
■ PEDESTRIAN & CYCLE MOVEMENTS

The overall development site of Northstowe has access to a wider commuter bicycle network which already provides good connectivity between neighbouring communities and Cambridge. There are existing cycle routes between the site and Swavesey to the north and Histon / Girton in the south, including the National Cycle route adjacent to the CGB as well as a local cycle route from Girton to Swavesey along Cambridge Road, Longstanton Road, and the B1050.

Between Girton and Oakington there is an off-carriageway shared walking/cycleway provided on the northern side of the carriageway, which also ties into an off-carriageway route adjacent to Park Lane linking to Histon and the CGB. At its southern end in Girton the cycle route ties into the extensive network of routes within Cambridge.

3.6

Local facilities

More information about local facilities and future requirements can be found in the supporting applications documents – the Retail Impact Assessment, the Transport Assessment and the Environmental Statement (Socio-economic chapter). A summary of existing facilities is provided below and shown in Figure 3.12.

The provision of health and social care is delivered by a range of organisations providing outreach support from villages across the district and, with Cambridgeshire County Council leading on the provision of care. There is provision of GP and dental care in Longstanton as well as in Bar Hill, Cottenham, Swavesey, and Histon.

There are 115 schools across Greater Cambridge, providing a mix of early years, primary and secondary provision. Primary schools in the area of Northstowe include:

- Hatton Park Primary School;
- Oakington C of E Primary School;
- Bar Hill Primary School;
- Swavesey Primary School; and
- Willingham Primary School.

Secondary schools in the area of Northstowe include:

- Swavesey Village College;
- Cottenham Village College; and
- Impington Village College.

Post-16 provision is offered at most secondary schools and through colleges. Nine secondary schools and colleges offer post-16 education provision and some Higher Education provision. Higher Education provision is delivered through various colleges that form the Cambridge and Anglia Ruskin Universities, and vocational training, apprenticeships and adult education are provided through Cambridge Regional College.

The dominant retail facilities in Northstowe's surrounding area are at Bar Hill, consisting of:

- A large Tesco store retailing convenience and comparison goods, including stationery, health and beauty (with pharmacy), clothing and footwear, sportswear, entertainment, and electrical products; and
- A row of seven units including Next and Choices.

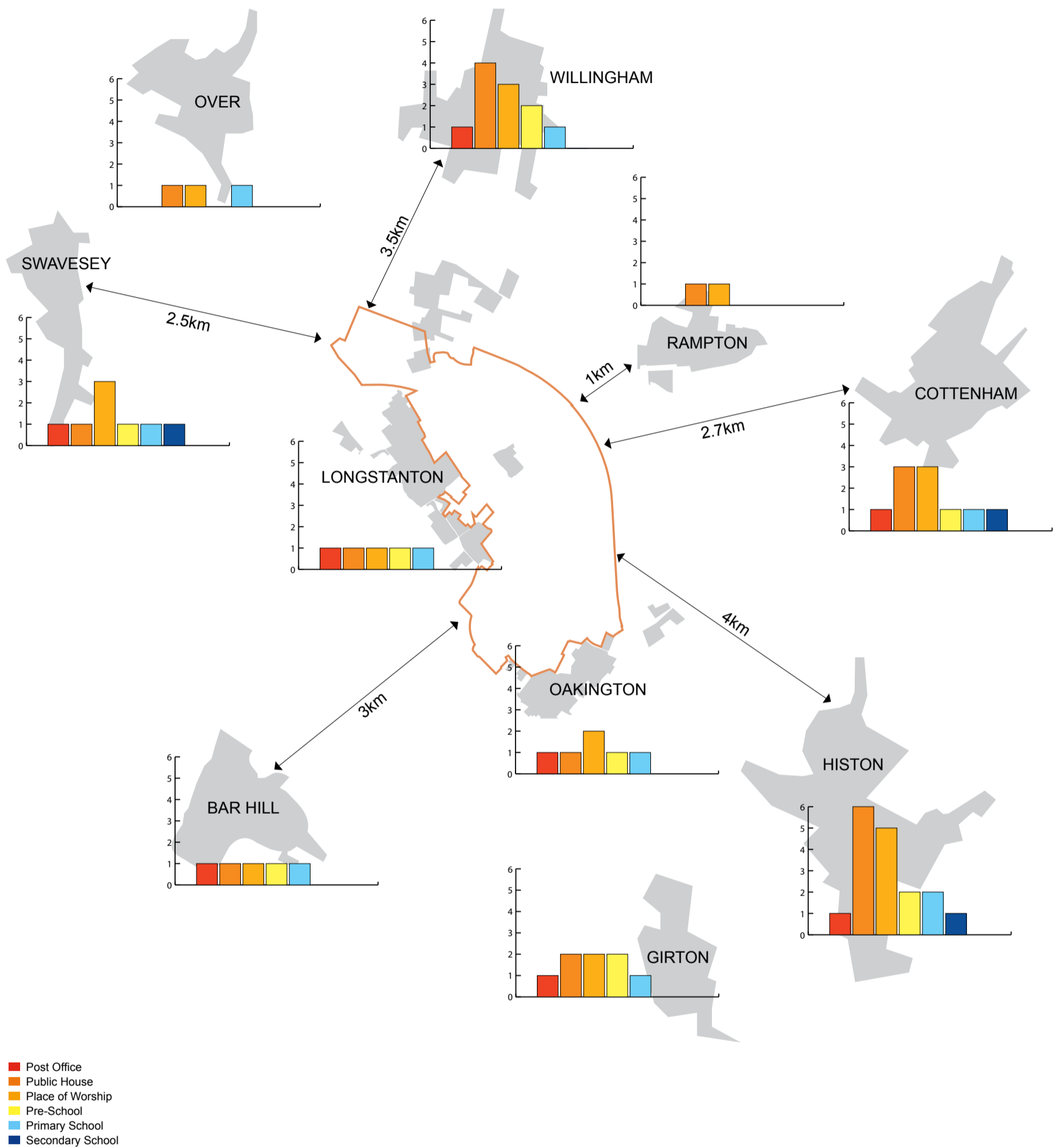
Other than at Bar Hill, existing retail provision is in the form of village centres. There are village facilities at Longstanton, Willingham, Over, Swavesey, Cottenham, Girton, and Histon / Impington. Facilities within these villages include village stores / sub post offices / newsagents, plus, depending on the size of the village, other facilities (including butcher, baker, hairdresser, and a cycle shop). Histon / Impington has a Tesco Express and Co-op store. Planning permission was granted in July 2011 for a convenience store plus four small retail or commercial units at Nelson's Crescent Longstanton. It is understood that a small Co-op store is now proposed on the site.

There are nearby community meeting facilities in Longstanton, Oakington and Westwick.

In addition to existing facilities, as per the existing Framework Masterplan, Northstowe Phase 1 development will provide:

- A three-from entry primary school;
- Sports hub and community facilities;
- Household recycling centre;
- Green space for recreation and habitat creation;
- A range of employment uses;
- A local centre with varied retail uses.

FIGURE 3.12: LOCAL FACILITIES



3.7

N Constraints and opportunities

The Phase 2 site is comprised of a series of built and natural elements that influence the proposed layout of the development. In summary these are:

- Phase 1;
- Future phases;
- Existing community;
- Location of secondary school;
- Utilities;
- Landscape and archaeology.

PHASE 1

Phase 2 is also influenced by the spatial and infrastructure layout of Northstowe Phase 1, in terms of the interfaces that are to be established between primary roads, between the different sections of the dedicated busway route, and between proposed ground level configurations.

The diagrams opposite shows in part how the layout and structure for Phase 1 will influence the form of Phase 2 design through:

- The location of land uses;
- Location of CGB (the spine route through the site);
- Road layout;
- Proposed landscaping (green space).

FUTURE PHASES

The design of Phase 2 is influenced by consideration of the completion of Northstowe, and the form and function of subsequent phases (particularly Phase 3 to the south). Phase 2 will also determine the layout of subsequent development phases. It will set out the interfaces to be established between primary roads, different street sections along the dedicated busway route, and proposed ground level configurations.

The water drainage strategy proposed for Northstowe Phase 2 will also set an infrastructural precedent for future development phases. Future surface water strategies will be required to tie in with the ground levels and water bodies created in Phase 2.

FIGURE 3.13: PHASE 1 ANALYSIS



EXISTING COMMUNITY

The site of the existing community of Rampton Drift and the adjacent settlements of Longstanton and Oakington (shown on Figure 3.14 and 3.15) is another element which is central in defining the constraints and opportunities for the spatial planning of Phase 2. Rampton Drift is surrounded by mature tree vegetation which is to be respected, supplemented, and integrated by the Phase 2 development. The community needs should be integrated within Northstowe whilst respecting the existing settlement boundaries. In terms of movement patterns for existing residents, the community of Rampton Drift will need to retain a road access from the north when Rampton Road ceases to function as the area's main access route from the village of Longstanton.

Northstowe is located between the settlements of Longstanton (to the west) and Oakington (to the south). The residents of these villages will use the facilities which are provided within Phase 2 and Northstowe as a whole. It is important to ensure that there is access to the town centre and other areas of the new town from Longstanton and Oakington, without leading to increased traffic flow through these places. In accordance with the DFD, there is no direct vehicular access proposed from Longstanton and Oakington into Northstowe. The existing settlement boundaries should be defined and respected through green separations, making use of the existing vegetation resource and protecting sensitive areas such as the Longstanton Conservation Area.



FIGURE 3.14: LONGSTANTON



FIGURE 3.15: OAKINGTON



FIGURE 3.16: RAMPTON DRIFT





LOCATION OF SECONDARY SCHOOL

South Cambridgeshire District Council (SCDC) and Cambridgeshire County Council (CCC) has identified that the secondary school should be brought forward as an early part of Phase 2 development. As such consideration has been given to possible alternative sites for the secondary school which could support early delivery. The school site location remains as set out in the DFD, as the site can easily be accessed via Phase 1.

FIGURE 3.17: LOCATION OF SECONDARY SCHOOL PER FRAMEWORK MASTERPLAN (DFD)

FIGURE 3.18: PHASE 2 LOCATION OF SECONDARY SCHOOL



■ UTILITIES

WATER

An existing trunk water main is located to the west of Longstanton and Oakington which runs in an approximately north-westerly direction crossing the A14 south of Dry Drayton before crossing Dry Drayton Road and the B1050 Hattons Road. The main connects to Madingley and Coton Reservoirs. Local supply water mains are located within the existing highway through Longstanton, Oakington and in Rampton Road.

ELECTRICITY

An existing 33 KV supply forming part of the Burwell Primary substation network runs to the west of the development crossing Hattons Road and connects to Hattons Road sub-station. 11 Kv supplies are located in Hattons Road and High Street (Longstanton).

GAS

The main gas infrastructure comprises 200mm Intermediate Pressure gas main which runs along the A14 to the west of the development together with two 100mm Intermediate Pressure mains which run to the south of Oakington and connect to a gas governor supplying the local medium pressure system. Medium pressure gas mains are located in Hattons Road and High Street (Longstanton).

TELECOMS

Existing BT Openreach telecoms infrastructure is located within the A14 corridor and the highway network serving immediate residential areas of Longstanton, Oakington and Rampton Drift. There is also Virgin Media infrastructure in Hattons Road and Longstanton.

AVAILABLE CAPACITY

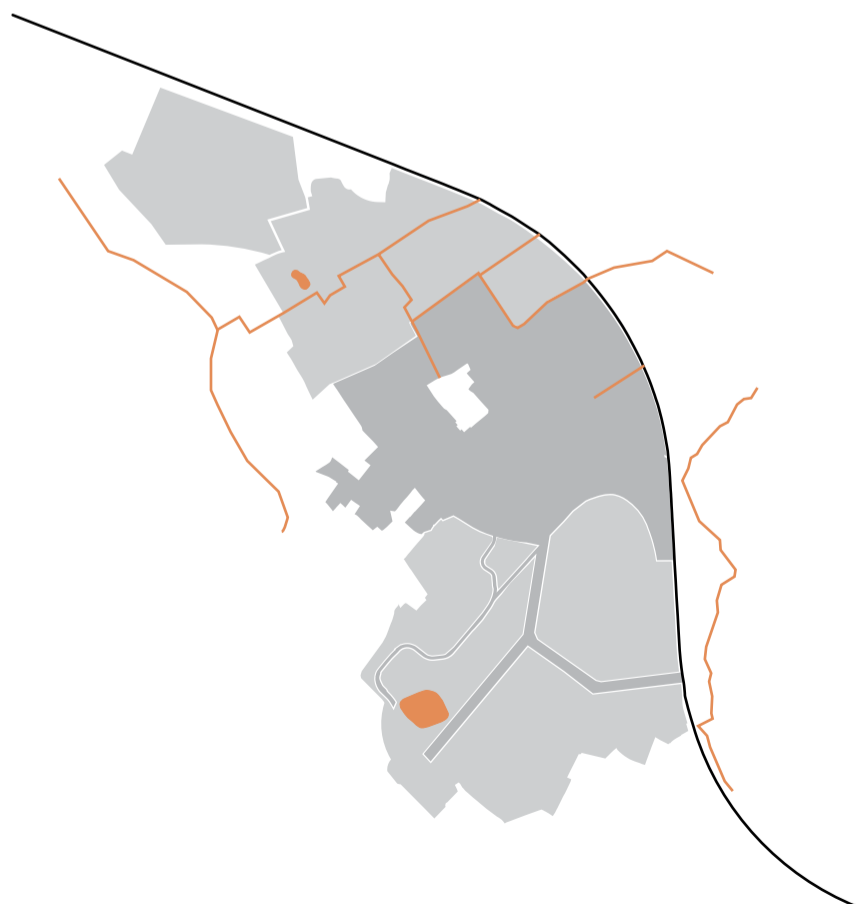
There is only very limited spare capacity within the existing utility network for all services. Reinforcement of supplies will be necessary to serve the Phase 2 scheme and these reinforcement works would be phased as part of the overall Northstowe development.

■ DRAINAGE

The wider area, including the existing settlement of Longstanton, is drained Swavesey Drain/Longstanton Brook and the Beck Brook/Cottenham Lode. There are award drains, maintained by the local authority, also located within the wider area.

The existing foul drainage network at Longstanton and Oakington comprise gravity subnetworks which terminate at local pumping stations which pump flows to Uttons Drove Wastewater Treatment Works. Rampton Drift has a separate pumped main connecting to Longstanton Pumping Station. There is also an abandoned sewage treatment works on site which used to serve the Barracks and Immigration centre.

FIGURE 3.19: WATERCOURSES AND WATER BODIES



WATERCOURSES & WATER BODIES

The following diagrams illustrate the series of constraints and opportunities that have been taken into account during design development.

FIGURE 3.20: CONSTRAINTS & OPPORTUNITIES



FIGURE 3.21: EXISTING CONSTRAINTS & OPPORTUNITIES







4.0 DENSITY ANALYSIS

4.1

N Character

The three main character areas defined by the Framework Masterplan contained in the Northstowe-wide design codes are North, Central and South character districts. The red line boundary Phase 2 approximately corresponds to the Central Character District.

The Central Character District is envisaged to deliver 'a new mixed-use town centre delivering retail, commercial and employment opportunities within a walkable core served by the dedicated busway, containing a secondary school, two primary schools and a market square and town park, with higher density housing than the other two character areas.

In planning for Phase 2 of Northstowe, it is important that a clear identity is formed around the town centre and where the former barracks buildings are situated.

The desired spatial characteristics of Phase 2 will be established through the following objectives:

- The development of Phase 2 should be perceived as a continuation of Phase 1;
- Create a strong connectivity with neighbouring communities;
- Historically valued structures should be retained where a suitable and viable use can be identified;
- Preservation of mature and high quality vegetation should be ensured by the layout of Phase 2;
- Road alignment within the barracks site should be retained as much as possible to incorporate the historic legacy of the area;

- Legibility of the built environment by using an urban grid that reflects the one currently found in the barracks site;
- Clearly defined primary public spaces along the dedicated busway, the town centre, and the town square;
- Development fronting the dedicated busway should be laid out to a consistent built line and to similar height to define the public realm of the busway corridor and create a more interesting and varied built form;
- The architectural and urban character of the new development should promote a contemporary interpretation of traditional forms of the market town;
- Local materials should be predominantly used to integrate the development with surrounding villages;
- Use height variations and application of materials to differentiate hierarchy of buildings and land use areas;
- Establish active street frontages at ground level with residential uses on top along the section of the busway within the town centre;
- Establish an active frontage around the town square with a variety of retail, community, and commercial and civic facilities at ground level conveniently accessed from around the town;
- Promote a distinctive education offer closely linked to town centre and sports facilities;
- Implementation of a sustainable water drainage strategy across the site;
- Use of water features as key design elements of the public realm and streetscape of Northstowe;
- Definition of a confident edge between built and landscape areas to ensure that the built extents of the development and separation between neighbouring villages are clearly defined.

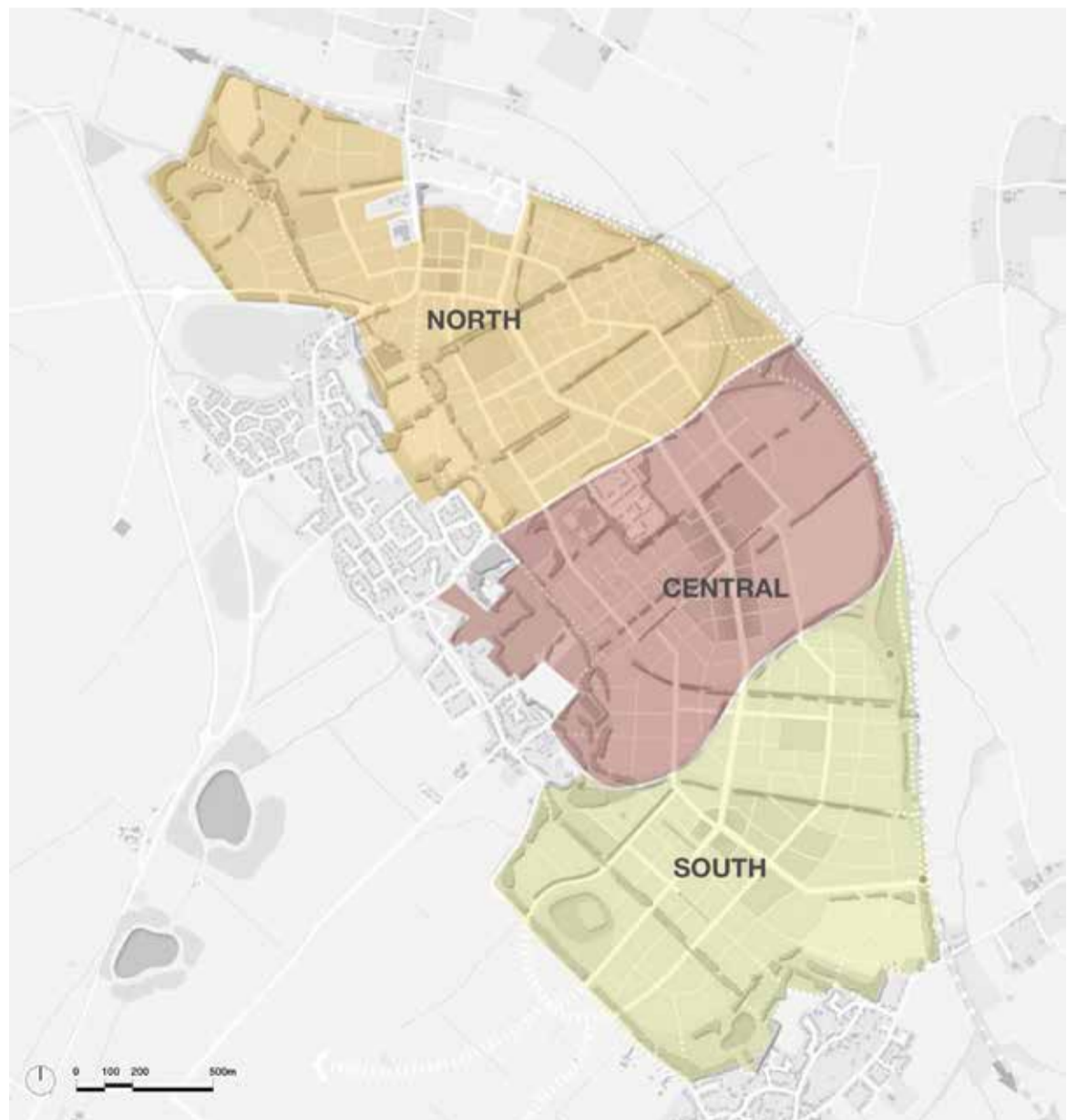


FIGURE 4.1: DESIGN CODE CHARACTER DISTRICTS

4.2

N Precedent analysis

The analysis of residential development precedents for Phase 2 has focused on developing a broader understanding of the density requirements set out in the NAAP and DFD as well as how the approved proposals for Phase 1 set a requirement to deliver 8,500 homes on the remainder of the site. The reason for taking density as a starting point for developing the quality, character, and quantum of development for Phase 2 is because density is a critical requirement prescribed in policy documents.

The analysis has also considered the existing community of Rampton Drift and examples of recently built residential developments around South Cambridgeshire.

■ AVERAGE DENSITY FOR FUTURE PHASES

To deliver the 10,000 dwellings that are proposed for Northstowe, the remainder of the site after Phase 1 would need to provide 8,500 dwellings. To achieve the total the site would need to be developed at an average of 54 dwellings per hectare (dph). This level of density would be in accordance with Policy NS/7 of the NAAP which promotes 'at least 40dph' for Northstowe.

Within the Phase 2 scheme further residential density options have been tested in line with Policy NS/7 (3) of the NAAP that requires higher density around the town centre (explained further in section 5.2). A variety of densities will be used to create different characters across Phase 2 which, when taken together, will reach an average density.

FIGURE 4.2: DENSITY

	Northstowe	Phase 1	Phase 2 and Future Phases
Total area (ha)	490	97	393
Residential area (ha)	201	43	158
No. of homes	10,000	1,500	8,500
Average density (dph)	>40 (policy requirement)	37.5	54

4.3

N Precedent examples selected for study

It is useful to understand what different densities actually mean for the built form, and to visualise the types of development that can be delivered at Northstowe. The following pages illustrate how different densities have been delivered in the Cambridge area, including Rampton Drift, Cambourne, and Abode at Trumpington Meadows.

■ RAMPTON DRIFT

Rampton Drift is an existing settlement comprising of 92 properties, originally built as part of the barracks complex at RAF Oakington.



1

17.5 dwellings/ha net



2

70 dwellings/ha net



FIGURE 4.3: RAMPTON DRAFT PRECEDENTS



ABODE, TRUMPINGTON

Trumpington Meadows is approximately 3.5 miles from Cambridge city centre, and part of the 'Southern Fringe' development located to the southeast of Cambridge. When completed, the development will cover 350 acres and include 1,200 new homes.



1

68 dwellings/ha net



2

100 dwellings/ha net



3

240 dwellings/ha net

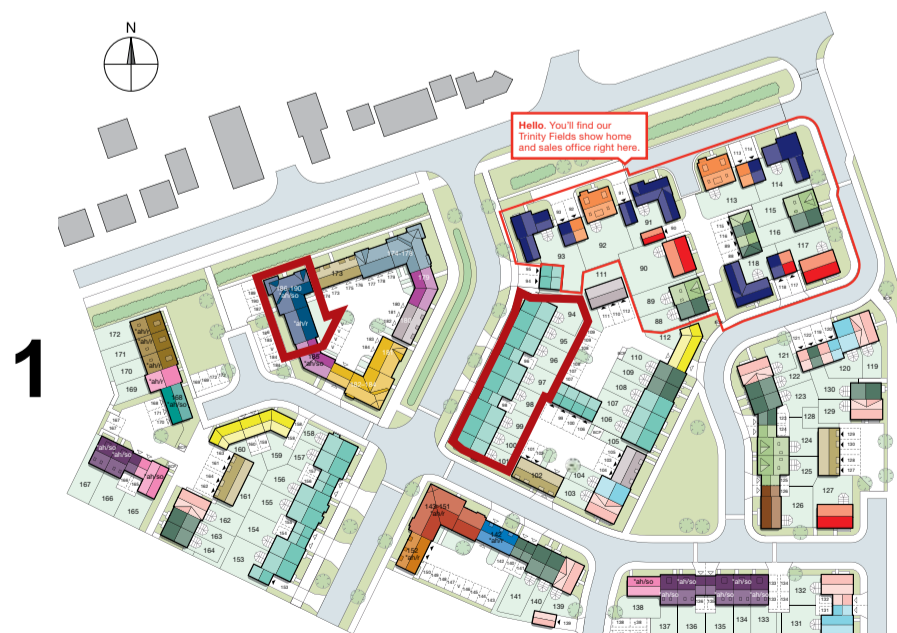


FIGURE 4.4: ABODE PRECEDENTS



CAMBOURNE

Cambourne is a new settlement in South Cambridgeshire, comprising three villages: Great Cambourne, Lower Cambourne and Upper Cambourne. The final population is expected to be around 10,000 people, in 4,250 homes. South Cambridgeshire District Council is based on a business park in the new settlement.



1

35-45 dwellings/ha net



2

>60 dwellings/ha net



FIGURE 4.5: CAMBOURNE PRECEDENTS



5.0
RATIONALE
& EVOLUTION

5.1

The initial vision and development objectives

Northstowe will be a new town of up to 10,000 new dwellings. The initial vision and objectives for Phase 2 have been defined by those set out in the Northstowe Area Action Plan and the Northstowe Development Framework Document:

'Northstowe will be an exemplar and vibrant 21st century town with a strong local identity. It will combine the best historic characteristics of local settlements with provision for more sustainable patterns of living and lifestyle choices. Northstowe will be built to high environmental standards'.

Key guiding principles for Northstowe include:

- The creation of a community, including retail, employment areas, health and sports facilities, and schools;
- A dedicated busway as a direct link from the Cambridgeshire Guided Busway running through the middle of the town, enabling the site to be served by a high quality public transport system;
- The provision of pedestrian and cycle connections between Northstowe and adjoining settlements such as Oakington and Longstanton, and improved links further afield, in particular to Bar Hill;
- Southern access to provide vehicular access to the A14, as well as to the B1050 at the northern end of the site;
- A strong character including: linear development reflecting local settlement forms, varied building heights, and a defined architectural vernacular;
- A resilient landscape structure with a hierarchy of interconnected green public spaces and parks, and nature conservation in a network of habitats;
- Working towards low carbon with a combination of energy efficient solutions, local food production, green travel and innovative technology;
- Phasing of the development primarily from north to south to allow for a coordinated and planned approach to construction.

The 'An exemplar of sustainable living' addendum sets out the exemplar, unique and special aspects that Northstowe aspires to achieve, focusing on environmental, economic and social aspirations for the town. It includes:

- A public realm and block structure that provides walkable and convenient cycle access for all residents to local facilities, services and employment areas;
- A dedicated busway serving as the primary public transport spine;
- Strong landscape and accessible green infrastructure that integrates amenity, recreation, drainage, biodiversity and food production;
- Site wide Sustainable Drainage Systems (SuDS) to manage surface water drainage flow, mitigate flood risk and provide amenity where achievable;
- The provision of exemplar buildings in relation to renewable resources, energy efficiency and sustainable construction products and methods.

FIGURE 5.1: FRAMEWORK MASTERPLAN



Gallagher & Homes and
Communities Agency

NS
Northstowe

Framework Master Plan

Terence O'Rourke
Planning | Design | Environment

5.2

N Consideration of options

The options for the extent of Phase 2 have been informed by the existing policy framework and the DFD as set out in Section 2. Additionally the assessment of the physical features and site conditions including location of the CGB to the East, Longstanton to the West and Phase 1 to the North, as outlined in Section 3.

■ QUANTUM / CAPACITY ANALYSIS: MAIN PHASE 2 DEVELOPMENT AREA

The location of Phase 1 and the DFD phasing recommendations determined that the next phase of development should be to the immediate south. The HCA undertook analysis to establish the scale (coverage and number of homes) that should be included in Phase 2. This initial analysis identified that:

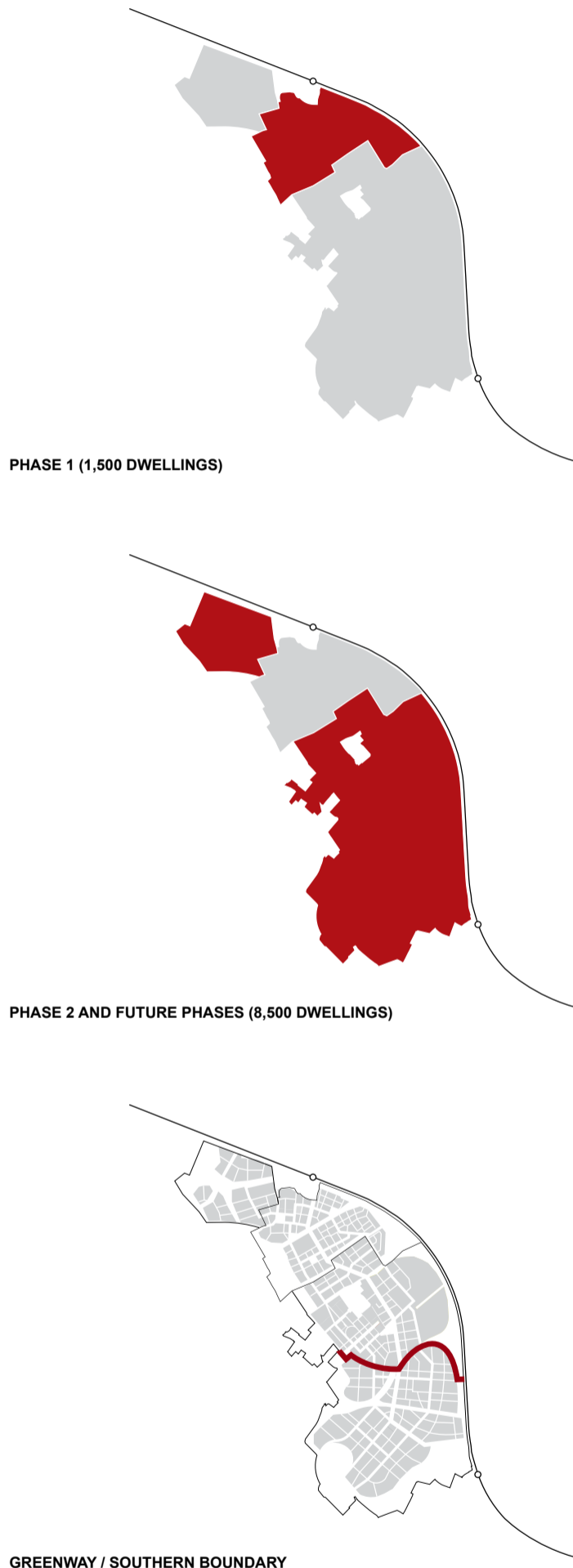
- Phase 1 provides 1,500 dwellings approximately at an average density of 37.5 dph (net density);
- If this density was applied across the site, it would result in a shortfall of 2,500 dwellings, equivalent to approximately 25% of the total number of dwellings proposed for the whole of Northstowe;
- In order to achieve the provision of the remaining 8,500 dwellings, the remainder of Northstowe would need to be developed at an average of 54dph.

Therefore, in the determining the boundary and site capacity options for Phase 2, a key consideration was optimising use of the site. A higher average density for Phase 2 was deemed suitable because this phase contains the town centre and so should be the densest area of Northstowe. Future phases will be developed at a lower density.

Market analysis of comparable schemes within the vicinity (Longstanton particularly) also show that developers are largely providing 2, 3 and 4 bedroom housing in a mix of typologies. The demand is largely for 2 and 3 bedroom homes but to a certain degree this is determined by affordability. The surrounding developments currently provide a limited number of 1 bedroom homes and some none at all. At Northstowe apartments will need to be delivered to provide a valuable type of home particularly for small household sizes whilst also to supporting a balanced demographic in forming part of the lifetime homes agenda. Higher density typologies are to be provided in the town centre although it has been determined that the overall quantum should be tempered in recognition of the limited market demand. Northstowe is likely to attract a variety of people and demographics; couples with young families seeking proximity and access to education, health and welfare services, and outdoor open green space; people wanting to make a fresh start, moving away from the city and people moving to the area with their work and needing somewhere convenient. It is therefore critical to provide a wide variety of housing types allowing Northstowe to offer the market something alternative, creating a diverse community attractive to all groups within the market and based upon principles that are flexible and responsive to market drivers.

The southern boundary limits to the main Phase 2 development area have been defined by the strong greenway link east to west set in the Framework Masterplan and also following the initial drainage strategy work, the water attenuation requirements for Phase 2 which require the inclusion of the water park area to serve the whole of Phase 2 drainage needs.

FIGURE 5.2: KEY DRIVERS

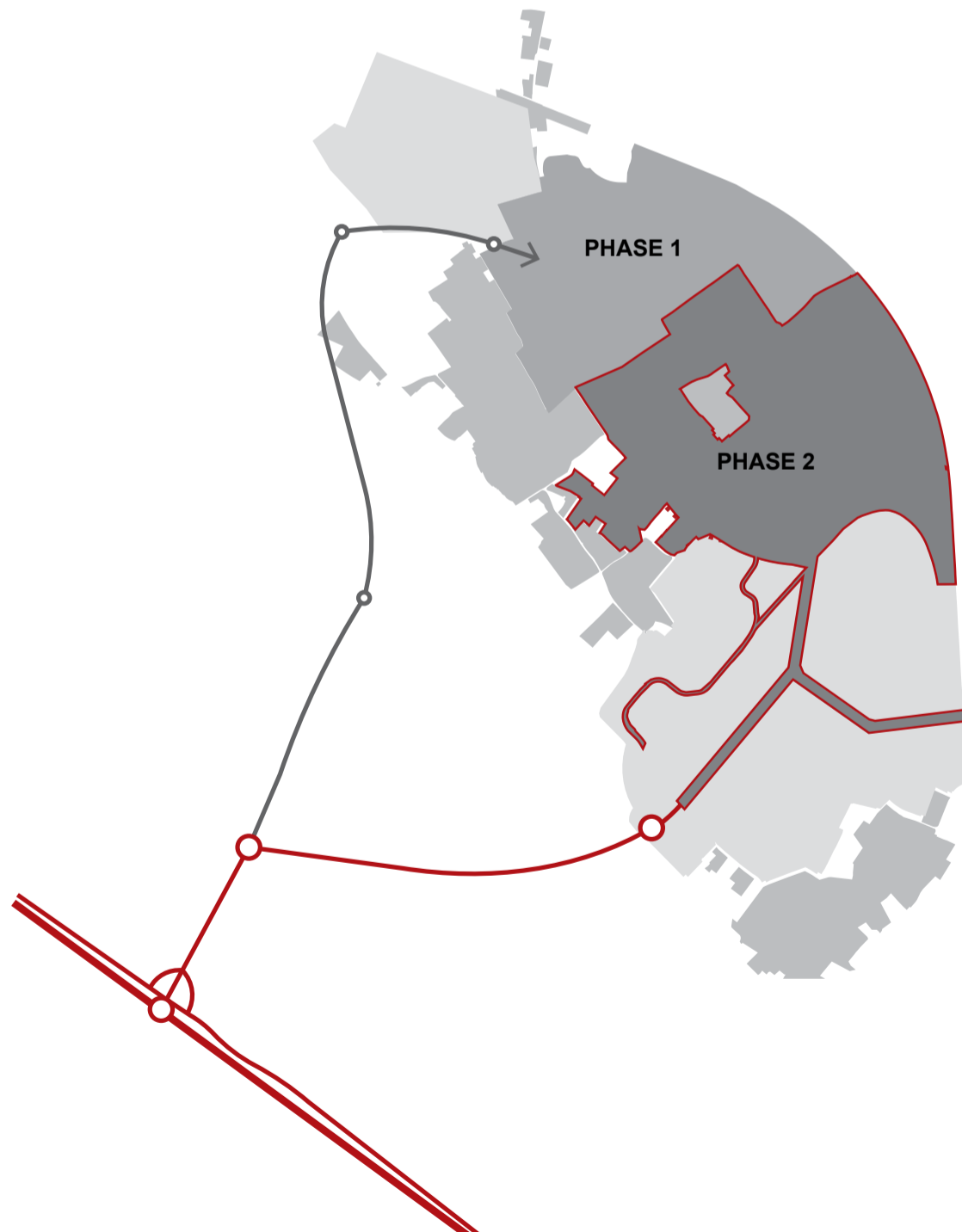


■ SOUTHERN ACCESS ROAD (WEST)

Policy NS/10 of the NAAP states that adequate highway capacity will be required to serve all stages of development, which may include new roads into the southern end of Northstowe from Hattons Road and from Dry Drayton junction.

As part of the public consultation on the proposals (see Section 5.3), external access from the west (Bar Hill junction) and east (Dry Drayton junction) were consulted on. Since then, extensive transport modelling work has been completed by the HCA to assess the effect of Phase 2 and inform the Access and Travel Strategy for the development. This work has shown that provision of a second southern access link from the existing Dry Drayton junction into the southern end of Northstowe does not bring significant benefits for Phase 2, and in fact leads to additional traffic generation and mainly draws traffic from the western access and the A14 local access roads. For this reason, provision of this link is not included as part of Phase 2.

Analysis undertaken as part of design development has demonstrated that the Southern Access Road (West) could be provided as a single carriageway rather than a dual carriageway for Phase 2, as the forecast flows are significantly lower than both the capacity of a dual and single carriageway road.



ACCESS

5.3

N Public engagement

The proposals for Phase 2 of Northstowe have been developed against a background of a clearly defined policy framework (the Northstowe Area Action Plan (2007) and Northstowe Development Framework Plan (2012)). There have been a number of planning applications for development of the site since 2005 and therefore a significant amount of consultation and engagement has taken place to date (Figure 5.4). In this context the Homes and Communities Agency's outline proposals for Phase 2 reflect the policy framework and have sought to address comments and issues that have been raised.

The Homes and Communities Agency has sought public and stakeholder views on its emerging Phase 2 proposals through the following:

- Public Consultation: A public consultation ran from the 21 March 2014 to the 4 April 2014. Members of the community were able to view and comment on the proposals at staffed exhibitions, un-staffed exhibitions, and via the website;
- Rampton Drift Consultation: Two community group meetings were held with the residents of Rampton Drift. At these meetings, information on the emerging proposals was shared and views and suggestions for Phase 2 of Northstowe were gathered;
- Council and Technical Consultee Engagement: A number of meetings were held with officers from South Cambridgeshire District Council and Cambridgeshire County Council. Various topic specific meetings with technical stakeholders also took place, including a presentation to Cambridgeshire Quality Panel on the 1 April 2014;
- Member engagement: Regular updates were provided to Members of the Northstowe Parish Forum. In addition several workshops were held to allow for a more detail discussion of drainage and remediation, the Economic Development Strategy and the emerging design proposals.

Figure 5.3 illustrates two of the consultation boards that were presented at the public exhibition. A number of key changes have resulted from the pre-application public consultation (described in Section 5.4).

At the pre-application consultation three possible planning applications were tabled. This included the outline planning application for the main Phase 2 development and two full planning applications for the east and west southern access roads. At the pre-application consultation it was clearly stated that the need for two road planning applications was in the process of being established, through detailed highways modelling. Many participants concurred that only the infrastructure required for Phase 2 should be provided and that if a road was required for a subsequent phase then this should be brought forward as part of those proposals. The conclusion of the modelling exercise was to confirm that only the southern access road west is required to support Phase 2. Accordingly the scope of the submitted application has been revised to remove Southern Access Road (East). This road will be brought forward as part of a future phase.

The scheme was presented to the Cambridgeshire Quality Panel on the 1 April 2014.

The key points discussed and issues raised have been addressed in the final proposals and explained within Section 5, 6, 7 and 8 of this document. Key issues which required further information/ explanation were:

- Town square role, function, size and growth strategy (this is explained more in the Town Centre strategy);
- Public realm;
- Location of allotments;
- Location of community buildings;
- Building heights distributions;
- Design code;
- Safe design;
- Explanation of education and sport provision form and functional areas;
- Residential density.

FIGURE 5.3: EXAMPLE OF CONSULTATION BOARDS

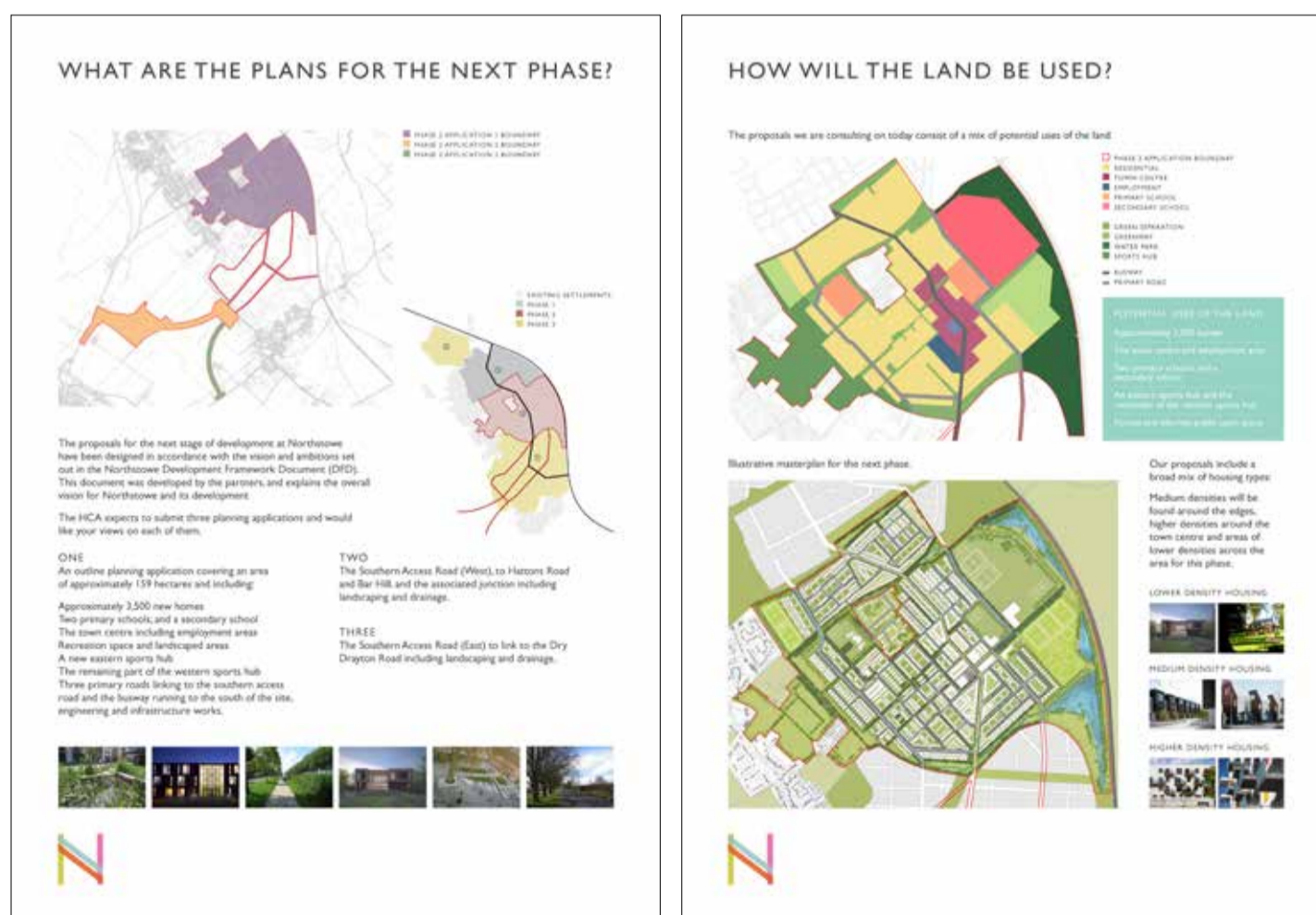


FIGURE 5.4: NORTHSTOWE CONSULTATION TIMELINE



5.4

N Design evolution in light of analysis

In evolving the Phase 2 masterplan, the design team has built on the masterplanning principles established by the Framework Masterplan included as part of the DFD. The masterplan for Northstowe Phase 2 has evolved from policy through an analysis of the site density potential, technical environmental assessment work and structured consultation (as set out in the Consultation Strategy). Key design changes are therefore explained in this section.

■ ROUTES

The route of the busway and primary roads have been realigned to solve potential orientation issues, reduce long stretches of roads, and avoid road junctions at sharp angles. This also activates opportunity areas for plazas/ squares (or key nodes).

■ ACTIVATION

The busway has been designed to allow for phasing of character from the northern Phase 1 through to future phases (residential to town centre to gateway). The reconfiguration of the block layout into a grid system originates from the road alignment of the former barracks site. The smaller nodes/ intersections resulting in the grid layout (further down the hierarchy of movement routes) create the opportunity for creating key memorable places. Re-orientation of the block layout also optimises environmental benefits for future homes.

■ EXISTING SETTLEMENTS & BUILDINGS

Proposals have been designed to ensure safeguarding of required separation between Phase 2 and the neighbouring village of Longstanton. Furthermore, there has been a need to achieve a balance between the integration of Rampton Drift and a suitable creation of a separation zone and green interface around the existing community which will retain existing vegetation.

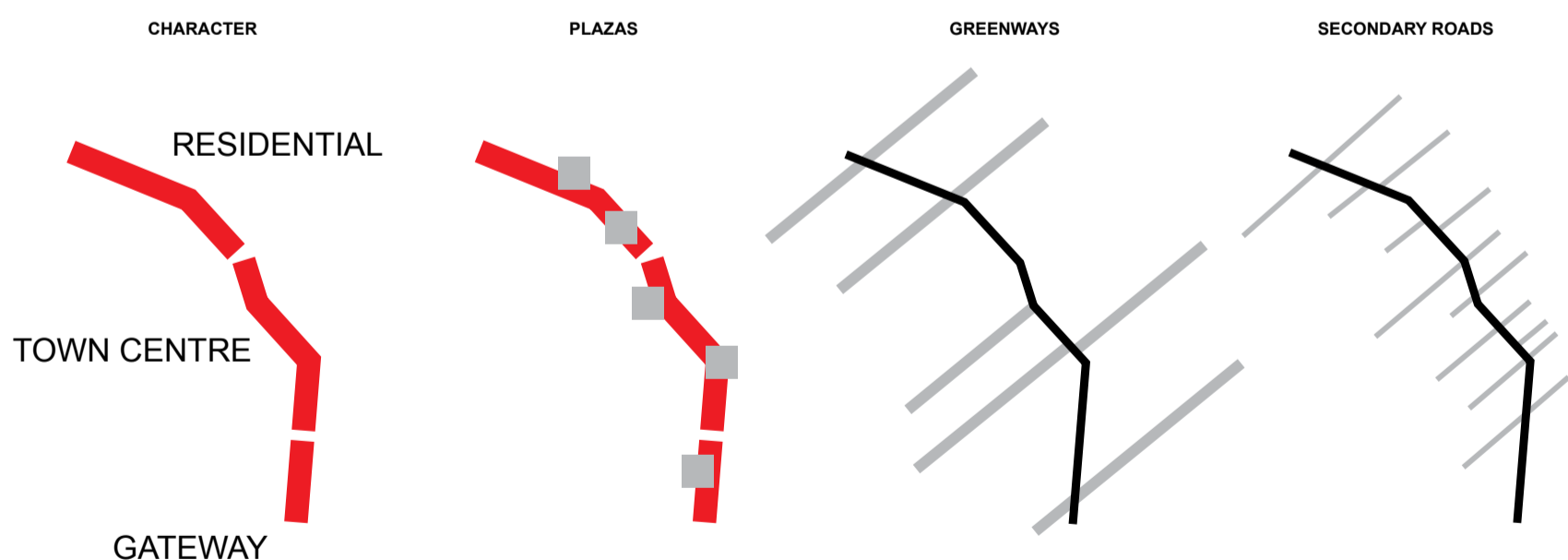
The design also considers the reuse of retained military buildings and other structures such as the water tower and pill boxes.

■ LANDSCAPE & DRAINAGE

Key design aspects:

- Retention of trees, hedgerows, and other valuable vegetation in order to maximise the potential of an established landscape from the outset;
- Extension of the Phase 1 western sports hub into Phase 2;
- Use of dense tree and shrub planting along the borders of separation zones to minimise the adverse effects of road noise, light spill, and glare from flood lighting;
- Establishment of greenways along existing trees and hedgerows to maintain the character of the wider agricultural landscape;
- Formulation of a sustainable surface water strategy which minimises the need of intensive earthworks;
- Retention of ecologically important routes and habitats.

FIGURE 5.5: ACTIVATION & ROUTES DIAGRAMS



■ PRIMARY ROADS

The Figures below (and on the following pages) show the key moves of the primary road structure from DFD to the proposed layout which involved a re-alignment of the western primary road in order to make it more bus friendly and to avoid long lengths of straight roads that may encourage faster speeds.

■ RAMPTON DRIFT LANDSCAPE BUFFER

Some minor alterations have been incorporated into the landscape areas around Rampton Drift. These have been introduced to make best use of existing landscaping and trees to provide a buffer between the new development and existing homes.

■ LANDSCAPE

The DFD shows the landscape blocks all at the edges of the site. Through the design process it has been considered that bringing the landscape into the site by adding formal greenways and improving connections between east and west will enhance the ecological value and have positive health impacts. The green separation zone to the west has also been enhanced. There has also been some re-alignment of the grid pattern based on tree surveys ensuring the mature trees are to be retained.

Work on the proposed drainage ponds (area known as 'Waterpark') has also been undertaken to ensure maximised value for combined uses (landscape, ecology and drainage).

FIGURE 5.6: PRIMARY ROAD

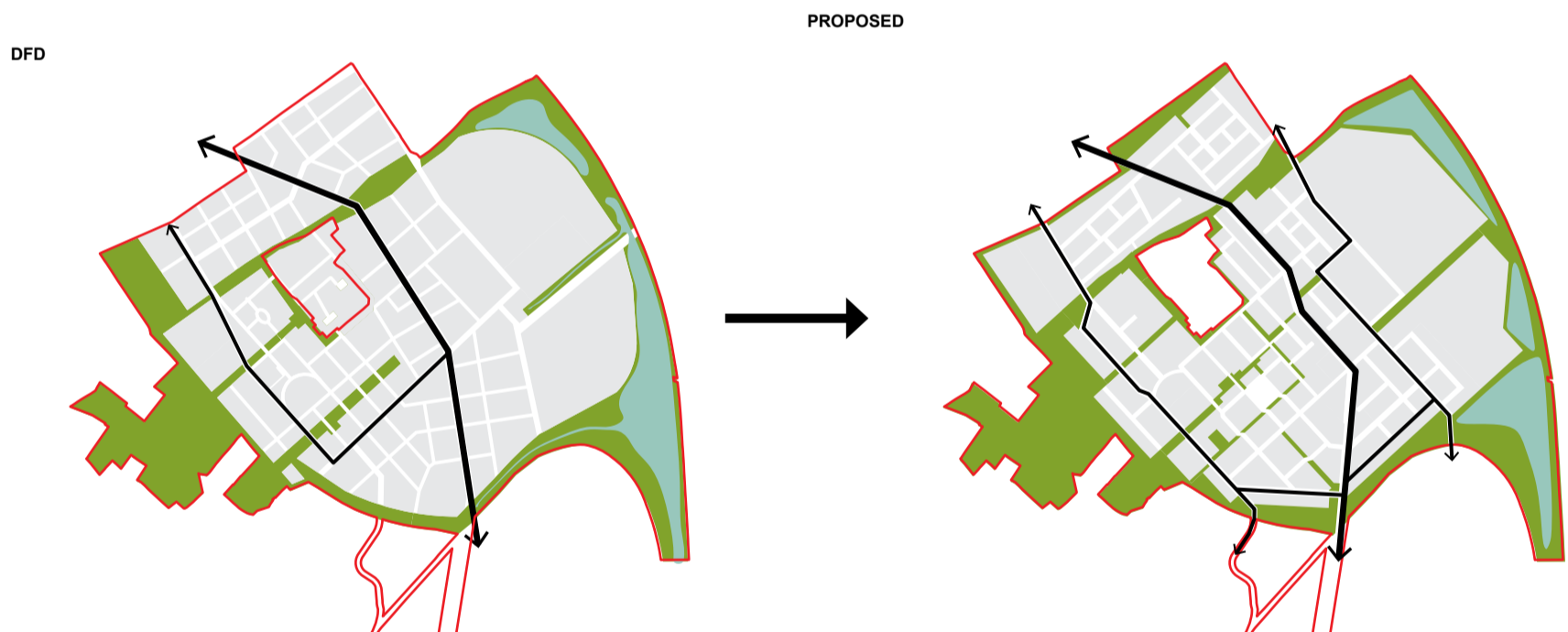


FIGURE 5.7: LANDSCAPE

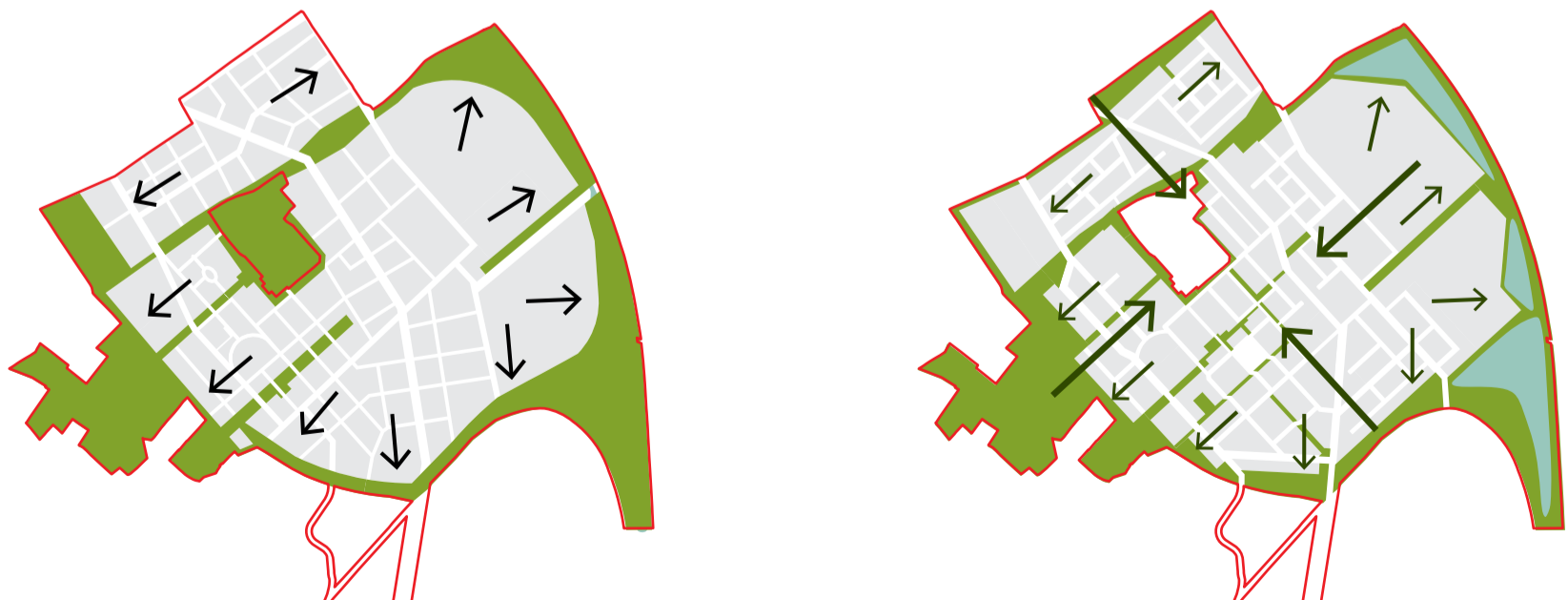
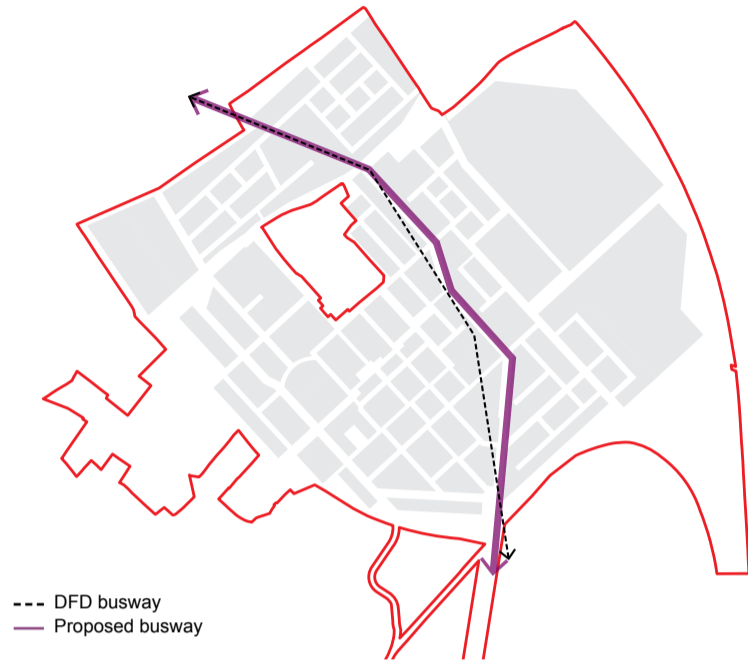


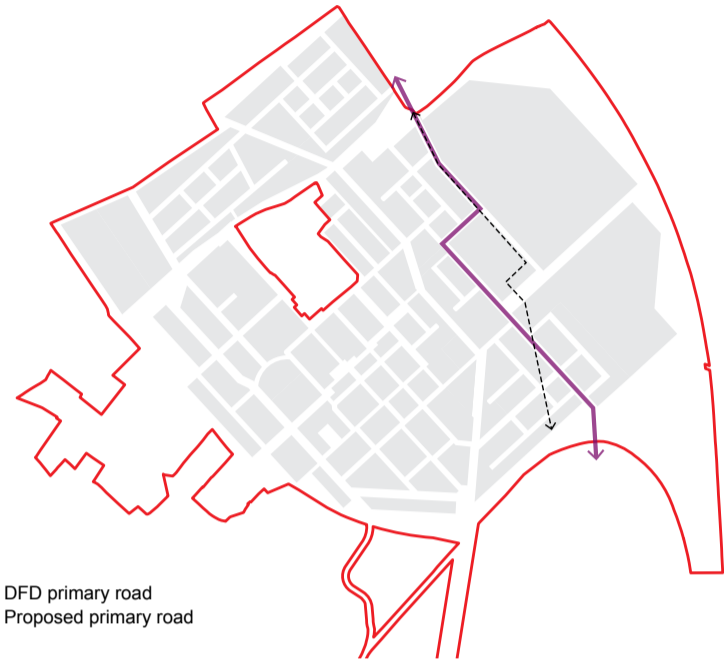


FIGURE 5.8: REFINEMENT OF PHASE 2 MASTERPLAN



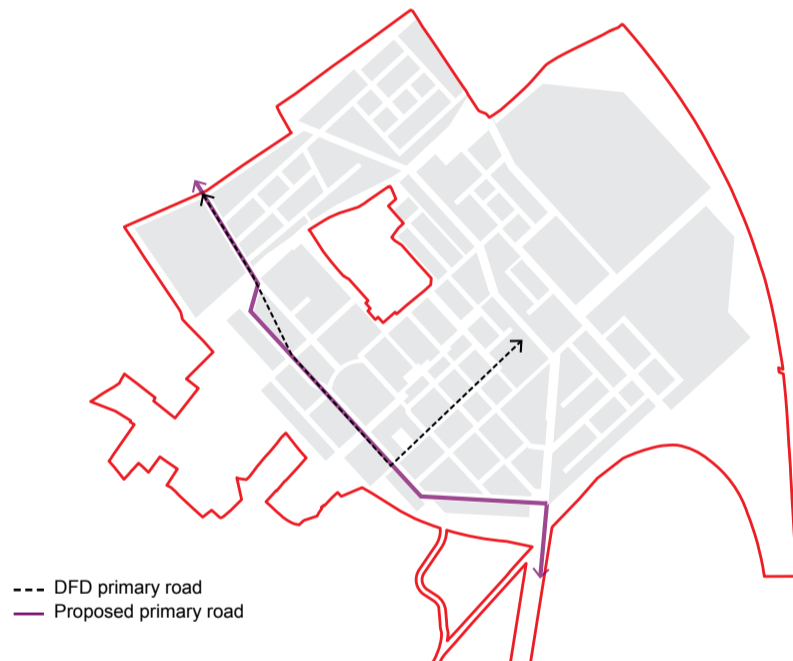
--- DFD busway
— Proposed busway

KEY MOVES: BUSWAY



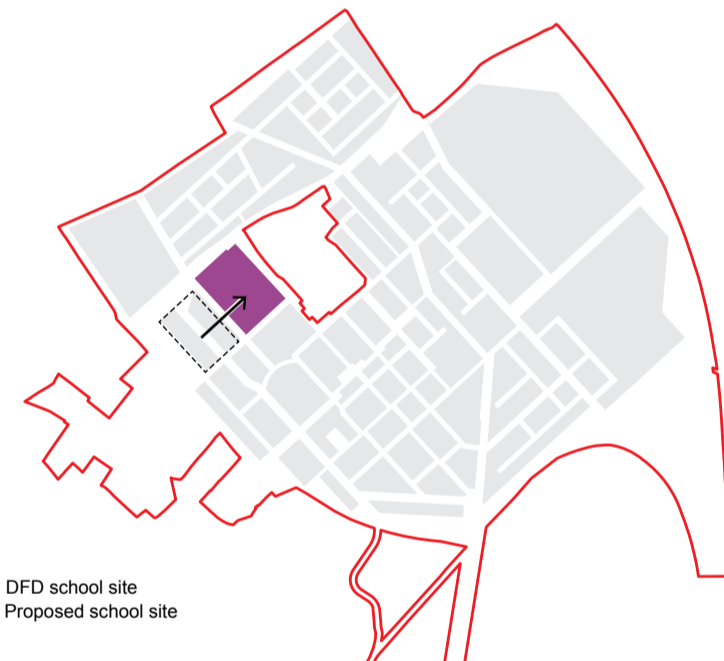
--- DFD primary road
— Proposed primary road

ALIGNMENT OF EASTERN PRIMARY ROAD



--- DFD primary road
— Proposed primary road

ALIGNMENT OF WESTERN PRIMARY ROAD



--- DFD school site
■ Proposed school site

LOCATION OF PRIMARY SCHOOL



— Former barracks site
--- Former barracks grid layout applied to site

KEY MOVES: SECONDARY ROADS



--- Proposed busway and primary roads
— Proposed secondary roads

KEY MOVES: SECONDARY ROADS

■ MOVEMENT

The realignment of the primary and secondary routes is based on the principle of retaining the character of the former barracks grid layout, as shown in the bottom left of Figure 5.8. There have also been some changes to busway crossings and access points:

- Optimised number of transport crossings across the busway to allow for increased movement and permeability around the site; and
- Development of the access arrangements for Rampton Drift to allow vehicular access from both the south the north of the town.

■ CONSTRUCTION ACCESS

Provision is made to link the site access roundabout to the existing perimeter road (that will be used for internal site construction access). The construction link has been located to align with the point where a permanent road will be required in subsequent phases, to minimise the impact on the existing tree line.

■ EDUCATION PROVISION

The key move of the western primary school location is shown in Figure 5.8. Relocation of the primary school to potentially make use of the existing Officers Mess building and to provide a buffer onto Rampton Drift.

The area identified for a primary and secondary school on the eastern half of the site has been revised to introduce greater flexibility in how education provision is delivered at the site. The County Council is in the process of developing its requirements for Northstowe and the changes have been introduced to allow the areas identified for schools to be used for primary, secondary, special education needs and/or sixth form. To support this approach the eastern most primary road has been relocated to run around the education sites rather than through them.

■ TOWN CENTRE

The area and shape of the town centre has been extended so that it is contiguous with the eastern education area. During pre-application consultation the need to provide a town centre with appropriate services and facilities was raised, as was support for higher density and taller buildings in this the town centre area. This change provides more flexibility to the outline plan that will allow options to be explored as part of the detailed town centre design that will be submitted as part of the reserved matters application for that phase of development. In addition, the employment area and town centre have been shown as one area on the submitted plans. This combined area has the potential to generate jobs for the town, which was supported by feedback received.

■ SHARED FACILITIES

Further consideration has been given to the eastern sports hub and how it can share facilities with the secondary school to maximise efficiencies in provision and use of open space.

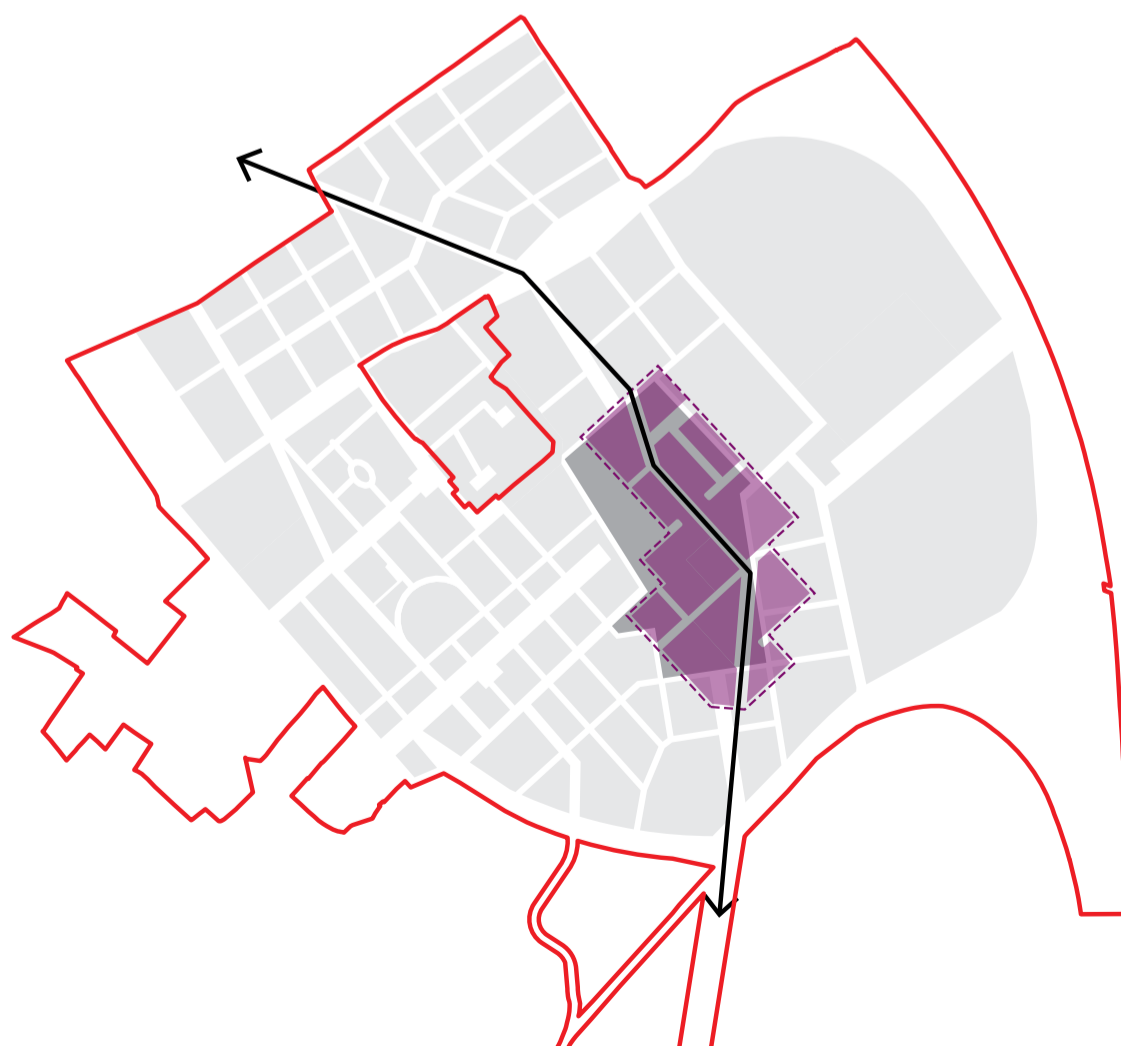
■ BUILDING HEIGHTS

The maximum building heights for residential development has been increased in the area north of the town centre along the route of the busway. This responds to general support for higher density and taller buildings in Phase 2 and will align with the proposals for Phase 1. The area around Rampton Drift would comprise up to two storey buildings to protect the amenity of existing residents.

■ FLOODING & DRAINAGE

The issue of flooding in Oakington has been raised as a concern during the preparation of the applications. Further detail has been developed for the southern access road full application, including details of drainage. Provision has been made for a drainage pond adjacent to the site access roundabout, which will be used in conjunction with the Hattons Road drainage ponds to manage drainage for the access road. The road scheme will not generate a flood risk for Oakington.

- Phase 2 application boundary
- DFD Plots
- DFD Town centre
- Proposed Town centre
- Proposed Busway



KEY MOVES: TOWN CENTRE