assessment as to whether the design proposal has 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 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 prominent ridge lines and long-distance views;
- Reflect, respect, and reinforce local architecture and historic distinctiveness;
- Retain and incorporate important existing features into the development;
- Respect surrounding buildings in terms of scale, height, form and massing;
- Adopt contextually appropriate materials and details;
- Provide adequate open space for the development in terms of both quantity and quality;
- Incorporate necessary services and drainage infrastructure without causing unacceptable harm to retained features;
- Ensure all components e.g. buildings, landscapes, access routes, parking and open space are well related to each other;
- Positively integrate energy efficient technologies;
- Make sufficient provision for sustainable waste management (including facilities for kerbside collection, waste separation, and minimisation where appropriate) without adverse impact on the street scene, the local landscape or the amenities of neighbours;
- Ensure that places are designed with management, maintenance and the upkeep of utilities in mind; and
- Seek to implement passive environmental design principles by, firstly, considering how the site layout can optimise beneficial solar gain and reduce energy demands (e.g. insulation), before specification of energy efficient building services and finally incorporate renewable energy sources.

2

Local green spaces, views & character:

- What are the particular characteristics of this area which have been taken into account in the design; i.e. what are the landscape qualities of the area?
- Does the proposal maintain or enhance any identified views or views in general?
- How does the proposal affect the trees on or adjacent to the site?
- Can trees be used to provide natural shading from unwanted solar gain? i.e. deciduous trees can limit solar gains in summer, while maximising them in winter.
- Has the proposal been considered within its wider physical context?
- Has the impact on the landscape quality of the area been taken into account?
- In rural locations, has the impact of the development on the 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?
- 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 will be used by the new owners and how will it be managed?
- Is there opportunity to increase the local biodiversity?
- Can green space be used for natural flood prevention e.g. permeable landscaping, swales etc.?
- Can water bodies be used to provide evaporative cooling?
- Is there space to consider a ground source heat pump array, either horizontal ground loop or borehole (if excavation is required)?

3

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 or limited mobility?
- 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?

4

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?

5

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?

6

Building materials & surface treatment:

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

7

Household extensions:

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

8

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?

9

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?

10

Car parking:

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

Next steps

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7. Next steps

7.1 Delivery

The design guidelines and codes will be a valuable tool in securing context-driven, high-quality development within Soham. They will be used in different ways by different actors in the planning and development process, as summarised in the table.

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

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