



# NORTHSTOWE Phase 3A

Design and Access Statement  
(Incorporating Design Principles Document)

April 2020



Homes  
England

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## Executive Summary

# Executive Summary

*Northstowe is a planned new town of approximately 10,000 homes to the North West of Cambridge. It aspires to be a vibrant 21st Century settlement enabling sustainable lifestyle choices and patterns of living.*

Located north west of Cambridge, Northstowe is one of the largest new settlements in the country and is built on the former RAF Oakington base. When complete, Northstowe will be the home of around 25,000 people.

This Design and Access Statement is submitted in support of the Phase 3A Outline Application. The following development description applies:

***'Outline planning application for the development of Northstowe Phase 3A for up to 4,000 homes, two primary schools, a local centre (including employment, community, retail and associated services, food and drink, community, leisure, residential uses and other accommodation), secondary mixed use zones (including employment, community, retail and associated services, food and drink, community, leisure, residential uses), open space and landscaped areas, sports pitches, associated engineering and infrastructure works, including the retention of the existing military lake and creation of a new lake, with details of appearance, landscaping, layout, scale and access reserved. Application is accompanied by an Environmental Statement and involves works to/affecting existing Public Rights of Way.'***

Phase 3A is a site rooted in history; its heritage assets lend themselves to character generators to create a strong and distinctive identity for the development, which will form a gateway entrance to Northstowe from the south. The unique assets that this site has to offer enable the creation of a sequence of neighbourhoods that are integrated as a comprehensive whole, yet offer a wide variety of opportunities and experiences between them. The neighbourhoods are shaped around new and existing green and blue networks, creating a series of linked landscapes that permeate the built form and create attractive settings for active travel, informal and formal recreation.

## Community

Phase 3A will provide a range of house types, including affordable homes for rent and purchase, self-build and custom build homes to help establish a mixed community. Opportunities for employment within Northstowe (in the Town Centre, Phase 3A Local Centre and in education, shopping and community/sports facilities) together with measures to facilitate home working will support the development of the town as a place to live and work.

Northstowe is one of ten Healthy New Towns in England. As a Healthy New Town, priorities are to reduce obesity and promote healthy ageing to deliver a healthy community. This can be achieved through a framework of interventions many of which are embedded within the masterplan/ development form. This framework can then be applied as the town develops; to create a healthy town through infrastructure and place shaping; and deliver a new model of care for Northstowe.

Homes England are committed to ensuring that Healthy New Town principles are applied to all aspects of Northstowe's development.

The proposed masterplan for Phase 3A incorporates a range of formal, semi-formal and informal open spaces providing opportunities for a range of activities, such as formal playing fields, allotments and community orchards, running and walking routes, thus enabling an active and healthy lifestyle for residents of all ages.

## Connectivity

Northstowe Phase 3A will be highly accessible by sustainable modes of transport, with services for the Cambridgeshire Guided Busway running through the heart of the development (already under construction to serve Phase 2) as well as extended local bus services, continuing through from Phases 1 and 2, and potentially linking via Oakington. Cycle routes will connect from the development to the adjacent local communities, Bar Hill to the south west and to Cambridge North Station. The walking and cycling networks will connect into Phases 1 and 2 ensuring convenient routes to the Town Centre, schools and sports facilities.

There will be connections to the wider Public Rights of Way network to enable residents to enjoy access to the countryside and to connect to and from surrounding communities.

The Southern Access Road West (SARW) is under construction and will provide the highway route to the upgraded A14 at Bar Hill and a second route (the Southern Access Road East (SARE)) will potentially provide a connection to Dry Drayton Road and the local access road southwards to Cambridge.

The masterplan has been developed to maximise opportunities for active travel with walking and cycling routes given prominence throughout the development, with segregated routes alongside the primary and secondary streets as well as links through greenways with the majority of homes being within 250m of a principal cycle route. These cycle routes may be segregated, shared, or accommodated within shared surface residential streets. The development will create walkable neighbourhoods within easy walking distance to primary schools and open space provision.

## Character

Analysis of the local context has been carried out to inform the preparation of the masterplan for Phase 3A. The character and setting of the adjacent settlements of Longstanton, Oakington and Westwick as well as Phases 1 and 2 have been carefully considered throughout the design development process. The masterplan incorporates linking landscapes, in the form of new green infrastructure and retained existing vegetation, between the new and existing settlements.

The intrinsic characteristics of the Phase 3A site, including the retained Military lake and existing tree belts, have shaped the distinctive character areas set out in this document.

A variety of spaces are to be created as character drivers, consistent with the approach set out in the Phase 2 design code. These spaces will vary in form, function and character and incorporate the intrinsic characteristics of Phase 3A, including the retained Military Lake and existing tree belts. Buildings will draw on the best of local tradition from adjoining villages as well as new development on the Cambridge fringes

to create a modern yet locally distinct character. Historic influences including former lanes lost due to the more recent RAF history, as well as the surrounding landscape character are recognised within the masterplan. The former airfield is recognised in the main axis of the Phase 3A development consisting of a sequence of spaces along the line of the former main runway.

## Climate

The masterplan develops and embeds the principles of climate change mitigation and adaptation into the development, with the aim of demonstrating innovation and future proofing the development. Key themes include building design, overheating, materials, flood risk and layout in relation to climate hazards and risks.

Climate change is likely to impact on Water Supply and Management due to increasing irregularity in precipitation patterns and a higher likelihood of droughts. Protecting and conserving water supplies and resources in order to secure Northstowe's needs in a sustainable manner is seen as an urgent priority for the masterplan. It is recognised that in order to achieve this, water consumption per person needs to be reduced. The aim is to create a development that has adapted to climate change, ensuring it is safe from flood risk, controls surface water flows; improves water quality and has reduced water consumption. Climate resilience has been built into the masterplan with the surface and flood risk strategy being beyond standard practice (i.e. 1:200 year event plus climate change and 48 hours storage). The extensive green infrastructure network will help in combating heat islands. SuDS are an integral part of the design of Phase 3A. Attenuation features in the form of lakes are key elements of the masterplan and most primary and secondary streets contain swales and SuDS features. The design of Phase 3A is based on an integrated network of blue and green infrastructure. Microclimate (wind) analysis has been undertaken.

Sustainable Travel is a key aspect of the development to minimise carbon impacts, with high accessibility by walking, cycling and public transport, continuation of the approach to Travel Planning set out in Phase 1 and 2 as well as provision for electric vehicles.

This Sustainability Statement, submitted as part of this application, demonstrates that the proposed new development will:

- Minimise carbon emissions through the approach to energy use
- Minimise water usage and flood impacts
- Provide a sustainable approach to waste and materials and resources
- Provide for a high level of accessibility by sustainable travel modes
- Provide substantial amounts of high quality green infrastructure
- Develop sustainable new buildings;
- Create a cohesive community and culture;
- Support the local economy; and
- Promote health and wellbeing

# I Introduction

# I Introduction

## I.1 Role and Structure of the Design and Access Statement

This Design and Access Statement (DAS) has been prepared on behalf of Homes England and is submitted in support of the Outline Planning Application for Northstowe Phase 3A. This DAS document describes the:

- Design evolution and considerations that have led to the development proposals;
- Design concepts that underpin the masterplan and subsequent parameter plans;
- Design principles that should be read alongside the parameter plans; and
- Illustrative material that describes the design intentions and brings the application drawings to life.

The DAS describes how the design relates to the technical, planning and site considerations. The main chapters of this document have been structured as follows:

1. **Introduction:** This chapter sets out the summary of the application and the description of the development.
2. **Strategic Context:** The social and economic context of the site, and facilities provided outside of Northstowe's boundaries are discussed in this chapter. The three phases of Northstowe are set out here before a brief overview of the relevant planning policy guidance is provided.
3. **Health and Wellbeing:** This chapter sets out Homes England's commitments to Northstowe's Healthy New Town (HNT) legacy, and the key priorities for the development with regards to this.
4. **Site and Context Appraisal:** The physical context of Phase 3A is discussed in this chapter, including existing site features and the opportunities and constraints with regards to: movement, facilities, landscape and heritage. The local character influences in terms of architecture and urban design are also analysed in this chapter.
5. **Design Development:** The initial stages of design are presented and explained in this chapter, with an overview of the community, stakeholder and Design Review Panel engagement undertaken.
6. **The Masterplan:** The key driving principles for the masterplan development are set out in this chapter; before how the Character, Connectivity and Community objectives have been addressed and integrated into the proposals for Phase 3A.
7. **Landscape Strategy:** This chapter sets out the key design influences on the landscape strategy and the strategic proposals for the different typologies of open space.
8. **Climate:** This chapter summarises the key sustainability objectives for the development.
9. **Delivering Design Quality:** This chapter sets out how design quality could be achieved through the planning process.

### 10. Appendices:

- **Appendix A: Design Principles Document:** This document sets out the primary urban design principles that will guide the future design development of Phase 3A. An Urban Design Framework Plan brings together the Parameter Plans to illustrate how the different elements of green space, land use and movement interact with each other.
- **Appendix B: Building for Life 12:** This Appendix assesses the scheme against the criteria set out in Building for Life 12 (BfL 12, Third Edition - January 2015).

The Town and Country Planning (Development Management Procedure ) Order 2015 (DMPO) sets out the requirements that must be addressed within a DAS. These requirements, and the locations of where they are addressed throughout this DAS are as follows:

- **Chapters 6 and 7** explain the design principles and concepts that have been applied to the development (DMPO Regulations 9.(2)(a) and 9.(3)(a))
- **Chapter 6, Section 6.4** explains how issues relating to access to the development have been dealt with (DMPO Regulation 9.(2)(b))
- **Chapter 4** demonstrates the steps that have been taken to appraise the context of the development and how the design of the development takes that context into account (DMPO Regulation 9.(3)(b)). Chapters 5 and 6 then continue to describe how the context has been taken into account as the design was developed.
- **Chapter 6** explains the approach adopted for access and **Section 6.3** describes how policies relating to access in relevant local development documents have been taken into account; (DMPO Regulation 9.(3)(c))
- **Chapter 5, Section 5.3** explains the consultation that has been undertaken on issues relating to access to the development and what account has been taken of the outcome of any such consultation (DMPO Regulation 9.(3)(d)) **Chapter 6, Section 6.4** describes how specific access related comments raised in the engagement have been addressed in the proposed movement strategy.
- **Chapter 6, Section 6.4** explains how any specific issues which might affect access to the development have been addressed (DMPO Regulation 9.(3)(e))

## I.2 Scope of the Document

The purpose of this DAS is to describe the design process which has resulted in the application proposals and to provide an illustrated explanation of the proposed development. One of the roles of the DAS is to demonstrate that the parameters of the proposed development are sound and able to create a high quality place.

Chapter 6, which incorporates the Illustrative Masterplan, illustrates how distinctive and site specific character can be created across the different areas of the site. The diagrams and illustrations set out in Chapter 6 are illustrative only and do not establish any further fixed elements of the development beyond those set out in the Parameter Plans. Where diagrams and illustrations in this DAS include parameters from the parameter plans, they may also include additional illustrative materials. For the fixed parameters, please refer to the 'Movement and Access', 'Building Heights' and 'Open Space and Land Use' Parameter Plans submitted as part of this planning application, which will be approved as part of the application.

The Design Principles Document, contained within Appendix A of this document, identifies the primary Urban Design Principles (extracted from Chapter 6) that will guide the future design development of Phase 3A. It is envisaged that the Design Principles Document will be approved as part of the Outline Planning Application for Phase 3A and that an appropriate condition ensures that future Design Code(s) and Reserved Matters applications take account of these design principles.

## I.3 Summary of Application and Description of Development

Outline planning permission is being sought for development of Phase 3A with details of appearance, landscaping, layout, scale and access reserved. The description of development is:

*'Outline planning application for the development of Northstowe Phase 3A for up to 4,000 homes, two primary schools, a local centre (including employment, community, retail and associated services, food and drink, community, leisure, residential uses and other accommodation), secondary mixed use zones (including employment, community, retail and associated services, food and drink, community, leisure, residential uses), open space and landscaped areas, sports pitches, associated engineering and infrastructure works, including the retention of the existing military lake and creation of a new lake, with details of appearance, landscaping, layout, scale and access reserved. Application is accompanied by an Environmental Statement and involves works to/affecting existing Public Rights of Way.'*

Further details on the planning application are set out in the Planning Statement submitted in support of the scheme.



## 1.4 The Applicant and Team

### Homes England

Applicant



### Arcadis

Lead Consultant, Landscape Architects, Transport Consultant, Drainage Consultant



### Tibbalds Planning and Urban Design

Planning Consultants, Urban Designers and Masterplanners



**Key**  
— Application Site Boundary  
— Indicative boundaries of Phases I, 2 and 3B



Figure 1.1: Aerial Photo showing Site Location



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## Northstowe Context

## 2 Strategic Context

Northstowe is located within South Cambridgeshire, approximately 8.5km north west of Cambridge City Centre and 7km from Cambridge Science Park.

### 2.1 Northstowe

Northstowe is a new town in Cambridgeshire that is jointly promoted by Homes England, the Government's housing accelerator, and Gallagher Estates (now L&Q), a master developer and property investment company. Northstowe will occupy 490 hectares of land straddling the Longstanton and Oakington parish boundaries. Northstowe has an anticipated population of approximately 25,000 people (10,000 homes) and a broad range of supporting facilities and infrastructure, that will take shape over a period of 15-20 years. It aims to achieve the highest quality of community living and will contribute to the local identity of the area. The town will be delivered in three phases, with the Town Centre located within Phase 2.

### 2.2 Wider Context

#### Movement

Northstowe benefits from key strategic links to nearby settlements, such as Cambridge and Huntingdon. Northstowe has access points from the A14 (via the Southern Access Road West) to the south and the B1050 to the north, with a further potential southern access route that links into Dry Drayton Road via the Southern Access Road East (SARE). The A14 provides a direct link to the M11 to the south, ensuring ease of movement both regionally and nationally.

Cambridge North Train Station is the nearest major railway station to Northstowe; located approximately 8.5km to the south east of Northstowe's Town Centre, with onward services to London.

The Cambridgeshire Guided Busway (CGB) runs along the site's eastern boundary, ensuring that public transport is a highly accessible, easy and fast mode of transport for the new residents. A pedestrian and cycle route runs along the CGB, providing a sustainable and direct link between Cambridge City Centre, the Science Park, Cambridge North Station and Northstowe.

Local bus services are also accessible to the new residents of Northstowe, with routes running through the existing settlements of Longstanton and Oakington, which adjoin the site's southern and western boundaries.

A network of public right of way paths that run around and through Northstowe provides walking links to nearby settlements including Rampton, Longstanton and Oakington, and the wider countryside.

#### Facilities

Cambridge City Centre and Cambridge Science Park are major employment hubs within 10km of Northstowe. Both are easily accessible to the residents of Northstowe via the CGB.

The local settlements within close proximity of Northstowe also offer the following:

- **Huntingdon** - medium-sized market town comprising a wide range of services and community facilities including a train station.
- **Oakington**: Facilities and services including a public house, post office, primary school and a place of worship, amongst others.
- **Longstanton**: Facilities and services including a veterinary practice, bed & breakfast, supermarket, primary school and two places of worship.
- **Bar Hill** - Tesco Extra store that acts as the first choice for the majority of residents' food shopping in the local area.
- **Impington** : Local swimming pool

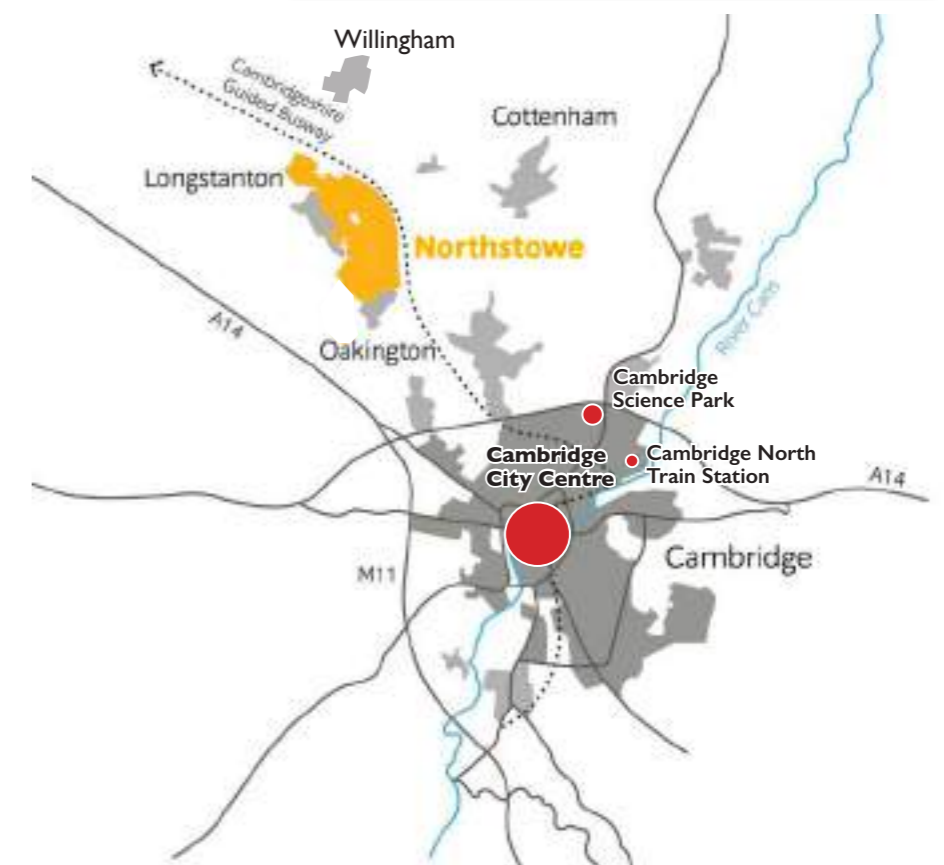
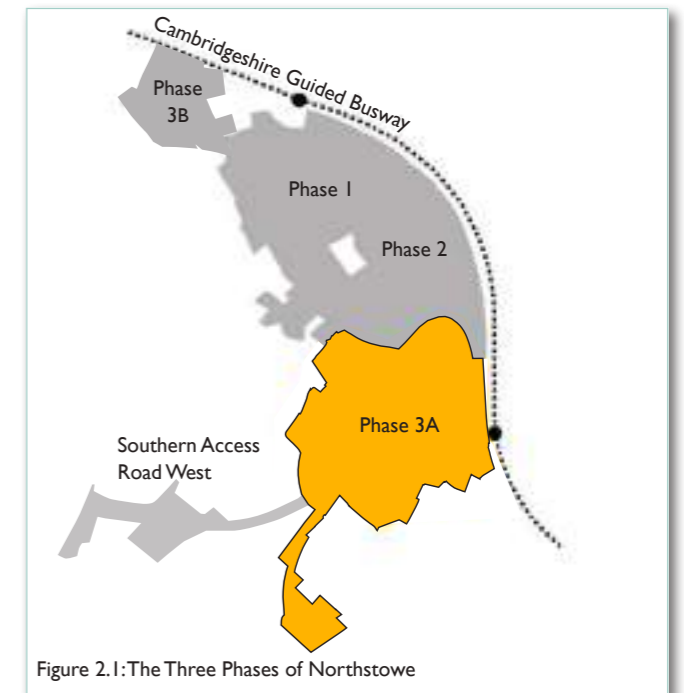
#### Social and Economic Context

The diverse economy of Cambridgeshire has particular strengths in sectors including engineering, research and development, pharmaceutical and tourism, amongst others.

The town of Northstowe is secondary to Cambridge, but it has the opportunity to provide space for the supply chain, for example in the knowledge economy (B1) and food sector, machinery supply and maintenance (B1c).

Northstowe aims to be a forward thinking, modern development which will provide 21st Century workspace, with an emphasis on flexible, move on space and home-working.

More detailed information on the social and economic context can be found in the Economic Development Strategy submitted as part of this application.



## 2.3 Relevant Policy and Guidance

The overarching Masterplan proposals for the planning application have been developed in accordance with National and Local Planning policies. The design proposals have evolved with input from statutory consultees and discussions with South Cambridgeshire District Council. An inclusive approach to design, planning and technical input has been adopted, including extensive public and community engagement, enabling the proposed development of the Application Site to be realised in a positive and sustainable way.

The Development Plan for the site consists of the following planning policy documents,;

- South Cambridge Local Plan ('LP') – September 2018
- Northstowe Area Action Plan ('NAAP') – July 2007

Other material considerations that the proposals have taken into account include:

- National Planning Policy Framework ('NPPF') – February 2019
- Northstowe Development Framework Document ('DFD') - August 2012 & Exemplar Addendum Document - October 2012
- South Cambridgeshire Supplementary Planning Documents ('SPD'):
  - Affordable Housing SPD
  - Biodiversity SOD
  - Development Affecting Conservation Areas SPD
  - District Design Guide SPD
  - Health Impact Assessment SPD
  - Landscape in New Developments SPD
  - Open Space in New Developments SPD
  - Public Art SPD
  - Trees and Development Sites SPD

A full schedule of planning policies relevant to Phase 3A and the scheme's response to each is set out in the Planning Statement submitted as part of this application.

The Design and Access Statement has taken into account policies relating to access in relevant local development documents. The relevant documents, and the sections in which they have been addressed within this document are as follows:

- South Cambridgeshire Local Plan (2018): Policy HQ/1: Design Principles (Section 6.4),
- Northstowe Area Action Plan (2007): All references to good access to services, permeable access and movement, and minimising disruption to villages, including the objectives set out in section D6 and policies NS/10 and NS/11.

### 2.3.1 Northstowe Development Framework Document (2012) (DFD)

The Development Framework remains a masterplan consideration. However, it has been overtaken by changes in the way people live and work.

The Healthy New Town status has brought an emphasis on health and wellbeing, requiring a multi-layered approach to open space and sport.

The Town Centre Strategy developed as part of Phase 2 has shifted the emphasis of land uses and size of the Town Centre, bringing it into line with today's shopping and working pattern. This also has an influence on Phase 3 and the local services provided within it. Nevertheless, the DFD sets out important considerations and has a role in ensuring Northstowe becomes a well integrated town.

The development proposals for Phase 3A incorporate the following principles set out in this DFD:

#### Community

- Self-sufficient community: Retail, community buildings, employment areas, health clinics, sports hub and schooling within 600m walking distance and co-located for ease of access to services.
- Active and healthy living: Allotments within walking distance of homes, greenways, community orchards, sports hubs, trim trails and a comprehensive network of cycle and pedestrian paths will encourage healthy lifestyles.
- Community cohesion with the town and local centres at key crossroads and a strong infrastructure with the potential for co-located facilities (primary schools, a secondary school, community and sports hubs and support for community development), with opportunity for people to interact and to help integrate the community.
- Phasing of the development primarily from north to south to allow for a coordinated and planned approach to construction which minimises the impact on existing communities and new residents of the site and avoids a piecemeal development.

#### Connectivity

- Dedicated busway as a direct link from the Cambridgeshire Guided Busway running through the middle of Northstowe enabling the site to be served by a high quality public transport system linking Huntingdon and Cambridge.
- Walking, cycling and buses to be given priority on streets with pedestrians afforded top priority. Pedestrian and cycle connections will be provided between Northstowe and adjoining settlements e.g. Oakington, Longstanton, and improved links further afield, especially to Bar Hill. Commuter cycle routes and local bus routes throughout the site to provide a sustainable transport system, overlooked where possible for security.
- Southern access roads (east and west) to provide vehicular access to the A14 at Bar Hill and Dry Drayton Road as well as from the B1050 at the northern end of the site.

#### Climate

- Towards low carbon with a combination of energy efficient solutions, local food production, green travel, innovative technology and communications systems and waste recycling centre.

#### Character

- Physical environment - linear development reflecting local settlement forms along key routes with an alternating street alignment, and a strong sequence of public spaces to aid legibility. Flexibility for change and innovation over time, inherent within the development form.
- Varied building heights and architectural vernacular as a defining feature.
- A strong landscape structure with a hierarchy of interconnected green public spaces and parks, often linked via strong linear axis, based upon the grain of the land and incorporating existing site assets and features.
- Nature conservation in wildlife corridors, a network of lakes, ponds and ditches, meadows and scrub, retained landscape features, green links and linear parks to create a mosaic of habitats and green space utilising and emphasising water features, becoming a haven for wildlife and providing opportunities for natural play and informal access.



Figure 2.3: Northstowe Development Framework Plan (DFD 2012)

**3**

**Health and Wellbeing**

# 3 Health and Wellbeing

Northstowe was included in the NHS Healthy New Town (HNT) initiative. This chapter sets out the commitments and principles that will that apply to Northstowe as a whole and how strategies and detailed principles developed for Phase 2 will shape the development proposals for Phase 3 to continue the HNT legacy.

## 3.1 Health and Wellbeing Commitments

The 'Healthy New Towns' national initiative is both based on existing evidence and intended to generate new evidence about what works, why and how. Therefore, Northstowe is expected to explore innovative strategies and initiatives that will contribute towards the health and wellbeing of its future population. Good design and placemaking can have a significant impact on encouraging an active and sustainable lifestyle for a community, therefore this section is of particular importance to the Design and Access Statement; ensuring that the key principles for healthy living are embedded into the design process from the outset.

Northstowe's Healthy New Town priorities are to:

- Deliver a healthy community through a framework of interventions which can be applied as the town develops;
- Create a healthy town through infrastructure and place shaping; and
- Develop a new model of care for Northstowe.

The commitment to create a healthy community through infrastructure and place shaping includes:

- The delivery of open space, landscape, and green infrastructure to create nudge and pull factors and maximise opportunities for positive lifestyle choices around obesity.
- The provision to cater for all ages and abilities with a focus on dementia and older people.

Homes England are committed to ensuring that Healthy New Town principles are applied to all aspects of Northstowe's development. While the NHS' programme has ended, Homes England and its partners, including South Cambridgeshire District Council (SCDC) and Cambridgeshire County Council (CCC), have made a joint commitment to continue with the programme for the benefit of future residents of Northstowe.

### 3.1.1 Northstowe Healthy Living and Youth & Play Strategy (2018)

A Healthy Living and Youth & Play Strategy was approved as part of Phase 2. Within this document is the Healthy Living Strategy which sets out 9 principles, which based on scientific research are considered to be fundamental drivers in improving physical and mental health and wellbeing.

These principles are:

- Providing contact with nature;
- Promoting a positive community identity;
- Providing access to sports;
- Providing inclusive design / design for all;
- Health and wellbeing through play;
- Promoting positive social interaction;
- Promoting access to healthy food;
- Increasing physical activity; and
- Creating a low pollution environment and adapting to climate change.

The development proposals for Phase 3A will adhere to these principles. Their detailed implementation will be defined through later stages in the planning process, such as the Design Code(s).

### 3.1.2 Northstowe Phase 2 Design Code (2017)

The Design Code for Phase 2 is an important bridge between the outline planning consent and detailed proposals for Northstowe Phase 2. It is an appropriate forum for embedding principles of healthy neighbourhoods. The final document demonstrates how these objectives can be embedded in design requirements at a strategic as well as detailed level. Some of the principles that aim to promote healthy and active lifestyles within the Phase 2 Design Code include:

- **Development density and permeability:** Higher densities can create active and animated streets. A choice of attractive routes, higher densities and variation in character help to deliver streets and spaces that are safe and interesting to walk along.
- **Spatial organisation of parks: and the provision of community allotments and orchards:** The benefits of this include catering for gentle outdoor activity, increased sense of community and belonging and healthy, fresh produce.
- **Walking and cycling:** Provision of a choice of walking and cycle routes at a fine grain is an important consideration in promoting healthy activities including the use of bikes as an active mode of transport.
- **Accessibility of public transport:** Including high quality bus connectivity throughout the site as well as connecting to adjacent settlements.

It is expected that consent for Phase 3A would be dependant upon a requirement to produce similar design codes. The Design Principles Document (Appendix A) provides a framework for more detailed Phase 3A coding post permission.

### 3.1.3 Summary

The Healthy New Town priorities and the detailed strategies developed for Phase 2 have informed the masterplan for Phase 3A, to ensure these are embedded from the strategic level down to the detailed implementation. Homes England has made the commitment to extend the principles set out in the above documents to Phase 3.

This will provide a coherent town wide approach and ensure that all residents have the opportunity for healthier and happier lives.



Figure 3.1: 'Putting Health into Place' (NHS England)



Figure 3.2: Northstowe Phase 2 Healthy Living and Youth & Play Strategy (Approved as part of Northstowe Phase 2)



Figure 3.3: Northstowe Phase 2 Design Code (October 2017)

A large teal square is centered on the page. Inside this square, the letter 'N' is written in a light teal, sans-serif font. The letter is composed of three strokes: a vertical line on the left, a diagonal line from the top-left to the bottom-right, and a vertical line on the right.

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## Site and Context Appraisal

## 4 Site and Context Appraisal

This section sets out the social and physical context of the site, the existing site features and the design influences associated with Phase 3A.

### 4.1 Northstowe:

The development proposals for Phase 3A, will complete the southern neighbourhoods of Northstowe. As such it must be seen in context of Phase 1 and 2 of Northstowe as well as the surrounding villages of Longstanton and Oakington.

The next pages illustrate the design influences that have been considered during the masterplan development. These also formed the basis of stakeholder and community engagement in the early stages of the design development.

#### 4.1.1 Phase 1

Northstowe Phase 1 has been promoted by Gallagher Estates (now L&Q). Planning permission for this phase was granted on 22 April 2014, with the associated design code approved later that year.

Phase 1 is located to the north east of Longstanton and abuts the western boundary of the Cambridgeshire Guided Busway (CGB). The main area of Phase 1 accommodating the development proposal measures 97ha, with an additional 25ha of land within the application red line located southwest of Longstanton, accommodating flood attenuation ponds.

The Phase 1 proposal included:

- Up to 1,500 dwellings, including affordable housing in a mix of tenure types;
- A Local Centre, including space for a community building and provision for retail and other appropriate uses;
- A primary school;
- 5ha of employment land including a household waste recycling centre and foul water pumping station;
- Formal and informal public open space, including a sports hub of over 6ha and approximately 23ha of additional public open space including parks/play space and a network of footpaths and cycleways;
- Water bodies of approximately 5.2ha including a water park providing a recreational, ecological and drainage resource;
- 1.57ha of allotments and community orchard;
- Improvements to the existing B1050;
- Earthworks and cut and fill to enable land raising and re-profiling of the site for sustainable drainage purposes.

A Design Code was produced by Gallagher Estates (now L&Q) and Homes England in order to satisfy the requirements of the NAAP and, meet the requirements of a planning condition. This document comprises high level, town-wide design guidance as well as detailed guidance for Phase 1 only.

At the time of writing, the primary school, Pathfinder C of E Primary School is open and approximately 480 new homes within Phase 1 are occupied.

#### 4.1.2 Phase 2

Northstowe Phase 2 lies to the north of Phase 3A and delivers the central part of the development, comprising the Town Centre, and is approximately 165ha in size. This phase is bordered to the east by the CGB and to the west by Longstanton and surrounds the existing settlement of Rampton Drift. An existing water tower is located within this phase, which is visible from certain locations within Phase 3A.

Phase 2 of Northstowe, which is currently under construction, will be a series of urban neighbourhoods of up to 3,500 homes with Town Centre facilities and schools as well as community and sports facilities. The application for Phase 2 included:

- Up to 3,500 dwellings
- 2 primary schools
- Special Educational Needs (SEN) school
- 1 secondary school as part of an education campus
- Town Centre, including employment uses, formal and informal recreational space and landscaped areas
- Eastern sports hub
- Remainder of western sports hub (to complete the provision delivered as part of Phase 1)
- Dedicated Busway
- Primary road links
- Construction of a new highway link (Southern Access Road (West)) between the proposed new town of Northstowe and the B1050, and associated landscaping and drainage.

The Town Centre within Phase 2 will provide the primary focal point for the town. It is within this central core that the key services and employment provision will be located.

At the time of writing, the secondary school and essential infrastructure is under construction within Phase 2, and detailed proposals have been developed for an initial parcel of 406 homes (Phase 2A).



Figure 4.1: Composite Plan showing detailed design and illustrative layout of different parcels within Phase 1



Figure 4.2: Pathfinder C of E Primary School opened within Phase 1 in September 2017

The Healthy Living, Youth and Play Strategy (2018) and Design Code (2017) described in Section 3, and the Town Centre Strategy (2019), summarised below and submitted relevant to Phase 2, have been taken into consideration in the development of the proposals for Phase 3A.

### Town Centre Strategy (2019)

The aspiration for Northstowe Town Centre, as set out in the Town Centre Strategy prepared for Homes England by Allies and Morrison, is to:

*'provide a dynamic and innovative centre that meets the needs of residents throughout its phased delivery and long into the future, as well as serving residents in surrounding villages and attracting a diverse range of workers and visitors.'*

It aims to establish the Town Centre as a destination and a hub of activity; growing and evolving as development progresses to continue to meet the wide ranging needs of new residents, workers and visitors. The Town Centre Strategy sets out the changing roles of Town Centres, as they transform into social destinations for experiences and interaction due to the rise in online shopping. The range of services and facilities available will be complementary to Cambridge and provide a differentiated offer which isn't available in the wider context; meeting the needs of the Northstowe residents as well as drawing on a wider context through the distinctive retail provision.

In addition to retail provision, Northstowe Town Centre will comprise a spectrum of employment spaces. It will be a place to have ideas, start and grow a business, with a wide range of working environments provided to encourage a range of business types and sizes. New spaces will complement the sci-tech provision in the region and provide spaces for creative endeavour, with the intention being to develop a strong relationship between the Education Campus in Phase 2 and the businesses within the town.

The Market Hall and Civic Hub typologies are key components of the Town Centre, providing a mix of uses in one location including employment space, retail, leisure, community and cultural.

Phase 3A has been carefully designed to ensure its service and employment provision does not compete with that of the Town Centre, instead complementing and supporting the Phase 2 provision.



Figure 4.3: CGI of Phase 2 Town Centre (Allies and Morrison)



Figure 4.4 Phase 2 Urban Design Framework (extract from Design Code 2017)





### 4.1.3 Phase 3

Phase 3 is comprised of Phases 3A and 3B, which are located at the south and north of Northstowe respectively. Together, Phases 3A and 3B will deliver the remaining balance of homes (up to 5,000: 4,000 in Phase 3A and 1,000 in Phase 3B) and complete the town. Phase 3B will be covered by a separate outline planning application.

### 4.2 Phase 3A Site Location

The Phase 3A Application Site Boundary covers an area of approximately 210ha (including the Southern Access Road East); the Application Site Boundary for this phase is shown on Figure 4.5. The key points regarding the location of Phase 3A in relation to Northstowe and the wider context are listed below:

- Phase 3A is located between the southern settlement edge of Longstanton and to the north of Oakington. It adjoins Phase 2 along part of its northern boundary and will provide the gateway to Northstowe from the south.
- The Southern Access Road West (SARW), approved as part of Phase 2 and currently under construction, provides access to the town from the B1050 and A14 and the primary vehicular access to Northstowe.
- The Southern Access Road East (SARE), which forms part of this application, will provide potential access to Northstowe from Dry Drayton Road to the south.
- The CGB borders Phase 3A to the east. A dedicated bus route will run through Phase 3A, into the Town Centre and onwards to Longstanton Park and Ride, where it will rejoin the main CGB route. This route has been approved as part of Phase 2 planning application.
- The distinctive Cambridgeshire fen landscape pattern is apparent on the opposite side of the CGB to Phase 3A.
- Longstanton Road, which runs along the south western boundary of the main site area has been closed to vehicular traffic and will be incorporated in the form of a combined walking, cycling and bridleway in the proposals. This Public Right of Way also forms part of Pathfinder Long Distance Walk; a circular route that was originally established to link the historic RAF Pathfinder Stations including Oakington, Wyton, Graveley and Warboys.

-  Application Site Boundary
-  Alignment of Busway (Approved as part of Phase 2)
-  Link road to Southern Access Road West (Approved as part of Phase 2)
-  Indicative alignment of Southern Access Road West (Approved as part of Phase 2)

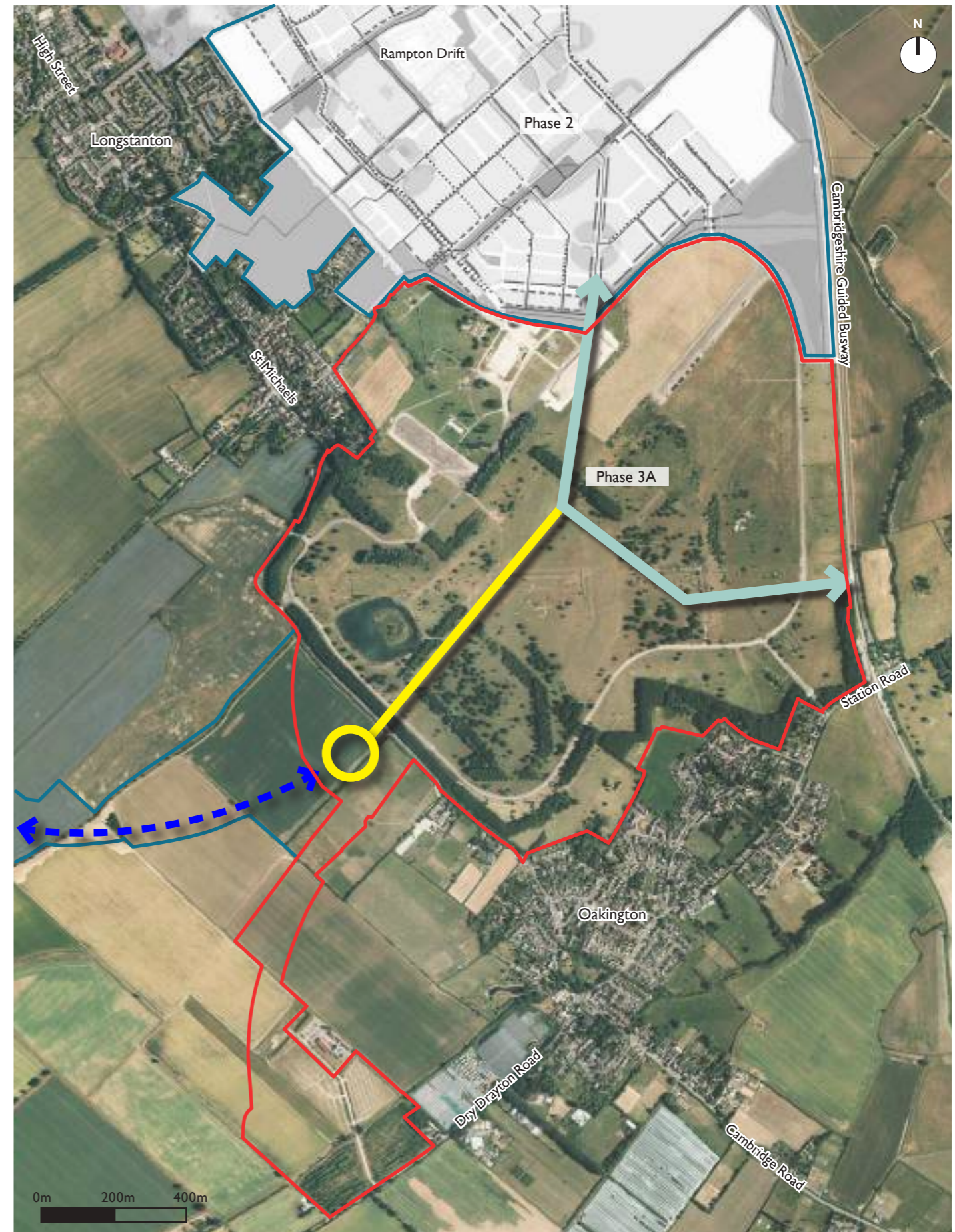


Figure 4.5: Phase 3A Site Location Plan.

### 4.3 Existing Site Features

An overview of the existing site features is set out in this section. For more information about the existing landscape character and site features please refer to the Landscape Strategy submitted as part of this application.

The existing site at Phase 3A is flat with few built structures, but includes a number of features that hail from the RAF's use of the site as an airfield and subsequent use by the army. These features include:

- Four cantilevered, Grade II Listed pillboxes and further unlisted pillboxes are located within the Application Site. Many of these are overgrown and only partially visible;
- A number of existing tree belts, predominantly located in the southern part of the site and along the sites south eastern boundary where it adjoins the existing settlements of Longstanton and Oakington.
- A large lake ('The Military Lake'), which is located within the southern part of the site. The lake has a central island which comprises thick vegetation.
- A partial runway which runs north east to south west through the centre of the site.
- The former airfield road, which runs south west - north east through the site. The alignment of this road is shown on Figure 4.21.

There are also a number of existing trees across the site of varying species, these are particularly concentrated within the south eastern part of the site as can be seen on Figure 4.5. Within the western part of the site there is a section of historic Ridge and Furrow landscape, which forms part of the Longstanton Conservation Area.

The following sections describe how the existing context of the site, including the existing site features set out here, can be drawn into a set of design influences.



Figure 4.6: The Military Lake, within the south western part of the site, is a unique and defining feature of the site that will be integrated into the proposals.



Figure 4.8: This photo shows one of the Oakington pillboxes found within Northstowe. These are to be retained within the Phase 3A proposals.



Figure 4.7: There are a number of tree belts within the site that hail from its use as an RAF base.

## 4.4 Movement: Design Influences

The existing movement network within and surrounding the site has been analysed to ensure the structure of movement within the masterplan is well connected to its immediate and wider context. For a more extensive explanation of the movement analysis please refer to the Transport Assessment submitted as part of this Planning Application. The key opportunities identified are;

- To link into the surrounding context and reinstate those Rights of Way that had been severed as a result of the RAF airfield.
- Northstowe Phases 1 and 2 have established a network of strategic and local cycle routes. The principles and routes established in the earlier phases have influenced the masterplan for Phase 3A to create a well connected network of cycling routes, greenways and streets that encouraging walking and cycling.
- The Southern Access Road West has been given detailed planning approval as part of Phase 2 and is currently under construction. This road, together with the potential Southern Access Road East will provide the main access to Phase 3A.
- The opportunity exists to create a well connected street network that ties into earlier phases, the wider road network and creates a clear hierarchy of streets.
- The alignment of the busway through Phase 3A has already been established as part of Phase 2. This will provide a central dedicated public transport corridor. There is the opportunity to create a wider network of streets suitable to accommodate local bus routes and create a new route to extend an existing local bus route from Oakington into Northstowe.

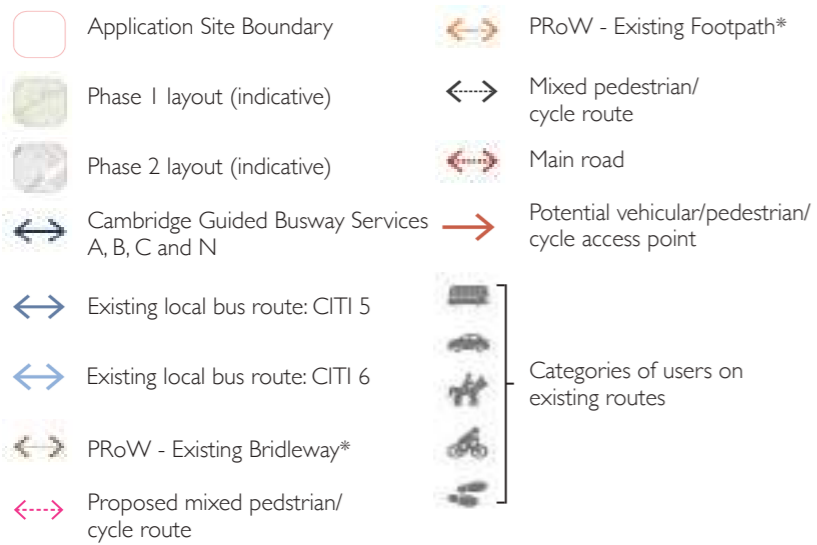
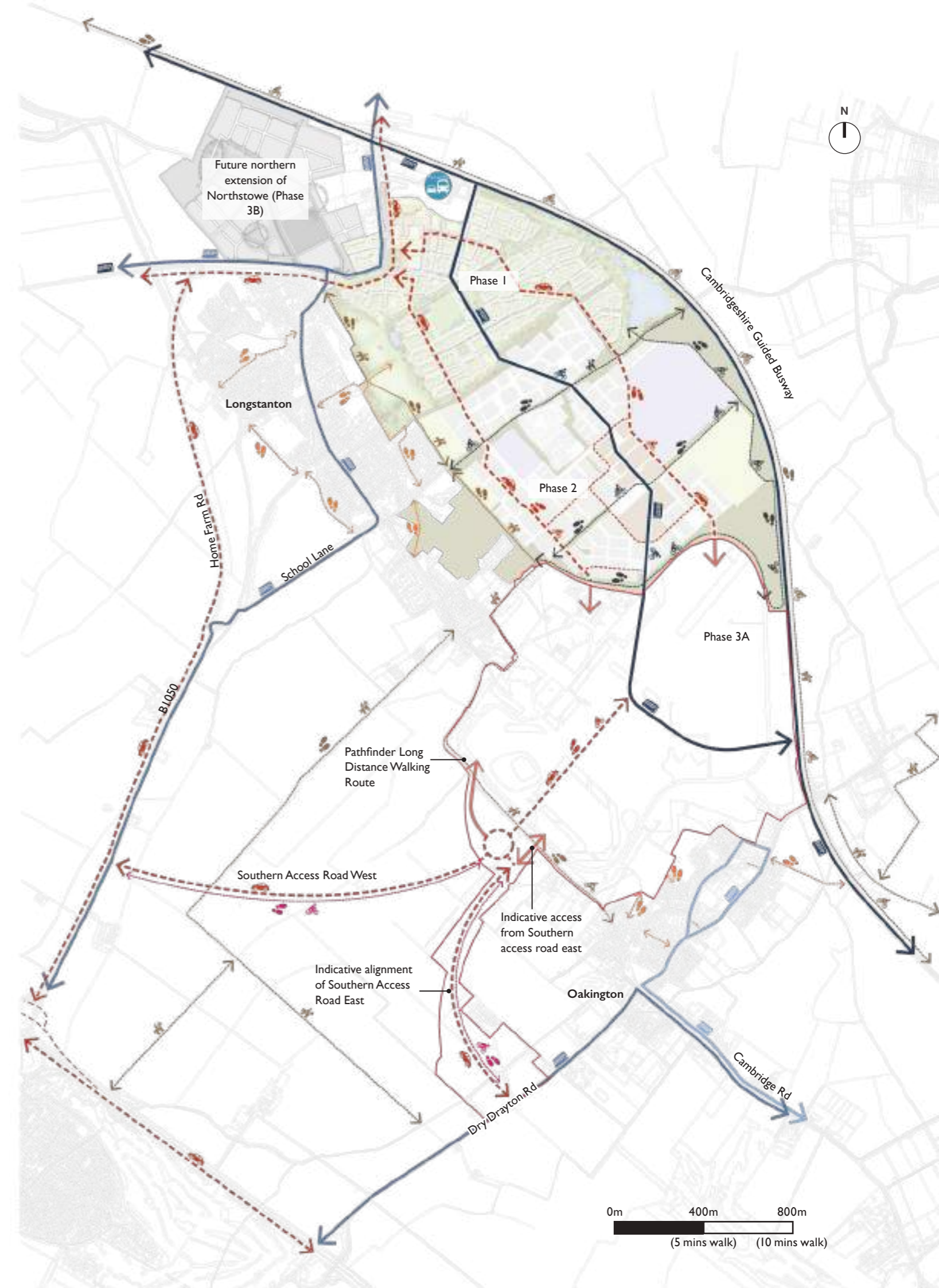


Figure 4.9: Movement Design Influences Plan. \*PRoW: Public Right of Way



## 4.5 Facilities: Design Influences

Cambridge is a regional city of great influence. It is located close to Northstowe and is connected by the CGB. There are a number of Science Parks in the wider sub-region, including Cambridge Science Park, Cambridge Research Park, Cambridge Innovation Park, Alconbury Enterprise Park and Cambridge BioMedical Centre at Addenbrookes which is a major national facility and has direct CGB links from Northstowe. A number of these are currently being built out to meet the needs of the future residents of the area. More locally, the surrounding villages of Longstanton, Oakington, Cottenham, Willingham, Over and Swavesey are key locations in serving the needs of the local residents.

Northstowe Town Centre's vision is to complement the employment provision within the area, and identify gaps in the market in terms of facility and service provision. A wide range of employment, leisure and commercial services and facilities will be provided within this phase of the town, which will complement those provided within Longstanton and Oakington and be easily accessible both within Northstowe and within the wider context.

Northstowe Phase 2, including the Town Centre, will provide a primary school, secondary school, special educational needs school, sports hub, health hub and a wealth of employment and retail provision, amongst others.

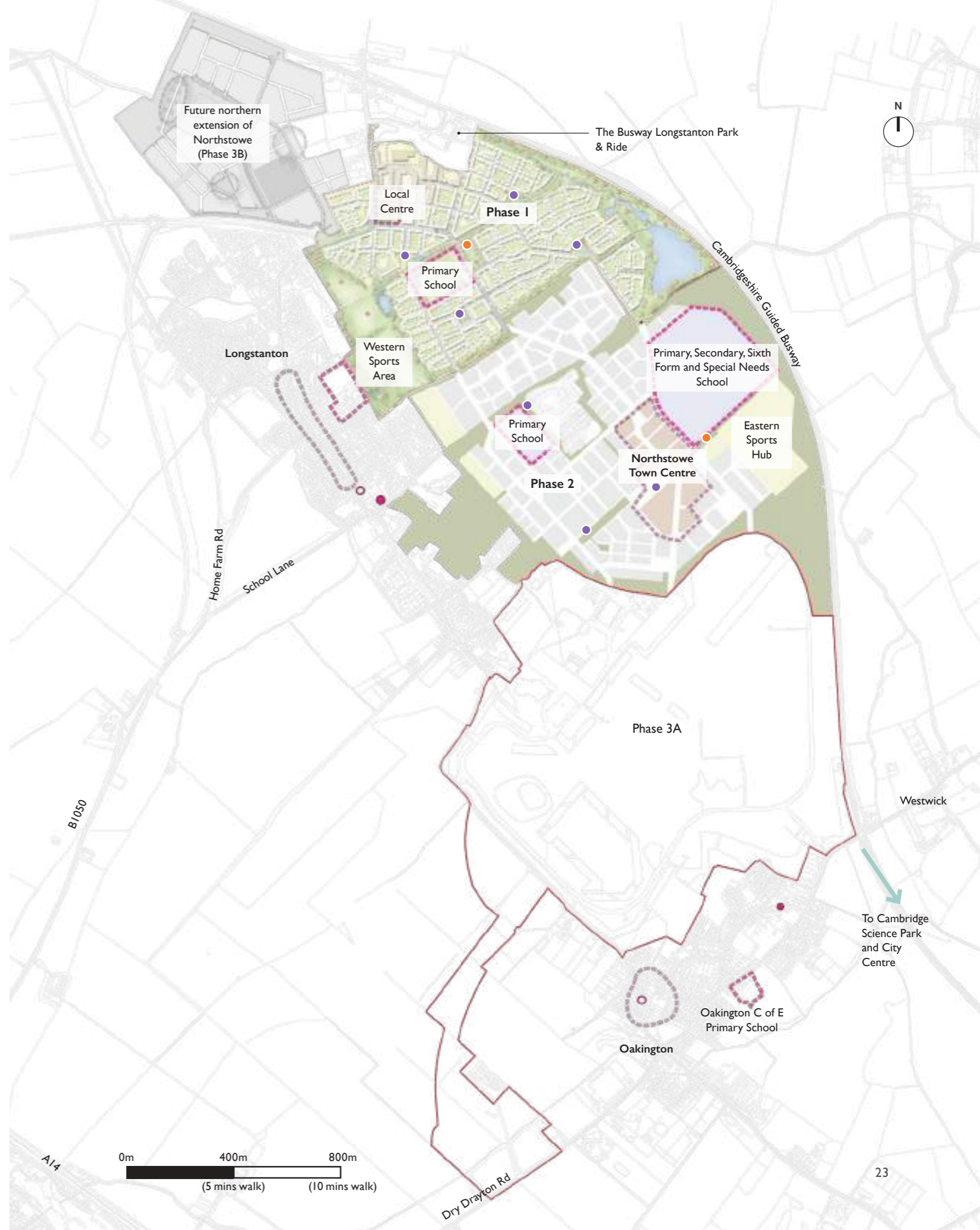
Longstanton and Oakington are important considerations for Phase 3A. Northstowe Phase 3A has the opportunity to re-establish a link between the two settlements and aims to improve connectivity between the new town and the existing settlements. Between the two villages they offer a doctor's surgery, a medical practice, two public houses, a bar, places of worship, two bed and breakfasts, two primary schools, a veterinary practice, and a garden centre and a cafe amongst many other services.

Phase 3A takes into consideration the movement structure to and from the existing settlements and their service provisions and aims to complement instead of compete with the existing provision.

- Application Site Boundary
- Phase 1 layout (indicative)
- Phase 2 layout (indicative)
- Place of Worship
- School
- Local settlement 'centres'
- Post office
- LEAP
- NEAP

Figure 4.10: Facilities Design Influences Plan.

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## 4.6 Landscape and Environment Design Influences

### Landscape Character

Northstowe has a rich and complex landscape history, evolving through natural processes and human interactions, from its ancient origins. Throughout history it has significantly changed; the Northstowe development presents an opportunity for the next layer in its landscape evolution. For more information on the landscape character of Northstowe and the surrounding context, please refer to the Landscape Strategy submitted as part of this application.

The existing landscape features of Northstowe form the base layer of Green Infrastructure. Woodland, hedgerows delineating agricultural fields, and field ponds all form part of the existing mosaic of landscape typologies and biodiversity habitats in the surrounding area. The key components of the existing landscape character are:

- The predominant historic character of land adjoining Longstanton comprises a series of paddocks with hedgerows and small copses.
- The Conservation Area at St Michael's includes fields and paddocks adjoining the village and is bound by the tree lined bridleway of Long Lane which lies further than 200m from the village framework. Historically this is an important area and includes fields which still demonstrate remnants of the early ridge and furrow field system. Long Lane is a long established right of way and its sylvan character is a key part of the setting of Longstanton and is to be retained and enhanced as part of the masterplan proposals for Phase 3A.

The site itself shares many of the characteristics of the wider Fen landscape character. However, its former use as RAF Airfield and then army barracks have added landscape features, such as:

- Open area of grassland with scattered groups of mature oak trees and blocks of evergreen and deciduous tree plantations and tree belts; and
- Plantations and tree belts strategically located close to the boundaries and filter views to the neighbouring villages of Longstanton and Oakington.

Further information on the design influences afforded by the site's history is set out in Section 4.7 - Heritage.



Figure 4.11: The Fens National Character Area (NCA) is a large, low-lying landscape with a high number of drainage ditches, rivers and dykes



Figure 4.12: The Fens NCA is characterised by flat, open landscapes with extensive views



Figure 4.13: Aerial photo of the River Ouse and the surrounding fen landscape pattern.



Figure 4.14: Existing vegetation and watercourses will be retained where possible



Figure 4.15: Existing tree belts will be retained and enhanced as part of the green infrastructure strategy, where possible



Figure 4.16: The Military Lake within Phase 3A will be retained



The Landscape and Environment opportunities and influences have been identified as part of the site analysis. For further explanation please refer to the Environmental Impact Assessment and Landscape Strategy documents submitted as part of this Planning Application. The main influences are:

- Surveys have identified a range of considerations in relation to protected species including badgers, bats, great crested newts, toads, reptiles, hares and breeding birds. Their habitats have influenced the masterplan layout and mitigation strategies. Most of these are located in and near the existing woodland planting on the eastern and southern boundaries.
- There is the opportunity to retain and integrate as much of the existing vegetation, into the masterplan as possible. This includes existing hedgerows, woodland blocks, Ridge and Furrow landscape, individual trees and scrub, which are important ecological and landscape features
- Opportunity to integrate the existing Pillboxes into the network of green infrastructure.
- To enable the landscape to provide an environment suitable for the mitigation of adverse wildlife impacts and to maximise benefits to wildlife including plants.
- The existing Military Lake will be retained as part of the proposals. It provides an important habitat for bats and toads as well as an attractive landscape feature.
- The opportunity exists to create Strategic Green Infrastructure corridors on site; providing walking and cycling links to the wider landscape context.
- Opportunities to reduce existing flood risk along Longstanton Road and Oakington.

- |  |  |
|--|--|
|  Application Site Boundary                      |  Potential locations for Sustainable Urban Drainage (SuDS) features |
|  Phase 1 layout (indicative)                    |  Wind direction   |
|  Phase 2 layout (indicative)                    |  Toad migration   |
|  Deciduous woodland and other clusters of trees |  Indicative direction of waterflow                                  |
|  Bat commuting and foraging potential very high |  Strategic landscape corridors                                      |
|  Lake / pond                                    |  Solar path   |
|  Existing surface water drainage corridor       |  |

Figure 4.17: Landscape and Environment Design Influences Plan.



## 4.7 Heritage: Design Influences

The long and varied history of Northstowe as a whole, and Phase 3A specifically, has informed and shaped the development process, with the masterplan reflecting a number of the historical influences across the site.

The heritage of Northstowe and the wider context has been mapped and analysed to ensure that development maximises the opportunities that this historical context provides. The adjacent diagram shows an approximate time-line of the historic uses of Phase 3A, with the RAF occupation of the site leaving the biggest mark on the site as it stands today.

### Northstowe through the ages

*Human Intervention (\*based on wider fenland history)*

#### Paleolithic

Hunter gathering\*

#### Neolithic

Primitive farming\*

#### Bronze/Iron Age

Engineered farming (ditched fields)\*

A potential Bronze Age ritual monument and 7 Iron Age sites were identified within phase 1. Iron Age enclosures which comprised interconnected circular and sub-circular enclosures were recorded within the centre of the airfield.

#### Roman

Market trading and road building

The extensive archaeological work that has taken place so far on Northstowe Phase 2 has focused on the detailed excavation of a large Roman settlement. This overlies older Iron Age settlement and has Saxon activity around the edge. There is evidence of buildings, wells, rubbish pits, ditches, cemeteries, metal working, textile production and a pottery kiln within the settlement area.

#### Medieval Period (1066-1540)

The Historic Environment Record (HER) reports two non-designated heritage assets of Early Medieval date within the proposed development. The Domesday Book (1086-7) suggests that the land around Oakington and Longstanton consisted of arable and meadow land.

#### 1630's - 1820's

Attempts to drain the fenlands\*

#### 1820's - 1930's

Successful drainage allowing extensive arable cultivation

#### 1930's - 2010

RAF Oakington and Home Office Occupation

Oakington was established in the late 1930s during the expansion period of the RAF. Construction of three concrete runways began in 1941 and they were in use by 1942. In 1950 the airfield became a training school and the RAF flying ceased at the site by the end of 1974. In 1979 the station became an army base and became home to 657 Squadron. It came to be known as Oakington Barracks and the personnel lived in the RAF houses in Longstanton. Most of the runways were removed apart from a short stretch which was used by light army aircraft.

In 1991 the site was relinquished by the Ministry of Defence and it came into use as an immigration centre by the Home Office. The immigration centre closed in 2010.



Figure 4.19: Extensive archaeological work has taken place at Northstowe Phase 2



Figure 4.18: Oakington airfield



Figure 4.20: 7 squadron at RAF Oakington

From the analysis of the history of the site, a set of design influences have been mapped out on Figure 4.21.

The key opportunities identified are:

- Provision of green links between the Conservation Areas of Longstanton, Oakington and Westwick to respect their individual characters and setting.
- Opportunity to reflect the alignment of the former runways as part of the masterplan.
- Reflection of the cultural heritage, including military legacy as well as historic lanes and field patterns that existed before the RAF airfield.
- Historic routes which will be reinstated as part of the proposed movement network. Inclusion of historic interpretation and heritage trail.
- Retention and appropriate management of Paddocks Ridge and Furrow.
- Retention of the existing Listed pillboxes and potential retention of the unlisted pillboxes on site, creating an opportunity to be integrated into the wider landscape strategy.
- Local landmarks, such as the water tower in Phase 2 and church spires in Oakington and Longstanton have been considered. Due to the dense tree belt surrounding the site, the latter are not visible from within the site.

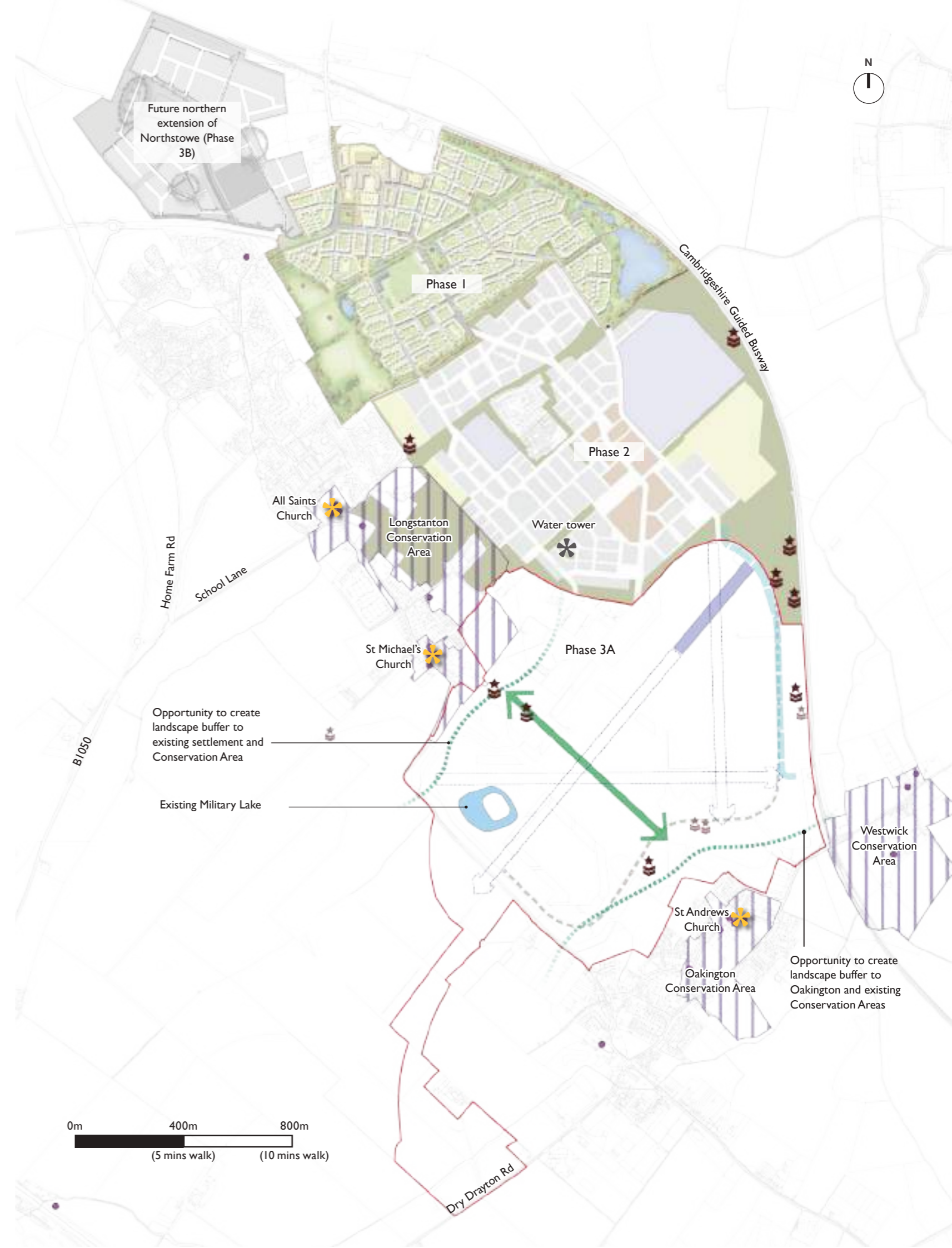
At the detailed design stage it is envisaged that other historical features will inform, for example, street names and interactive historical trails through the site.

For more detailed information on the heritage of the site please refer to the Environmental Statement Volume 1, Chapter 9: Cultural Heritage.

- |   |  |
|---|--|
|  Application Site Boundary   |  Historic Church                      |
|  Phase 1 layout (indicative) |  Visually prominent edge              |
|  Phase 2 layout (indicative) |  Landscape buffer                     |
|  Conservation area           |  Former Airfield runways              |
|  Other /unlisted pillbox     |  Remaining section of Airfield runway |
|  Listed pillbox              |  Existing water tower -Phase 2        |
|  Listed buildings            |  Former alignment of Mill Road        |
|  Airfield road               |  |

Figure 4.21: Heritage Design Influences Plan

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## 4.8 Opportunities and Influences: Character

The vision for Northstowe is to create a new town with a distinctive identity, that draws on aspects of the local traditional characteristics. Therefore, an understanding of its context in wider Cambridgeshire is essential.

On the next few pages we have drawn out the key characteristics that have influenced the masterplan and development form. These contain influences from:

- Policy: Northstowe Development Framework Document (2012);
- Analysis of Cambridgeshire architecture; and
- Local influences.

It must be noted that this DAS supports an outline planning application and therefore, the level of detail of the development proposals remains at a high level. Future planning stages, such as the design code(s) and Reserved Matter Application(s) will provide further detail on how individual buildings and architecture will relate and respond to local characteristics.

### 4.8.1 Northstowe DFD (2012)

The DFD includes a contextual study of Cambridgeshire settlements within proximity of Northstowe that are influential in determining key aspects of the town's character, layout and structure. These are:

#### Overall structure

- Urban form with a dense core set around a grid street pattern;
- Based on a linear form;
- Clearly defined approaches and gateways with marker buildings; and
- Connected greens and spaces.

#### Vernacular

- Cambridge stock brick of buff colour or yellow Gault clay bricks, pastel and white render;
- Plain grey roof tiles; turned gables;
- Varied building heights and plot width in specific locations; and
- Contemporary civic buildings.

#### Density and uses

- Mixed use located along Town Centre approaches;
- Mixed use commercial focus within Town Centre; and
- Continuous frontages along Town Centre approaches.

#### Landscape and drainage

- Use of open swales and water overlooked by development;
- Hedgerows, woodland or tree belts at settlement edges.
- Village greens; and
- Orchards and hedgerows paddocks.

### 4.8.2 Cambridge Architectural Character

In its contextual analysis, the DFD says relatively little about building form and materials - it is focused more on the structuring elements described above. Vernacular forms and materials are described in depth in the Council's District Design Guide SPD. The masterplan and proposed development form has been influenced by site visits of Huntingdon, Peterborough, Ely, St Ives and more recent developments in Cambridge (Abode, Accordia, Eddington, Trumpington Meadows and Addenbrooke/Ninewells) to develop a greater understanding of how regional forms and materials could be interpreted in a contemporary way at Northstowe. This work has influenced the Phase 2 Design Code and is envisaged to influence the detailed proposals for Phase 3A. The following pages illustrate the key principles, grouped around the following themes:

- how buildings define streets and spaces;
- built form: rooflines;
- built form: rhythm and proportion; and
- materials.

#### Materials



**Figure 4.22:** Consistent brick used for boundary walls and buildings create a coherent townscape in Addenbrooke/Ninewells.



**Figure 4.23:** Materials vary in Huntingdon Town Centre, but the variety is controlled by being within a limited palette of brick types and render, and varying only building-by-building, not within each building.

## Materials



Figure 4.24: Variation in material in this street in Great Kneighton is unified by the symmetrical buildings form, creating a high quality appearance.



Figure 4.25: Consistent use of a single brick type in Ely brings together these varied building forms.



Figure 4.26: Variation in material which respects the same colour palette in Eddington unifies the street and ensures it is seen as a cohesive whole.

## Defining Streets and Spaces



Figure 4.27: This street in Ely is typical of the way that strong linear building forms define and enclose the street. The setback varies, but it is consistent within each building block.



Figure 4.28: Ely: different materials and built form but the consistent building line within blocks strongly defines the river-front street.



Figure 4.29: Contemporary forms in Eddington, Cambridge achieve a similarly strong enclosure of the street and a consistent approach within the building block.



Figure 4.30: Strong definition of Town Centre streets in Peterborough (left) and Huntingdon (right) but there is no doubt which is the main street. The greater width of the street and scale of the buildings on the left gives it a much greater sense of importance than the lane on the right.



Figure 4.31: More subtle changes distinguish these two streets in Great Kneighton, Cambridge. The regular building line, consistent street width and defined kerbs on the left give the street a more formal look and feel than the shared surface, varying width and irregular building line of the street on the right. Although subtle, the differences make the hierarchy clear.

## Built Form: Rhythm and Proportion



**Figure 4.32:** Although the building scales and materials vary, the proportions in St Ives Town Centre are similar with a strong vertical rhythm and window proportions consistent across building types.



**Figure 4.33:** Strong vertical rhythm and consistent window proportions in Huntingdon.



**Figure 4.34:** The block varies in height and building line, but there is a consistent approach to window proportions in Eddington.



**Figure 4.35:** Away from the Huntingdon Town Centre, buildings become more informal with varied proportions and sometimes horizontal window proportions



**Figure 4.36:** Informal buildings on the edge of Ely Town Centre have varied window proportions that make the building group appear complex. This complexity is 'calmed down' by the consistency of degree of roof pitch pitched roofs and building line



**Figure 4.37:** Trumpington Meadows: the distinctive building rhythm allows for a simple approach to elevations.

## Built Form: Rooflines



**Figure 4.38:** The bringing together of a series of simple roof forms creates a rich townscape in Peterborough. Built forms do not need to be complex to be interesting - it is the way that simple forms come together that creates richness



**Figure 4.40:** Strong, simple roof forms create a solid, homely character to these homes in Ely.



**Figure 4.39:** Strong, simple roof forms come together to create a contemporary built form in Eddington.



**Figure 4.41:** The simplicity of form gives a similar feeling of solidity. The quality of the materials and detailing ensure the built form doesn't appear too simple.

### 4.8.3 Local Context

This section analysis the immediate context of Phase 3A, which for the purpose of this DAS comprises Longstanton, Oakington, Westwick, the newly built homes in Phase 1 as well as the character and design principles established for Phase 2.

Phase 2 and 3, promoted by Homes England aim to deliver a step change in design quality. The commitment to delivering design quality has been set out in the Design Code for Phase 2 and is envisaged to be taken forward in Phase 3.

'Lessons learned' workshops within the team and also with SCDC officers have helped to inform character and design approach for Phase 3A.

#### Oakington and Westwick

Oakington is a historic village, comprising a number of local facilities as set out in Section 4.5. The Church of St Andrew is a Grade II\* Listed local landmark.

The historic dwellings within Oakington typically fall into two categories. The earlier buildings (15th to 18th Century) are generally characterised by rendering and a thatched roof (although some of these have now been replaced with tiling). The slightly later buildings (19th Century) are typically constructed using bricks and slate roofs. These buildings are often clustered and sit at the back of the pavement, or occasionally with a small set back. This gives a distinctive, tight and active frontage that forms a strong relationship with the street.

Infill development, mainly in the late 20th Century, has occurred between the historic buildings in the village. The architectural style of these neighbourhoods is somewhat eclectic, with a range of brick, rendering, cladding and pitched and mansard roofs present. The set back of the majority of these buildings behind large grass verges or front gardens is a characteristic that differentiates them from the more historic core.

The hamlet of Westwick is part of the Oakington and Westwick Parish. It is situated east of the Guided Busway and separated from Phase 3A by a dense tree belt. A row of eight agricultural workers cottages form a defining part of Westwick's character, overlooking Oakington Road, as shown in Figure 4.42. These cottages are built from brick with slate roofs and have a minimal set back from the pavement edge, a characteristic style also found within the historic parts of Oakington, as mentioned previously.

Figure 4.42: Examples of local vernacular in Oakington and Westwick:



Agricultural brick built cottages in Westwick



The more historic buildings in Oakington have a minimal set back from the back edge of the pavement and have a strong relationship with the street. The Old Post Office is shown here (left). As seen in this photo and the photo below, low fences, walls or vegetation are used to define property boundaries, which maintains the active edge at ground level.



Characteristic historic buildings along Oakington High Street with the Church of St Andrew visible in the background.

#### Longstanton

Historic village stretching along the western side of Northstowe. Longstanton is a linear village that has expanded from the High Street, with the Conservation area formed around the two churches of All Saints and St Michael's Church and the historic core of the village lying in the south adjacent to Phase 3A. A range of buildings from different periods characterise this village, including the two churches, historic cottages and a recent development in the north, adjacent to Phase 3B. The recent developments are typically suburban in character, formed of two storey brick buildings which are set back from the main road. This, as was found in Oakington, contrasts with the more historic buildings in the village which sit much closer to the pavement edge and incorporate more permeable boundary treatments, as seen on the images below. Red and buff brick, rendering and pitched tiled roofs are all prevalent throughout Longstanton.

Figure 4.43: Examples of local vernacular in Longstanton.



Two storey dwellings set back from the pavement edge characterise much of Longstanton.



The more historic buildings within the village have a stronger relationship with the street afforded by their minimal set back and visually permeable boundary treatments.



St Michael's Church, a distinctive thatched church in Longstanton

## Northstowe

The town-wide structure for Northstowe is set out in the DFD and has been further developed as part of the Design Codes for Phases 1 and 2. In order to create a town that feels coherent and has a strong identity the following overarching requirements and principles have been developed.

### Landscape and open space:

Landscape and open space is an essential part of the vision for Northstowe. Town-wide requirements include:

- Create a series of public open spaces for all ages and abilities;
- Use of native species;
- Integrate flood mitigation as design features, creating locally distinct spaces; and
- Provide natural areas of play.

### Urban Form:

The objectives are to create an adaptable urban form that stands the test of time, is rich in character, locally distinctive and legible and memorable. Town-wide requirements include:

- Create a walkable grid of streets to encourage ease of use for pedestrian and cyclists;
- Allow a variety of architectural approaches within the Town Centre and provide active edges to the main spaces and High Street; and
- Provide a linear route through the town, connecting the Town Centre, local centres and important open spaces.

**Movement:** The dedicated busway provides the central spine through the town. While buildings change throughout the lifetime of a town, streets generally remain. Therefore, it is important to design a network that is robust and can accommodate future changes. This applies in particular to the busway, which must be designed to allow flexibility in its use and the transport modes it can accommodate. Town-wide requirements include:

- Give priority to pedestrians and cyclists, by creating a connected network of legible streets that provide a safe cycle and pedestrian environment;
- Use of tree planting to soften the street scene;
- Create a clearly defined street hierarchy; and
- Include streets that are paved and promote the use of shared surface areas.

## Phase 1

A new residential neighbourhood with a range of houses of contemporary and traditional character. Phase 1 provides a variety of different house types and a Primary School, and it has established the beginnings of a 'town' character with appropriate building scales and character. A Local Centre is also planned.

A number of lessons have been learnt from the build out of Phase 1 which can be carried forwards in Phase 2 and 3, including the need to ensure that the phasing of the build out delivers public open spaces that are accessible by the new residents as they move in.

## Phase 2

Phase 2 of Northstowe contains the Town Centre and higher density development than in Phases 1 and 3.

The Phase 2 Design Code (2017) sets out the vision for this part of the town in terms of character. The following principles are set out to guide how Phase 2 is bought forward:

- The architecture will be contemporary and of urban character.
- Phase 2 will be of higher density than other large developments in South Cambridgeshire, such as Cambourne or Northstowe Phase 1. It will comprise a high percentage of terraces, urban housing and flatted development.
- The development character will vary across Phase 2 with distinct differences to aid legibility. The Town Centre will be the most urban in character with mixed-use blocks of around five storeys. Residential areas surrounding the Town Centre will be more intimate with buildings of mostly 3 storeys and focussed on creating a high quality living environment.
- Medium to high-density housing will be combined with high quality open spaces that are located within short walking distances from all homes.
- Local tradition will inform the overall structure, scale and order of buildings as well as the use of materials, ensuring that Northstowe will be based on the local context and vernacular architecture.
- Streets and spaces will be social areas that encourage community interaction and avoid segregation of the elderly and less able.

### Phase 2A - Urban Splash

The proposals for Phase 2a, prepared by Urban Splash, have been submitted for Reserved Matters approval. The proposals show a neighbourhood that is strongly shaped by the fenland context of the site. The vision for this parcel is to create a contemporary fenland village, 'Inholm Village', which has a perimeter of landscape and is a clearly defined new neighbourhood quarter. The parcel will be permeable and connected to surrounding neighbourhoods within Phase 2 and wider Northstowe.

The dwellings within Inholm Village will all be of modular construction and will offer a range of urban typologies, with an innovative approach to amenity and parking. The proposals demonstrate the quality of development that can be achieved with appropriate masterplanning and design coding.



Figure 4.44: Northstowe Phase 1.



Figure 4.45: Phase 2 Town Centre Visualisation (Allies and Morrison)



Figure 4.46: Phase 2A Reserved Matters Application (Urban Splash)



**5**

**Design Development Process**

# 5 Design Development Process

This chapter sets out the process of initial design and early engagement that was undertaken following the site and contextual analysis.

Two initial concept ideas were developed for Phase 3A, each exploring a different key theme. The first topic of exploration was the history of the site and how this could be acknowledged in the design of the masterplan. The second key theme was the surrounding fen landscape pattern and the opportunity to reflect this in the masterplan. The two concept plans are set out in sections 5.1 and 5.2 below. These were produced for the purposes of early engagement with the public and stakeholders.

## 5.1 Concept 1: Acknowledging Historical References

The first concept masterplan option for Phase 3A acknowledges the airfield history of the site. The former runway alignments are emphasised in this layout, with routes spaces and green corridors created along these axes. The principles of this concept plan include;

- A main axis route at the centre of the development changing in function and character along the way.
- A diagonal green axis traversing the site and linking into the water park to the north.
- A main entrance defined by a primary street at the centre of the development, dividing further north to connect with Phase 2 primary streets.
- A development block pattern that maximises linkages to the Local Centre.
- Drainage strategy focuses on large ponds at the periphery.

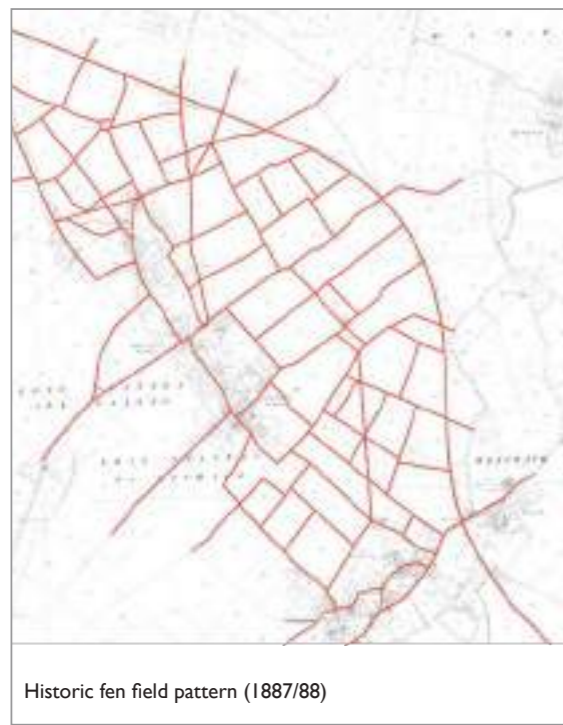


Figure 5.1: Phase 3A Initial Concept Plan Option I

## 5.2 Concept 2: Reflecting the Fen Landscape Pattern

This approach to Phase 3A adopts a formal development grid that relates to the arable field parcels of the Cambridgeshire countryside with organic green corridors traversing the development. The principles of this concept plan include:

- A series of green corridors softening the formal development grid and creating an integrated network of open space.
- A series of smaller attenuation ponds and streams reflecting the Fen landscape and creating attractive visual amenity.
- Confident development edges reflecting the town wide urban design strategy
- A regular block pattern that reflects the historic field patterns and design approaches in Phases 1 and 2.



The proposals for Phase 3A have been developed and informed in response to a series of community and stakeholder engagement events as well as presentations to design review panels.

### 5.3 Stakeholder and Community Engagement

The Stakeholder and Community Engagement Report which accompanies this Planning Application sets out the process of community engagement that has closely informed the design development of Phase 3A.

The initial concept proposals were discussed with the local community, stakeholders and interested parties at an early stage to establish their key priorities and interests to ensure that the masterplan was founded on a generally agreed concept.

Three stakeholder engagement events have been undertaken in July 2018, November 2018 and September 2019. These engagement events typically comprised the following:

- A Council member session;
- An interactive workshop attended by a range of stakeholders; and
- Two public drop-in sessions.

Online questionnaires were made available for any stakeholder or interested individual to complete following the sessions.

#### July 2018

The first engagement event took place in July 2018, to introduce stakeholders, Northstowe residents and the wider community to the development of the emerging masterplan. The first was held on July 7<sup>th</sup> 2018 at Pathfinder School, Northstowe and the second in Crossways Communita Café, Oakington on 30<sup>th</sup> July 2018.

Boards explaining the site analysis process and presenting the initial concept ideas and access strategies for the masterplan were displayed at the events, with the opportunity for attendees to comment on these either via post-it notes stuck onto the boards or via a questionnaire which was handed out. There was a further opportunity for people to comment online via a surveymonkey questionnaire which was posted on the Northstowe website.

The key topics raised at the engagement events (by stakeholders and the public) were:

- Desire to reflect cultural heritage of the site in the design including the pillboxes, reinstatement of Mill Road as a movement corridor and pedestrian/cycle access route between Longstanton and Oakington, and reflection of old routes and the former windmill in trails and road names;
- Keen to promote the sense of a healthy town;
- Positive feedback with regards to introducing organic green spaces and waterbodies into the main body of development as opposed to having peripheral open space;

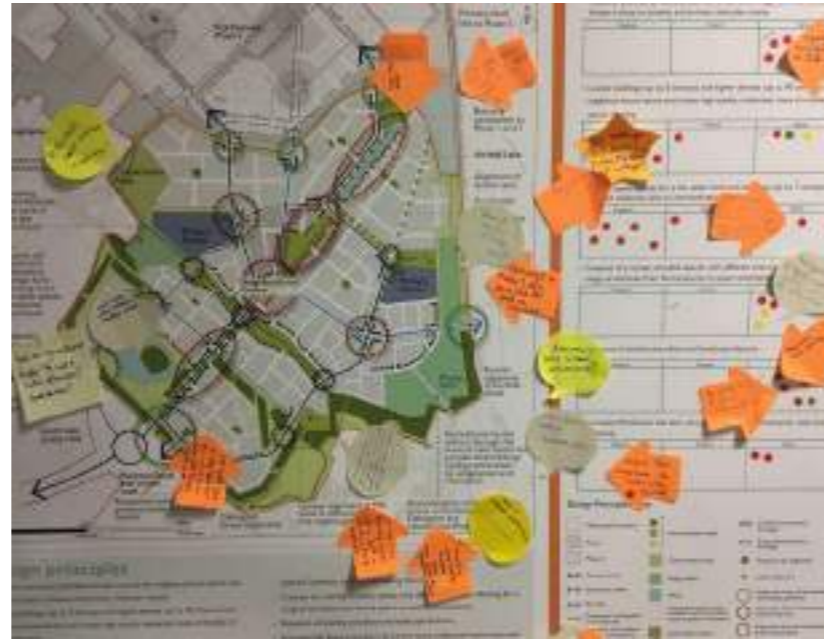


Figure 5.3: Attendees were invited to comment on the site analysis and concept proposals. These comments then helped shape the further development of the masterplan.



Figure 5.4: The initial masterplan proposals were discussed with stakeholders (top image) and the local community (bottom image).

- Desire to see variety in retail and service provision to reduce off-site travel;
- Establishing the opportunity to travel from Oakington to Northstowe by bus was highlighted; and
- Sustainable travel was raised as a key interest and ensuring that footpaths and cycle paths are provided where possible.

### November 2018

Following the structure of the engagement events held in July 2018, the two events held in November were located in the Pathfinder School and Crossways Communita Café, Oakington, with the opportunity to comment on the proposals online after the engagement had been held. The engagement sessions presented the initial masterplan and access proposals to stakeholders, Northstowe residents and the local community, demonstrating how the design process had evolved in response to the previous comments received.

The responses to the initial proposals included:

- Approval of the large amount of open space provided;
- Approval of the incorporate of the Military Lake and existing tree belts;
- Multiple references to prioritising sustainable transport in the movement and access strategy over cars; and
- Desire to ensure cycle and footpaths are integrated into those around Phase 3.

### September 2019

The engagement event in September 2019 was held at Homes England's offices in Northstowe. This event comprised two public drop in sessions and a council members session.

The responses received to the pre-application proposals for design and access included:

- Support for the Runway Lake and a desire to see it used for recreational activities;
- Support for the potential extended local bus service between Oakington and Northstowe; and
- A desire to see a well defined 'arrival' point into the town.

An additional update session was held in Oakington Pavilion in November 2019.

## 5.4 Design Council (December 2018)

In December 2018 the emerging masterplan for Phase 3A was presented to the Design Council Review Panel. Some of the key points raised included:

- The panel welcomed the introduction of green and blue spaces at the centre of the masterplan.
- They challenged the design team and Homes England to push boundaries and develop an exceptional place in relation to movement, integration of parking and health and wellbeing; designing a place that can change over time.
- The panel felt the design was rightly more structured and reflective of the airfield than the fenland landscape.
- Whilst acknowledging many residents in Northstowe will work in Cambridge, the panel supported Homes England in considering ways to encourage residents to work locally. This could possibly include mixing small entrepreneur units within the development with higher flexible ground floor spaces available for hire for a variety of uses.

## 5.5 Cambridgeshire Quality Panel (May 2019)

In May 2019 the proposals were presented to Cambridgeshire Quality Panel along with an accompanied site visit. Formal feedback from the Panel at the end of May 2019, some of the key points raised include:

### Urban Design Strategy

- Ensure design strategy addresses potential future trends and aims with the capability for self-sustaining healthy communities, landscape quality and recreation at the heart of the future town.
- Aspiration to make Northstowe a low carbon development that is able to accommodate the impacts of climate change.

### Population/Demographics

- Provision of information on the likely population and demographics to provide a basis to understand the level of services and facilities required to support the development and to make it somewhat 'self-sufficient' and help promote walking and cycling as part of ethos
- High level narrative about approach to flexibility and adaptation to allow the Local Centre to change over time
- Potential to challenge level of car parking and provide creative solutions to parking, appropriate to ensure the public realm isn't car dominated.

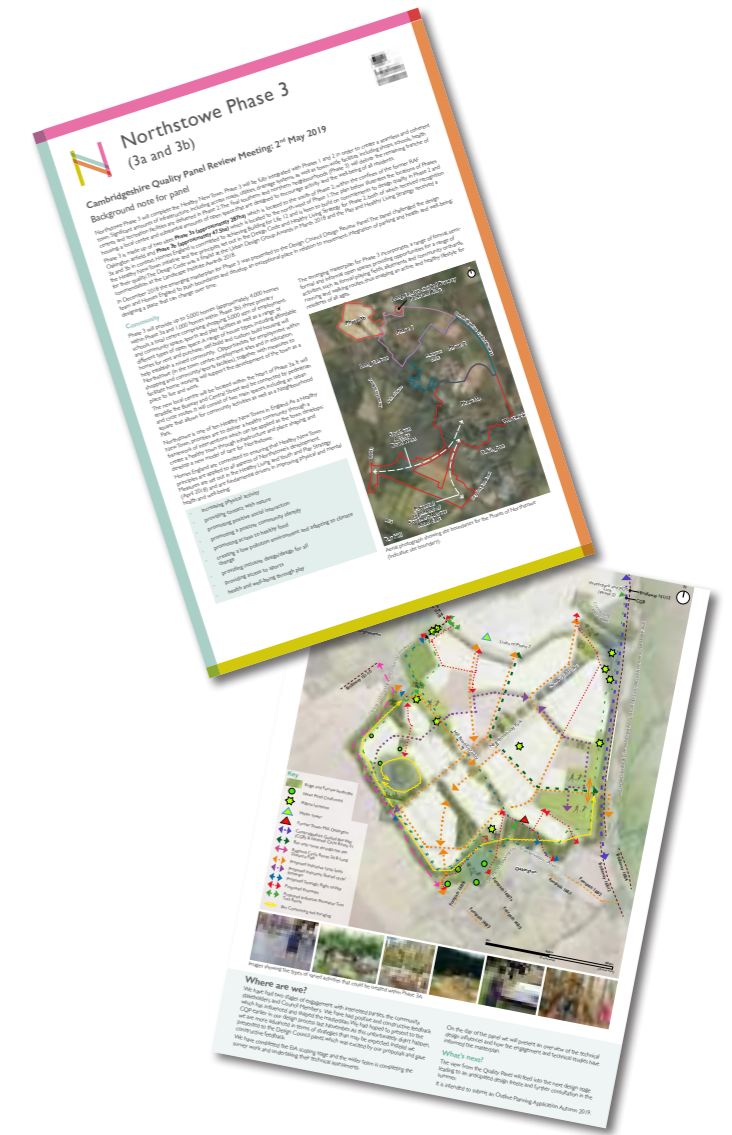


Figure 5.6: The Design Review Panel were issued a briefing note (extract above) on the design development of Phase 3A, before the site visit and presentation. Formal feedback was received in May 2019.



Figure 5.5: Engagement Timeline



N

**6**

**The Masterplan**

# 6 The Masterplan

The key driving principles and concepts behind the proposals are explained within this chapter. These have influenced the Masterplan, Parameter Plans and Urban Design Principles. Illustrative drawings and descriptions further explain the masterplan vision and opportunities to create a high quality neighbourhood.

The purpose of this chapter is to explain the rationale behind the proposals for Phase 3A. The diagrams and illustrations set out in this chapter are illustrative only and do not establish any further fixed elements of the development beyond those set out in the parameter plans. Where diagrams and illustrations in this DAS include extracts from the parameter plans, they may also include additional illustrative materials. For the fixed parameters, please refer to the 'Movement and Access', 'Building Heights' and 'Open Space and Land Use' Parameter Plans submitted as part of this planning application. All other plans and diagrams, including the illustrative masterplan, are for illustrative purposes only to demonstrate how the proposed mix of uses and character areas could be accommodated within the site.

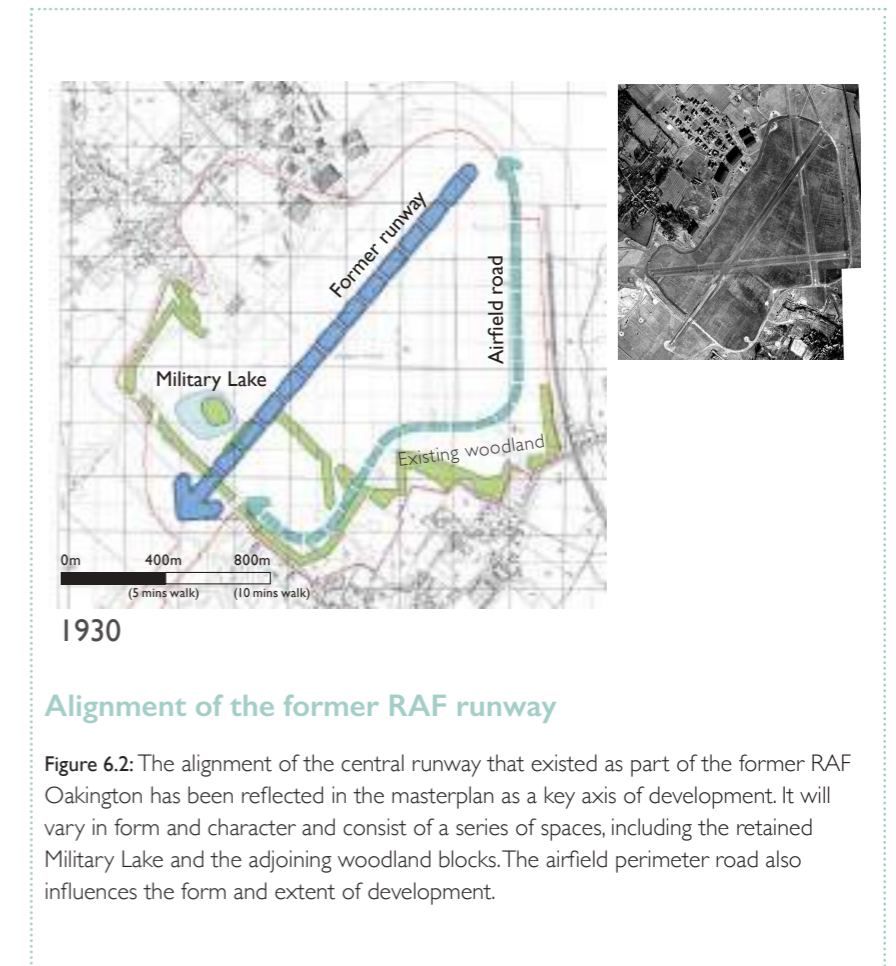
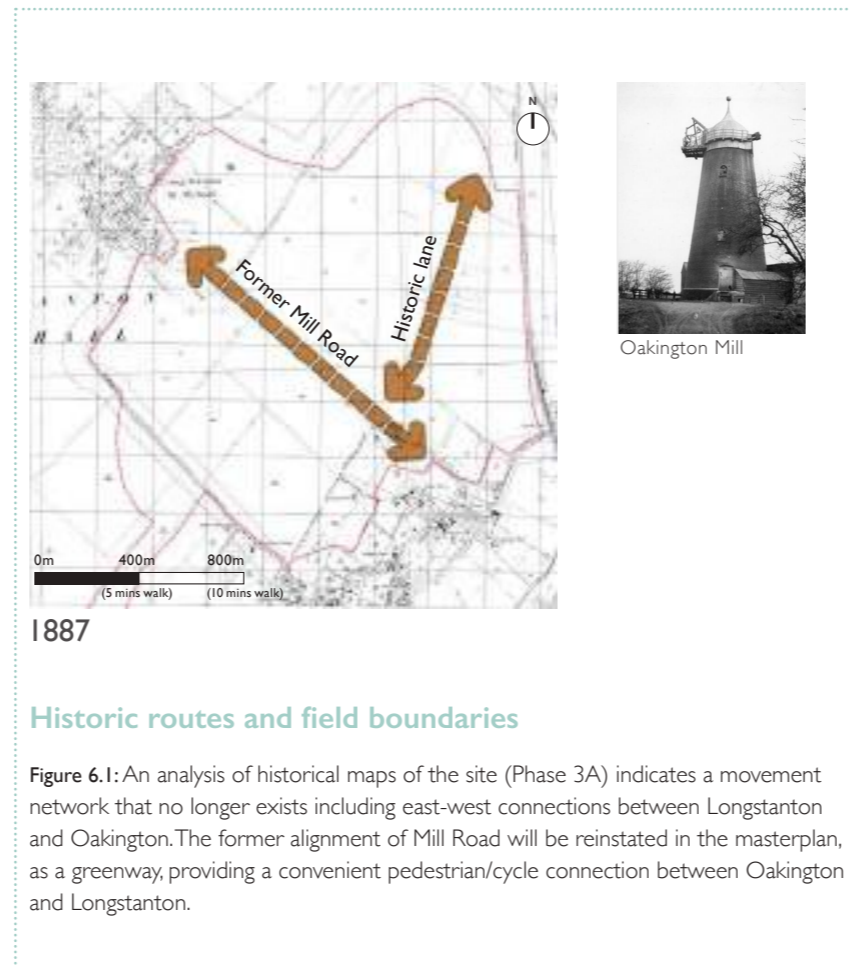
Section 6.3.2 sets out the key Urban Design Principles for Phase 3A. These principles have been extracted into the Design Principles Document (Appendix A) which forms one of the approved documents supporting this application. The Design Principles Document also contains an Urban Design Framework Plan, which draws together the Parameter Plans set out in this chapter, and illustrates how the different elements of green space, land use and movement interact with each other.

## 6.1 Concept and Strategic Principles: Phase 3A

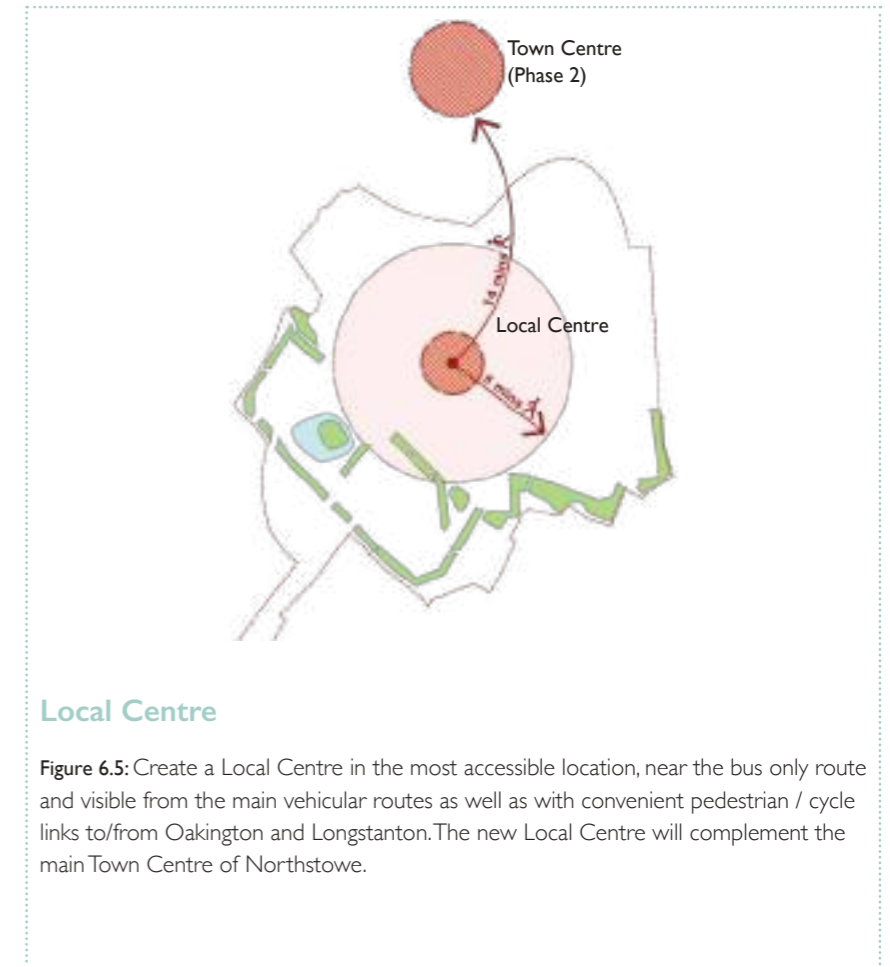
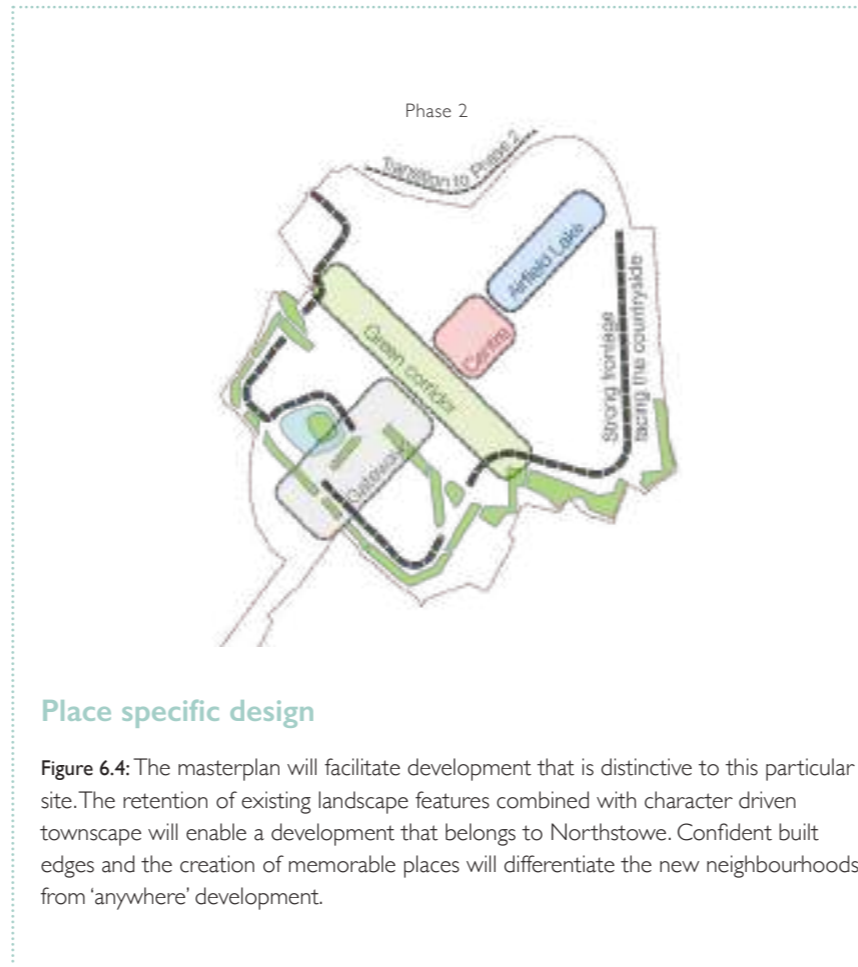
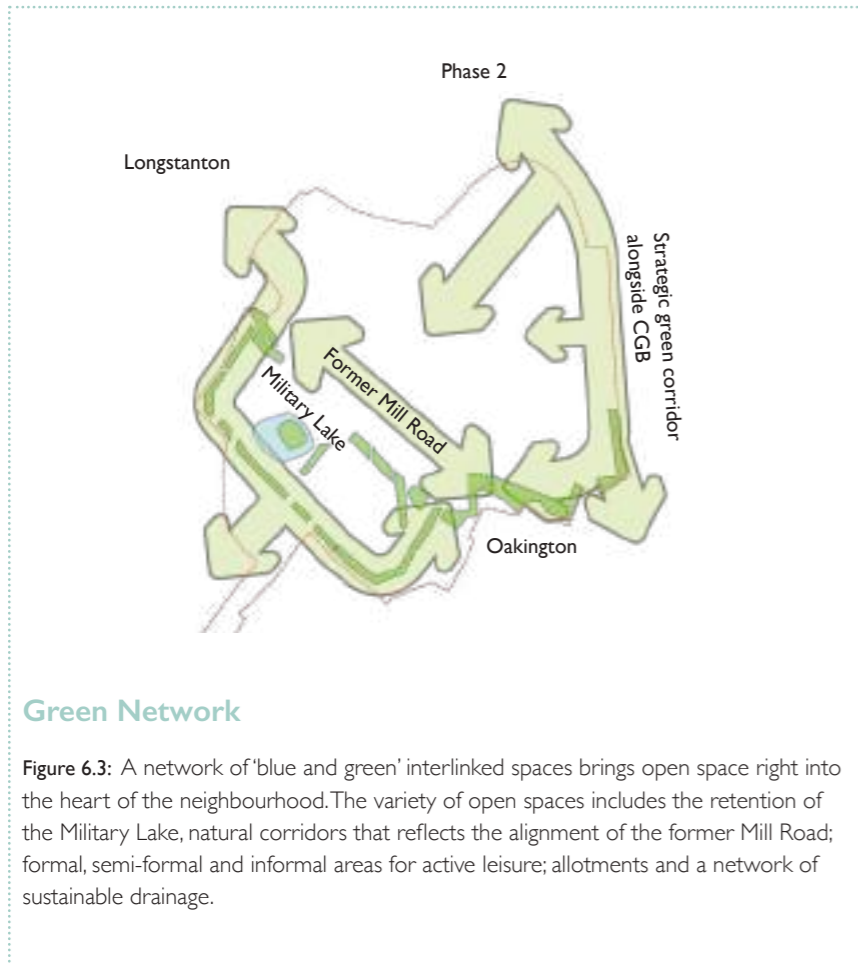
A number of key influences have shaped the development of the masterplan. These pages explain these design influences and how they have helped form the emerging masterplan. These have been drawn directly from the community and stakeholder feedback and the site analysis undertaken.

### Sustainability

Sustainability in its widest sense is a key principle for the development of Phase 3A. As Northstowe is a new town, future-proofing the development is important. The masterplan, movement network and built form should have the capacity to stand the test of time.







Figures 6.1 to 6.5: Key design principles for the Phase 3A masterplan.

## 6.2 Vision

Phase 3A will build on Northstowe's legacy as a Healthy New Town, providing an array of employment, recreational and community opportunities in a safe and attractive setting that facilitate healthy lifestyles and wellbeing. Distinctive character areas and a connected network of landscapes will create a series of neighbourhoods with defined identities. This page sets out some of the key design principles and aspirations for the Phase.



**Provide a range of services and facilities within the Local Centre and at key nodes**



**Ensure all spaces are overlooked**



**Streets that ensure safe pedestrian and cycle movement**



**Community facilities encouraging interaction with nature**



**Streets and spaces as places of social interaction**

Streets and spaces as places of social interaction.



**Variety in types of open spaces**

Extensive green network.



**Landscaping carefully integrated into the streetscene**

Safe, pedestrian and cycle friendly streets.

Figure 6.6: Indicative images illustrating the key design principles and aspirations for the phase.



Contemporary waterfront development



Areas of distinct character



Neighbourhoods that encourage and accommodate cycling



Building form that overlooks and relates to the street



Retention of existing tree belts



Informal and natural play incorporated into open spaces



Multi-functional spaces for outdoor events

## 6.3 Character

The masterplan is driven by the aim to create a distinctive character and an urban form that is memorable. Building on the urban design approach for Phase 2, the masterplan is formed around a series of distinct townscape features - or character generators. These draw together the design concepts developed with the community, heritage influences and existing landscape and site features. Together, these form neighbourhoods of varied and distinctive identities driving the structure of the development.

### 6.3.1 Masterplan Framework

**The Masterplan Framework brings together the character generators, existing and retained landscape features, open space and movement network. Together these will create rich and varied neighbourhoods.**

The articulation of open space and development plots has been informed through an iterative process of design and engagement, with the proposed structure shown in the Masterplan Framework in Figure 6.7. The structure of the framework has been designed to maximise accessibility of the site, taking into account the access principles described in Northstowe Development Framework Document (2012), including the co-location of services for ease of access. In the case of Phase 3A, the services have been clustered within the Local Centre and secondary areas for mixed use. The sports facilities have also been clustered to create eastern, western and northern hubs.

A series of key principles have informed the development of the Masterplan Framework on a town-wide scale. These are:

- Create a legible movement network that creates a gateway entrance to Northstowe, passing key points of interest within Phase 3A before leading into the Phase 2, where the Town Centre is located.
- Ensuring the potential block structure is robust, creating clearly defined streets and spaces and the movement network is well integrated with Phase 2, ensuring that the town will be seen as a comprehensive whole.
- Incorporate the busway (approved as part of Phase 2 and currently under construction) into the structure of the development, ensuring key facilities and services are located within close proximity of the route. Creating the potential for views towards key points of interest within Phase 3A before the route moves north into Phase 2.
- Reflecting the strong development edge adopted in Phases 1 and 2 in the eastern development edge of Phase 3A.
- Ensure the approach to Northstowe from the south through Phase 3A is unique and distinctive in character.















-  Application Site Boundary
-  Indicative development area
-  Indicative alignment of key movement corridor
-  Alignment of Busway
-  Potential bus-only link
-  Key point of interest
-  Key movement node
-  Key access point
-  Key landscape node
-  Indicative development frontages
-  Retained vegetation
-  Formal sports provision
-  Indicative primary school site
-  Amenity green space (including informal recreation)
-  Water body
-  Ridge and Furrow
-  Retained Grade II Listed pillbox
-  Indicative recreational routes

Figure 6.7: Masterplan Framework - Northstowe

April 2020



### 6.3.2 Phase 3A Urban Design Principles

The key character generators, made up of a combination of spaces and development frontages are:

- The former Runway, including the Central Avenue, Neighbourhood Square, Neighbourhood Park and Runway Lake
- Retained Military Lake
- Mill Road Linear Park

In addition to the character generators the masterplan is underpinned by the following Urban Design Principles. These have been extracted into the Design Principles Document (Appendix A) which forms one of the approved documents supporting this application.

These principles have been developed in response to the site context and design influences discussed in Chapter 5, the community and stakeholder engagement events and feedback from The Design Council and CQP (as set out in Chapter 5).

#### Character

- Mark Phase 3A with a key 'gateway' and open space on approach from the south, creating a strong sense of transition and arrival.
- Create confident development edges that achieve a clear distinction between countryside and town.
- Create a legible structure of development that is reinforced by well researched and locally appropriate building characters, planting and clear forms of development that are recognisable from the local context.
- Create a clear distinction between character areas and a logical transition from the higher density areas to the looser, lower density development in the south.
- Arrange housing into streets to support strong and characterful frontages. This ensures that all streets and open spaces are well overlooked by development frontages.
- The areas identified for 4 and 5 storey buildings are drawn broadly on the Heights Parameter Plan to allow for local landmark buildings and variations in height. It is anticipated that the majority of the buildings are between 3-4 storeys, with localized high points of 5 storeys. The design code will provide further detail and refinements to this broad brushed height strategy to secure legibility.
- Provide pavilion blocks in the area of exceptional height identified on the Heights Parameter Plan which overlook the open space. These blocks should compliment the landscape, with varied orientations reflecting the organic shape of the retained lake and allowing the landscape to be drawn through into the development block.
- Retain existing landscape features where possible, in particular existing trees, and integrate these into street scenes, new public spaces and front and back gardens. Enhance the landscape to compliment the architecture and create a desirable setting for new homes.
- Use a number of strategies to create distinctive public realm and arrangements

of buildings around open space, squares and play. These include incidental spaces, retention of existing trees, street tree planting, reinforcing of existing tree belts and vegetation.

- Use simple, well designed buildings that are contemporary in style but informed by the local architectural context.

#### Connectivity

- Create a clear and legible street hierarchy that accommodates direct routes for pedestrians and cyclists.
- Create Primary and Secondary Streets (aiming for a design speed of 20mph) that are: positive places to walk and cycle along; designed appropriately for the traffic volume; fronted by development; and create a sense of place. Clear, obvious and safe crossing points should be incorporated into the design of the Primary and Secondary Streets.
- Provide a connected movement network that is adaptable, in terms of accommodating future bus provision and changes in travel behaviour.
- Public transport routes will be integrated into the movement network to ensure that at least 80% of homes are within easy walking distance (400m) of at least one public transport stop.
- Provide pedestrian/cycle connections that connect to the existing and proposed (Northstowe Phase 2) footpath and bridleway network and the historic Public Rights of Way.
- Create a connected cycle network that provides safe cycle routes every 250m. These will be either segregated routes alongside primary and secondary streets, car free routes through greenways or routes on-street through quiet residential streets. (e.g. shared surface home zones).
- Ensure future streets adhering to the Healthy Street principles (ref: <https://healthystreets.com/home/healthy-streets-in-policy/>).
- Different parking strategies should be integrated into the design so that parking does not dominate the streetscape and encourages sustainable modes of travel.
- Convenient private, communal and public bike parking as well as electric charging points for vehicles and bikes should be integrated into the design.

#### Community

- Ensure that green links and open space are well overlooked by development frontages to encourage passive surveillance and improved real and perceived sense of safety.
- Ensure each home will be within a short walk of public open space. Provide 'doorstep play' to further improve accessibility to play.
- Conveniently locate community and social infrastructure facilities along safe walking and cycling routes and served by public modes of transport where possible.
- Provide safe, comfortable and accessible space that promotes social interaction.
- Provide for a mixed and balanced community through a series of different types of open space.
- Design open space as multifunctional space, incorporating recreation, formal and informal play, drainage and ecological functions.
- Create an integrated network of green infrastructure. Connect the open spaces through the provision of safe routes and green links.
- Ensure open spaces are integrated into the Northstowe movement network as well as being highly accessible to neighbouring communities.
- Provide access to nature and water for wellbeing.
- Provision of Outdoor Playing Space (including children's play space and formal outdoor sports facilities), Informal Open Space, allotments and community orchards to meet the need generated by the development.

#### Climate

- Sustainable construction methods will be adopted, using low-carbon materials; attracting green businesses; and creating demand for more sustainable products and services across the town. A fabric first approach to building design will improve energy efficiency and reduce carbon emissions.
- Widespread use of Sustainable Drainage Systems (SuDS) will provide sustainable storm water management and maximise available water resource from rainfall, as well as the creation of new wildlife corridors and spaces whilst incorporating existing wetlands and ponds, with a variety of flora and fauna, creating valuable open amenity areas.
- Enabling and promoting low carbon transport within, to and from Northstowe by ensuring easy access to public transport and cycle routes to reduce carbon emissions and encourage health and wellbeing.
- Incorporating low and zero carbon technologies into all buildings to provide energy, financial and carbon savings, therefore supporting the transition to net zero carbon.
- Protecting and enhancing biodiversity and habitat connectivity via a strong network of Greenways and interconnected green and blue spaces to achieve a biodiversity net gain.



















-  Application Site Boundary
-  Indicative development area
-  Indicative alignment of key movement corridor
-  Alignment of busway
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-  Key point of interest
-  Key movement node
-  Key access point
-  Key landscape node
-  Indicative development frontages
-  Retained vegetation
-  Formal sports provision
-  Indicative primary school site
-  Amenity green space (including informal recreation)
-  Water body
-  Ridge and Furrow
-  Retained Listed pillbox
-  Indicative recreational routes



Figure 6.8: Masterplan Framework: Phase 3A.

### 6.3.2 Illustrative Masterplan

The Masterplan Framework has been developed into an Illustrative Masterplan (Figure 6.9) to illustrate the key character generators and concepts for the site. The Illustrative Masterplan demonstrates:

- How 4000 homes could be accommodated on the site, with definition between the neighbourhoods in terms of density and character;
- The series of spaces that follow the alignment of the former runway, with the Local Centre sitting at the heart of the development;
- The articulation of the urban blocks that enclose the busway, and how the Local Centre and Neighbourhood Park have been centred on this key, sustainable transport thoroughfare;
- The green network permeates the main body of development, with a series of key green routes connecting the peripheral open space to the central focal points;
- The retention of a large number of existing trees within the site, which have been used to create character particularly in the lower density neighbourhoods towards the south of the development;
- The structure of the key movement corridors that run through the site and connect into Phase 2 and other neighbouring areas;
- The location of the two Primary Schools within extensive areas of open space and integrated into the network of linked landscapes. Also, where accessible, with potential to act as nodes of community activity;
- The natural screening afforded by the existing tree belts between the Oakington edge and the new development;
- Potential for pedestrian/cycling/bridleway routes within and into Northstowe from surrounding communities;
- How the new development addresses the retained area of ridge and furrow that sits within Longstanton Conservation Area, providing 'breathing space' between Northstowe and Longstanton; and
- The scale of the retained Military Lake, which will form a focal point and key asset within the development.

#### Key

- ① Local Centre and Neighbourhood Square
- ② Neighbourhood Park
- ③ Runway Lake
- ④ Phase 3 Northern Sports Hub
- ⑤ Primary School
- ⑥ Phase 3 Eastern Sports Hub
- ⑦ Mill Road Linear Park
- ⑧ Retained tree belts
- ⑨ Military Lake (within Military Park)
- ⑩ Phase 3 Western Sports Hub
- ⑪ Primary School



Figure 6.9: Phase 3A Illustrative Masterplan.



### 6.3.4 Reflecting the Former Runway

The former runway alignment has been reflected in the masterplan as a series of key spaces of varying form, function and character. The sequence of key character generators located along this corridor are explained in this section, in the order that would be experienced when entering Northstowe from the south, along the Central Avenue. These key spaces are as follows:

- Central Avenue
- Mill Road Linear Park
- Local Centre and Park
- Runway Lake

Figure 6.10 shows an illustrative plan view of the different character generators and their location along the route of the central corridor, with an annotated overview of the different form and function of the spaces. Each of the key spaces is explained in terms of its character over the following pages.

The Runway Lake is envisaged to offer watersport opportunities such as open water swimming, and kayaking as well as providing visual amenity and a unique character for buildings to front onto.

The Neighbourhood Park will form a central green focal point for the development, incorporating opportunities for play and recreation and becoming the centre for community activity, including outdoor events.

Prominently located between the Central Avenue and busway, the shared surface within the Local Centre has no through routes for vehicles, instead prioritising pedestrians and cyclists. This provides space for markets, cafés, restaurants and business activity.

The central route crosses the Mill Road Linear Park which provides a vital connection between Longstanton, Oakington and the new settlement.

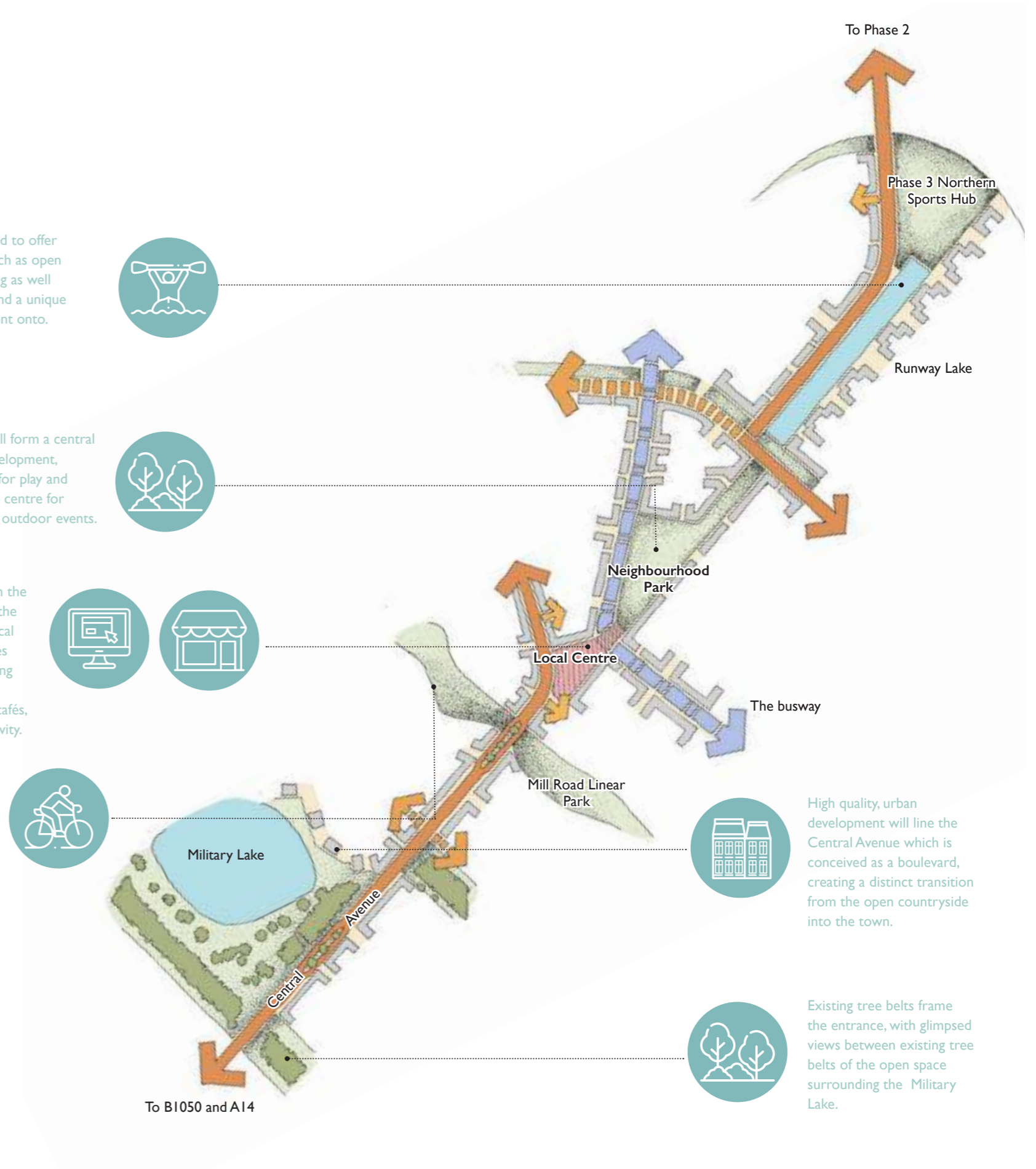


Figure 6.10: Illustrative sequence of spaces along the Central Avenue.

## Central Avenue

The Central Avenue will be a formal 'Boulevard' style street with a planted central reservation and formal ornamental planting of significant structured scale upon entrance to Northstowe from the south.

## Wind Design Review

As this central movement corridor and associated sequence of spaces is aligned with the prevailing south westerly winds, a design review of the potential impacts of the proposed development on pedestrian comfort and safety at ground, podium and terrace levels, was undertaken.

RWDI carried out the design review in May 2019. Their conclusion was that overall the low-rise nature of the site and proposed density would be unlikely to result in wide scale windy conditions. Localised instances of windy conditions may be expected in sensitive areas, such as amenity space of outdoor cafe seating, however, these are expected to be readily mitigated with the application of landscaping or boundary treatment common to residential developments.

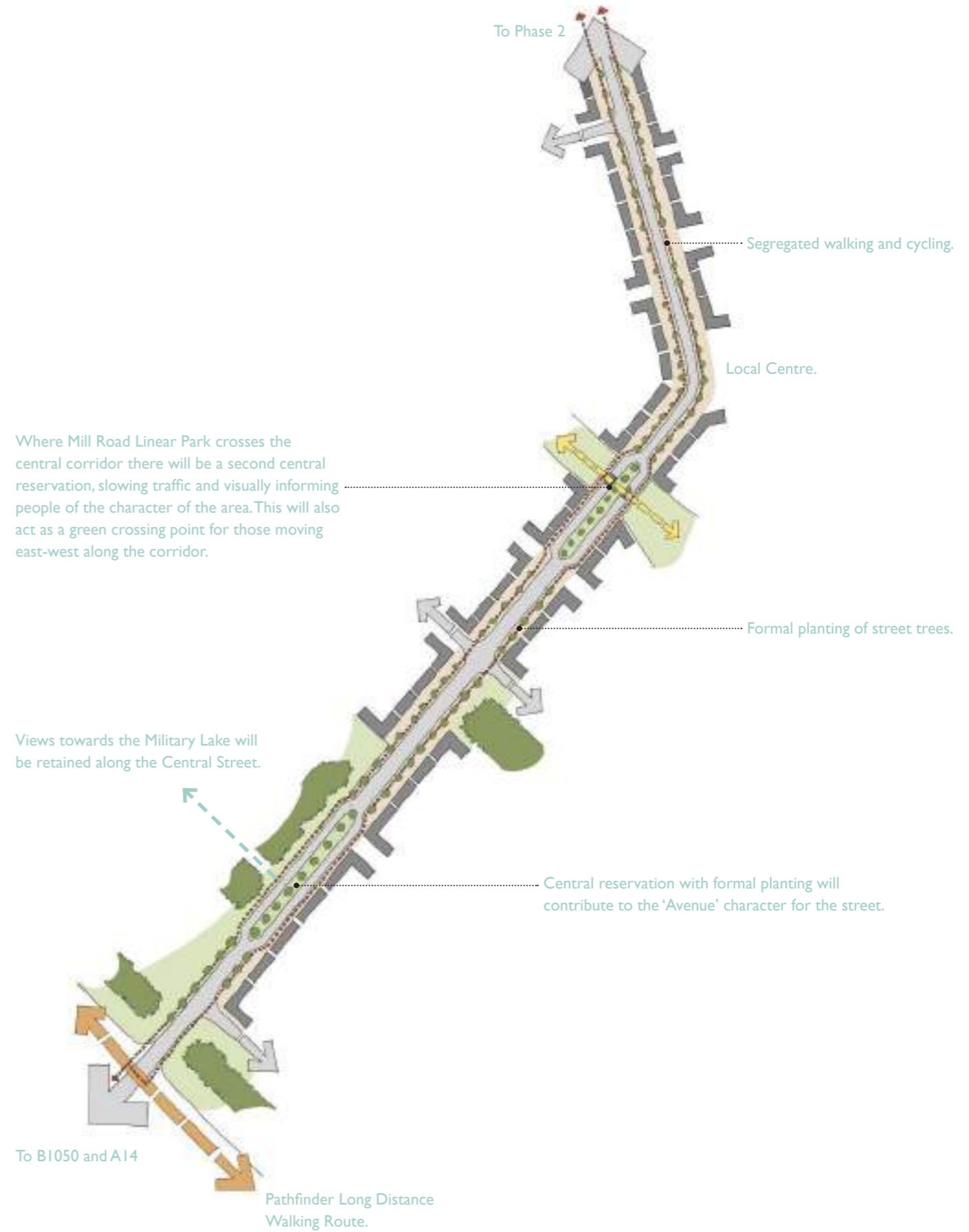


Figure 6.11: Illustration of the Central Avenue in Plan View.

## Local Centre, Neighbourhood Square and Park

The Local Centre, Neighbourhood Square and Park form the focal point for Phase 3A. They are prominently located and highly visible from the Central Avenue and busway. As the Central Avenue approaches the Neighbourhood Square there are open views into the centre and to the commercial frontages. The Neighbourhood Square will comprise hardstanding; a space for community events and activities and a shared pedestrian/cycle route. Small urban water features will link it in character to the Runway Lake further north. Mixed use retail and employment space will overlook the space, with residential units located on higher levels ensuring passive surveillance throughout the day and night.

The Local Centre is urban in character, reinforcing its identity as a central focal point for the southern neighbourhoods.

The surface that runs through the Local Centre will be continuous and cross over the guided busway, encouraging safe movement for pedestrian and cyclists north along the central corridor.

As the square approaches the busway, it narrows before widening on entrance to the Neighbourhood Park. This creates variety in enclosure and creates distinction between the two central spaces. The Neighbourhood Park continues the building line with informal recreational opportunities for play, picnics, events and informal gatherings.

Mixed use commercial, retail and employment space combined with residential uses on the upper floors ensure the Square is passively surveyed day and night.

The square narrows where it meets the busway, creating a sense of enclosure and drawing people through to the Neighbourhood Park.

Paving treatments across the central corridor will emphasise the importance of the square and the prioritisation of pedestrians and cyclists.

The square is enclosed by mixed-use buildings in a continuous building line.



Figure 6.12: Illustration of the Local Centre and Neighbourhood Square on approach from the south.



Figure 6.13: Linear urban water features will be integrated into the Neighbourhood Square.



Figure 6.14: Hard landscape plaza with tree planting and seating.



Figure 6.15: Areas for socialising.



Figure 6.16: Multifunctional space with the opportunity for outdoor seating and events.

## Runway Lake

The Runway Lake leads north from the Neighbourhood Park towards the Water Park in Phase 2. It has a distinctive character that is visible when moving south from Phase 2 into Phase 3. The Runway Lake is urban in character and is framed on both sides by strong building frontages. On the eastern side buildings sit directly on the waters edge, drawing inspiration from Dutch waterfront developments. A formal rhythm of development is interrupted by small squares, providing access and views to the waters edge from the residential area to the east of the lake.

The western edge of the lake is contained by a boulevard style street and promenade, creating an attractive pedestrian and cycle route.



Figure 6.17: Concept illustration of the urban structure along the Runway Lake



Figure 6.18: Opportunities for activity along the Runway Lake



Figure 6.19: Opportunities for development to relate positively with the waterfront.



Figure 6.20: The linear urban structure will create view corridors down to the Runway Lake from within the block

## Mill Road Linear Park

Mill Road was historically an important social connection between the villages of Oakington and Longstanton, allowing residents to travel directly between the two settlements to access important community facilities, such as the chapels and mills. The reinstatement of this route therefore has significant social history and aims to provide a key connection between the villages and through the heart of Phase 3A.

The Mill Road Linear Park crosses the central corridor as it moves north towards the Local Centre and Neighbourhood Park. There will be views along this linear park in both directions as the user approaches the Local Centre. The linear park varies in width, with car free, shared pedestrian and cycle routes running through it.

The following design principles will apply:

- The Linear Park will vary in width between 8-60m in width, with localised narrowing and wider areas to accommodate a range of activities;
- Envisaged to be more organic in shape.
- Accommodate a range of activities, including play, food growing and visual amenity.
- The organic shape and localised changes in width create a variation in view points and character within the park itself as well as the adjacent housing areas.
- The development blocks either side rotate in orientation to frame the varying width of the park. This creates pinch points and wider widths of green space allowing a range of different activities at different scales to take place.
- The regular formation of the blocks creates fingers of green that lead into the development block, from Mill Road linear park. This creates pocket parks that draw the character of this major green link into the neighbourhood and provides the opportunity to accommodate existing trees within the development.
- Strong frontages overlook the park, ensuring that where it becomes wider, an appropriate sense of enclosure will be provided.

More information of the recreational opportunities provided along this route are set out in the Landscape Chapter within this document (Chapter 7).



Figure 6.21: Illustration of how the urban blocks relate to Mill Road Linear Park.

Desire lines towards the Western Primary School and Local Centre have been represented in key, green routes that extend from the Linear Park.

Views along Mill Road Linear Park will be provided from the central access route.

Rotated block patterns shaped around green fingers that extend from Mill Road Linear Park, permeating the block.

Strong building frontages overlook Mill Road Linear Park, creating an appropriate sense of enclosure to the corridor.



Figure 6.22: Indicative examples of development and activities along Mill Road Linear Park.

### 6.3.5 Military Lake Park

The Military Lake is a feature that has been retained from the site's use by the military. This large-scale waterbody provides an impressive backdrop to the southern entrance to Northstowe. The following urban design principles have been developed for this area to create a distinctive gateway to the town, as well as forming a functional area of open space that will provide informal recreation space for the residents of Northstowe as well as protecting the sensitive ecology within and surrounding the lake.

- Development is set back by a minimum of 30m from the lake's edge to provide a habitat rich landscape and protect existing ecology. As well as respecting the ecological value of the area, this creates the opportunity for informal recreation such as picnicking and walking along the water's edge.
- In order to positively enclose this large space and create a distinct development edge, pavilion blocks of up to 7 storeys overlook the north eastern edge of this park. The landscape permeates the pavilion blocks overlooking the lake, breaking the internal street pattern and creating view corridors from within the block towards the Military Lake.
- On entrance to the site the pavilion blocks will be partially visible, with views filtered through a retained block of woodland that runs along the western edge of the central corridor. This will create a sense of arrival, with views opening up at different points as one moves north along this central route.
- Shared surface streets and pocket parks run through the irregularly shaped blocks, allowing the informality of the landscape to permeate through this section of the neighbourhood.
- To the north west of the lake lies a neighbourhood of a noticeably lower scale and density, offsetting the taller elements along the northern edge of the lake. Within this neighbourhood houses are envisaged to be larger and of lower density, providing the opportunity to incorporate retained trees within back gardens and pocket parks, to draw on the parkland characteristics of the Military Lake.



Figure 6.23: The landscape will be drawn into the block, framing views towards the Military Lake.



Figure 6.24: Birds eye illustration of the pavilion blocks fronting the Military Lake

The pavilion blocks overlooking the lake from the north east vary in height and orientation, creating a less formal frontage. This variety, together with the landscape approach creates a confident edge while allowing views to and from the Military Lake Park and opportunity for substantial tree planting in between buildings.

The parking for the pavilion blocks will rely on a number of different strategies, including:

- Ground floor parking provision;
- On-street parking; and
- Communal/shared parking.

These buildings have been identified as 'areas of exceptional height' on the parameter plan, as the design intention is for the storey height to step down quickly to a more domestic scale to the rear of the parkland pavilion blocks.



Viewpoint of image to the right.



Figure 6.25: Illustration of view towards pavilion blocks from the proposed footpath to the south of the Military Lake.



Figure 6.26: Illustrative Plan and Section of Pavilion Blocks

### 6.3.6 Building Heights

#### Northstowe: Design Principles

Figure 6.27 shows how the heights proposed within Phase 3A relate to wider Northstowe. This diagram has been produced based on the Heights Parameter Plan for Phase 3A, together with the approved Parameter Plans for Phases 1 and 2. During the design development of Phase 2, the heights parameter plan was felt to be restrictive and allows little variation in roofscape and heights, thereby limiting the opportunity to create a rich and varied townscape.

The purpose of the plan shown at Figure 6.27 is to set out the maximum development envelope for the visual impact analysis of the site. It is not intended that the storey heights set out are blanket heights to be applied across the site, instead they allow for variation in height up to and including the height set out on the plan.

The key principles that can be drawn from this diagram are:

- The central, key movement corridors are framed by taller elements along the majority of their length;
- The Town Centre and the Phase 3A Local Centre are visible as focal points; and
- The building heights step down towards the periphery of the development, with 2 storey zones marking particularly sensitive edges that adjoin or overlook existing settlement edges.

#### Phase 3A: Design Principles

Figure 6.28 is based on the Heights Parameter Plan submitted as part of this application, with a few amendments to enhance the design principles for the purpose of this DAS.

The building heights for Phase 3A vary according to four key factors:

- Character generators;
- Relationship to the rest of the development;
- Movement network and key nodes; and
- Sensitivities around existing settlements.

The height strategy will:

- be refined through the design code and justified by a clear urban design strategy and reflect particular locations, activities, views and vistas; and
- accommodate variation in building heights, with local high points to mark important nodes of activity, aid way-finding and create character.

Northstowe

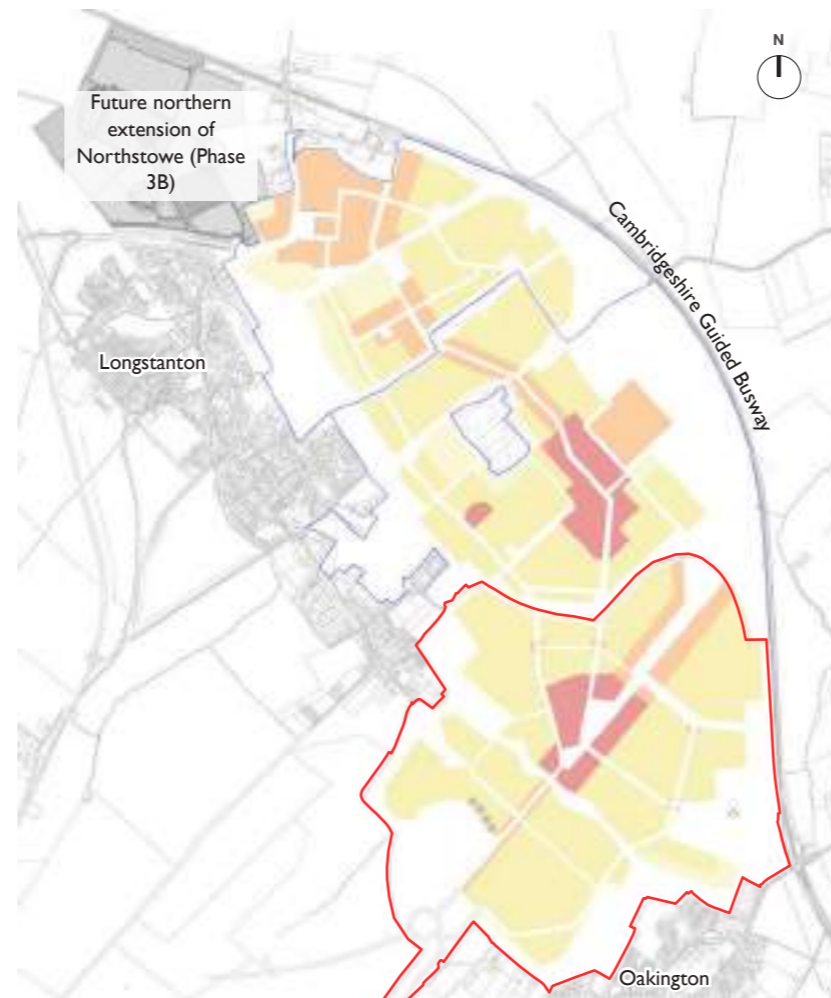


Figure 6.27: Building Heights across Northstowe.

Phase 3A

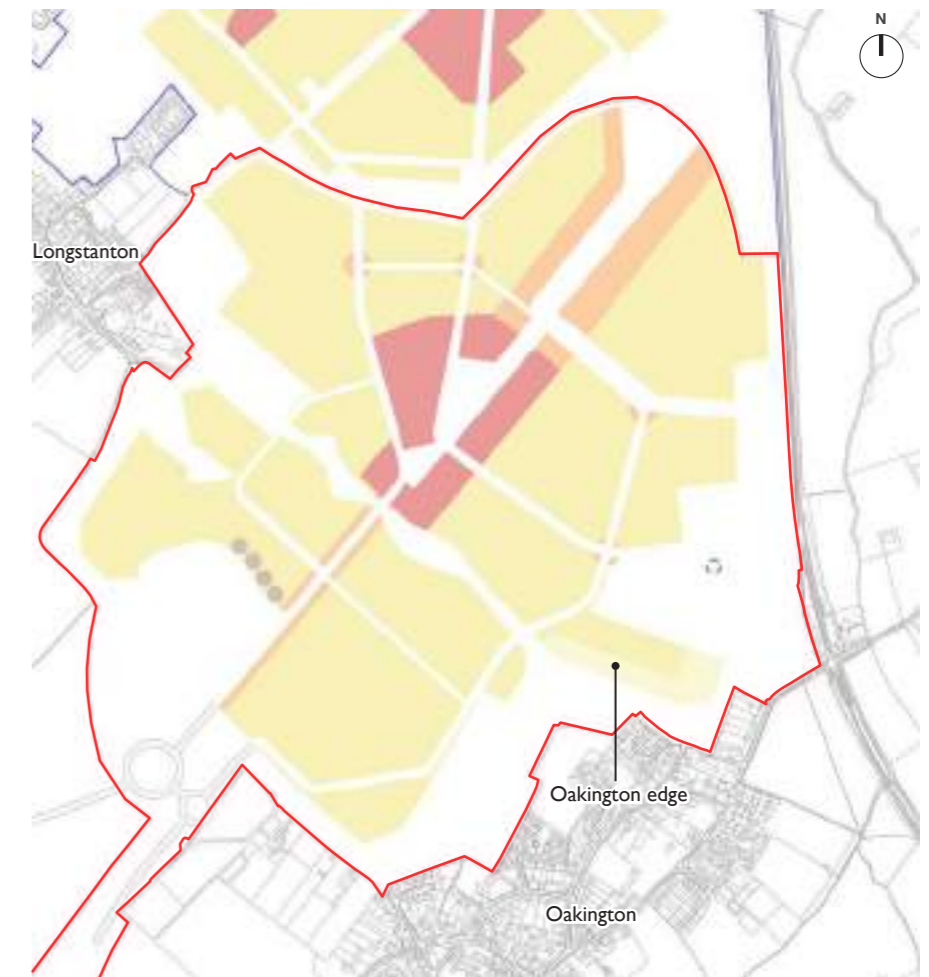
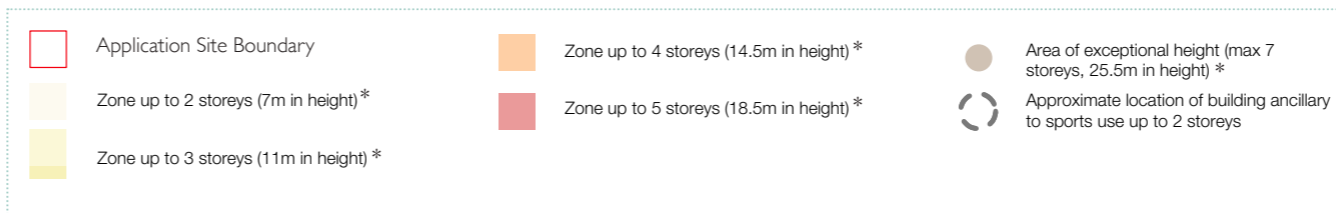


Figure 6.28: Phase 3A Illustrative Building Heights across Phase 3A.



\* all references to height refer to the height above the proposed ground level.

Note: Figures 6.27 and 6.28 show illustrative boundaries of the Neighbourhood Square, Neighbourhood Park and Runway Lake as per the Urban Design Framework Plan (Appendix A)



Changes in building height are important to avoid a homogeneous development and create variety and interest within the townscape. Building heights inform character, but are not the only aspect. When creating character or focal buildings, it is the combination of the building height, use, street width and sense of enclosure that create a quality townscape. The opportunity should exist to allow, for example, corner buildings to be slightly higher to help people find their way around and create a legible place. Therefore, the building parameter height plan defines relatively wide zones of up to 3 storeys, 4 storeys and 5 storeys, however it is important to emphasise that these are not expected to be blanket heights, instead there will be local variation depending on location and suitability within the proposed streetscape. The areas for 4 and 5 storey buildings are drawn more widely to allow for local landmark buildings and variation in height. It is anticipated that the majority of buildings are between 3-4 storeys with localized high points of 5 storeys. The design code will provide further detail and refinements to this broad brushed height strategy.

The 'Oakington Edge' zone marked on Figure 6.28 has been identified as the most sensitive area to height due to the proximity of the existing houses that back onto this boundary. Therefore, building heights up to 2 storeys have been proposed here to respect the privacy and amenity of existing residents, which will be located behind substantial natural buffers afforded by the existing tree belts found along this boundary.

The movement network and key nodes have influenced the building heights proposed across Phase 3A. Key nodes have been identified as areas of up to 4 storeys in height, allowing for localised variations in height and the creation of local focal buildings. The Central Avenue is a linear route that could accommodate building heights of up to 4 storeys, due to its wide, boulevard style nature and its character as the primary approach to Northstowe from the south.

The areas that are defined as more urban in character; the Local Centre, Park and Runway Lake, are identified as areas that could accommodate taller building heights. As mentioned previously, this is not with the intention of creating blanket heights across the development, instead ensuring the flexibility allows for local variations in height suitable to the area of townscape and the level of enclosure intended. The length of busway that connects the Town Centre to the Local Centre is framed by buildings up to three storeys in heights, to create distinct separation between these two key centres.

The Military Lake, a large scale retained feature, has been identified as the area within the site that has the ability to accommodate the tallest buildings; up to 7 storeys in height. This scale has been considered appropriate to the size of the open space that is adjacent in order to ensure the built form reflects the scale of the space and provide a visible gateway entrance to the site when approaching from the south.

Oakington Edge



Local Centre



Military Lake Pavilions



Figure 6.29: Illustration of Building Height range within Phase 3A.

### 6.3.7 Density Plan

A key desire from stakeholders and the local communities has been to avoid homogeneous 'everywhere' development. One way of ensuring variety in character is allowing densities to vary. Cambridgeshire market towns and villages comprise highly compact urban cores and lower density development at the edges, where garden sizes get larger.

Phase 3A adopts a similar approach and the masterplan is based on utilising a full range of densities, from a tight urban Local Centre to lower density areas on the southern edge.

- The Local Centre:** including the neighbourhood park and square, features the highest density across Phase 3A. The proposed density for the Local Centre is lower than that of the Town Centre. This ensures that there is a clear distinction between the local facilities provided within Phase 3A and the central focal point for the town within Phase 2.
- Existing Vegetation:** Where there is a higher coverage of existing trees towards the south of the site, this has shaped lower density neighbourhoods. The Illustrative Masterplan shows an approach to how the layout could incorporate the existing trees within the development blocks.
- Relationship to wider Northstowe:** The densities within Phase 3A increase with proximity to Phase 2 and the Town Centre. On entry into the site from the south, the densities are lower, increasing towards the Mill Road corridor which requires strong urban frontages to frame the public open space on both sides. The density towards the periphery of the development steps down to 35-40dph to mark a transition to Longstanton Conservation Area to the west and Oakington to the south east. 41-60dph is proposed along the boundary with Phase 2 to ensure the green corridor which provides a landscaped link between the two phases is well contained by strong frontages.
- Oakington edge:** The dwellings fronting onto this edge will be looser in urban form (approximately 35dph) and overlook the playing fields to the north and belts of existing vegetation to the south that form a natural separation between Northstowe and Oakington.

#### Northstowe

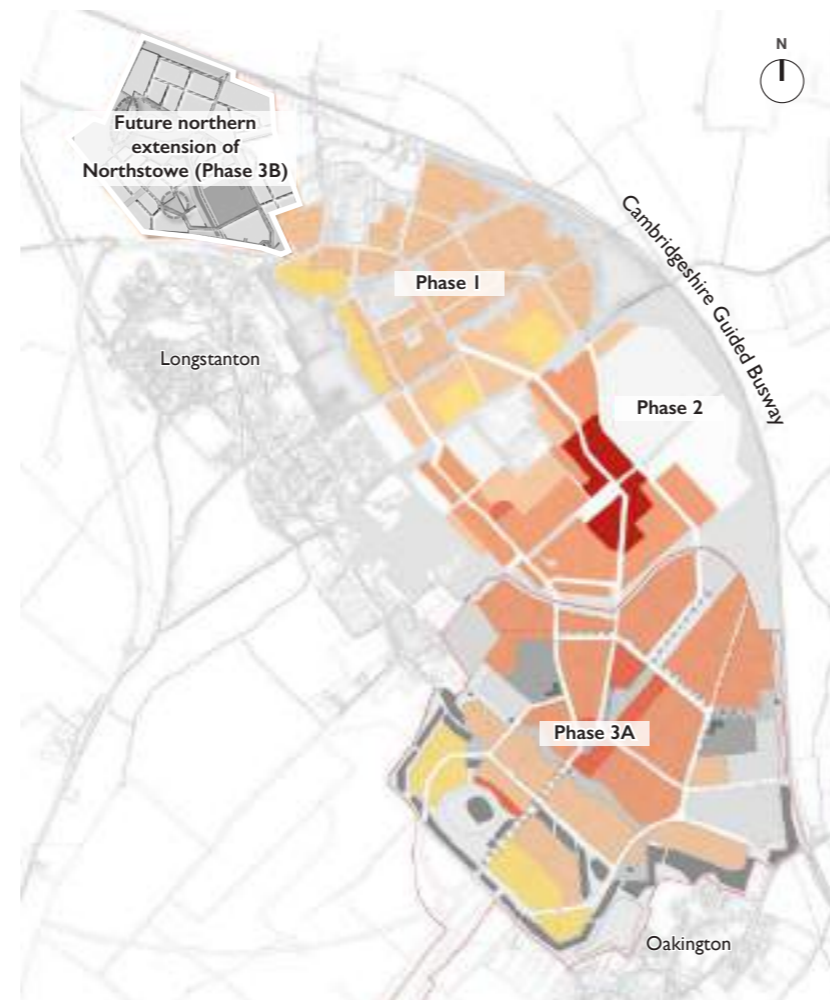
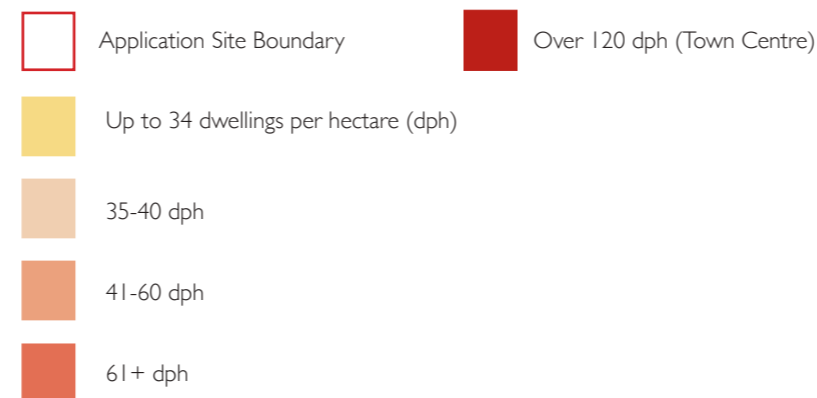


Figure 6.30: Broad density ranges at Northstowe



#### Phase 3A

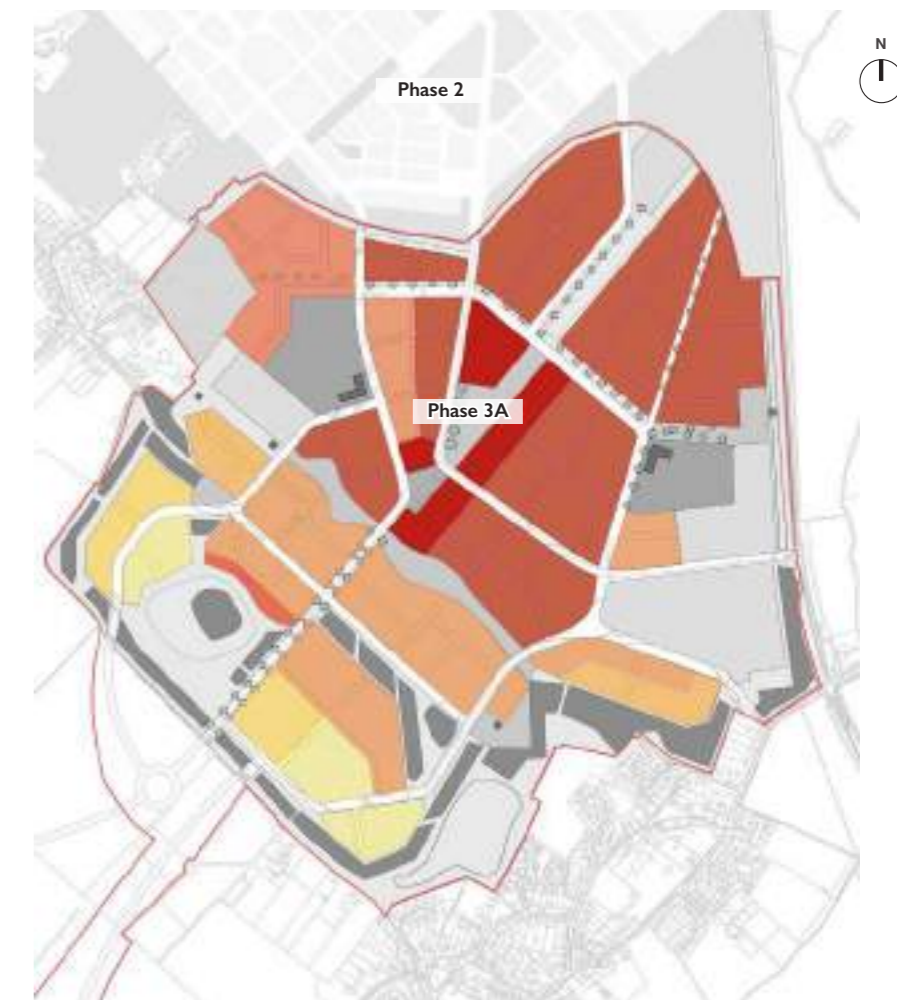
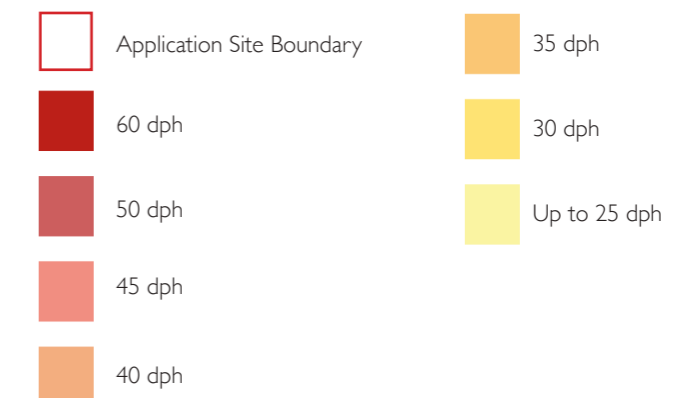


Figure 6.31: Illustrative Densities Phase 3A





Creating a town-wide, comprehensive and integrated movement network town-wide is of key importance to promoting active and convenient travel that continues the Healthy New Town initiative

## 6.4 Connectivity: Northstowe

The movement strategy for Northstowe is shown on Figure 6.32. The structure of the movement network within Phase 3A has been designed to integrate into the existing routes within Phase 2, and subsequently Phase 1, as well as public rights of way in the wider landscape. A connected network of pedestrian and cycle routes are provided to ensure that there are a number of safe opportunities for people to choose to travel more sustainably.

The busway links the three phases, connecting to the guided busway in Phase 3A and Phase 1.

The movement strategy for Phase 3A has been influenced in response to the public consultation in the following ways:

- **Desire to promote sustainable travel to/from/within the site:** A dedicated pedestrian and cycleway are proposed along the Southern Access Road West and East, ensuring easy sustainable access to and from the Application Site. An integrated network of cycle and pedestrian routes combined with the position of the Local Centre adjacent to, and easily accessible from the busway, also ensure sustainable modes of transport are promoted between Northstowe and the adjacent settlements.
- **Desire to reinstate the historic route of Mill Road:** This route has been reinstated to provide access from Longstanton and Oakington for cyclists and pedestrians, into the heart of Phase 3A.

The movement strategy has also dealt with the following potential issue relating to access:

- Phase 3A will form the main approach to the new town of Northstowe from the south. The provision of the Southern Access Road East, in addition to the Southern Access Road West (approved as part of the Phase 2 planning application) ensures that the capacity of the site is sufficient to accommodate the expected volume of traffic through this part of the site.

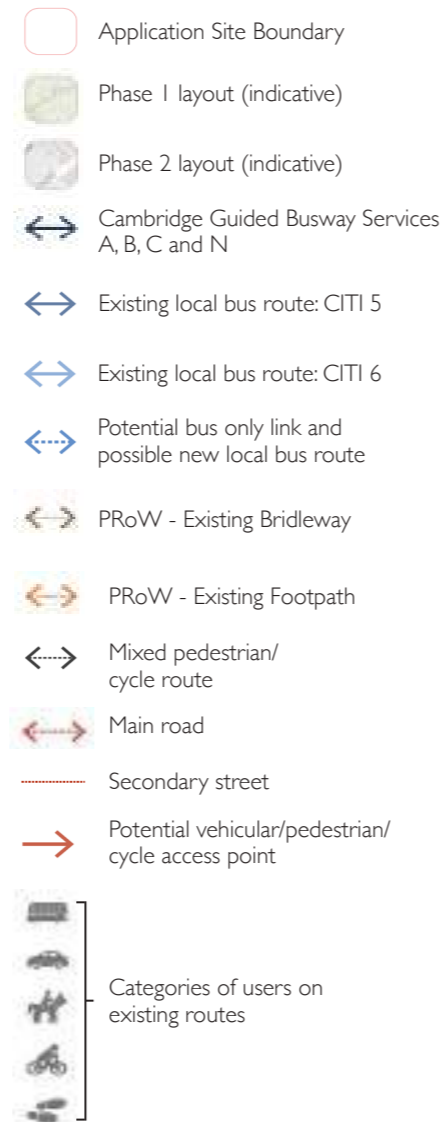
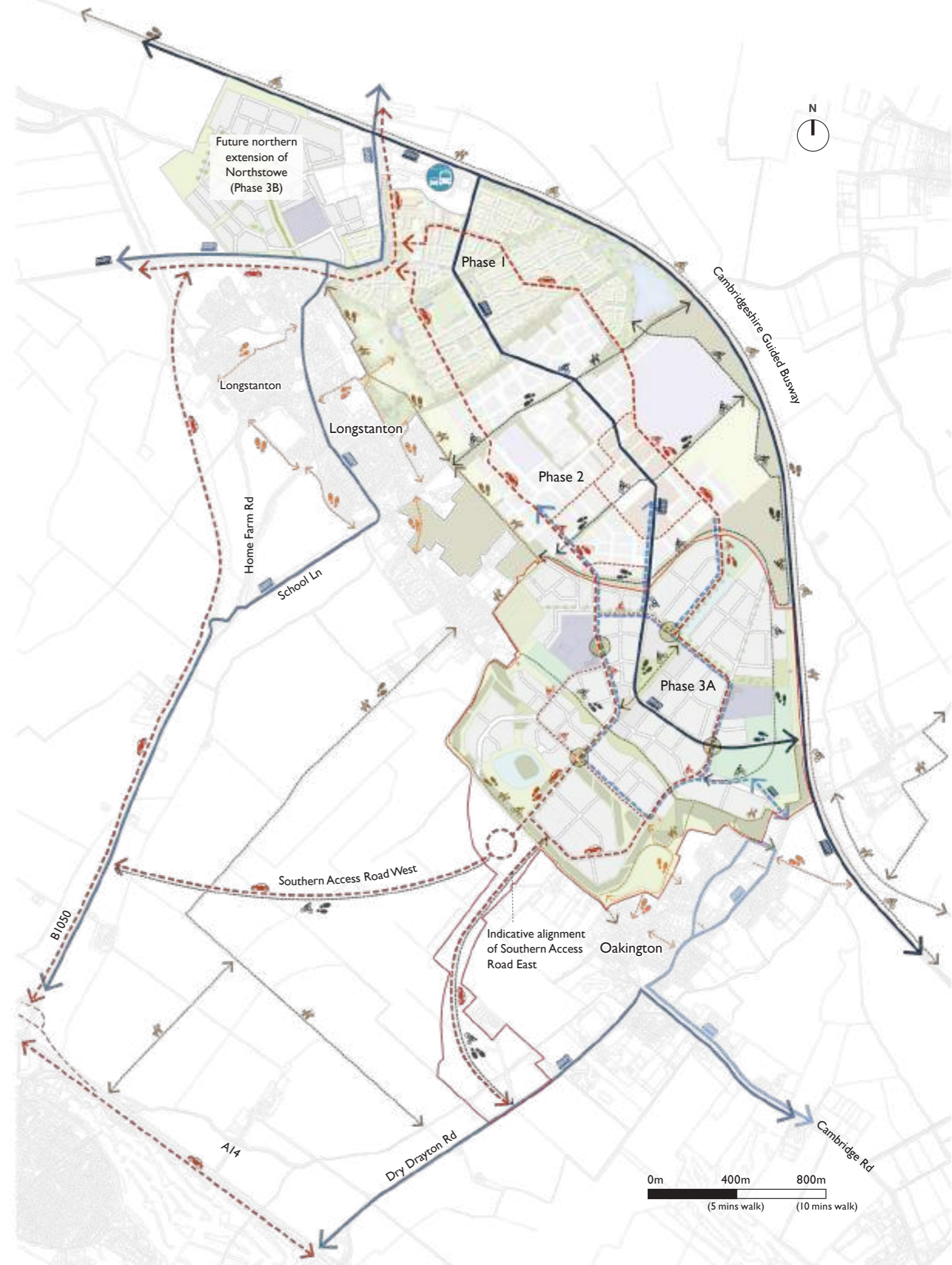


Figure 6.32: Proposed Connectivity



### 6.4.1 Connectivity: Phase 3A

The masterplan has been designed to maximise connectivity within the boundaries of Northstowe, as well as with the wider context. The framework for the masterplan has been developed to ensure that the neighbourhood is highly permeable and key routes follow natural desire lines to ensure that the public open space and local services and facilities are easily accessible.

Northstowe Phase 3A will be highly accessible by sustainable modes of transport, with services for the Cambridgeshire Guided Busway running through the heart of the development (already under construction to serve Phase 2) as well as extended local bus services, continuing through from Phases 1 and 2 and potentially Oakington.

Strategic cycle routes will connect Northstowe to Bar Hill in the south west, Cambridge North Station and the Science Park in the south east and the existing local communities. The walking and cycling networks will connect into Phase 2, Longstanton and Oakington as well as existing Public rights of Way that connect into the wider countryside, ensuring convenient routes to the Town Centre, schools and sports facilities.

The key design principles to supplement the movement Parameter Plan are:

- Create a clear and legible street hierarchy that accommodates direct routes for pedestrians and cyclists.
- Create Primary and Secondary Streets (aiming for a design speed of 20mph) that are: positive places to walk and cycle along; designed appropriately for the traffic volume; fronted by development; and create a sense of place.
- Provide a connected movement network that is adaptable, in terms of accommodating future bus provision and changes in travel behaviour.
- Aim to design streets that align with the Healthy Street principles (ref: <https://healthystreets.com/home/healthy-streets-in-policy/>).
- Public transport routes will be integrated into the movement network to ensure that at least 80% of homes are within easy walking distance (400m) of at least one public transport stop.
- Provide pedestrian/cycle connections that connect to the existing and proposed (Northstowe Phase 2) footpath and bridleway network and the historic Public Rights of Way.
- Create a connected cycle network that provides safe cycle routes every 250m. These will be either segregated routes alongside primary and secondary streets, car free routes through greenways or routes on-street through quiet residential streets (e.g. shared surface home zones).

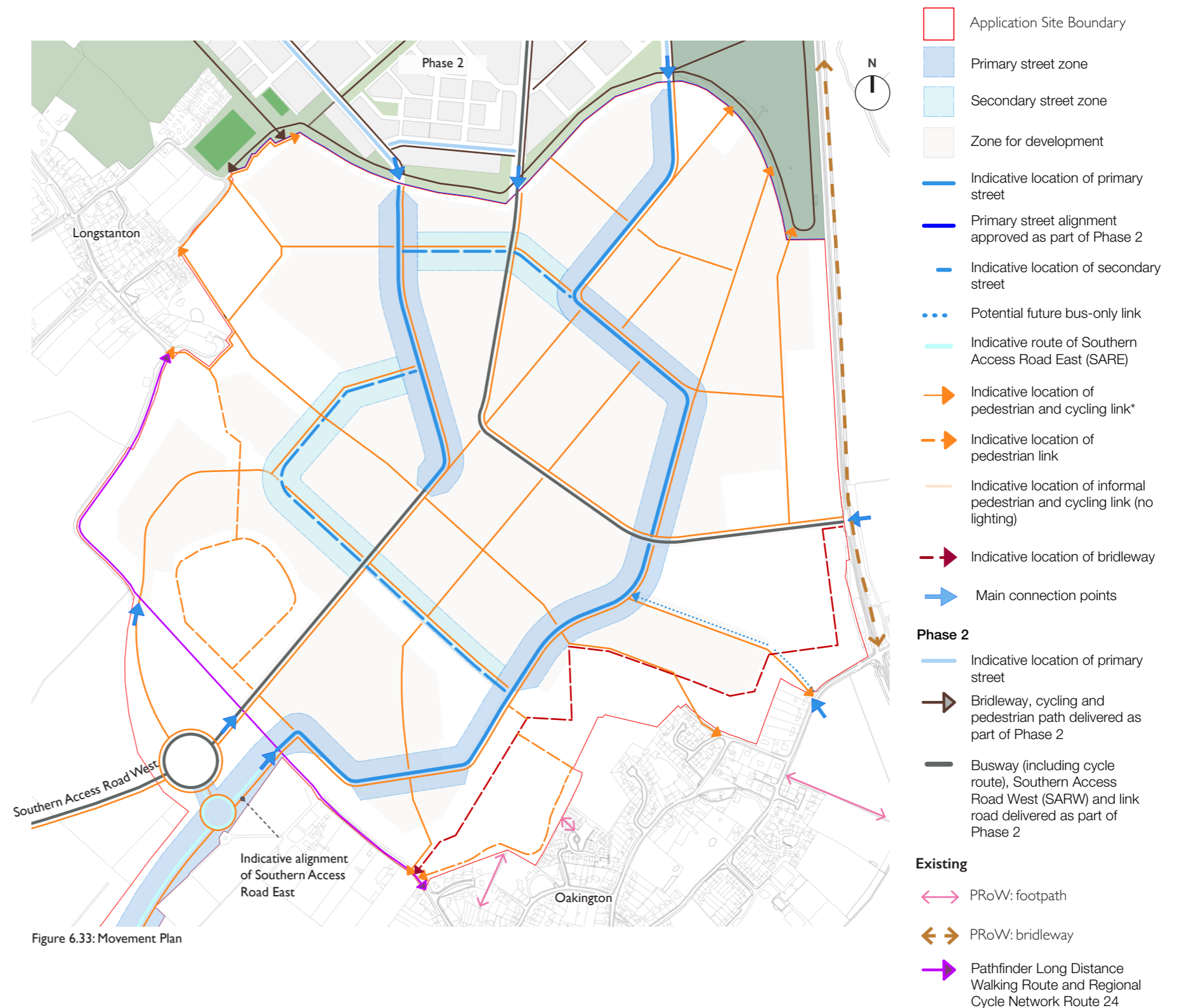


Figure 6.33: Movement Plan

## 6.4.2 Street Hierarchy

The street hierarchy for Phase 3A has been informed by design principles and learning from Phases 1 and 2.

The main street typologies are:

- **Busway:** Primary bus-only public transport route with segregated cycle lanes connecting to the CGB and Northstowe's centres
- **Primary Streets:** Main vehicular routes through Northstowe with segregated cycle lanes. The indicative alignments of the two primary streets are shown on Figure 6.38.
- **Secondary Streets:** Vehicular routes that provide local access and connections between primary streets. These are designed to accommodate buses and have segregated cycle lanes in most places. The indicative alignments of the secondary streets are shown on Figure 6.44
- **Tertiary Streets:** Local roads that provide access to homes and generally designed to discourage through traffic, keeping these streets quiet and with limited traffic. The illustrative locations of the tertiary streets can be seen within the residential blocks shown on the Illustrative Masterplan, Figure 6.9. (page 48).

On this and the following pages, illustrative sections are used to explain the proposed street typologies. Whilst these street section are illustrative, they will be used for the basis of future coding. All streets will vary in character along their length and further detail will need to be defined within the design code.

The aspiration is to adopt Healthy Street principles and create attractive, safe and welcoming streets for all users.

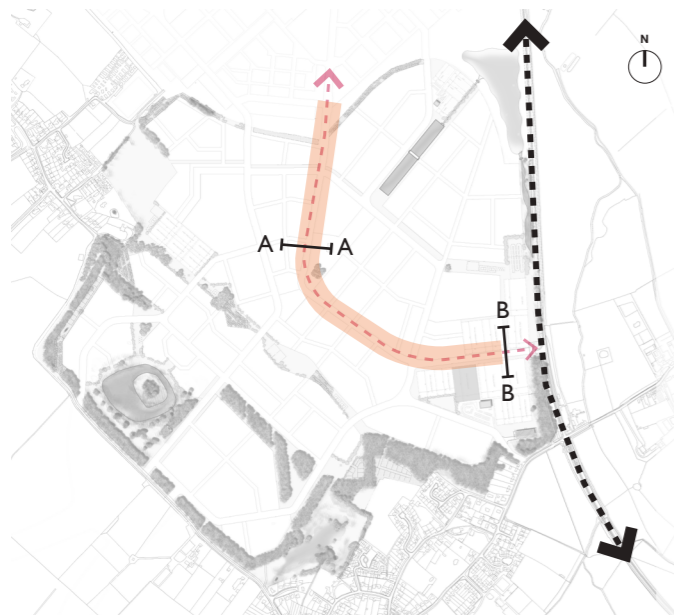


Figure 6.34: Key plan (NTS)

## 6.4.3 Public Transport and the Busway

The alignment of the busway corridor was approved as part of the Northstowe Phase 2 application and is currently under construction. The busway passes through the heart of Phase 3A, connecting the Local Centre to Northstowe Town Centre and beyond to wider Cambridgeshire. It will be used only by the Cambridgeshire Guided Bus, local buses and pedestrians and cyclists. Where buses pass through Northstowe and the built up area they are expected to travel at slower speed than when they are on the guide rails at a maximum of 20mph.

The Illustrative Masterplan demonstrates how the urban form along the busway corridor could be articulated to create a varied and interesting journey, with views of some of the key features of the development. Variation in dwelling orientation along the busway provides differing levels of enclosure appropriate to the character areas within Phase 3A. A sequence of views from the busway to key points of interest and open spaces have been created along its route.

On entering the site from the east, the bus passes through the Phase 3 Eastern Sports Hub with views towards the eastern primary school and sports pavilion. Strong frontages mark the arrival within the town, with landmark buildings set around this important junction, where the eastern Primary Street crosses the busway. Buildings of increasing height and continuity overlook the corridor as it approaches the Local Centre.

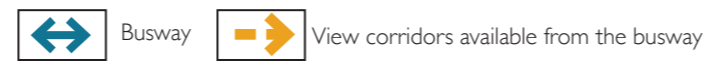


Figure 6.35: Busway route through Phase 3A.

Both the Local Centre and Neighbourhood Park are highly visible from the busway, creating activity alongside this route. The dwellings are orientated to overlook the corridor as it approaches the Local Centre, with strong and continuous frontages signifying the approach to this focal point. Glimpsed views of pocket parks hint at the nature of the Mill Road Linear Park to the south, before there is a framed view down to this key area of open space as the bus approaches the central part of the development.

The busway, its carriageway and temporary pedestrian and cycle route are currently under construction and due to open prior to the implementation of Phase 3A. It is expected that further work will be required to the busway when detailed proposals for adjacent development parcels are available. This will ensure that buildings, landscape, and public realm successfully work together to create an attractive and animated route.

In addition to the busway there will be local bus services routed through Northstowe. Within the eastern corner of the site a potential bus-only connection is proposed to connect to Station Road and Oakington. This link passes the sports fields and connects to the wider street network of Northstowe. This bus-only link restricts general vehicular traffic using Oakington as a rat-run, but provides convenient public transport and cycle connection for new and existing residents.

## Design Requirements:

The following design requirements are relevant:

- provide adequate area for bus stops without encroachment to pedestrian zones or cycle tracks and allowing for tree and shrub planting;
- provide comfortable and safe environment for public transport users with required infrastructure i.e. benches, lighting, shelter and cycle stands;
- ensure safe road crossing points suitable for all, including less able people, parents with children, buggies, scooters and bicycle users;
- provide a green corridor with linear tree planting and SuDS features. This approach may vary along the length of the busway to create differing character and emphasise the Local Centre. At this point the busway will be passing through a pedestrian priority area which requires a more urban approach. Trees might be spaced out differently with a wider gap to accommodate a table and wide crossing points;
- treat the ground-cover below the trees with wildflower, native and ornamental shrubs, grasses and bulbs; and
- provide a segregated cycleway where possible.

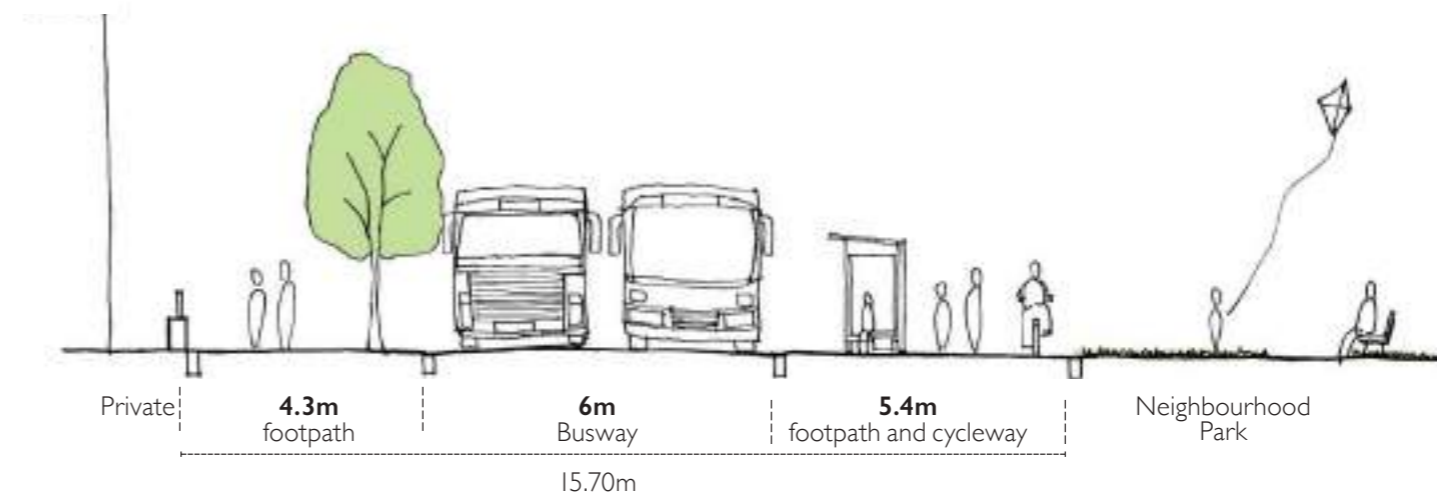


Figure 6.36: Illustrative busway street section A-A.

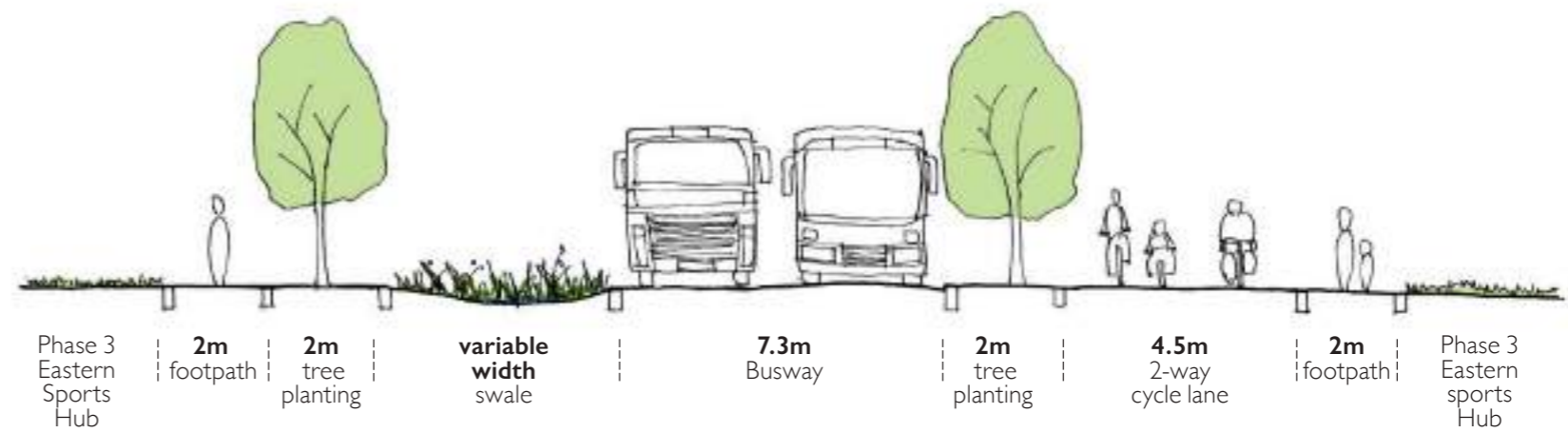


Figure 6.37: Illustrative busway street section B-B.

### 6.4.4 Primary Streets

Primary Streets are the main vehicular routes connecting Phase 3 into the remainder of the town. The points of connection to Phase 2 have been set as part of the Phase 2 application.

While the function of the streets will remain consistent, their character will vary to address different situations within the masterplan. The following design principle applies to both of the proposed primary streets:

- create positive development frontages alongside the street. Buildings should overlook the street and be accessed from it. Buildings may be set back to provide positive and landscaped separation between habitable rooms and the carriageway; and
- incorporate segregated cycle routes along the entire length of the primary streets.

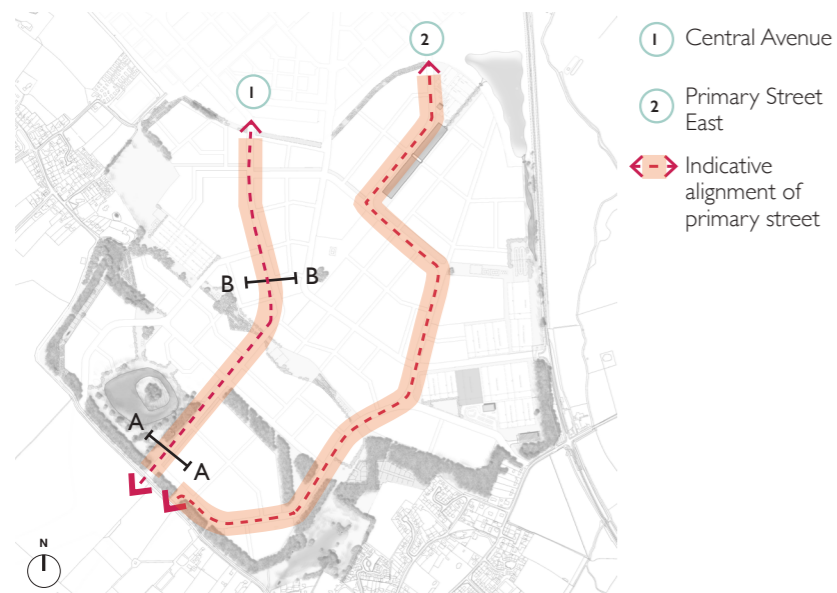


Figure 6.38: Central movement corridor.

#### Central Avenue (1)

The Central Avenue provides one of the main southern accesses into Northstowe, when approaching from the A14. This is expected to be one of the busiest streets within Northstowe. This route provides an important connection through to Phase 2, passing a number of focal points within Phase 3A along its route. The amount of junctions along this road have been minimised to ensure that the flow of traffic is not restricted.

In order to reduce the impact of traffic, create a positive gateway and an attractive environment for pedestrian, cyclists the following design principles have been developed:

- introducing central reservations with tree planting at the entrance to the development site as well as at key crossing points. These would act as traffic calming measures, improve pedestrian and cycle crossing point and ensure green, ecology linkages between open spaces either side of the street;
- incorporate a change in surface where the street meets the Local Centre, indicating an entrance to the centre and facilitating safe pedestrian and cycle crossing; and
- links to the primary road (west) within Phase 2.

#### Primary Street East (2)

The Primary Street East provides a key access point into Northstowe via the potential future Southern Access Road East and Dry Drayton Road. The following design principles have been developed for this primary street:

- form a continuation of the eastern primary road that runs past the secondary school in Phase 2.

The character of the journey along the Primary Street East will be defined by the landscape landmarks that it passes; including the Runway Lake, retained tree belts and Phase 3 Eastern Sports Hub.



Figure 6.39: Examples of form and character along the Central Avenue.

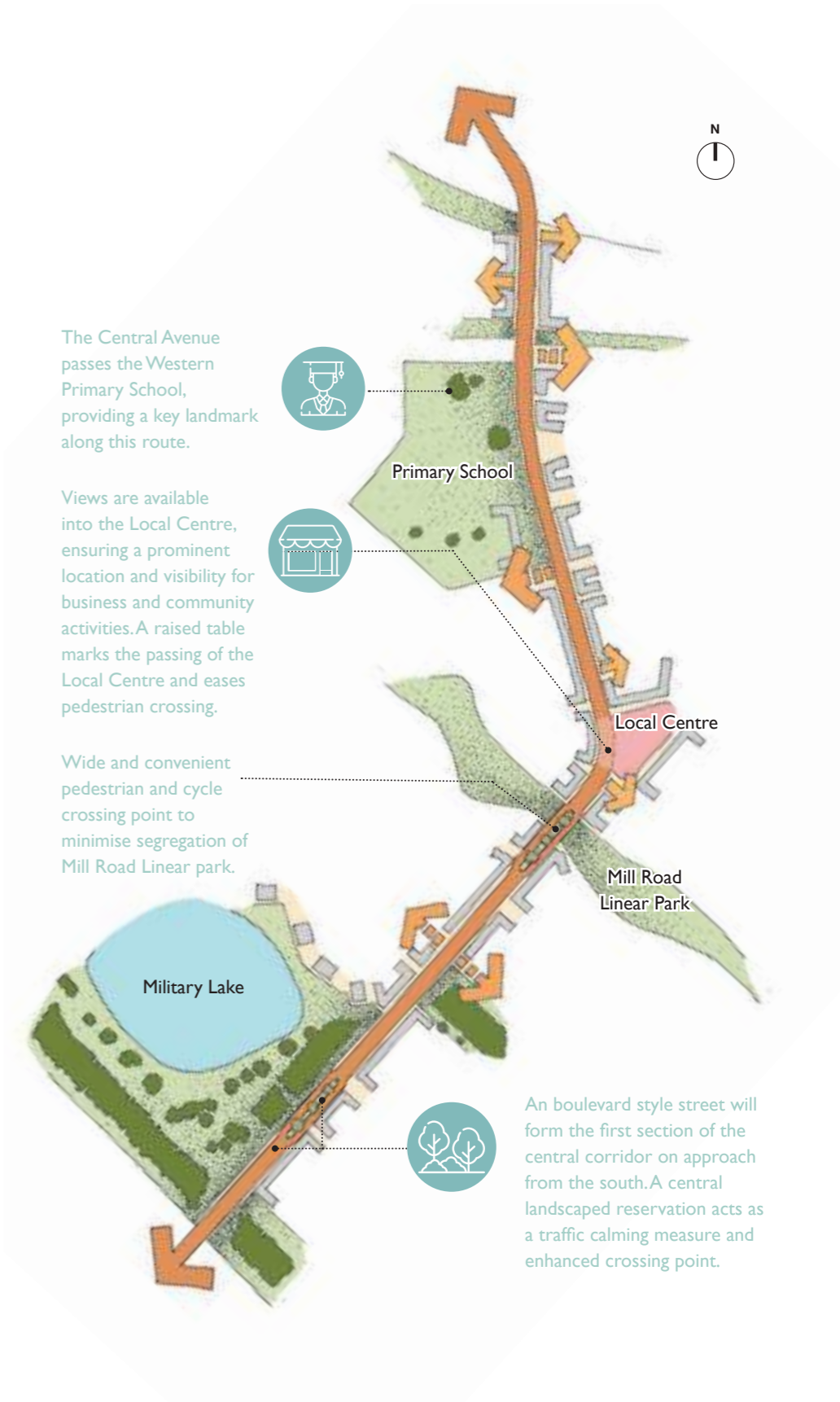


Figure 6.40: Illustrative sketch of the Central Avenue.



### Design Requirements for a Typical Primary Street:

The following design requirements are relevant:

- provide tree planting alongside the street. This may vary in character and intensity, depending on the specific location;
- provide zones for large tree planting in primary locations i.e. at 'Gateway' green corridor and adjacent to Town Centre;
- provide SUDS/ vegetated swale corridor;
- treat the ground-cover below the trees with wildflower, native and ornamental shrubs, grasses and bulbs; and
- provide a segregated cycleway.



Figure 6.41: SuDS features will be integrated into the streetscape.

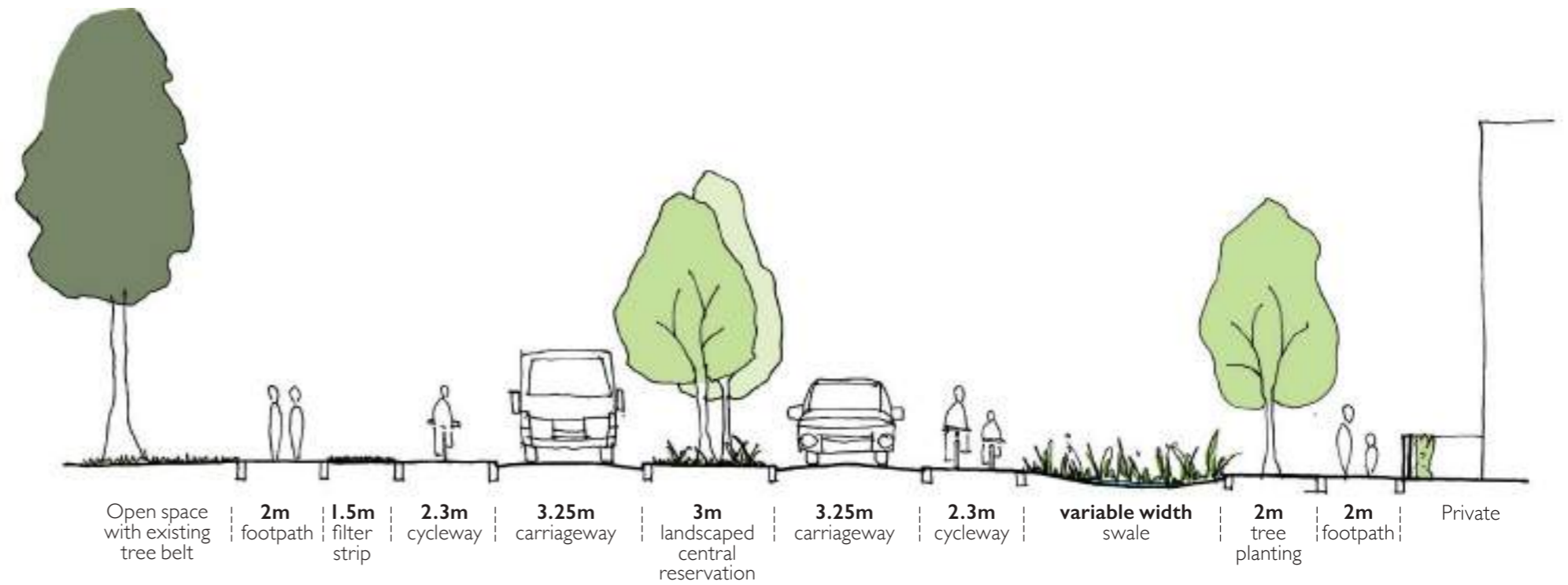


Figure 6.42: Example Primary Street section A-A.

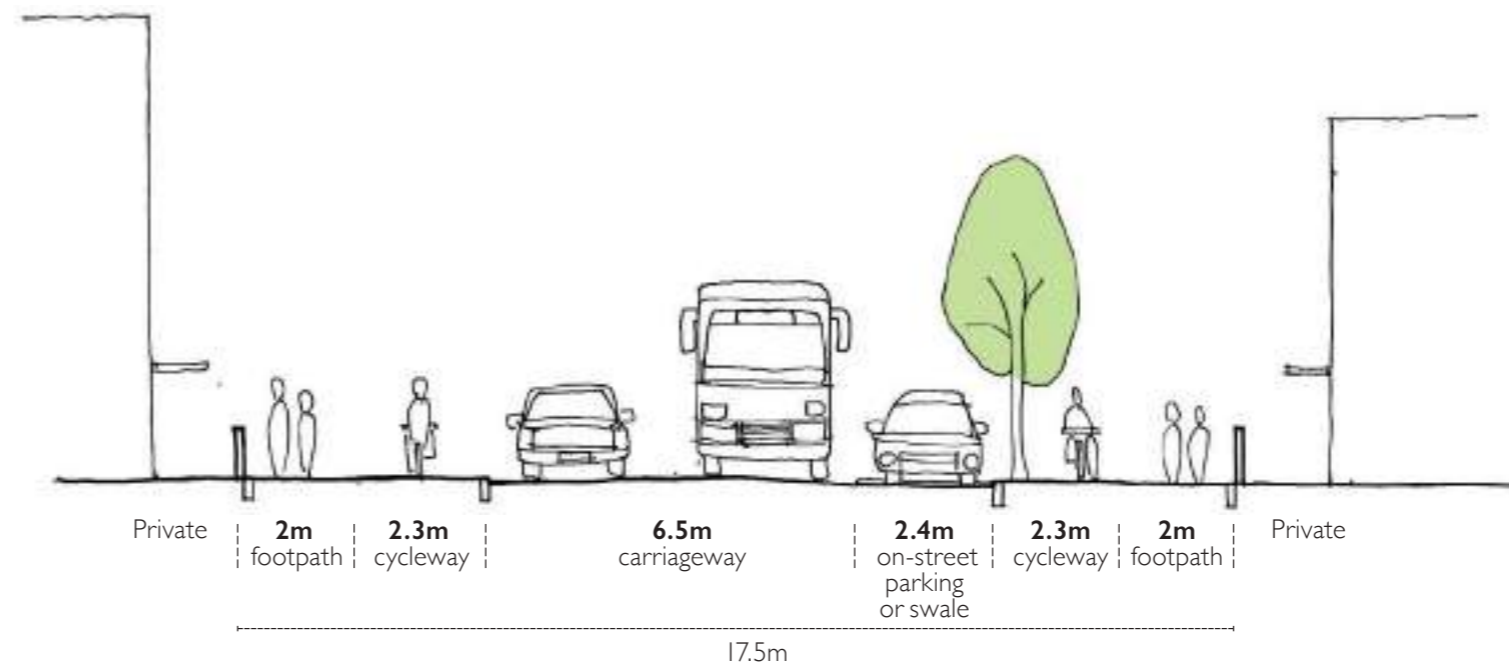


Figure 6.43: Example Primary Street section B-B.

### 6.4.5 Secondary Streets

Secondary Streets, will provide east west connections between the Primary Streets, as illustrated on Figure 6.44 below, and ensure a level of accessibility by public transport to all development parcels. Secondary Streets will be designed to allow public buses.

#### Design Requirements for a Typical Secondary Street:

The following design requirements are relevant:

- provide 'pocket' zones for large tree species in primary locations at site entrance and adjacent to Local Centre;
- provide SuDS/ vegetated swale corridor;
- treat the ground-cover below the trees with wildflower, native and ornamental shrubs, grasses and bulbs;
- provide a segregated cycleway; and
- provide opportunities for on-street parking.

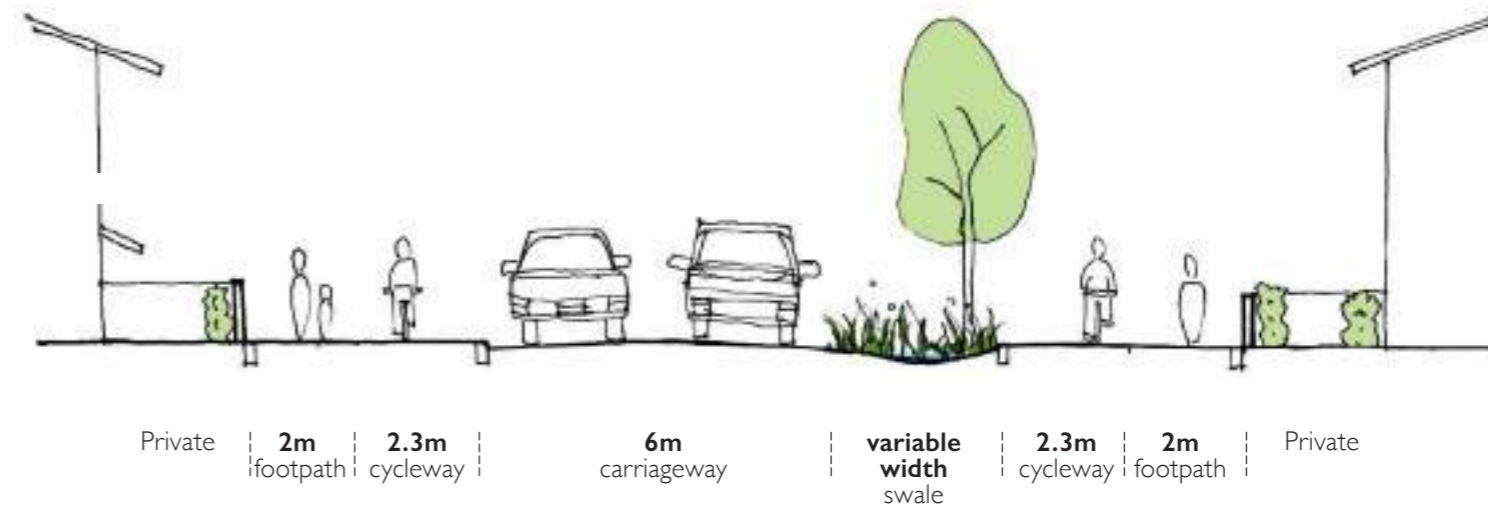


Figure 6.45: Example Secondary Street section

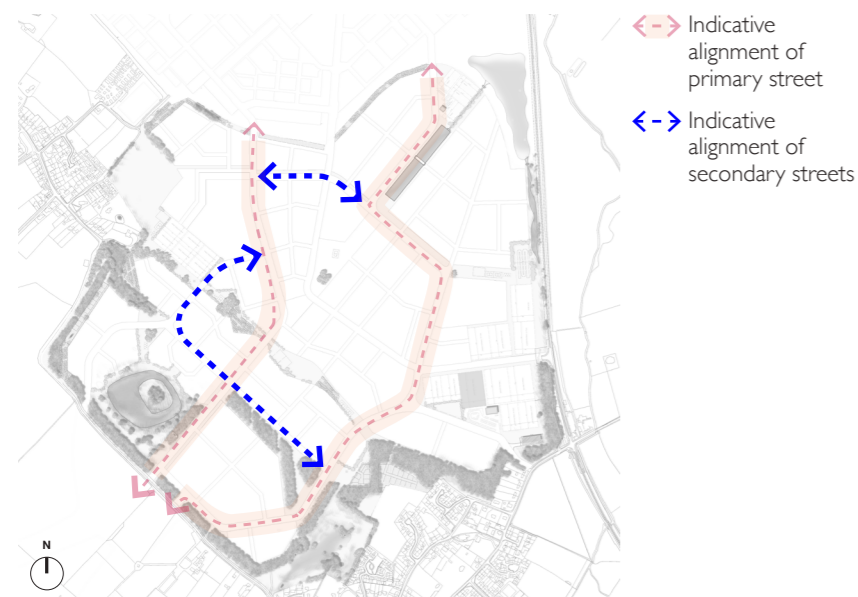


Figure 6.44: Secondary streets.

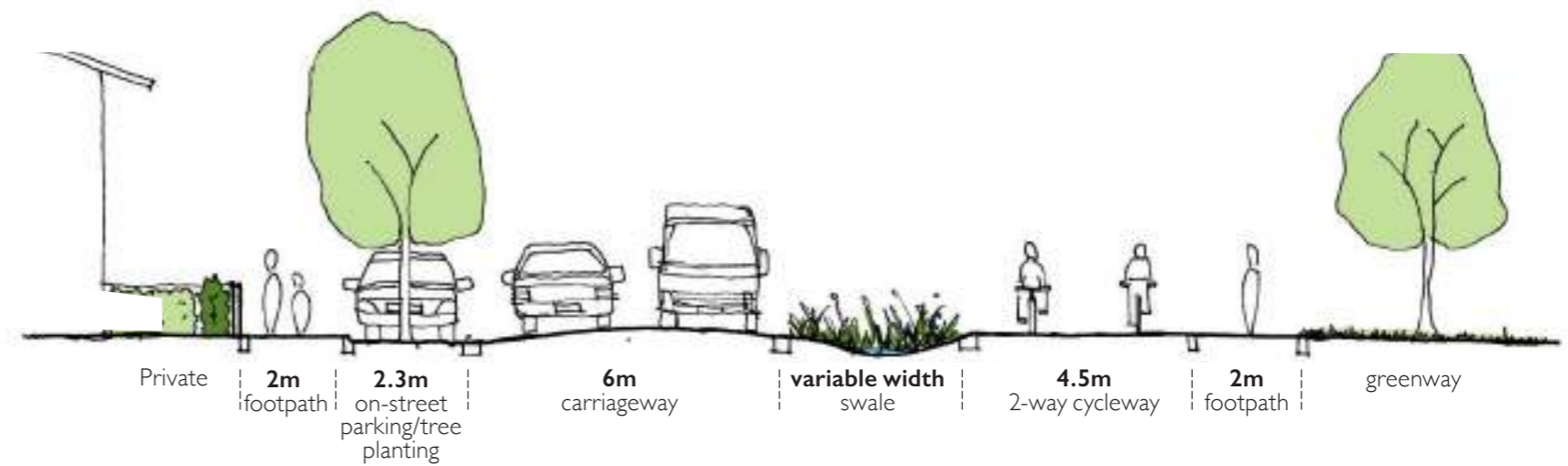


Figure 6.46: Example greenway section

## 6.4.6 Tertiary Streets

### Design Requirements for a Typical Tertiary Street:

The following design requirements are relevant:

- Identify localised pockets for street tree planting;
- Provide SuDS/ vegetated swale corridors in localised clusters where required;
- Treat the ground-cover below the trees with wildflower; native and ornamental shrubs, grasses and bulbs;
- Potential to incorporate play or facilitate social interaction; and
- Provide opportunities for on-street parking.

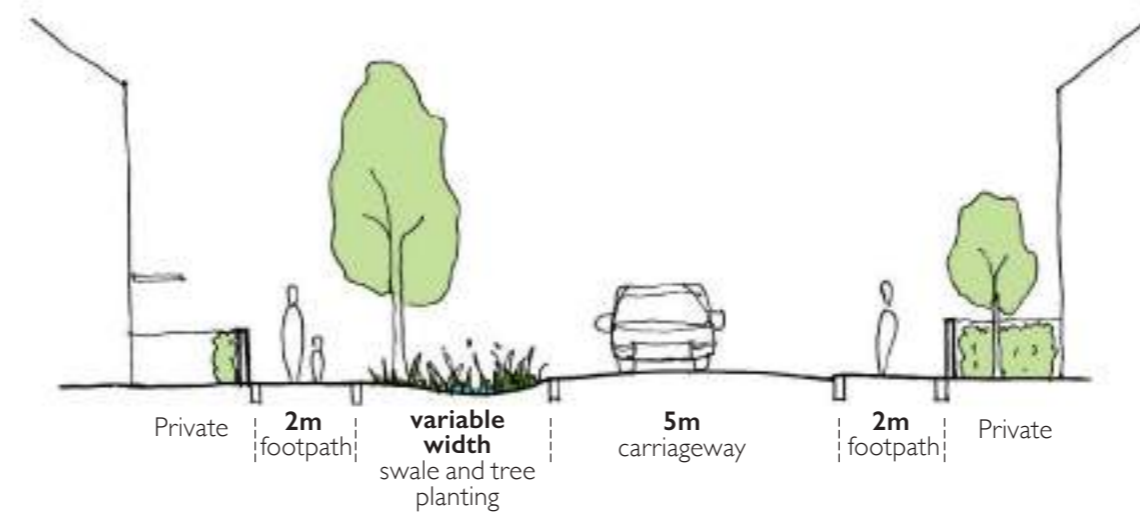


Figure 6.47: Example Tertiary Street section incorporating SuDS

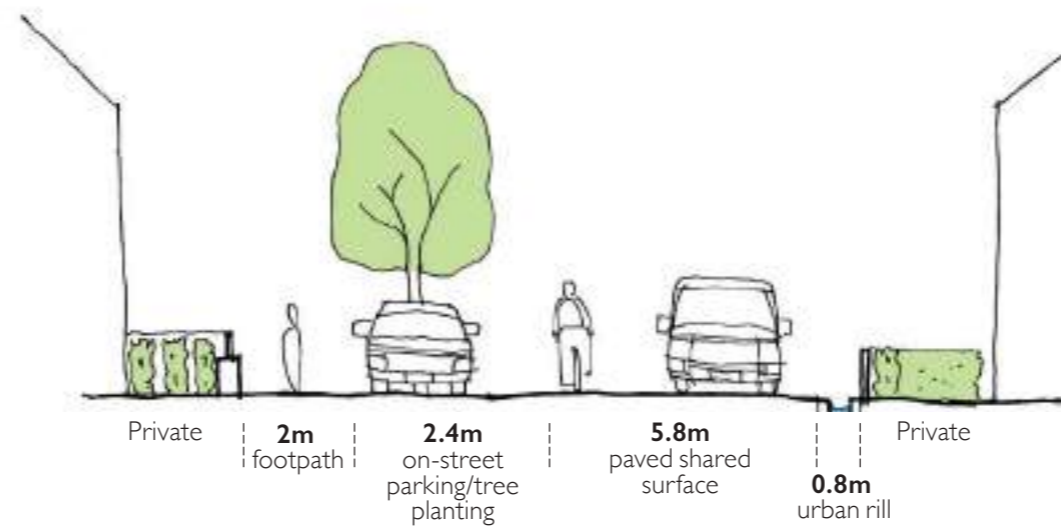


Figure 6.48: Example Tertiary Street section with shared surfacing

## 6.4.7 Cycling Strategy






### Cycle Network

To deliver the vision for Northstowe as a cycle friendly town and to promote active travel, the masterplan and movement network have been developed to encourage cycling and make it convenient for people to choose the bike over the private car. The provision for cycle parking will be detailed in future design codes and reserved matters applications in accordance with local planning policy and good practice.

The proposed movement network incorporates cycleways that are located a maximum of 250m apart and in most instances much closer together. The typologies of cycle routes considered in the 250m radius are:

- Segregated cycle routes adjacent to the busway and Primary Streets;
- Vehicle free cycle routes incorporated into greenways; and
- Cycleways through quiet routes that are not segregated and lead through calm residential street and neighbourhoods.

The principle of a maximum distance of 250m between cycleways is illustrated on Figure 6.49, with typical 250m walk distances shown.

-  Application Site Boundary
-  Illustrative alignment of cycle routes
-  250m radius isochromes
-  Cambridgeshire Guided Busway
-  Pathfinder Long Distance Walking Route and Regional Cycle Network Route 24

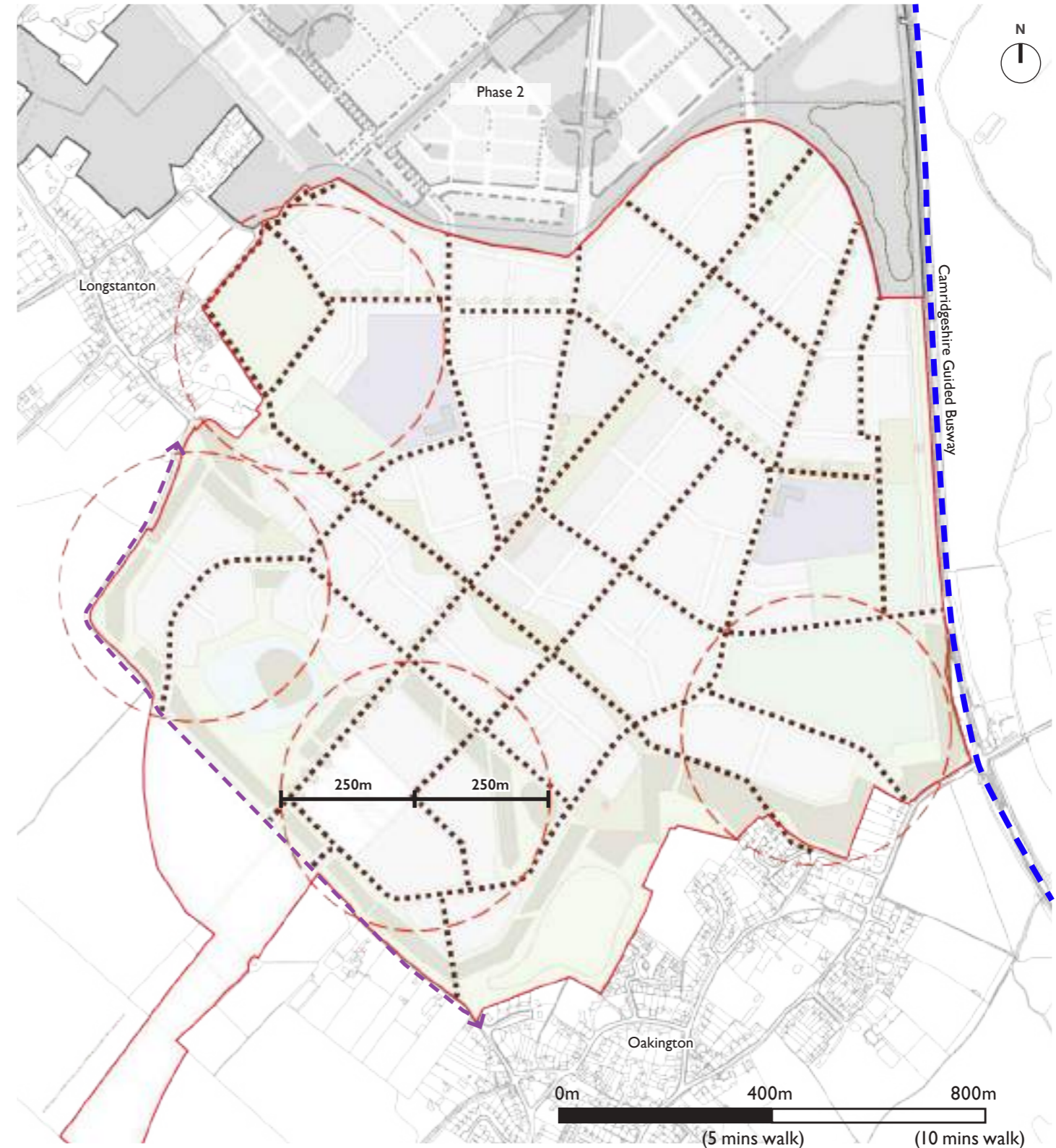


Figure 6.49: Cycle network plan.

## Cycle Parking

To deliver the vision for Northstowe as a cycle friendly town it is important to provide suitable parking infrastructure to allow residents to own and conveniently use cycles for everyday transportation.

Cycle parking must be designed as an essential component of the development and located in key public spaces (such as the Local Centre), outside destinations (such as the schools and community facilities), formal sports areas, play areas (such as the NEAP and LEAPs) and within private residences. Visitor spaces must be provided separately.

### Design Requirements - Cycle Parking for Residential Buildings

Provide secure and practical cycle parking that is conveniently located. Cycle parking for all homes will be designed in line with the Cycle Parking Standards of SCDC. Cycle parking must be:

- protected from the weather and secure with access for residents only;
- easily accessible and convenient. It will not require cycles to enter dwellings;
- integrate well with the surroundings; and
- where possible, accessed from the front of the building either in a specially constructed enclosure, communal bike storage or easily accessible garage.

### Communal cycle parking

In some locations it may be beneficial to provide communal cycle parking shared by a small number of houses. These communal cycle parking areas must be:

- protected from the weather and secure with access for a limited number of residents only;
- easily accessible and convenient, located in shared courtyards or at the end of streets;
- integrate well with the surroundings, be attractive and robust.

This approach is also relevant to employee cycle parking for non residential elements.



Figure 6.50: Parking in the public realm.



Figure 6.51: Public cycle parking.



Figure 6.52: Communal cycle parking.

## 6.4.8 Vehicle Parking

Cycle and car parking has been proposed to be well integrated and flexible, to accommodate potential changes in travel patterns, car ownership and lifestyle changes.

Homes England intends to adopt a monitor and manage approach to car parking standards to ensure the development responds to potential future changes in car ownership and usage. In order to accommodate the required flexibility, the masterplan allows for a wide range of car parking options to be adopted including car barns and areas with reduced parking provision or, depending on further design development, pockets of car free development.

Applied car parking standards and the specific approach to car parking would be defined at the detailed design stage, to ensure latest trends are being picked up.

Phase 3A intends to incorporate more flexible parking approaches than the more 'traditional' approach of providing between plot garages and car parking spaces, for the following three reasons:

### Quality of Place

- Unattractive environment dominated by infrastructure serving vehicular traffic
- "There is a correlation between dissatisfaction with car parking and the overall neighbourhood perception" - post occupancy survey of major house builder

### Health and Wellbeing

Car based developments do not encourage:

- Active lifestyles due to 'suburban' form, lower densities and unattractive street environments (physical health) ;
- Social interaction and sense of community (mental health)

### Flexibility

- Places need the ability to adapt - lifestyles change. This approach was encouraged by the design review panels.

## 6.4.9 Car Parking Strategies

Future flexibility of car parking spaces across Phase 3A has been a key design consideration throughout the development of the masterplan. On-street and other off-plot parking has been considered in the areas of higher density. This has many benefits, including:

- **encouraging social interaction between neighbours through increased opportunities for ad hoc meetings. This in turn strengthens the community;**
- **increased on-street activity and sense of ownership of the public realm;**
- **improved health and wellbeing through the promotion of walking and cycling being as accessible as modes of transport as private cars; and**
- **flexibility in future use. If car dependency declines then car parking spaces that are, for example, located within the public realm can be converted to open space to benefit the community.**



The three sketches above illustrate the impact that different parking solutions can have on the efficiency and flexibility of a site. Sketch 1 illustrates a 'typical' suburban layout, with parking accommodated on driveways or within garages that are on/in-between plots. Sketch 2 illustrates the same site, with the parking removed from in between the housing and instead placed on street as part of an integrated public realm strategy. This results in a more continuous frontage, and begins to offer a level of flexibility that parking on plot doesn't have. If car ownership were to decrease in the future, this on-street parking provides the opportunity for parking spaces to be converted into areas of open space, as shown in sketch 3, to serve the community and improve the visual amenity of the street.

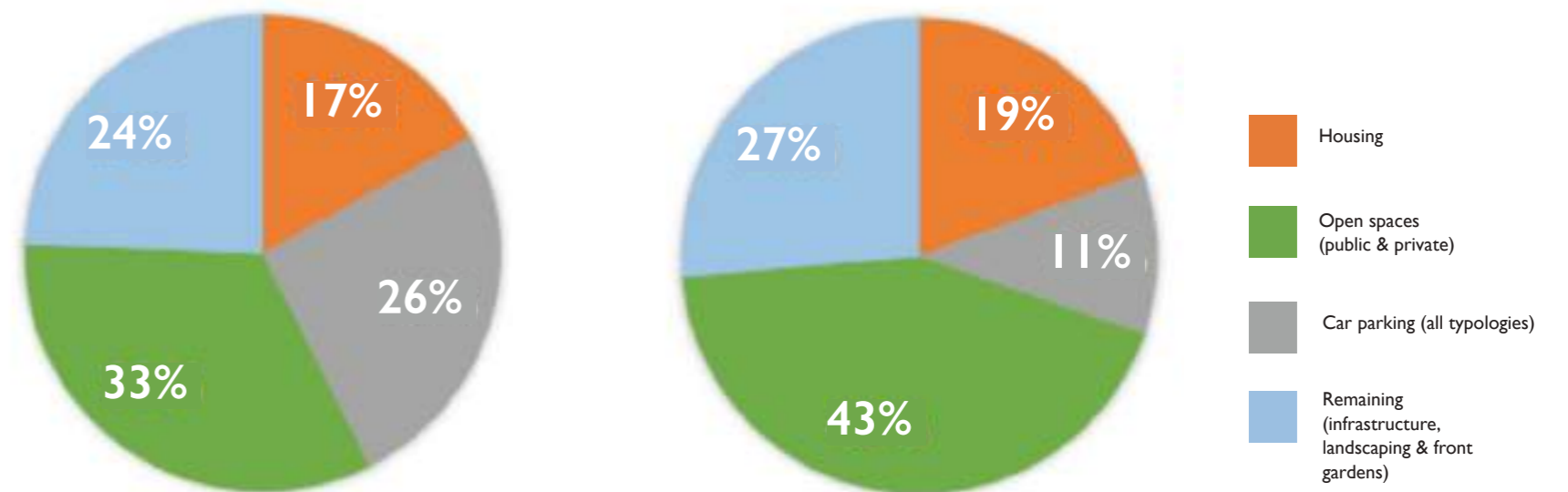


Figure 6.53: Case Study: Radstone Fields, Brackley - Suburban model with rear parking courtyards. This case study relates to the layout illustrated in sketch 1 above, resulting in a larger proportion of the land take used for parking.

Figure 6.54: Case Study: Great Kneighton, Cambridge - Mixed and flexible approach to parking. This case study relates to sketches 2/3 above, illustrating how the land take used for car parking can be traded off for an increase in open space, to serve a community.

Northstowe is a Healthy New Town and as such should promote active travel. To encourage walking, densities within Northstowe are generally higher than in some other more suburban development. Many developments around the country, particularly those with high parking standards, apply similar parking typologies, mostly semi-detached houses with on-plot parking. This approach has the following disadvantages:

- more land used for parking than homes;
- many parking areas are serving that single purpose and do not have any flexibility, i.e. amenity value or future opportunity for change;
- increased area taken up for parking reduced land available for public open space; and
- additional land take of lower densities is given to car parking and does not benefit residents in terms of larger gardens or more landscape.

The quality of place of Phase 3A would be improved through the adoption of forward thinking parking strategies. This approach allows for future lifestyle changes and potential shifts in mindset towards private car use.

The masterplan approach comprises the following design principles:

- **providing a range of parking opportunities, designed for specific areas;**
- **creating more flexibility, i.e. clustered unallocated parking;**
- **integrating parking positively into the public realm;**
- **making use of the space above parking; and**
- **exploring opportunities for a higher proportion of parking spaces to be provided remotely.**

### Creating positive spaces

Parking spaces have to be designed into the public realm in a positive manner. On-street parking opportunities should be clearly defined and spaces delineated. This encourages the use of these spaces. The needs of cyclists and pedestrians have been given priority throughout the design and planning process. The future management of the town has to ensure that these routes remain convenient and accessible and do not become blocked by for example anti-social parking.

Many studies, including the recently published report Transport for New Homes and Housing Design for Community Life have identified the negative impact that inappropriately parked cars can have on the ability for people to walk, in particular the more vulnerable members of our community.

The report: Housing Design for Community Life further links cars, in particular anti-social car parking to the ability for children to be play safely within their neighbourhood. Apart from the impact on the ability of people to live a healthy lifestyle, wrongly parked cars can also undermine the quality of place.

### Low density approaches

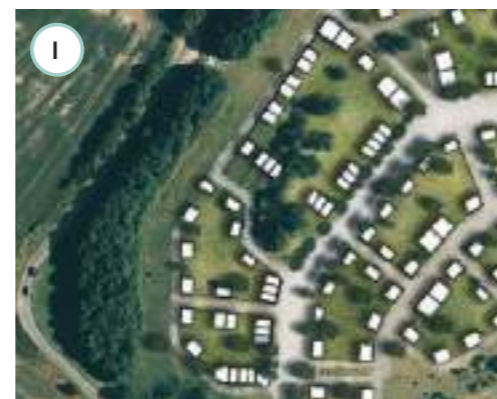


Figure 6.55: On-plot car parking (image above shown space for car parking on driveway and within an integral garage)



Figure 6.56: Car parking incorporated into the shared surfacing of quieter residential roads.

### Medium density approaches

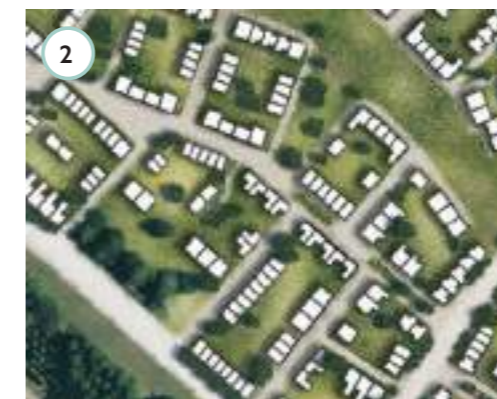


Figure 6.57: On-street car parking integrated into public realm.



Figure 6.58: Integrated garages.

### High density approaches

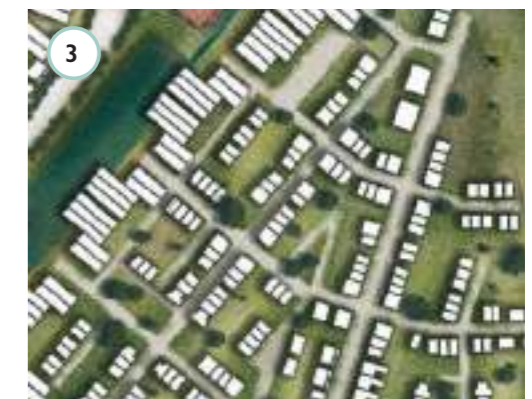


Figure 6.59: Parking within green spaces and public realm.



Figure 6.60: End of street communal parking. Another alternative to communal parking is to provide a communal 'parking barn' at the end of a street or urban block. This allows the internal streets to only be accessible for pedestrians and cyclists, with the exception of disabled, servicing and drop-off requirements.

1

25-35dph

2

35-50dph

3

50-60dph

## 6.5 Community

### 6.5.1 Introduction

The Local Centre and associated Neighbourhood Square and Park will be the focal point for community activity. The Local Centre has been located at the heart of Phase 3A, to ensure easy accessibility from within Northstowe and further afield. The Centre adjoins the busway and will be connected by pedestrian and cycle routes. The Local Centre is the primary location for commercial and community space as well as providing the opportunity for markets and events.

Secondary mixed-use zones have been identified in key locations across the site, including along the main boulevard approach (the Central Avenue) to the Local Centre, adjacent to the school sites and at other key points, such as adjacent to the Runway Lake. These are conceived as residential areas with adaptable ground floors where small businesses could be incorporated. The provision of these secondary areas creates a level of flexibility within the masterplan that allows for future changes in employment patterns and enables local shops, cafés and small businesses to set up in key zones of activity.

### 6.5.2 Working and Living in Northstowe

The opportunities for employment within Northstowe, notably the Local Centre together with measures to facilitate home working will support the development of the town as a place to live and work. For a more detailed explanation of the employment provision in Phase 3A please refer to the Economic Development Strategy submitted as part of this application.

#### Working in Phase 3

The facilities and services provided in Phase 3A will complement, but not compete with the provision that will come forward as part of Phase 2.

Homeworking is becoming of increasing importance and within a town that is looking towards the future, such as Northstowe, opportunities for home working need to be accommodated.

The Economic Development Strategy sets out the evidence and considerations in relation to homeworking. The findings from the Strategy include (not exclusively):

- IT/Creative and Digital sector has one of the highest proportions of homeworkers. This is relevant to Northstowe as many of the growth sectors in and around Cambridge that are likely to be present in Northstowe are within the IT/Creative and Digital sectors.
- A National Small Business Association report revealed that arrangements for working from home jumped 44% in 2012; and
- A desire for a better work-life balance, coupled with converging technologies and the digitisation of products has led to 4 million people leaving the office behind to work primarily from home.

Evidence demonstrates that homeworking is likely to be a significant factor in Northstowe's economy, especially over the next decade and a half when the development is being built out.

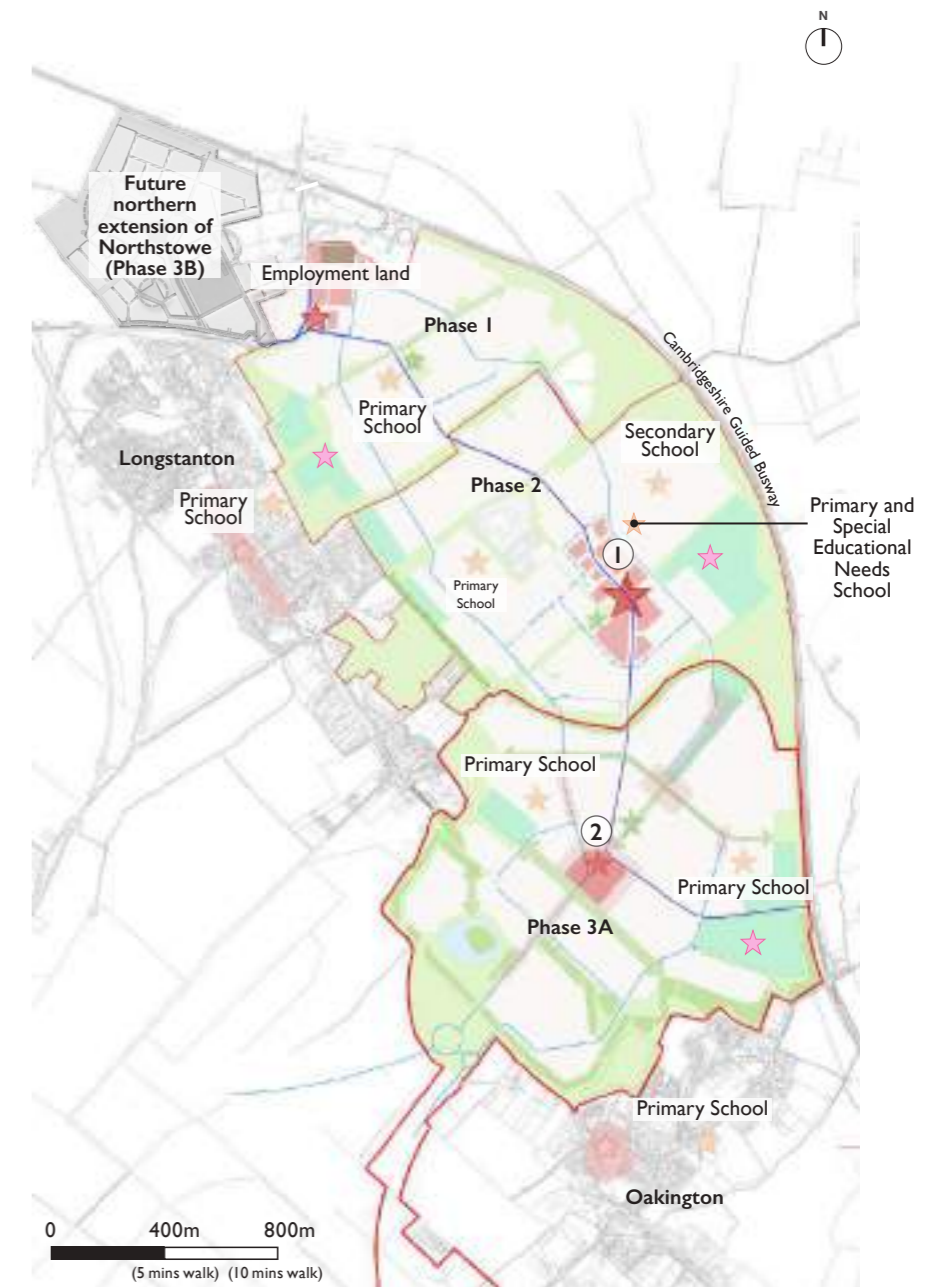


Figure 6.61: Community facilities within Northstowe.

- |   |   |
|---|---|
| <p><b>1 Northstowe Town Centre:</b><br/>Community events space, Civic square, Market Hall, Town Park and Gardens, Education campus, Museum / Gallery, Workshops and a range of employment spaces, Civic Hub</p> | <p><b>2 Phase 3A Local Centre:</b><br/>Range of employment spaces, retail/leisure/food and drink facilities, flexible community space, Neighbourhood Park spaces, Civic Hub</p> |
|---|---|





Figure 6.62: Indicative photos illustrating the character of community facilities.



Figure 6.63: Illustrative sketch of Local Centre and the sequence of spaces along the former runway alignment.

### 6.5.2 Living in Phase 3A

A range of housing types and tenures will be provided within Phase 3A, accommodating for people of all ages and abilities including affordable homes for rent and purchase, self-build and custom build homes. This will help to establish a mixed community and addresses local housing need.

The homes are intended to be delivered tenure-blind to ensure consistency in high quality construction methods. The different types and tenures will be appropriately integrated into the neighbourhoods to ensure a cohesive community.

### 6.5.3 School Provision

The two Primary Schools proposed within Phase 3A are key community facilities. Both schools have been proposed as 3 Form Entry, with the western school site having the ability to extend to 4 Form Entry if required in the future. The location of the schools has been influenced by the following key factors:

- Provision and location of schools within Phase 2;
- Ensuring that the 800m catchment area covers as much of the proposed development as possible;
- Connectivity and ease of access from both within or adjacent to Northstowe and from surrounding settlements;
- Ensuring that the schools are located within or adjacent to the green network proposed within the Phase. This creates and enhances the opportunity for Forest Schools, for example, within the existing tree belts; and
- Clustering the schools with informal and formal sports provision, for example the BMX track, which could be used, for example, by teenagers picking up younger siblings.
- Opportunity to create a community node.

Figure 6.67 demonstrates that the proposed location of the two schools covers the vast majority of the development with their 800m catchment areas, with any remaining development being within the catchment area of Oakington C of E Community Primary School.



Figure 6.64: Illustrative layout for the western Primary School (3FE).



Figure 6.65: Illustration indicating how the western Primary School could be expanded to a 4FE. Note: The school could alternatively be delivered as a 4FE school at the outset if required.



Figure 6.66: Illustrative layout for the eastern, 3FE, Primary School.













Figure 6.67: Diagram illustrating 800m catchment areas for the proposed and existing schools in the area.

## School Connectivity

The two proposed Primary School's have been incorporated into the green movement network structure so that sustainable and active modes of transport are attractive options for new and existing residents to reach these destinations. The key links that ensure the schools are well connected by cycle and walking routes are:

- green link through Mill Road Linear Park which incorporates footpaths and cycleways that connect into the wider green network that permeates the site;
- footpaths and cycle routes that connect into the existing cycleway that runs along the Cambridgeshire Guided Busway;
- network of safe, segregated cycleways along the primary routes in Phase 3A;
- Greenway connecting the two Primary Schools, passing the southern edge of the Runway Lake, which will incorporate a footpath and cycleway in an attractive landscaped setting; and
- wider network of public rights of way and pedestrian and cycle routes within Phase 2.

-  Application Site Boundary
-  Busway alignment
-  Potential bus routes (with bus only like to Oakington)
-  PRoW - Existing Bridleway
-  PRoW - Existing Footpath
-  Mixed pedestrian/cycle route
-  Primary street
-  Illustrative secondary/tertiary street alignment
-  800m radius (10 minute walk) isochrone from proposed Primary Schools and Local Centre
-  Categories of users  
**Red cyclist** - segregated cycleway along primary street  
**Grey cyclist** - Other cycle route
- 1. BMX track
- 2. Primary School
- 3. Phase 3 Eastern Sports Hub
- 4. Mill Road Linear Park
- 5. Local Centre and Neighbourhood Square
- 6. Neighbourhood Park
- 7. Primary School
- 8. Phase 3 Western Sports Hub

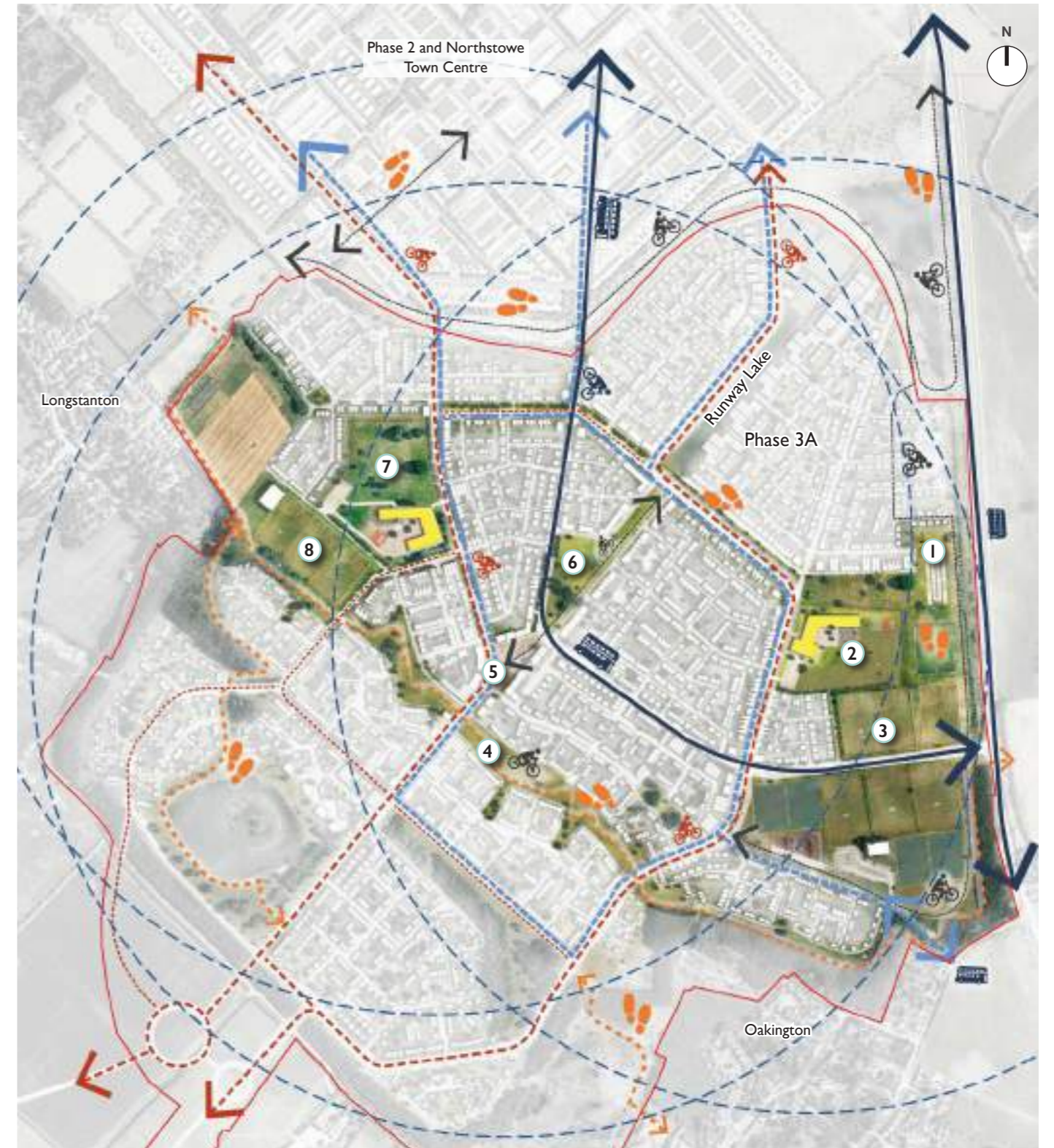


Figure 6.68: Connectivity of the two Primary Schools via active and sustainable modes of travel

## 6.5.4 Open Space and Activity

Northstowe is one of the NHS's 'Healthy New Towns' (HNT) and the commitment to create a healthy community through infrastructure and place shaping includes:

- 'The delivery of open space, landscape, and green infrastructure to create nudge and pull factors and maximise opportunities for positive lifestyle choices around obesity.'
- 'The provision to cater for all ages and abilities with a focus on dementia and older people.'

The recreation strategy for Phase 3 emphasises semi-formal and informal space above formal playing fields and supports the above commitments in that they:

- more directly contribute towards positive lifestyle choices, such as informal activity of walking and cycling; and
- are more likely to be used by the older generations and those that are obese. Both of these groups of people are less likely to engage in formal sports.

Those that are most sedentary and therefore at risk of obesity benefit the most from increased activity, with even small increases in walking and cycling helping health.

In the case of neighbourhood design, improving neighbourhood walkability (i.e. an area that is supportive of walking) and infrastructure designed to promote walking and cycling, was found to be associated with numerous positive health outcomes, including: increased physical activity levels and improved social engagement among older adults. (Northstowe Phase 2 Healthy Living and Youth & Play Strategy) The comprehensive approach proposed for Northstowe Phase 3 increases as many walkable features as possible to design activity-friendly neighbourhoods.

Studies have shown that adults who lived in the most activity-friendly neighbourhoods did 48 to 89 minutes more physical activity per week than those in the least activity-friendly neighbourhoods. (Ref [www.gov.uk/government/spatial-planning-for-health-evidence-review](http://www.gov.uk/government/spatial-planning-for-health-evidence-review))

Providing a range of informal and semi-formal space throughout the neighbourhood supports opportunities for activity on people's doorstep and as part of their daily routine. This contrasts with the use of areas of formal playing fields that residents will need to travel to. Research has shown (supported by local parking standards) that many participants of formal sport drive to the facilities.

Further, there is evidence about the additional benefits of cycling as active travel (as part of the daily routine) versus recreational cycling. For example, analysis of data from the Active People Survey shows that people who cycle for travel rather than simply recreational purposes are four times as likely to meet physical activity guidelines as those who do not.

Natural environments such as woodlands, gardens, parks, grassland and farmland, are supportive of children's physical activity. As a result of these findings, the open space strategy for Phase 3A seeks to:

- provide contact with nature, by retaining and integrating existing woodlands, the Military Lake and as many existing trees as feasible and by creating new attractive open spaces; and
- create varied opportunities for everyone to adopt a more active lifestyle and enjoy time outdoors, either by playing, walking, sitting or engaging in sporting activities.

The retention of the natural landscape features where possible (Military Lake, tree belts), alongside the desire to provide a wide range of informal recreational opportunities across the site has resulted in the open space strategy for Phase 3A providing substantially more open space than required by policy. This includes 36.80ha of informal open space.

The open space strategy is described in more detail in Chapter 7. The key design principles of the open space strategy are:

- **incorporating ancillary publicly usable open space over and above the Strategic Open Space within the residential development areas to ensure each home to be within a 3 minute walk of a public open space;**
- **designing open space as multifunctional space incorporating, recreation, formal and informal play, drainage and ecological functions;**
- **connecting open spaces by a network of safe routes and green links to give people a connection with the landscape, provide 'doorstep play' and create an integrated network of green infrastructure;**
- **retaining existing landscape features, in particular existing trees, and integrate these into detailed design proposals, street scenes, front and back gardens wherever possible;**
- **enhancing the landscape to compliment the architecture and create a desirable setting for new homes; and**
- **ensuring that green links and open space are well overlooked by development frontages.**



A range of different play spaces will be integrated into the green infrastructure strategy. Natural settings and features will influence these play spaces where appropriate.

## Play Provision

Play provision must meet the needs of the new development as well as offering opportunities for social interaction with residents from surrounding neighbourhoods.

The following designated play provision must be provided:

- 1 nr Neighbourhood Equipped Area of Play (NEAP);
- 5 nr Local Equipped Area of Play (LEAP); and
- numerous Local Areas of Play (LAP) to ensure access from all residential properties within a 100m radius.

Throughout the provision of the above, the following design principles are relevant:

- play provision must go beyond the offer of designated play spaces and must include playful landscapes and routes for people of all ages and abilities; and
- play areas must be located where they are easily accessible and where natural surveillance is good.

Open spaces such as playing fields, play areas, community planting and allotments will need to be designed and landscaped to a high standard. These open spaces must link to, and integrate with, other landscaped and amenity areas as well as contribute to the overall quality of the setting for the urban fabric of Northstowe.

The value of the landscaped areas within the town will be enhanced by linking them together to form a network with the landscapes created on the periphery of the town, in the country parks and through to the wider countryside.

In addition to the above, opportunities to encourage doorstep play and 'play on the way' will be explored in the future design code(s).

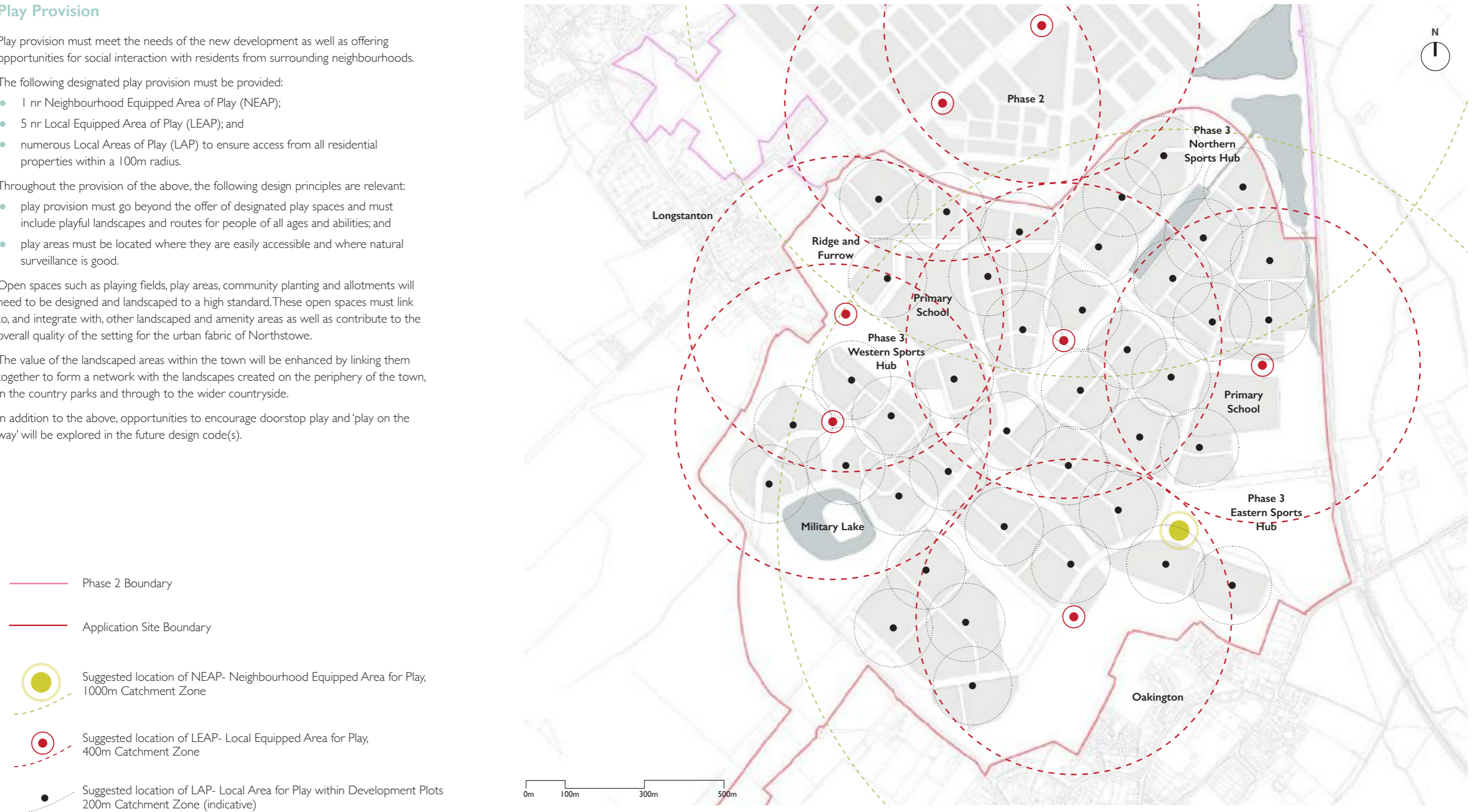


Figure 6.69 Plan showing suggested locations of Formal Play Provision in Phase 3A

## Integrating Public Art

### Public Art Strategy

The public art strategy for Phase 3A will draw on the strategy set out within the Phase 2 Design Code (2017). This section sets out the approach.

Public art can play an important role in the creation of a thriving and distinct new community by making direct connections with the character areas of the town, the historic uses of the area and the values of the people that live there.

The public art provision shall be informed by SCDC's Public Art SPD (2009). The SPD refers to public art as permanent works, temporary, ephemeral or time-based contributions by an artist or crafts-person in any publicly accessible location. The 'art' can be part of the public realm, open space, and architecture of the development.

To ensure there is a coordinated and coherent approach to the site all art should find inspiration and be influenced by the following supporting themes:

- Aviation
- Iron Age and Roman heritage
- Pioneers
- Landscape / nature

Public art commissions including installations, functional, practical urban furniture and way-finding features may be influenced by the above themes. Where possible, these should be integrated within the fabric of buildings and spaces rather than being conceived as isolated add-ons.

Public art will also have an important part to play in being a voice for the people and the place, in promoting a shared sense of community in which everyone has a role and in celebrating a sense of place for all.

As a key requirement, the art must always be developed in consultation with, and to be accessible for, the whole community.

Educational elements that tell residents and visitors about the history and landscape qualities are positive ways of integrating art and education.

### Maintenance

Artworks must have low maintenance requirements, be durable and vandal proof. The artist commissioned is responsible for outlining any maintenance requirements at the time of proposal. It should be confirmed that there is available resource to comply with these requirements before any artwork can go into production.

It is intended that a Design Code(s) for Phase 3A will provide further guidance on the provision of Public Art.



Interactive playable public art



Ecological/Educational Interpretation Points



Ecological/Educational Interpretation



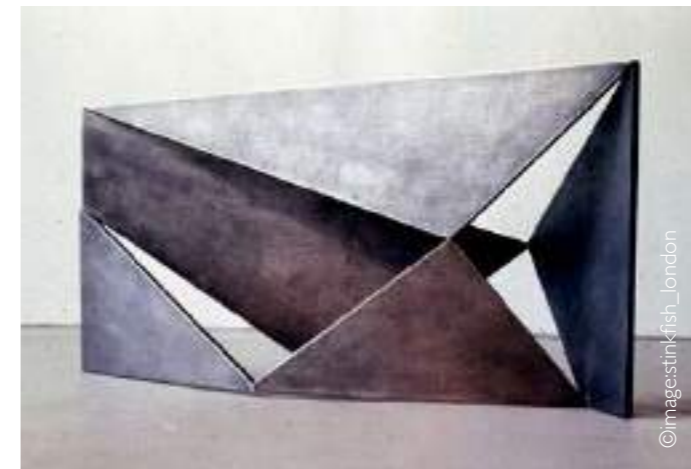
Feature Building Façade



Public Art Focal Point



Youth-Focused Public Art



Interpretation of Site History



Interpretation of Site History

Figure 6.69: Examples of public art

**7**  
**Landscape Strategy**

# 7 Landscape Strategy

## 7.1 Introduction

This chapter sets out an overview of the Landscape Strategy for Phase 3A. For a more detailed explanation of the development about the strategy, please refer to the Landscape Strategy document submitted as part of this application.

## 7.2 The Landscape Vision

**The landscape vision for Phase 3A is: Northstowe will be a sustainable and vibrant new community that is inclusive and diverse with its own distinctive local identity which is founded on best practice urban design principles, drawing on the traditions of fen-edge market towns, which encourages the high quality traditions and innovation that are characteristic of the Cambridge Sub-Region.**

**The provision of a network of public open spaces, is envisaged, aimed at improving the visibility, connectivity and accessibility for a diverse range of uses, drawing physical health, social and wellbeing benefits for the local community.**

The vision for the landscape contribution to the Phase 3A Masterplan, has been built around several key considerations:

- Firstly, the existing landscape character of the surrounding area, with which Phase 3A aspires to connect, has been an important driver to maximise the use of natural resources and the benefits to the community who live there.
- Secondly the environmental, economic and social opportunities and constraints have shaped the Landscape Strategy and its contribution to the wider development goals.
- Thirdly, to support the wider development vision to meet local housing needs and deliver a liveable place for its community.

The Landscape Strategy seeks to contribute to the Phase 3A Northstowe Masterplan, through the provision of usable, open spaces that are accessible to residents of Phase 3A and adjacent communities via a connected network of corridors, footpaths and cycleways. At the same time, the Landscape Strategy seeks to provide an appropriate setting for the development that connects into its surroundings, integrates ecology and makes the most efficient use of existing natural resources.

The benefits of this include enhanced Green Infrastructure, natural way-finding and access to recreational areas, supporting the health and well-being of the residents of Northstowe. The following sections of this report explain the components and objectives that seek to deliver this vision and the overall aims of the Northstowe Masterplan.

The illustrative landscape Masterplan on the following page, expresses the vision graphically allocating open spaces, transport corridors and residential areas, arranged across the Phase 3A area and connecting with Phase 2 and existing communities.

Final configuration, type and content of open spaces will be subject to Reserved Matters and later design development.

## 7.3 Cambridgeshire Green Infrastructure Strategy 2011

The Cambridgeshire Green Infrastructure Strategy 2011 sets out four overarching objectives to ensure that the Green Infrastructure Framework will:

- contribute positively to helping to address the key issues facing Cambridgeshire; and
- contribute to delivering the required sub-regional gains required by regional and local policy.

### Objective 1: Reverse the decline in biodiversity

“Conserving and enhancing biodiversity and geodiversity, through the protection and enhancement of habitats and wildlife sites and linkage of key habitats”.

### Objective 2: Mitigate and adapt to climate change

“Manage the impacts of climate change through developing initiatives that reduce greenhouse gas emissions and that actively take carbon dioxide out of the atmosphere; promote access to green routes that reduce the need for travel by car; and create Green Infrastructure that supports our adaptation to a changing weather pattern through, for example, flood control”.

### Objective 3: Promote sustainable growth and economic development

“Green Infrastructure plays a key role in placemaking, ensuring Cambridgeshire remains a place that people want to live and invest in. It can help attract and keep high quality workers and attract visitors, as well as contributing to the character of our settlements and countryside to create attractive and distinctive new places”.

### Objective 4: Support healthy living and wellbeing

“Green Infrastructure can support healthy and active lifestyles, support good mental health, inspire learning and create a sense of community”.

These objectives have influenced the Landscape Strategy and masterplan for Northstowe Phase 3A.



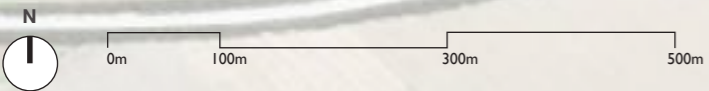
Figure 7.1: Existing Military Lake.



# Northstowe New Town Phase 2



Figure 7.2: Illustrative Landscape Masterplan.



Aerial map background, Google Earth Pro, 2018

## 7.4 Landscape Masterplan Response

### 7.4.1 Approach

A holistic approach has been taken to incorporate existing landscape and ecological assets: tree belts, groups, individual trees and hedges, ponds and the Military Lake where such features can make a significant contribution to the development of Northstowe. The masterplan has been guided by the need to incorporate these important resources through sensitive integration of open spaces and areas of built form whilst making the best use of the existing tree resource. The Landscape Masterplan incorporates the following key features:

- **Retention of natural inherited assets** to establish a strong sense of place.
- **The creation of new connected multifunctional habitat mosaics** linking new grasslands, tree planting, wetlands and water; to form a biodiversity rich landscape for wildlife and enjoyment by new and existing communities.
- **Urban cooling and carbon sequestration** through proposed tree planting.
- **A strong network of green corridors** and multifunctional green and blue spaces and corridors which will connect valuable assets, improving local links, biodiversity and deliver hydrological benefits as well as connecting the existing PRoW network.
- **Provide strategic linkages** between key internal spaces as well as surrounding countryside. The tree belt along the airfield road between Longstanton and Oakington would be retained and enhanced with additional planting to provide a strategic landscape boundary to the new town.
- **Biodiverse Streets** and spaces including edible streets and community orchards to promote local food production with provision for community allotments.
- **Safeguard and enhance ecological dark corridors**, for example bat foraging routes.
- **Outdoor gyms and active trails** including potential heritage and art trails could be provided along some of the green corridors.
- **The landscaped areas and green corridors** within Northstowe will be designed to connect to each other and to the green areas on the periphery of the town and the wider countryside beyond to create a comprehensive green and landscaped network including the Mill Road green corridor and strengthening of the strategic green corridor along CGB. A number of these Green Corridors will penetrate into and through the urban area, drawing upon the character of Cambridge and existing landscape features. As well as adding visual amenity, these will offer varied recreational opportunities and will also act as wildlife corridors and create high quality green streetscapes.
- **Create high quality green streetscapes.**
- **Open spaces** such as playing fields, play areas, community planting and allotments will need to be designed to a high standard and link to and integrate with other landscape and amenity areas.

The following sub-sections aim to explain how the Phase 3A masterplan has responded to site-specific challenges and how maximum benefit has been drawn from elements of Green Infrastructure.

### 7.4.2 Green and Blue Infrastructure Quantum

The proposed new green open spaces will create a wide variety of woodlands, wetlands, meadows, allotments, and recreation areas all connected by green corridors with retained trees, hedgerows and water courses.

A network of formal footpaths and cycle routes will be integrated with streets and lit, hard surfaced paths, to create direct access between neighbourhoods.

An additional network of leisure routes will provide routes with unlit rural paths, linked to surrounding footpaths and existing and proposed landscape assets.

The illustrative landscape masterplan (DAS Figure 7.2) shows the existing landscape features on and in close proximity to the Application Site as well as showing the location of the various proposed landscape features. This includes the parks, play areas, sports pitches, community orchards and allotments. Underpinning development in the application there will be 37.58% of Green Infrastructure creating a healthy, biodiverse and attractive landscape for both living and working. This will include:

- Parks and Gardens : 8.55ha
- Natural and Semi-Natural Urban Green Space : 34.92ha
- Civic Space/Urban Parks : 3.22ha
- Outdoor Sport (formal sports pitches) : 13.55ha
- Allotments and Community Space : 4.11ha
- Open water bodies : 3.29ha

The Green Infrastructure will also provide cycleways footpaths and bridleways linking within the new development and to the surrounding areas.

The Green and Blue Infrastructure will be multi-functional, where landscape, biodiversity and water management strategies will align to maximise the value of the combined network.

### 7.4.3 Tree, Hedgerow and Existing Habitats: Identification, accommodation and enhancement

The Northstowe Masterplan has been developed with a strong consideration of existing landscape features and habitats from the outset.

An approach was developed that aims to retain existing tree belts and woodlands where possible, balancing these features with the development's residential and access requirements, helping maintain the Application Site's natural landscape setting and drawing ecosystem service benefits.












Similarly, and in collaboration with the environmental and ecological approaches, the Landscape Strategy aims to respond to the requirements of existing natural habitats, helping to preserve and enhance these where possible. For example, the landscape and Masterplan arrangements acknowledge existing badger setts and accommodate safe crossing points, integrating the badger's movements as part of circulation strategies. Existing bat roosts and known foraging routes have also been identified, helping these features to be accommodated within the Masterplan arrangements.

More detail around the identification of existing ecological features, habitats and the importance of them, are captured in the Environmental Statement.

### 7.4.4 Conservation Areas

The landscape character will be maintained and enhanced adjoining St Michael's Mount, at the corner of St Michaels and Longstanton Road.




The green linkage on the northern side of Oakington would comprise additional tree planting of individual trees, groups and copses to reinforce the pastoral parkland nature of this local landscape area. Tree groups would be located so as to shield views through the green separation but at the same time retain a more open character:

-  Tree Blocks to be Retained
-  Public Open Space
-  Local Centre: Neighbourhood Square and Neighbourhood Park
-  Cambridgeshire Guided Bus Way (CGB) & National Cycle Route 51
-  Proposed Dedicated Public Transport and Cycle Corridor Linking Phase 2 and CGB
-  Regional Cycle Route 24 & Pathfinder Long Distance Walk
-  Proposed Indicative Shared Cycle/ Foot-ways
-  Proposed Indicative Segregated Cycle Lanes
-  Proposed Indicative Pedestrian Links to Public Open Space
-  Proposed Indicative Perimeter Trim Trail Route
-  Proposed Indicative Strategic Right of Way

**Green Infrastructure and Recreation**

-  Ecological Enhancement with SUDS
-  Formal Recreational Sports Provisions
-  Play and Community Focus
-  Educational Opportunities
-  Productive Landscape (Orchards, Allotments, Community Gardens and Edible Streets)

**Designations and Assets**

-  Ridge and Furrow Landscape
-  Pond Retained
-  Badger Tunnel
-  Pillbox Locations
-  Water Tower
-  Former Tower Mill, Oakington
-  Toad Breeding

For further information regarding ecological habitats refer to the Illustrative Biodiversity Strategy in Volume 2 of the Environmental Statement



Figure 7.3 Green Infrastructure Overview.

#### 7.4.5 Principles Shaping the Landscape Strategy

The existing landscape character has played a part in a development of the proposed Landscape Strategy and considers the following principles

- Restore and Reinforce and Create a stronger and richer landscape structure across the Application Site, with areas of woodland and tree belts;
- Conserve the rural character of the surrounding countryside and protect the neighbouring conservation areas by creating 'defensible edges' strategic buffers;
- Conserve and reinforce the identity of existing settlements;
- Create areas of new identity through distinctive built form and green / blue infrastructure, that have a sense of place; and
- Create clear legibility of the new settlement in views from the areas outside of the Application Site.

#### 7.4.6 Heritage Assets Highlighted through Green Space and Green Links

There will be the opportunity to improve the setting and access to heritage assets, such as the existing pillboxes and the Military Lake,

A network of footpaths, cycleways and bridleways will form leisure routes and provide opportunities for linking the heritage assets as well as promoting movement in support of healthy lifestyles.

#### 7.4.7 Green /Dark Corridors

The creation of green corridors through the site will support the retention of existing landscape features as well as incorporating SuDS drainage for drainage and flood mitigation, create wildlife corridors, and form recreational routes and character areas within the masterplan. This network of green routes will connect open spaces with the surrounding landscape.

#### 7.4.8 Maximise Biodiversity

The masterplan will retain and enhance existing valuable habitats within the site, providing improved diversity across the site and better connectivity between valuable habitats.

Please refer to Chapter 7 of the Environmental Statement Volume 1: Biodiversity for more information on the biodiversity unit calculations for the Application Site.

#### 7.4.9 Ecology and Semi Natural areas

The Phase 3A Green Infrastructure strategy will celebrate biodiversity, retaining and enhancing habitats including tree belts, mature specimen trees and groups of trees, existing diverse grassland and water bodies. Habitat retention and sympathetic design around them will ensure they continue to support many notable species (for full details of these aspects please refer to the Environmental Statement).



Figure 7.4: The masterplan will retain and enhance existing valuable habitats within the site.

Green Infrastructure Outcomes

Underpinning Principles

- Local Plan Green Infrastructure Policy reference NH/6
- Long Term Stewardship
- Community Engagement
- Resilience

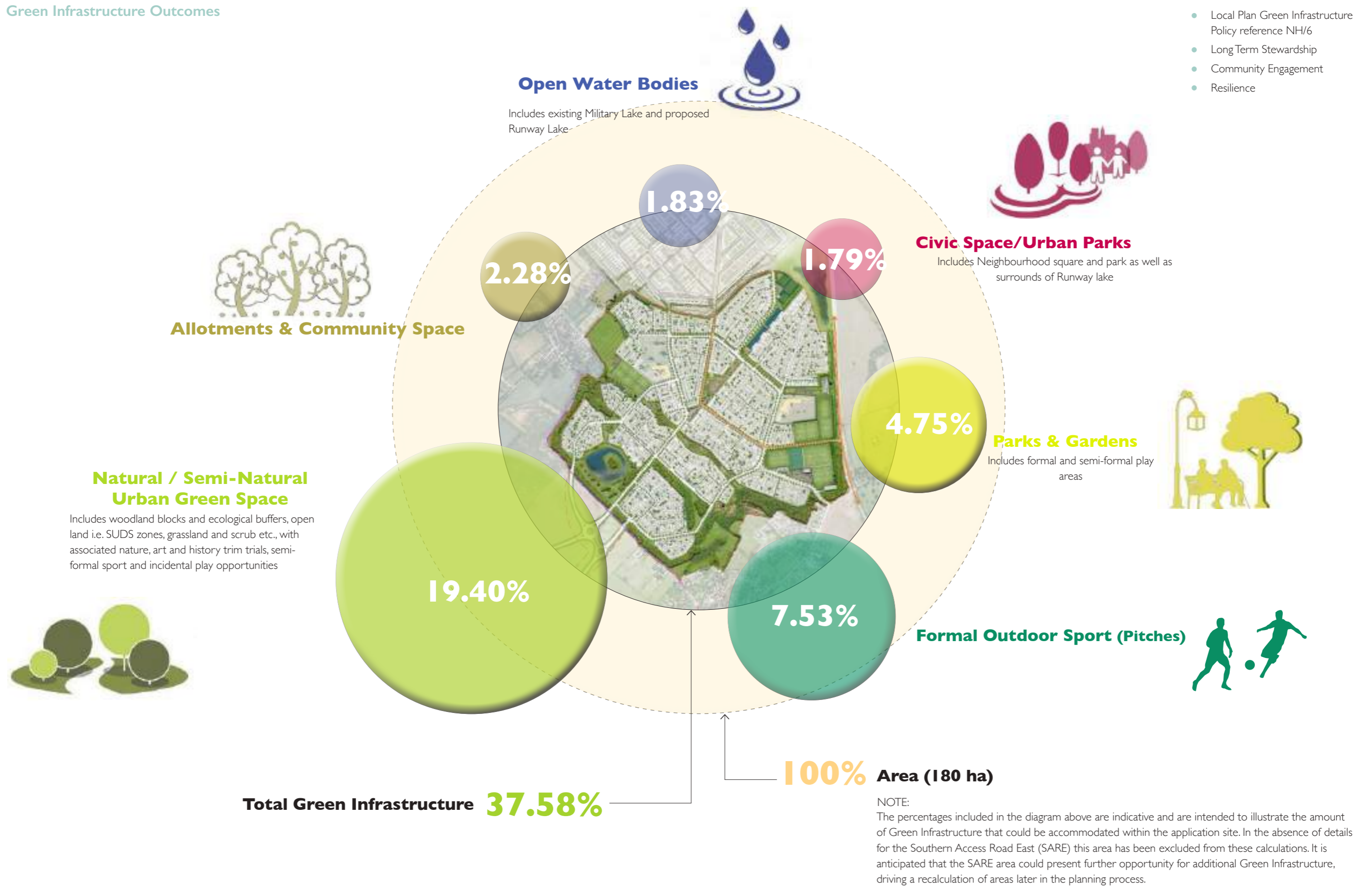


Figure 7.5: Green Infrastructure Outcomes.

### 7.4.10 Open Space Provision

The allocation of open space, within the Phase 3A site has been approached from the perspective of providing open space across the entire Northstowe development. Phase 3A connects with Phase 2 and the surrounding settlements, to help provide access to a range of open spaces.

The proposal for Northstowe Phase 3A is to take an integrated and more flexible approach to public open space through the promotion of a healthy lifestyle. The strategy focuses on the overall provision of open space, whilst recognising the need for spatial content that support semi-formal activities like walking and appreciation of heritage assets as well as organised sports like football, which require large allocated areas. This approach aims to promote as much diverse, accessible, open space as possible, across Phase 3A.

The open space strategy aims to provide contact with nature, by retaining and integrating existing woodlands, the military lake and as many existing trees as feasible. The strategy also seeks to create varied opportunities for everyone to adopt a more active lifestyle and enjoy time outdoors, either by playing, walking, sitting or engaging in sporting activities.

Key design principles of the open space strategy are:

- Incorporating ancillary publicly usable open space over and above the strategic open space within the residential development areas aiming to provide a public open space accessible within an 800m walk of the majority of homes.
- Designing open space as multifunctional space incorporating, recreation, formal and informal play, drainage and ecological functions;
- Connecting open spaces by a network of safe routes and green links to give people a connection with the landscape, provide 'doorstep play' and create an integrated network of Green Infrastructure; retaining existing landscape features, in particular existing trees, and integrate these into detailed design proposals, street scenes, front and back gardens wherever possible;
- Enhancing the landscape to complement the architecture and create a desirable setting for new homes;
- Ensuring that green links and open space are well overlooked by development frontages.



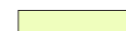
















-  Application Site Boundary
-  Boundaries of Phases 1,2 and 3B
-  School Plot
-  Water Body (existing and proposed)
-  Military Lake
-  Phase 3 Western Sports Hub
-  Ridge and Furrow
-  Local Centre and Neighbourhood Square
-  Neighbourhood Park
-  Runway Lake
-  Phase 3 Northern Sports Hub
-  Phase 3 Eastern Sports Hub
-  Mill Road Linear Park
-  Pocket Park
-  Multifunctional SuDS
-  Greenway
-  Water Park
-  Sports Hub
-  Town Park



Figure 7.6 (right): Open Space Provision - Wider Context\*

\*Figure prepared as an amalgamation of:

Phase 3b: indicative only, planning application work in progress

Phase 2: extract from 'Northstowe Phase 2 Design Code, 2017

Phase 1: extract from 'Northstowe Phase 1 Design and Access Statement, February 2012

### 7.4.11 Open Space Typologies

The open space typologies are illustrated in the adjacent diagram (Figure 7.7), which demonstrates how the typologies have been distributed throughout the phase.

The examples on the following pages aim to illustrate how each of these spatial typologies might look in terms of spatial configuration. Each typology is accompanied by an example plan of its arrangement to help explain the typical look and feel of the different types of place.



Figure 7.7 Northstowe Phase 3 Open Space Typologies Diagram

**Note:** Public green zones within development plots - to be confirmed in later design stages

## 7.5 Typology examples

### 7.5.1 Parks and gardens

#### Mill Road Linear Park (Longstanton to Oakington)

##### Principles

- Recreating Historic Links.
- Orchard Clusters set within meadow planting on grid to align with movement corridor.
- Community Gardens.
- Doorstep Play and trim trail features.
- Lighter linear formal sports provisions such as tennis, table tennis, bowls and petanque squares offering outdoor sport within walking distance of people's homes.
- Wide amenity path and cycleway.
- Retention of Pillboxes, some of which are Grade II Listed, within informal open space

↔ Pedestrian and Cycle Routes and Links

○ Adjacent Open Space

⊙ Formal Play

● Opportunities for Semi-Formal Sport and Imaginative Play

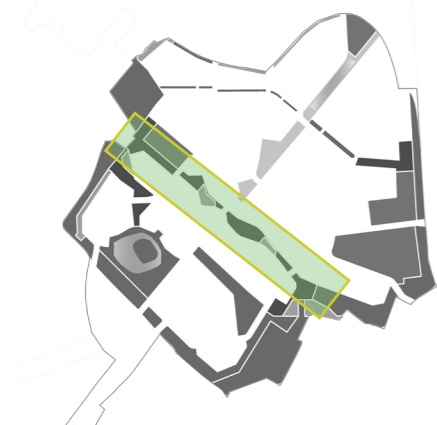


Figure 7.8: Key plan (NTS).



Figure 7.9 Parks and Gardens Example (Illustrative Landscape Masterplan).



## 7.5.2 Natural and Semi-Natural Urban Green Space

### Example: Perimeter Greenway - Oakington Edge

#### Principles

- Strong ecological links within public open space.
- Existing trees and woodland blocks form the framework of this open space and assist retaining the setting to Oakington Conservation Area
- Incorporation of woodland play and green classrooms/Forest School elements & Woodland Nature Trail
- Provide habitat ecotones zones between transitional areas of woodland blocks to the more formal recreational space
- Retention of Grade II Listed Pillboxes within informal open space
- Opportunity to provide a 3m wide Pedestrian and Cycle Link, car free route, enabling connectivity between key community destinations; primary school, and Military Lake promoting sustainable modes of movement around Northstowe.
- Views along green links enable legibility around Northstowe encompassing opportunities for formal and informal recreation and ecological corridors with incidental seating and stopping points with information/interactive interpretation points for site history and wayfinding.
- Potential for informal leisure. A place for residents of Northstowe and Oakington to socialise and interact.

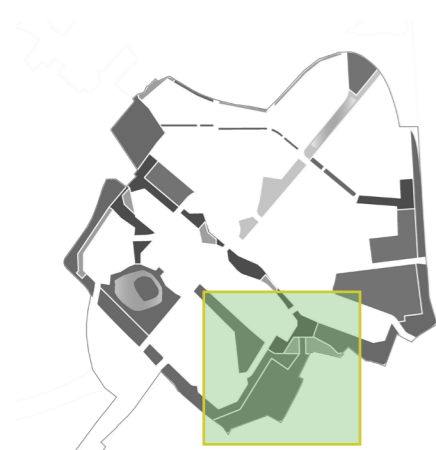


Figure 7.10 Key plan (NTS).



Figure 7.11 Urban Green Space Example (Illustrative Landscape Masterplan).

### 7.5.3 Civic space

#### Neighbourhood Park and Neighbourhood Square

##### Principles

- Recreational areas along linear transitional space.
- High quality public realm and lighting design.
- 4m wide cycleway/footpath link through heart of Phase 3A.
- Flexible hard space and meeting hub along the link between Runway Lake and Mill Road Linear Park.
- Opportunity to integrate café spill out space, seating and play features and cycle parking whilst providing a continuous cycle and pedestrian link north-south.
- Petanque squares offering outdoor sport within walking distance of people's homes.
- Wide amenity path and cycleway.

#### Runway Lake/ Urban Waterfront

##### Principles

- Linear character reflecting alignment of former runway and views north to the wider countryside - opportunity for unique linear waterway
- Long views across linear waterway and primary link to Phase 2 Greenways and Water Park.
- Key vista north at junction point between road link and waters edge which provides a distinct change in character and view
- Opportunity for boardwalk promenade route with level change to provide safe walking along side the water feature separate from the road by high quality defensible/ safe edge
- 4m wide cycleway/wide footpath flanked by open water feature

← - - - → Busway Corridor

↔ Pedestrian Routes and Links

○ Adjacent Open Space

⊙ Formal Play

● Opportunities for Semi-Formal Sport and Imaginative Play

↗ Key Views to/ from Site

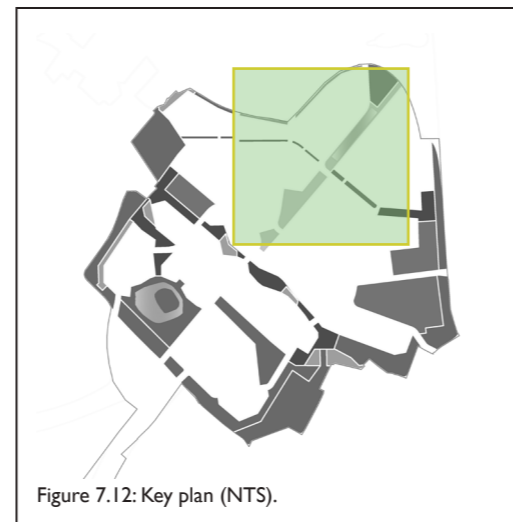


Figure 7.12: Key plan (NTS).

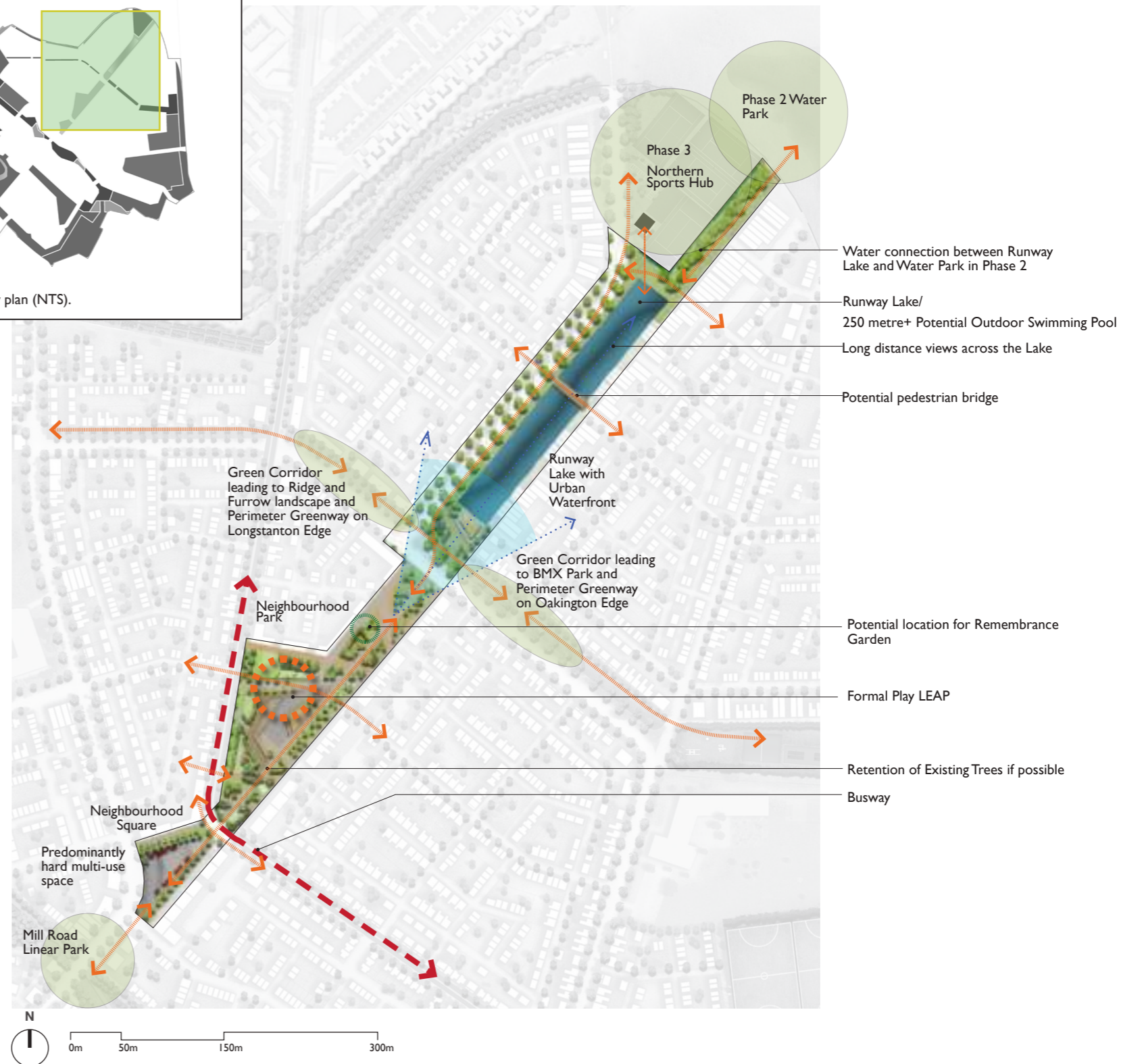


Figure 7.13: Civic Space Example (Illustrative Landscape Masterplan).

## 7.5.4 Formal sport

### Phase 3 Sports Hubs

#### Principles

- Formal sports & open space provision.
- Retention of existing tree belts to provide green linkage and help contain potential light spillage.
- Functional space that is visually open, with natural surveillance provided by adjacent land uses.
- Sufficient offsets provided for safe pitch run off, and buffers to adjoining land uses.
- Facilities are rotated to optimal orientation for each sport.

- ← - - - → Busway corridor
- ← - - - → Primary Street
- ← - - - → Pedestrian Routes and Links
- Adjacent Open Space
- Formal Play
- Opportunities for Semi-Formal Sport and Imaginative Play
- Grass Pitches
- Floodlit Tennis Courts and MUGA
- Floodlit Synthetic Turf Pitch (STP)

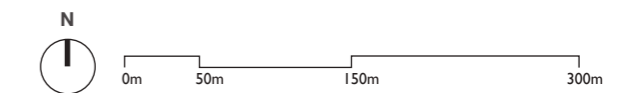


Figure 7.14: Key plan (NTS).

April 2020



Figure 7.15: Formal Sports examples (Illustrative Landscape Masterplan).





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**8**  
**Climate**

# 8 Climate

This section provides a high level summary of the Sustainability and Climate Strategy for Phase 3A. For further information please refer to Chapter 8: Climate of the Environmental Statement Volume 1, and the Sustainability Statement submitted as part of this application.

## Sustainability Strategy

The Sustainability Strategy submitted as part of this application outlines the sustainability approach in line with the requirements set out by national and local planning policy as well as good practice.

The structure of the approach is based on the Arcadis STAR (Sustainability Targeting and Assessment Rating) framework which assists in delivering improved sustainability performance and identifies opportunities for enhancing value during the development of masterplans based on national, regional, local policy, best in class examples and expertise. The Arcadis STAR is shown in diagrammatic format at Figure 8.1.

The Sustainability Strategy demonstrates that the proposed new development will:

- Minimise carbon emissions through the approach to energy use;
- Minimise water usage and flood impacts;
- Provide a sustainable approach to waste and materials and resources;
- Provide for a high level of accessibility by sustainable travel modes;
- Provide substantial amounts of high quality green infrastructure;
- Develop sustainable new buildings;
- Create a cohesive community and culture;
- Support the local economy; and
- Be an exemplar for health and wellbeing.

In addition to the STAR framework and the initial high level objectives, the series of checklist questions published in the policy of Greater Cambridge Sustainable Design and Construction Supplementary Planning Document (GCSDC-SDP) (South Cambridgeshire District Council, 2020) have been considered when addressing the measures in the sustainability approach.



Figure 8.1: Arcadis STAR (Sustainability Targeting and Assessment Rating)

**9**  
**Delivering  
Design Quality**

# 9 Delivering Design Quality

## 9.1 The Planning Application

The first step to delivering design quality is provided through this application, its content as well as the process and conditions that are proposed. The outline application including masterplan/design principles is a first step in a longer process that will lead to detailed design proposals and subsequent implementation.

The outline application has been structured to secure fixed parameters of the Proposed Development which have been assessed in the Environmental Statement. These are secured through the three submitted Parameter Plans:

- **Plan 01:** Open Space and Land Use
- **Plan 02:** Movement and Access
- **Plan 03:** Heights

Within these high level parameters a variety of detailed design approaches could be acceptable in planning terms.

In addition to the Parameter Plans the Application contains a Design Principles Document within Appendix A of this Design and Access Statement. This contains design principles that add further detail to the Parameter Plans and an Urban Design Framework Plan that brings all Parameter Plans together and defines the urban design approach. It is envisaged that all subsequent design stages are to be in substantial conformity with the Design Principles Document and that this will be secured through a planning condition. It brings together the Parameter Plans to illustrate how the different elements of green space, land use and movement interact with each other. Frontages are identified onto public open spaces and landscape features. In addition, frontages are expected to overlook all streets and spaces. These principles will inform future Design Coding.

The Design and Access Statement, illustrates the Parameter Plans and the design principles and demonstrates how the high level principles can lead to a high quality design.

Following approval of the Application and prior to the commencement of development, Homes England is committed to producing Design Code(s). These will follow the high level principles and parameters established through the Application and inform the subsequent Reserved Matter applications. It is expected that a condition attached to the outline planning approval will require the preparation of the design code(s). At this stage further engagement with stakeholders and the communities are expected.

This process is illustrated in the diagram to the right.

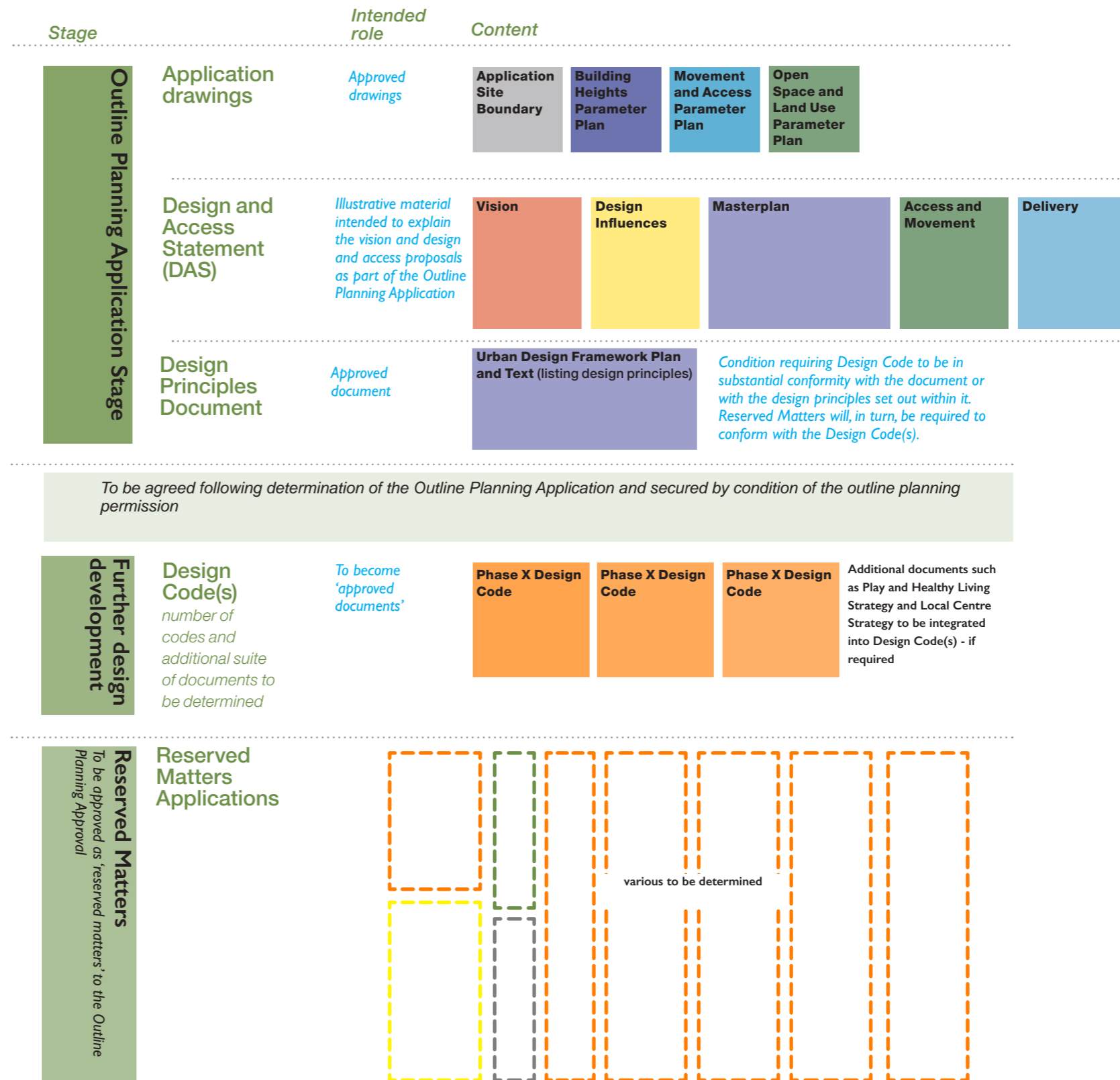


Figure 9.1: Delivering design quality through planning



## 9.2 Building for Life 12

Homes England is committed to delivering design quality and has its internal Design Quality Assessments, which are being used when selecting their development partners. The Homes England Strategic Plan for 2018/19–2022/23 refers to their ambition to show leadership on design, and their mission is supported by the desire to 'create a more resilient market', including 'promoting better design and higher quality homes'. Homes England aims to improve design quality through the use of Building for Life 12 (BfL12).

This is an industry recognised initiative that has been widely adopted across the house building industry. Its success has secured support from government, and it is referenced in the revised National Planning Policy Framework under Section 12, 'achieving well-designed places'.

Homes England will use the BfL12 criteria throughout the whole life of a project, as a 'common thread' of quality assessment. The initial step of this has been demonstrated within this DAS and the BfL12 pre-assessment, included in Appendix B.

## 9.3 Development Partner Selection

Homes England's Strategic Plan encourages the use of a range of different developers, including SMEs and self-builders. The phasing and parcel strategy is envisaged to support this by defining parcels of different sizes. The developer selection process will utilise the future Design Code(s) to ensure development partners fully understand the design quality aspirations.

## 9.4 Master Developer Approach

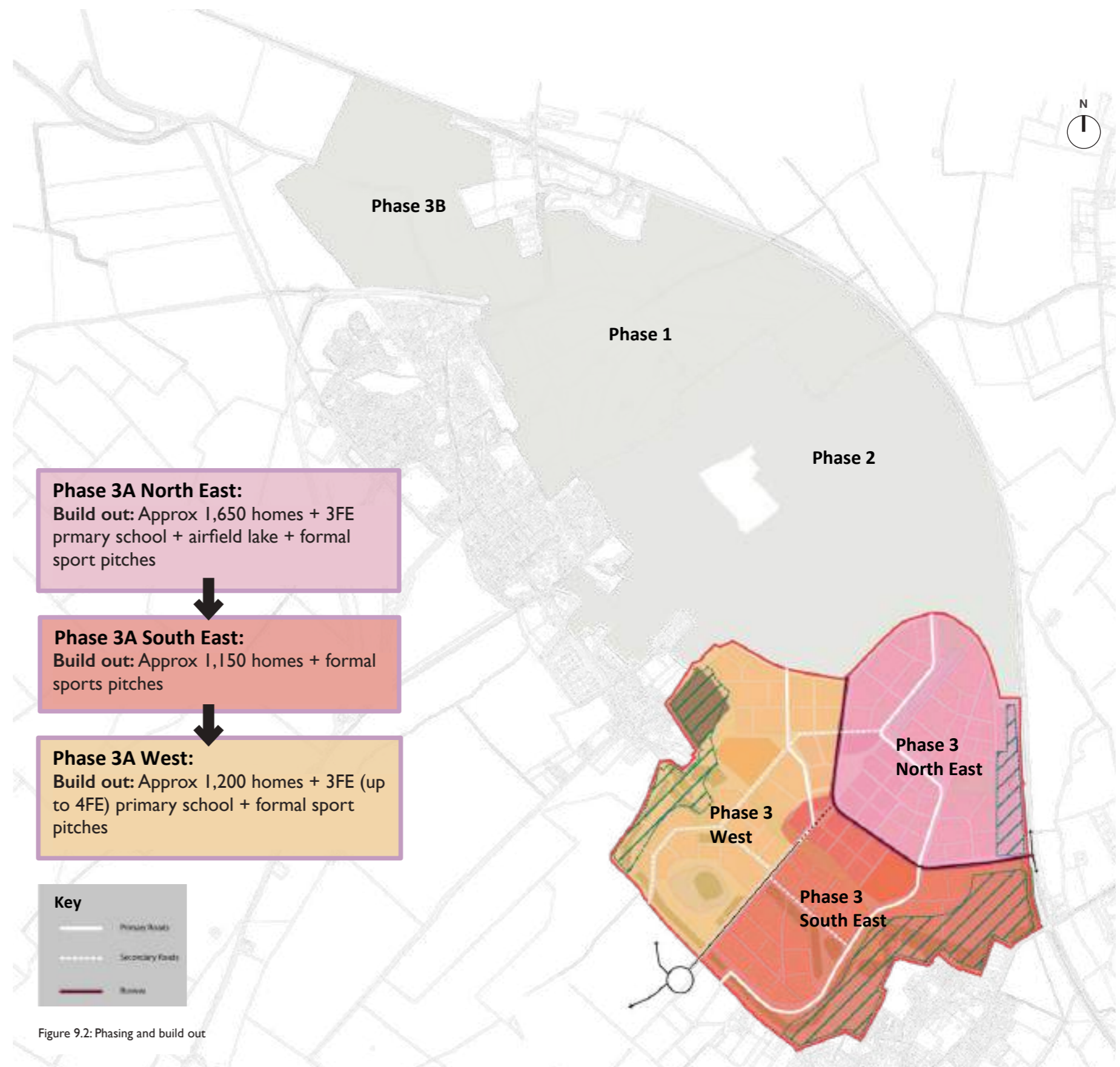
Homes England will be acting as Master Developer for Phase 3A. As currently planned, they will deliver the primary infrastructure, strategic spaces, greenways and primary and secondary streets. Their long-term involvement and use of building leases will maintain control, ensure consistency/overview and help to ensure quality.

## 9.5 Phased Approach

Phase 3 will be delivered in a phased approach. This Application contains an indicative high level phasing plan. As further detail is developed it will be refined. The following principles would influence the Phasing Strategy:

- Placemaking
- Developing a Community
- Buildability
- Movement Network

It is intended that Phase 3A will be delivered alongside Phase 2 to expand the range of homes available, increase the number of 'outlets' and maximise pace of delivery.





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# Appendices



# NORTHSTOWE

## Phase 3A

Appendix A: Design Principles Document



Homes  
England

# Appendix A: Design Principles Document

## Role and Status of the Design Principles Document

This Design Principles Document comprises the Urban Design Framework Plan (Figure 10.1) for Phase 3A and an accompanying set of key Design Principles. For the purpose of this Design Principles Document, some of the text is repeated from the Design and Access Statement. This document is to be read in conjunction with the three submitted Parameter Plans:

- **Plan 01:** Open Space and Land Use
- **Plan 02:** Movement and Access
- **Plan 03:** Heights

Within these high level parameters a variety of detailed design approaches could be acceptable in planning terms.

The Design and Access Statement illustrates the Parameter Plans and the primary urban design principles and demonstrates how the high level principles can lead to a high quality design. This Design Principles Document extracts the primary urban design principles identified in the DAS. The Urban Design Framework Plan (Figure 10.1) illustrates the primary urban design principles and brings together the Parameter Plans to illustrate how the different elements of green space, land use and movement interact with each other. Frontages are identified onto public open spaces, landscape features, streets and spaces. These primary urban design principles should guide the development of Phase 3A and inform future Design Codes.

Figure 9.1 (Chapter 9) in the Design and Access Statement illustrates how the Design Principles Document is intended to relate to other documents - either submitted as part of this outline application or to be submitted in the future.

It is envisaged that an appropriate condition will ensure that future Design Code(s) and Reserved Matters applications are in conformity with these design principles.



- Application Site Boundary
- Residential built development and ancillary open spaces
- Indicative outline and location of primary attenuation areas
- Green buffer (including multifunctional green space)
- Indicative location of playing fields
- Retained Military Lake
- Indicative location of Local Centre (including employment, community, retail and associated services, food and drink, community, leisure, residential uses and other accommodation)
- Indicative location of secondary zones (including employment, community, retail and associated services, food and drink, community, leisure, residential uses)
- Retained woodland blocks
- Indicative outline and location of Runway Lake
- Indicative location and size of pocket parks
- Indicative location of greenways
- Indicative location of primary street
- Indicative location of secondary street
- Busway (including cycle route) - developed as part of Phase 2
- Indicative location of future tertiary routes and sub-division of blocks
- Primary frontages
- Development frontage
- Retained pillboxes
- Indicative location of Primary School
- Area of exceptional height
- Veteran trees to be retained
- Key visual connection
- Former alignment of Mill Road historic route

Figure 10.1: Urban Design Framework Plan (Illustrative).

## Design Principles

The design principles set out within this section are grouped under the four broad themes identified in the Cambridgeshire Quality Charter for Growth: Character, Connectivity, Community and Climate. Further explanation and illustration of these principles are set out within the DAS.

The proposals for Northstowe Phase 3A adopt a holistic approach to sustainability, covering social, economic and environmental factors. This holistic approach has led to a number of the 'Climate' objectives being integrated into the 'Character', 'Community' and 'Connectivity' sections. The 'Climate' section broadly sets out the key climate/ environmental objectives of the scheme.

The following design principles are to be applied to Northstowe 3A:

### Character

- Mark Phase 3A with a key 'gateway' and open space on approach from the south, creating a strong sense of transition and arrival.
- Create confident development edges that achieve a clear distinction between countryside and town.
- Create a legible structure of development that is reinforced by well researched and locally appropriate building characters, planting and clear forms of development that are recognisable from the local context.
- Create a clear distinction between character areas and a logical transition from the higher density areas to the looser, lower density development in the south.
- Arrange housing into streets to support strong and characterful frontages. This ensures that all streets and open spaces are well overlooked by development frontages.
- The areas identified for 4 and 5 storey buildings are drawn broadly on the Heights Parameter Plan to allow for local landmark buildings and variations in height. It is anticipated that the majority of the buildings are between 3-4 storeys, with localized high points of 5 storeys. The design code will provide further detail and refinements to this broad brushed height strategy to secure legibility.
- Provide pavilion blocks in the area of exceptional height identified on the Heights Parameter Plan which overlook the open space. These blocks should compliment the landscape, with varied orientations reflecting the organic shape of the retained lake and allowing the landscape to be drawn through into the development block.
- Retain existing landscape features where possible, in particular existing trees, and integrate these into street scenes, new public spaces and front and back gardens. Enhance the landscape to compliment the architecture and create a desirable setting for new homes.
- Use a number of strategies to create distinctive public realm and arrangements of buildings around open space, squares and play. These include incidental spaces, retention of existing trees, street tree planting, reinforcing of existing tree belts and vegetation.
- Use simple, well designed buildings that are contemporary in style but informed by the local architectural context.

### Connectivity

- Create a clear and legible street hierarchy that accommodates direct routes for pedestrians and cyclists.
- Create Primary and Secondary Streets (aiming for a design speed of 20mph) that are: positive places to walk and cycle along; designed appropriately for the traffic volume; fronted by development; and create a sense of place. Clear, obvious and safe crossing points should be incorporated into the design of the Primary and Secondary Streets.
- Provide a connected movement network that is adaptable, in terms of accommodating future bus provision and changes in travel behaviour.
- Public transport routes will be integrated into the movement network to ensure that at least 80% of homes are within easy walking distance (400m) of at least one public transport stop.
- Provide pedestrian/cycle connections that connect to the existing and proposed (Northstowe Phase 2) footpath and bridleway network and the historic Public Rights of Way.
- Create a connected cycle network that provides safe cycle routes every 250m. These will be either segregated routes alongside primary and secondary streets, car free routes through greenways or routes on-street through quiet residential streets. (e.g. shared surface home zones).
- Different parking strategies should be integrated into the design so that parking does not dominate the streetscape and encourages sustainable modes of travel.
- Convenient private, communal and public bike parking as well as electric charging points for vehicles and bikes should be integrated into the design.

### Community

- Ensure that green links and open space are well overlooked by development frontages to encourage passive surveillance and improved real and perceived sense of safety.
- Ensure each home will be within a short walk of public open space. Provide 'doorstep play' to further improve accessibility to play.
- Conveniently locate community and social infrastructure facilities along safe walking and cycling routes and served by public modes of transport where possible.
- Provide safe, comfortable and accessible space that promotes social interaction.
- Provide for a mixed and balanced community through a series of different types of open space.
- Design open space as multifunctional space, incorporating recreation, formal and informal play, drainage and ecological functions.
- Create an integrated network of green infrastructure. Connect the open spaces through the provision of safe routes and green links.
- Ensure open spaces are integrated into the Northstowe movement network as well as being highly accessible to neighbouring communities.
- Provide access to nature and water for wellbeing.
- Provision of Outdoor Playing Space (including children's play space and formal outdoor sports facilities), Informal Open Space, allotments and community orchards to meet the need generated by the development.

### Climate




- Sustainable construction methods will be adopted, using low-carbon materials; attracting green businesses; and creating demand for more sustainable products and services across the town. A fabric first approach to building design will improve energy efficiency and reduce carbon emissions.
- Widespread use of Sustainable Drainage Systems (SuDS) will provide sustainable storm water management and maximise available water resource from rainfall, as well as the creation of new wildlife corridors and spaces whilst incorporating existing wetlands and ponds, with a variety of flora and fauna, creating valuable open amenity areas.
- Enabling and promoting low carbon transport within, to and from Northstowe by ensuring easy access to public transport and cycle routes to reduce carbon emissions and encourage health and wellbeing.
- Incorporating low and zero carbon technologies into all buildings to provide energy, financial and carbon savings, therefore supporting the transition to net zero carbon.
- Protecting and enhancing biodiversity and habitat connectivity via a strong network of Greenways and interconnected green and blue spaces to achieve a biodiversity net gain.

# Appendix B: Building for Life 12 Assessment

This Appendix assesses the scheme against the criteria set out in Building for Life 12 (BfL 12, Third Edition - January 2015).

## How does the traffic light system work?

Details are provided within the BfL 12 Guide. In brief:

-  Green shows the design of the scheme has responded positively to the question.
-  Amber is used where there is clear evidence of local constraints on the scheme beyond the control of the design team that prevent it from achieving a green.
-  Red elements identify aspects of proposals that need to be changed and where the scheme design at the time of assessment fails to respond to the question positively.

Questions	Response
<b>Integrating into the neighbourhood</b>	
<b>I. Connections:</b> Does the scheme integrate into its surroundings by reinforcing existing connections and creating new ones, while also respecting existing buildings and land uses around the development site?	<b>Ia</b> Where should vehicles come in and out of the development?
	<b>Ib</b> Should there be pedestrian and cycle only routes into and through the development? if so, where should they go?
	<b>Ic</b> Where should new streets be placed, could they be used to cross the development site and help create linkages across the scheme and into the existing neighbourhood?
	<b>Id</b> How should the new development relate to existing development? What should happen at the edges of the development site?
	<p>Vehicles will enter the site from the Southern Access Road West (SARW) to the south and connect into the approved movement network within Northstowe Phase 2 to the north. There is also the potential for the Southern Access Road East to connect into Dry Drayton Road, if a need is identified through a monitor and manage approach.</p> <p>There will be segregated pedestrian and cycle routes along all primary and secondary roads within the site to encourage active and sustainable travel. The proposed routes will connect into the Phase 2 movement network and the wider Public Right of Way network to create an integrated and comprehensive strategy for the town and its surrounds. The cycleways will be located adjacent to the carriageways to ensure that cyclists have priority at junctions, thus improving safety and ease of movement through the site.</p> <p>The new streets form a permeable movement network through the site. This Phase will form the main approach to Northstowe from the B1050 and Dry Drayton Road to the south, connecting through to Phases 1 and 2 to the north. The vehicular movement network does not connect directly into the settlements of Longstanton and Oakington to respect their identity as individual villages, however permeability is provided through the pedestrian and cycle network, which allows for sustainable travel between the new town and the existing settlements.</p> <p>The proposed pedestrian and cycle network connects into the existing settlements of Longstanton and Oakington as well as further afield to Cambridge City Centre. A historic connection between Longstanton and Oakington will be reinstated as part of the scheme, improving connectivity between the two villages as well as providing a direct link to Phase 3A's Local Centre. Proposed footpaths within the site connect into established Public Rights of Way within Longstanton and Oakington, enhancing connections between the settlements. A key priority for the scheme has been to ensure the movement networks in Phase 2 and 3A are integrated to ensure ease of travel throughout the town.</p>



<p><b>2. Facilities and services:</b> Does the development provide (or is it close to) community facilities, such as shops, schools, workplaces, parks, play areas, pubs or cafes?</p>	2a	Are there enough facilities and services in the local area to support the development? If not, what is needed?	Northstowe's Town Centre within Phase 2 will provide a range of employment, leisure and commercial services and facilities which complement those provided within the adjacent settlements of Longstanton and Oakington. Longstanton and Oakington have a range of local services and facilities between them that are easily accessible from Phase 3A through the connected footpath and cycle networks. Due to the scale of Phase 3A further provision of retail, commercial and employment space is required to support the population. A Local Centre, which will support instead of compete with the Town Centre in Phase 2, will provide local retail, commercial and employment space. The flexibility of the space provided has been considered to account for potential future changes in the approach to work spaces.
	2b	Where new facilities are proposed, are these facilities what the area needs?	An Economic Development Strategy has identified the suitable uses for the Local Centre, taking into account the existing provisions within Northstowe Phase 2 Town Centre, Longstanton, Oakington and other commercial and economic centres in the wider region. Phase 3A provides a Local Centre which will accommodate commercial and community space to support the provision within the Phase 2 Town Centre. Secondary mixed-use zones have also been identified in key locations across the site, allowing for future changes in employment patterns and enabling local shops, cafés and small businesses to set up in key zones of activity.
	2c	Where new facilities are proposed, are these new facilities located in the right place? If not, where should they go?	Phase 3A Local Centre is proposed at the centre of the development ensuring it is easily accessible for the new and existing residents. It sits at the heart of the movement network for the site.
	2d	Where new facilities are proposed, does the layout encourage walking, cycling or using public transport to reach them?	The busway passes the Local Centre, with direct views to the retail and mixed-use buildings overlooking the public square that will form the focal point for the development. The Local Centre is accessible via public footpaths and cycle routes provided along the primary streets.
<p><b>3. Public transport:</b> Does the scheme have good access to public transport to help reduce car dependency?</p>	3a	What can the development do to encourage more people (both existing and new residents) to use public transport more often?	The masterplan has been developed to encourage 'green' transport methods. The extension of the Cambridgeshire Guided Busway through Phase 3A encourages use of public transport and the permeable pedestrian, cycle and bridleway network facilities ensure any public transport stops are easily accessible. In addition, local bus services would also be routed through the development to improve connectivity between Longstanton, Oakington, Northstowe and surrounding settlements via public transport.
	3b	Where should new public transport stops be located?	Public transport routes will be integrated into the movement network to ensure that at least 80% of homes are within easy walking distance (400m) of at least one public transport stop.
<p><b>4. Meeting local housing requirements:</b> Does the development have a mix of housing types and tenures that suit local requirements?</p>	4a	What types of homes, tenure and price range are needed in the area (for example, starter homes, family homes or homes for those downsizing?)	A full range of housing types will be provided in line with the local housing need.
	4b	Is there a need for different types of home ownership (such as part buy and part rent) or rented properties to help people on lower incomes?	A range of housing types and tenures will be provided within Phase 3A, accommodating for people of all ages and abilities including affordable homes for rent and purchase, self-build and custom build housing to help establish a mixed community. The housing provided will be tenure-blind.
	4c	Are the different types and tenures spatially integrated to create a cohesive community?	The different types and tenures will be appropriately integrated into the neighbourhoods to ensure a cohesive community.
<p><b>Creating a place</b></p>			
<p><b>5. Character:</b> Does the scheme create a place with a locally inspired or otherwise distinctive character?</p>	5a	How can the development be designed to have a local or distinctive identity?	The proposed development of Phase 3A draws on the intrinsic characteristics of the site to create areas of distinctive identity. Retained tree belts, the Military Lake and the alignment of the former runway are some of the features that have defined different character areas within the development. Variety in the design approaches reinforces defined areas of character, for example with regards to building height and density.
	5b	Are there any distinctive characteristics within the area, such as building shapes, styles, colours and materials or the character of streets and spaces that the development should draw inspiration from?	The development will draw on the overarching design principles set out in the Design Codes for Phases 1 and 2 to ensure the town forms a coherent whole. Northstowe will have its own, distinctive identity as a new town.
<p><b>6. Working with the site and its context:</b> Does the scheme take advantage of existing topography, landscape features (including water courses), trees and plants, wildlife habitats, existing buildings, site orientation and microclimate?</p>	6a	Are there any views into or from the site that need to be carefully considered?	The privacy of the existing residents in Longstanton and Oakington has been considered in the development of the masterplan. The tree belts along the boundary with Oakington have been retained within an area of landscaping to respect the privacy of the existing dwellings here. The Guided Busway runs along the eastern boundary of the site, visually separating the site from the fenland landscape beyond.
	6b	Are there any existing trees, hedgerows or other features, such as streams that need to be carefully designed into the development?	A number of existing tree belts have been retained as part of the proposals for Phase 3A. It is envisaged that a number of individual trees will be retained, for example within garden plots, as part of the detailed design process. The Military Lake has been retained to the south of the site and forms one of the landscape landmarks for the Phase. This lake has been carefully integrated into the development proposals to respect its ecological value.
	6c	Should the development keep any existing building(s) on the site? If so, how could they be used?	There are no existing buildings within the boundaries of Phase 3A. The pillboxes on the site have been retained as part of the proposals and integrated into the network of green infrastructure.

7. <b>Creating well defined streets and spaces:</b> Are buildings designed and positioned with landscaping to define and enhance streets and spaces and are buildings designed to turn street corners well?	7a Are buildings and landscaping schemes used to create enclosed streets and spaces?	Building heights and densities have been defined relative to the size of the street or open space they overlook to provide appropriate levels of enclosure. The street hierarchy within the site is defined by different levels of tree planting and enclosure to ensure a legible movement network.
	7b Do buildings turn corners well?	The development blocks have been designed to ensure that there are no 'dead frontages' overlooking streets where corners occur. This will be further refined at the detailed design stage.
	7c Do all fronts of buildings, including front doors and habitable rooms, face the street?	Buildings will overlook the streets and spaces throughout the development, ensuring there is passive surveillance of the public open space and thus improving safety.
8. <b>Easy to find your way around:</b> Is the development designed to make it easy to find your way around?	8a Will the development be easy to find your way around? If not, what could be done to make it easier to find your way around?	The development has been designed to have a distinctive street hierarchy that runs through different character areas to improve wayfinding. Public open spaces, such as Mill Road Linear Park, the Military Lake and Runway Lake provide key points of interest within the green network, with the Local Centre sitting at the heart of the development and providing the focal point for the Phase. These landmarks, in combination with the different design approaches to the distinct character areas, will improve wayfinding through the Phase.
	8b Are there any obvious landmarks?	As stated above, there are a series of landmarks both within the green infrastructure network and within the built development that will aid wayfinding through the Phase.
	8c Are the routes between places clear and direct?	The movement network follows desire lines, for example between the Linear Park and the Primary School/Local Centre to ensure that pedestrian and cycle routes are direct and easily navigable.
<b>Street and home</b>		
9. <b>Streets for all:</b> Are streets designed in a way that encourage low vehicle speeds and allow them to function as social spaces?	9a Are streets pedestrian friendly and are they designed to encourage cars to drive slower and more carefully?	The streets have been designed to ensure safety for all users, with segregated cycleways and footpaths along all primary and secondary streets. Appropriate speed limits will be enforced to ensure the safety of the users. The Central Avenue has a central reservation on entrance to the site from the south, which will comprise landscaping and tree planting, to slow traffic speed and clearly mark the entrance into the town. Smaller residential streets will prioritise pedestrian and cycle movement, with shared paving treatment, on-street parking and appropriate landscaping incorporated into the streetscape to ensure slow vehicular movement.
	9b Are streets designed in a way that they can be used as social spaces, such as places for children to play safely or for neighbours to converse	Within the residential blocks, shared paved surfaces will be carefully designed to prioritise pedestrians and cyclists and allow for the safe recreational use of the space by the residents. Public private boundaries will be developed to encourage social interaction and active frontages onto the street.
10. <b>Car parking:</b> Is resident and visitor parking sufficient and well integrated so that it does not dominate the street?	10a Is there enough parking for residents and visitors?	The development proposes a range of different parking solutions to anticipate future changes in car ownership and usage. Parking is provided both on-plot within integral garages and driveways and off-plot within the public realm. The different parking approaches have been developed relative to the densities of the neighbourhoods, for example more on-plot parking is provided in lower density, looser development whereas more urban neighbourhoods can support on-street and communal parking spaces.
	10b Is parking positioned close to people's homes?	The range of parking solutions means that some of the parking is within the curtilage of people's homes, whereas some is on-street or within a communal car park further removed from the property. The masterplan allows for disabled and accessible parking to be provided where required.
	10c Are any parking courtyards small in size (generally no more than five properties should use a parking courtyard) and are they well overlooked by neighbouring properties?	The masterplan demonstrates how communal parking courtyards could be approached if necessary, with the incorporation of dwellings into these spaces to ensure they are overlooked.
	10d Are garages well positioned so that they do not dominate the street scene?	The Illustrative Masterplan allows for a range of housing typologies to be used to ensure garages do not dominate the streetscene at ground level.

<b>11. Public and private space:</b> Will public and private spaces be clearly defined and designed to have appropriate access and be able to be well managed and safe in use?	I 1a What types of open space should be provided within this development?	<p>The scale of the development means that a wide range of open spaces have been provided to accommodate for people of all ages and abilities. The development provides substantially more open space than required by policy to support its role as a Healthy New Town; encouraging contact with nature and creating varied opportunities for everyone to adopt a more active lifestyle either by playing, walking, sitting or engaging in sporting activities.</p> <p>There is a need for play facilities for children and teenagers, which has been met through the formal provision of LAP's, LEAP's and a NEAP as well as the provision of semi-formal sport including a BMX track. These facilities are provided throughout the development, with no house more than 3 minutes from a green space, that in turn links into the network of green infrastructure running through the Phase.</p> <p>A maintenance strategy will be developed for the proposed open spaces at the detailed design stage. One of the options the Applicant is currently looking at for an earlier phase is a community land trust.</p>
	I 1b Is there a need for play facilities for children and teenagers? If so, is this the right place or should the developer contribute towards an existing facility in the area that could be made better?	
	I 1c How will they be looked after?	
<b>12. External storage and amenity:</b> Is there adequate external storage space for bins and recycling, as well as vehicles and cycles?	I 2a Is storage for bins and recycling items fully integrated, so that these items are less likely to be left on the street?	<p>The masterplan allows for flexibility in the housing typologies so that bin stores can be integrated at the detailed design stage subject to future coding.</p>
	I 2b Is access to cycle and other vehicle storage convenient and secure?	<p>As referred to in Section 6.4.7 of the DAS, the vision for the development is to provide suitable cycle parking infrastructure to allow residents to own and conveniently use cycles for everyday transportation. The cycle parking will be conveniently located and designed in line with the Cycle Parking Standards of SCDC subject to future coding.</p>

