Postwick with Witton

Design Guidance and Codes

Final report

Octobert 2024

Delivering a better world

Quality information

Prepared by	Checked by	Approved by
Jimmy Lu **Principal Urban Designer**	Iss Warren **Senior Urban Designer**	Ben Castell **Director**
Ben Lancaster **Graduate Urban Designer**		

Revision History

Issue no.	Issue date	Details	Issued by	Position
1	24/07/2024	Site visit, research, and content	Jimmy Lu Ben Lancaster	Principal Urban Designer Graduate Urban Designer
2	23/08/2024	QB comments and feedback	David Dukes	Chair, Postwick with Witton Neighbourhood Plan Steering Committee
3	30/08/2024	Revised draft for QB review	Jimmy Lu Ben Lancaster	Principal Urban Designer Graduate Urban Designer
4	12/09/2024	QB comments and feedback	David Dukes	Chair, Postwick with Witton Neighbourhood Plan Steering Committee
5	13/09/2024	Final draft for Locality review	Jimmy Lu Ben Lancaster	Principal Urban Designer Graduate Urban Designer
6	03/10/2024	Locality approval	Annabel Osborne	Neighbourhood Planning Officer, Locality
7	03/10/2024	Final report issued to QB	Jimmy Lu Ben Lancaster	Principal Urban Designer Graduate Urban Designer

Contents

Introduction

01

1. Introduction

Through the Ministry of Housing, Communities and Local Government (MHCLG) Neighbourhood Planning Programme led by Locality, AECOM was commissioned to provide design support for the Postwick with Witton Neighbourhood Plan.

1.1 Purpose of this document

This document sets out design guidance and codes based on the existing features of the Civil Parish of Postwick with Witton. The document is intended to sit alongside the Neighbourhood Plan to provide guidance for applicants preparing proposals in the Neighbourhood Area and as a guide for the Neighbourhood Plan Working Group and Broadland District when considering planning applications.

The report intends to provide design guidance and codes based on the character and local qualities of the parish to help ensure future development, particularly housing, complements the Neighbourhood Area's existing character.

1.2 What is guidance versus codes?

Design **guidance** identifies how development can be carried out in accordance with good design practice. Design **codes** are requirements that provide specific, detailed parameters for development. Proposals for development within the Neighbourhood Area should demonstrate how the guidance has informed the design and how the design codes have been complied with. Where a proposal cannot comply with a code (or several) a justification should be provided.

Figure 01: Steps undertaken to produce this document.

1.3 Area of study

The Neighbourhood Area is the Civil Parish of Postwick with Witton in the Broadland district in Norfolk. It is located 6 km east of the centre of Norwich and 23 km west of Great Yarmouth. The parish borders the civil parishes of Thorpe St. Andrew to the west; Great and Little Plumstead to the north; and Blofield and Brundall to the east, while the river Yare forms its southern boundary. The population was estimated at 400 at the 2021 Census.

The design guidance and codes within this report exclude the area located west of the A1270 and north of the A47, known as the Broadland Business Park, although it is still located within the Neighbourhood Area.

The parish is mostly rural and composed of three distinct settlements. The village of Postwick is located in the west of the parish and forms its main self-contained settlement. The hamlet of Witton is bisected by the A47, with North Witton located to the north-east of the parish and South Witton to the east. The north-west of the parish also contains a built-up area contiguous with neighbouring Thorpe St. Andrew and the area within the parish forms part of the Greater Norwich Growth Triangle. This area is more urban in character and located away from Postwick and Witton, and differs markedly from the rural aspect of the rest of the parish. The east of the parish remains mostly unbuilt and is dominated by farmland. The areas bordering the river Yare to the south contain ecologically valuable areas of woodland and wetland that are within the Broads. For this reason, the area is under the jurisdiction of the Broads Authority rather than Broadland District.

The parish contains a number of services and facilities; however, they are limited in the settlements of Postwick and Witton. Postwick has a church, a village hall & social club, and a cricket club, while Witton only contains a church. The northwestern corner of the parish concentrates most of the services and retail, which include two business parks, a police station, a petrol station, and land allocated for employment and mixed-use development that forms part of the Greater Norwich Growth Triangle. These services are however located north of the A47 away from Postwick and Witton and are relatively inaccessible to residents of Postiwck and Witton.

The Neighbourhood Area is crossed by several strategic roads: the Yarmouth Road (A47) dual carriageway, the A1042, Broadland Way (A1194), and Broadland Northway (A1270). Although it does not contain a railway station, it is located close to the Brundall Gardens station on the Wherry Lines crossing the parish and linking to Norwich and Great Yarmouth. The west of the parish also contains a park & ride with a regular bus services to Norwich, though it is located away from the settlements of Postwick and Witton.

Additional bus routes also pass through the parish, offering services to Silfield, Lingwood Railway Station, Great Yarmouth, and Blofield. However, access to bus stops along these routes is difficult as they are located along the A1042, close to Thorpe St Andrews and are up to a 40 minute walk away for many residents within the parish.

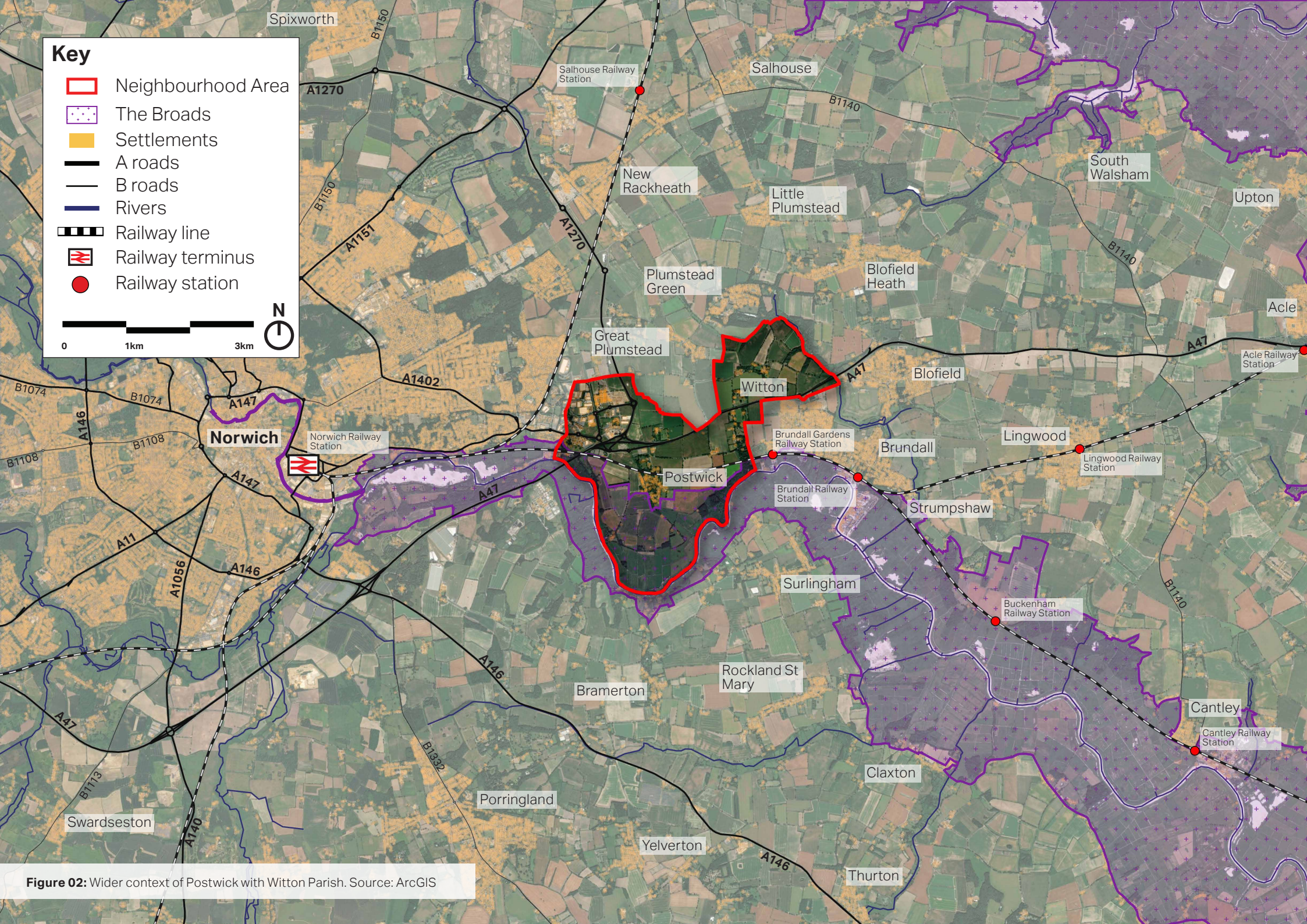


Figure 02: Wider context of Postwick with Witton Parish. Source: ArcGIS

1.4 Policy documents for reference

National and local policy documents provide valuable guidance on how to bring about good design and the benefits accompanying it. Certain documents are for the purpose of ensuring adequate planning regulations are in place to check 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 the design codes.

Additionally, these following documents have informed the design guidance and codes within this report to ensure they are best aligned with the needs and opportunities identified for the Neighbourhood Area:

NATIONAL LEVEL

National Planning Policy Framework
Ministry of Housing, Communities and Local Government (MHCLG) | 2023

Development needs to consider national level planning policy guidance as set out in the National Planning Policy Framework 2023 (NPPF) and the associated National Planning Policy Guidance (NPPG). In particular, the NPPF Chapter 12: Achieving well-designed and beautiful places stresses the creation of high quality, beautiful and sustainable buildings and places is fundamental to what the planning and development process should achieve. Design guides and codes provide a local framework for creating beautiful and distinctive places with a consistent and high-quality standard of design.

National Model Design Code
Ministry of Housing, Communities and Local Government (MHCLG) | 2021

The National Model Design Code 2021 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.

National Design Guide
Ministry of Housing, Communities and Local Government (MHCLG) | 2019

The National Design Guide 2019 illustrates how well-designed places that are beautiful, enduring and successful can be achieved in practice.

Building for a Healthy Life
Homes England | 2020

Building for a Healthy Life (BHL) is the Government-endorsed industry standard for well-designed homes and neighbourhoods. The BHL toolkit sets out principles to help guide discussions on planning applications and to help local planning authorities to assess the quality of proposed (and completed) developments, but can also provide useful prompts and questions for planning applicants to consider during the different stages of the design process. BHL is supported by Streets for a Healthy Life, which demonstrates what can be achieved in creating streets as places for people.

Manual for Streets
Department for Transport (DfT) | 2007

The Manual for Streets is the Government's guidance on how to design, construct, adopt and maintain new and existing residential streets. The document, alongside subsequent updates, promotes streets and wider development that avoid car-dominated layouts and place the needs of pedestrians and cyclists first.

COUNTY & DISTRICT LEVEL

Greater Norwich Local Plan

Greater Norwich Development Partnership | 2024

The Greater Norwich Local Plan (GNLP) was adopted jointly by Broadland District, South Norfolk, and Norwich City Councils in March 2024. The GNLP does not allocate any new sites in the Neighbourhood Area, which is classified under 'Village Clusters' (Policy 7.4) in the settlement hierarchy. The GNLP has no jurisdiction over areas in the south of the parish that are within the Broads. The GNLP supersedes the Broadland Local Plan and associated documents, including the Joint Core Strategy (JCS) and the Broadland Site Allocation Development Plan Document.

Local Plan for the Broads 2015-2036

Broads Authority | 2019

The document has jurisdiction over areas of the south of the parish that are within the Broads where the adopted Greater Norwich Local Plan does not apply.

Landscape Character Assessment

Broads Authority | 2016

The document is a study of the Broads developed to aid decision-making that could affect its condition or visual quality. It identifies landscape character areas, each with a unique set of characteristics, which combine to give them their own distinct sense of place.

Broads Sustainability Guide

Broads Authority | 2007

The Guide aims to ensure that any building projects within the jurisdiction of the Broads Authority contributes to the area's biodiversity and ecological balance. It contains non-prescriptive sustainability principles and design guidance on topics such as ecology, biodiversity, site layout, sustainable drainage, solar energy, energy efficiency, wind turbines, and biofuel.

Parking Guidelines for new developments in Norfolk

Norfolk County Council | 2022

This document sets guidelines for parking in new developments in Norfolk. Parking guidelines are set for different land uses classes, vehicle types, as well as dwelling types and sizes. It also includes recommendations for cycle and electric vehicle parking.

1.5 Summary of resident consultation

A resident consultation for the Neighbourhood Plan was held in March 2024. The results of the exercise are provided hereafter.

Housing

- A willingness to consider small, modestly scaled houses/bungalows and affordable housing if there was a need for any development in the parish.
- A desire for more facilities.

Views

- Residents were invited to indicate on a map views that they considered the most important in the parish and that they seek to preserve.

Countryside access

- A desire for better access to the river.
- An interest in a circular walk incorporating the river path.
- A desire to upgrade and/or formalise some existing footpaths, especially connections to Brundall.

Transport and access

- An aspiration for buses to stop closer to both Postwick and Witton.
- A desire for the Park and Ride to continue.
- An interest in a cycling hub and safer cycling connections to Brundall and Norwich.
- A strong support for a 20-mph speed limit.

Figure 03: Recently constructed bungalows west of Oaks Lane

Figure 04: Sign with fishing regulations along the River Yare

This page has been intentionally left blank

Local area analysis

02

2. Local area analysis

This chapter presents a snapshot of the Neighbourhood Area to inform the design objectives of the Design Guidance and Codes. In many sections, it summarises key themes and issues that are described in more detail in the Postwick with Witton Neighbourhood Plan Evidence Base Paper.

2.1 Landscape and spatial setting

2.1.1 Landscape character

The Neighbourhood Area falls within National Character Areas 79: Northeast Norfolk and Flegg and 80: The Broads. Postwick is mainly contained within The Broads NCA and Witton into Northeast Norfolk and Flegg.

The parish is also within three different character areas within the Broadland Landscape Character Assessment:

- Tributary Farmland (D4- Blofield Tributary Farmland);
- Wooded Estatelands (E3- Spixworth Wooded Estatelands); and
- Marshes Fringe (F3- Reedham to Thorpe Marshes Fringe).

The Broads Landscape Character Assessment classifies Postwick within Character Area 12 Yare Valley- Kirby/ Postwick to Rockland/Strumpshaw River Yare.

2.1.2 Green and open spaces

Most of the parish consists of unbuilt land. There are however few areas of designated open space. These include the church yards of All Saint's and St Margaret's, the cricket club, and the playing fields associated with the Village Hall. Developments in the Broadland Business Park and the Oaks development have amenity green spaces. The Broads occupy large areas of land adjacent to the river Yare comprise open, drained marshland (some of it used for grazing), or partially flooded fen with carr woodland and reed beds, landscape that

Figure 05: View towards open fields from Ferry Lane

Figure 06: View from the banks of River Yare

typifies the Broads.

2.1.3 Environmental designations

Large areas in the Neighbourhood Area located along the River Yare south of Postwick are located in the Broads. The parish contains one County Wildlife Site (CWS) to the north-east and faces the Mid Yare RSPB (Royal Society for the Protection of Birds) reserve. It does not contain any Natural England statutory designated sites, although it is host to valuable landscapes and habitats. In addition, there are several designations within 2 km, including the Broads Special Area of Conservation (SAC), Ramsar and Special Protection Areas, and Sites of Special Scientific Interest (SSSI).

2.1.4 Flooding

Large parts of the parish located along the river are at high risk of flooding from rivers or the sea (Flood Zones 2 and 3), however most of the built-up areas are at low risk of flooding from the same source. Small areas in Postwick and Witton are vulnerable to surface water flooding, mostly along Oaks Lane, James Adams Close, Leeder Hill and Hall Road.

Figure 07: Area of wetland and woodland to the south of the parish

Figure 08: View towards The Ferry House pub across the River Yare, revealing the low-lying nature of the land

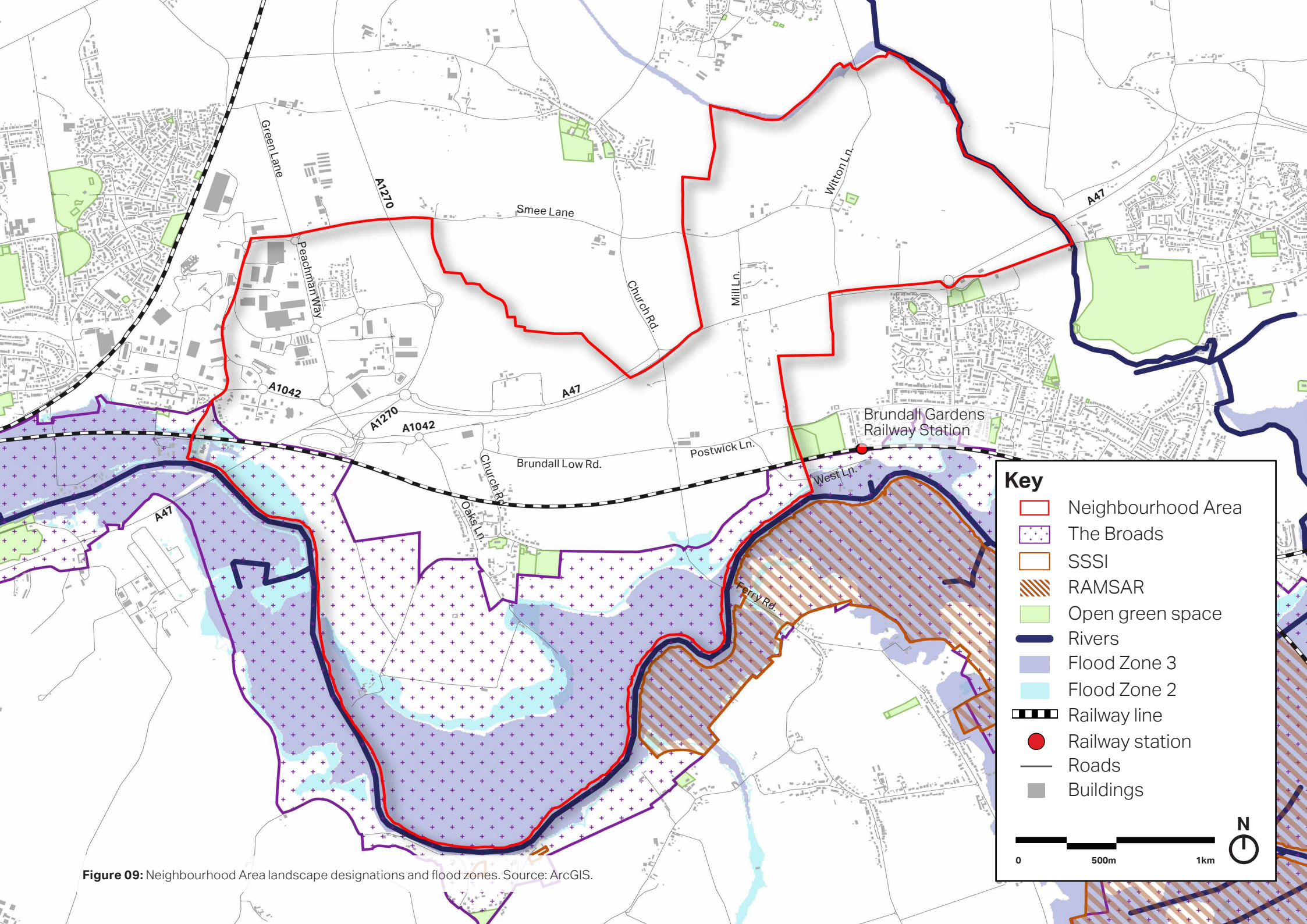


Figure 09: Neighbourhood Area landscape designations and flood zones. Source: ArcGIS.

2.2 Settlement patterns

The Neighbourhood Area is sparsely built up and comprises three distinct settlements.

2.2.1 Postwick

Postwick is the main village in the parish. The village is of modest size and centre around All Saint's Church. Properties are either set along roads in a one-plot deep configuration or clustered around short cul-de-sacs. Most houses are detached and semi-detached with front and back gardens. The informal layout, with varying plot sizes and configurations, reflects the organic layout of the roads.

2.2.2 Witton

Witton is a small, sparsely built hamlet set on both sides of the A47. Properties are informally dispersed into small clusters set along Witton Lane, Hall Road, and Mill Lane and interspersed with large areas of unbuilt land and rural farmland.

2.2.3 Broadland Buisness Park and Greater Norwich Growth Triangle

The north-western corner of the parish known as the Broadland Business Park is more urban in character and is contiguous with the built-up area of Thorpe St. Andrew. It is physically separate from the rest of the parish and instead forms the easternmost extent of the Norwich urban area as part of the Greater Norwich Growth Triangle. It mostly consists of business parks and big box stores served by wide roads that are accompanied by large surface car parks. It also includes the Oaks, a suburban residential development comprising mostly detached and semi-detached houses.

2.2.4 Rural countryside

Outside of the aforementioned settlements, the parish is very sparsely built out and only contains small, isolated clusters of mainly agricultural buildings.

Figure 10: Semi-detached house on Ferry Lane, Postwick

Figure 11: Detached house in the suburban development of The Oaks in the Greater Norwich Growth Triangle

2.3 Access and movement

2.3.1 Roads

The A47 dual carriageway bisects the parish and creates an important physical barrier between the northern and southern halves. The Broadland Business Park concentrates most of the strategic road infrastructure, which comprises wide roads articulated around large roundabouts. Their complex layout poses an important wayfinding challenge and is a deterrent to walking.

Furthermore, movement within the parish is reliant on a network of narrow, meandering rural roads. When not in more built up areas, these are flanked by substantial vegetation and reliant on roadside grips, providing drainage into adjacent fields.

2.3.2 Sustainable travel

The Broadland Business Park contains many services and facilities, however walking and cycling access from Postwick or Witton are poor. The Postwick Park and Ride is within walking distance from Postwick and provides direct bus service to Norwich, but there are no bus services into Postwick or Witton. The business parks are well served by public transport to and from Norwich. Car ownership levels are high.

2.3.3 Pedestrian and cycle access

There are very limited walking and cycling access to the countryside and to the River Yare via public rights of way. The footpath network is fragmented with many dead ends, and there are limited circular walk options. Dedicated or shared cycle routes are mostly limited to the Broadland Business Park. The west of the parish has a small marina that is used for mooring.

2.3.4 Parking

Most properties are equipped with private off-street parking, usually in the form of front garden parking or driveways, garages, and less frequently courtyards. Most front gardens have boundary treatments in the forms of landscaped hedges or low brick walls to partly screen vehicles. On a minority of properties, however, the absence of screening fully exposes parked vehicles to the public realm.

Figure 12: Sign showing regulations for mooring along the Yare

Figure 13: Bus station at the Postwick Park and Ride

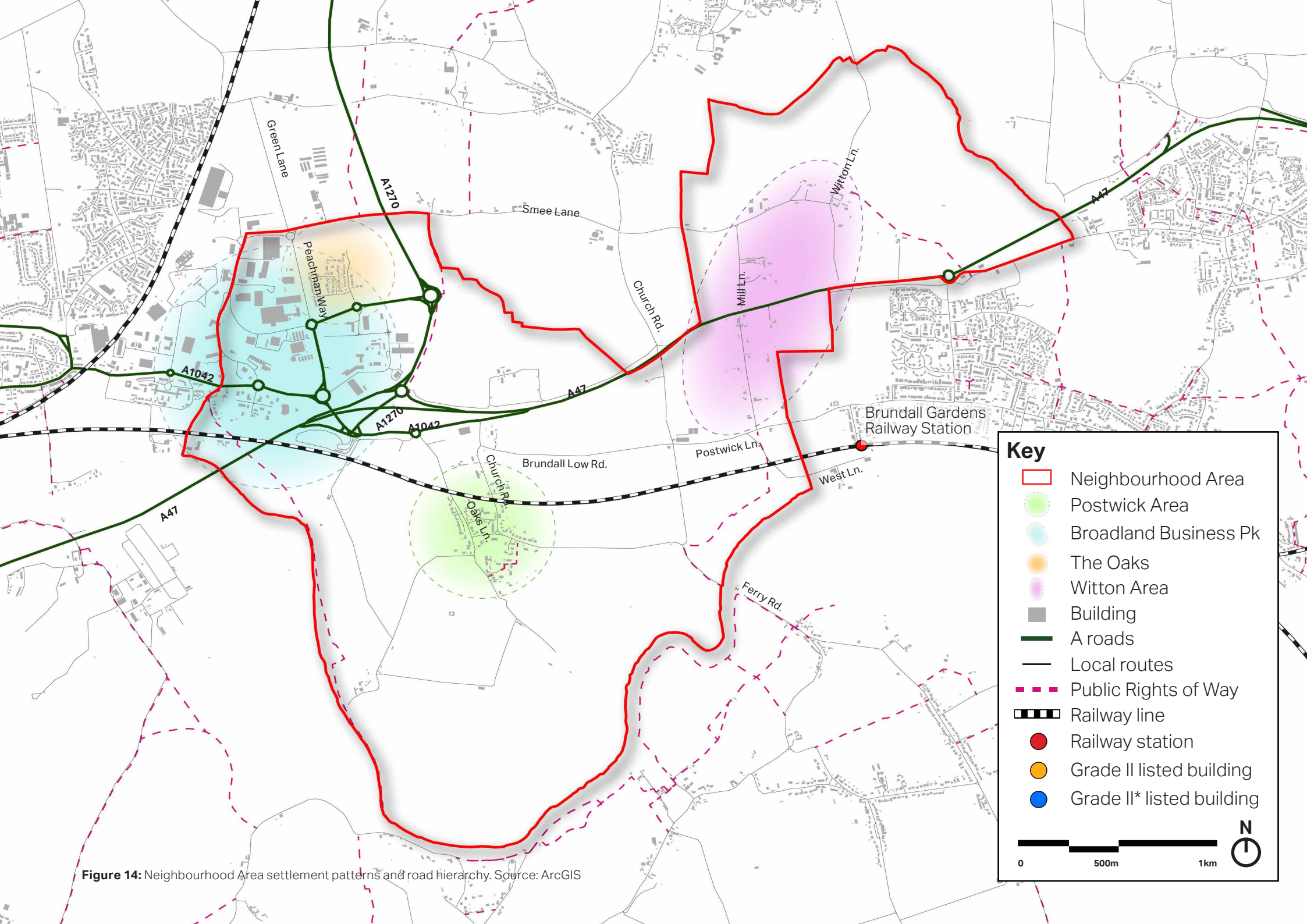


Figure 14: Neighbourhood Area settlement patterns and road hierarchy. Source: ArcGIS

2.4 Built character

Most buildings in Postwick and Witton reflect a range of building shapes and styles associated with the rural Norfolk vernacular. The variety of forms and construction periods reinforce the informal character of settlements built over time. Constructions in the Broadland Business Park are larger and more urban in character.

Owing to the absence of any large-scale developments in Postwick and Witton, most buildings reflect the local traditional materials. The main construction material for homes is red brick, either used as the main material or as dressing with flint infilling. Off-white render is another common material. Some outbuildings and agricultural buildings use timber weatherboarding. Roofs are predominantly clad in red clay or blue-glazed pantiles. Boundaries are traditionally delineated by either low walls in red brick and flint or landscaped hedges.

2.5 Heritage

Although artifacts from various historic periods have been discovered in the Neighbourhood Area, it does not contain any Conservation Areas. There are four Listed Buildings: two Grade II* churches, and two Grade II memorial crosses. Other buildings, although not listed, are attractive examples of the local Norfolk vernacular.

Figure 16: Cottage with a thatch and clay pantile roof

Figure 15: Local building with a red brick stepped gable

Figure 17: Grade II* listed All Saint's Church, Postwick. Available at: http://www.norfolkchurches.co.uk/postwick/index.html

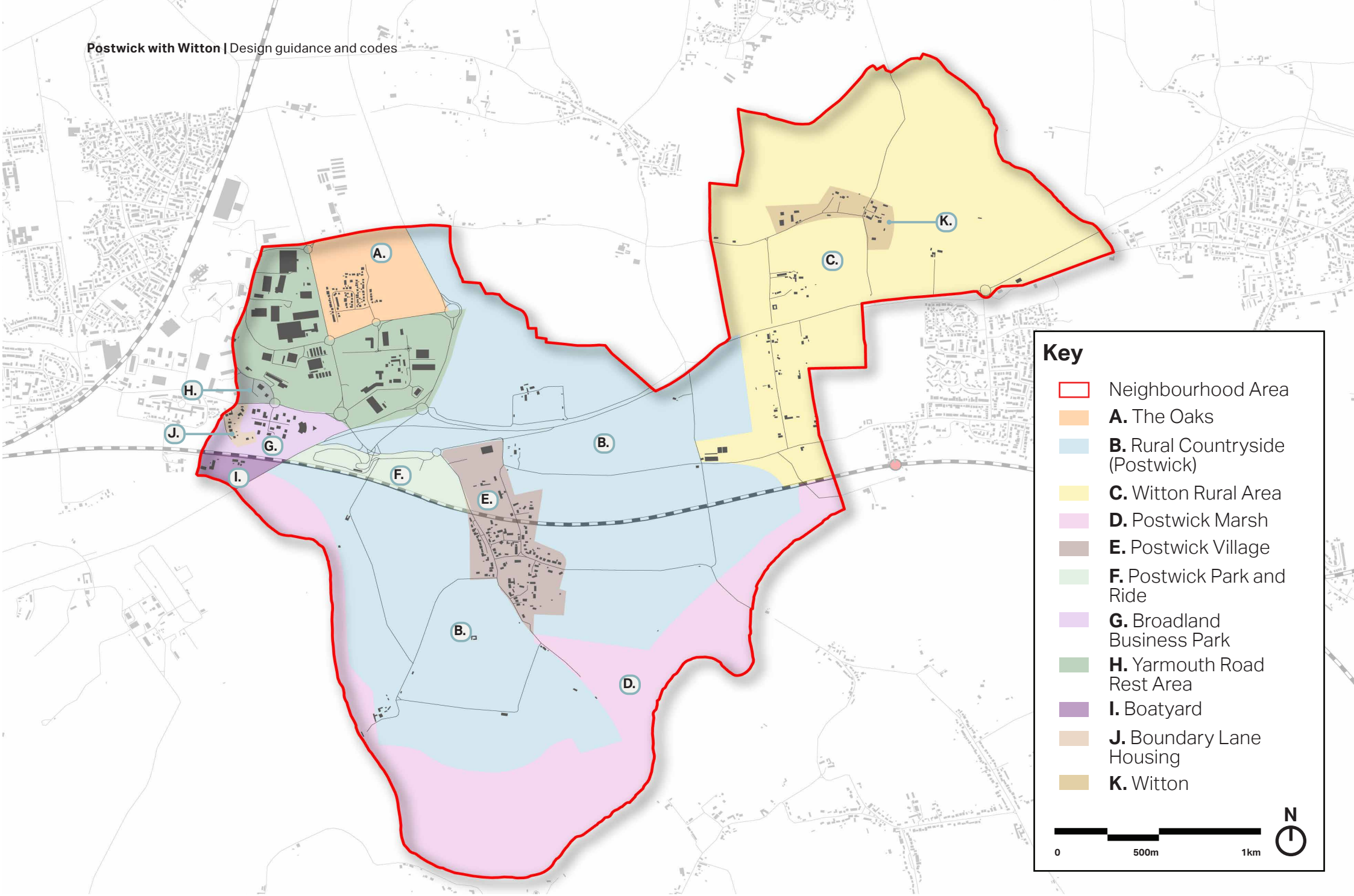


Figure 18: Parish Character Areas. Source: ArcGIS and Postwick with Witton Parish Council.

2.6 Character areas

Postwick with Witton Parish Council conducted a study to determine distinct character areas within the Neighbourhood Area. The map opposite shows the location of the different character areas, which are also described on this page.

Character area	Brief description
A. The Oaks	A substantial new housing area at the northern extremity of the parish. It is fully allocated, although reserved matters still need to be agreed for some of the phases. This allocation is part of the Greater Norwich Growth Triangle which will deliver at least 10,000 new homes, along with commercial and community facilities.
B. Rural Countryside (Postwick)	Much of Postwick and Witton is still rural farmland. This area, on the western side of the parish seeks to identify land in Postwick that is more suitable for arable farming, located a little above the flood plain. Some parts may be grazed. It also includes a handful of scattered farmhouses, barns, cottages and other buildings, with some woodland. The Broads Authority's jurisdiction strays into this area. The area also includes the land between the A47 and the westbound off-slip road, part of which was used by the County Council as the compound for the construction of the Broadland Business Park and NDR. Since it was vacated, proposals have come forward for commercial use that are yet to be determined. It remains a greenfield site.
C. Witton Rural Area	An area that is wholly divided by the A47, subsequently impacting connectivity and access between dwellings both north and south of the area. The area's character is similar to B, although there is little, if any marshland and no Broads Authority coverage. Area C also contains several scattered dwellings and also another small collection of homes on Mill Lane, to the south of the A47.
D. Postwick Marsh	A low-lying area that extends from the north bank of the river Yare throughout its journey through the parish. It comprises a mix of flooded carr, dykes, grazing marsh, reedbeds and woodland. Sometimes this land type extends only a few metres from the river, before the land rises. Elsewhere the land type is quite extensive.
E. Postwick village	The cluster of dwellings, village hall, All Saint's Church and the Brethren meeting room that comprises the village itself. The boundary has been drawn quite tightly.

Character area	Brief description
F. Postwick Park and Ride	One of seven park and rides around Norwich. It was established over 15 years ago. It is the least well used P&R and the last to resume operation after lockdown. Its future is uncertain. As a result, the large site to the east, designated as an extension site, will not progress. The County Council is returning the land to the owner, who has no plans for development.
G. Broadland Business Park	This area includes Broadland Gate, Meridian Way, Lakeside, and Bankside. It is major employment allocation serving the Greater Norwich area. It comprises a wide mix of uses including office, warehousing, hotel, retail, car dealerships, wholesale, EV charging, food service, DIY, trade counter and a few manufacturing businesses. There is a large site, the premier location, which has never been developed. Prior to the 2008 financial crash it had been expected that Aviva would continue its expansion out of the city centre, adding to the 2 call centres it built a few years earlier. In the event, Aviva has decamped back to the city centre and the two buildings sold to Broadland/South Norfolk Council and Marsh MacLennan respectively. This area also contains a small cluster of dwellings, around Heath Farm that is entirely surrounded by the business park.
H. Yarmouth Road Rest Area	An area located at the far eastern edge of the parish, includes a filling station, McDonald's and a proposed new charging station with solar panels.
I. Boatyard	A small area of land, accessible from Boundary Lane, with dyke access that leads to the river, which includes a few mooring sites and boatyards
J. Boundary Lane Housing	A small cluster of homes that border Thorpe St Andrew but which fall within the Neighbourhood Area.
K. Witton	A much more scattered and sparse hamlet that has no easily identified boundary. The area features a cluster of dwellings, as well as St Margaret's Church. Like Area C, this area is severely divided from other parts of Witton south of the A47.

2.7 Postwick with Witton character summary

The tables set out in this section summarise key findings informed by the context analysis and more detailed character area analyses. These findings will help to shape the design guidelines and codes in the following chapter.

Points of positive attributes are strengths and opportunities can be harnessed and further reinforced by the design codes and guidance. Any issues and potential threats identified will be targeted and mitigated against through suggestions of good urban design practices and principles.

Positive attributes in Postwick with Witton that could act as references in future development	Relevant design section in Chapter 3
Retention of an **attractive rural character** in most of the parish. Proximity of residential areas to **natural assets and valuable habitats**: the river Yare, the Broads, and (in neighbouring parishes) areas with Ramsar and national environmental designations.	**Layout of development, Sustainability and eco-housing**
High-quality examples of Norfolk vernacular in the parish, including 4 Listed Buildings. The design of new developments should take cues from the existing **local vernacular.**	**Built form**
Attractive long-distance views through the open countryside and along the river Yare.	**Layout of development**
The Broadland Business Park in the north-west corner of the parish contains a wide range of **facilities and services** as well as **employment opportunities** within a short distance to Postwick. Opportunities to improve connectivity and wayfinding to with the remainder of the parish should be sought.	**Layout of development**
Modern developments in Postwick are small-scale and mostly in-keeping with the dominant local **red brick and flint** vernacular, taking cues from traditional building materials and architectural details.	**Built form**
Postwick Park and Ride is located within walking and cycling distance to Postwick, providing public transport access to Norwich city centre. However, the service's long term future is uncertain.	**Mobility and access**

Issues and potential threats for future development in Postwick with Witton	Relevant design section in Chapter 3
Pedestrian and cycle access from Postwick village to the Broadland Business Park and towards Norwich is poor. This is due to the **disjointed pedestrian network, poor wayfinding**, and the **complex layout of strategic roads** in the north-west corner of the parish.	**Access and movement**
Poor **pedestrian access to the countryside, the river, and neighbouring settlements** due to the low number of public rights of way (PRoWs). The A47 creates a major physical divide within the parish.	**Access and movement**
Not enough **on-plot parking for guests**, resulting in inappropriate parking on green verges.	**Access and movement**
Narrow roads and mostly single tracks with **few passing places and no footpaths** requiring shared use of routes between vehicles, pedestrians, and cyclists. Furthermore, cycle routes towards Norwich City Centre are poor, particularly along the A47.	**Layout of development, Access and movement**
Potential for poor development layouts to result in the **loss of attractive long-distance views,** the **erosion of the parish's rural character**, or the **loss of valuable natural habitat**.	**Layout of development, Built form, Sustainability and eco-housing**
The positive elements of the existing streetscape could be undermined by inappropriate building **densities** and **massing** in new constructions or modifications. These should match that of the surrounding areas to respect the historic low-scale rural character.	**Layout of development, Built form**
Extensive areas of the parish are vulnerable to **flooding** from the river, and localised areas are subject to flooding from surface water.	**Sustainability and eco-housing**
Few areas of designated **open space** within Postwick village and Witton.	**Layout of development**

This page has been intentionally left blank

Design guidance and codes

03

3. Design guidance and codes

This chapter sets out the design guidelines and codes that support the Neighbourhood Plan. Development in the parish should demonstrate: (1) how best practice design guidance follows national and local policy and guidance documents, including this design guide; and (2) that layout, architectural and landscape design has been considered.

These design guidelines and codes should be read in conjunction with the baseline analysis in Chapter 2.

3.1 Purpose of this document

All the general guidelines and codes outlined in this chapter will apply to the whole of the parish outside of the Broadland Business Park located in the north-west corner of the parish. The recommendations have been derived from current urban design best practice and are considered essential for a successful development.

These guidelines and codes advocate the use of context for design cues. In this sense it is expected that a design proposal will make reference to different design elements such as layout of buildings, building envelope, materials, building forms, colours, roofs and fenestrations.

These have been generated based on discussions with members of the Neighbourhood Plan Working Group, the site visit and on good practice relevant to the physical context of the parish. Some of these are more general, whilst other elements are more prescriptive or set out parameters for design codes.

The codes in the following sections will be in **bold**. These should be carefully considered for future development and where a proposal cannot comply with a code (or several) a justification should be provided.

The main themes which design guidance and codes are grouped under are:

01. Layout of development (LD)

02. Built form (BF)

03. Access and movement (AM)

04. Sustainability and eco-housing (SU)

01.LD Layout of development

01.LD.1 Site layout

1.1.1 New development should demonstrate an understanding of the landscape sensitivities and designations of the area, especially within the Broads and near areas of ecological importance. Any design proposal should be a good fit in the surrounding context and respect the existing character;

1.1.2 The preservation of unbuilt gaps between developed areas of each of the settlements should be encouraged to preserve direct access to the countryside. This is particularly important between Postwick and the Growth Triangle;

1.1.3 Development should respect the historic grain and scale of the settlements. Proposals must consider existing building patterns and the relationship between buildings and plot sizes. Development, if any, must respect the smaller scale and more spacious layout of Witton.

1.1.4 The use of a repeating type of dwelling along the entirety of a street frontage should be avoided for visual interest and to reflect the architectural diversity of a settlement that developed over time;

1.1.5 Buildings should be arranged and oriented to enable or preserve attractive views towards the countryside as well as landmarks such as churches; and

1.1.6 Interfaces between the edges of existing properties and new developments should be carefully designed to guarantee a successful visual integration and onward pedestrian connections - see 01.LD.3; and

1.1.7 In the case of new developments, opportunities to provide small areas of open amenity space should be sought to correct the low amount of open amenity space in Postwick and Witton.

Figure 19: The belt of trees west of Oaks Lane has been retained to screen new development (left) from external views

01.LD Layout of development

01.LD.2 Infill development and extensions

Many household extensions are covered by permitted development rights, and so do not need planning permission;

1.2.1 Any housing conversions should respect and preserve the buildings' original form and character;

1.2.2 Infill development should complement the street scene into which it will be inserted. It does not need to mimic the existing styles but its scale, massing and layout should be in general conformity with the existing. In particular, infill development should not be located too close to existing buildings and should not be of a larger scale which dwarfs existing properties and/ or presents overlooking issues;

1.2.3 The building to plot size ratio of infill development should ensure a good amount of outdoor amenity space. Infill development should be designed with an understanding of the size and configuration of neighbouring front and back gardens;

1.2.4 The building line of any new infill development should be in conformity with the existing. This consists of informal building lines with gentle variations in building setbacks, consistent with the parish's mostly rural nature;

1.2.5 The density of any new infill development should reflect its context and its location in the Neighbourhood Area. The optimum density will respond to surrounding densities;

1.2.6 Where there are opportunities for infill development, proposals should retain existing views and vistas between buildings and along view corridors wherever possible;

1.2.7 For extensions, the original building should remain the dominant element of the property regardless of the number of extensions and the extension should not overwhelm the building;

1.2.8 Extensions should not result in a significant loss to the private amenity area of the dwelling;

1.2.9 Consideration should be taken of the local context and surrounding density, extensions should avoid significantly increasing built density in sensitive areas, for example where plot sizes are small extensions to buildings can lead to a cramped and overwhelmed built pattern;

1.2.10 Designs that wrap around an existing building and involve overly complicated roof forms should be avoided;

1.2.11 In the case of side extensions, the new part could be set back from the front of the main building and retain the proportions of the original building. This is in order to reduce any visual impact of the articulation between existing and new;

1.2.12 In case of rear extensions, the new part should not have a harmful effect on neighbouring properties in terms of overshadowing, overbearing, or privacy. The scale and form of the rear extension should be appropriate for the original building and plot size;

01.LD Layout of development

01.LD.2 Infill development and extensions (continued)

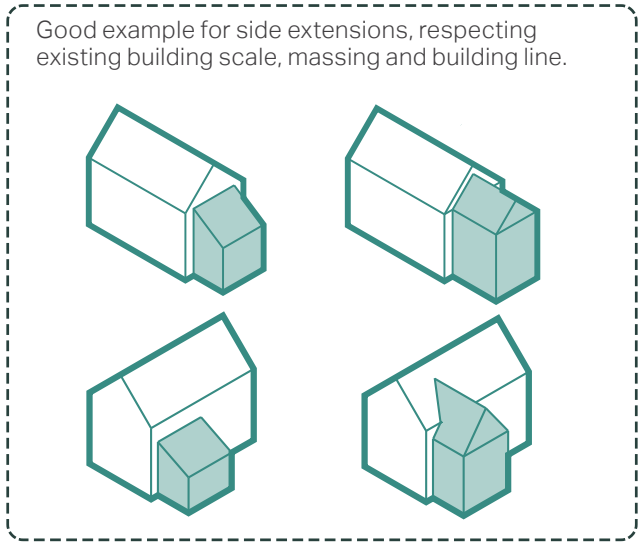
1.2.13 Where possible, conversions should reuse as much of the original materials as possible, or alternatively, use like-for-like materials. Any new materials in conversions should be sustainable and should be used on less prominent building parts;

1.2.14 The pitch and form of the roof used on the building and extensions should respond to this where appropriate;

1.2.15 Extensions should consider the materials, architectural features, window sizes, and proportions of the existing building and should use this style to design an extension that complements the existing building; and

1.2.16 Any modifications must not reduce the number of parking spaces on the site.

Figure 20: A modern side extension built with local traditional materials (right) with a massing that respects the original building (left)



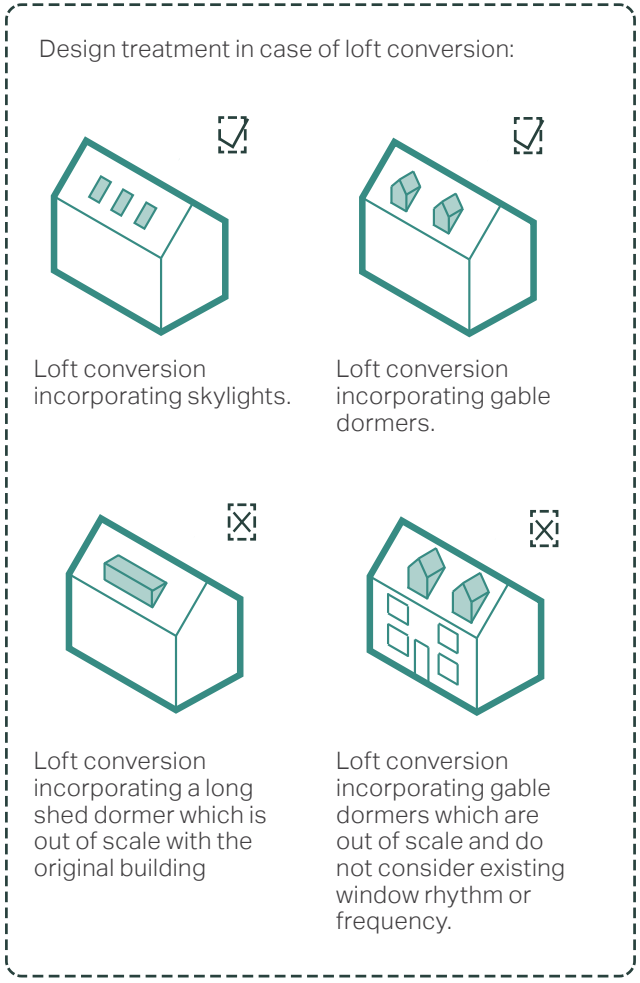


Figure 21: (Left) Diagrams to show positive examples of side extensions.

Figure 22: (Above) Diagrams to show positive and negative examples of loft conversions/ upward extensions.

01.LD Layout of development

01.LD.3 Development edges with the rural countryside

1.3.1 Development adjoining public open spaces and important gaps must either face onto them to improve natural surveillance or have a soft landscaped edge;

1.3.2 When a new development faces onto the open fields, it should blend harmoniously into the surroundings and views towards the settlement. For that reason, the massing, boundary treatments, rooflines and materials should be sensitive to the surrounding environment;

1.3.3 New development must conserve existing native trees and shrubs along the lanes as well as incorporating any green assets within the design. Any unnecessary loss of flora must be avoided. In addition, abrupt edges to development with little vegetation or landscape on the edge of the development must be avoided;

1.3.4 New development should create and enhance pedestrian and cycle links to woodlands and local green spaces.

Such proposals could positively enable community access to green spaces while also boosting the provision of green infrastructure and supporting biodiversity; and

1.3.5 Edges should be designed to link rather than segregate existing neighbourhoods and new developments. For this purpose, opportunities to create new green corridors should be sought to enhance walking and cycling connections.

Figure 23: A property in Witton backing onto the countryside with a roofline that sits below the tree canopy

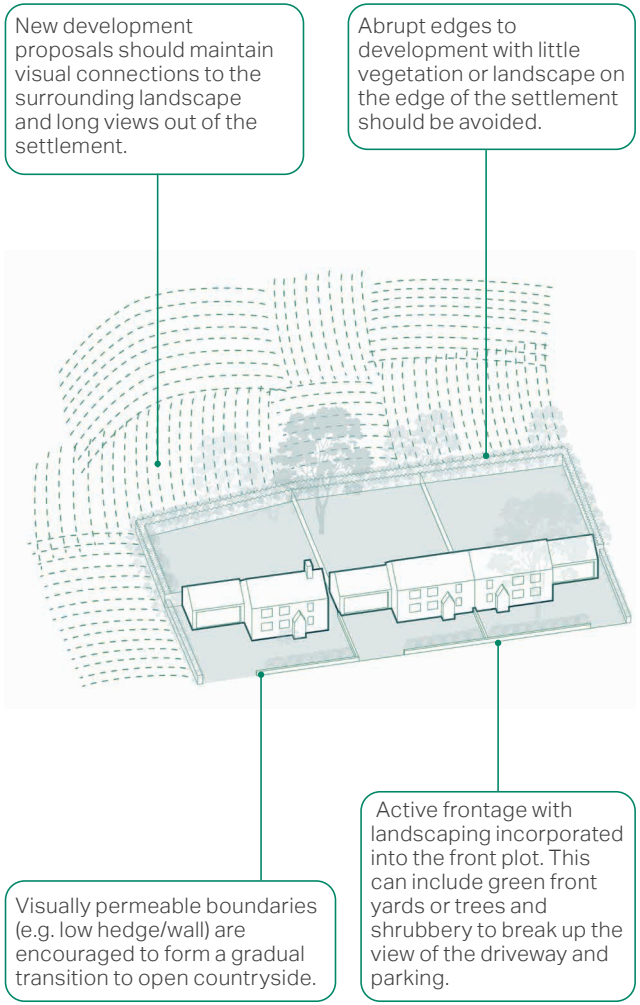


Figure 24: Edge softening landscape techniques.

02.BF Built form

02.BF.1 Boundary treatments

2.1.1 Boundary treatments should reinforce the sense of continuity of the building line and help define the public realm. The use of appropriate boundary treatments in the forms of landscaped hedges and low brick and flint walls should contribute to the rural character of the parish;

2.1.2 Hedges should use native species and should be treated as 'living boundaries' that contribute to biodiversity by providing wildlife habitat and shelter;

2.1.3 Boundary treatments should offer an optimal balance between privacy and natural surveillance;

2.1.4 Front gardens must be bordered with hedges, flowerbeds, bushes and/ or trees to mitigate the visual impact of parked vehicles;

2.1.5 Overly ornate gates that distract from the local vernacular and informal rural character should not be used;

2.1.6 Development at the edge of the countryside must consider appropriate landscaping for the transition to open countryside. This may take the form of native hedges and trees to screen new buildings from views from the countryside - see 01.LD.3; and

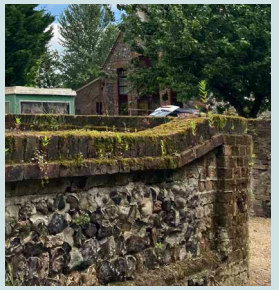
2.1.7 If placed on the property boundary, waste storage should be integrated as part of the overall design of the boundary.

BOUNDARY TREATMENTS

Landscaped hedges

Planting strip with low-level planting

Low brick wall



Low flint wall with red brick dressing

02.BF Built form

02.BF.2 Materials and architectural features

2.2.1 New developments should be respectful of architectural styles and use of materials of surrounding housing, whilst ensuring that a mix of styles are provided that is in keeping with the local character. Modern interpretations and tasteful adaptations are welcome in new developments as long as they remain sympathetic to their surrounding contexts;

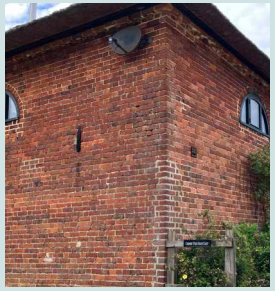
2.2.2 Development involving multiple houses should ensure a variety of detailing is utilised across the development to provide visual interest along the street and avoid homogeneous building designs;

2.2.3 Any materials which are not sympathetic to the existing character and material palette should be avoided;

2.2.4 Attention should be given to the colour, texture, and laying patterns of bricks where they are employed in order to respect the local red brick vernacular; and

2.2.5 The use of durable traditional and preferably locally-sourced materials is usually more appropriate and can be part of a net zero building, particularly when whole life carbon is taken into account.

WALL MATERIALS



Red brick

Flint with red brick dressing

Off-white render

Timber weatherboarding

ROOF MATERIALS

Red clay pantiles

Blue glazed clay pantiles

03.AM Access and movement

03.AM.1 Footpaths and pedestrian access

3.1.1 Roads should be connected with each other to offer a choice of travel routes not only by car but also by foot and bicycle. A more connected and permeable pattern creates a 'walkable' parish that allows for multiple choices of walking routes;

3.1.2 Pedestrians routes should be well-signposted and integrated into the existing network - see 03.AM.2;

3.1.3 Short and walkable distances which are usually defined to be within a 10-minute walk or a five-mile trip by bicycle should be created or made more accessible. Currently connectivity between some areas is weak, particularly between the Oaks, Broadland Business Park and Postwick Village. Future interventions should focus on improving physical connections between Postwick Village and the Park and Ride, between The Oaks, Broadland Business Park and the wider parish, and between Witton and Brundall;

3.1.4 Convenient pedestrian connections through developments should be encouraged, for example by seeking arrangements with property owners to provide new paths through their parcel;

3.1.5 Any cul-de-sac should be relatively short and provide legible onward walking and cycling links;

3.1.6 Pedestrian routes should benefit from a satisfactory level of natural surveillance: routes should be overlooked by houses, long stretches of windowless walls should be kept to a minimum, and impediments to visibility such as high fences should be avoided;

3.1.7 Safety can also be improved by public lighting, however this should be balanced with dark skies considerations - see 04.AM.5. Additional guidance on safe routes can be found in pages 151-6 of Secured by Design and pages 46-47 of Manual for Streets; and

3.1.8 There remains a long-term aspiration to mitigate the physical severance caused by the presence of the A47 to improve north-south pedestrian connections. Another aspiration is the provision of better pedestrian access to the river.

03.AM Access and movement

03.AM.2 Wayfinding

3.2.1 The difficulty to access the river and the complex road layout of the Broadland Business Park pose challenges for orientation, especially for pedestrians. It is therefore important that routes are well signposted to guide all users in the parish and neighbouring areas. This provides an opportunity to increase awareness of PRoWs and assets within walking distance;

3.2.2 A familiar and recognisable environment is important for orientation. Local landmarks such as distinctive buildings, prominent trees, public art, or street furniture can provide recognisable and memorable features;

3.2.3 New, reader-friendly signage should be placed at key decision-making locations to highlight the direction and distance to key destinations and paths; and

3.2.4 Signage should be appropriate to the local character, avoid creating visual clutter, and be visually consistent.

Figure 25: Signposted pedestrian and cycle link between Postwick village and the Postwick Park and Ride

03.AM Access and movement

03.AM.3 Vehicle parking

3.3.1 The design of parking must follow Norfolk County Council's Parking Guidelines.

3.3.2 Parking should be integrated on-plot and with parking spaces set behind the building line and to the side of the building where possible. For narrow dwellings where front-of-building parking is the only possible option, car parking should not dominate the street frontage. It is also best practice that this parking is not placed in front of any ground floor windows;

3.3.3 Off-street parking should not dominate front gardens and properties. Boundary treatments in the form of soft landscaping or low walls should be employed to screen parked vehicles. Parking areas should be surfaced with context- sensitive permeable paving such as gravel;

3.3.4 Off-street parking must be preferred over on-street parking. Where the latter cannot be avoided, it must avoid impeding the flow or visibility of pedestrians, cyclists, and other vehicles. Street parking should be integrated within the street scene and be parallel to the street. Landscaping and street trees are encouraged to prevent parked cars from dominating the street;

3.3.5 Vehicle garages, where provided, should complement the main building in terms of proportion, scale, and materials. They should not dominate the building elevation;

3.3.6 Vehicle garages must be designed with sufficient space for the storage and wheeling of bicycles and bins;

3.3.7 With the move towards more common electric vehicle use, opportunities should be taken to integrate charging technologies into the design of parking. Mounted charging points and associated services should be integrated into new developments and retrofitted into existing properties; and

3.3.8 Street verges should be protected from inappropriate on-street parking. Context-appropriate solutions such as low-level planting and boulders may be strategically placed to protect green verges from encroaching vehicles without compromising the rural character of the parish.

3.3.8 Adequate provision of visitor parking must be incorporated into new development proposals. The must be in line with minum standards contained within Norfolk County Council's Parking Guidelines.

Figure 26: Low-level planting and additional elements such as boulders could be used to prevent vehicles from overrunning green verges.

Figure 27: Positive example of front garden parking with boundary screening and permeable gravel paving

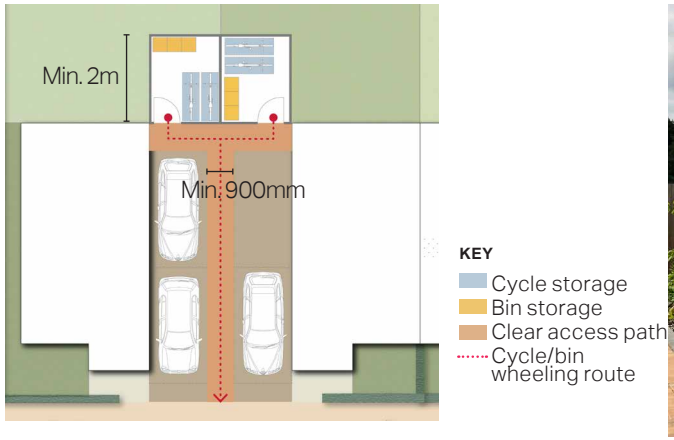


Figure 28: Indicative layout of a bicycle and bin storage area at the back of semi-detached properties.

Figure 29: Positive example of a garage that does not dominate the front elevation of the main building

04.SU Sustainability and eco-housing

04.AM.1 Energy efficiency and sustainable energy sources

Eco design can be adapted to a wide variety of architectural styles. Historic buildings can also be retrofitted in a way that respects both the environment and their historic features. Any eco design features should be incorporated without visually damaging the environment.[1]

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. Solutions also exist to retrofit existing buildings, including listed properties, to improve their energy efficiency.

1 Further guidance on eco-design adaptations of historic buildings can be found in Historic England draft guidance: 'Climate Change and Historic Building Adaptations' (2023).

The guidelines and suggestions illustrated overleaf focus on improving the energy efficiency of properties through the implementation of the following eco design principles:

4.1.1 New development should adopt a fabric-first approach in line with the Government's emerging Future Homes Standard, to attain higher standards of insulation and energy conservation;

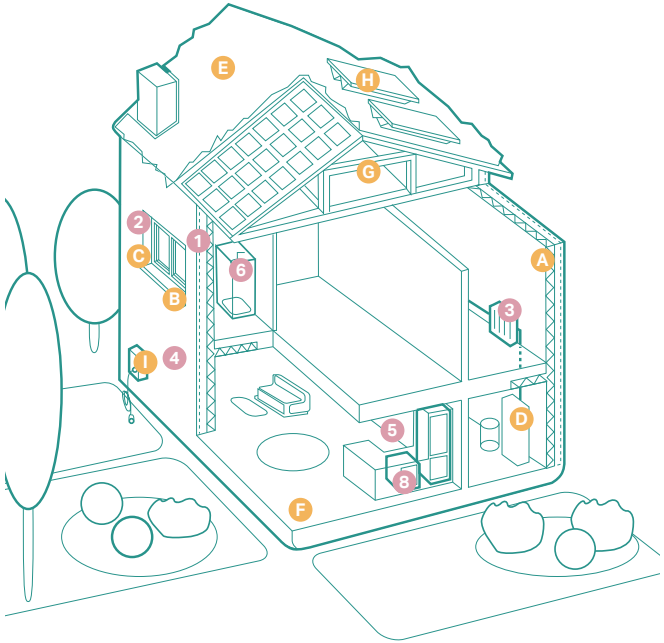
4.1.2 In general, the design of new developments should maximise the use of energy efficiency and energy conservation fixtures, fittings and technology. Passive methods of heating and cooling and the use of renewable energy technologies such as ground source and air source heat pumps, biomass heating, photovoltaics and solar panels should be considered for new developments. Opportunities for the use of the same technologies in existing buildings, when undergoing refurbishment, will also be expected;

4.1.3 Thermal insulation can be provided for any external wall or roof of a building to prevent heat loss. Particular attention should be paid to heat bridges around corners and openings at the design stage;

4.1.4 The thermal mass of building materials should be considered to even out variations in internal and external conditions, absorbing heat as temperatures rise and releasing it as they fall. This can be beneficial during the summer and winter;

4.1.5 Airtight constructions can help reduce heat loss, improving comfort and protecting the building fabric; and

4.1.6 Acoustic insulation should be provided to prevent the transmission of sound between active (i.e. living room) and passive spaces (i.e. bedroom), and attached dwellings.



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 water-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

Existing and 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 and reflective walls

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

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

H. **Solar panels**

Figure 30: Diagram showing low-carbon homes in both existing and new build conditions.

04.SU Sustainability and eco-housing

04.EC.3 Building orientation

4.3.1 The orientation of buildings or extensions within the plot, along with the site topography, must be considered to maximise solar gain, while keeping a consistent frontage to the street;

4.3.2 Living spaces within each housing unit should be oriented according to the expected use of each room;

4.3.3 Appropriate materials and detailing should be considered to minimise heat loss, whilst direct entry from the street to an interior living space should be avoided where possible; and

4.3.4 Solar access along the south façade should be maximised and openings on the north one minimised. Appropriate shading elements and cross ventilation should be employed.

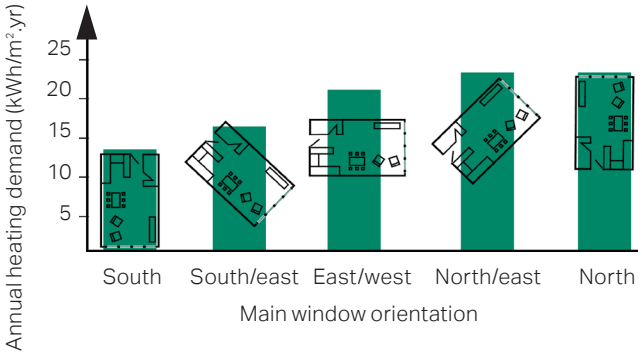


Figure 31: Illustrative graph showing solar orientation of a room against the annual heating demand.

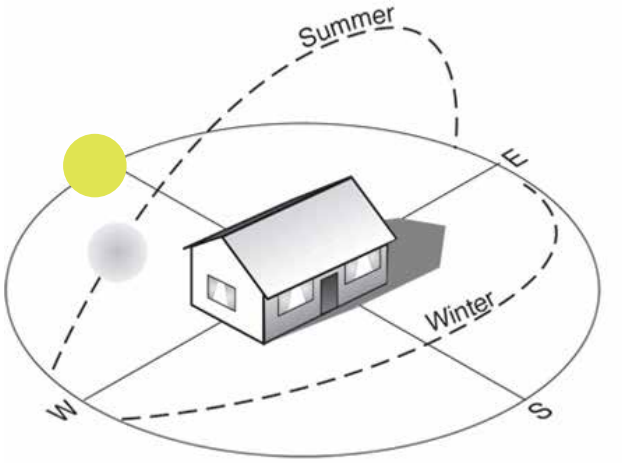


Figure 32: Illustration to show the appropriate building orientation so as to maximise solar gains. Windows should be placed mainly on the southern side whilst fewer openings should be located on the northern. A deep roof overhang can offer some shading. This can also be improved with some trees and vegetation around the house. (Source: https://nextdayinspect.com/building-orientation-for-optimum-energy/).

04.SU Sustainability and eco-housing

04.EC.4 Solar panels and heat pumps

4.4.1 Renewable energy generation, as part of the design of new buildings and the retrofit of existing dwellings, must be included into all proposals. Proposals should investigate ground conditions to accommodate loops for ground source heat extraction, space for air source heat pump units and the appropriateness of photovoltaic solar panels. This applies to all future dwellings in line with the parish council's ambitions for all new housing to uphold strong sustainability standards.

4.4.2 The siting, design and installation of solar panels should be handled sensitively, particularly on historic buildings. Preserving the character of the host building and wider setting should be a priority;

4.4.3 For new developments, the design of solar panel features must be incorporated from the design stage. Some attractive options are solar shingles and photo-voltaic slates. They should ideally be flush with the surface of the tiles;

4.4.4 The appearance of the panels and how these will complement that of the roof should be considered. Solar shingles that match the appearance of clay pantiles are becoming an increasingly available solution;

4.4.5 For retrofits, the proportions of the building and roof surface should be analysed in order to identify the best location and sizing of panels;**4.4.1 Heat pumps must be placed to the side or rear of properties, ideally in a concealed location, to avoid visually damaging the street scene and the main, front elevation of a building. The pump must however remain accessible for maintenance; and**

4.4.6 Heat pumps must be placed so that they are protected from heavy snowfall or flooding. They can be mounted on the wall with anti-vibration dampers, to mitigate noise impact to the interior of the property, or on anti-vibration mounts on the ground.

Figure 33: Use of solar shingles on a slate roof, with the design and colour of the solar shingles matching those of the adjacent slate tiles in Lingfield, Surrey.

Figure 34: Positive example of implementing solar panels since the design stage.

04.SU Sustainability and eco-housing

04.AM.5 Sustainable water management

Due to its low-lying nature, large areas of the parish are prone to flooding. Other areas are also vulnerable to flooding from surface water. Different sources of flooding must therefore be considered early in the design process to ensure that appropriate design strategies are adopted and applied within this physical context. This section outlines different methods of water management:

4.5.1 Increasing storage: Implementing temporary storage areas, such as storage ponds, which can fill up during floods and gradually release water afterwards;

4.5.2 Increasing catchment: Enhancing resistance to water flow through measures such as planting trees, restoring meandering rivers, and installing leaky dams, which slow down surface and in-channel water flow;

4.5.3 Increasing losses: Enhancing water drainage into the ground or evapotranspiration back into the atmosphere through methods such as improving soil structure, reducing compaction in agriculture, and installing SuDS;

4.5.4 De-synchronising peak flows from tributaries: Adjusting the flow rates of different tributaries, particularly slowing down one compared to another, especially downstream;

4.5.5 Water management solutions must be considered early in the project and designed to fit appropriately by aligning with the policies of the Broads Local Plan;

4.5.6 Runoff water should be addressed via infiltration into the ground or by providing attenuation for excess water. Any captured water should be filtered from pollutants to help avoid contamination;

4.5.7 Trees and vegetation have the ability to absorb moisture and control the level of surface water. Therefore, planting should be integrated into the design wherever appropriate; and

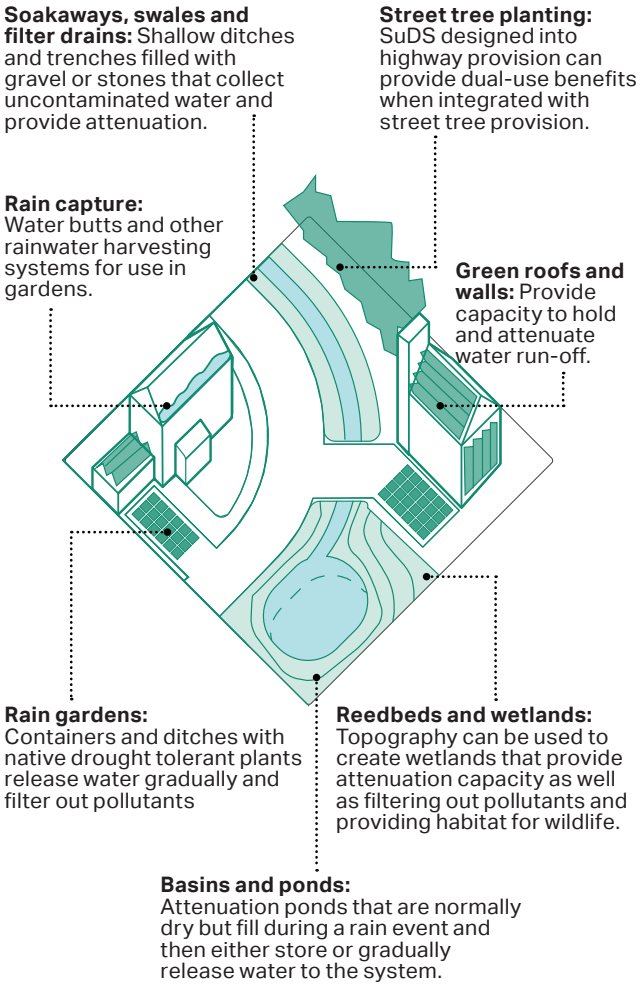


Figure 35: Example of water management strategies in a rural context, combining public space with private ownership.

4.5.8 Permeable paving should be considered where appropriate on footpaths, driveways, car parking spaces, and private access roads.

Additional regulations, standards, and guidelines relevant to permeable paving and sustainable drainage can be found in:

- Sustainable Drainage Systems;
- The SuDS Manual (C753); and
- Guidance on the Permeable Surfacing of front gardens.

Figure 36: Examples of sustainable drainage systems (SuDS) appropriate for use in the Neighbourhood Area. Photos are from elsewhere in the UK and are used for illustrative purposes only.

04.SU Sustainability and eco-housing

04.AM.5 Dark skies/light pollution

4.5.1 Thoughtful design of lighting schemes in private areas is essential to minimise light pollution in areas of dark skies. **External lighting schemes must follow Policy DM22 of the Local Plan for the Broads[1] to "maintain and protect the tranquil and rural nature of the whole of the parish".**

4.5.2 Lighting schemes should not cause light pollution particularly in intrinsically dark areas and within habitats of nocturnal species. For example, low-impact cat's eye lighting can be incorporated into footpaths and reflective paint can be used for cycle lanes and areas of vehicular traffic;

4.5.3 Lighting schemes should be turned off when not needed ('part-night lighting') to reduce any potential adverse effects; and

4.5.4 The choice of lighting should be energy efficient and sustainable. This may be achieved through motion sensors.

1 https://www.broads-authority.gov.uk/planning/planning-policies/local-plan-for-the-broads

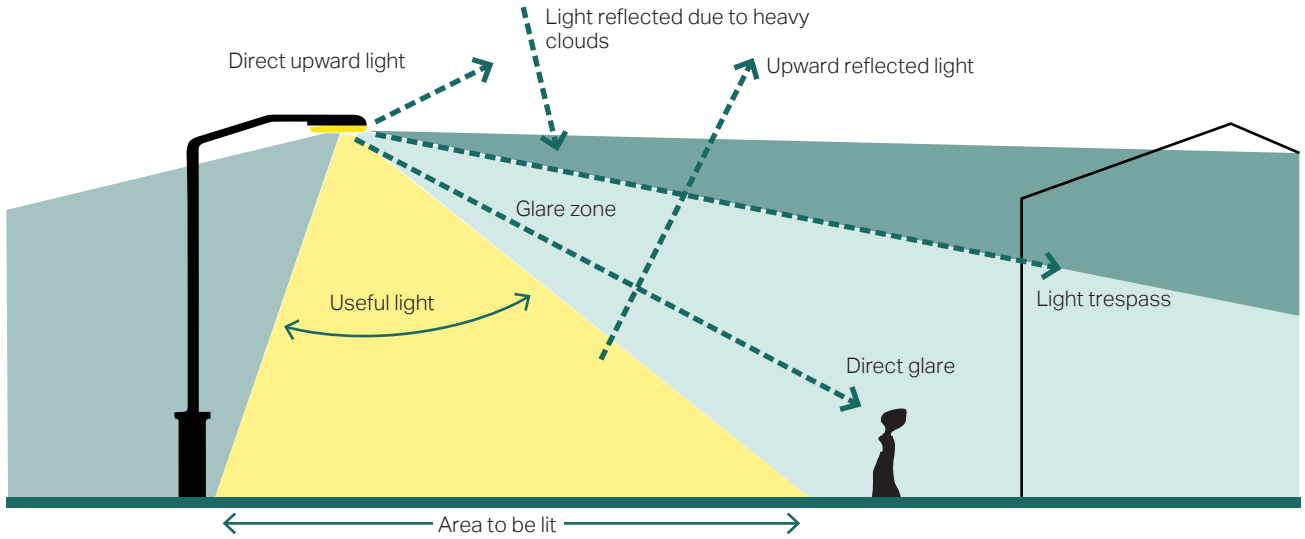


Figure 37: Diagram to illustrate the different components of light pollution and what 'good' lighting means for dark skies.

04.SU Sustainability and eco-housing

04.EC.6 Biodiversity and habitat

4.6.1 Local fauna and flora must be protected and improved in line with Policy EN1 of the Broadland's Development Management DPD[1], Policy SP6 of the Local Plan for the Broads[2];

4.6.2 Any development should protect and enhance the existing habitats and biodiversity corridors. It should help increase movement between isolated wildlife populations and provide shelter from harsh weather and predators. This can be achieved through the creation of new habitats and wildlife corridors e.g. by aligning back and front gardens of neighbouring properties, installing bird boxes or creating hedgehog gaps in walls;

4.6.3 Gardens and boundary treatments must be designed to allow the movement of wildlife and provide habitat for local species. For that reason, vegetation rich in species is suggested, instead of continuous solid fencing;

1 https://www.southnorfolkandbroadland.gov.uk/downloads/file/134/development-management-dpd-adopted
2 https://www.broads-authority.gov.uk/planning/planning-policies/local-plan-for-the-broads

4.6.4 All areas of biodiversity that require further planting/ enhancement should be planted before start of construction and comprise predominantly native species;

4.6.5 Existing mature trees and hedges should be preserved by incorporating them in the new landscape design. **If removal is necessary, new planting must provide for at least 10% biodiversity gain; and**

4.6.6 The choice of plants in new development should be appropriate to the setting of the proposal and its proximity to areas with environmental designations. Some of notable plant species are detailed in the Broad's Biodiversity Action Plan Framework[3].

3 https://www.broads-authority.gov.uk/__data/assets/pdf_file/0028/180964/Biodiversity-Action-Plan-framework.pdf

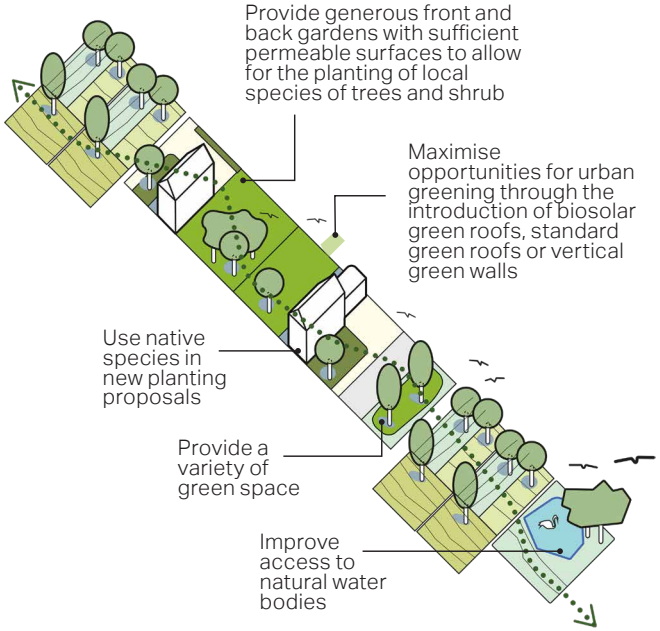


Figure 38: Illustrative diagram showing a green and blue network

Next steps and delivery

04

4. Next steps and delivery

This chapter explains the benefits of this report to different stakeholders, and how to use it in the future.

The design guidelines and codes in the previous chapter cannot cover all design eventualities, therefore it is important to consider individual design requirements and future local needs of the Neighbourhood Area.

This final section provides a table explaining how different stakeholders and professionals can benefit from this report.

The following pages contain a number of questions based on established good practice against which the design proposal should be evaluated.

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

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

Street grid and layout:

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

3

Local green spaces, views and character:

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

3 (continued)

Local green spaces, views and character:

- Have opportunities for enhancing existing amenity spaces been explored?
- Are measures included to increase biodiversity and have any opportunities to increase biodiversity in the area been taken?
- Can green space be used for natural flood prevention e.g. permeable landscaping, swales etc.?
- Can water bodies be used to provide evaporative cooling?
- Is there space to consider a ground source heat pump array, either horizontal ground loop or borehole (if excavation is required)?

4

Gateway and access features:

- What is the arrival point, how is it designed?
- Does the proposal maintain or enhance the existing gaps between settlements?
- Does the proposal affect or change the setting of a listed building?
- Is the landscaping to be hard or soft?

5

Building 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?
- Does the proposal overlook any adjacent properties or gardens? How is this mitigated?

5 (continued)

Building layout and grouping:

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

6

Building line and boundary treatment:

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

7

Building heights and roofline:

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

8

Household extensions:

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

9

Building materials and surface treatment:

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

9 (continued)

Building materials and surface treatment:

- Has the embodied carbon of the materials been considered and are there options which can reduce the embodied carbon of the design? For example, wood structures and concrete alternatives.
- Can the proposed materials be locally and/or responsibly sourced? E.g. FSC timber, or certified under BES 6001, ISO 14001 Environmental Management Systems?

10

Car parking:

- What parking solutions have been considered?
- Are the car spaces located and arranged in a way that is not dominant or detrimental to the sense of place?
- Has planting been considered to soften the presence of cars?
- Does the proposed car parking compromise the amenity of adjoining properties?
- Have the needs of wheelchair users been considered?
- Are electric vehicle charging points 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 photo-voltaic panels or a biodiverse roof in its design?

aecom.com