

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).

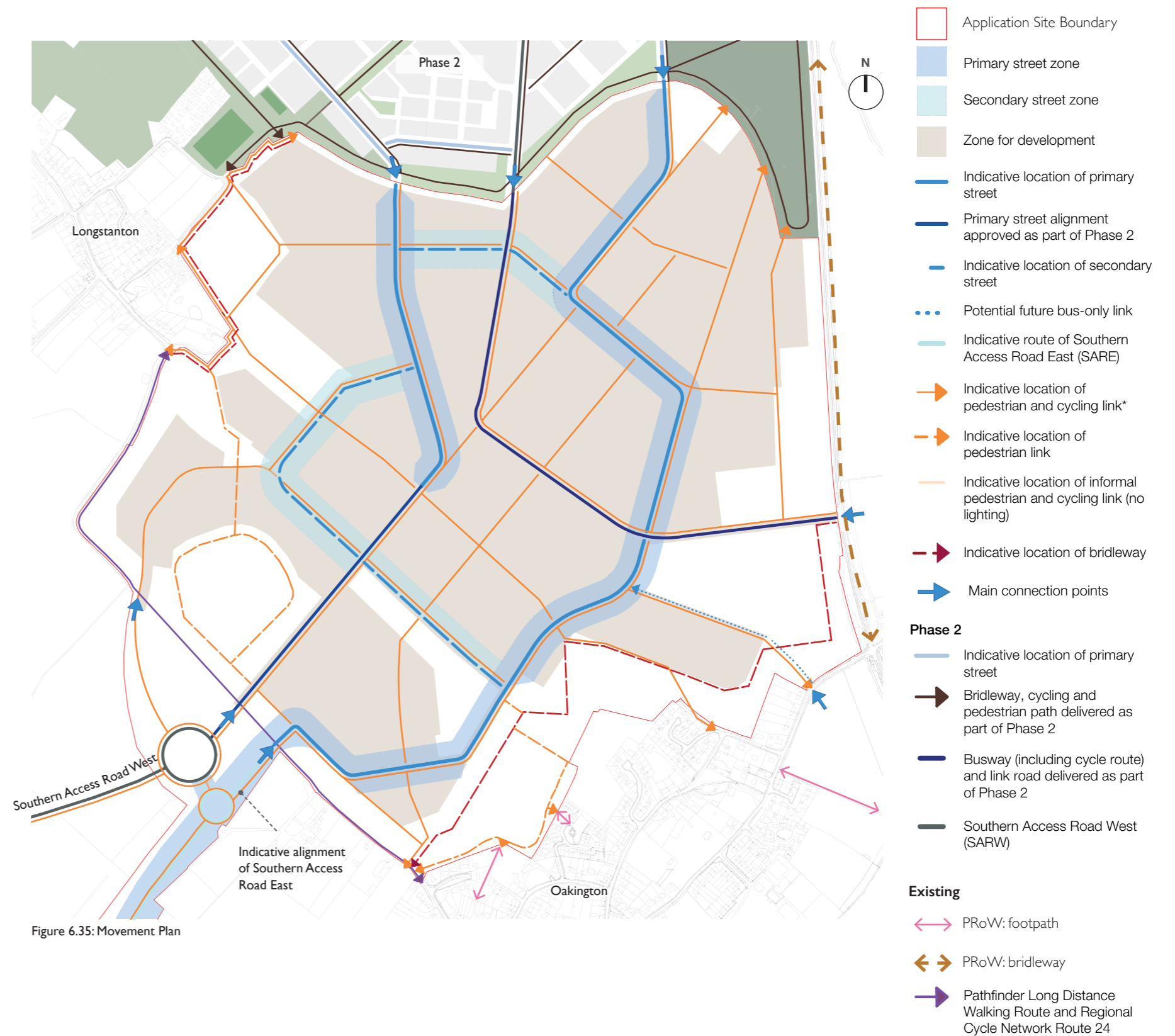


Figure 6.35: Movement Plan

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 be provided within the future design code(s).

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

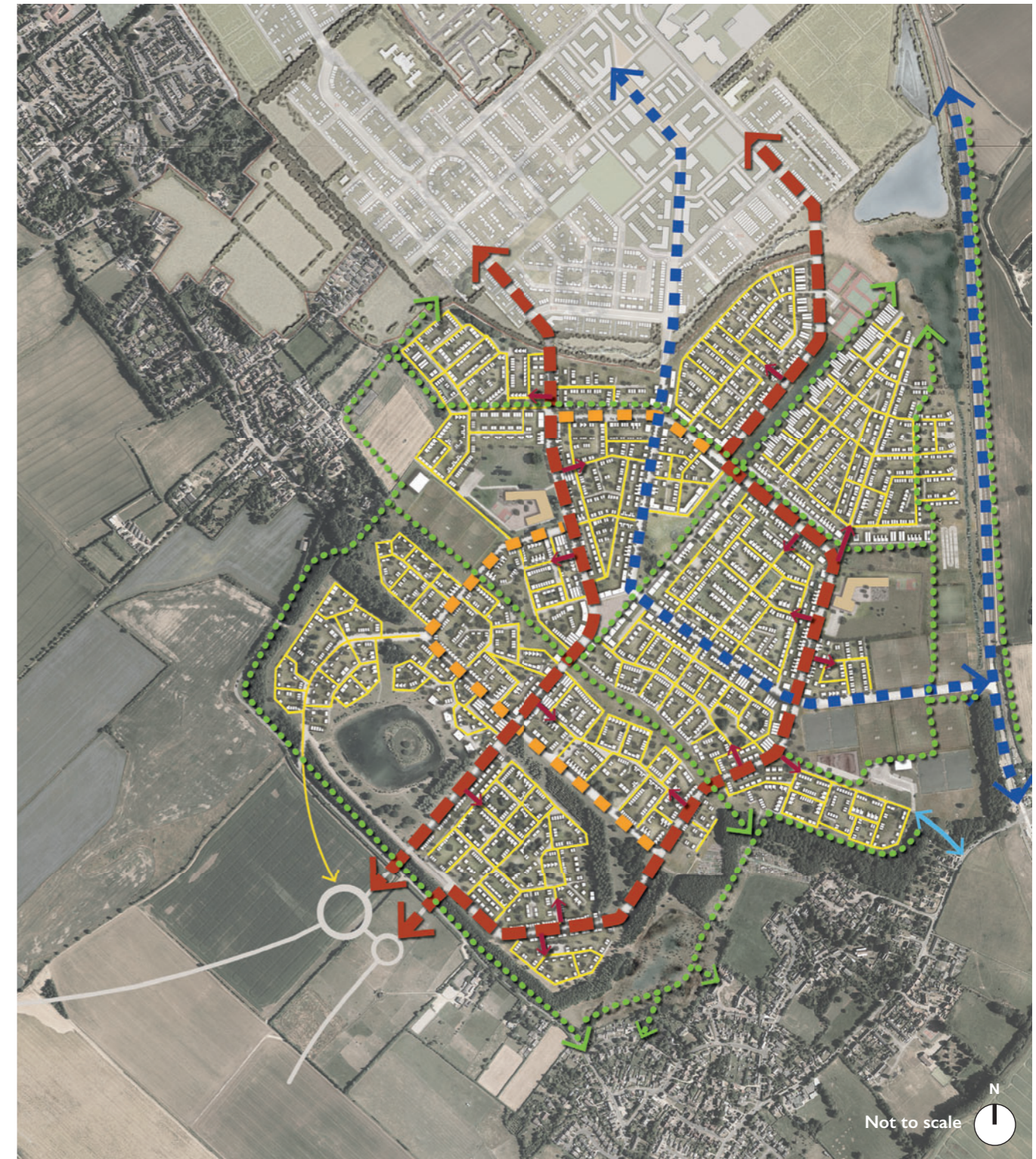
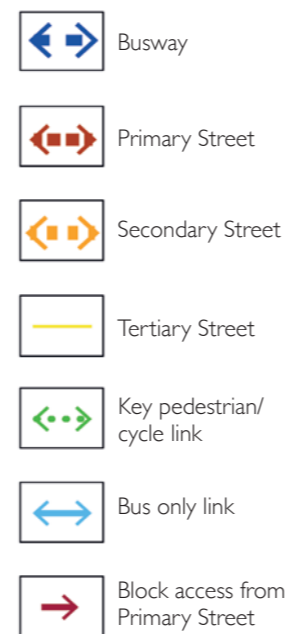


Figure 6.36: Illustrative Street Hierarchy Plan.

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.

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.

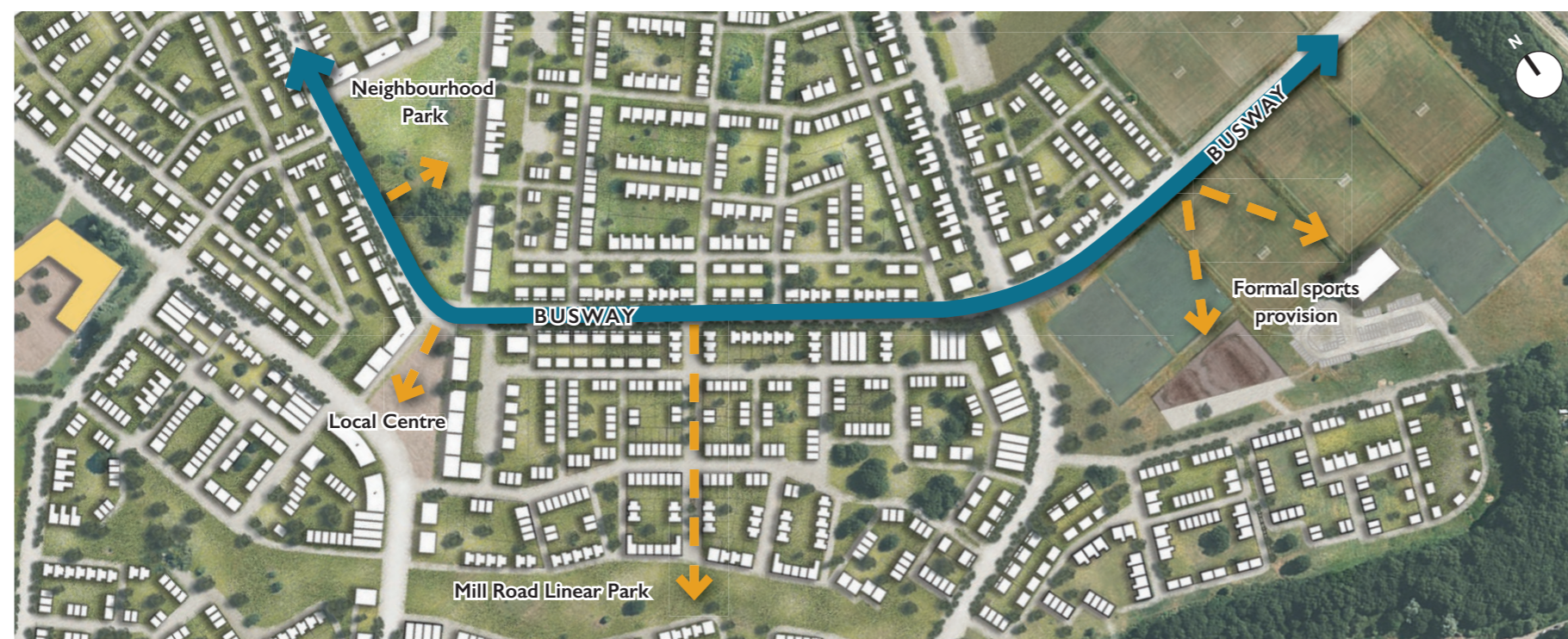


Figure 6.37: Busway route through Phase 3A.

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.

The sections and dimensions on this page are for illustrative purposes only, showing the general arrangement of the different components within the streetscape.

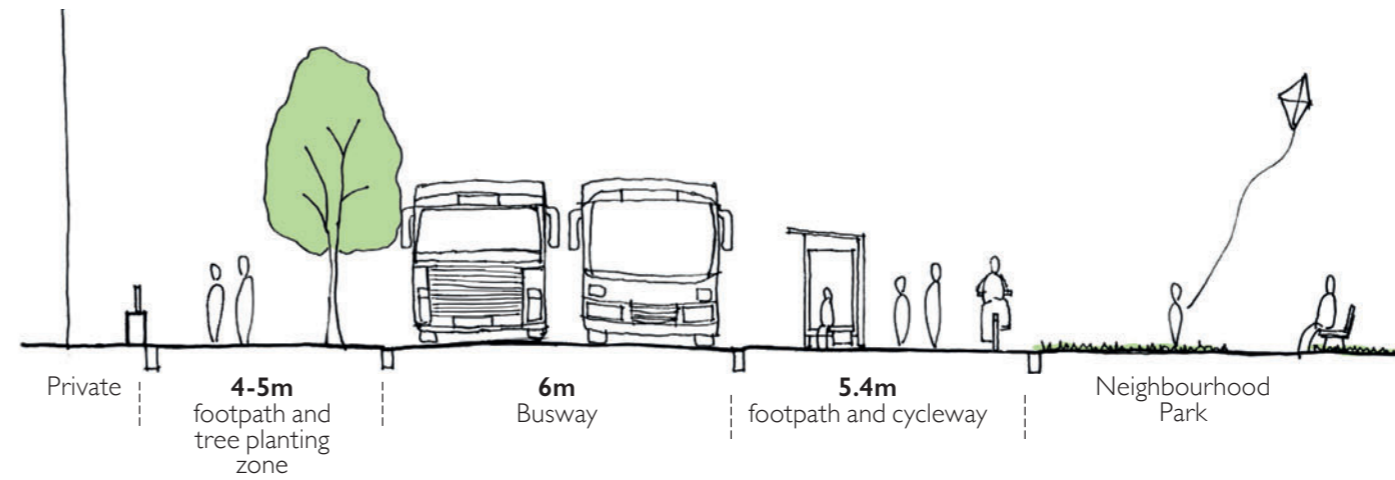


Figure 6.39: Illustrative busway street section A-A.

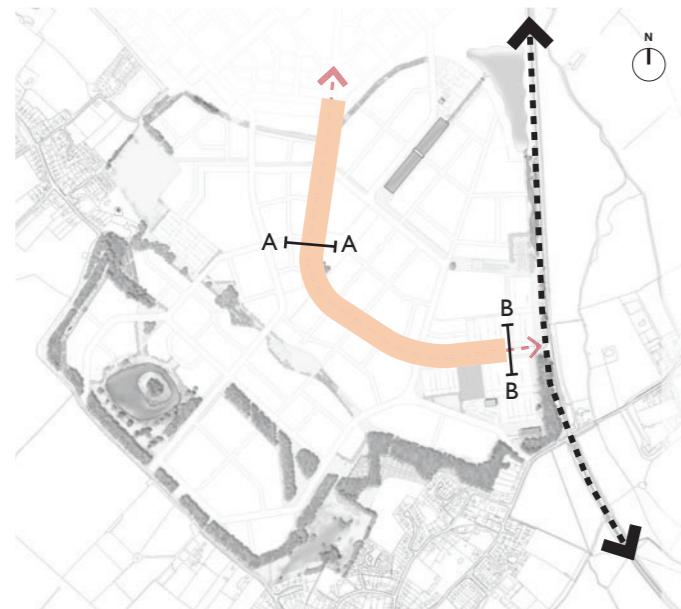


Figure 6.38: Key plan (NTS)

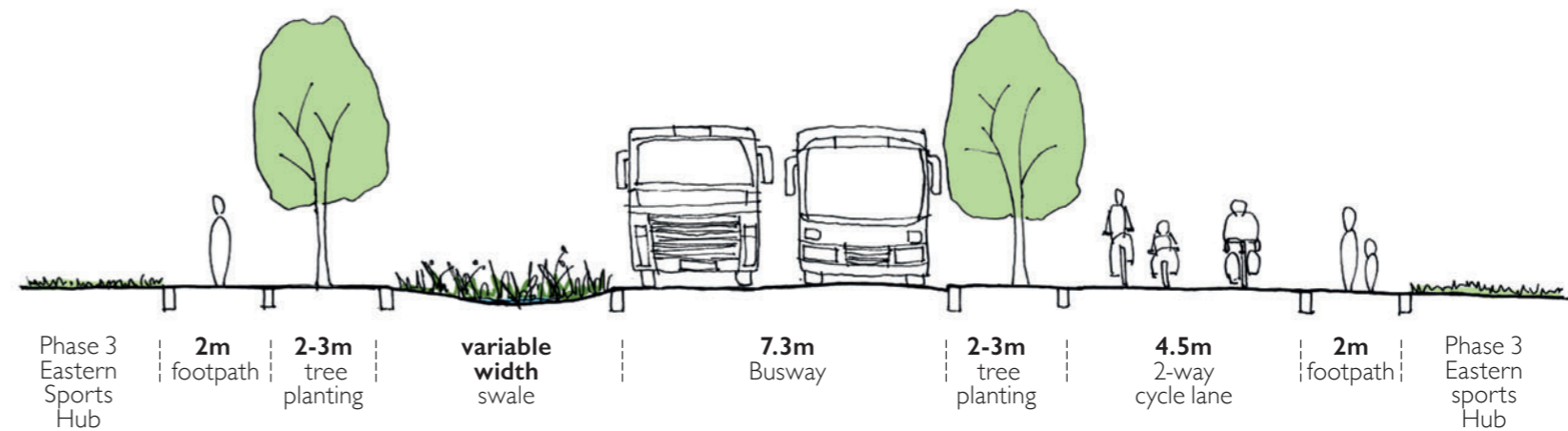


Figure 6.40: Illustrative busway street section B-B.

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.

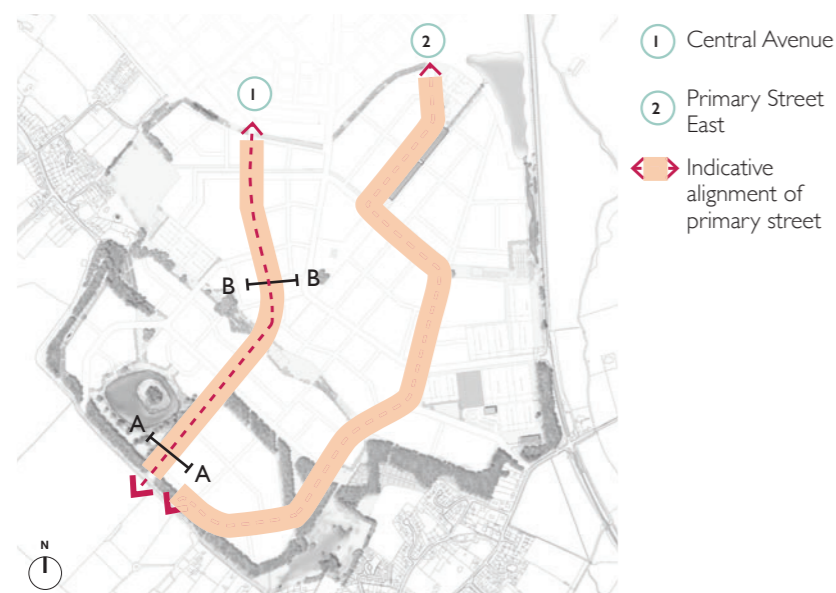


Figure 6.41: Central movement corridor.

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 6.42: Examples of form and character along the Central Avenue.

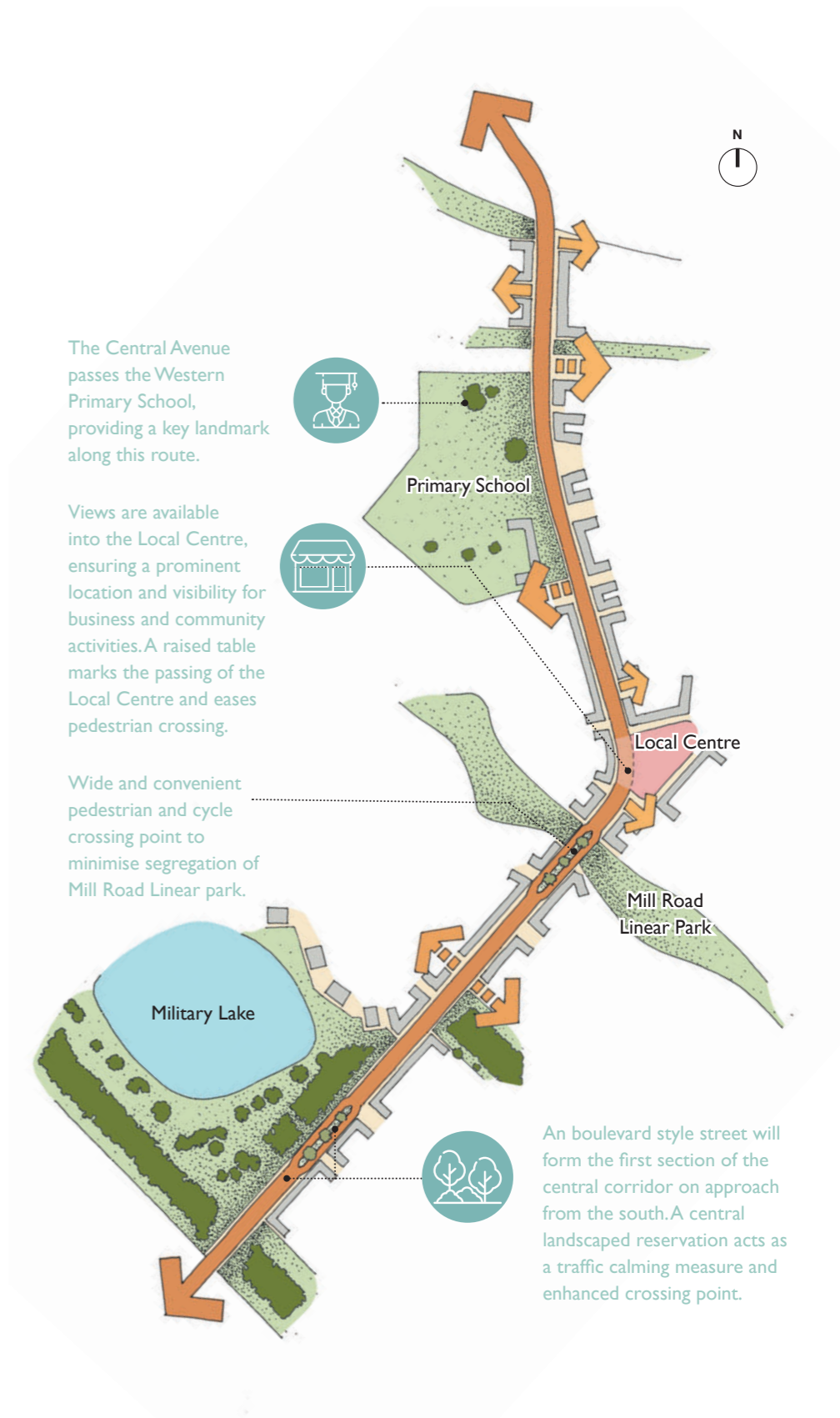


Figure 6.43: Illustrative sketch of the Central Avenue.

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.

The sections and dimensions on this page are for illustrative purposes only, showing the general arrangement of the different components within the streetscape.



Figure 6.44: SuDS features will be integrated into the streetscape.

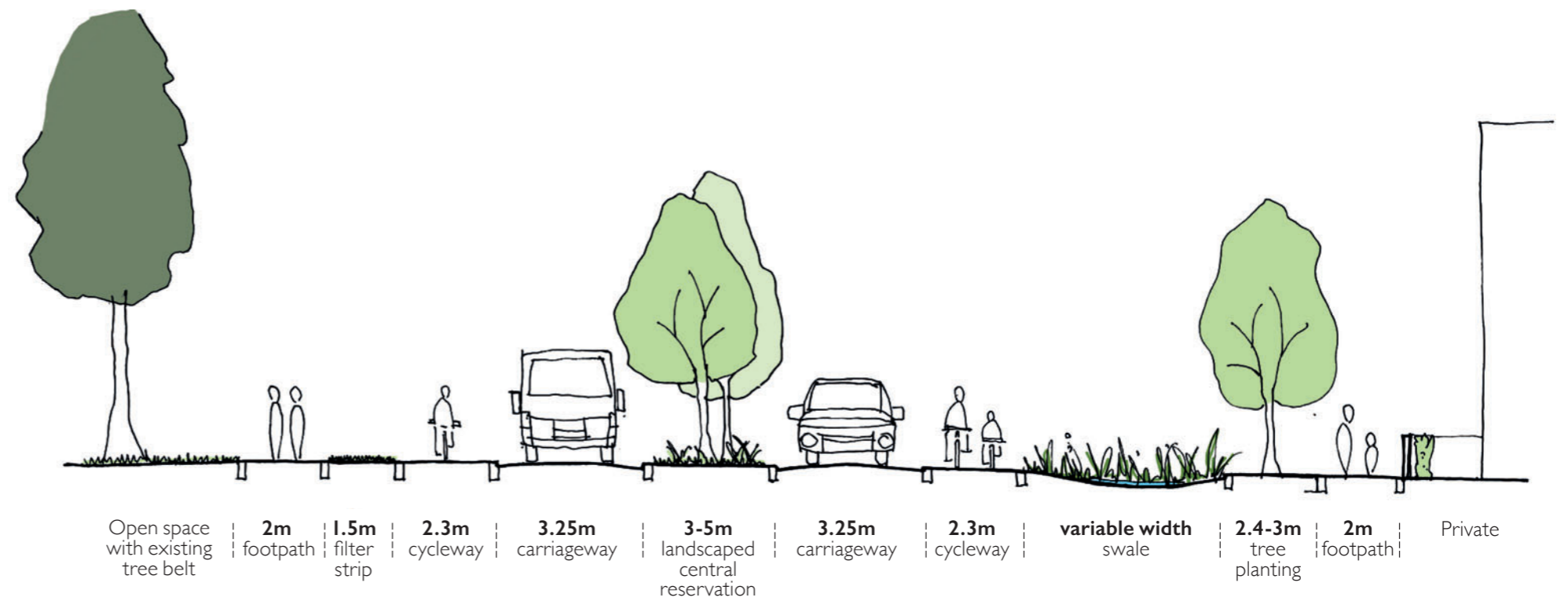


Figure 6.45: Example Primary Street section A-A.

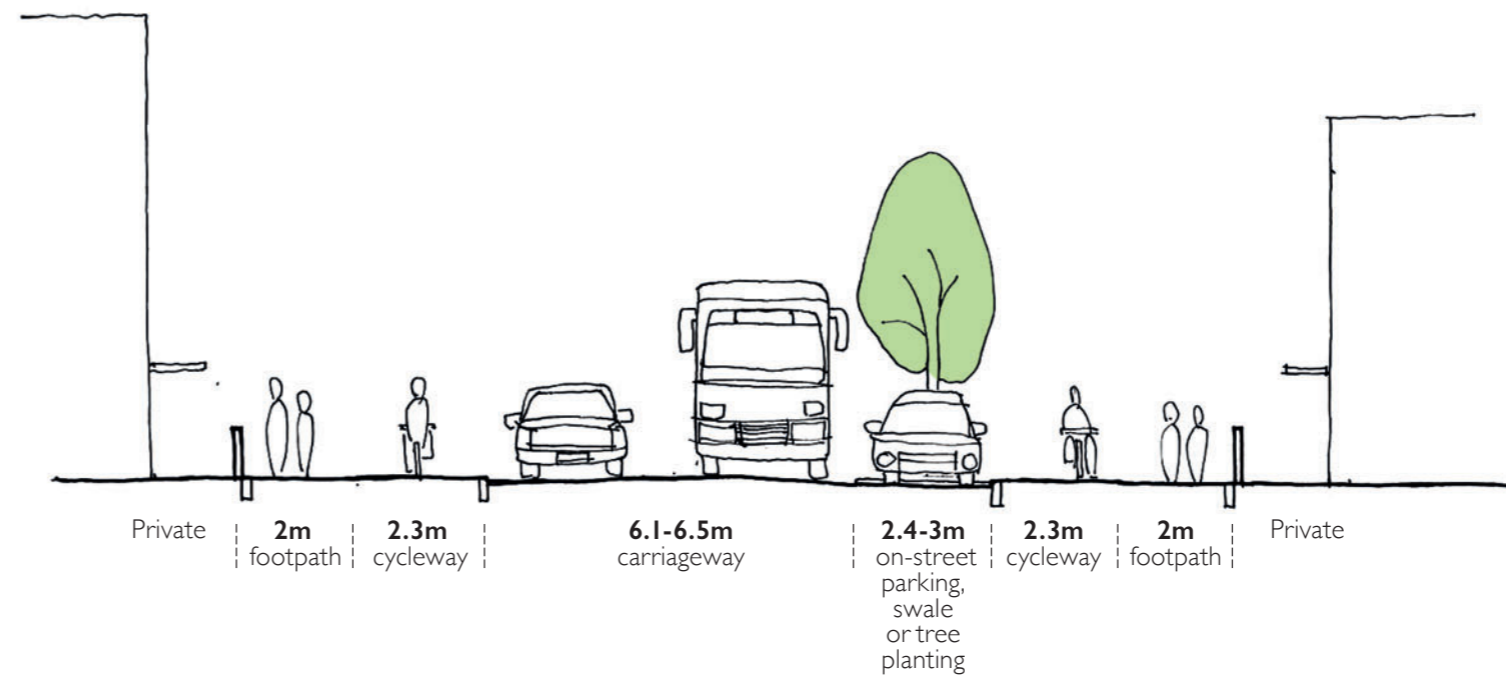


Figure 6.46: Example Primary Street section B-B.

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.

The sections and dimensions on this page are for illustrative purposes only, showing the general arrangement of the different components within the streetscape.

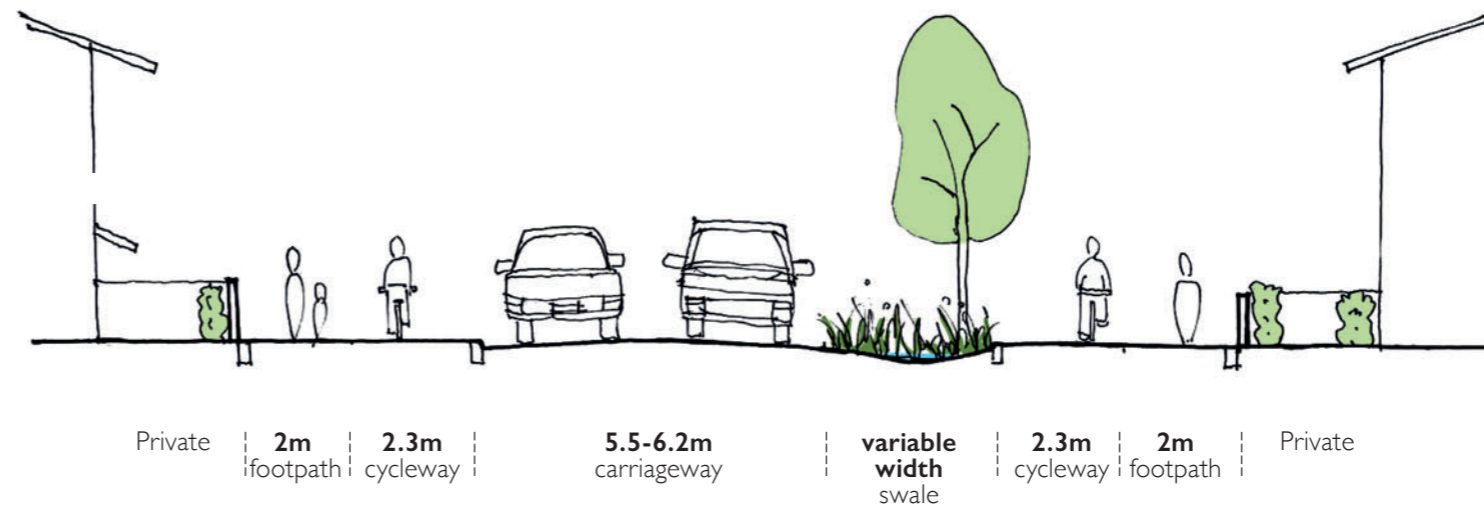


Figure 6.48: Example Secondary Street section

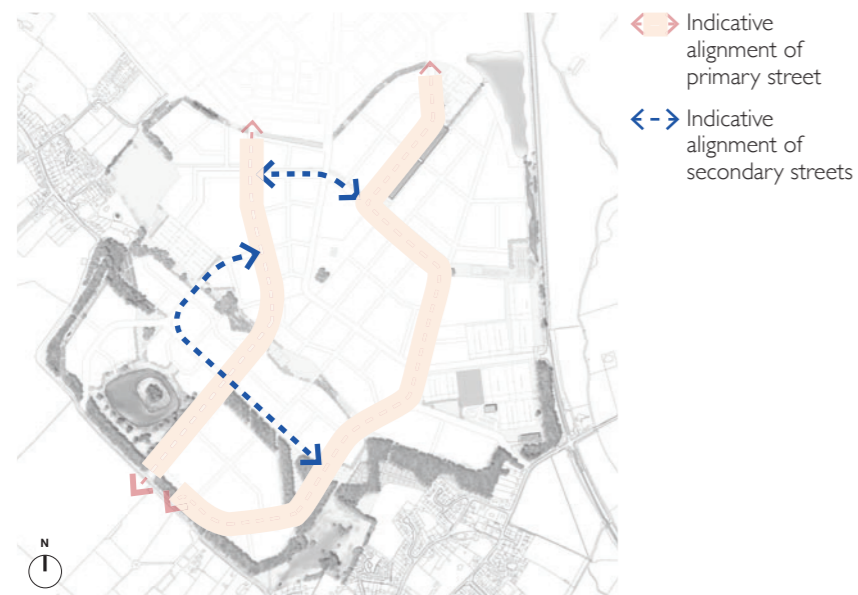


Figure 6.47: Secondary streets.

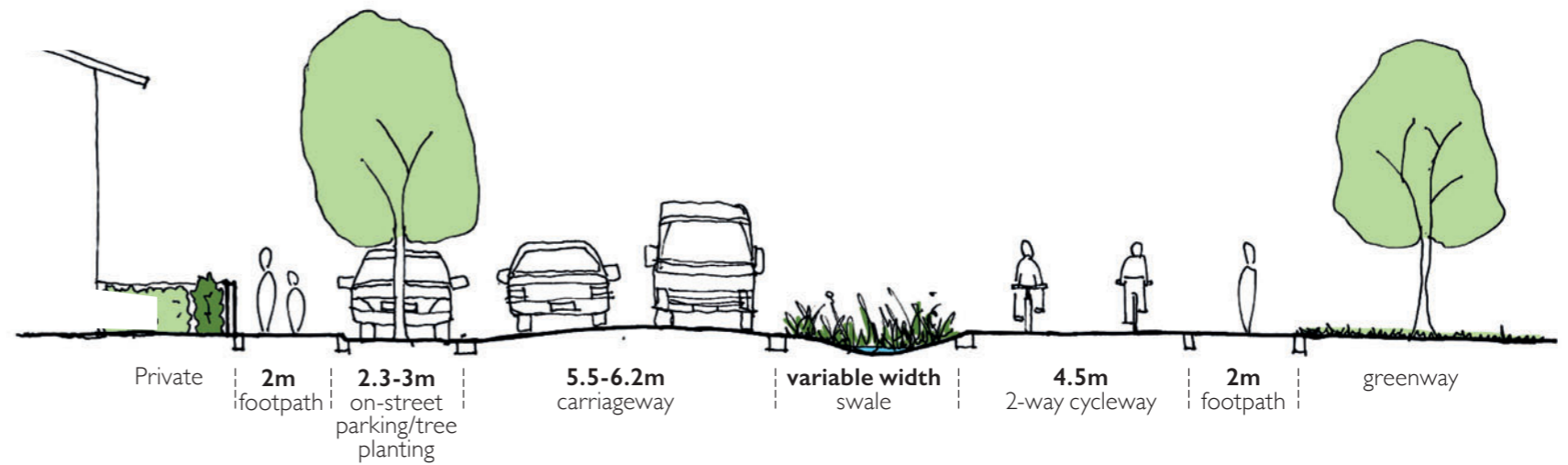


Figure 6.49: Example greenway section

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.

The sections and dimensions on this page are for illustrative purposes only, showing the general arrangement of the different components within the streetscape.

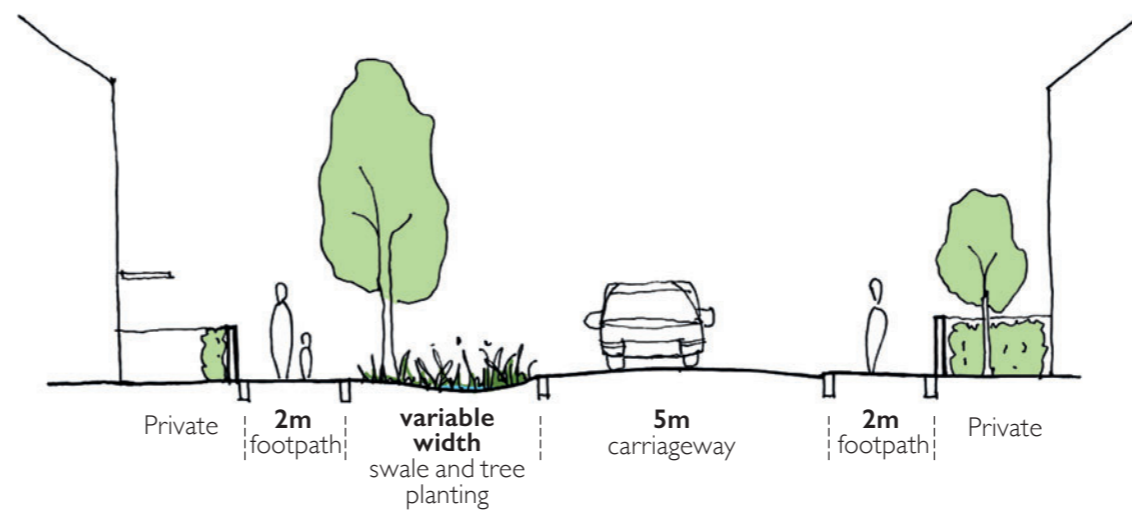


Figure 6.50: Example Tertiary Street section incorporating SuDS

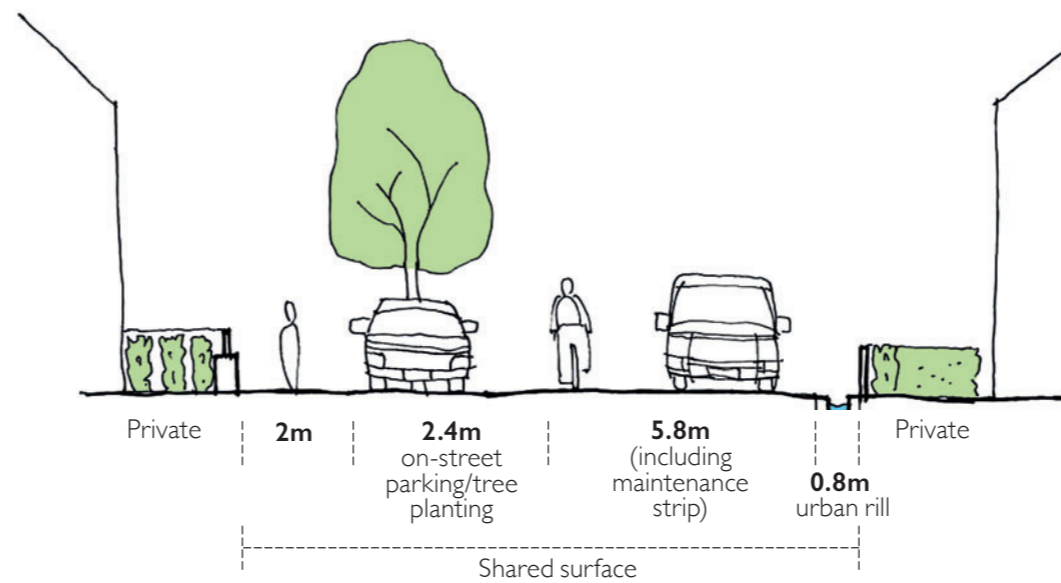


Figure 6.51: Example Tertiary Street (mews) section

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 6.52, 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

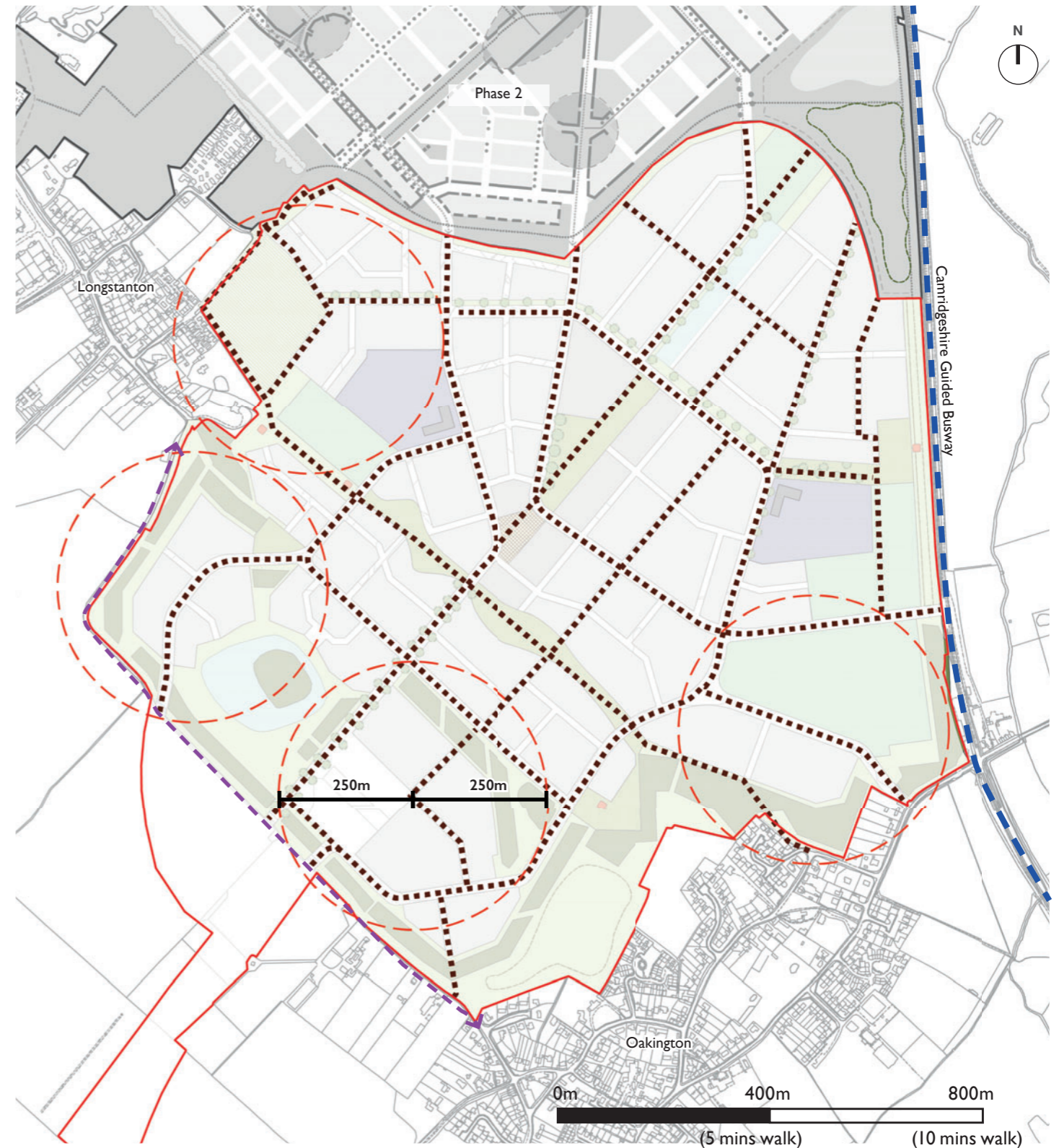


Figure 6.52: Cycle network plan.

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 6.53: Parking in the public realm.



Figure 6.54: Public cycle parking.



Figure 6.55: 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.

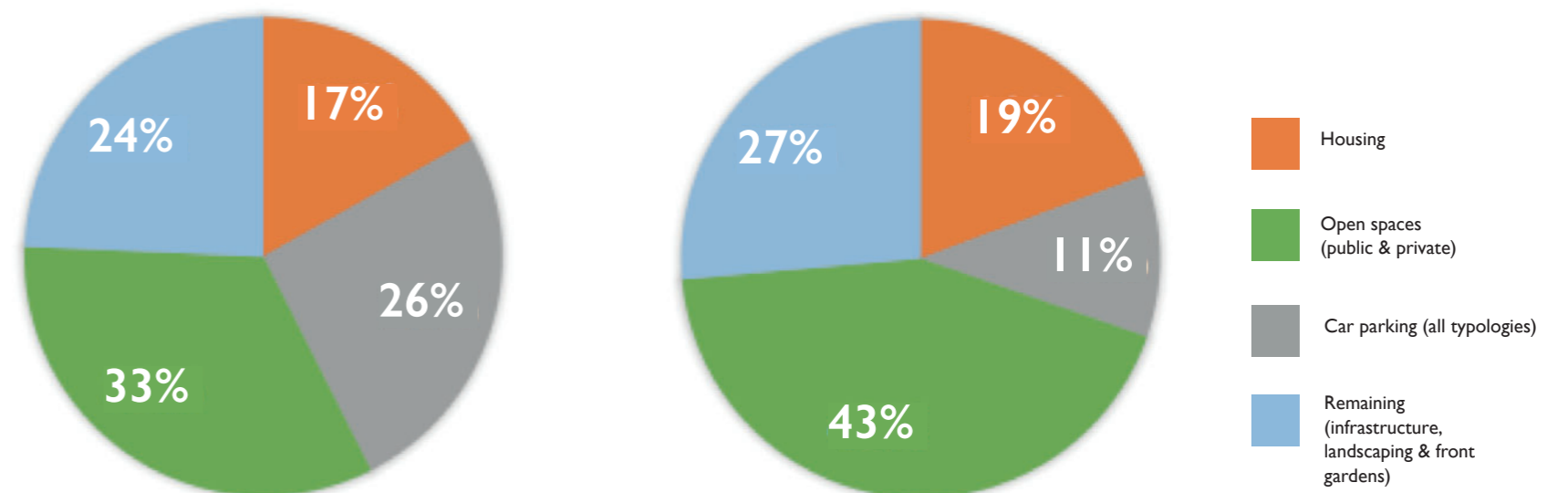


Figure 6.56: Case Study: Radstone Fields, Brackley - Suburban model with rear parking courtyards. This case study relates to the layout illustrated in sketch 1 above, resulting in a larger proportion of the land take used for parking.

Figure 6.57: 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

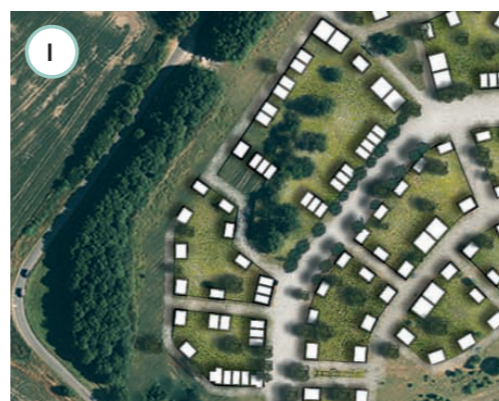


Figure 6.58: On-plot car parking (image above shown space for car parking on driveway and within an integral garage)



Figure 6.59: Car parking incorporated into the shared surfacing of quieter residential roads.

1

25-35dph

Medium density approaches

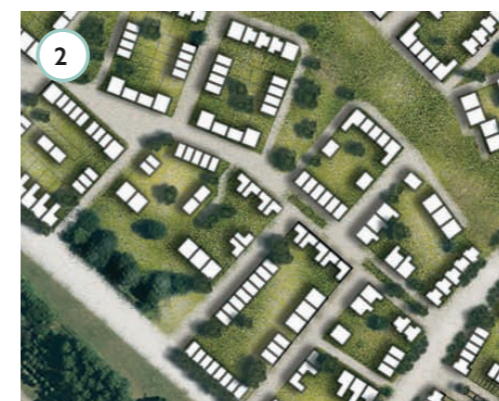


Figure 6.60: On-street car parking integrated into public realm.



Figure 6.61: Integrated garages.

2

35-50dph

High density approaches

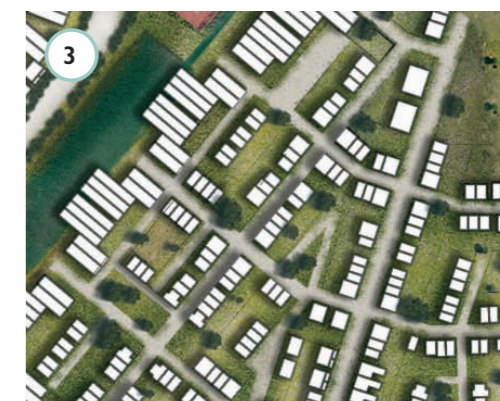


Figure 6.62: Parking within green spaces and public realm.



Figure 6.63: 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.

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.

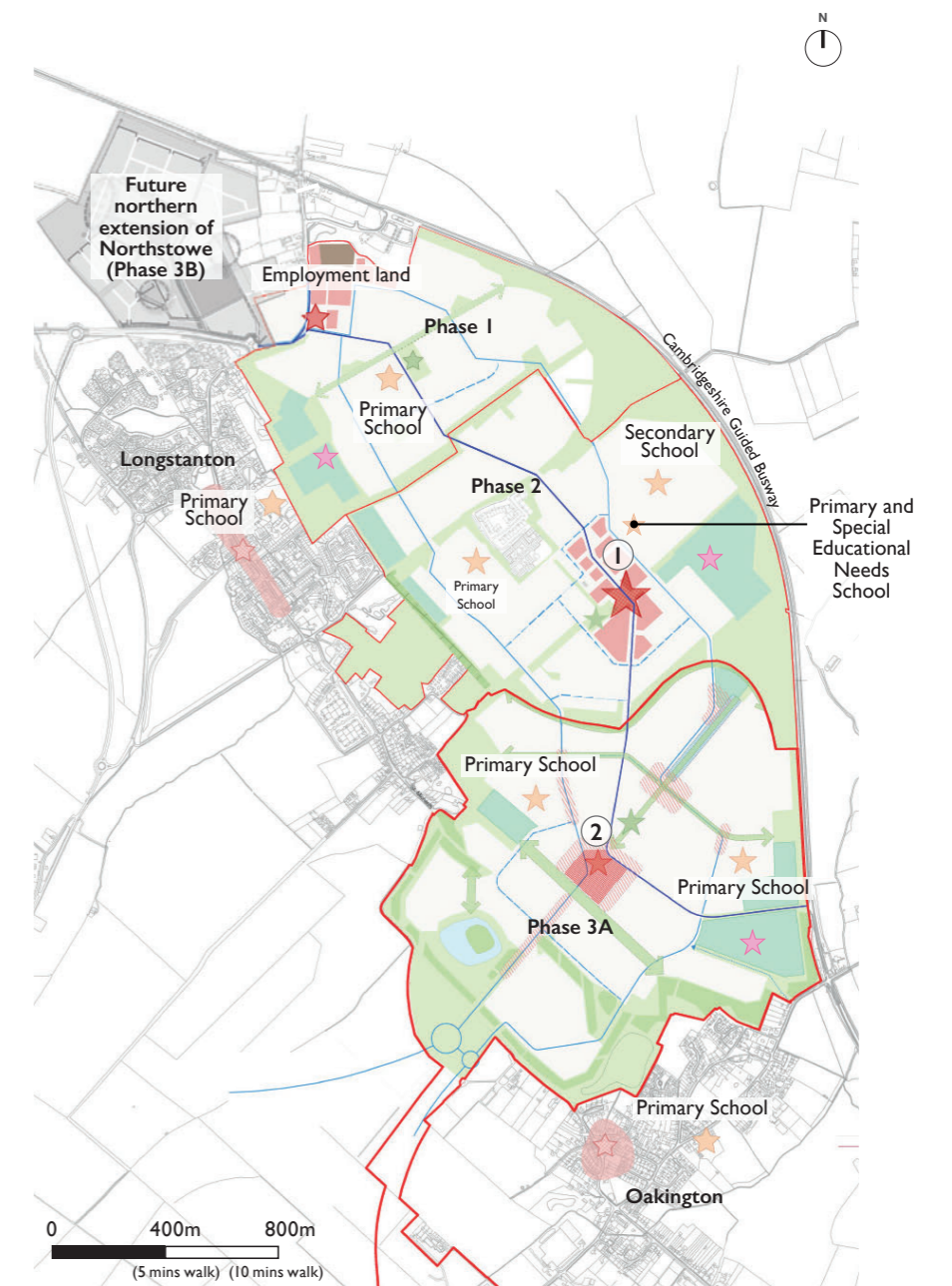


Figure 6.64: Community facilities within Northstowe.

- | | |
|---|---|
| <p>1 Northstowe Town Centre:
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>2 Phase 3A Local Centre:
Range of employment spaces, retail/leisure/food and drink facilities, flexible community space, Neighbourhood Park spaces, Civic Hub</p> |
|---|---|



Figure 6.65: Indicative photos illustrating the character of community facilities.



Figure 6.66: 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. The locations of the schools have 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 6.69 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 6.67: Illustrative layout for the western Primary School (3FE).

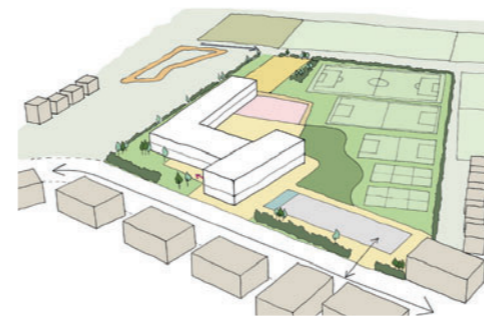


Figure 6.68: Illustrative layout for the eastern Primary School (3FE).















Figure 6.69: 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

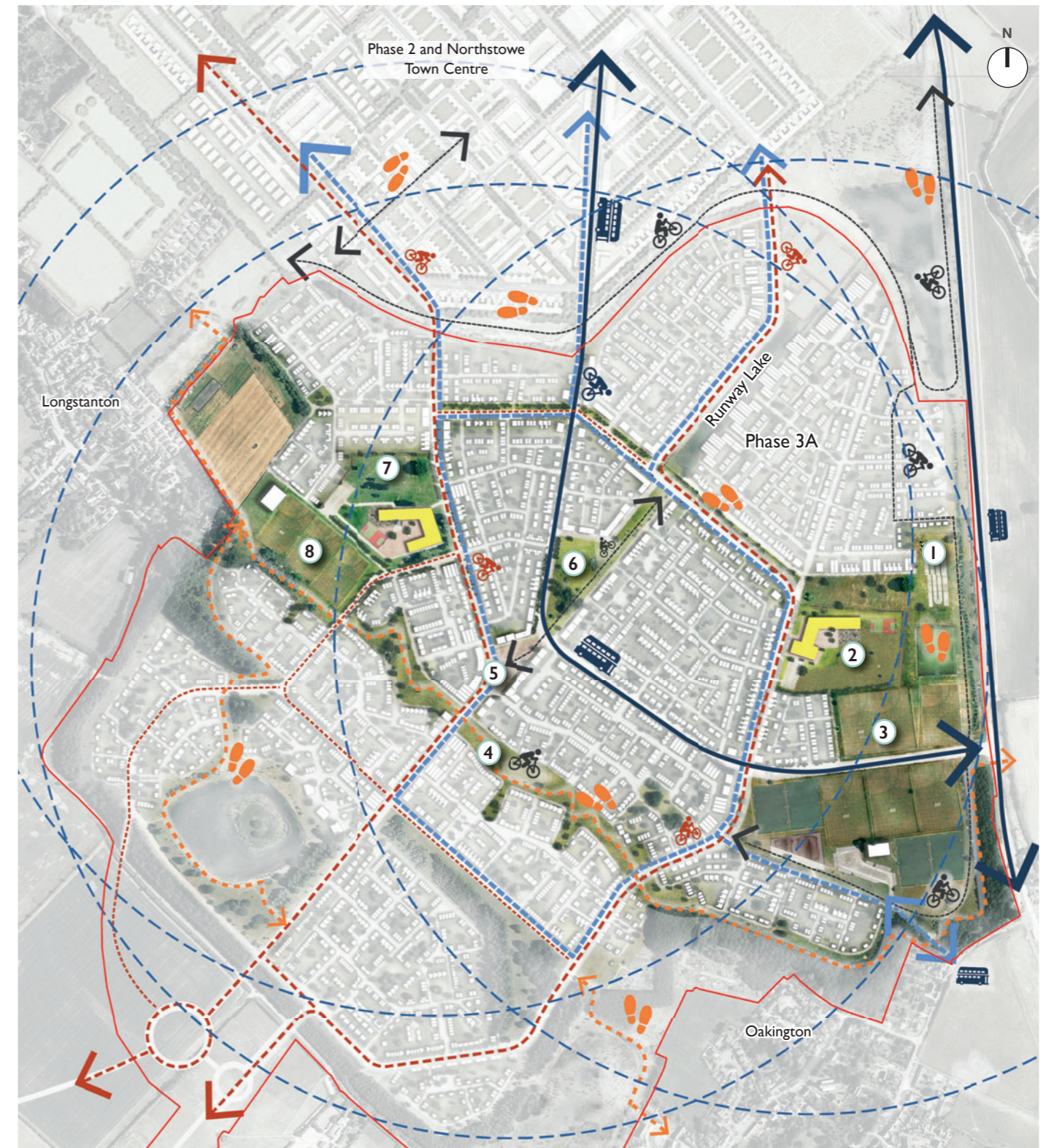


Figure 6.70: Connectivity of the two Primary Schools via active and sustainable modes of travel

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)

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).

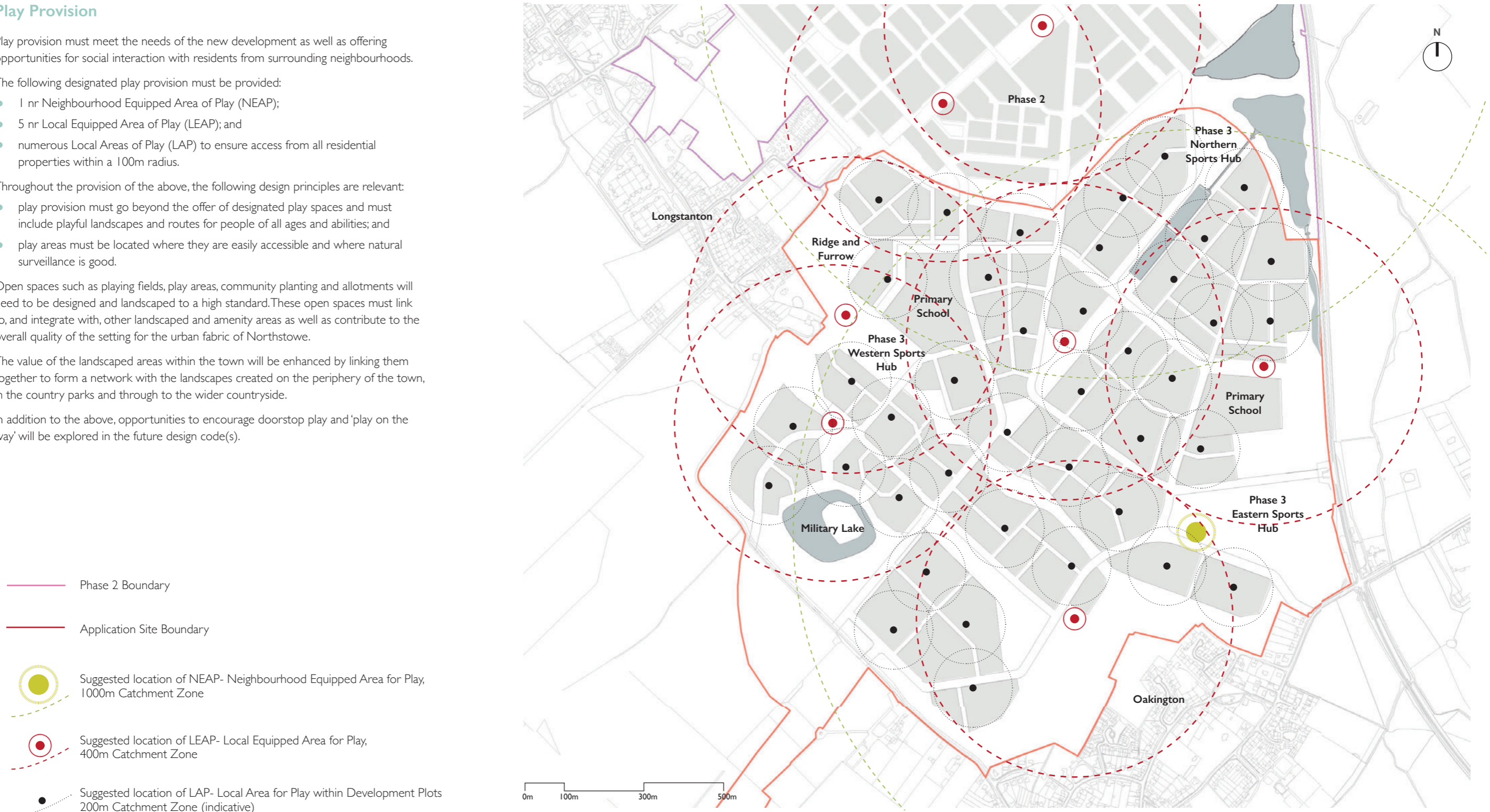


Figure 6.71 Plan showing suggested locations of Formal Play Provision in Phase 3A

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



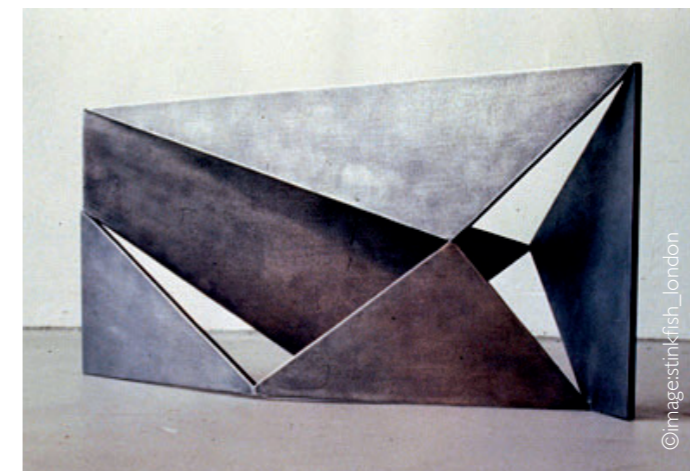
Feature Building Façade



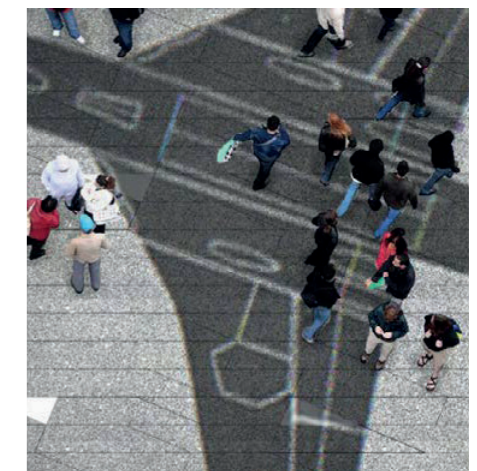
Public Art Focal Point



Youth-Focused Public Art



Interpretation of Site History



Interpretation of Site History

Figure 6.72: 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

Longstanton Conservation Area
 Longstanton
 Community Orchard
 Vehicular Corridor Link to Phase 2
 Busway Link to Phase 2
 Community Orchard
 Northern Sports Hub
 Allotments
 Runway Lake/Urban Waterfront
 Conserved Ridge and Furrow Landscape
 Pathfinder Long Distance Walk and Regional Cycle Route 24 linking to Longstanton and Phase 2
 Phase 3 Western Sports Hub
 Community Orchard
 Neighbourhood Park
 Local Centre
 Mill Road Linear Park
 Allotments
 Pocket Park
 Community Orchard
 BMX Park
 Phase 3 Eastern Sports Hub
 Perimeter Greenway-Longstanton Edge
 Military Lake
 Urban Woodland Park
 Community Orchard
 Pedestrian/cycle and potential bus link
 'Gateway' Green Corridor
 Pocket Park
 Perimeter Greenway-Oakington Edge
 Multi-purpose SuDS green space
 Pathfinder Long Distance Walk and Regional Cycle Route 24
 Allotments
 Oakington Conservation Area
 Oakington
 Westwick
 Westwick Conservation Area

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.