



# **Quality information**

Prepared by	Checked by	Approved by
Keely Williams	James Dee	Kathryn Whitmore
Graduate Landscape Architect	Principal Landscape Architect	Associate Director

# **Revision History**

Issue no.	Issue date	Details	Issued by	Position
1	02/02/23	Issue for comment to Katie Evans, Collective Community Planning and Caroline Boyden Walpole Parish Council.	James Dee	Principal Landscape Architect
0	05/01/23	Issue for comment to Caroline Boyden Walpole Cross Keys Parish Council.	James Dee	Principal Landscape Architect

This document has been prepared by AECOM Limited ("AECOM") in accordance with its contract with Locality (the "Client") and in accordance with generally accepted consultancy principles, the budget for fees and the terms of reference agreed between AECOM and the Client. Any information provided by third parties and referred to herein has not been checked or verified by AECOM, unless otherwise expressly stated in the document. AECOM shall have no liability to any third party that makes use of or relies upon this document.

# 1. Contents

4	1. Introduction		4. Design Guides and Codes	
1	<ul> <li>1.1 Objectives</li> <li>1.2 The Importance of Good Design</li> <li>1.3 Delivery</li> <li>1.4 General Design Considerations</li> <li>1.5 Preparing the Design Code</li> <li>1.6 Policy and Design Guidance</li> <li>1.7 Glossary of Terms</li> </ul>	4-5 5 6 7 8 9-10 11	<ul> <li>4.1 Introduction</li> <li>4.2 Design Code 1: Settlement Pattern</li> <li>4.3 Design Code 2: Building Line and Roof Treatments</li> <li>4.4 Design Code 3: Architectural Details and Colour</li> <li>4.5 Design Code 4: Building Materials</li> <li>4.6 Design Code 5: Boundary Treatments</li> <li>4.7 Design Code 6: Parking and Utilities</li> <li>4.8 Design Code 7: Preserving and Enhancing Views</li> </ul>	30-37 32 33 34 35 36 37 38
	2. Context		4.9 Design Code 8: Community Space and Green Infrastructure 4.10 Design Code 9: Water Management (SuDS)	38
_	<ul> <li>2.1 Location of Area of Study</li> <li>2.2 Historical Development</li> <li>2.3 Landscape Ecology and Historical Designations</li> <li>2.4 Walpole Cross Keys Neighbourhood Plan</li> </ul>	12-14 15 16 17	<ul> <li>4.11 Design Code 10: Sustainability</li> <li>4.12 Design Code 11: Lifetime and Adaptability</li> <li>5. New Development Checklist</li> </ul>	40-41 41
	3. Character Assessment	5	5.1 General Design Questions 5.2 General Design Guidance for New Development 5.3 Settlement Pattern	42-43 43 44
3	<ul><li>3.1 Introduction</li><li>3.2 Existing Character Assessments</li><li>3.3 Settlement Pattern</li></ul>	18-19 18-20 21	<ul><li>5.4 Preserving and Enhancing Green Space and Views</li><li>5.5 Building Line, Boundaries, Materials and Detailing</li><li>5.6 Car Parking and Utilities</li></ul>	42 45 45
	<ul><li>3.4 Building Line and Roof Treatments</li><li>3.5 Architectural Details and Colour</li><li>3.6 Building Materials</li><li>3.7 Boundary Treatments</li></ul>	22 23-24 25 26	5.7 Sustainability  6. References	46-47
	<ul><li>3.8 Parking and Utilities</li><li>3.9 Preserving and Enhancing Views</li><li>3.10 Green Infrastructure and Community Space</li></ul>	27 27 28-29	6.1 References	48-49



# 1. Introduction

Through the Government's
Neighbourhood Planning
Programme led by Locality, AECOM
was commissioned to provide design
support to Walpole Cross Keys
Parish Council which is the
Neighbourhood Area. The document
will reinforce the objectives set out in
the Neighbourhood Plan.

# 1.1 Objectives

The main objective of this document is to establish principles so that new development is designed and planned with regard to the existing character and context of Walpole Cross Keys. It sets out a series of Design Codes related to future development.

Design Codes inform development proposals to provide guidance and clarity on design and reflect local character and preferences. Design Codes exist to provide a framework for creating high quality places with high quality design standards, particularly for new developments. This Design Code is tailored to the Walpole Cross Keys Neighbourhood Area and as such, is specific

to the character of the place and views and aspirations of the local community.

A Design Code is one of a number of tools used by a local authority to make planning decisions. The document sets out design requirements in a simple and concise way and should be referred to in the development application process.

The Government is placing significant importance on the development of Design Codes in order to set standards for design upfront and provide firm guidance on how sites should be developed. It is intended that this report becomes an integral part of the Neighbourhood Plan and should be given weight in the planning process. The Government intends to make it clear that decisions on design should be made in line with Design Codes.

The Governments Planning Policy Guidance (Ref. 1) defines Design Codes as:

'... a set of illustrated design requirements that provide specific, detailed parameters for the physical development of a site or area. The graphic and written components of the Code should be proportionate and build upon a design vision, such as a masterplan or other design and development framework for a site"

## 1.2. The Importance of Good Design

As the National Planning Policy Framework (NPPF) (Ref. 2) 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' (Paragraph 126).

Research, such as for the Government's Commission for Architecture and the Built Environment (now part of the Design Council; see, for example, The Value of Good Design (Ref. 3) has shown that good design of buildings and places can improve health and well-being, increase civic pride and cultural activity, reduce crime and anti-social behavior and reduce pollution.

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

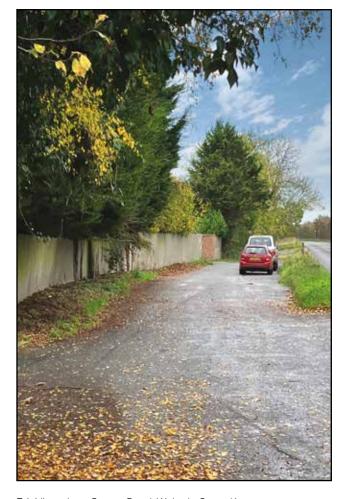
Following an analysis of the Neighbourhood Area and good practice, those elements of good design are set out clearly as Design Codes which any development within the Walpole Cross Keys Neighbourhood Area should follow in order to comply with this document.

# 1.3 Delivery

The Design Codes will be a valuable tool in securing context driven, high quality development. They will be used in different ways by different actors in the planning and development process, as summarised in Table 1.

Table 01: Delivery of the Design Codes

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 Design Codes as planning consent is sought.	
Local Planning Authority	As a reference point, embedded in policy, against which to assess planning applications.  The Design Codes should be discussed with applicants during any pre-application discussions.	
Parish Council	As a guide when commenting on planning applications, ensuring that the Design Codes are complied with.	
Community organisations	As a tool to promote community-backed development and to inform comments on planning applications.	
Statutory consultees	As a reference point when commenting on planning applications.	



**F.1:** View along Sutton Road, Walpole Cross Keys. (Photo © AECOM 2022)

The Design Codes herein constitute place making principles and guidance to help interpret and apply the statutory policies within the Neighbourhood Plan. Good design is not an additional cost to development and good place-making can result in uplifts in value.

The Design Codes set out in this document and within the Neighbourhood Plan's policies are aligned with national policy and non-statutory best practice on design.

#### 1.4 General Design Considerations

Below are some general design principles against which new development proposals should be evaluated. As an initial appraisal, there should be evidence that development proposals have considered and applied the following:

- Reflect and enhance existing character in terms of physical form, movement pattern and land use.
- Identify and strengthen local identity e.g. through architectural details in terms of scale, height, form and massing.

- Relate well to local topography, landscape features, open space and the wider landscape context, including key views, setting, approaches and the semi urban edges.
- Creating positive local identity through the use of contextually appropriate materials and details.
- Provide an overall enhanced first impression as a place to new visitors; through a choice of boundary treatments that reflect, respect and reinforce local architecture and rural distinctiveness.

- Encouraging variety within certain parameters to add to interest and create a sense of place.
- Create good public spaces streets defined by buildings (not just by route of road).
- Ensure the character e.g. buildings, landscape, access routes, parking and pedestrian movement enclosure, green infrastructure, parking and open spaces are well related to each other, to provide a safe, attractive and cohesive environment.
- Define spaces boundary treatments, setbacks, privacy.

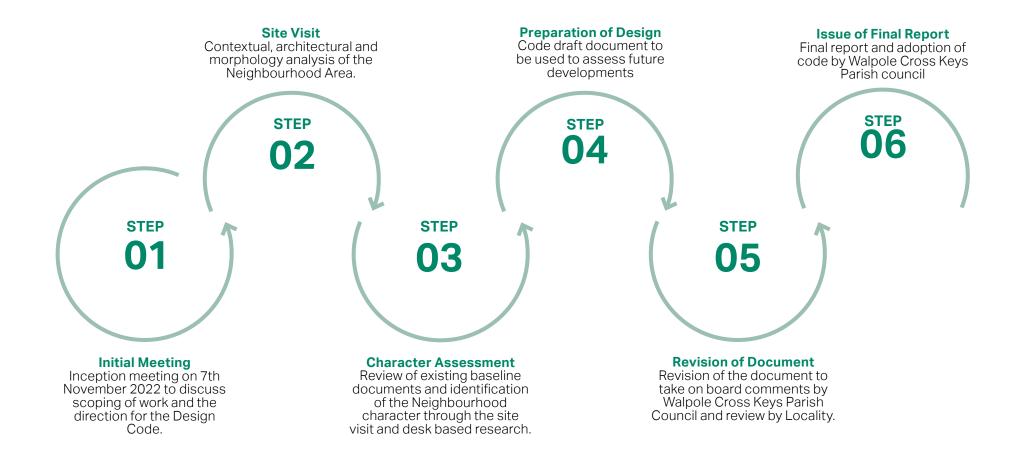


F.2: View across arable fields framed by mature trees, Walpole Cross Keys. (Photo @ AECOM 2022)

#### 1.5 Preparing the Design Code

In preparing this Design Code a number of steps have been followed to involve Walpole Cross Keys Parish Council in the process and ensure their local knowledge has helped to inform the context and content of the Design Code, and to ensure the Design Code meets relevant policy standards.

The following steps were undertaken to produce this document which included an initial meeting with two members from the town council, a site visit, character assessment, a review of existing baseline documents, preparation of Design Code draft document a revision of the document to take on board comments by Walpole Cross Keys Parish Council, review by Locality and issue of the final report.



## 1.6 Policy and Design Guidance

The following documents have informed this Design Code. These have been produced at a national, district or parish level. Any new development application should be familiar with these documents and make explicit reference to how each of them is taken into account in the design proposals.

#### **NATIONAL LEVEL**

#### 2021 National Planning Policy Framework

Department of Leveling Up, Housing and Communities (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 ensuring that new developments are well-designed and focus on quality.

## 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.



# 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 neighbourhood. The new name



reflects the crucial role that the built environment has in promoting wellbeing. The BHL toolkit sets out principles to help guide discussions on planning applications and to help local planning authorities to assess the quality of proposed (and completed) developments, but can also provide useful prompts and questions for planning applicants to consider during the different stages of the design process.

# 2021 National Design Guide (DLUHC)

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



#### 2007 Manual for Streets - Department for Transport

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

#### **DISTRICT LEVEL**

# 2016 King's Lynn and West Norfolk Borough - Site Allocations and Development Policies Plan

This planning document contains a set of policies and plans that will guide future planning whilst identifying where development will take place. It also allocates major sites and locations for development to meet the needs of the growing population whilst determining how the environment of the borough will be protected and



enhanced to ensure that North West Norfolk retains its natural beauty.

# 2011 King's Lynn and West Norfolk Borough -Local Development Framework - Core Strategy

The Core Strategy sets out the spatial planning framework for the development of the borough up to 2026 and is part of King's Lynn and West Norfolk's Local Development Framework. The Core Strategy provides guidance on the scale and location of future development for the next 15 years.



# 2007 King's Lynn and West Norfolk Borough - Landscape Character Assessment

This study provides a baseline inventory of variations in landscape character across the Borough, and outlines guidance for conserving, enhancing and/or restoring locally distinctive landscape characteristics.



## **LOCAL LEVEL**

## 2015-2026 Walpole Cross Keys Neighbourhood Plan

The Walpole Cross Keys Neighbourhood Plan sets out the opportunities and challenges to address. It includes a positive vision, strategy and range of policies that will guide development in Walpole Cross Keys for the period to 2026.



These include, but not limited to, the quality of life for the residents, community well-being, local economy and accessibility.

## 1.7. Glossary of Terms

The following list is a glossary of key terms used within this document and their definition in relation to this specific design code.

#### **Green Infrastructure (GI)**

A network of natural or semi-natural landscape features, open spaces, public rights of way and watercourses which deliver social and environmental benefits.

#### **Landscape Character**

Distinct and recognisable elements within a landscape area which make it unique and different from another area.

#### **Local Landscape Character Area (LLCA)**

Geographical areas which exhibit the same landscape character at a local level.

# **Neighbourhood Area**

The Neighbourhood Area, comprising all land within the Neighbourhood Plan boundary.

#### **Open Space**

Spaces which are deemed to have community significance in terms of recreation or visual amenity.

#### **SuDS**

Sustainable drainage systems (SuDS). SuDS are designed to manage storm water as close as possible to its source. They imitate natural drainage solutions that encourage filtration, attenuation and passive treatment. Good practice SuDS involve a management train which use a series of SuDS components to filter the excess run off water to a final destination point.

#### **Typology**

A particular type of feature or element.

#### **Visual Amenity**

Views and surroundings which create a backdrop to an area.



# 2. Context

This section outlines the broad physical, and contextual characteristics of Walpole Cross Keys Neighbourhood Area.

# 2.1 Location and Area of Study

Walpole Cross Keys is a comparatively small village that lies to the north of the A17 approximately six miles west of King's Lynn and six miles northeast of Wisbech. The village is positioned in the Fens and is mainly linear in form with an area which contains few services. A population of 519 residents according to the 2011 census live in the Neighbourhood Area - the latest available data set for the area.

The A17 bisects the Neighbourhood Area and connects it to the strategic road network. It links Walpole Cross Keys to Newark-on-Trent and the Midlands.

There are two regular bus services - the 55 (Lynn/Wisbech) and 505 (Lynn/Spalding) routes. Each has bus stops along Market Lane and Sutton Road respectively.

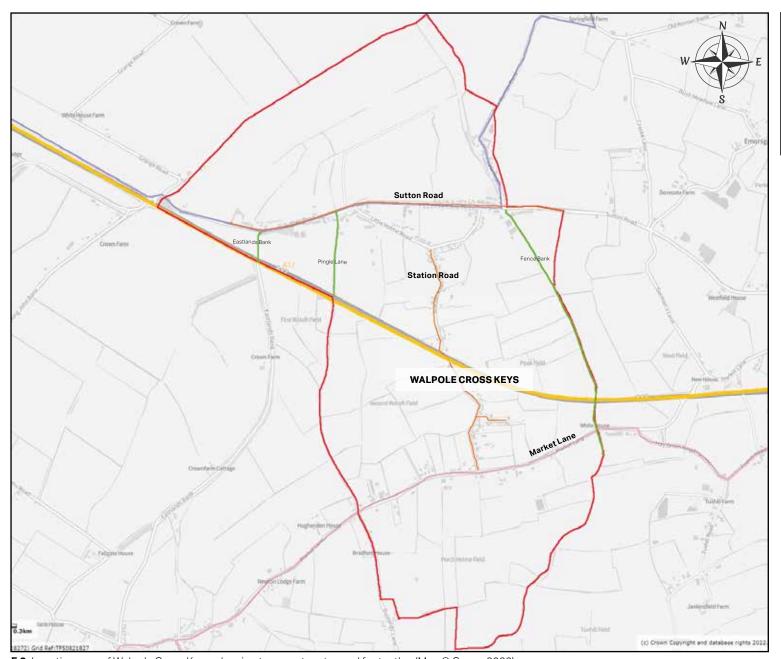
The Neighbourhood Area has few amenities to meet the day to day needs of local residents. The primary school playground and field are used for events by the community along with Jephson Community Hall. The main social hub being the privately owned Samuels Family Farm Shop complex. This comprises of a butcher, restaurant, public house and a small industrial unit. There is ongoing further development. However, residents have to rely on the neighbouring village of Terrington St Clement for a convenience store and the towns of Kings Lynn and Wisbech to gain access to a wider range of amenities.

There are few employment opportunities, resulting in people needing to travel to work locations outside the Neighbourhood Area. A few businesses, West Holme Nursery, a bed manufacturer and an engineering firm, are all located on the same site on Station Road North and a MOT garage on Sutton Road. On the site of the old railway there is packing crate and pallet suppliers with Samuels Family Farm Shop complex the main opportunity for employment.

A large part of the Neighbourhood Area is open countryside, consisting of large-scale, low-lying landscape offering panoramic views in all directions, occasionally framed by mixed shelter belts and orchards (which contribute to sense of place). The Neighbourhood Area is crossed by three main tracks – Fence Bank, Pingle Lane and Eastlands Bank. These are used by farm traffic, walkers and horse riders, parts of which form part of a parish walk.

Walpole Cross Keys has no designated areas or listed buildings in national or local planning policy.

Walpole Cross Keys suffers from flooding in some areas due to the low lying ground which is exacerbated by blocked ditches and dykes.



F.3: Location map of Walpole Cross Keys, showing transport routes and footpaths. (Map © Crown 2022)

Key

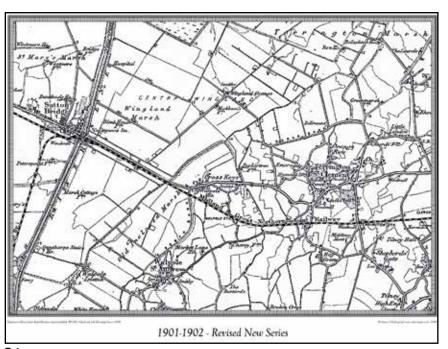
Walpole Cross Keys Neighbourhood Area Key Traffic Route A17 Bus Route (55) Bus Route (505) Footpaths Bridleways/Tracks

#### 2.2 Historical Development

The hamlet of Walpole Cross Keys grew as a staging post, a place to stop before crossing the narrowest point of the Wash supplementary to Walpole St. Andrew and Walpole St. Peter. Arable farming is the historic land use of Walpole Cross Keys, and the reason for the hamlet's existence. In the 1920's much of the land was orchards and most of the local villagers were employed to work the land. The cottages along Station Road North were built as tied cottages for the workers.

The Midland and Great Northern railway line brought industry to the village with the trains delivering the fresh produce to the towns. The railway was closed on 28th February 1959. The railway line was removed in the mid 1960s and replaced by the A17 bypass (opened in 1981). The Eva Kemp/Station Garden stands close to the site of the original station .

The landscape has under gone much change over the past 100 years with the most of the orchards cleared. The introduction of horticulture bought industrial scale greenhouses to the area for a time, with the land now used for arable crops of cereal and sugar beet.



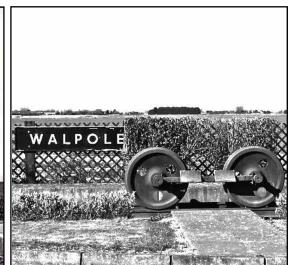
**Figure 4:** Map of Walpole Cross Keys showing the railway line which is now the A17 bypass. (Map © Cassini 2022)

**Figure 5:** Walpole Cross Keys railway station 1923. (Photo © Walpole Cross Keys Parish Council 2022)

**Figure 6:** Image of the Eva Kemp station garden. (Photo © Adrian S Pye 2022)







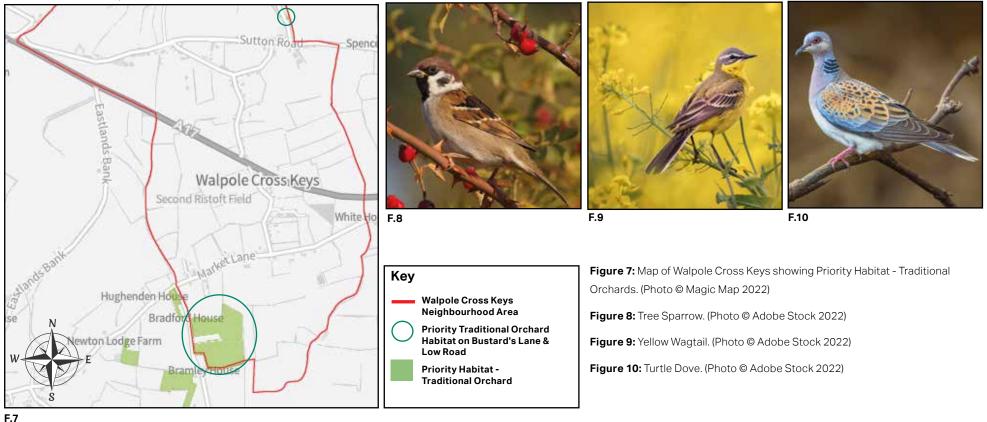
F.5 F.6

## 2.3 Landscape Ecology and Historical Designations

There are no landscape or historical designations in the Walpole Cross Keys Neighbourhood Area meaning historic significance and protection to potential heritage assets are not afforded any protection currently. However, the orchards on Bustard's Lane and Low Road is a Priority Habitat - Traditional Orchards which contributes to the localised landscape value.

Five species of farmland birds classed as rare or declining in population by the The Bird Conservation Targeting Project (BCTP) are also identified within the area:

Turtle Dove; Tree Sparrow; Grey Partridge, Corn Bunting and Yellow Wagtail.



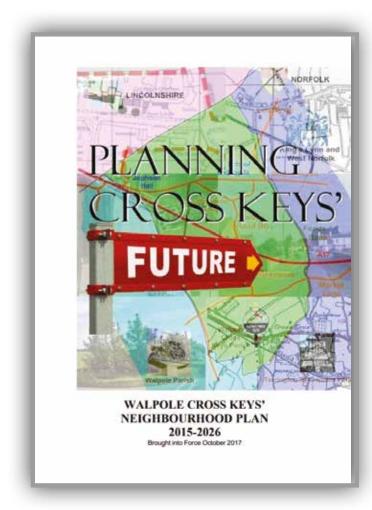
#### 2.4 Walpole Cross Keys Neighbourhood Plan (2015-2026)

The Neighbourhood Area of Walpole Cross Keys was designated as such by the Borough Council on 12 November 2013.

Work on the plan started earlier than this in August 2012 and in early 2013 preliminary village consultation took place on the emerging plan proposals. At a well attended meeting on 25 February 2013 broad agreement was reached that the plan's proposals was a faithful record of the way that villagers would want to see the future of the village.

The Walpole Cross Keys Neighbourhood Plan sets out the opportunities and challenges to address as follows;

- Housing
  - typologies
  - styles
  - materials (in keeping with the local vernacular)
  - development scale
- SuDS (Sustainable Drainage Systems) all new development to contribute towards improving and not increase problems to existing drainage
- Green space/play area will look to be provided to enhance existing community facilities
- Amenities such as the primary school and Jephson Hall to be retained as an important community facilities crucial to the continued viability of the village
- Traffic and parking to be evenly distributed throughout the built up areas
- Protect and retain significant views (framed of the landscape) to keep the strong rural integrity of the village



**Figure 11:** Walpole Cross Keys Neighbourhood Plan. (Photo © Walpole Cross Keys Parish Council 2022)



# 3. Character Assessment

#### 3.1 Introduction

This section outlines the broad physical, historical and contextual characteristics of Walpole Cross Keys Neighbourhood Area. Character assessment is used to describe and articulate what is special and distinctive about a place in order to provide a context for the Design Code. It is used to identify recognisable patterns of elements or characteristics that make one place different from another. The features introduced in this section are later used to inform the Design Codes.

# 3.2. Existing Landscape Character Assessments

The following published character assessments, are relevant to Walpole Cross Keys Neighbourhood Area:

- Kings Lynn and West Norfolk Landscape
   Character Assessment, March 2007
- National Character Area (NCA) 46: The Fens (NE424), Natural England 2014.

Key Characteristics in these documents of relevance to the Neighbourhood Area are:

- A large-scale, flat man-made arable landscape with open, panoramic views interrupted only by the linear settlements, the occasional shelter belt and orchard.
- Earthworks in the form of rivers and creek embankments bring topographic change and strong, straight lines of contrast to the field edges.
- An intensively farmed arable landscape comprising predominantly of geometric fields divided by straight drainage channels and dykes varying in size with small units defining settlement edges.
- Fruit orchards with rectangular plots ordered into rows which were a typical feature are declining.

- Conifer planting is also a relatively common feature.
- Buildings and storage associated with horticulture and food production industries, as well as power stations, pumping stations and sluices, provide visible human-built elements.
- Well served by a network of rural roads that follow an irregular path. With ribbon development on either side of many of the secondary roads.



Figure 12: Open views across the Fenland. (Photo © AECOM 2022)



F.13



F.14

Figure 13: Linear row of orchard trees. (Photo © AECOM 2022)

Figure 14: Traditional agricultural building. (Photo © AECOM 2022)

Figure 15: Conifer lined road. (Photo © AECOM 2022)

Figure 16: Traditional horticultural buildings.

(Photo © AECOM 2022)

**Figure 17:** Field banked with drainage ditches and glass

houses in the distance. (Photo © AECOM 2022)

Figure 18: Large arable field. (Photo © AECOM 2022)



F.15







F.16



F.18

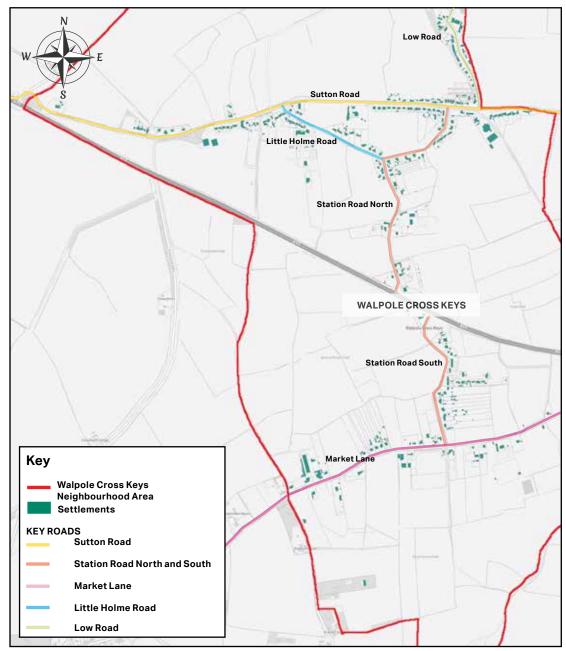
#### 3.3 Settlement Pattern

The Walpole Cross Keys Neighbourhood Area is dominated by arable farmland. Medium to large fields with the occasional hedgerows, copses and tree belts create a simple landscape pattern.

Walpole Cross Keys has retained its historic linear development pattern, focused along Sutton Road, Station Road and Market Lane. Primarily buildings are located in the centre of the Sutton Road with the western and eastern boundaries remaining as arable farmland. The loop of Little Holme Road and Station North Road has a concentration of buildings to the eastern side end, where there is new infill development and a collection of houses in a close on Low Road to the east of Sutton Road. Sparse linear development continues along Station Road South to the west with the main area of the settlement on the east side of the road including a small estate.

The character of the village is a mix of building styles and types, generally one to two storey. Recent development has used mixed red brick, cream render and red tile or slate roofs.

The landscape appears well settled, with the edge of the village, and isolated farms and houses visible in farreaching views.



F.19: Settlement pattern, Walpole Cross Keys. (Map @ Magic Map 2022)

#### 3.4 Building Line and Roof Treatments



F.20



F.21

 $\textbf{Figure 20:} \ Consistent \ roof \ line \ height \ on \ new \ builds \ on \ Sutton \ Road \ north \ side. \ (Photo @ AECOM \ 2022)$ 

**Figure 21:** Consistent roof line height of new builds and older dwellings on Sutton Road south side. (Photo © AECOM 2022)

Figure 22: St Helen's Church. (Photo @ Google Earth 2022).

The roof line along Sutton Road is generally a consistent height. No buildings exceed two storeys and are a mix of one or two storeys. The development on the north side of the road have on-plot parking to the front of the properties and no garages. Views over the countryside within the new development on Sutton Road are retained by careful spacing to allow views between each pair of semi-detached properties.

Brick chimney stacks are prominent throughout the Neighbourhood Area and are common in new developments. The design choice of either grey slate or red tile roofs help integrate them into the village and are in keeping with the local character. St Helen's Church which is now privately owned has the most distinctive roof line, with decorative ridge features, in the Neighbourhood Area. Whereas the Methodist Chapels gable end, fronts the road unlike the other properties, also now a private house. Both properties contribute to the historic character of the village.

There is a shortage of 'Lifetime' homes within the Neighbourhood Area. These are homes that are flexible and adaptable to changing needs such as wheelchair access, addition or removal of internal walls or extensions.



F.22

#### 3.5 Architectural Details and Colour



**F.23:** Covered porch on new build. (Photo © AECOM 2022)



**F.24:** Covered porch older style. (Photo © AECOM 2022)



**F.25:** Dormer and feature window. (Photo © AECOM 2022)



**F.26:** Traditional sash window and timber door.
(Photo © AECOM 2022)



**F.27:** Casement window mirroring traditional sash style and covered porch. (Photo © AECOM 2022)



**F.28:** Over slzed chimney stacks. (Photo © AECOM 2022)

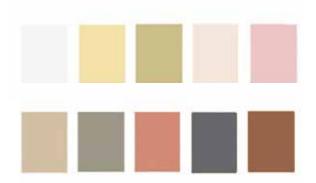
Covered porches are a key feature within the Neighbourhood Area with varying styles appearing on both old and new buildings. Doors vary depending on the period of the property ranging from traditional wooden to uPVC with glass detailing on the newer properties.

Sash and casement windows are the predominant window type throughout the Neighbourhood Area, particularly in older properties. Window styles vary in size and shape per property, with an individual property often showcasing multiple sizes and shapes of windows. In older buildings, original joinery and historic glass, along with timber window casings contribute to the local rural character. Many of the new properties have dormer detailing.

In newer developments or renovations, casement windows are also the typical choice, along with skylight roof windows.

#### **Colour Palette**

A rich palette of colours are present on buildings facades demonstrating a range of materials and a diverse character. Warm tones of orange, red and brown relate to the building materials. Other hues and tones of stone, cream and beige relate to the range of colours present in the render and window casings. This range of colours is appropriate for Walpole Cross Keys appearing in the existing housing and in presidents provided by new development which is considered in character with the Neighbourhood Area.





F.29: Property displaying cream painted brick facade. (Photo © Google Earth 2022)

# 3.6 Building Materials



**F.30:** Red brick. (Photo © AECOM 2022)



**F.31:** White brick with red brick detailing. (Photo © AECOM 2022)



Built form in the Neighbourhood Area consists

traditional building materials. Rendered facades is a common feature and red and white brick define the aesthetic character of the village. Weatherboarding can be seen on the new barns, outbuildings and extensions enhancing the rural character of the village. Typical roof materials comprise, clay pantiles and slate with

of a range of new and old examples of

the addition variation in places.

**F.32**: Wood cladding. (Photo © AECOM 2022)



**F.33:** Red clay tiles and mixed brick. (Photo © AECOM 2022)



**F.34**: Clay tiles. (Photo © AECOM 2022)



**F.35:** Slate roof. (Photo © AECOM 2022)

# 3.7 Boundary Treatments



Boundary treatment is varied with houses often set behind low hedges and front gardens which allows for views of the buildings beyond them. Gaps in the hedges provide access to the properties and driveways, these are occasionally marked by wooden gates. The hedges are typically well-maintained at an approximate height of between 1-1.2 m.

Other boundary features include wooden fences some with wooden gates defining the property entrance. Some wooden fences are standalone, and others are coupled with a hedge or a brick wall. A few of the properties have open boundaries.





E 27

Figure 36: House with hedging used as boundary. (Photo @ AECOM 2022)

Figure 37: New build on Sutton Road with wooden fence boundary. (Photo @ AECOM 2022)

Figure 38: Traditional cottage with an open boundary. (Photo © Google Earth 2022)



F.38



F.39: Good example of on plot parking screened by hedging and fencing. (Photo @ AECOM 2022)



F.40: On plot parking without screening. (Photo © AECOM 2022)

# 3.8 Parking and Utilities

On-plot parking is common within new development as there is limited opportunities for on-street parking in the Neighbourhood Area. Parking on Sutton Road near the primary school is an issue at pick-up and drop off times. Travel by car is necessary for pupils as they attend from outside the village and there is no alternative transport.

Fencing and a vegetated screen has been used in some new development to screen parked cars which is more acceptable.

Flooding is an issue within the Neighbourhood Area due to the low lying ground and rain water run-off from hard standing surfaces.

# 3.9 Preserving and Enhancing Views

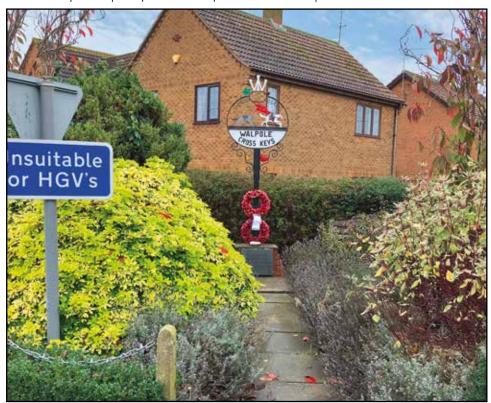
Long distance views across the Fens are characteristic, interrupted by the occasional wind turbine and pylon. Vegetation along some of the local field boundaries interrupt the long distance views from Sutton Road. The open views of the countryside can be experienced throughout the Neighbourhood Area creating a strong visual connection to the rural setting of the village. New developments have been spaced to retain views of the wider landscape between each of semi-detached and detached properties.



Figure 41: Vegetation interrupting the views on Sutton Road. (Photo @ AECOM 2022)

# 3.10 Community Space and Green Infrastructure

Public green spaces within Walpole Cross Keys Neighbourhood Area are few but cherished. These include the Eva Kemp Memorial Garden near the A17, the Village Sign Garden at the corner of Station Road North and the Millennium Garden on the corner of Little Holme Road and Sutton Road. There are no play areas for children and the existing public green spaces provide few opportunities for residents to socialise. The main social community spaces include the Primary School and Jephson Hall which are well used for community events. The privately owned Samuels Farm Shop complex provides a place to meet up.





F.43



F.42





F.45

The three bridleways Fence Bank, Pingle Lane and Eastlands Bank and the other public rights of way provide access to the wider landscape. Many of the houses have front gardens which contribute to the street scape and overall green appearance of the village.

Figure 42: Village sign garden. (Photo © AECOM 2022)

Figure 43: Jephson Hall. (Photo © Google Earth 2022)

Figure 44: Samuels farm shop. (Photo © AECOM 2022)

Figure 45: Millennium garden. (Photo © AECOM 2022)

Figure 46: Pingle Lane bridleway. (Photo © Google Earth 2022)

Figure 47: Front garden contributing to the green appearance of the village.

(Photo © Google Earth 2022)



F.47



# 4. Design Codes

#### 4.1 Introduction

This section sets out the principles that will influence the design of potential new development and inform the retrofit of existing properties in the Neighbourhood Area. Where possible, local images are used to exemplify the Design Codes.

The Design Codes in this section should be applied as a starting point to all new development in the Neighbourhood Area. These Codes advocate character-led design which responds to and enhances the landscape character. Reference to context does not mean to copy or use imitation solutions rather it means to respond to what is around as inspiration. It could be that a contemporary solution in harmony with its surroundings is as appropriate as one using traditional building materials and techniques.

It is important that full account is taken of the local context and that any new development responds to and enhances the 'sense of place' and meets the aspirations of people already living in that area. The aim of this section is to produce design codes that help in assessing design quality and appropriateness in new development proposals. Images have been used to reflect good examples of local design quality.

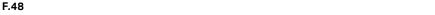
The Design Codes are set out for the unique characteristics of the Neighbourhood Area. The Design Codes developed in this document focus mainly on residential development, considering the character of the immediate neighbouring buildings and the landscape of the surrounding area. The local pattern of streets and spaces, building traditions, materials and the natural environment should all help to determine the character and identity of new development, whilst recognising that new building technologies can deliver acceptable built forms and may sometimes be more relevant.

Key to this document are the aspirations of the community to integrate all proposed new development from conception to construction into the existing village. In all cases development should seek to strive beyond current published guidance to propose the very best design solutions to align with the ambitions of the community and positively contribute towards the meaningful movement towards providing a safe, attractive and cohesive environment.

# **Design Code 1:** Settlement Pattern

- All new development should respect the historic linear settlement pattern and scattered farmsteads.
- No building should occur at the back of plots to retain the character of a single row of properties along a road.
- All new development should be located within existing built-up area to the north and south of the A17
- New housing developments should provide a range of house sizes including smaller 1 and 2 bedroom dwellings.
- All public rights of way including the three bridleways should be retained as part of new development proposals.







F.49

Figure 48: Infill development on Station Road, North. (Photo @ AECOM 2022)

Figure 49: Linear development along Sutton Road. (Photo © AECOM 2022)

**Figure 50:** Rear of linear development along Sutton Road showing a single row of houses. (Photo © AECOM 2022)



F.50

# **Design Code 2:** Building Line and Roof Treatments

- Height and roof line of new development should respond to adjacent buildings and generally should be no higher than two storey.
- New development should consider the use of slate tiles or red clay tiles to respect adjacent buildings.
- Roof features such as dormer windows, with barge-boards and chimney stacks should be considered to reflect the character of the area.



F.52

Figure 51: New builds with chimneys and Dormer windows. (Photo © AECOM 2022)

Figure 52: Primitive Methodist Chapel, gable facing the road. (Photo @ AECOM 2022)

Figure 53: Detached new build house. (Photo © AECOM 2022)







F.53

# **Design Code 3:** Architectural Details and Colour

- Architectural detailing in development proposals should respect adjacent buildings and the character of the Neighbourhood Area
- Simple porches are a common feature in the Neighbourhood Area. New development should consider their inclusion.
- The choice of exterior colour and building material should seek to integrate the new building into its immediate context, respecting adjacent buildings and the character of the Neighbourhood Area
- The use of brightly coloured render should be resisted as it does not reflect the local character. Where render is an appropriate architectural finish, muted tones from the colour palette should be used.
- The use of inappropriate replacements, such as replacing timber sash windows with uPVC, should be resisted.



F.54: Modern porch on new build. (Photo @ Google Earth 2022)

# **Design Code 4: Building Materials**

- Materials used in new developments should demonstrate an understanding of local and regional character and build upon the sense of place.
- High quality roof materials consistent with the rural character of the village should be used in new development. Concrete tiles should be avoided.
- Materials for alterations and extensions should be highquality and retain or, if possible, enhance the character and appearance of the host building and the surrounding area.



**F.55:** Character, slate roof. (Photo © Adobe Stock 2022)



**F.56:** Quality, red clay tile roof (Photo © Adobe Stock 2022)



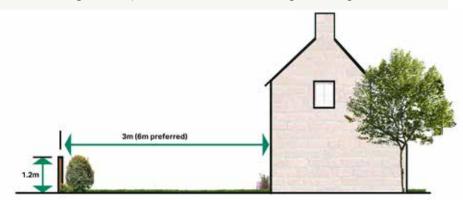
F.57: New house a mix of brick, tiles and wood. (Photo @ Google Earth 2022)



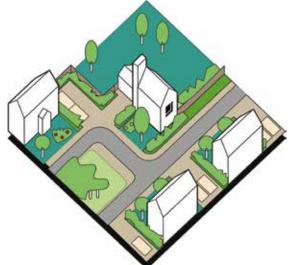
F.58: New house with a high end, detailed roof. (Photo @ Google Earth 2022)

# **Design Code 5:** Boundary Treatments

- All new houses should have a front garden of a minimum of 3m between the property boundary and the building. 6m is preferred.
- New development should use boundary features which allow for visual connections with the streets, are complementary to the streetscape and enhance the character of the village. The use of panel fencing in publicly visible boundaries should be avoided.
- The materials proposed for new boundary fences and walls should be of high quality, responding to the village character and have strong attention to architectural detailing.
- The maximum height of a hedge, wall or other boundary features should not exceed 1.2m.
- New development should follow a boundary line consistent with existing development and the rural village setting.



F.59: Heights and distances for boundaries. (Graphic © AECOM 2022)



**Figure 60:** Diagram showing best practice boundary treatment. Hedges in front and to the sides of the houses. (Graphic © AECOM 2022)

Figure 61: New builds with open swales marking the boundary. (Photo © AECOM 2022)



There are examples of recent development along Sutton Road without a hedge or fence marking the boundary. Rather SuDS drainage swales have been used as an open boundary. Open boundaries are characteristic and contribute to the rural character of the village along with traditional hedges.



**Figure 62:** Hedge boundary complimenting an older property. (Photo © Adobe Stock 2023)



**Figure 63:** Vegetation boundary working well in a modern development.

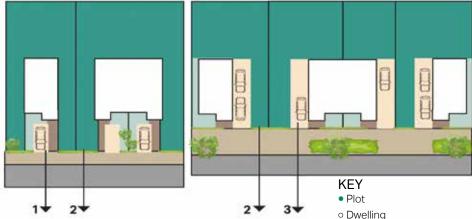
(Photo © Adobe Stock 2023)

### **Design Code 6:** Parking and Utilities

- All new development should provide on-plot side, front, garage, or courtyard parking.
- Parking areas and driveways should be designed with permeable paving so not to contribute to the existing flooding issues.
- When placing parking at the front, the area should be designed to minimise visual impact and to blend with the existing street scape and materials. The aim should be to keep a sense of enclosure and to avoid continuous areas of car parking in front of dwellings. This can be achieved by means of walls, hedging, planting, and the use of quality paving materials.



F.64: Older style properties with no on plot parking. (Graphic @ AECOM 2022)



- 1: Front parking with some surface reserved for soft landscaping
- 2: Boundary screening using hedging or fencing
- 3: Side parking set back from main road

F.65: On plot parking graphic illustration. (Graphic © AECOM 2022)

- 9 DWCIIII
  - Allocated parking
- Road
- Pavement
- Area reserved for vegetation
- Boundary screening
- Hard standing to entrance
- Where septic tanks, treatment plants and fuel tanks are necessary, these should be well-screened by vegetation and sensitively designed. Where possible these should be positioned in rear gardens to maintain the quality of the streetscape.
- Bins and bike stores should be stored in rear gardens where space allows or well-constructed bin-sheds to avoid unnecessary street clutter.
- Provision to be made for kerbside bin collection to provide easy access for removal, alongside waste separation and recycling where appropriate.
- The introduction of street lighting should be limited to within settlements and should be sensitive to local biodiversity whilst providing adequate safety.

## **Design Code 7:** Preserving and Enhancing Views

- New development should seek to retain the long-distance views characteristic of the Neighbourhood Area
- New development should not be visually intrusive. This should be achieved through appropriate scale and design, including screening where appropriate



Figure 66: Far reaching rural views from Sutton Road. (Photo @ Google Earth 2022)



**Figure 67:** Tightly packed row of houses blocking rural views from the road. (Photo © Adobe Stock 2022)

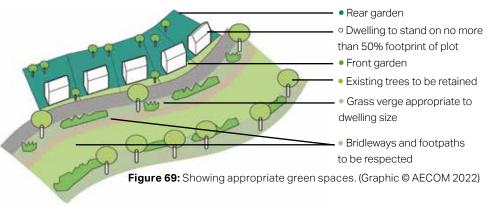


**Figure 68:** New builds with respectful spacing to allow views In-between the housing. (Photo © AECOM 2022)

## **Design Code 8:** Community Space and Green Infrastructure

- New development should provide sufficient green space appropriate to the location and size of the dwelling, including front and rear gardens and grass verges. Typically, no more than 50% of a dwelling's plot should be built on, a 'plot ratio' that reflects development patterns in the village and conforms with the National Model Design Code guidance for suburban and village locations (paragraph 52).
- Existing green spaces should be retained and enhanced.
- Existing trees and hedgerows should be retained in new development to help reinforce the existing pattern of vegetation.
- Character of footpaths and bridleways should be respected and reflect the rural character of the Neighbourhood Area. All should be retained as part of new development.
- Materials used in the public realm should be of high quality and respond to, and enhance, the rural character of the settlements.

  Note: The village will continue to work towards providing an open green space for the residents to socialise in.



## **Design Code 9:** Water Management (SuDS)

- All new development should manage water as close to where it originates as possible by installing a Sustainable Urban Drainage system (SuDS) that captures, retains and and absorbs water to reduce flood risk and improve water quality.
- New development should consider use of permeable surfaces including unbound gravel, clay pavers, or stone setts to increase capacity of the ground to absorb the runoff water and reduce risk of surface water flooding.
- New development should consider bioretention systems including soakaway and rain gardens along verges and in semi-natural green spaces to enable the water to infiltrate the ground and reduce runoff of water into the sewer system. Vegetation should be selected to sit cohesively within the surrounding landscape and reflect the character of the Neighbourhood Area.
- New development should consider rainwater harvesting options to capture and store rainwater as well as those enabling the reuse of on-site grey water.
- Conceal attenuation tanks by cladding or constructing them in complementary materials and siting them where



**Figure 70:** Rain water harvesting with overflow prevention system.

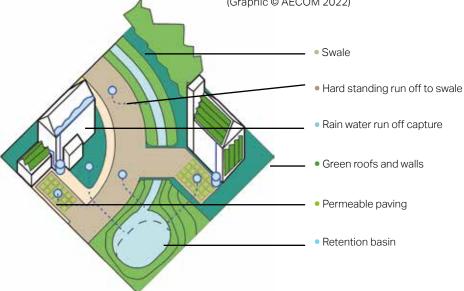
(Photo @ Milos-ShutterStock 2022)



Figure 71: Permeable paving. (Photo © Adobe Stock 2022)

Figure 72: Diagram showing the best use of harvesting water systems rain garden, swales, permeable paving, green roofs.

(Graphic © AECOM 2022)

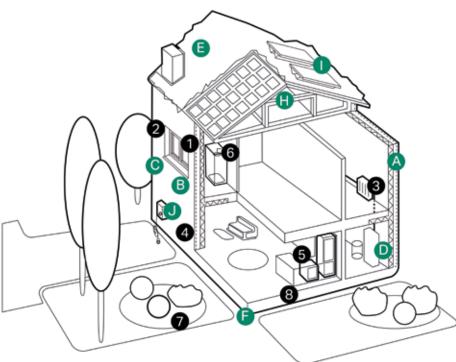


### **Design Code 10:** Sustainability

There is a number of energy efficient technologies that could be incorporated into buildings. The use of such principles and design tools is strongly encouraged to future proof buildings and avoid the necessity of retrofitting. The following are optional energy efficient technologies and measures which should be considered:

- Incorporate sustainable energy efficient measures into new development where possible. Wherever feasible, all buildings should be certified to a Passivhaus or equivalent standard.
- Existing buildings being repurposed, refurbished or extended should also consult with Passivhaus guidance documentation and modeling tools to minimise energy usage.
- Consideration should be given to how proposed energy infrastructure might affect local character or visual amenity. For example, solar panels are an effective renewable energy technology however can detract from the historic character of buildings and cause reflections which disrupt views. New developments should incorporate energy solutions at the design stage, using products which are discrete and mimic the colour and size local roof materials to minimise visual disturbance. The same principles must be applied for extensions and installing or replacing panels on existing buildings to avoid eroding the historic character of the area.

- New developments should seek to optimise hot water systems.
- Developers should plan to re-use materials to reduce waste generated during construction.
- Before work commences, the waste volumes to be generated and the recycling and disposal of the materials should be described.
- On completion of the construction works, volumes of recycled content purchased, recycled and landfill materials should be collated.
- New development should consider sustainability and carbon reduction at the forefront of material sourcing, operations and construction to ensure that materials are reused and repurposed where possible or sourced and implemented with sustainability and longevity in mind.
- Disassembly of buildings should also be a key consideration of new development. Consideration of how elements could and should be reused or repurposed at the end of life of the structure should be considered at the design stage.



**Figure 73:** Illustration of potential energy efficient energy measures applied to housing design. (Graphic © AECOM 2022)

#### **Existing Homes**

1 Insulation

Double or triple glazing with shading

**3** Low-carbon heating

4. Drought proofing

Highly energy-efficient appliances

Highly waste-efficient devices

Green space

Flood resilience and resistance

#### **New Build Homes**



High levels of airtightness

external shading



Construction planning

Solar panel



Triple glazed windows and



Electric car charging point



Low-carbon heating e.g. ground source heat pump



Green space



Water management and cooling



Flood resilience and resistance

## **Design Code 11:** Lifetime and Adaptability

- Consideration for housing needs to be given to people at all stages in life. A mix of styles of property should be proposed and affordability should be a key consideration to maintain a range of households and encourage economically active people to the Neighbourhood Area.
- Future development should include a mix of uses relevant to the needs of the community, utilising opportunities to convert existing unused buildings within the Neighbourhood Area to foster a diverse demographic and consider needs at all stages in life.
- New residential properties should consider the lifetime of future occupants to enable people to continue to live in their home as their circumstances change. This includes providing buggy/ pram, cycle and wheelchair storage as an integral part of the building's design (not as a timber shelter/ sheds in gardens or communal areas). It means designing homes that can be accessed by those with disabilities (or could be sensitively adapted to provide such access in the future).
- Consideration should be given to how people will live and work in the future and new developments should reflect this (e.g. provision of live/work units, houses that incorporate space to work from home, multi-generational families).



### 5. New Development Checklist

# 5.1 Generals questions to ask and consider when presented with a development proposal

The Design Codes set out within this document cannot cover every eventuality, this section provides a number of questions based on established good practice against which any design proposal should be evaluated.

The aim is to assess all proposals by objectively answering the questions below. Not all the answers 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 Guidance for New Development."

# **5.2 General Design Guidance for New Development:**

- Harmonise and enhance existing settlement in terms of physical form, architecture and land use:
- Reflect, respect, and reinforce local architecture and historic distinctiveness;
- Retain and incorporate important existing features into the development;
- Provide adequate open space for the development in terms of both quantity and quality;
- Incorporate necessary services and drainage infrastructure without causing unacceptable harm to retained features;

- Ensure all components e.g. buildings, landscapes, access routes, parking and open space are well related to each other;
- Make sufficient provision for sustainable waste management (including facilities for kerbside collection, waste separation, and minimisation where appropriate) without adverse impact on the street scene, the local landscape or the amenities of neighbours and;
- Ensure that places are designed with sensitive lighting and safety in mind.

### **5.3 Settlement Pattern:**

- 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?
- 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 settlements?
- What effect would the proposal have on the streetscape?
- Does the proposal overlook any adjacent properties or gardens and how is this mitigated?

# 5.4 Preserving and Enhancing Green Space, and Views:

- What are the particular characteristics of this area which have been taken into account in the design?
- 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?
- Has the proposal been considered within its wider physical context?
- Is there adequate amenity space for the development?
- Does the new development respect and enhance existing amenity space?
- Have opportunities for enhancing existing amenity spaces been explored?
- Will any communal amenity space be created? If so, how this will be used by the new owners and how will it be managed?

# 5.5 Building Line, Boundaries Materials and Detailing:

- 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?
- Does the proposed material harmonise with the local materials and do they respect or enhance the existing area or adversely change its character?
- Does the proposal use high-quality materials?
- Are recycled materials, or those with high recycled content proposed?
- Can the proposed materials be locally and/or responsibly sourced?
- Have the details of the windows, doors, eaves, porches and roof details been addressed in the context of the overall design and the character of the area?

### **5.6 Car Parking and Utilities:**

- 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?

### **5.7 Sustainability:**

- If the proposal is a contemporary design, are the details and materials of a sufficiently high enough quality and does it relate specifically to the architectural characteristics and scale of the site?
- Is it possible to incorporate passive environmental design features such as larger roof overhangs, deeper window reveals and/or external louvres/shutters to provide shading in hotter months?
- Can the building designs utilise thermal mass to minimise heat transfer and provide free cooling?
- 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?
- Can green space be used for natural flood prevention e.g. permeable landscaping, swales etc.?



Figure 74: Natural flood prevention, swale as part of a permeable landscape. (Photo @ AECOM 2022)



**Figure 75:** Natural flood prevention, green roof as part of a SuDS management system. (Photo © Adobe Stock 2022)





### 6. References

- 1. Commission for Architecture and the Built Environment (2002)The Value of Good Design. [online] Available at: < https://www.designcouncil.org.uk/sites/default/files/asset/document/thevalue-of-good-design.pdf> Accessed 07/12/2022.
- 2. Homes England (2020) Building for a healthy life. [online] Availableat: < https://www.udg.org.uk/sites/default/files/publications/files/14JULY20%20BFL%20 2020%20Brochure 3.pdf> Accessed 07/12/2022.
- 3. King's Lynn and West Norfolk Borough Landscape Character Assessment (2007 )Available: https://www.west-norfolk.gov.uk/info/20185/planning\_policy\_research/383/landscape\_character\_assessment information/walpole\_cross\_keys\_neighbourhood\_plan\_october\_2017%20 (4).pdf. Accessed 07/12/2022.
- 4. King's Lynn and West Norfolk Borough Local Development Framework Core Strategy (2011) Available: https://www.west-norfolk.gov.uk/downloads/file/594/core\_strategy\_adopted\_version\_2011. Accessed 07/12/2022.
- 5. King's Lynn and West Norfolk Borough Site Allocations and development Policies Plan (2016) Available: http://https://www.west-norfolk.gov.uk/info/20220/site\_allocations\_and\_development\_management\_policies\_plan. Accessed 07/12/2022.
- 6. Ministry of Housing, Communities 1. Ministry of Housing, Communities and Local Government (2021) National Planning Policy Framework. [online] Available at: <a href="https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment\_data/file/1005759/NPPF\_July\_2021.pdf">https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment\_data/file/1005759/NPPF\_July\_2021.pdf</a> Accessed 07/12/2022.
- 7. Ministry of Housing, Communities and Local Government (2021)National Design Guide: Planning practice guidance for beautiful,enduring and successful places. [online] Available at: < https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment\_data/file/962113/National\_design\_guide.pdf> Accessed 07/12/2022.
- 8. Ministry of Housing Communities & Local Government. (2019). National Design Guide Part 1 The Coding Process. Available: https://assets.publishing.service.gov.

- uk/government/uploads/system/uploads/attachment\_data/file/1003679/NMDC\_Part\_1\_The\_Coding\_Process.pdf. 07/12/2022.
- 9. Ministry of Housing Communities & Local Government. (2019). National Design Guide Part 2 Guidance Notes. Available: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment\_data/file/1003680/NMDC\_Part\_2\_Guidance\_Notes.pdf. Last accessed 07/12/2022.
- 10. Ministry of Housing Communities and Local Government. (2019). Permitted development rights for householders: Technical Guidance. Available: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment\_data/file/830643/190910\_Tech\_Guide\_for\_publishing.pdf. Last accessed 07/12/2022.
- 11. Ministry of Housing Communities and Local Government. (2021). National Model Design Code. Available: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment\_data/file/957205/National\_Model\_Design\_Code.pdf. Last accessed 07/12/2022.
- 12. Natural England. (2014). National Character Area (NCA) 46: The Fens (NE424). Available: http://publications.naturalengland.org.uk/publication/5095677797335040?category=587130. Accessed 07/12/2022.
- 13. Norfolk Wildlife Trust (2007 )Available: https://www.west-norfolk.gov.uk/info/20185/planning\_polihttps://www.norfolkwildlifetrust.org.uk/wildlife-in-norfolk. Accessed 07/12/2022
- 14. Walpole Cross Keys Neighbourhood Plan. (2015-2026) Available: https://www.west-norfolk.gov.uk/info/20127/neighbourhood\_plans/522/walpole\_cross\_keys\_neighbourhood\_plan. Accessed 07/12/2022.
- 15. Walpole Cross Keys Parish Council. (2015-2026) Available: https://www.walpolecrosskeyspc.info/village-events. Accessed 07/12/2022.

#### Acknowledgments

This document has been written in collaboration with the Walpole Cross Keys Neighbourhood Steering Committee who have provided their extensive knowledge and time in the production of this document. Their support and engagement in the process has been integral to the final outcome.

Photo Credits: Adobe Stock, AECOM, Cassini, Google Earth, Adrian S Pye and Walpole Cross Keys Parish Council.

#### **About AECOM**

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

Printed on recycled paper. ©2023 AECOM. All Rights Reserved.