

01 September 2022

Cherry Hinton North

Design Code

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Geotechnical

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Environmental Risk Assessment

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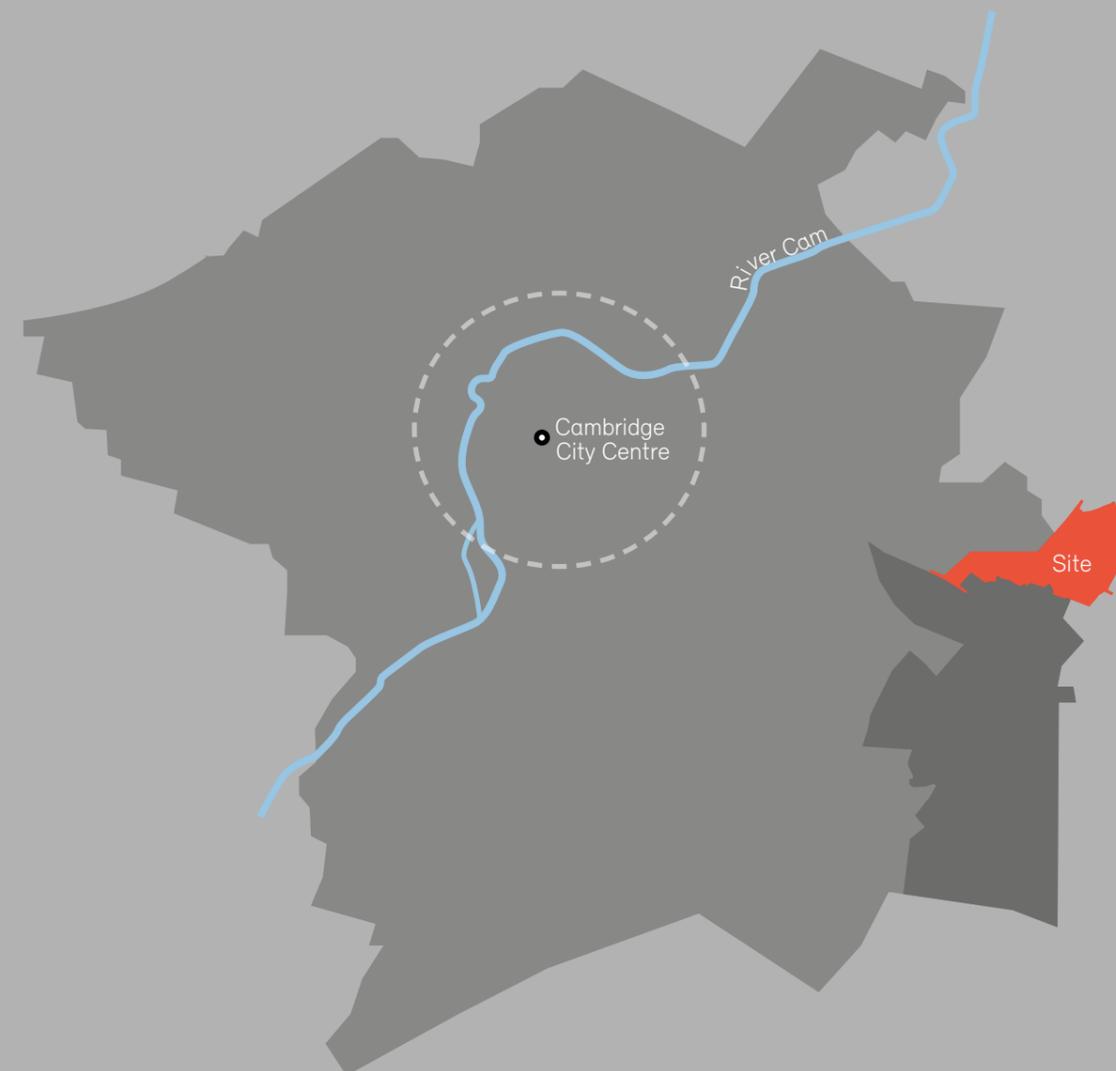
Executive Summary

The Cherry Hinton North Design Code has been prepared to guide all aspects of future development at the Land North of Cherry Hinton.

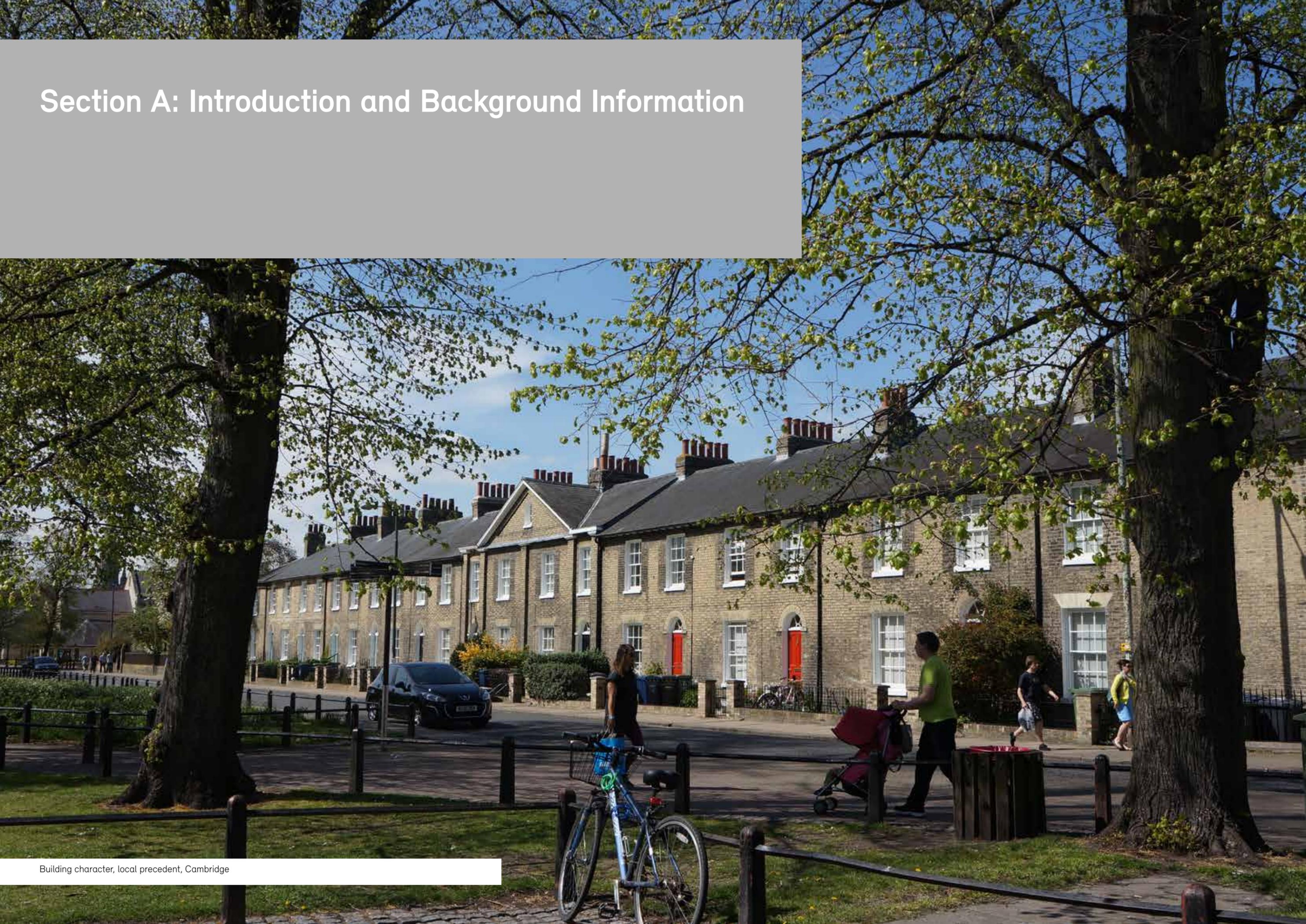
The Design Code is built around the 10 Characteristics of a Well-Designed Place, which were identified in the 2020 National Design Guide. Characteristics cover topics of Character, Community and Climate, and each characteristic has been covered in its turn, with text and diagrams explaining what needs to be achieved.

Each part of the Code illustrates these individual characteristics being integrated within examples of streets and places. We have included the terms “Living Infrastructure”, “Living Communities” and “Stewardship” to show how good characteristics can and do work together and support each other.

This integrated approach to design lies at the heart of this strategic document. Specific outcomes are flexible, but we want buildings that relate to one another, public spaces that bring people together, space for nature throughout, and good stewardship. It is how these qualities are combined that will give the special sense of place that the Code expects.



Section A: Introduction and Background Information



The purpose of this Design Code is to provide a benchmark for quality placemaking within the Land North of Cherry Hinton (LNCH) development. It brings together and co-ordinates objectives and strategic design principles for each of the main Masterplanning components to deliver a unified LNCH vision across all phases of the development. It is intended as a useful tool for all team members, project stakeholders and residents, in the process of designing, assessing, and approving subsequent reserved matters applications for the development.

The guidance has been prepared in collaboration with the Greater Cambridge Shared Planning Service and its principles take into account current planning policies. However, the Code is intended to complement these policies, not substitute for them. It should therefore be used in conjunction with other detailed guidance and policy documents. An appendix with links to useful supporting documents and further reading has been included at the back of the document.

Policy context and document structure

The Code is structured into four parts:

1. Introduction and Background Information

The content of the Design Code builds upon the principles contained within Cambridge’s “four C’s” of Community, Connectivity, Climate and Character. It has also been informed by local plan policies, including the Cambridge Local Plan (2018) Policy 13 Cambridge East, as well as the principles and detailed requirements established during the outline planning application and through the parameter plans.

Further detail on the planning background of the site is included within the planning background section of the Code.

2. Site-Wide Coding - the ten characteristics of a well designed place

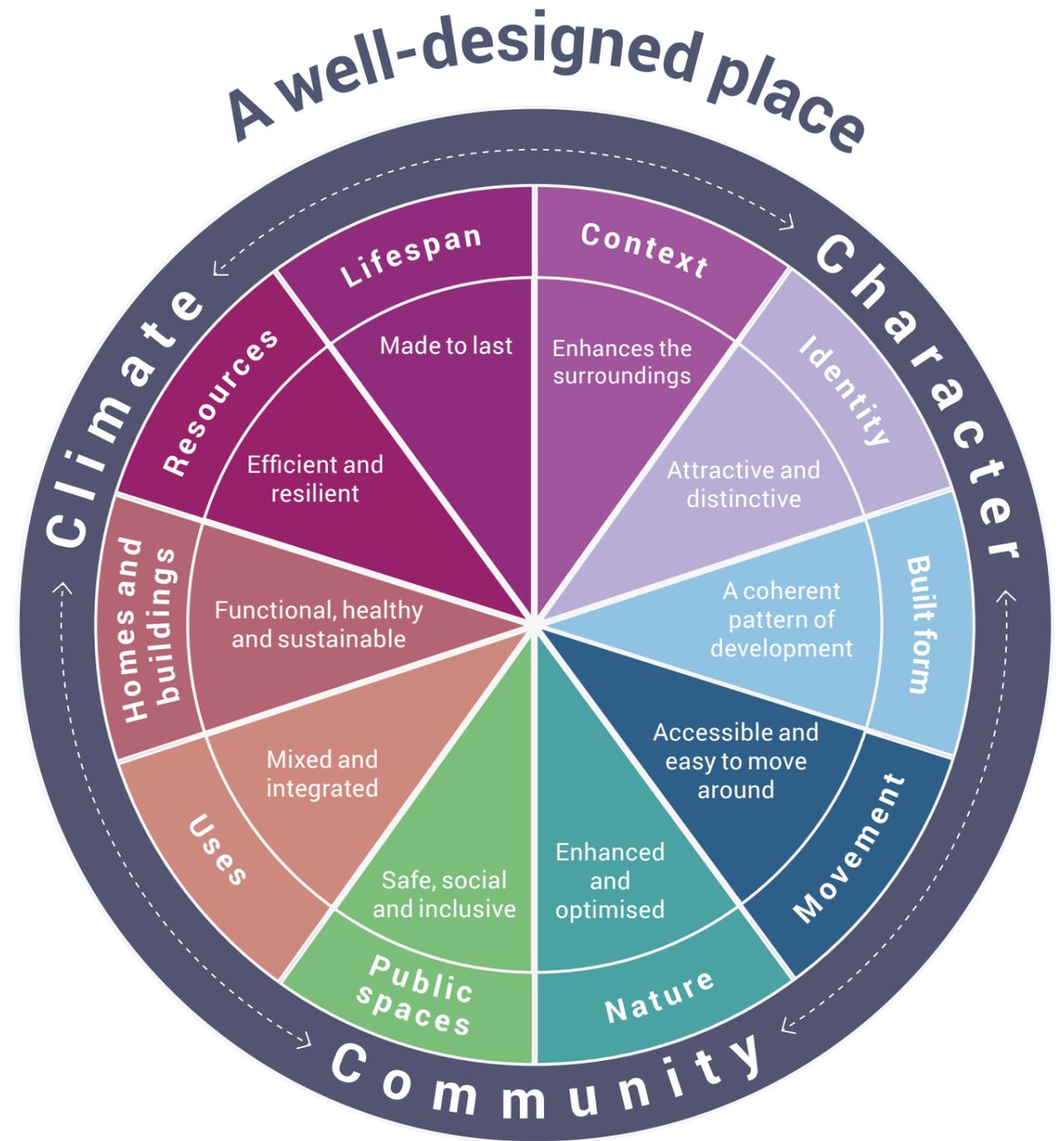
Site-wide guidance for the Design Code has been set out into ten sections, corresponding to the Ten Characteristics of a Well-Designed Place, as described by the Department for Levelling Up, Housing and Communities (DLUHC) in the recently published National Model Design Code and National Design Guide. The ten characteristics also address the broad themes of climate, character, and community – while introducing what we believe are timely themes covering the careful use of resources, and planning for long-term maintenance.

3. Character Area guidance

The Character Area guidance illustrates how the site-wide principles should be applied within each character area, its intended look and feel, and any specific requirements that need to be delivered within that area.

4. Appendices

The appendices at the back of the document include useful links and a checklist of key requirements.



National Model Design Code: 10 Characteristics of a Well-Designed Place

Scope of the design code

The Design Code includes mandatory requirements, recommendations, and supporting illustrative design guidance related to the following key areas:

- Design of the public realm; including streets, play and green and blue infrastructure
- Design of buildings; including key principles for their form, appearance, and detailing
- Creation of Character Areas and a set of frontage characters, ensuring that the masterplan achieves a sense of unity without uniformity
- Technical design; including subjects such as utilities provision, waste and recycling and sustainable drainage
- Climate change and climate change resilience; including subjects such as microclimate, ventilation, and habitat creation
- Long-term care and management.

The Code **must** be referred to for all design decisions within the LNCH development. It is there to inspire good practice, sustainable design, and maintain project quality.

The Code **must** be applied at all stages of the development process, from concept design to planning and throughout construction.

The Code **should** help guide ongoing management once construction work is completed.

Must and should guidance

The sections of the Design Code follow a standard format. A bold introduction statement at the start of each section summarises the strategic outcome that must be delivered. Thereafter, is guidance with written principles, illustrations, and precedents, expanding the strategy in more detail.

Guidance within the Code contains two levels of compliance:

- Where compliance is a mandatory requirement, the word **'must'** is used
- Where compliance is recommended, the word **'should'** is used.

A completed Compliance Checklist and accompanying proving illustrations must be included as part of future Reserved Matters Applications and we suggest this is incorporated within the Design and Access Statement (DAS).

Where recommendations are NOT followed, this must be described. The alternative design proposals must be justified by their potential benefits or by the need to meet changing legislation, varying circumstances, or technical advancements. All deviations from the Code must show how they maintain the wider quality, sustainability, and placemaking, requirements of the Code.

Status of Images

All diagrams are mandatory unless otherwise stated.

Framework Diagrams

The framework diagrams included within the code must be followed, reflecting 2 levels of requirement:

1. The location and underlying geometry of all primary/secondary infrastructure, including connections, spaces and key community uses shown within Framework Diagrams must be applied.
2. The tertiary spaces, routes and focal points within these diagrams are illustrative. The specific geometries and locations they show are not fixed, but the underlying principles of connections, places and focal points that they illustrate must be applied.

Illustrations and Precedents

The illustrations and precedents within the Code are, unless otherwise stated, indicative of what is required. While the principles they illustrate should be followed by the design, they should not be treated as fixed outcomes. The Code sets a quality baseline, but teams are invited to be innovative and show how they can deliver or exceed the quality, sustainability, and placemaking requirements of the Code.

Updating the Code

The life of a large masterplan development can be a long one, and technology, social needs, and other opportunities for further improvement frequently emerge over time. A good example of this may be future changing patterns of car ownership – allowing reduced parking and improved use of allocated space. Therefore, to reflect this, while the overarching design quality principles set out by the code must be retained, the detail of how this is delivered should not be treated as immutable.

With a collaborative approach and dialogue, the detail content of this document should be open to regular review over the life of the project, with any proposed changes taken to the Quality Review Panel as well as other consultees. At a minimum we suggest this review should be undertaken when the airport closes.

This flexibility is part of the robustness of this Code - ensuring that the Code stays relevant over the whole life of the development.

Planning background

Development plan

Both Cambridge City and South Cambridgeshire District Council adopted their current Local Plans in 2018.

In the Cambridge Local Plan (2018) Policy 13 Cambridge East, Land North of Cherry Hinton (R47) is allocated for approximately 780 dwellings during the plan period, along with adjoining land allocated in Policy SS/3 of the South Cambridgeshire Local Plan (2018) for approximately 420 dwellings. A combined total of 1,200 dwellings is allocated.

SPD framework

Further guidance on the LNCH is set out within the Supplementary Planning Document for the site, which was adopted in November 2018. This document is a material consideration on all applications on the site and it sets out design parameters for the site, which have been used to inform this SWDC. Among many principles, the SPD established the need for a strategic through-route for motor traffic through the development.

Reference should also be made to relevant sections of Greater Cambridge Sustainable Design and Construction SPD, Jan 2020. A link to this document is included within the further reading page at the back of the Code.

Cambridge East

In addition to the application site, other major developments have also been allocated in Cambridge East, as identified within Policy 13 of the Adopted Cambridge City Local Plan. This includes the Marleigh Development (previously the Wing), which is currently under construction to deliver 1,300 dwellings. Part of Cambridge Airport is also identified as Safeguarded Land for potential future development.

Emerging local plan

The Greater Cambridge Shared Planning Service are in the process of preparing a new Local Plan, which will cover both Cambridge City and South Cambridgeshire. In the Autumn of 2021 they consulted on their 'First Proposals', which includes the proposed allocation of Cambridge Airport for a residential led development. This plan is at an early stage and currently it cannot be given any significant material weight in planning terms, however the Design Code has been worded to provide some flexibility should the airport be developed in the future.

Outline application

In 2020 Greater Cambridge Shared Planning granted outline planning permission for the LNCH masterplan. This was prepared by Terence O'Rourke on behalf of Marshall Group Properties Limited and Endurance Estates.

The outline approval is for a sustainable extension to Cherry Hinton comprising:

- Up to 1,200 homes
- A mixed-use local centre including: a primary school, community facilities and commercial units
- A secondary school
- A network of well-connected public open spaces with integrated SuDS features, including: playing fields, allotments and children's play spaces
- A sustainable movement strategy including a reinforced cycle and public realm infrastructure across the entire site
- Connections and detailed junction designs for access to the site at three separate points
- Overarching parameter plans including land use, movement and access, landscape and green infrastructure, building heights, and urban form parameter
- A detailed Transport Assessment (TA) formed part of the outline. The TA included the SPD principle of a 20mph through-route (ie no bus gate), S106 requirements, and the detailed consents for the 3 junctions.

The outline consent included a condition requiring the submission of a site-wide Design Code prior to or concurrent with the first Reserved Matters Application.

Parameter plans

A package of approved parameter plans have been developed. These define the spatial, use, height limits land movement parameters that designers must work within. The parameter plan requirements and limits have been used to inform this code and are intended to be delivered by it.

Section C: Appendices or plans can be found within Section C: Appendices.

Community Engagement in developing the Code

The Code was developed in consultation with the local community. This process included online webinars, workshops, surveys and feedback forms, as well as in person events. The engagement focussed on code principles, tracking the creation of the document, and this allowed the Code to be updated to reflect the feedback we received.

Alongside this process, stakeholder presentations and Q&A discussions have included:

February 2022 – Cambridge East Community Forum
March 2022 – Cambridge Past, Present and Future Planning Committee
April 2022 – Teversham Parish Council
May 2022 – Cherry Hinton Residents Association
May 2022 – Cllr Claire Daunton, Cllr Russ McPherson & Cllr Katie Thornburrow

The feedback from consultation was overwhelmingly positive, with key outcomes being incorporated into the code including:

- Active transport to be prioritised over vehicles, particularly cars;
- Generous landscaping and tree planting where possible;
- Consideration to be given to biodiversity where possible;
- Flexible public spaces which can be used for a variety of purposes

Community engagement will continue over the life of the development, including a participatory design process to develop the detail design and use of the local centre. Further guidance on engagement can be found within the Lifespan section of the Code.

CAMBRIDGE AIRPORT



TEVERSHAM

All Saints Church

ALLOTMENTS

AIRPORT WAY

Secondary School

PLAY

Local Centre

Primary Square

Primary School

CYCLE ROUTE TO CAMBRIDGE

COLDHAMS LANE

CHURCH END

ALLOTMENTS

PLAY

CHERRY HINTON RD

TEVERSHAM DRIFT

GAZELLE WAY

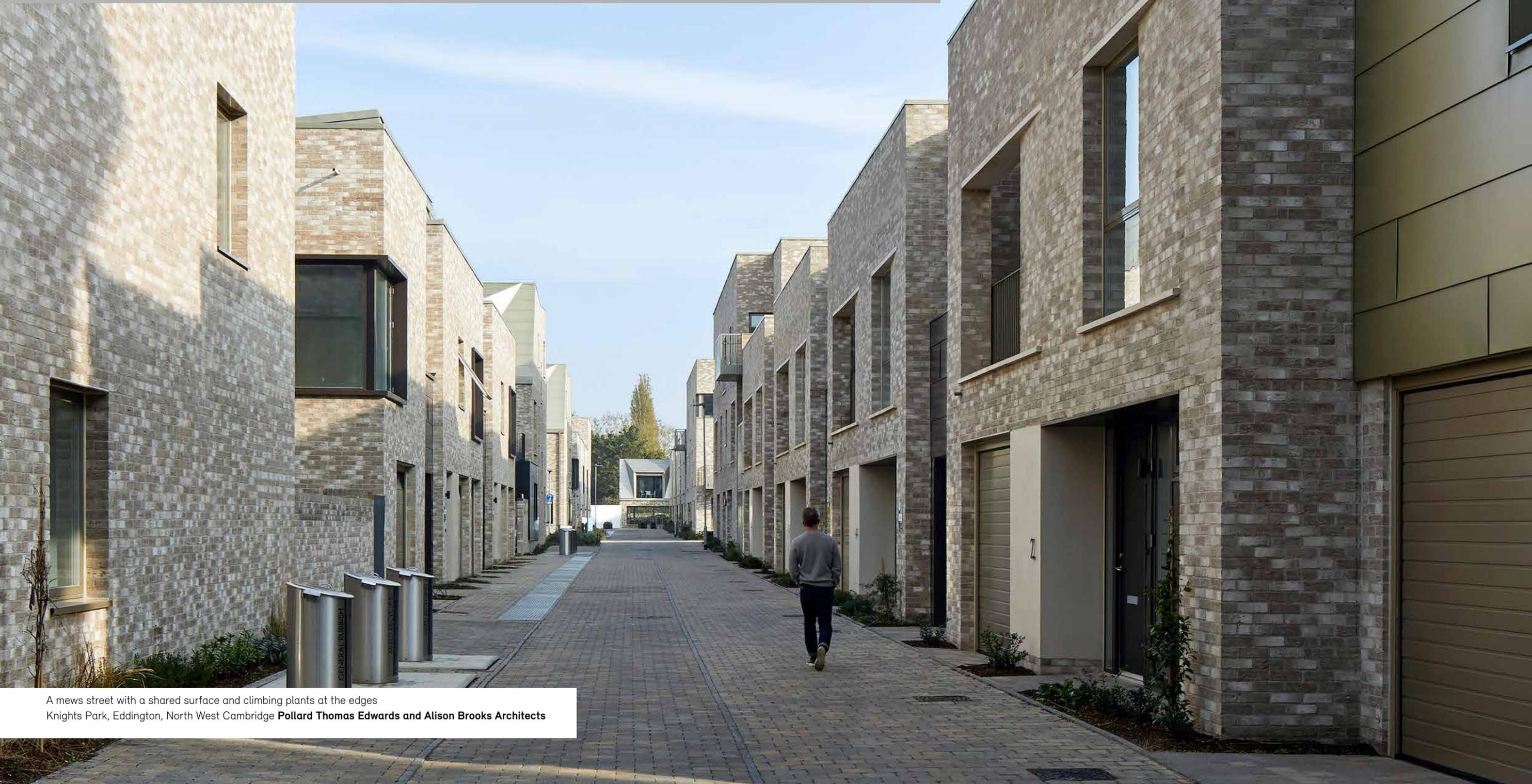
CHERRY HINTON

St. Andrew's Church

HIGH STREET



Section B: Site-Wide Coding



A mews street with a shared surface and climbing plants at the edges
Knights Park, Eddington, North West Cambridge **Pollard Thomas Edwards and Alison Brooks Architects**

1 Context

LNCH will be integrated with the local area. A new tree-lined primary street will link Coldhams Lane and Cherry Hinton Road, including separate routes for bikes. The development provides new schools, shops and community facilities for the use of the whole community.

The site itself is inherently walkable. The Design Code establishes strategic destinations and site wide coding that support walkable neighbourhoods based upon 5-10 minute walking distances.

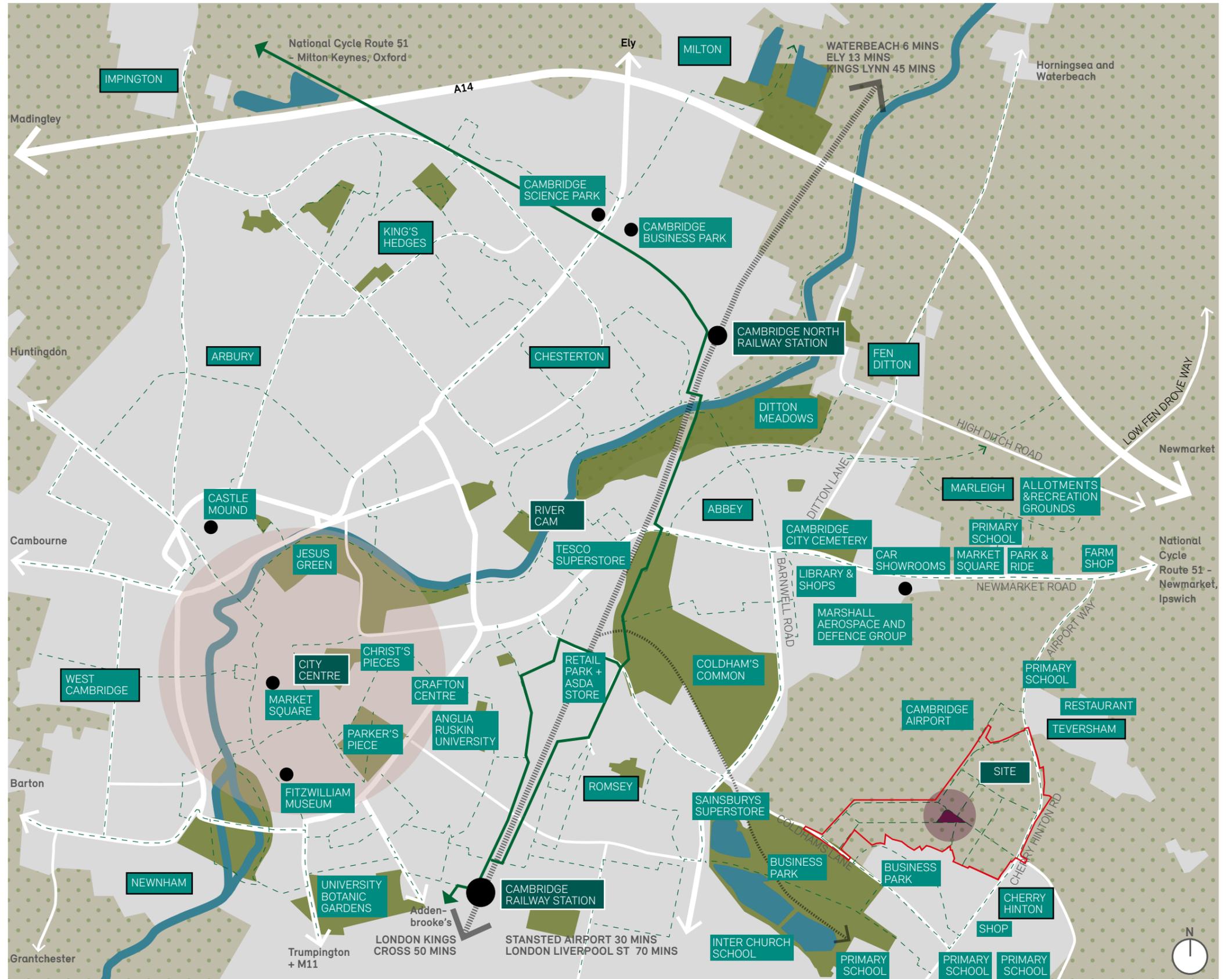
As well as creating new landscapes, the designs will retain the public rights of way, watercourse, retained mature trees, and leafy boundaries within the site. Designs will respond not only to the distinctiveness of individual buildings or details but take care to understand the way that they come together to create a sense of place.

Location

The site is located on the eastern fringe of Cambridge, to the east of Cambridge Airport, and north of the suburban village of Cherry Hinton. It is around 15mins bike ride to central Cambridge, and to the east of the site begin the rural fields of Cambridgeshire.

The village of Teversham is located 5mins bike ride to the north-east of the site and is separated from the development site by green belt.

Main roads around the site are Coldhams Lane on the south-west boundary, and Cherry Hinton Road/Airport Way along the east boundary. The proposed primary street network will form a through connection between these existing roads.



The site in context

Built character

Local character

As an urban edge, the local area has a mixed character. The historic village cores, which are small but have a strong underlying local character, grew into large car dependant suburbs in the second half of the 20th century. These modern suburbs, combined with busy roads, light industry, and aviation with agricultural fields beyond, are the dominant surrounding character.

Well designed places are born out a thorough understanding of both the local and wider context. The development offers a great opportunity to strengthen the character of the area and prioritise sustainable transport with a new, locally inspired, modern distinctiveness. Inspiration for this modern distinctiveness should be drawn from the three sources below. Design teams must demonstrate at early pre-applications conversations how these have influenced emerging concepts.

- Characterful historic village cores such as Cherry Hinton and Fulbourn
- Historic Cambridge residential streets
- Recent, quality Cambridge developments.

Village cores

The nearby villages, such as Waterbeach and Cherry Hinton, are characterised by having a distinctive triangular form, forming the focal point for a high street. These create a unique sense of place and mark the entrance to the village core.

Buildings arranged around the village core have a strong rural feel, with materials including lime render and timber boarding. Buildings are low rise, but are capped by steep, often almost sculptural, tile roofs, functioning as a true “fifth elevation” and being the most dominant single feature of the buildings.

Historic Cambridge

Cambridge has many very historic areas, each with their own character and offering a rich source of inspiration for design teams.

Restrained 18th and 19th century

Gault brick terraces are the common residential form in urban Cambridge, with grand formal streets often linked together by narrower highly characterful streets and lanes.

Leafy avenues of detached and semi-detached Victorian villas with rich decoration are common in the historic and established suburbs.

Recent developments

Being able to draw local distinctiveness from a city’s recent developments is sadly rather unusual, but in Cambridge is justified. Cambridge as a city is representative of a place that has taken, and is continuing to take, steps for positive change. The best new developments in Cambridge have a distinctive local quality all of their own, adding a new layer of distinctiveness to the expanding city and adding to its history.

Cambridge has been acknowledged for its promotion of restrained and thoughtful contemporary architecture, cycling, and forward-thinking sustainability. This development is part of that story, and each of these important qualities must be reflected in proposals as they are brought forward.

The best modern Cambridge developments are notable for a use of restrained and thoughtful contemporary architecture – inspired by but not copying – historic precedents. They are low- to mid-rise, both urban and urbane, and make extensive use of the familiar Gault brick palette. Streets are designed to incorporate SuDS and natural planting and often incorporate innovative typologies that help them to be comfortably developed to higher-than-average densities. Parking is typically concealed, and car restricted or car free streets are increasingly common.

Character Areas

Working within the Character Areas guidance, a contemporary interpretation of traditional local building forms should be developed – drawing inspiration from other contemporary developments within the city including:

- Grouping and street designs
- Building designs
- Materials
- Decorative elements.



Village cores, Fulbourn High Street



Historic Cambridge



Recent developments. Accordia, Cambridge Grant Associates and FeildenCleggBradleyStudios

Landscape character

The local agricultural landscape is open and arable, reflecting the fenland character of this area of north east Cambridge, with drainage ditches and hedged boundaries dotted with mature trees. The southern boundary meets with the suburban gardens of Cherry Hinton. The whole west boundary is lined by the flat and featureless grass of the airfield.

The Green Belt crosses the northern tip of the site, including most of the airfield and separating the site from Teversham village to the north.

Cambridgeshire's rich fenland character of ditches, hedges and meadow planting, and its history of working with natural systems for water management should provide the basis for landscaping within the new development. To the east, the landscape features a gentle rise to a local high point in the southeastern quadrant of the site.



Fen Ditton, Fred Ingrams



Open fields with hedged boundaries

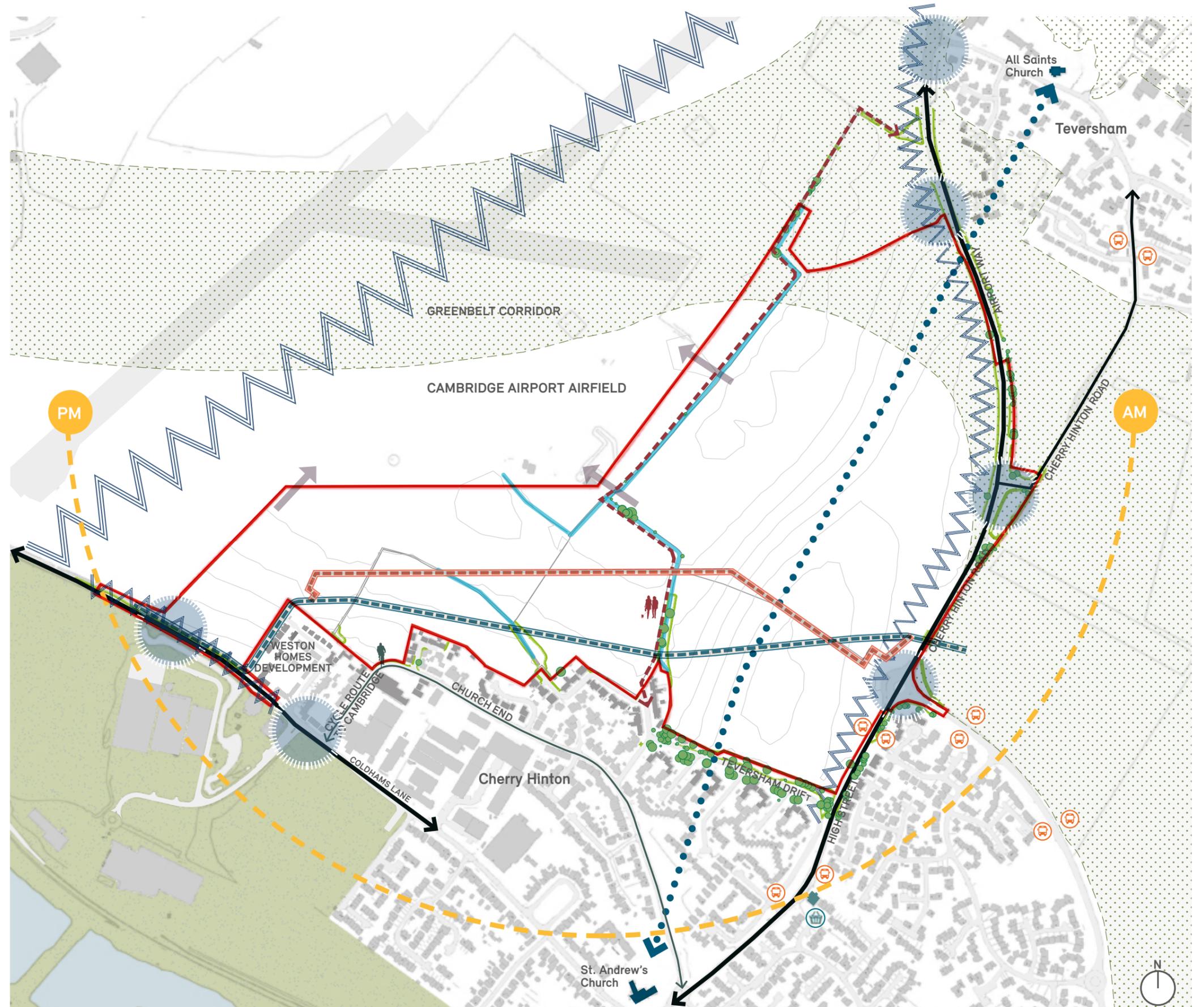


Natural planting within the award drain

Opportunities and constraints

Future detail phases must respond to the existing constraints and future opportunities, and make good connections to the surrounding area.

- Maintaining Public Rights of Way
- Re-routing the award drain
- Diverting the gas main
- Retaining the Green Belt
- Work with the topography
- Incorporate retained existing trees, hedges and habitats
- Respond to the towers of All Saints Church, Teversham and St Andrew's Church in Cherry Hinton
- Incorporate wildlife permeable boundaries
- Include integrated nest box provision
- The Principles of Good Acoustic Design must be considered to mitigate traffic and aircraft noise (while airport remains in operation) on future noise sensitive receptors / users eg residents and schools
- Maintain airport wildlife safeguarding
- Futureproof for long-term airport redevelopment.



Constraints and opportunities plan

Framework masterplan

The framework masterplan was developed alongside the Code. This illustrative plan aims to draw together the many facets of design quality requirements and design intent described within the Code, and reflects the approved parameter plans for the development.

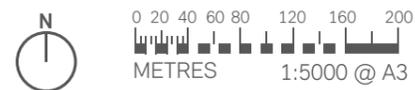
This framework masterplan is used within this document as a baseline design to help generate the illustrative designs and diagrams included in the Code.

The framework masterplan, and the diagrams generated from it, are intended as illustrative. They show the principles that need to be followed to deliver the quality requirements of the Design Code, while being a flexible starting point for designers to make use of when making their detailed proposals.



Framework Masterplan

KEY	
	Application Boundary
	Retail Use
	Community Infrastructure
	Flexible Ground Floor Use
	Sales Village
	Site Offices - Temporary building
	Potential Health Centre
	Play Areas
	School Sites
	Allotments
	Green Infrastructure / POS
	Water Attenuation
	Street Planted Swales /SuDS
	Pump station
	Landscaped Swales
	Public Right of Way
	Safeguarded Corridors
	Key Spaces along primary and secondary streets



Living Infrastructure

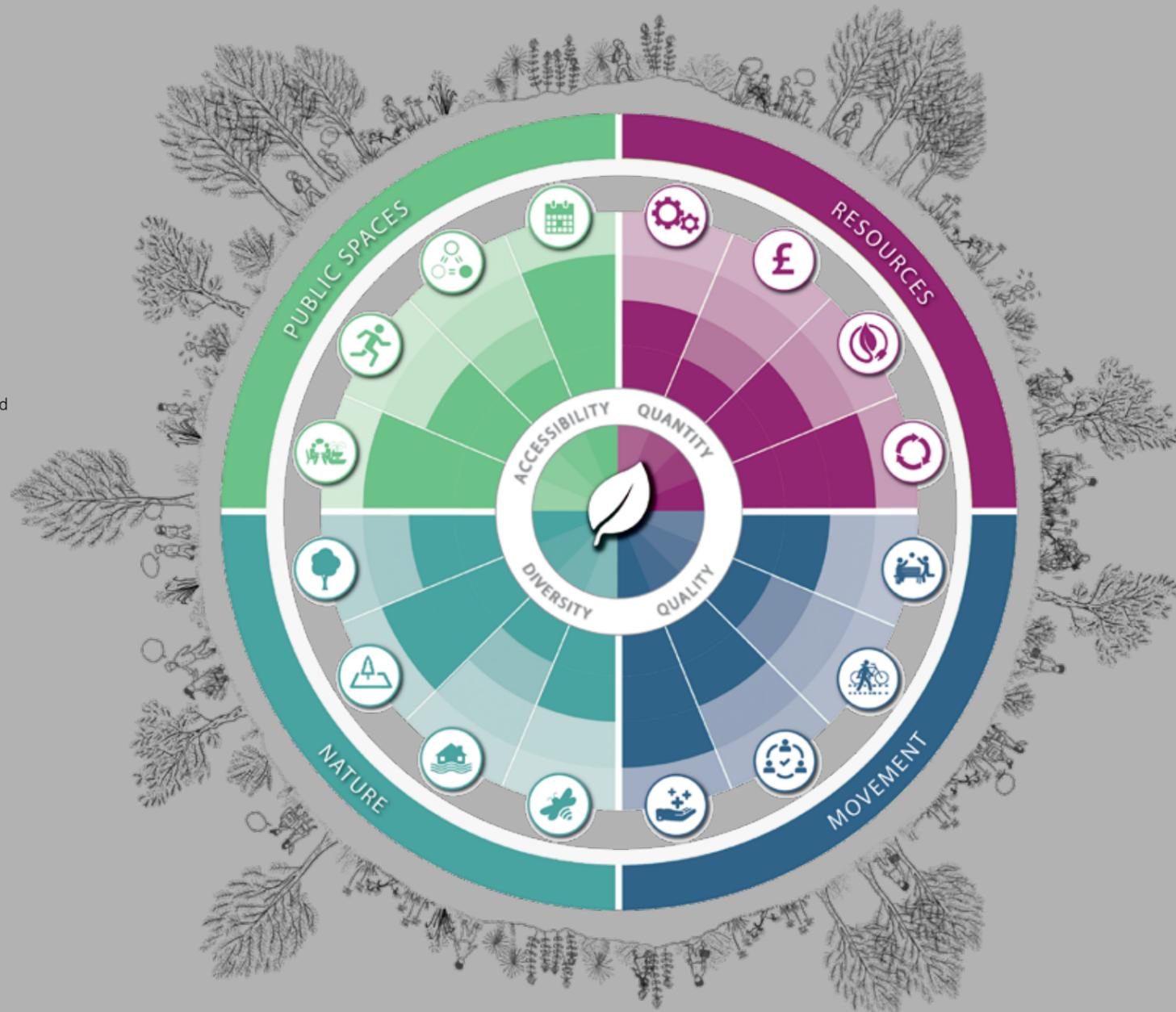
Living infrastructure must form the first consideration for the design and Reserved Matters applications

We have grouped the four characteristics of **Public Spaces**, **Resources**, **Movement** and **Nature** under a shared heading of Living Infrastructure. This is to emphasise the importance to the Code of taking an integrated design approach to all aspects of design in the public realm.

Public spaces, including streets and open spaces, must work hard on LNCH to accommodate requirements of the Code relating to nature, water, biodiversity and to support cultural sociability and active lifestyles.

- Applicants must demonstrate at the first pre-application meeting how these fundamental requirements have been embedded/integrated and have informed early concepts
- Detailed designs for public spaces (including streets) will need to take into account a variety of requirements set out in the code
- Accordingly, design teams must bring Landscape Architects to the first conversations.

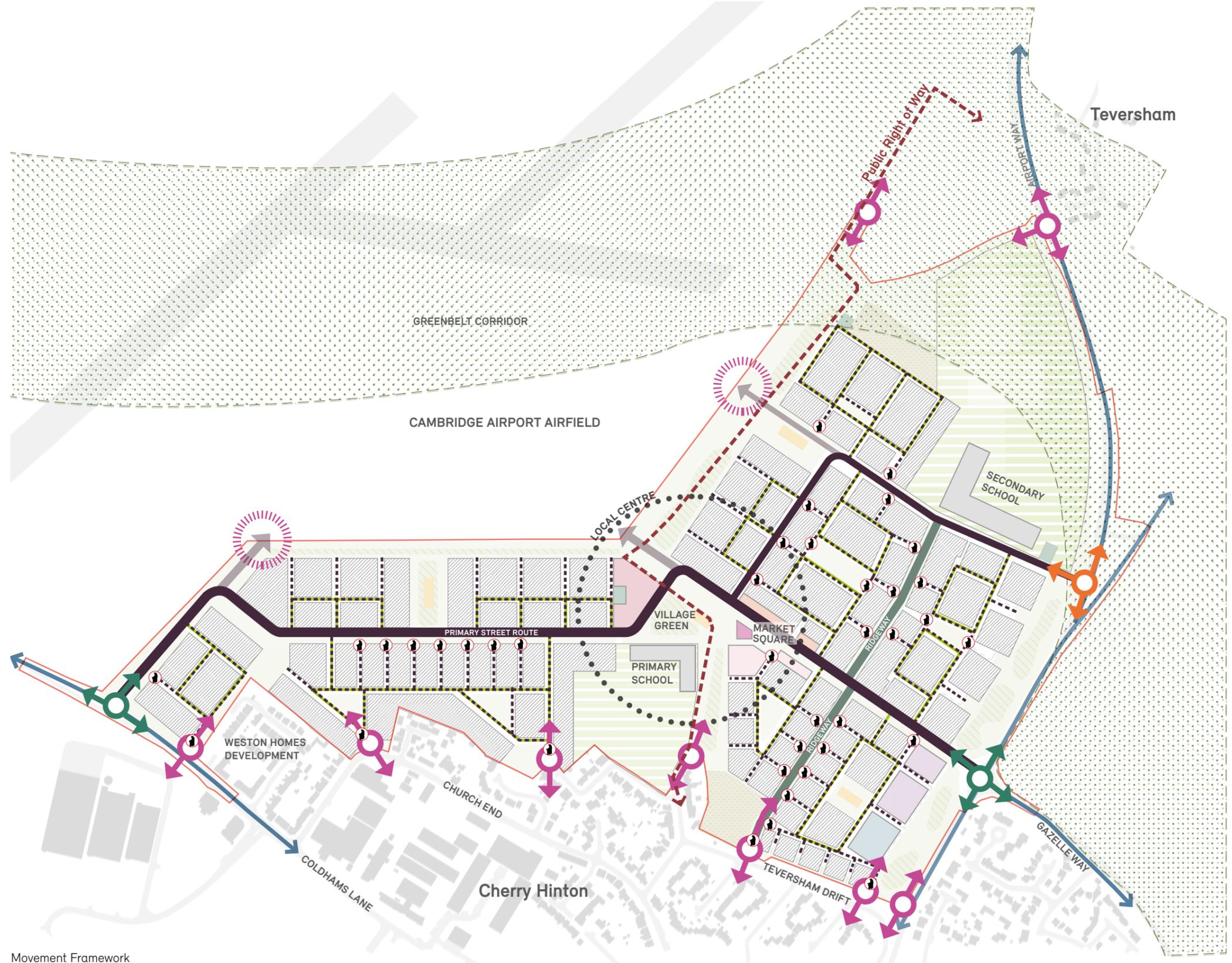
- 
Cultural sociability
 Socialising, events, participation and community facilities.
- 
Space typologies
 Typologies that are focused on quality and local needs.
- 
Active lifestyle
 Multi-generational play, sports facilities and recreation areas.
- 
Materiality and elements
 Identify a suite of elements that will be used within public spaces.
- 
Urban greening
 Vegetation to mitigate urban heat and improve carbon sequestration.
- 
Nature conservation
 Protect and conserve valuable areas that include intact natural systems.
- 
Water responsive
 Flood mitigation in weather events and managing water as a resource.
- 
Living landscapes
 Biodiversity net gain and nature conservation supporting wildlife.



- 
Cost efficiency
 Regulate micro-climate, reducing the cost to energy and water bills.
- 
Place value
 Increased tourism, productivity, livability and business innovation.
- 
Resource management
 Renewable resource management including heat, energy and water.
- 
Circular economy
 Identifying waste outputs and establish waste as a resource to be further utilised.
- 
Street hierarchy
 Setting out a overarching hierarchy of street networks.
- 
Street typologies
 Typologies that are focused on quality and requirements of the masterplan.
- 
Movement
 Easy access to open spaces through modes of active travel. Avoid creating desire lines through designated sites and protected species habitats.
- 
Materiality and elements
 Identify a suite of elements that will be used within streetscapes.

2 Movement

The development must have low speed, tree-lined streets and cycle lanes forming a network of routes. All streets must prioritise walking, cycling and the use of public transport over car use. Streets must encourage social interaction, with focal points for people including places to sit and doorstep play. A layout of short loops and modal filters should be used to create small, low motor-traffic neighbourhoods with no through routes for motor vehicles.



Movement Framework

Active travel

To prioritise active travel, quiet and low speed residential streets must connect into dedicated cycling and walking routes to form a convenient and attractive network of routes.

The route network must link all the proposed community/non-residential uses with active travel and make safe connections to the surrounding routes network beyond the boundaries of the site.

