Trowse with Newton

Neighbourhood Plan Design Code

May 2022

Delivering a better world

Quality information

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Revision History

Issue no.	Issue date	Details	Name	Position
2	13/05/22	For approval	Ross Loughnane	Associate Director
1	29/03/22	For review	Ross Loughnane	Associate Director

Contents

Introduction

01

1. Introduction

Through the Department for Levelling Up, Housing and Communities funded Neighbourhood Planning Programme, led by Locality, AECOM has been commissioned to provide support to Trowse with Newton Parish Council.

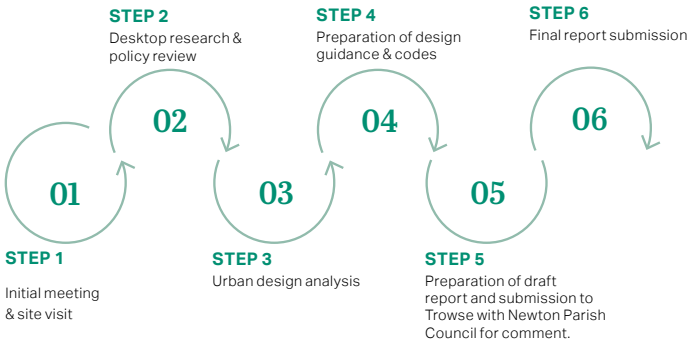
The support consists of design guidance based on the character and special qualities of the parish, with particular reference to new housing, as well as design code for the conservation area and a major development site.

This document comprises of

- **Planning context**, highlight key existing and emerging planning policy that future development should comply with.
- **Site analysis**, focusing on the opportunities and constraints identified in the following three sites:
    1. The parish of Trowse with Newton
    2. Trowse with Newton Conservation Area
    3. Former May Gurney site - Major development site
- **Design Guidance**, based on a series of design principles following relevant best practice and the above contextual analysis of the local area.
- **Design Codes**, applying the previously identified design guidance and site analysis to sites 2 and 3 listed above.
- **General questions** , with a list of issues to evaluate when presented with a development proposal.

1.1 Process

The following steps were undertaken to produce this document:



1.2 Objectives

The objectives of this report are twofold, and were agreed with Trowse with Newton Parish Council at the beginning of the project:

1. To provide design guidance to inform future development in the neighbourhood plan area to enable emerging development to respond sensitively to the local character of the village and surrounding countryside.
2. The report applies the previously identified design guidance to form a series of site-specific codes to:
    - Trowse with Newton Conservation Area
    - An emerging residential development on the former 'May Gurney site' currently allocated in the emerging East Norwich Masterplan.

1.3 Area of study

The parish of Trowse with Newton is situated to the southeast of Norwich. The parish covers an area of approximately 450 hectares (ha). Within the parish is the village of Trowse and outlying parts of Whitlingham to the northeast and Bixley to the south.

Trowse has a strong historical connection to the Colman family as evident by the numerous terraced streets built for their workers. Many of these streets are now included in the historic core of the village designated as the Trowse with Newton Conservation Area (TNCA) .

Adjoining the north-eastern boundary of the TNCA is the former May Gurney site, comprising of approximately 14ha of vacant brownfield land. The site is included within the East Norwich Strategic Regeneration Area and considered a gateway to the Norfolk Broads.

Figure 01: Aerial view of the Trowse with Newton Conservation Area.

Figure 02: Aerial view of the former May Gurney site.

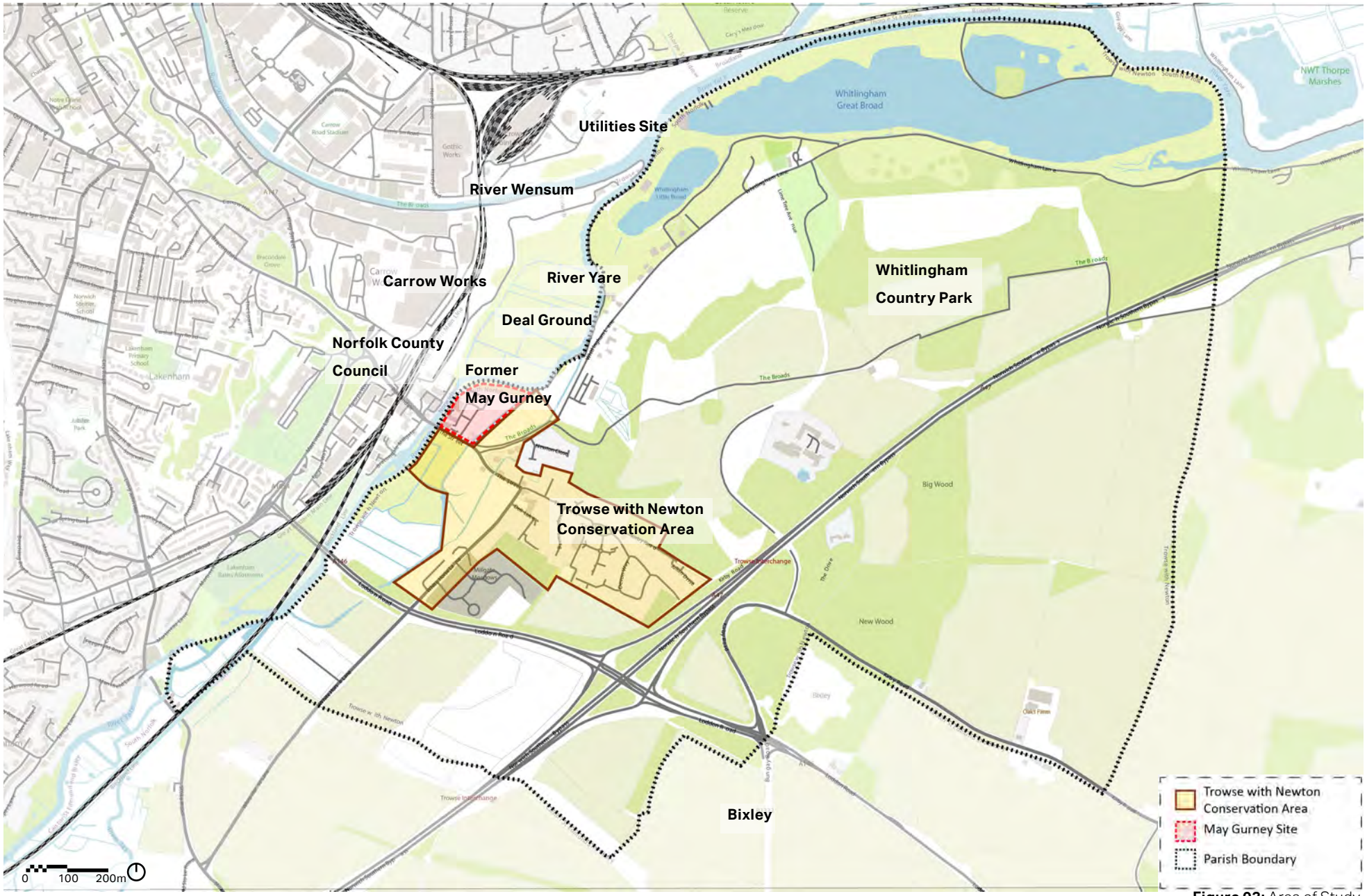


Figure 03: Area of Study

Policy Context

02

2. Policy Context

This section highlights existing and emerging planning policy relevant to future development within the neighbourhood plan.

2.1 National Planning Policy Framework

The revised National Planning Policy Framework (NPPF) was updated on 19 February 2019 and sets out the government's planning policies for England.

A key objective of the NPPF and therefore planning system is "to contribute to the achievement of sustainable development", which will be achieved through the following three overarching objectives;

- an economic objective;
- a social objective; and
- an environmental objective.

Part 8. Promoting healthy and safe communities, states that policies should aim to achieve healthy, inclusive and safe places. This includes creating places that are safe and accessible, for example by using clear and legible pedestrian routes and high quality public spaces. There should also be access to a network of high quality open spaces due to the health and well-being benefits of the communities that use them. Furthermore, social, recreational and cultural facilities should be provided and planned positively for the use of shared spaces that will enhance the sustainability of communities and residential environments.

Part 12. Achieving well-designed places, states that "Design policies should be developed with local communities so they reflect local aspirations and are grounded in an understanding and evaluation of each area's defining characteristics. Neighbourhood plans can play an important role in identifying the special qualities of each area and explaining how this should be reflected in development". Part 12 continues to state: "policy and decisions should ensure that developments… are visually attractive… (and) are sympathetic to local character and history, including the surrounding built environment and landscape setting, while not preventing or discouraging appropriate innovation or change (such as increased densities)." An understanding of history and heritage is therefore important in developing neighbourhood plans to inform future development.

Part 16, Conserving and enhancing the historic environment, states that "Plans should set out a positive strategy for the conservation and enjoyment of the historic environment… (taking) into account: … the desirability of new development making a positive contribution to local character and distinctiveness; and opportunities to draw on the contribution made by the historic environment to the character of place".

2.2 National Design Guide

The National Design Guide (NDG) was published by the Government in October 2019, to provide clear national guidance for delivering well-designed places across England.

Paragraph 9 of the NDG, states that "The National Design Guide addresses the question of how we recognise well-designed places, by outlining and illustrating the Government's priorities for well-designed places in the form of ten characteristics."

The ten characteristics set out are:

1: Context; enhances the surroundings.

2: Identity; attractive and distinctive.

3: Built form; a coherent pattern of development.

4: Movement; accessible and easy to move around.

5: Nature; enhanced and optimised.

6: Public spaces; safe, social and inclusive.

7: Uses; mixed and integrated.

8: Homes and buildings; functional, healthy and sustainable.

9: Resources; efficient and resilient.

10: Lifespan; made to last.

2.3 The Joint Core Strategy for Broadland, Norwich and South Norfolk

Policy 1: Addressing climate change and protecting the environment requires development to be adapted to changing climate and extreme weather, and to link valuable open space and biodiversity to create green networks. Development should seek to increase public access to the countryside if there is no conflict with biodiversity objectives.

Policy 2: Promoting good design encourages high quality new development with appropriate landscape mitigation. Development should respond appropriately to its context, reflecting a distinct local character.

Policy 4: Housing delivery expects new housing development to provide a mix of house types, sizes and tenures to cater for different accommodation needs including the need of elderly, and the Gypsies and Travelers.

Policy 6: Access and transportation seeks to improve the bus, cycling and walking network, as well as to encourage walking and cycling as the primary mode of travel with public transport for wider access.

Policy 7: Supporting communities expects developments to maintain and enhance the quality of life and well-being of communities and to ensure equitable opportunities for social interaction and access to green space and the countryside.

Policy 8 Culture, leisure and entertainment seeks to maintain and enhance the existing cultural assets and leisure facilities, as well as the access to green space.

Policy 17: Smaller rural communities and the countryside seeks to retain and enhance built and natural features including areas of notable landscape character, geological and biodiversity interest.

Policy 18 The Broads states that appropriate opportunities should be taken to make better use of the benefits of the Broads if there is no detrimental impact to the area.

2.4 South Norfolk Local Plan

Policy DM 1.3 The sustainable location of new development states that agricultural land is an important and sensitive multi-functional asset that contains many attractive natural features including areas of notable landscape character, geological and biodiversity interest which need to be protected and enhanced.

Policy DM 1.4 Environmental quality and local distinctiveness states development proposals should avoid environmental harm, and should achieve net gains for nature.

Policy DM 2.9 Rural tourist and other recreational destinations encourages the establishment of new rural tourist and visitor attractions and recreational 'destinations', and the expansion of existing attractions and 'destinations' in order to encourage greater tourism and leisure activity to benefit the rural economy, communities and visitors, whilst seeking to protect the intrinsic beauty and character of the countryside.

Policy DM 3.10 Promotion of sustainable transport seeks to ensure development is located and designed to enable sustainable transport.

Policy DM 3.15 Outdoor play facilities and recreational space states that new housing development will be required to provide adequate outdoor play facilities and recreational open space appropriate with the level of development proposed to meet the need of its occupants.

Policy DM 4.2 Sustainable drainage and water management states that sustainable drainage measures must be fully integrated within design to manage any surface water arising from the proposed development, and to minimise flood risk on the site.

Policy DM 4.5 Landscape character and river valleys states that all development should respect, conserve and where possible, enhance the landscape character of its immediate and wider environment.

Policy DM 4.6 Landscape setting of Norwich seeks to enhance the landscape setting of Norwich by protecting 'key views' and reinforcing 'gateways' as the visual points of landscape and townscape change.

Policy DM 4.8 Protection of trees and hedgerows seeks to retain trees, woodlands, hedgerows and other landscape features that provide a valuable contribution to local character and biodiversity.

Policy DM 4.9 Incorporating landscape into design states the provision for new planted features is expected to form part of development proposals from the outset and should provide an appropriate landscape setting for the scheme to reinforce

distinctiveness of local landscape.

Policy 4.10 Heritage assets seeks to preserve or enhance the character and setting of Conservation Areas and resists the demolition of buildings which make a significant contribution to the character or appearance of the area and are capable of appropriate alternative use.

2.5 Local Plan for the Broads

Policy DM1: Major Development in the Broads states that development which has potential to have adverse impact on the Broads and its special qualities will not be permitted.

Policy DM7: Open space on land, play space, sports fields and allotments states that any existing landscape features such as hedges and trees should be retained, and any opportunities to improve or create biodiversity, habitat and green infrastructure should also be taken.

Policy DM8: Green infrastructure seeks to strengthen links between urban areas and the surrounding countryside, and connect the natural world with every neighbourhood, providing benefits for community health and wellbeing.

Policy SP6: Biodiversity states that the Broads is a resource of international importance for biodiversity and therefore provided a high degree of protection under national legislation. The identification and promotion of ecological networks is encouraged to maintain and enhance the biodiversity of the Broads.

Policy SP8: Getting to and around the Broads encourages access to the area by sustainable modes of transport, and seek to improve the accessibility and connectivity to and around the area with improved walking and cycling facilities**.**

Policy SP9: Recreational access around the Broads seeks to develop the Public Right of Way network (PRoW), and improve access to other areas of the Broads while incorporating measures for the disabilities.

Policy SP12: Sustainable tourism promotes low-impact tourism, and encourages the creation and expansion of tourism initiatives and recreation facilities throughout the Broads.

Policy DM43: Design requires all developments to protect and enhance the special character of the Broads, and to integrate effectively with the landscape character of the area.

Site analysis

03

3. Site analysis

This section identifies a series of opportunities and constraints for three areas. The first looks at the complete parish of Trowse with Newton. The second considers Trowse with Newton Conservation Area and third the former May Gurney development site.

The opportunities and constraints will cover relevant physical, historical, and contextual features of the site including key existing heritage assets, transport connections and external influences from the surrounding rural countryside, such as sensitive environmental features, topography and flood risk.

The opportunities and constraints identified with help to inform appropriate design guidance and site-specific design codes for future development proposed within the three sites.

Figure 04: Aerial view of the Parish of Trowse with Newton

3.1 Opportunities and constraints - Parish of Trowse with Newton

The following opportunities and constraints are focused on the entire parish of Trowse with Newton based on a series of key features within the site as numbered on the plan opposite.

1. Woodland

- Constraint: A substantial area of woodland to the north of the parish is protected as UK Biodiversity Action Plan (BAP) Priority Habitats.
- Opportunity: UK BAP Priority Habitats should be maintained and enhanced. In particular, mature and veteran trees, wide green verges and species-rich hedgerow should be protected as they are essential for biodiversity. Hedgerows are a particularly good habitat for fauna and also prevent soil erosion.

2. Whitlingham Lane

- Constraint: Whitlingham Lane is a key access road connecting the Broads, TNCA, former May Gurney site and Norwich. However, on-street parking and poor walking and cycling facilities discourage active travel.
- Opportunity: A wildlife corridors can be introduced to protect and enhance biodiversity and recreation value of the area. This will create a new green link and enable wildlife to travel to and from foraging areas and their dwelling areas.

3. Green corridor and Public Right of Way

- Constraint: Existing network of footpaths to Whitlingham Country Park and the Broads, provide limited formal PRoW access to the wider countryside.
- Opportunity: Expand existing PRoW network, to increase active travel from the village of Trowse, via a series of 'green corridors', to connect to areas of wildlife habitat and heritage assets across the parish.
- Opportunity: Promote public engagement with potential habitat conservation activities by providing recreational access to the countryside.

4. Agricultural land

- Constraint: Agricultural land to the east and south edges of the parish is a sensitive and valuable natural asset that should be protected and enhanced.
- Opportunity: Agricultural land to serve as an extension of the wider network of habitats within the Broads, whilst providing a visual buffer to edge of the village of Trowse.

5. Flood zone

- Constraint: Areas of the parish are within the flood plain therefore any development will have to mitigate the loss of this land to ensure the natural flood function is not compromised.
- Opportunity: To safeguard these areas and enhance the natural habitats to maximise its biodiversity value.

6. Sustainable drainage systems (SuDS)

- Opportunity: SuDS should be multifunctional providing flood mitigation whilst forming an integral 'place-making'

feature to any emerging development within the parish.

- Opportunity: To integrate SuDS with existing green infrastructure features such as trees and hedgerows to strengthen habitat connectivity across the parish.

7. Landscape buffer

- Opportunity: To introduce a landscape buffer zone to retain physical separation of the village from Norwich and promote space for wildlife and recreation. Widths of buffer zones should be wide enough and based on specific ecological function.

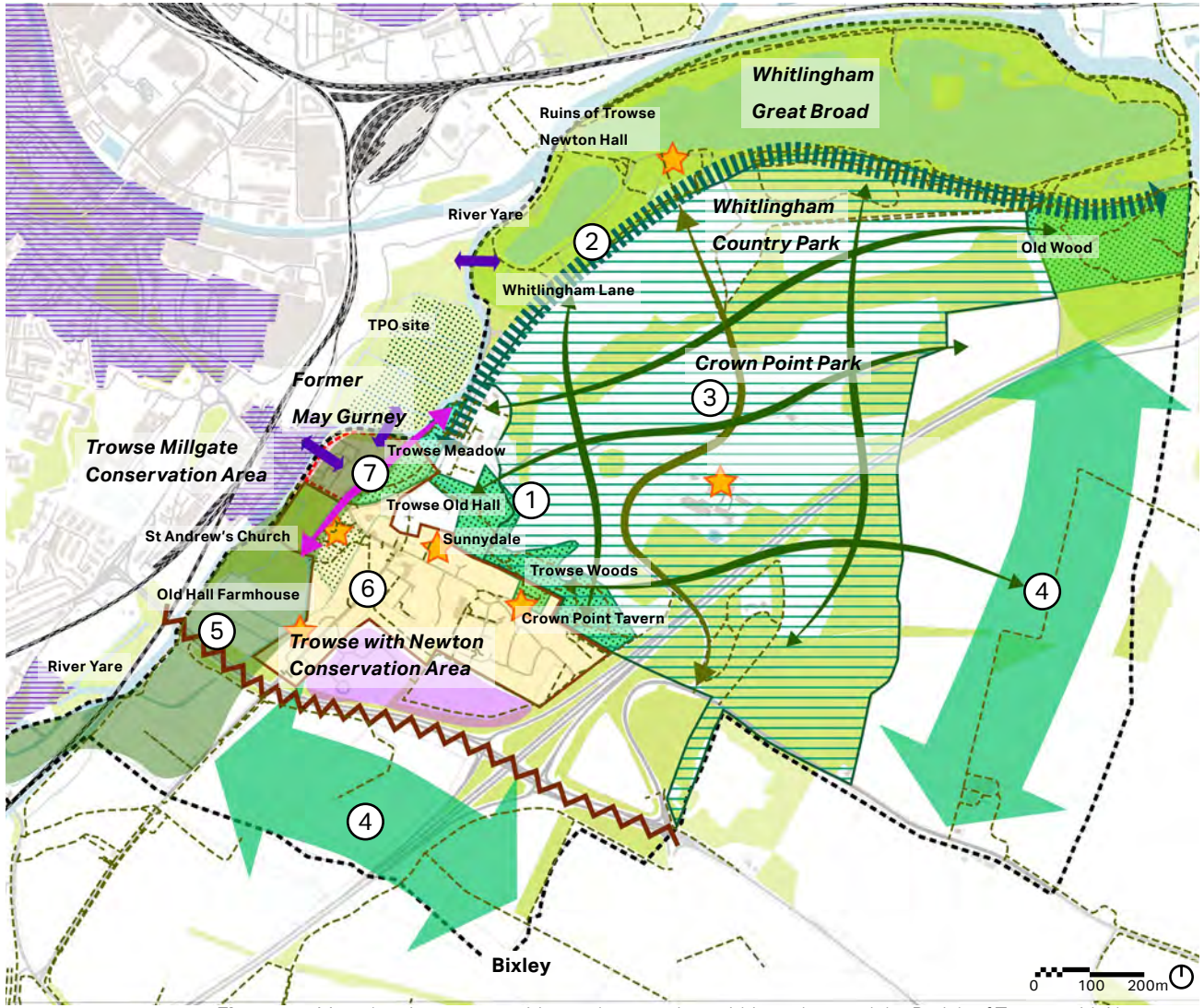


Figure 05: Map showing opportunities and constraints within and around the Parish of Trowse with Newton.

3.2 Opportunities and constraints - Trowse with Newton Conservation Area (TNCA)

The following opportunities and constraints are focused on the area within the TNCA. They are based on a series of key features within the site, listed below and numbered on the plan opposite.

Introduction

Trowse is the first 'model village' as part of a miniature “cradle to grave” welfare state in England. This was developed in 1800s by the Colman family which owned one of the UK's best known mustard companies which still bears their name today. The purpose of the village was to give workers at the Colman's factory a sense of community with high quality housing and attractive amenities space. The first cottages in Trowse were built with distinctive red brick and originally had front doors painted in the Colman's signature mustard yellow colour, some of which are still painted in the same colour by current residents.

To mark the contribution of Colman family to the unique character of village of Trowse, the village has been designated as the TNCA in 1978. Most noteworthy, the TNCA contains five buildings on the statutory list of Buildings of Special Architectural or Historic Interest (see table 1), and a number of non-designated heritage assets, considered to be to townscape significance by the Trowse with Newton Conservation Area Character Appraisal and Management Plan (2012).

1. Flood zone

- Constraint: An area to the west of the TNCA has been identified as Flood Zone 3 (probability of flooding), significant parts of which are designated as Trowse Meadow and Trowse Woods Country Wildlife Site.
- Opportunity: Enhance existing water meadows in the Common to maximise biodiversity and benefit the natural water management to provide flood resilience to the local area.
- Opportunity: Additional, sympathetically designed SuDS to be installed to high flood risk areas to safeguard existing communities and historic features from floods.

2. Focal point

- Opportunity: The Common is the centre of the village and within the vicinity of the junction of White Horse Lane and The Street.
- Opportunity: Re-prioritise the junction of White Horse Lane and The Street with traffic calming measures to encourage pedestrian accessibly and promote the area as a focal point of the village.

3. Frontages and views

- Opportunity: Utilise views of low-lying meadow landscapes offering extensive vistas throughout, contributing to the sense of rural connection and tranquility of the TNCA.

- Opportunity: Maintain and restore historic railings, walls, and building frontages which contribute to the visual character of the TNCA.
- Opportunity: Introduce a visual corridor along The Street and White Horse Lane linking historic features and extensive vistas already present in the TNCA.
- Opportunity: Celebrate existing terrace buildings fronting onto White Horse Lane and The Street with the contrast of the natural form of the Common and open meadows immediately adjacent.
- Capitalise on the east west vistas through the village with views of landmark buildings; Grade I Listed St. Andrew's Church and Grade II Listed Crown Point Tavern to the east and west respectively**.**

4. Green corridor

- Opportunity: Introduce green corridors with street trees and planting along the White Horse Lane and Whitlingham Lane to create a network existing the hedgerows and trees in the TNCA connecting with the surrounding countryside.
- Opportunity: Protect and enhance, green space such as the Common, Trowse Church Meadow, Everetts Meadow, the Dell, and Trowse Woods, as well as field behind the Trowse Primary School and the **School Street.**[1]
- Connect the primary school within the TNCA to the Common, existing PRoW and green spaces to promote physical health and well-being. This would create a child-friendly environment that encourages independent mobility and sustainable transport.

5. Landscape buffer

- Opportunity: To introduce a landscape buffer zone to retain physical separation of the village from Norwich and promote space for wildlife and recreation. Widths of buffer zones should be wide enough and based on specific ecological function.

Statutory Listed Buildings in Trowse with Newton Conservation area	
Grade I	• **The St. Andrew's Church**, The Street (south side);
Grade II	• **Trowse Old Hall**, The Street (north side); • **Sunnydale,** The Street (north side); • **Crown Point Tavern**, Kirby Road (south side); • **Old Hall Farmhouse**, White Horse Lane (west side)

Table 01: Table showing statutory listed buildings within the Trowse with Newton Conservation Area.

Figure 06: Outdoor play equipment in the Common.

1 Guidance and information for School Street. Available at https://www.activenorfolk.org/public/building-activity-in-our-communities/schoolstreets/

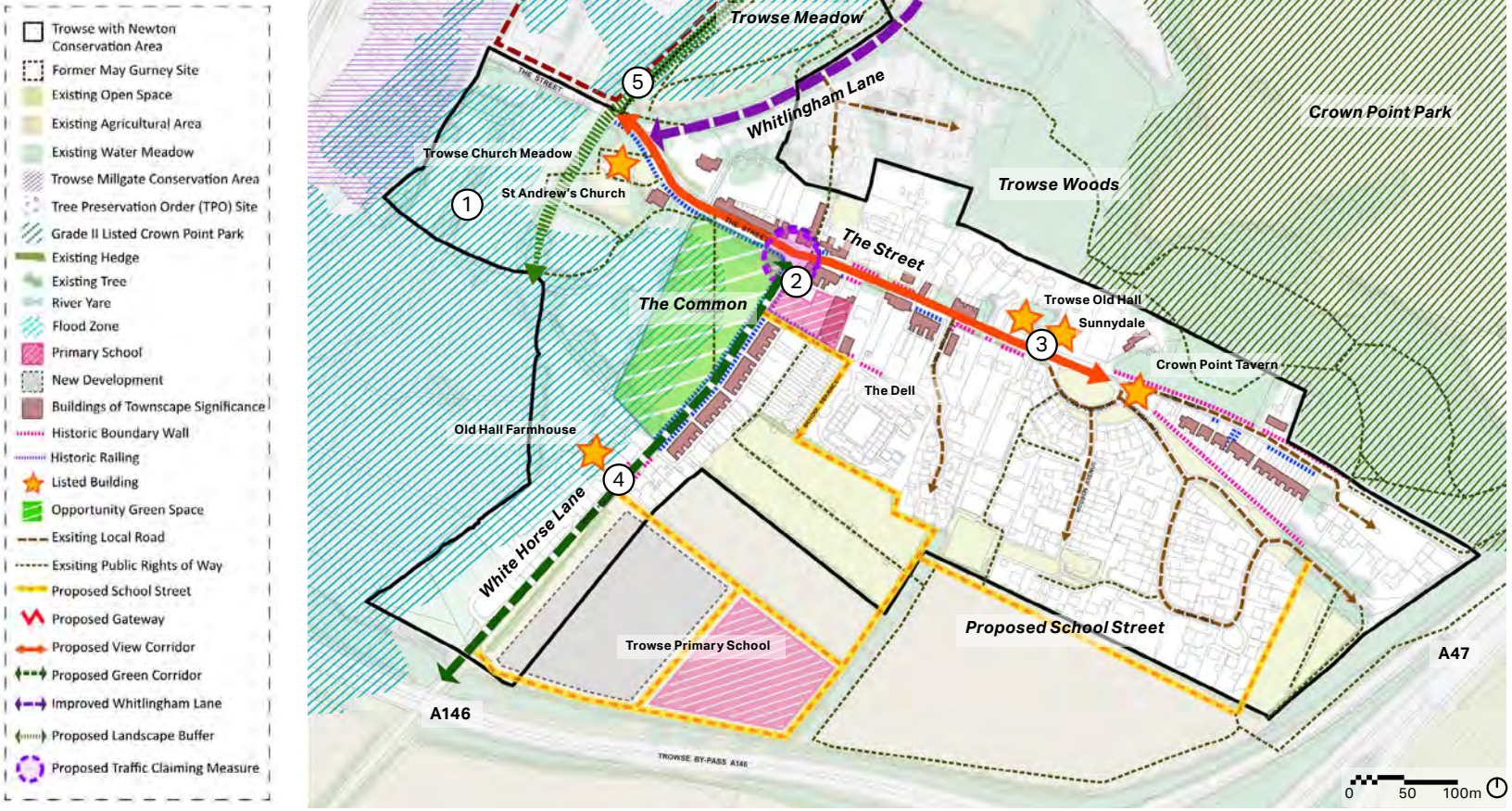


Figure 07: Map showing opportunities and constraints within and around Trowse with Newton Conservation Area

3.3 Opportunities and constraints - former May Gurney site

The following opportunities and constraints are focused the former May Gurney site, an area of brownfield within the Parish of Trowse with Newton. They are based on a series of key features within the site, listed below and numbered on the plan opposite.

Introduction

The former May Gurney site has been granted outline planning permission for the development of 100 homes. The site is allocated as one of the main strategic sites within the East Norwich Masterplan (ENM) comprises three other sites- Carrow Works, Deal Ground, and Utilities Sites.

The Draft ENM Stage 1[1] prepared by Allies and Morrison has been issued in November 2021. The Stage 2 will be completed and presented to Cabinet in June 2022 following the public consultation in July and October 2021. A further phrase of consultation will be held in Spring 2023.[2]

The former May Gurney site lies to the north-west of the TNCA and is the location of the former head offices for the local civil engineering contractor. The site is bordered to the north and south by the River Yare and situated to the south of the 'Deal Ground' as part of the East Norwich Masterplan for major growth and regeneration.

The former May Gurney site interacts with the TNCA, Trowse Millgate Conservation Area , the Broads, Tree Preservation Orders designated site, and a number of Locally Listed Buildings such as the White House and the former Pumping Station.

To the west is a cluster of Locally Listed Buildings which contains the former Pumping Station and Cottages, and the former Rail Station. To the immediate south and east of the site is Lord Boswell's Green where is a pastoral land, and Whitlingham Lane providing access to residential properties, Norwich Ski Club and Whitlingham Country Park.

The site predominately comprises of a combination of buildings including the Locally Listed '1886 Bracondale', and hard-standing, as well as scattered areas of scrub and grassland. The only vehicular access point is via the Bracondale.

1. Flood zone

Constraint: The site is low lying and at risk of flooding. A significant part of it is within flood zone 2 (medium probability of flooding) or flood zone 3a (high probability).

Opportunity: New development will make appropriate provision for SuDS and green infrastructures which can contribute to its character and place-making.

Opportunity: SuDS within the development must protect the water quality of the River Yare and maximise opportunities to improve existing and valuable riparian habitat to enhance local biodiversity.

1 Allies and Morrison (2021). Draft ENM Stage 1. Available at https://www.norwich.gov.uk/ENMPart1 ; https://www.norwich.gov.uk/ENMPart2

2 Details and timeline for the ENM public consultation. Available at https://www.norwich.gov.uk/info/20429/east_norwich_regeneration_masterplan_engagement

2. Parklands

- Opportunity: Introduce new parkland along edge of the riverfront and to the east of the site where existing trees and hedgerows are located. This will create a buffer zone to provide protection to new development against flooding whist preserving the existing water run-off pattern on the site

3. Frontages and views

- Opportunity: All publicly accessible space should be overlooked by dwellings with active frontages for natural surveillance.
- Opportunity: Retain and enhance historic buildings to the south forming a positive frontage to the Bracondale and approach to the development site.

4. Access points and gateways

- Opportunity: Create a new pedestrian and cycle access across the river into the site from north, south and east, improving the connectivity and

Figure 08: River Yare

Figure 10: 1886 Bracondale

Figure 09: Lord Boswell's Green

Figure 11: White House

permeability of the site. This would allow the new communities to be connected to services and amenity facilities within the local region.

- Opportunity: Gateway features and clear vistas should be integrated to site access points to create a welcoming environment and strengthen the character of the area.

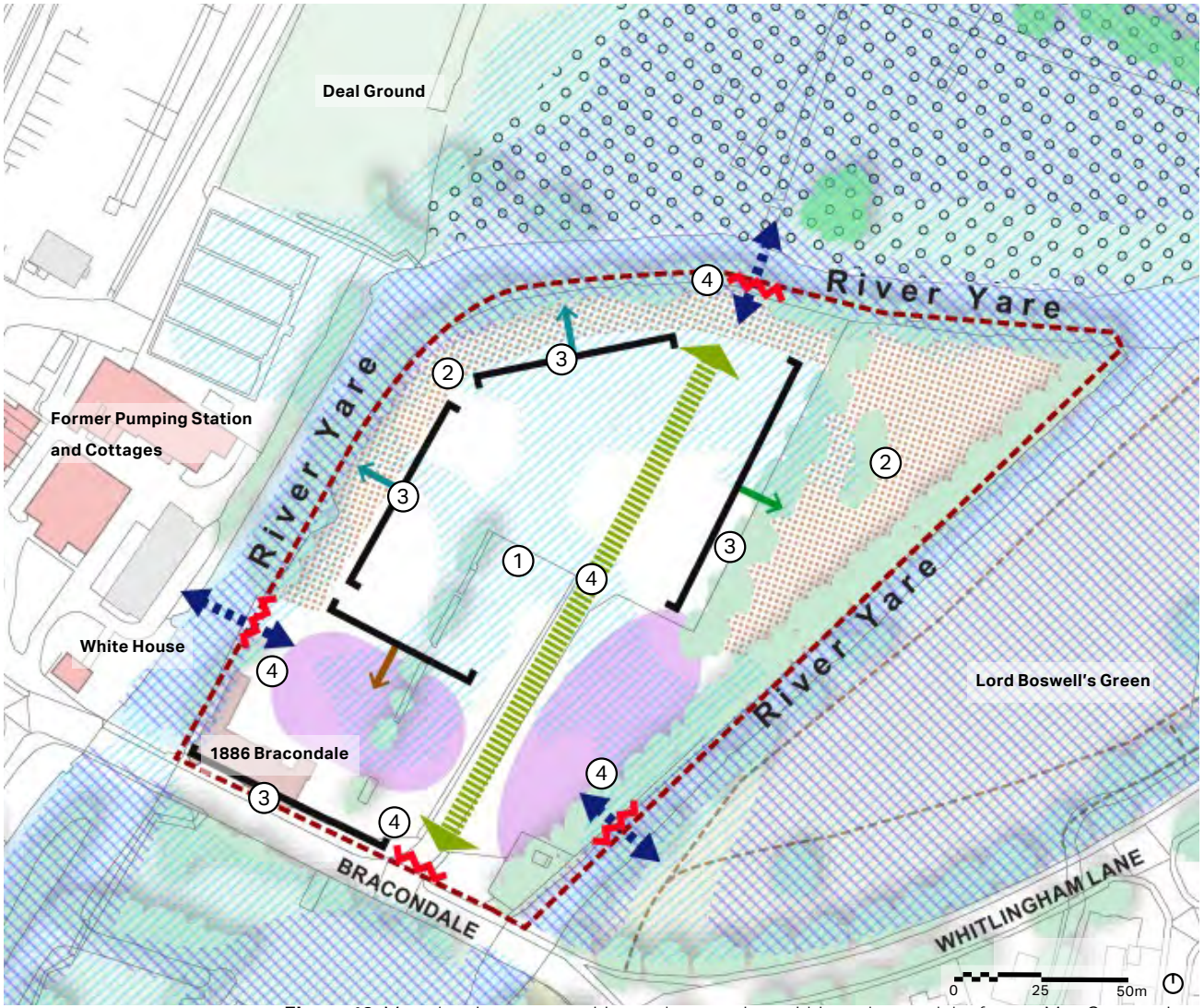


Figure 12: Map showing opportunities and constraints within and around the former May Gurney site.

Design guidance

04

4. Design guidance

This section sets out the principles that will influence the design of potential new development and inform the retrofit of existing properties in the Parish of Trowse with Newton. Where possible, local images are used to exemplify these design guidelines. Where these images are not available, best practice examples from elsewhere are used.

Section six will then apply these principles to the three sites identified within the site analysis section, this will be in the form of a series of site-specific design codes and guidance.

4.1 Introduction

The guidelines developed in this document focus on residential environments. However, new housing development should not be viewed in isolation. Considerations of design and layout must be informed by the wider context, considering not only the immediate neighbouring buildings but also the village and landscape character of the wider locality.

The local pattern of streets and spaces, building traditions, materials and the natural environment should all help to determine the character and identity of a development recognising that new building technologies are capable of delivering acceptable built forms and may sometimes be more efficient. It is important with any proposals that full account is taken of the local context and that the new design embodies the "sense of place" and also meets the aspirations of people already living in that area.

DC. 01	**Working with the Site Character**
DC. 02	**Access & Movement**
DC. 03	**Community & Public Space**
DC. 04	**Built Scale and Form**
DC. 05	**Architectural Styles, Materials, and Details**
DC. 06	**Sustainability & Eco-Design**

4.2 Design guidance for Trowse with Newton

DC.1 Working with the site character

DC.1.1 Heritage Assets

Trowse with Newton has a strong connection to the past which contributes to the character of the area. In particular, multiple listed buildings and buildings of local interest in the area, mainly located within the TNCA, which include landmarks such as Grade I Listed St. Andrew's Church, Grade II Listed Crown Point Tavern, and the Colman built properties.

It is important not only to retain these heritage assets but also to ensure any new development positively contributes to the character of area and does not detract from the important buildings, open spaces and views. Therefore, design guidelines should be in place to guide development in close proximity to heritage assets. These guidelines are as follows:

- Development which affects any designated and non-designated heritage asset must respect the significance of the asset and must demonstrate how local distinctiveness is reinforced;
- Development should respect the significance of any designated and non-designated heritage assets. Particular consideration shall be given to maintaining their role in framing, punctuating or terminating key views through, out of and into the village; and
- Particular consideration shall be given to the retention of open spaces, such as The Common, and gaps between buildings to sustain the historic form and pattern of development.

Figure 13: Grade I Listed St Andrew's Church is an important landmark building creating a gateway to the north of village.

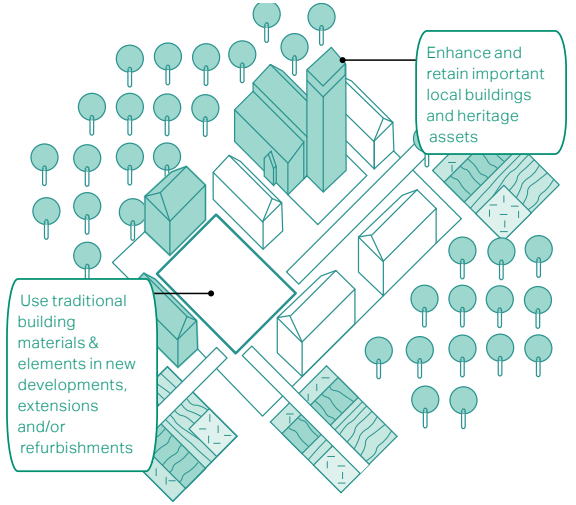


Figure 14: Indicative diagram showing the way to retain and respect the materials of existing heritage assets

DC.1.2 Landscape Settings

The notable geographical and natural characteristics of Trowse have maintained a distinction between the city of Norwich and the village of Trowse, and significantly contributed to the context and identity of the village. New development should show an understanding of its context, and positively contribute to the character of its surroundings.

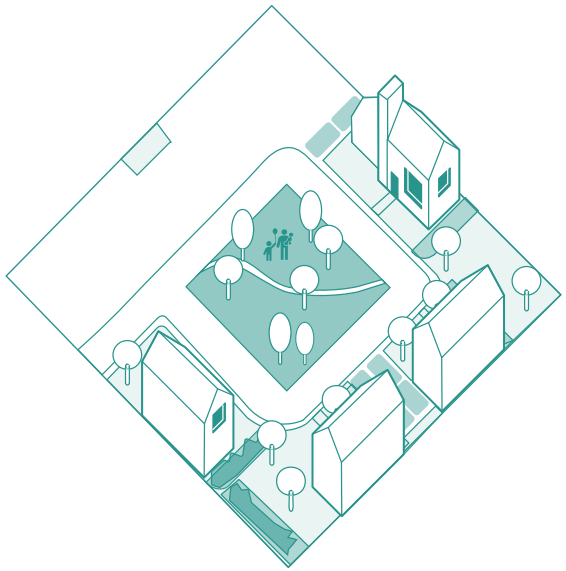


Figure 15:
Indicative diagram showing green space at the heart of a development

- Existing landscape features, for example: notable or distinctive landform, watercourses, such as the River Yare, hedgerows, woodland and trees, should be retained where feasible and used to inform the layout and character of new development including buildings, streets and public open space;

- Existing trees, hedgerows and natural features should be retained on site, wherever possible, and be incorporated into the design of the scheme. Where vegetation loss is unavoidable, replacement planting should be carried out to achieve a net biodiversity gain;

- New development should ensure trees and planting have sufficient space to thrive. Buildings should be laid out in such a way that there is sufficient room for appropriate buffer zones to be proposed and / or retained trees and to mature and grow to their full size and maximise the potential for canopy growth;

- New development proposals should identify locally native tree and shrub species which are appropriate for the rural location and vary species to encourage diversity; to ensure longevity and to provide resilience of green infrastructure within new development to pests and disease;

- Planting within new development should consider the different conditions of leaf and canopy throughout the seasons and have a maintenance regime in place; and

- Hard and soft landscaping should be reflective of local landscape character, with a sympathetic choice of materials and spatial arrangement.

DC.1.3 Views and landmarks

Trowse is situated on the outskirts of Norwich, from which it is separated by the River Yare.

The presence of low-lying meadows along the valley and resistance by the Crown Point Estate to new development has prevented the village from being engulfed by the city's suburban sprawl.

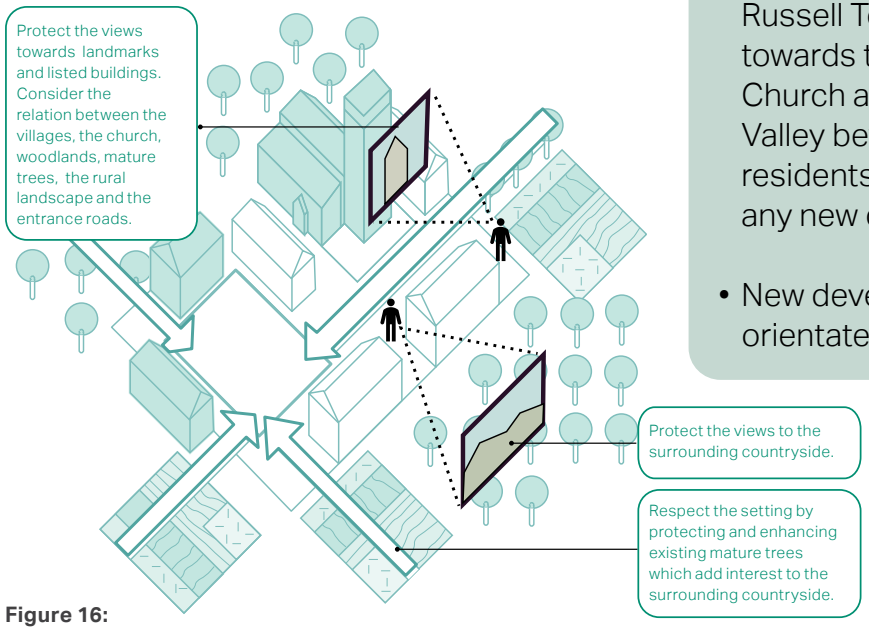


Figure 16:
Indicative diagram showing the way to protect and enhance existing views towards existing landscape features,

- Key views of settlement landmarks, such as the Grade II Listed Crown Point Tavern, should be maintained and incorporated as development features to safeguard the settlement's distinctive identity;
- Retention of existing long distance views, such as the open view from Russell Terrace over the Common towards the Street, St. Andrew's Church and the meadows of the Yare Valley beyond, is very important to residents and should be protected in any new development in the future;
- New development should be orientated to benefit from surrounding rural and river views;
- Development adjoining public open spaces and important gaps, should enhance the character of these spaces by either providing a positive interface (i.e. properties facing onto them to improve natural surveillance) or a soft landscaped edge;
- Consideration should be given to maintaining existing slot views and ensure that gaps are created within new development to maintain the strong visual connection between settlements and countryside; and
- New development should recognise and, where feasible, incorporate opportunities for views from new public space and streets to existing landmarks such as the St. Andrew's Church, Crown Point Tavern, and the village centre.

DC.1.4 Blue-green infrastructure and wildlife

Trowse with Newton is home to a wide variety of blue and green infrastructure which holds particular significance to the local community and character of the village, by virtue of their beauty, richness of wildlife, recreational and ecological value, and historic significance. Well connected green networks should be created throughout new developments to connect people with the countryside and to link habitats and contribute to biodiversity.

- New development should avoid threatening existing ecological assets, e.g. Whitlingham Country Park, Crown Point Park and Whitlingham Local Nature Reserves. Green links should be created to enhance connectivity with those natural habitats, as shown in Figure 5;
- New development should propose green links to enhance the pedestrian and cycle movement within the village space and green routes;
- Green networks should link existing and newly proposed street trees, green verges, front and rear gardens, open spaces, habitat sites and the countryside together;
- New development should front onto green assets and access should be granted for all groups of people;
- SuDS should be introduced, where possible, and incorporated into design of the green network to mitigate any flooding issue; and
- Green 'fingers' will encourage walking and cycling instead of driving. However, since car users still represent a major group in the area, car parking should be well incorporated, e.g. parking bays with green verges and street trees, into the public realm to minimise the presence of cars.

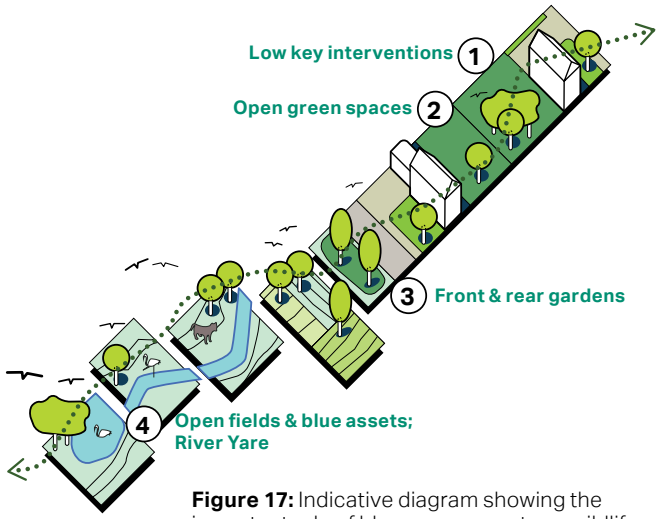


Figure 17: Indicative diagram showing the important role of blue-green assets as wildlife corridors.

DC.2 Access and movement

DC.2.1 People-friendly streets

The street layout in Trowse reflects the historic origins at its core, as well as more recent periods of development. The A47 and A146, running from east to west and north to south respectively, are the principal routes which connect the town to the surrounding settlements. A series of smaller scale interconnected streets provide access to various residential areas within the village, these are commonly truncated by cul-de-sacs. In addition to streets, a network of PRoW provide sustainable access to the surrounding countryside.

Designing out crime and designing in community safety is essential to the creation of successful, safe and attractive developments.

- New streets, if required, must meet the technical highways requirements as well as be considered a 'space' to be used by all, not just motor vehicles.
- Street layouts within development sites should be connected where possible and should join with the wider area and existing network of footpaths.
- Street hierarchy must be clear and legible. Street typologies have different character, in terms of width of carriageway, pavement, parking spaces, street trees) and can therefore, support different levels of traffic;
- Street design should incorporate opportunities for landscaping (e.g. street trees and green verges) and sustainable drainage solutions (e.g. bioretention trees);
- Opportunities for cycling should be provided, where possible, taking into account the narrow streets; and
- New development should include streets that incorporate the needs of pedestrians including disabled people with electric buggies. In particular, pavements should be wide enough to allow for the latter to move easily, whilst traffic calming measures, like raised tables or crossings, should be introduced along the carriageway.

Figure 18: Existing hierarchy of streets and road network context.

DC.2.2 Street typologies

Primary and secondary roads are not considered an appropriate scale for future development within the village and the wider Parish and therefore have not been included in this design code document. Tertiary road, lanes, mews street, and edge lane street typologies are appropriate to enable sensitive development within Trowse with Newton; key characteristics are outlined in the following pages.

Tertiary road

Tertiary roads have a strong residential character and provide direct access to residences from the secondary roads. They should be designed for low traffic volumes and low speed.

- Carriageways should accommodate two-way traffic and parking bays on both sides. They may also include green verges with small trees on one or both sides. Verges may alternate with parking to form inset parking bays;
- Tertiary roads should accommodate footways with a 2m minimum width on either side, and must be designed for cyclists to mix with vehicles;
- Traffic calming features such as raised tables can be used to prevent speeding;
- Tertiary roads should be formed with a high degree of built form enclosure, with consistent building lines and setbacks; and
- Street trees should be provided with suitable gaps wherever possible.

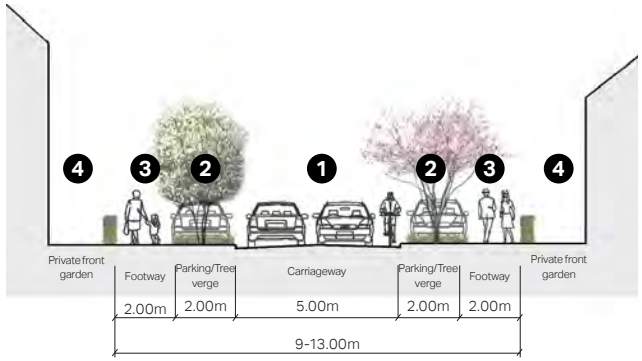


Figure 20: Section showing indicative dimensions for a tertiary road.

Figure 19: Example of existing tertiary route,Dell Loke

1. Carriageway should accommodate both vehicles and cyclists (local access). Traffic calming measures may be introduced at key locations.

2. Tree verge or pit with small trees. The latter are optional but would be positive additions. Parking bays on both sides of the carriageway to alternate with trees to avoid impeding moving traffic or pedestrians.

3. Footway.

4. Residential frontage with boundary hedges and front gardens.

Lanes and mews street

Lanes are access only types of streets that usually serve a small number of houses. They should be designed to connect to streets. Cul-de-sacs should be avoided.

- Lanes and mews street must be a minimum 6m wide and serve all types of transport modes, including walking, cycling and allow for sufficient space for parking manoeuvre;
- Opportunity to include green infrastructure such as hedges or private gardens should be maximised; and
- Shared surfaces should be encouraged for pedestrian and vehicular use in order to aid traffic calming with different colour materials, surface treatments and planting.

Figure 21: Example of mews street, Hudson Avenue.

1. Mews (local vehicle access, cyclists, and pedestrians).
2. Residential frontage with boundary planting and gardens.

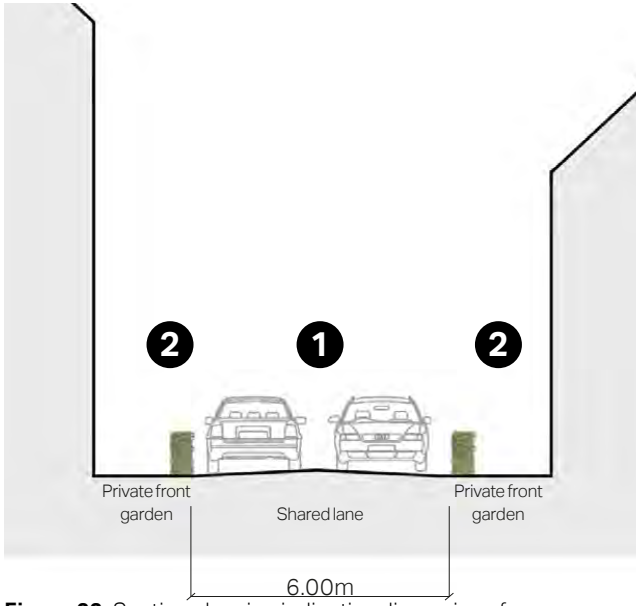


Figure 22: Section showing indicative dimensions for a mews street.

Edge lane

Edge lanes are low-speed and low-traffic roads that front houses with gardens on one side and a green space on the other.

- Carriageways typically consist of a single lane of traffic in either direction and are shared with cyclists;
- The lane width can vary to discourage speeding an introduce a more informal and intimate character. Low upstand kerbs, variations in paving materials and textures can be used instead of high upstand kerbs or road markings; and
- Examples of an edge lane within Trowse include Julian Drive.

Figure 23: Example of edge lane, Julian Drive.

1. Shared lane (local access) - width to vary.

2. Residential frontage with boundary hedges and front gardens.

3. Green space and potential for implementing swales into the landscaping.

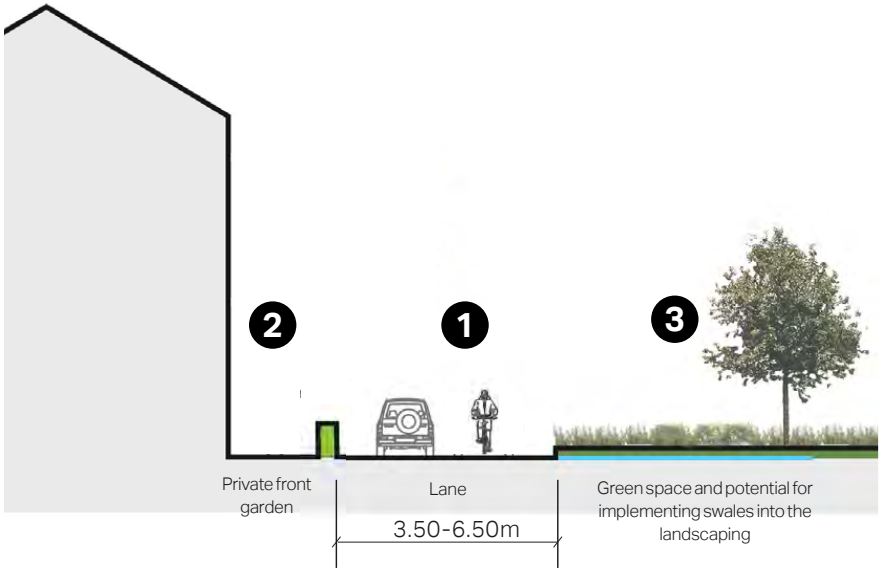


Figure 24: Section showing indicative dimensions for a shared edge lane.

DC.2.3 Parking

Visitor parking

Whitlingham Country Park and the Crown Point Park lying east of the TNCA make Trowse an ideal place to visit. Finding adequate parking at busy times can be a challenge. This gives rise to the on-street parking problem along the majority of roads in the village, particularly Whittingham Lane and White Horse Lane, which negatively affects the character and appearance of area. Parking should be carefully designed and incorporated within the development to avoid the dominance of the car.

The following parking typologies should be applied in future developments to ensure parking is integrated into the design and considered from the outset:

- Use of permeable paving, instead of concrete, to improve aesthetics, allow the area to have a flexible use, not just for car parking, and create resilience to flooding;
- If the potential site is already grassed, a park-on-grass solution can be used; and
- Encourage physical boundary treatments e.g. trees, bushes, flowerbeds, hedgerows, to create green screening between pedestrians and parked cars whilst reducing car dominance.

Figure 25: Permeable paving used for parking spaces.

Figure 26: Bad example of on street parking on White Horse Lane.

Residential parking

A good mix of residential parking types should be applied, depending on, and influenced by location, topography and market demand. The main types to be considered are illustrated in this section.

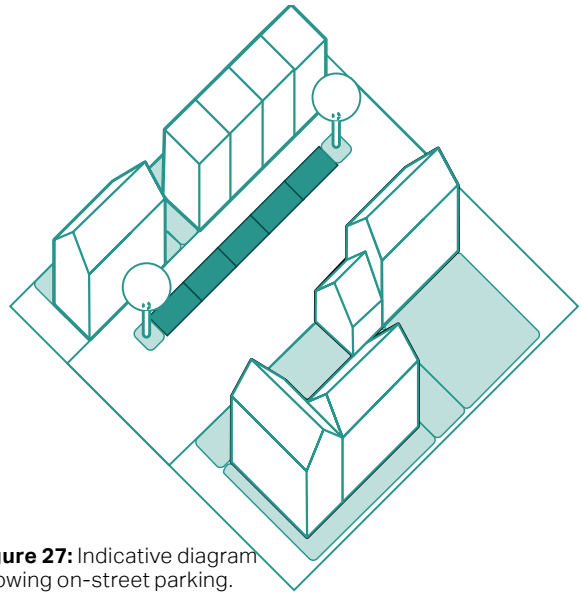


Figure 27: Indicative diagram showing on-street parking.

- Vehicle parking should be mainly on-site and designed to be adaptable to meet the needs of future users such as car clubs, electric vehicle charging or scooter and bike storage.
- Car parking design should be combined with landscaping to minimise the presence of vehicles;
- Parking areas and driveways should be designed to minimise water run off through the use of permeable paving;
- For small dwelling clusters, a front or rear parking court is acceptable. It is important to also introduce vegetation and appropriate boundary treatment to soften the presence of cars. For family homes, cars may be located at the front or side of the property, the latter being preferred; and
- When locating parking at the front, the area should be designed to minimise visual impact and to blend with the existing streetscape. The aim is to retain a sense of enclosure avoiding the potential of a continuous area of car parking in front of the dwellings. This can be achieved by walls, hedging, planting, and use of different hard surface materials.

On-plot front or side car parking

Some design guidelines for on-plot front and side car parking are:

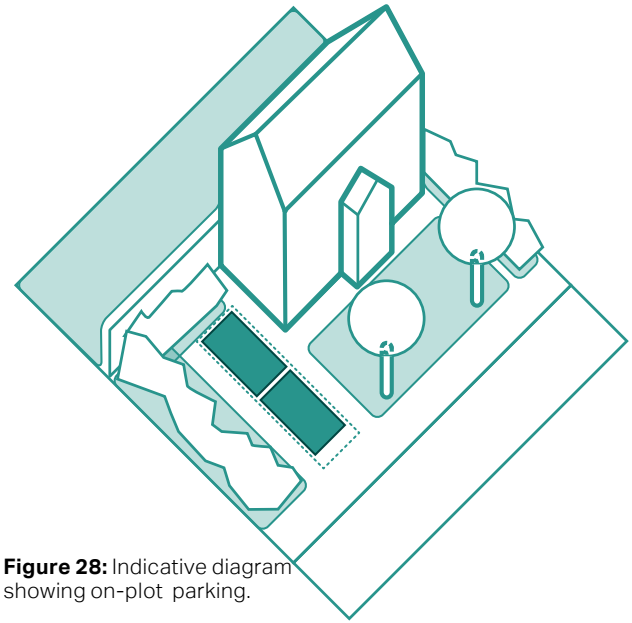


Figure 28: Indicative diagram showing on-plot parking.

- Sufficient and accessible off-road car parking must be provided on site or nearby;
- Parking on development sites should be well integrated to avoid dominating the public realm and must adhere to local planning policy;
- High-quality and well-designed soft landscaping should be used to increase the visual attractiveness of the parking;
- Boundary treatment is a key element to avoid a car-dominated character. This can be achieved by using elements such as hedges, trees, planting beds, low walls, and high-quality hard surface material between private and public space; and
- Hard surfaces and driveways should be constructed from porous materials to minimise surface water run-off and increase flood resiliency.

Figure 29: Image of example of on-plot parking on Hudson Ave.

On-plot garage

Where provided, garages should be designed either as free-standing structures or as an extension to the main building to ensure continuity of the building line.

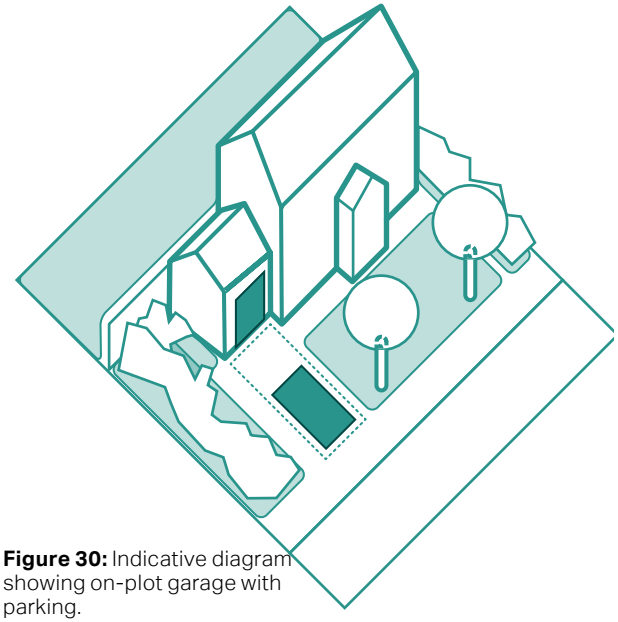


Figure 30: Indicative diagram showing on-plot garage with parking.

- Garages must complement the architectural style of the main building rather than forming a mismatched unit. They must also not result in excessively small and overshadowed gardens;
- Garages need to be large enough to accommodate a modern, family sized car and some domestic storage. Based on Broadland District Council Parking Standards Supplementary Planning Document (2007), garages will be counted as car parking spaces where they have a minimum internal dimension 7.0m x 3.0m.

Figure 31: Image of example of on-plot garage parking on Barn Meadow

Figure 32: Image of example of on-plot garage parking on Devon Way

Parking courtyards

Courtyard parking is often not preferred by residents over private and on-plot parking. However, it may be appropriate in more densely settled areas within the Parish of Trowse with Newton, particularly the White Horse Lane, where terraced housing is common.

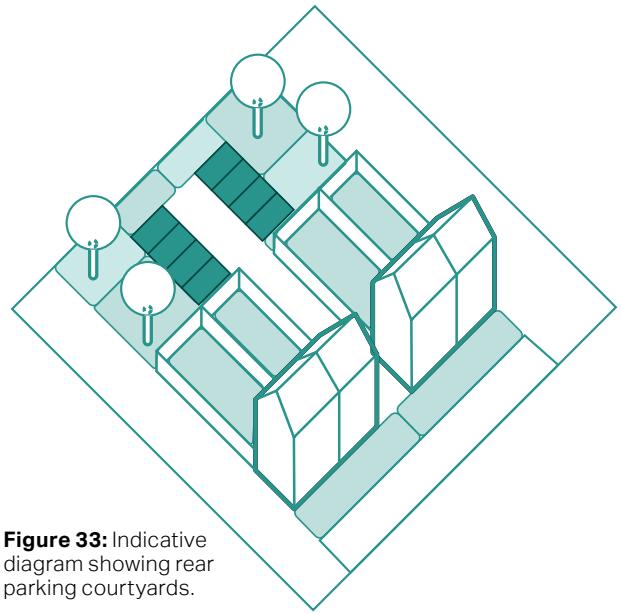


Figure 33: Indicative diagram showing rear parking courtyards.

- Parking courtyards must be overlooked by neighbouring properties and benefit from natural surveillance;
- High-quality design and materials should be used for both hard and soft landscaping so parking courts complement the public realm;
- Access to the parking courtyards should be through archways where possible to ensure the continuity of the street frontage; and
- Public and private spaces should be very clearly defined to avoid confusion and necessary design mitigations should be applied for maximum safety such as gates or barriers.

Figure 34: Image of example of parking courtyard on Hudson Ave.

Cycle parking and storage

To encourage the shift away from a car dominated street and to reduce existing on-street parking within the parish, the use of alternative transport modes such as walking and cycling should be encouraged and supported by the provision appropriate facilities. It is therefore important for new development to provide safe and convenient cycle storage / parking in new homes and employment sites.

- Cycle storage must be provided at a convenient location with easy access;
- The storage space must be designed for flexible use and should be well integrated into the streetscape if allocated at the front of the house;

- New residential development should provide secure covered cycle parking and accessible public cycle parking;
- Planting and small trees alongside cycle parking can be used to mitigate the visual impact on adjacent spaces or buildings;
- Visitor cycle parking within residential areas should be provided close to the buildings in the form of a suitable stand or wall bar; and
- Cycle stands in the public realm should be sited in locations that are convenient and that benefit from natural surveillance. They should be placed in locations that do not impede pedestrian mobility or kerbside activities.

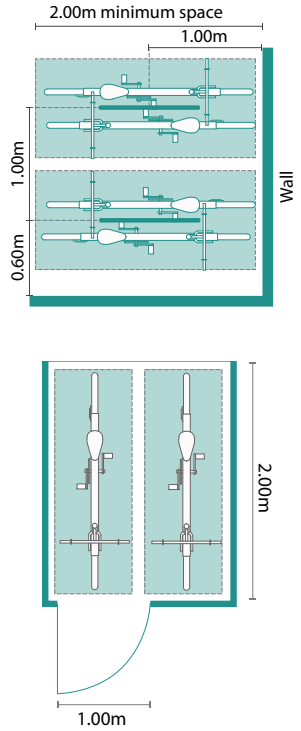


Figure 35:
Sheffield cycle stands for visitors and cycle parking illustration.

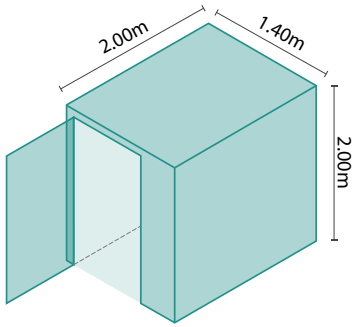


Figure 36:
Secure covered cycle store for two cycle storage illustration.

DC.3 Community and public space

DC.3.1 Open space

There is a wide range of open spaces within the Parish of Trowse with Newton including the Common, the churchyard and open space to the west of the TNCA, adjacent to the Trowse Primary School.

- All open space should have a purpose and be of a size, location and form appropriate for the intended use, avoiding space left over after planning or pushing open space to the periphery of development;

- New open space should not be used as a divisive measure between new and existing development however, green buffer zones which distinguish between older and new development are acceptable. This can be achieved by procuring a landscape consultant early in the design process;

- New and existing landscapes and open spaces should be located within walking distance from their intended users. If appropriate, these should be linked to form connected green networks. Well- connected Networks contribute more to visual amenity, recreational use and wildlife corridors than isolated parks and spaces;

- Where direct links are not possible, it may be appropriate to link these through green routes, shared surface spaces and streets. Tree lined avenues can achieve a visual and physical connection to open space; and

- Open spaces need to offer choice for the needs and desires of all users. For example, outdoor gym equipment, productive gardens, vertical gardens, allotments, etc. Offering choices will encourage a healthier lifestyle.

DC.3.2 Community facilities and play

Community facilities and play areas have an important role in well-being, social interaction and reflecting the original 'model village' ethos of the Colman's family.Where appropriate, new development should provide local facilities to meet population growth. Provision of facilities such as schools, shops, health services, community uses, open spaces and sports provision should be accessible to everyone.

- Buildings should overlook play areas and public spaces and where possible locate them centrally within the neighbourhood in order to encourage social gatherings.
- Play space design should consider target age of the children, the area, the type of equipment and proximity to existing residential properties;
- Play spaces should be accessible to all children and accord with existing national guidance on inclusive play;
- When designing play areas consider seating areas for carers, shaded spaces where possible avoid hidden spots;
- Play areas could also include elements relating to nature and landscape. The equipment should be high quality, durable and conforming to the relevant standard as defined by the Local Authority;
- New local facilities should be accessible by walking and cycling, and reduce the need of travel; and
- The type and scale of new community facilities should take into account the existing provision nearby.

Figure 37:
Existing community facilities and play areas at the Common.

DC.3.3 Legibility and wayfinding

A legible and well signposted place is easier for people to understand as they can orient themselves using landmarks and visual clues in the townscape.

- Wayfinding should be clearly established throughout the town and should be designed to complement and not clutter the public realm.
- New development should be designed and laid out to promote intuitive orientation and navigation, through appropriate uses of vistas and memorable features;
- A familiar and recognisable environment is easier for people to find their way around. Obvious and unambiguous features should be designed in new development;
- Buildings in which are located at corners (see **DC.4.5**), crossroads or along a main road can assist in navigation;
- At a local level, landmark elements could comprise of distinctive houses, statutory listed and/ or locally listed buildings, historic railings and/ or boundary walls, and mature trees (reference should be made to '**Trowse with Newton- Conservation Area Character Appraisal and Management Plan**' (2012, South Norfolk Council));
- Signage can promote existing and newly proposed footpaths and cycle lanes, encouraging people to use them;
- Signage should be strategically located to highlight gateways and access points, creating connections with important places and destinations; and
- Signage elements and techniques should be appropriate to the character of the area and sensitively respond to the existing architectural style and details.

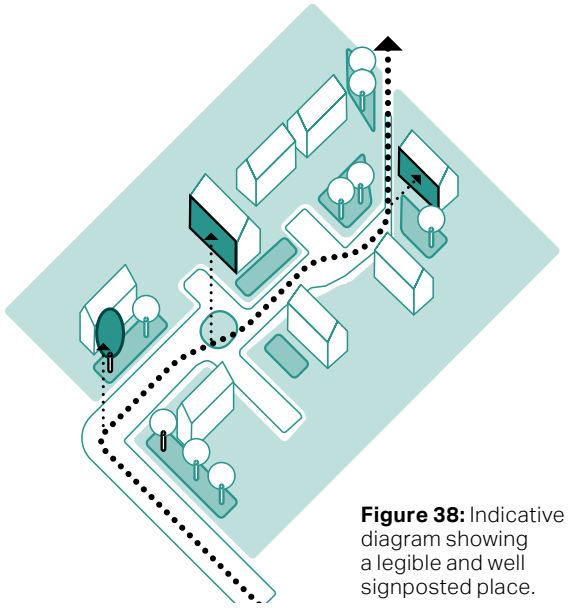


Figure 38: Indicative diagram showing a legible and well signposted place.

DC.4 Built scale and form

DC.4.1 Housing mix

The village of Trowse has a variety of houses, ranging from one to two-and-a-half stories. It is important that all new development provides a mixture of housing typologies to reflect the needs of the existing and intended future population. New development should also provide adequate provision of affordable housing.

- New development should complement the supply of housing by providing a variety of options in terms of size and height, whilst still respecting the existing surroundings.
- Development should accommodate a wide demographic, from first time buyers to residents downsizing. This mix will help to maintain a balance of groups within the population and reflect the original 'model village' ethos that Trowse and Newton was founded upon.

Figure 39: Image of example of smaller terrace properties, the School Terrace.

Figure 40: Image of example of larger detached feature building, the Manor House

DC.4.2 Building scale and form

The scale, form and massing of buildings are important to the character of a place.

Buildings within Trowse vary between one and two-and-a-half storeys. It is important to consider the existing context, new development should respond sensitively to preserve and enhance the positive characteristics of a place. Development should ensure a harmony with neighbouring buildings, spaces and streets.

- Development within the village should be of a scale and design to reinforce the locally distinctive character and shall be no more than two-and-a-half -storeys high;
- The scale and massing of new buildings should be in keeping with those of neighbouring properties and must have regard to their impact at street level whilst considering more distant views; and
- New building design should demonstrate how heights of development will not be over-bearing or dominant in the existing street scene and on the overall townscape.

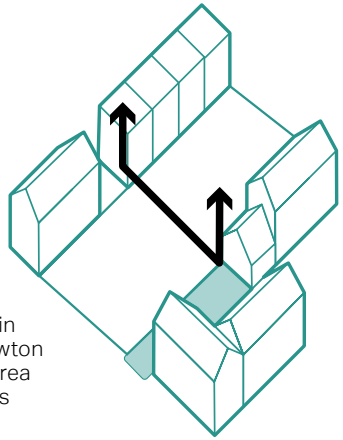


Figure 41: The enclosure ratio in Trowse with Newton Conservation Area character area is typically 1:2.

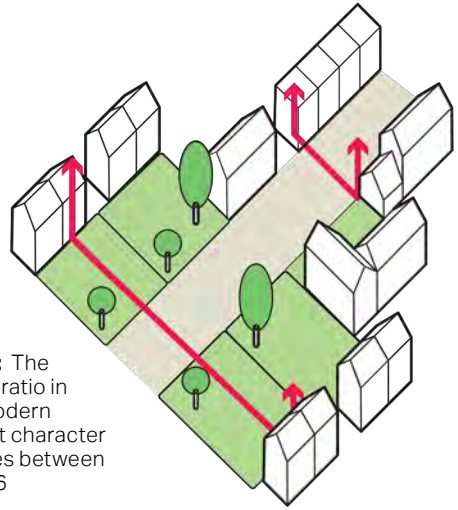


Figure 42: The enclosure ratio in Trowse modern settlement character area ranges between 1:3 and, 1:6

DC.4.3 Building lines and boundary treatments

Building line and boundary treatments vary across the parish. To respect the existing context, both building and boundary features should be consistent with neighbouring properties while enabling enough variations for visual interest.

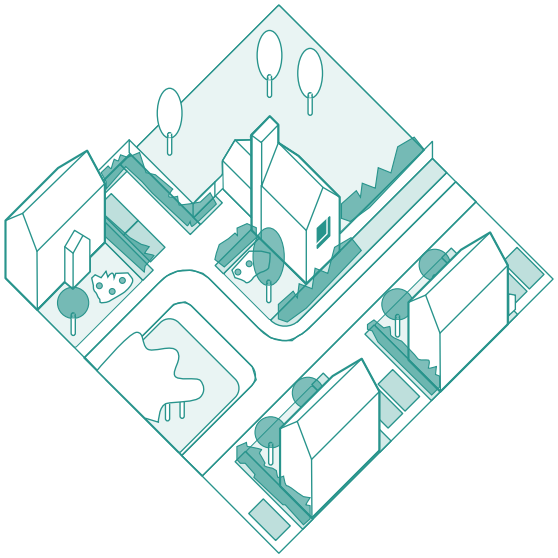


Figure 43: Indicative diagram showing the boundary treatment such as low wall and hedges in front of houses.

- Buildings should be aligned along the street with the main facade and entrance facing it. The building line should have subtle variation with recesses and protrusions but will generally form a unified frontage;
- Buildings should be designed to ensure that streets and public spaces have good natural surveillance from buildings. This can be achieved by placing ground floor habitable rooms and upper floor windows facing the street;
- Natural boundary treatments should reinforce the sense of continuity of the building line and help define the street, appropriate to the character of the area. They should be predominately continuous and made of traditional materials found within the area such as local bricks. The use of panel fencing or metal or concrete walls for publicly visible boundaries should be avoided. Natural boundary treatments should enable good natural surveillance; and
- When applied to edge lanes, natural boundary treatments can provide a buffer zone and defensible boundary between the development and the countryside.

Figure 44: Image of properties along Devon Way, with low hedging fronting onto the street provide good natural surveillance

DC.4.4 Plot infill

Plot infill takes the following two main forms:

1: Development with primary frontage to an existing street; and

2: Development which is located to the rear of existing properties.

- Sufficient private amenity for residents of existing buildings should be retained;
- The height of development should take into consideration the surrounding context. Where appropriate, the first floor can be set back from the street frontage to reduce the impact of the building on the streetscene;
- The above elements also need to be considered in relation to topography, views, vistas and landmarks;
- Development fronting an existing street should comply with the existing building line and should have its primary aspect and windows facing the street, particularly if aspect in all other directions is constrained due to overlooking neighbouring properties;
- The materials and detailing of the infill development should provide a contemporary design that complements the existing; and
- Where appropriate, green roofs can be considered to ensure no net loss of green cover.

A potential site for infill. The future infill property should complement the street scene.

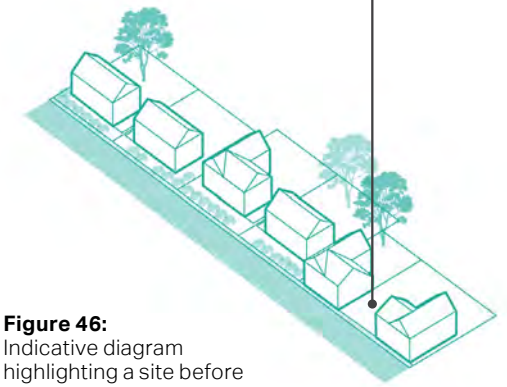


Figure 46: Indicative diagram highlighting a site before infill

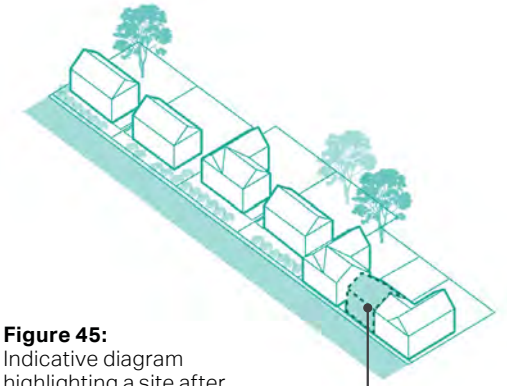


Figure 45: Indicative diagram highlighting a site after infill

New building lines should be consistent with existing properties. Some places in village of Trowse have small or large scale infill. The infill should reflect the surrounding context in terms of form, materials and height/massing. A careful attention should be given to design of infill, specially in Conservation Areas.

DC.4.5 Corner buildings

It is important for buildings to properly address corners of development. Where corner sites are visually prominent, buildings should define the corner architecturally.

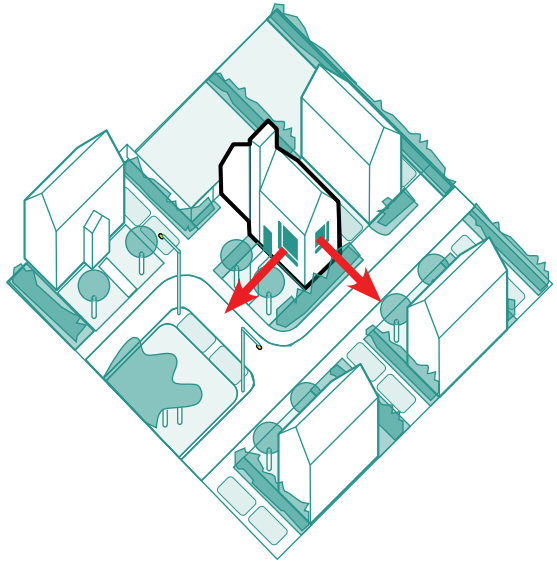


Figure 47: Diagram of one corner having two views

- Buildings should have active frontages on both aspects of a corner plot, with prominent entrances and windows on each elevation, wherever possible;
- On corners which are less visually prominent, such as within the lower density residential areas, a continuous built frontage should address the corner by using a series of linked dwellings where possible; and
- When a terraced, detached or semi-detached house faces out onto the corner, the buildings should have the main entrance and habitable room windows facing both sides to create activity, and should overlook the street. This building can also be taller or have a distinctive architectural element to ensure a greater presence.

Figure 48: Example of corner building, Crown Point Tavern at Kirby Street.

Figure 49: Example of corner building at The Street.

DC.4.6 Building proportion

The relationships between the building and its elements can provide visual interest and enhance the local character.

- The proportions of a building's elements should be related to each other as well as the scale and proportion of the building;
- Building proportions should respond to the type of activity proposed as well as the composition of the existing streetscape;
- The front elevation of a building should be arranged in an orderly way to avoid creating cluttered façades; and
- Features such as windows, doors and solid walls should create vertical and horizontal rhythms along the façade providing variety.

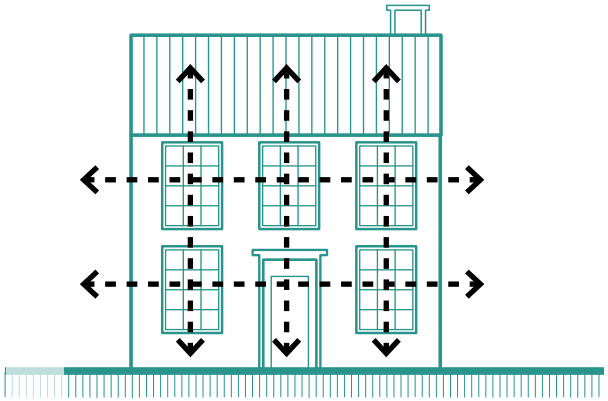


Figure 50: Elevation showing typical building proportion in a detached house.

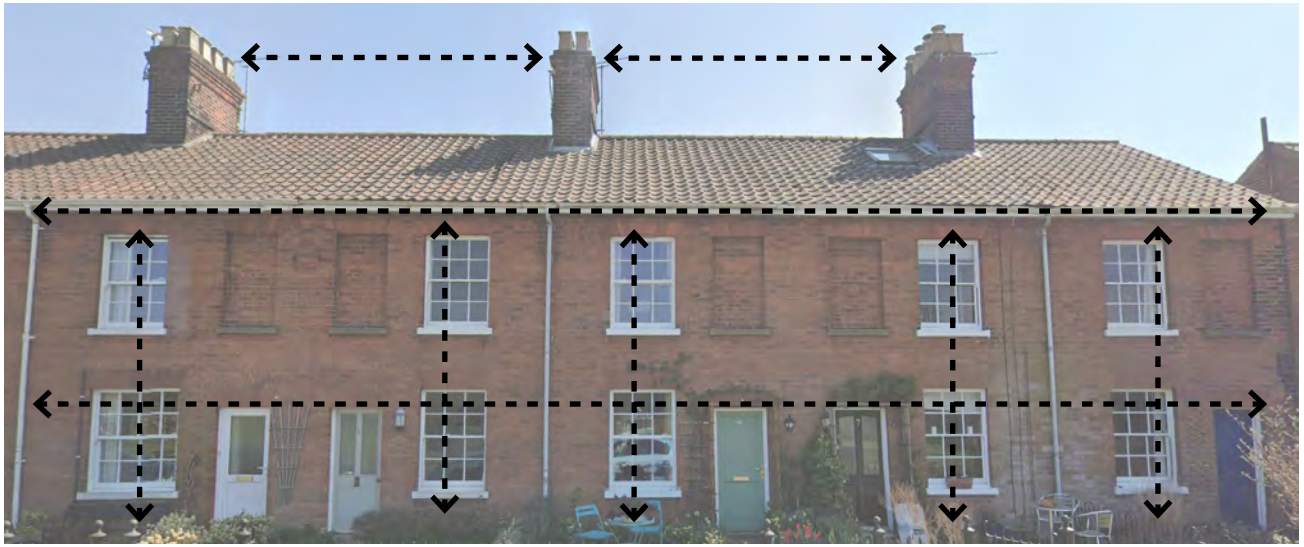


Figure 51: Horizontal and vertical window alignment on the White Horse Lane.

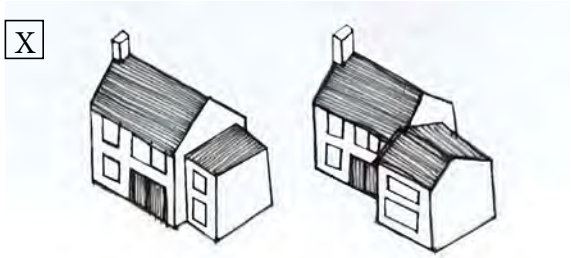
DC.4.7 Household extensions

Extending existing buildings can be an easy way to create extra space. Within the parish, extensions should not negatively impact the character of the area and aim to enhance the existing character.

- The original building should remain the dominant element of the property regardless of the size of extension. The newly built extension should not dominate the building from any location;
- Extensions should not result in a significant loss to the private amenity area of the dwelling;
- Designs that wrap around the existing building and involve overly complicated roof forms should be avoided
- The pitch and form of the roof used on the building adds to its character and extensions should respond to this where appropriate;
- Extensions should consider the materials, architectural features, window sizes and proportions of the existing building and recreate this style to design an extension that matches and complements the existing building;
- Side extensions should be set-back from the front of the main building and retain the proportions of the original building to reduce any visual impact of the join between existing and new;
- Rear extensions should not have a harmful effect on neighbouring properties in terms of overshadowing, overbearing or privacy issues; and
- Extensions should not be built up to plot boundary line.

Figure 52: Image of a recent extension of property on Newton Close uses similar finish materials and proportions to the original building.

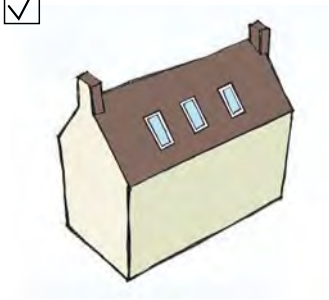
Good example for side extensions, respecting existing building scale, massing and building line.



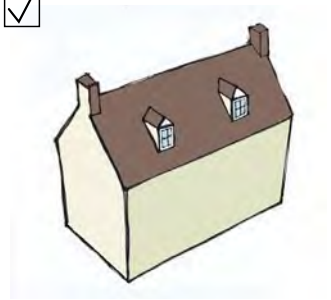
Both extensions present a negative approach when considering how it fits to the existing building. Major issues regarding roofline and building line.

Figure 53: An example diagrams of a side and rear extension.

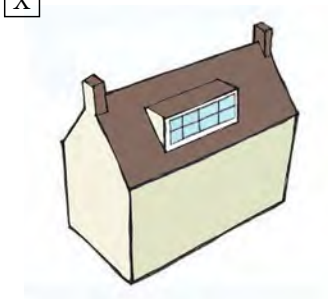
Design treatment in case of loft conversion:



Loft conversion incorporating skylights.



Loft conversion incorporating gabled dormers.



Loft conversion incorporating a long shed dormer which is out of scale with the original building.

Original roofline of an existing building.

Loft conversion incorporating gabled dormers.

Loft conversion incorporating gabled dormers which are out of scale and do not consider existing window rhythm nor frequency.

DC.5 Architectural styles, materials, and details

DC.5.1 Architectural styles, materials and building details

Within the parish, there is a rich heritage of historic buildings, both of residential and industrial use, with various architectural styles such as Jacobean, Gothic Revival and Georgian town houses. Most of the building materials traditional to South Norfolk can be found with the TNCA. The terraced and semi-detached houses built by the Colman family for their workers form a distinct characteristic of the historic core of Trowse.

New development should respect existing architectural styles and materials. These should be used to influence the design of development within the area.

- Development within or around the TNCA will need to pay close attention to the architectural styles and materials to ensure that it contributes positively to the local character.
- New development should use a palette of materials influenced by local vernacular style and traditions;
- New development should respond to historic details found locally without resulting in low-quality imitations of past styles; and
- Affordable housing should be of high-quality and be indistinguishable from other houses.

Figure 54: Church Hall

Figure 55: Crown Point Villas at Kirby Road, with red brick and slate roofing - building materials commonly used with the village.

Figure 56: School Terrace

Figure 57: The Old Hall

Figure 58: White Horse pub

Figure 59: Stone Cottages

Figure 60: The Barns

Figure 61: Manor House

DC.5.2 Materials and colour palette

The materials and architectural detailing used throughout the local area contribute to the rural character of the area and relate to the 'model village' ethos of Trowse with Newton.

It is therefore important that the materials used in new development are high quality and reinforce local distinctiveness. Any future development proposals should demonstrate that the palette of materials has been selected based on an understanding of the surrounding built environment.

This section includes examples of building materials and details that contribute to the local vernacular, which could be used to inform future development.

- The predominant building material used in the town is flint and Norfolk red brick. There is a mixture of brick and flint walls to be found across the parish. Most roofs use Norfolk pantiles or slate tiles.

- Detail on architecture and materials within the TNCA, reference should be made to '**Trowse with Newton-Conservation Area Character Appraisal and Management Plan**' (2012, South Norfolk Council).

Figure 62: Colman family's Crown Point Estate predominantly uses red brick and slate or pantile roofing as the main building materials.

Figure 63: Underpass along Hudson Road uses red brick and flint knapping inserts reflecting local and traditional building materials

RED BRICK

WINDOW DETAILS

STREET-FRONTING HEDGE

PRIVATE DRIVEWAY

CLAY TILES

FLINT RETAINING WALL

SHARED SURFACES
SETTS

VILLAGE SIGN

IRON RAILING

FLINT BUILDING WALL

OFF-ROAD FOOTPATHS;
GRAVEL WITH GRASS VERGES

BOLLARDS

DC.6 Sustainable design

DC.6.1 Sustainable drainage features

The low-lying riverside position of Trowse with Newton means it is vulnerable to flooding. Surface water flooding is a problem for some properties, particularly those near to the Common. Whilst water management is complex and concerns various water flows managed across several public and private organisations, it is important that new development in the parish is resilient in view of this challenge.

The following principles should be applied to SuDS design within new and existing built development. in all scenarios the design of SuDS should follow industry standards such as those set out in 'The SuDS Manual'.

- New development should not be located in high risk locations; "Where development is necessary in such areas, the development should be made safe for its lifetime without increasing flood risk elsewhere." (NPPF Clause 155)
- Any new development should seek to manage its own surface water using SuDS, which is "designed to manage and use rainwater close to where it falls, on the surfaces" (NPPF Clause 165), rather than only relying on traditional drainage solutions to capture and store rainwater thus slowing its flow and making extreme rainfall events manageable.
- New developments should seek to reduce flood risk overall through creation of multifunctional green infrastructure and SuDS. It is essential to demonstrate that the development will be safe and flood risk is not increased elsewhere.
- New developments should consider the amenity and aesthetic value of surface water in the urban environment alongside long term environmental, biological and social factors in the context of climate change and urbanisation.
- SuDS should be a key design tool to achieve wider goals of amenity and aesthetic value to the development.
- Consider how surface water will be managed on a new site from the outset and aim to maximise the use of sustainable urban drainage solutions with multifunctional benefits.

- Maximise multifunctional benefits by including planting which is good for biodiversity as well as improving visual amenity.

- Consider carefully the siting of any areas of open water within a public location and design to safety standard so that it is safe and visually accessible for the public.

- SuDS should maximise human interaction, for example, by creating visual interest through planting, providing natural play features and as a stimulus for education on topics such as climate change and biodiversity.

- Individual properties can also contribute by avoiding impermeable surfacing within private gardens and installing domestic scale SuDS which can include SuDS planters and rain gardens, which may connect to downpipes.

- Retrofits within public space should not detract from the historic character of Trowse with Newton and may be better suited to wider streets and public open space located outside of the Conservation Area.

Figure 64: Example SUDS feature incorporated into a creative item of play.

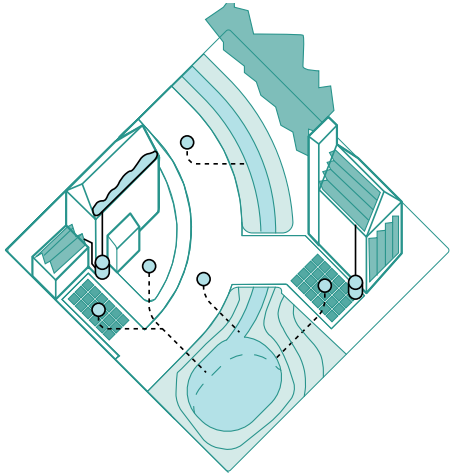


Figure 65: Indicative diagram showing the best use of harvesting water systems rain garden, swales, permeable paving, green roofs.

DC.6.2 Future Homes Standard (2025)

The Future Homes Standard set minimum environmental standards for all new housing, including a commitment to removing traditional fossil fuel heating systems from 2025.

The aim of the new standard is to tackle climate change, improve the environment by reducing energy consumption and cutting carbon emissions. Homes built from 2025 will have to meet further improved standards based on results of a consultation process that is underway. Once the legislation is passed from 2025, all new homes will have to be built according to the standards.

Currently, an interim step is proposed to cut carbon emissions in new homes by a third, therefore homes will need to comply with the following expected update to legislation:

- Improved Building Regulations for new homes (changes to Part L and Part F of the Building Regulations for new dwellings, now expected in 2021);
- Promoting use of new technologies such as air source heat pumps, latest generation solar panels;
- Continued development of building fabric, such as wall insulation and heating; and
- Potential changes to the energy efficiency standards for non-domestic buildings.
- Likely further improved Building Regulations for new homes;
- Potential further changes to ventilation and efficiency requirements (e.g. significant improvements to insulation and airtightness);
- Potential mandatory space for hot water storage, eliminate new combi-boilers and heating systems to run at lower temperatures, enabling heat pumps to work effectively; and
- Potential changing role of the council to get the best energy standards from developers.

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

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

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

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

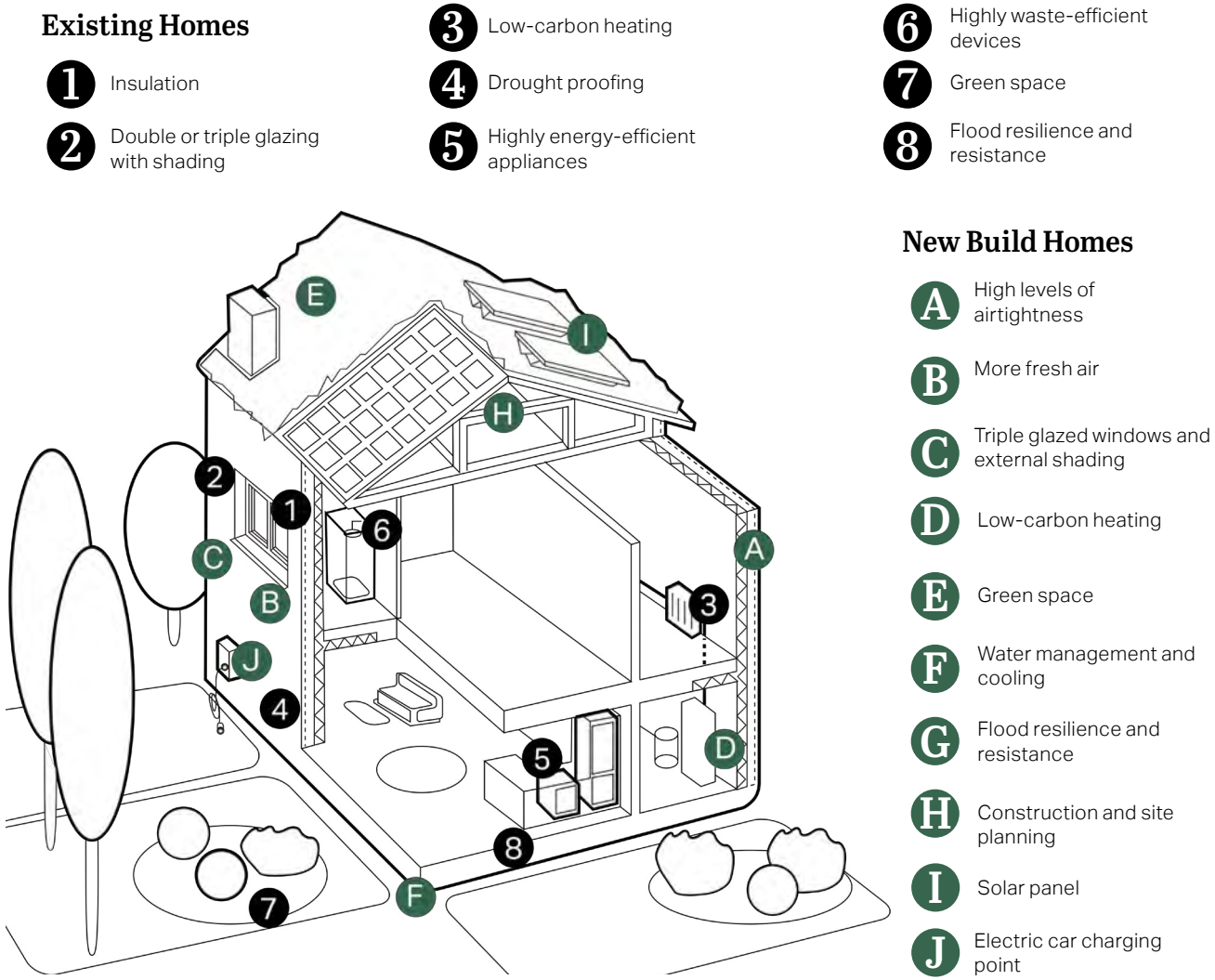


Figure 66: Illustration of potential energy efficient energy measures applied to housing design.

DC.6.3 Electric charging point

Infrastructure required for charging electric vehicles (EVs) will be increasingly required within residential areas.

Building Regulations will provide the technical standards for EV charging points. Other design advice and standards may also become available and should be followed where relevant.

- EV charge points should be carefully sited to minimise street clutter and come either in the form of a wall box or free standing pillar;
- Maintain a street scene that does not negatively impact on pedestrians or road users and ensures there is adequate room for pedestrian movement; and
- EV charge points should be provided in public locations.

Figure 67: Public car charging point incorporated into the street design.

DC.6.4 Permeable pavements

Pavements add to the composition of the building. Thus permeable pavements should not only perform their primary function which is to let water filter through but also:

– Respect the material palette;

– Help to frame the building;

– Be easy to navigate by people with mobility aids;

– Be in harmony with the landscape treatment of the

property; and

– Help define the property boundary.

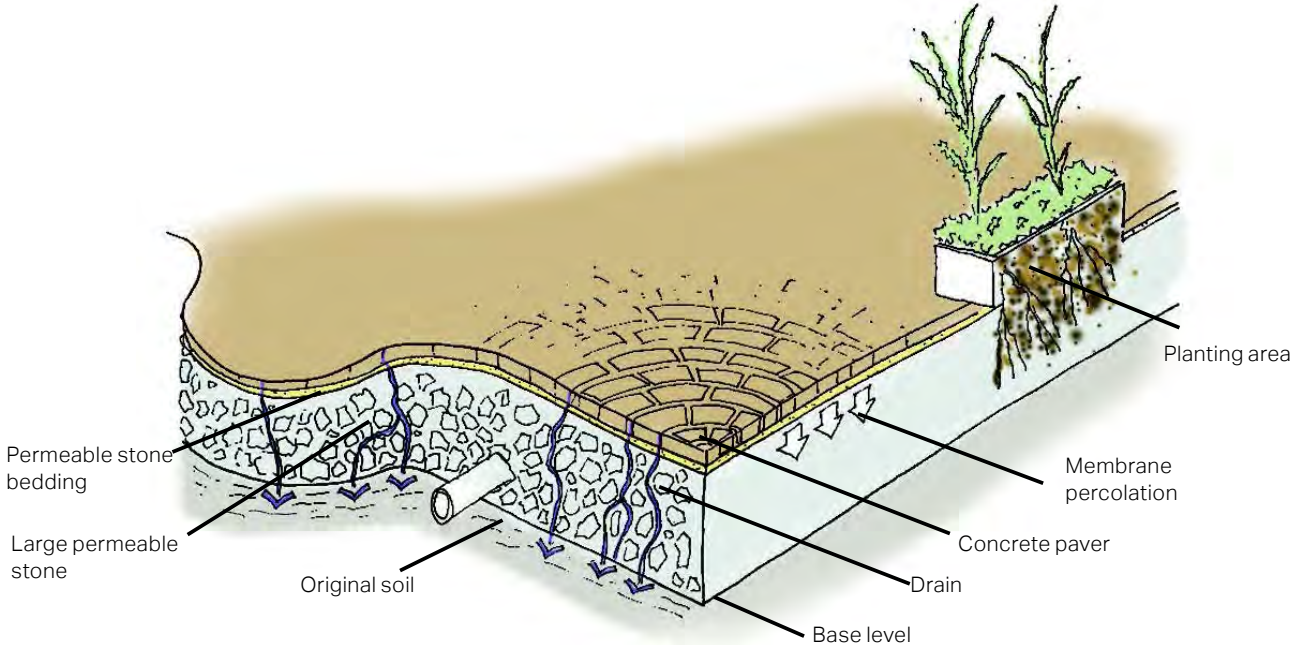


Figure 68: Permeable paving and design considerations diagram.

Figure 69: Examples of permeable paving; resin bound gravel (L) and concrete block (R).

Design codes

05

5. Design codes

As stated previously, applicants are expected to show in their proposed design has been considered the site context. The appropriate design response will vary and it is not possible for the design codes presented below to specify what should happen in every instance. However, they can set out expectations, parameters, and suggestions to assist with creating a successful design.

5.1 Introduction

This chapter is structured around the three sites introduced in section 1;

1. The Parish of Trowse with Newton
2. Trowse with Newton Conservation Area (TNCA).
3. Former May Gurney site - potential residential development site.

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

5.2 Character Areas

In order to provide localised and focussed design guidance and codes, the three sites have been further divided into local character areas as illustrated on **Figure .70**.

The following pages start with a brief description of the character areas and key features included in the site (1-3) before presenting guidance and codes in a repeatable table with reference made to the relevant character area.

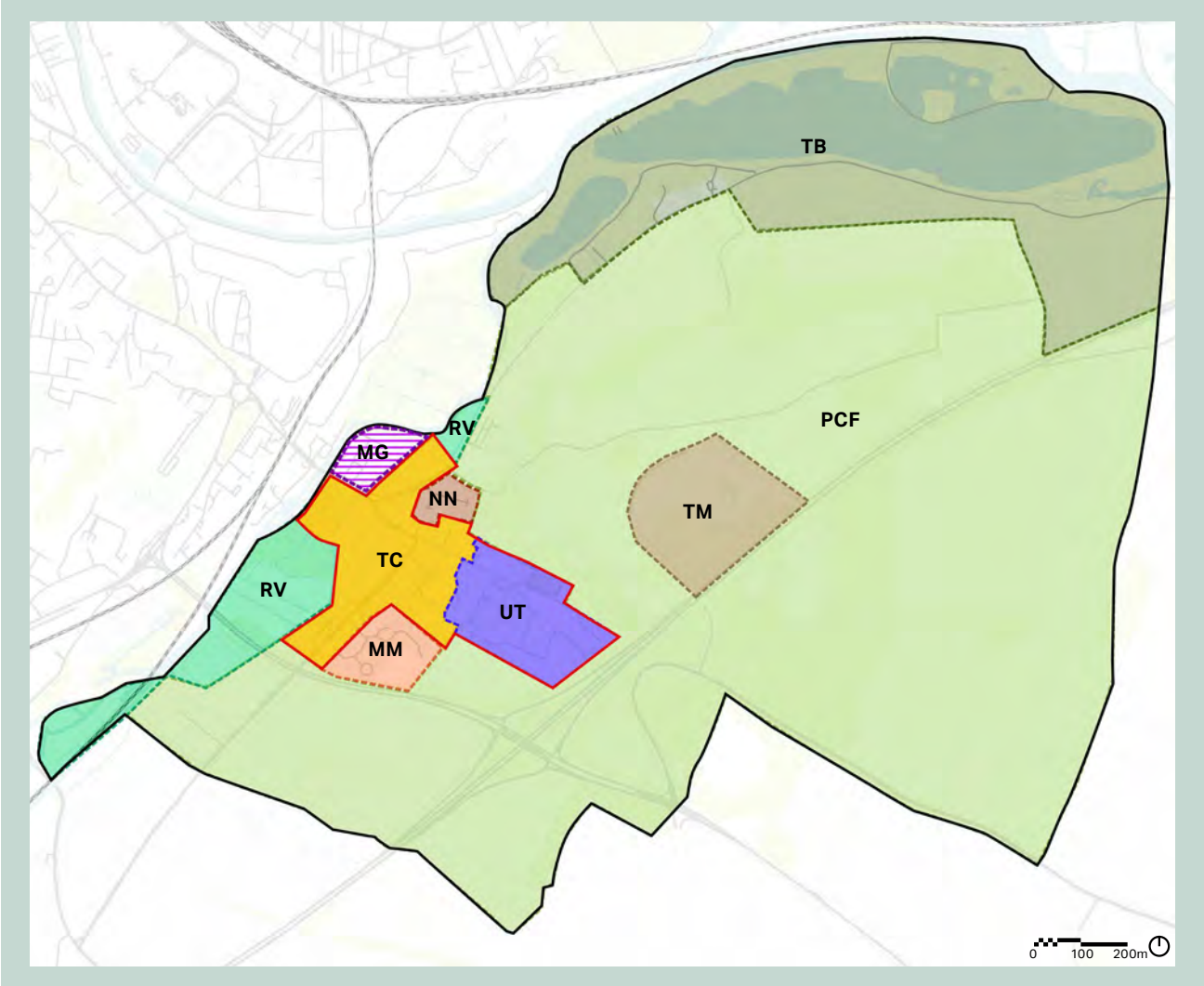


Figure 70: Map showing the local character areas in three different sites.

DC.5.3 Parish-wide design code

As can be seen from **Figure 70**, a large proportion of the Parish of Trowse with Newton is covered by parkland, open countryside, and farmland. Any new development within these areas is likely to be very limited and should seek to reduce its impact on the existing surrounding natural environment. Due to lack of development expected in these areas, the following relevant guidance and codes and are focussed on the hinterland character areas of the village where development is more likely to occur.

Figure 71: Map showing the local character areas within the Parish of Trowse with Newton (except the former May Gurney and the Trowse with Newton Conservation Area)

NN - New Newton

Located to the northeast of the village, New Newton is the site of the former police accommodation built in 1968, comprising of medium to large semi-detached and detached properties. The combination of generous front gardens with minimal boundary treatments creates an open and semi-urban character to the area surrounded by a tree'd horizon of Trowse Woods and thick vegetated boundary of the meadows to the south. Access to the wider village is gained via Whitlingham Lane or a footpath leading past The White Horse pub.

RV - River Valley

Located on a flood plain to the west of the Trowse Common. A significant part of it is within flood zone 2 (medium probability of flooding) and flood zone 3a (high probability) which extends along the western boundary of the TNCA and along the front of the River Yare. The presence of the low-lying meadows along the valley creates an attractive backdrop for the village, and acts as an important green separation buffer between the village, the former May Gurney site, and the edge of the City of Norwich.

TM - Trowse Magna

Trowse Magna is located on an elevated position within the wider parkland setting of Whitlingham Hall. Originally the Colman family home then reproposed as a hospital site before being converted into a series of private residencies.

PCF - Parkland, Countryside, and Farmland

A large part of the parish of Trowse with Newton is covered by parkland, woodland, farmland, and open countryside rich with wildlife. They serve as the extension of the wider network of the habitats within the Broads, whilst providing a visual buffer to the edge of the village of Trowse.

MM - Millgate Meadow

Millgate Meadow is a recent (still partially under construction) mock Georgian development comprising of a mix of housing types, local green spaces and Trowse Primary School. The site is located on the southern edge of the village outside the TNCA adjacent to the A146 fly-over.

TB - The Broads

The Broads is the largest protected wetland in the UK located at the northern edge of the parish. It has a network of rivers and lakes with over 125 miles (200km) of navigable waterways comprised of 7 rivers and 63 boards. It contains 9 national nature reserves and 28 Sites of Specific Scientific Interest (SSSIs). It is a popular tourist destination with an estimated 7.5 million visitors in 2013.

Place Making	
Enclosure	The character areas of **New Newton** and **Millgate Meadow** have a range of enclosure and ratios, some more recent development within **Millgate Meadow** has a stronger sense of enclosure of **1:3** ratio, whilst more open medium-density residential development in **New Newton** has larger gardens and green space of up to **1:6** ratio. This range should be reflected in future residential development, the larger ratio should be positioned adjacent to the green edges of the settlement.
Views	Future development to the edge of the village within the character areas of **New Newton** and **Millgate Meadow** should respect existing landmark views of the **Grade I Listed St Andrew's Church**. Development should maintain a visual gap across the **floodplain of the River Yare** ensuring there is a clear distinction between the village boundary and the City of Norwich.

Land use	
Land use/mix	The existing use of **New Newton** and **Millgate Meadow** character areas is predominantly residential with some community green spaces and facilities such as Trowse Primary School. Larger-scale residential development could be accommodated to the edge of these character areas. Development should provide an appropriate percentage of social housing and a range of housing sizes and types, from affordable '**starter homes**' to **larger family housing** with potential clusters of **retirement dwellings** promoting the 'cradle to the grave ethos' of the original model village vision of Trowse with Newton.

Building scale and form	
Typology	Building typologies should be mainly **two-storey detached** and **semi-detached houses** and scattered **terraced houses** to allow for a diverse housing mix. Bungalows maybe appropriate as retirement dwellings.

Materials and details	
Roofs	A combination of **hipped** and **pitched roof** should be used for new development in both **New Newton** and **Millgate Meadow** character areas as can be seen on the recently built Pepperpot Drive. A consistent angle of pitch should be maintained throughout the development.
Materials	Materials used locally, such as red brick, knapped flint, pale coloured render and painted walls with some red brick detailing around the windows and gable ends are appropriate in **New Newton** and **Millgate Meadow** character areas. Good examples of this can be seen along Mustard Way.

Green and blue infrastructure	
Open space	Existing open space and community features such as the **Common**, **Allotments** and **Trowse Woods** should be utilised by future residential development through provision of safe and legible access to existing facilities. Larger scale development should provide open space and areas of play in accordance with planning policy, these should be positioned with good passive surveillance from residents and assist with creating a sympathetic green edge to surrounding rural countryside. Tree planting should be incorporated as part of the street design for future development.

Access, movement and street design	
Street typologies	A range of street typologies such as **Tertiary roads**, **Lanes** and **Mews street** are appropriate within New Newton and Millgate Meadow character areas depending on the scale of development. Where practical **Edge lane** with landscape buffer planting should be used when forming the development edge to integrate the built form into the surrounding countryside.
Parking typologies	**On-plot** and **on-plot with garages** is the most appropriate parking type here to avoid excess street clutter.

DC.5.4 General design code: Trowse with Newton Conservation Area (TNCA)

The Trowse with Newton Conservation Area (TNCA) covers a large extent of the village and contains two character areas, both with their own features and nuanced identity. It is important that future development should respond sensitively to these characteristics by adhering to the design guidance and codes within this section to preserve and enhance the unique sense of place of Trowse with Newton.

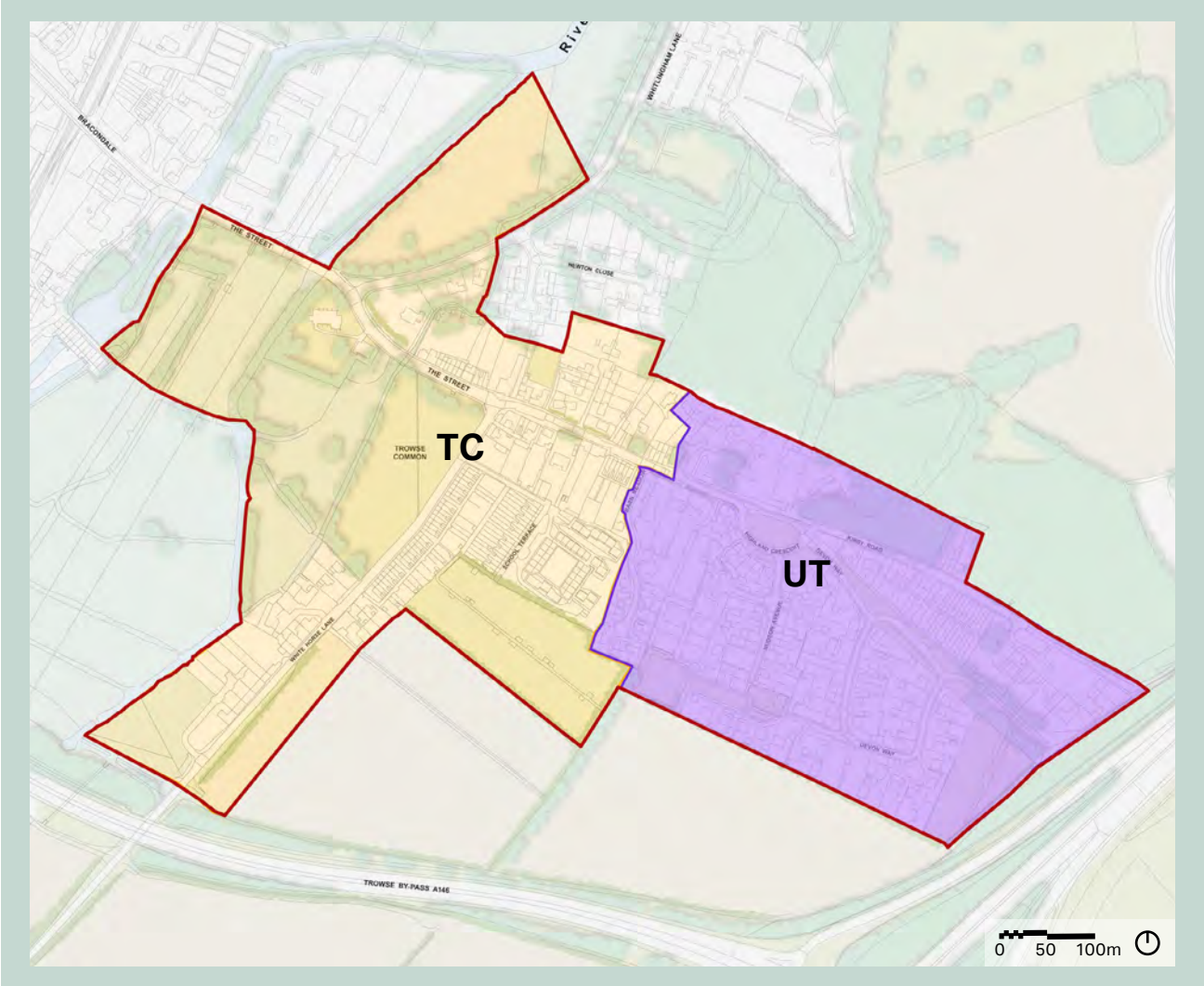


Figure 72: Map showing local character areas within the Trowse with Newton Conservation Area.

TC - Trowse Common

Trowse Common covers the historic core of the village with the Common being the main focal point of the character area. The contrast of the open landscape of the Common and meadows beyond with the urban townscape of Russel Terrace, Chapel Place, and Stanton Terrace creates a unique sense of place to the village. The medieval Grade I Listed St. Andrew's Church provides an historic landmark feature within the character area and marks the northern arrival point of the village.

UT - Upper Trowse

Upper Trowse covers the eastern section of TNCA located on rising landform around the Grade II Listed Crown Point Traven. The northern area of Upper Trowse includes the 'model village' built by the Colman family circa 1890. It contains a row of Blockhill cottages that comprise 12 Georgian-style terraces set back behind long front gardens sloping up from the road. In contrast, the more recent Hopkins Homes development, includes a mix of detached, semi-detached terraced houses with a range of street typologies and green spaces which compliment the wider village setting.

Place making	
Morphology	Proposed development in **Trowse Common** character area should reflect the alignment of existing residential streets such as Dell Loke and Meadow Close that are perpendicular to The Street and White Horse Lane; primary routes of the village. Within the **Upper Trowse** character area the existing perimeter block arrangement should be retained.
Enclosure	**Trowse Common** character area has a strong sense of enclosure with some properties on the Street and along School Terrace opening directly onto the footpath. The existing enclosure ratio of **1:2 to 1:4** should be maintained. **Upper Trowse** character area also displays a range of enclosure ratios but **1:3 to 1:4** is typical and should be maintained.
Legibility and wayfinding	**Grade I Listed St Andrew's Church** acts as landmark and gateway to the village and views of it should be protected. Access to open spaces such as the **Common** and **Trowse Woods** and should have clearer signage and be improved, whilst links to existing amenity assets within the village such as the **allotments**, **Trowse Sports Hall** and **Trowse Primary school** should be enhanced.
Public and private space	Public and private areas should be clearly defined with the use of boundary treatments. Typical front garden treatments found within **Trowse Common** character area, such as **low brick** or **flint walls** and **hedgerows** along The Street or **metal railings** along White Horse Lane should be replicated in both character areas.
Topography	From the River Yare, which forms the northwest boundary of the village, the landform rises towards the southeast. Houses on streets such as **Kirby Road** and **Devon Way** running up the slope should be lower than the buildings below to avoid unnecessary overlooking of neighbouring properties.
Views	Development within **Trowse Common** and **Upper Trowse** character area should protect landmark views of the **Grade I Listed St Andrew's Church** and **Grade II Listed Crown Point Tavern** and where possible retain and frame views of the surrounding landscape and green space such as the **Common**.

Land use	
Land use/mix	A range of existing uses e.g. commercial, amenity and residential are present within both character areas of TNCA. Future development should reflect this mix. Only **smaller scale extensions** or **refurbishments** are likely to be appropriate within **Trowse Common** character area. **Upper Trowse** presents more potential opportunities for **minor infill development**.

Building scale and form	
Typology	Building typologies should be mainly **two-storey detached**, **semi-detached houses** and **scattered terraced houses** to allow for diverse housing mix. Typically, smaller units will be more appropriate within the **Trowse Common** character area whilst **Upper Trowse** has potential capacity to include larger family homes as reflected in the existing housing mix.
Building lines and set backs	Building lines should be continuous along the road with minor variations in set-back to create a defined yet animated streetscape. Examples of this is can be seen in both character areas within TNCA along **The Street** and **Devon Way**. Typically properties should have a small to medium set-back within **Trowse Common** character area increasing to a **small to large set-back** in **Upper Trowse**.
Front and back garden	Various sizes of front gardens and rear gardens should be provided in both character areas within TNCA. Sizes should not be less than **3m for front gardens** and **10m for rear gardens** with larger gardens typically occurring in the **Upper Trowse** character area. In some locations it may be appropriate for properties to open directly onto the street or shared courtyard.
Active frontages	Buildings should have active frontages with windows and doors overlooking the main streets.

Materials and details	
Roofs	A combination of **hipped** and **pitched roofs** should be used in both TNCA character areas with opportunity for feature gable ends on landmark properties as can be seen on **Highland Crescent**.
Aspect and orientation	Building frontages should face the street, open spaces or shared courtyards, increasing natural surveillance and, where possible, face south to improve the natural light gain.
Building heights	Properties should predominately be **two-storeys** with some taller landmark and gateway buildings within **Upper Trowse** character area no higher than **three-storeys**.
Boundary treatment	A variety of **low brick** or **flint walls**, **hedges with specimen trees** and **metal railings** should be used to define boundaries reflecting the existing boundary treatment found within **Trowse Common** and **Upper Trowse** character area. Where properties are set-back from the street, some form or physical boundary treatment should be proposed.
Materials	**Facing walls** should be either **red brick**, **pale** or **pastel render** or **knapped flint**. Properties should be limited to one or two main materials to avoid a cluttered appearance. **Roofs** should be **pantiles** or **slate**.

Green and blue infrastructure	
Open space	Well-vegetated front gardens in private properties should be encouraged to assist with preserving the rural character of the TNCA. Future development should retain and promote the use of local green spaces, woodlands and meadows such as the **Common**, **Trowse Church Meadow**, **Everett's Meadows, Trowse Churchyard**, the **Allotments**, and **Trowse Woods**. Additional tree planting, including on wider existing footpaths along the The Street, should be incorporated as part of the street design for future development.
Water	The River Yare is located to the north of TNCA and should be accessible for pedestrians wherever possible. Improvement of the existing footpath connection to the River Yare should be included as part of new development proposals.
Public realm	Hard materials used within the existing public realm of **Trowse Common** are functional but generally low quality comprised mainly of tarmac and pre-cast kerbs. **Upper Trowse** uses a range of higher quality materials such as pre-cast concrete block paving and natural stone in key focal areas. New infill development within the TNCA should use similar high quality materials.

Access, movement and street design	
Street typologies	The Street and White Horse Lane should act as the main transport corridor route of both **Trowse Common** and **Upper Trowse** character areas with the TNCA. Smaller infill development within Upper Trowse should use the **Mews** street typology. Where appropriate **Edge Lanes** should form a sensitive edge to the development with a landscape buffer creating strong visual connections to the surrounding countryside.
Pedestrian movement	Unregulated on-street parking, especially on pavements, should be discourage to avoid restrictions to pedestrian access. Pedestrian footpaths should be at least **2m**, ideally with a green verge or tree planting. Accessibility to the Common should be improved where practical with lighting a signage of pedestriaonly access routes.
Parking typologies	**On-plot parking** is preferred or **courtyard parking** may be appropriate for smaller infill development within **Upper Trowse** character area. On-street parking should be discouraged within TNCA.

DC.5.5 Site-specific design code: Former May Gurney site

As mentioned in **Ch.3.3**, the former May Gurney site is one of the strategic sites within the East Norwich Masterplan (ENM). The site has been through public consultations[1] and was granted outline planning permission for a development of 100 homes. This section provides further guidance to be considered as the complement to the **Draft ENM Stage 1** documents[2].

Any future development within the former May Gurney site should align with the design principles and guidelines included in the previous section. Emerging development should also follow these site-specific codes to create a coherent and complete neighbourhood while respecting settings of the surrounding areas.

1 Details and timeline for the ENM public consultation. Available at https://www.norwich.gov.uk/info/20429/east_norwich_regeneration_masterplan_engagement

2 Allies and Morrison (2021). Draft ENM Stage 1. Available at https://www.norwich.gov.uk/ENMPart1 ; https://www.norwich.gov.uk/ENMPart2

Figure 73: Aerial view of the former May Gurney site and its boundary.

DC.5.5.1 Conservation areas, listed building, and local interest

The former May Gurney site interacts with the Trowse with Newton Conservation Area, Trowse Millgate Conservation Area, the Broads, Tree Preservation Orders designated site, and a number of heritage assets such as the former pumping station, the White House and the Grade I Listed St. Andrew's Church.

Proposed development should be sympathetic to the surrounding area and must not be designed in isolation to avoid creating disjointed parcels of development throughout the parish.

DC.5.5.2 Landscape, views, and open spaces

Retaining existing mature trees and hedgerows wherever practical to be integrated with open spaces; and

- Responding to the existing views and use vegetation to mediate the impact of the development on the existing and surrounding landscape such as River Yare and the grazing land to the east.
- All open spaces, including streets, public realm and courtyards should have active frontages to achieve safe spaces. High levels of connectivity and a hierarchy of street connections should be achieved using design principles.
- Views to the TPO site and the meadows beyond the Common should be protected. A green corridor is encouraged in the development as a north-south link connecting the two areas visually and physically.

DC.5.5.3 Traffic calming

- Cycle parking can be added at key entrances to the site that connect to the existing National Cycle Network Route 1 where it passes through Trowse from Bracondale continuing along Whitlngham Lane to the Whitlngham Country Park. This will promote the use of active transport within the site and the parish.

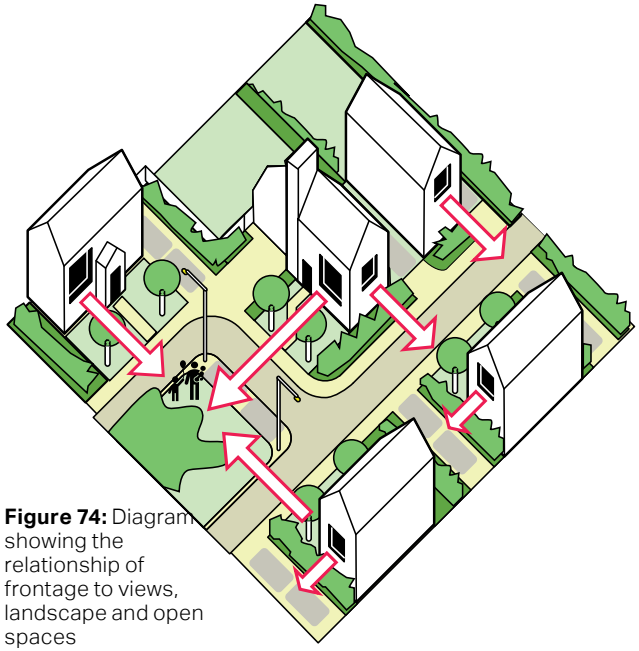


Figure 74: Diagram showing the relationship of frontage to views, landscape and open spaces

DC.5.5.4 Access and movement

- Proposals should take into account for the ease of access to and from the site by active transport modes.
- A pedestrian / cycle bridge should be provided across the River Yare connecting the former May Gurney site to the Deal Ground with the Utilities site to ensure the site is fully permeable for active transport modes. This should limit extra transport pressure on the congested Bracondale and A147 road.
- The street layout should establish a clear network providing direct and attractive connections for vehicles, pedestrians and cyclists.

DC.5.5.5 Edges: relationship of future development to landscape features

The interface of development edges to countryside, open space, woodlands, routes or the river have a critical role in defining the character and quality of the place.

- The edge towards natural features should be positively addressed with building frontages facing it and pedestrian and cycle links providing natural surveillance.
- The scale, mass and typologies of buildings must appropriately respond to the topography, existing landscape and context of the area.
- Similarly, the welcome presence of various TPOs and retaining other existing trees should be considered as a beneficial component. Any development proposals will need to take a proactive approach to mitigate and adapt to the specific landscape conditions.
- Edge lanes should be used along the edges of development in line with street typologies principles highlighted in the previous section.
- Where possible, encourage tree planting and planting along the development to maximise its visual appeal and recreational value.
- Avoid hindering the continuity of green and blue infrastructure, by appropriately integrating new green links into the existing networks.

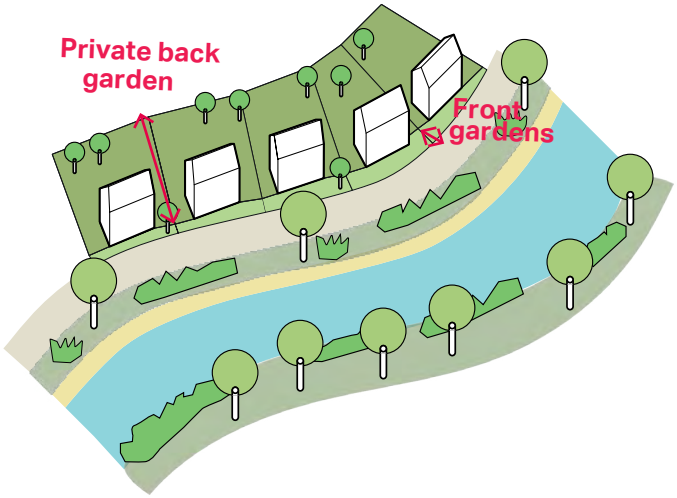


Figure 75: Diagram showing relationship of future development to landscape features.

DC.5.5.6 Development blocks

A development block is the land area defined by surrounding streets, green spaces and pedestrian and cycle routes. They can vary in shape and size according to the configuration of the layout, topography and existing landscape features.

- A perimeter block is a successful solution for residential and mixed use areas. It is important to have a variation in shape and size to reflect the specific character area without compromising the connectivity.
- Perimeter blocks with different sizes and shapes should be used in any new development. Their sizes and shapes should respond to the existing landscape features (River Yare and Whitlingham Country Park), topography, character, density and surrounding character areas

DC.5.5.7 Architectural style and materials

- Buildings should be eco-friendly whilst still being in keeping with the existing building on site by using the same materials and colour tones.
- The architectural language of the buildings should respect the village identity.
- The public realm materials should be of a high quality. If any paved areas are proposed, materials used should be complementary to surrounding areas. Refer to the guidelines for the TNCA for more details.

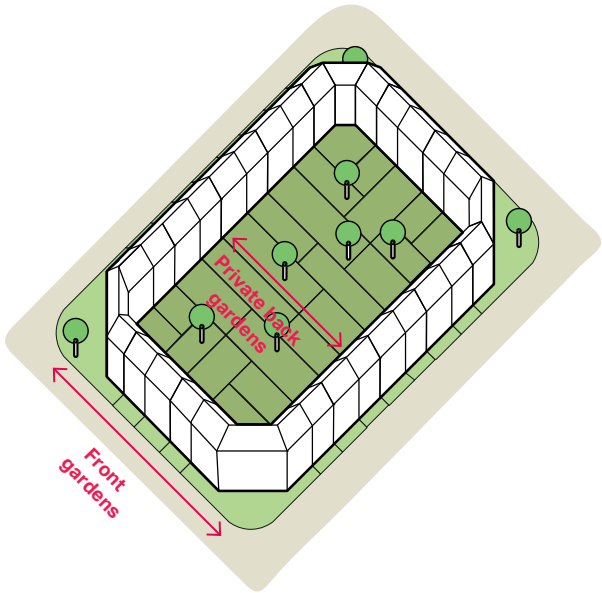


Figure 76: Diagram showing perimeter block and gardens.

DC.5.5.8 Fronts and backs

- Designing development blocks with a clear distinction between the front and back of the property is important to create secure and coherent streets and places.
- A clear distinction should be made between public fronts and private / semi-private backs. The primary accesses of the buildings should align with the streets or other public space (along the river) to create activity, while private or semi-private frontages – such as service areas and gardens - should be located at the back. Fronting the public space with blank walls, high fences and hedges which block the view of the public spaces should be avoided.
- Blocks that contain narrow lanes should be overlooked to create natural surveillance and a sense of security. Front gardens can vary in size and shape.

DC.5.5.9 Building massing and typology

- Buildings should not be repetitive, providing a variety of building types and designs with coherent scale, massing and elegant simplicity in detailing.
- Any new development should maintain the variety in building typologies that already exist in the area (detached, semidetached, terraced houses). In addition, new buildings should match the height of surrounding properties and should generally not exceed 3 storeys.
- Physical boundary treatments should be promoted in order to improve the environment, secure a level of privacy and clearly separate public from private spaces.
- Building groupings should maintain the same layout allowing for occasional gaps between properties to offer opportunities for green spaces. Buildings should also respond to the existing topography and views without obstructing them.

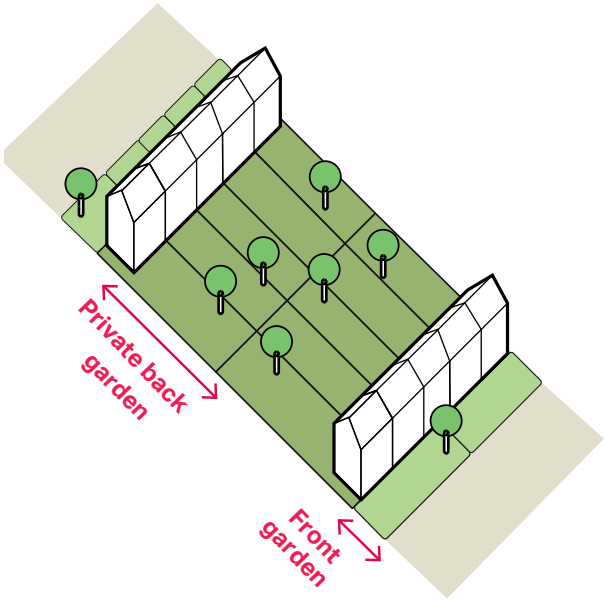


Figure 77: Diagram showing back to back garden.

General questions

06

6. General questions

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

Because the design guidelines and codes in this document cannot cover all design eventualities, this section provides a number of questions based on established good practice against which the design proposal should be evaluated.

The aim is to assess all proposals by objectively answering the questions below. Not all the questions will apply to every development. The relevant ones, however, should provide an assessment as to whether the design proposal has considered the local context and provided an appropriate design solution.

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

1

General design guidelines for new development:

- Does the development integrate with existing paths, streets, circulation networks and patterns of activity?
- Does it reinforce or enhance the established settlement character of streets, greens, and other spaces?
- Does it harmonise and enhance existing settlement in terms of physical form, architecture and land use?
- Will it relate well to local topography and landscape features, including prominent ridge lines and long-distance views?
- Does it reflect, respect, and reinforce local architecture and historic distinctiveness?
- Does it retain and incorporate important existing features into the development?
- Will it respect surrounding buildings in terms of scale, height, form and massing?
- Does it adopt contextually appropriate materials and details?
- Cam it provide adequate open space for the development in terms of both quantity and quality?
- Does it incorporate necessary services and drainage infrastructure without causing unacceptable harm to retained features?
- Will it ensure all components, e.g., buildings, landscapes, access routes, parking and open space are well related to each other?
- Will it positively integrate energy efficient technologies?
- Does it 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?
- Will it ensure that places are designed with management, maintenance and the upkeep of utilities in mind?
- Does it 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

Household extensions:

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

4

Buildings layout and grouping:

- What are typical groupings of buildings?
- How have the existing groupings been reflected in the proposal?
- Are proposed groups of buildings offering variety and texture to the townscape?
- What effect would the proposal have on the streetscape?
- Does the proposal maintain the character of dwelling clusters stemming from the main road?
- Does the proposal overlook any adjacent properties or gardens? How is this mitigated?
- Subject to topography and clustering of existing buildings, are new buildings oriented to incorporate passive solar design principles whilst also minimising overheating risk?

5

Gateway and access features:

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

6

Building line and boundary treatment:

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

7

Building heights and roofline:

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

8

Household extensions:

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

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

10

Car parking:

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

11

Architectural details and design:

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

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