NORTH EAST CAMBRIDGE

TOWNSCAPE STRATEGY

FINAL REPORT

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4265

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Project Director	Matthias Wunderlich
Reviewed by Design Director	Hugo Nowell
Approved by Design Director	

URBAN INITIATIVES STUDIO

Exmouth House, 3-11 Pine Street

London EC1R 0JH

+44 (0)20 3567 0715

www.uistudio.co.uk

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Figure 1.1: Open Space in Cambridge Science Park

1.0 INTRODUCTION

1.1 About this Report

1.1.1 This report is the Townscape Strategy for North East Cambridge (NEC). The purpose of the strategy is to provide an overall framework based on strong townscape principles and ensure that the development of individual sites within NEC is coordinated to create holistic, connected and high quality places. The NEC area will be a combination of different neighbourhoods and sub-areas, and this framework aims to ensure that each of these contributes to the creation of a successful whole.

1.1.2 The Townscape Framework contained in Chapter 4 covers the fundamental spatial elements of the area, such as streets, land uses and building heights. Furthermore, the framework identifies character areas, and provides guidance on principal public realm elements and open spaces.

1.1.3 The Strategy is based on an independent review of the draft Spatial Framework and related design policies, which is provided in an Appendix document. The recommendations of that review have been incorporated into this Strategy.

1.1.4 The Townscape Strategy is built on the evidence provided in the NEC 'Townscape Assessment', 'Heritage Impact Assessment' and 'Landscape Character and Visual Impact Assessment' reports prepared as a supporting evidence base to the NEC AAP. A summary of these documents can be found in Chapter 2.0.

1.1.5 The townscape strategy includes a broad range of recommendations for development that can and should be delivered by development parties. However, the strategy also recommends a number of interventions that are more challenging to implement and that may require collaborations between different parties, additional funding or more complex delivery mechanisms. It is recognised that some of these interventions may be more ambitious than what can realistically be achieved within the period of the AAP or under current funding and ownership scenarios. There are also physical constraints that will impact the layout and land uses at NEC, such as the need for noise barriers, legacy sewage infrastructure and pylons.

1.1.6 However, the townscape strategy would not be complete if it did not set a high and aspirational bar, that responds to the longer term vision for the NEC area and which strives for the best possible urban design solution. It is for the AAP to define the interventions that should be taken forward during the plan period and those which will remain longer term delivery goals.

1.2 Report Structure

1.2.1 The report is structured into the following sections:

- **1.0 Introduction**
- **2.0 Evidence Base Summary:** A summary of the main recommendations of the studies that form the evidence base for the Townscape Strategy.
- **3.0 Townscape Principles:** An overview of the concept of Townscape, with ten townscape principles to guide future development within NEC.
- **4.0 Structuring Principles:** A presentation of the spatial vision and concept for NEC.
- **5.0 General Urban Design Principles** A discussion of general urban design principles that underpin the Strategy.
- **6.0 Character Areas:** Detailed urban design guidance for each of NEC's character areas.
- **7.0 Public Spaces and Public Realm:** Sets out the location and design of main public spaces, landscape features and street types.
- **8.0 Conclusion**

2.0 EVIDENCE BASE SUMMARY

2.1 Heritage Sensitivities

Introduction

2.1.1 This Townscape Strategy has been developed with particular consideration of the Heritage Impact Appraisal (2021) and Strategic Heritage Impact Assessment (2021) baseline work, which was undertaken alongside the Townscape Analysis and this Townscape Strategy. These reports have identified sensitive heritage assets and elements of significance, which could be affected by the development of the NEC. The Townscape Strategy has therefore been developed in an iterative way, to take account of these specific sensitivities and outline parameters for development in such a way as to minimise harm to these heritage assets and their significance.

2.1.2 Summarised below are the key heritage sensitivities that have been identified as part of the Heritage Impact Appraisal for the NEC and Strategic Heritage Impact Assessment for Cambridge. Following on from that, design parameters for development are outlined, which take into account the key heritage assets and underpin the development of the Townscape Strategy.

Heritage Sensitivities

2.1.3 The principal heritage impact concerns would be from tall buildings that rise above the context and the tree line and become dominant or detracting features on the skyline that may affect the setting of heritage assets or impact on views. The key heritage sensitivities and characteristics that require consideration within the Townscape Strategy include:

Fen Ditton Conservation Area

2.1.4 Views from the western edge of the Conservation Area looking westwards over the River Cam and Ditton Meadows towards the NEC and beyond the Cambridge North Station development are sensitive. These views are a characteristic element of the Conservation Area as they represent the relationship between the village and its rural surroundings of open space, river corridor and views of meadows and fenland. Mid-rise or taller buildings at NEC could form the backdrop in these views, forming a further urbanising element to what is a feature of this rural village and alter one of the key characteristics of Cambridge in terms of its green River Cam corridor edged by meadows.

2.1.5 Taller buildings in views from within the core of the Conservation Area (i.e. within the village along the High Street) are unlikely to be visible unless heights of over 13 storeys are proposed.

Baits Bite Lock Conservation Area

2.1.6 Sensitive views from within this Conservation Area are those looking south west, where the character is currently very rural and views out of the Conservation Area consist of flat fenland landscape with very limited visibility of Cambridge. There is a risk that taller buildings at NEC could form the backdrop of these views. Views of consistent areas of development in the distance would create an urbanising feel to a secluded rural location.

Horningsea Conservation Area

2.1.7 This conservation area is a small village set within a rural context. There are several identified ‘positive vistas’ from within this Conservation Area looking south west. Views out of the Conservation Area consist of flat fenland landscape with very limited visibility of Cambridge. There is a risk that taller buildings at NEC could form the backdrop of these views. Views

of consistent areas of development in the distance would create an urbanising feel to a secluded rural location.

Riverside & Stourbridge Common Conservation Area

2.1.8 The existing characteristic views from of the River corridor and green edge with low-rise suburban development beyond are sensitive. Taller buildings could form the backdrop to low and mid-rise suburban development beyond the River Cam corridor across Stourbridge Common and Logan's Meadow altering the sensitive views.

Castle Mound Scheduled Monument & Listed Building

2.1.9 Castle Mound offers sensitive panoramic views of the surrounding city and landmarks as well as more distant views out to the edges of the City. Taller buildings within the NEC could form a backdrop, harming the view.

Ely Cathedral

2.1.10 Subject to overall height, location and material finishes, tall buildings on the western side of Cambridge Science Park could affect long distance views of Ely Cathedral from elevated historic positions within the core of the City including the

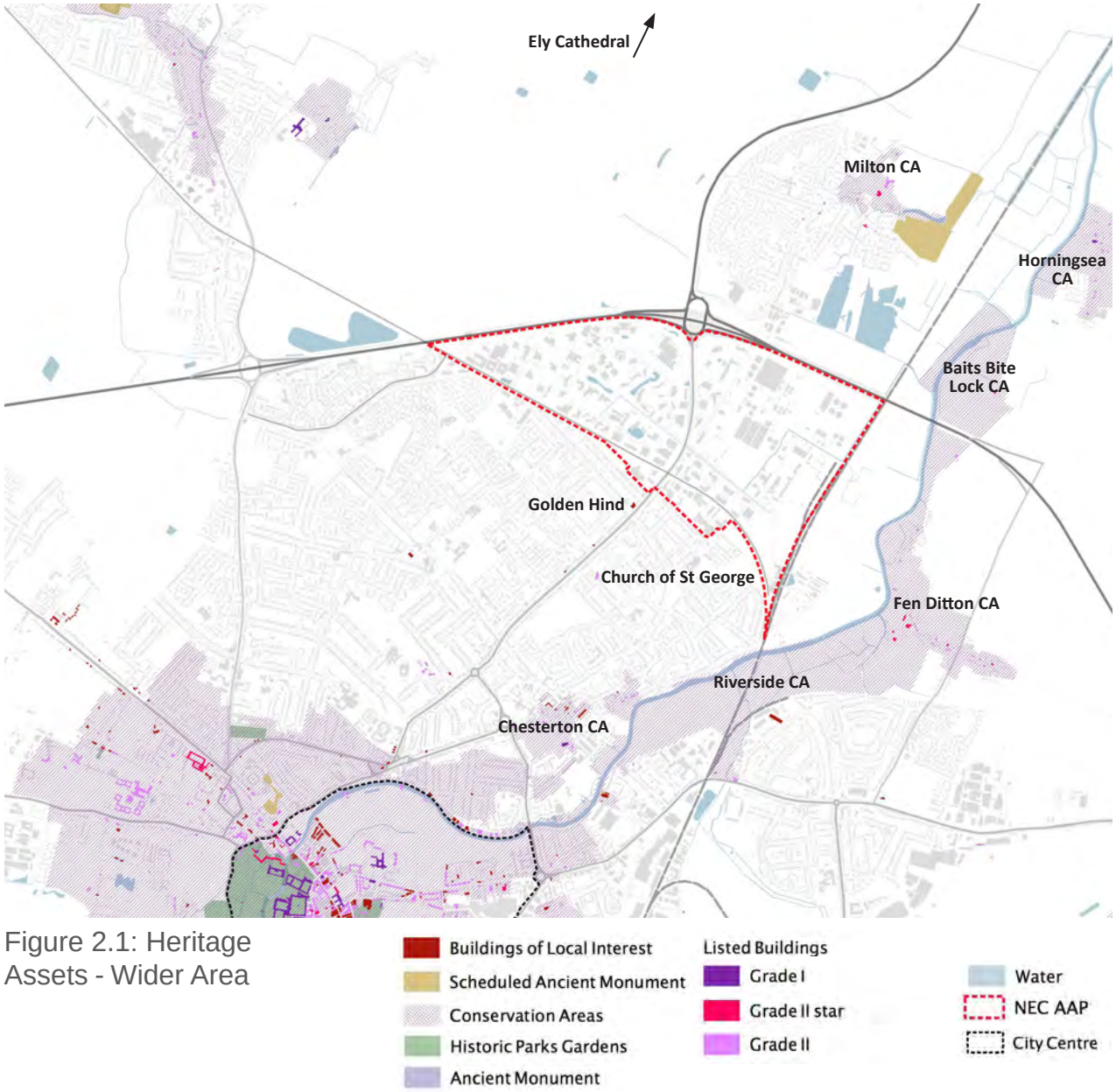


Figure 2.1: Heritage Assets - Wider Area

tower of Great St Mary's Church (Figure 2.2 on page 8) where taller buildings within the NEC could interrupt or terminate views.

Registered Parks and Gardens of Madingley Hall, American Military Cemetery and Anglesey Abbey

2.1.11 Taller buildings could affect designed lines of view from Madingley Hall, American Military Cemetery and Angelsey Abbey where taller buildings within the NEC could terminate or become a focal point in the view.

Grade II Listed Church of St George, Chesterton

2.1.12 Taller buildings could affect immediate views of Church of St George where taller buildings could form a backdrop or overtop the tower.

Locally Listed Golden Hind

2.1.13 Taller and mid-rise buildings on the southern edge of the NEC could be over-dominant in scale in the backdrop of views.

Recommended Design Parameters

2.1.14 The heritage baseline work recommends a number of design

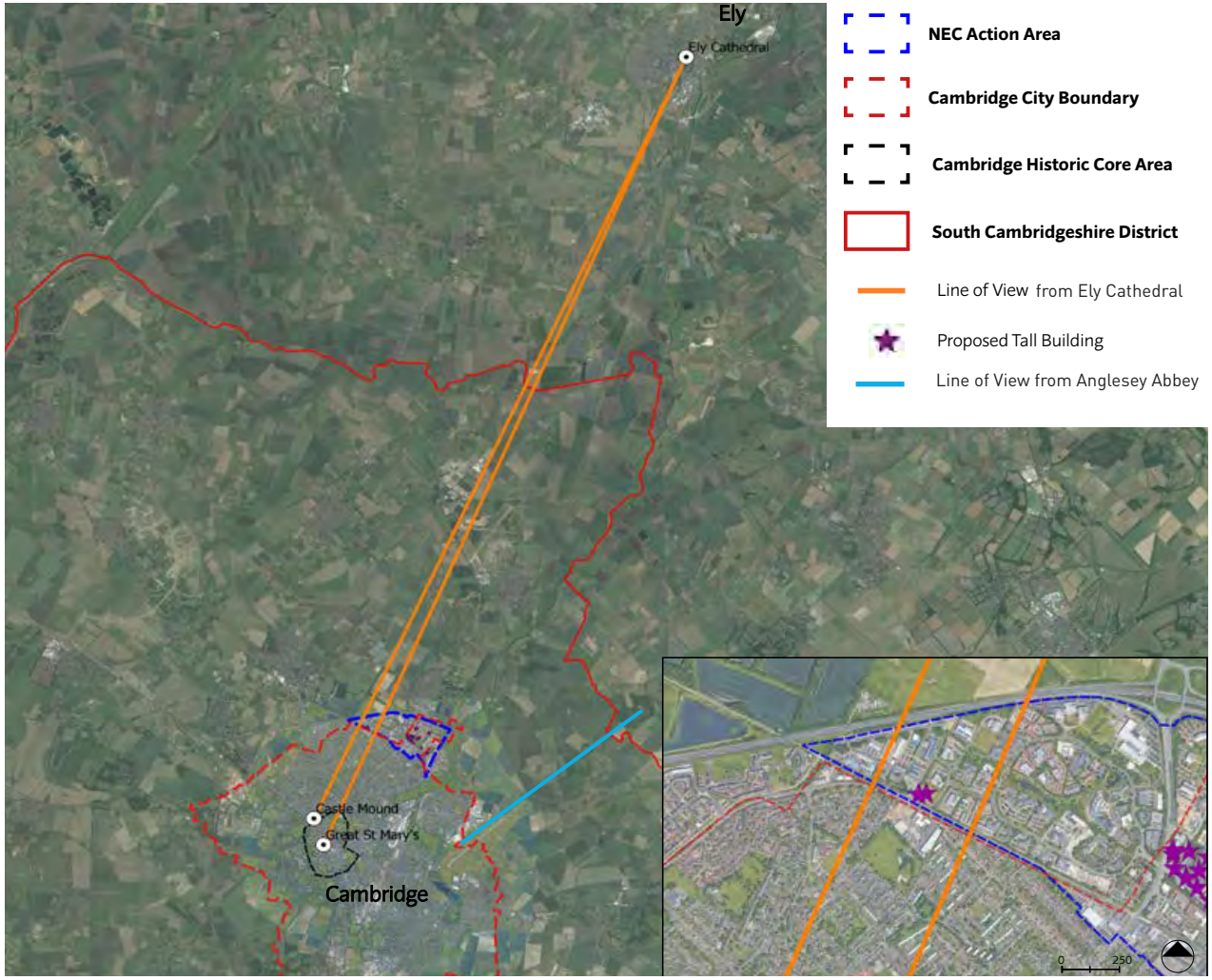


Figure 2.2: Line of View from Castle Mound & Great St Mary's, Cambridge towards Ely Cathedral and Vista from Coronation Avenue at Anglesey Abbey (Source: NEC Heritage Impact Appraisal, CBA, 2021)

parameters for development at NEC, which have been incorporated into the Townscape Strategy. They are as follows:

- Siting taller buildings away from the more sensitive eastern and south eastern edge of the NEC site to avoid removing the rural character of wider views in Fen Ditton and from Baits Bite Lock and in views from Riverside and Stourbridge Common Conservation Area.
- Keeping taller buildings (i.e. 10-13 storeys) as occasional 'markers' with defined purpose and roles as part of a considered composition in the landscape rather than the predominant height to avoid an 'urbanised' wall of development effect in the backdrop of wider views from elevated positions such as Castle Mound, the tower of Great St Mary's Church and from nearby rural open locations such as Baits Bite Lock Conservation Area and Fen Ditton.
- Siting taller buildings so that they do not terminate or form the focal point of designed lines of view from Madingley Hall, American Military Cemetery and Angelsey Abbey.
- Siting of taller buildings to avoid terminating or interrupted views of Ely Cathedral from the elevation historic positions within the core of the City including from the tower of Great St Mary's Church.
- Limiting the taller buildings to c. 13 storeys as buildings above 13 storeys are likely to be out of scale and create visually intrusive elements which could result in unacceptable changes in views from or towards heritage assets.
- Dropping down the heights of buildings where they interface with surrounding existing development, to avoid being an over-dominant presence, particularly to the south of the NEC near to The Golden Hind pub and to the east near to Fen Ditton and Baits Bite Lock Conservation Areas.
- Siting taller buildings to avoid overtopping or appearing in the backdrop of Church of St George, Chesterton when viewed from its immediate south.
- Using a palette of colours that are more characteristic of the 'earthy' or muted spectrum of colours seen in Cambridge. These colours should generally be recessive in the wider landscape to minimise their visual intrusion and create a harmonious fit within surroundings and skyline.
- Using materials that are more characteristic of the materiality seen in Cambridge which would include masonry facades, brick or sturdy materials. Use of reflective materials including glass should be more limited as this is more out of character in the wider Cambridge context and will act as too much of a focal point in views from and towards heritage assets, therefore creating visual intrusion.

2.2 Landscape Character and Visual Impact Assessment (2020)

2.2.1 The Landscape Character and Visual Impact Appraisal (LCVIA) provides an appraisal of the existing landscape character and visual amenity at North East Cambridge and its surroundings. It also assesses the potential effects of high (4-13 storeys), medium (4-10 storeys) and low (4-8 storeys) development height scenarios at NEC on the surrounding landscape and on six verifiable views using photomontages.

2.2.2 The LCVIA finds that development in the high and medium height scenarios have potential to cause major adverse effects to the landscape character and viewpoints. In particular, development at NEC could substantially affect the Bedfordshire and Cambridgeshire Claylands and The Fens national character areas. This impact could be reduced through selective massing and layout of building heights across the site.

2.2.3 The LCVIA building height recommendations are shown in Figure 2.3, and summarised as follows:

- Low building heights (up to 4 storeys or 12m) on northern and eastern edges of NEC;
- Medium/low building heights (4–6 storeys or 12-18m) in transition areas from site edge to centre and on western edge of NEC;
- Medium/low building heights (up to 8 storeys or 24m) at Cambridge North Station Local Centre;
- Medium/high building heights (7-12 storeys or 21-36m) away from the edges at the centre of NEC; and
- High building heights (up to 13 storeys or 39m) at District centre, located close to Milton Road at centre of NEC.

2.2.4 In addition, the study provides design guidance for buildings in NEC:

- The roofscape of NEC is particularly important, particularly where new buildings add to the skyline. Design codes should include guidance for the design of sensitively articulated upper storeys and roofs of buildings throughout the Site.
- Avoid pale and reflective materials that could impact views. A common palette of colours for each character area could enhance the character and legibility of the site. Material palettes should be set by a Design Code.
- Retain and enhance existing landscape features and vegetation, especially at the edges of NEC, where the site interfaces with the wider landscape.
- The eastern edge of the site is particularly sensitive to development and

so proposals here should incorporate the following principles:

- Variable set-back of buildings on plots;
- Variable roofline;
- Minimal hard boundary treatment such as fences and walls;
- Use of semi-mature trees and space to allow them to grow to a size that can compete with the proposed building heights;
- Creation of an irregular parkland edge of adequate space to accommodate forest scale trees;
- Permeability of built form and landscape allowing views into the Site along green corridors of adequate space to accommodate forest scale trees; and
- Avoiding an abrupt transition between development and countryside.

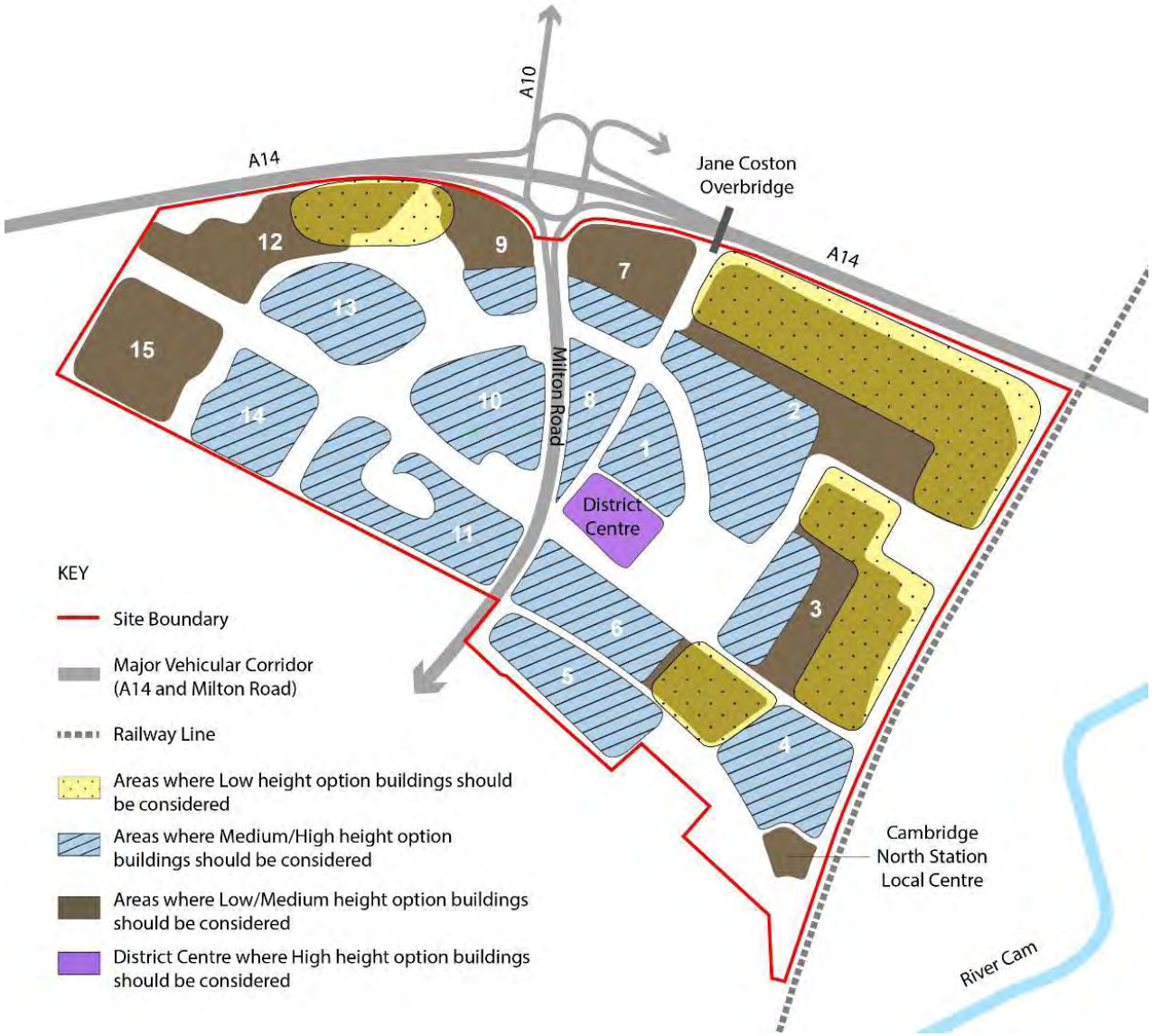


Figure 2.3: LCVIA Development Height Recommendations (TEP, NEC Landscape Character and Visual Impact Appraisal, 2020)

2.3 NEC Townscape Assessment (2021)

2.3.1 The NEC Townscape Assessment report provides a thorough context and townscape assessment of North East Cambridge and its surroundings. The main findings of this analysis, which have informed the development of the Townscape Strategy, are:

Access and Connectivity

2.3.2 The NEC is generally well connected by all transport modes to city and regional destinations, benefiting from Cambridge North Station, the guided busway and local bus services. However, locally the area is surrounded by major barriers and generally poorly accessible by walking or cycling from surrounding neighbourhoods. Milton Road bisects the area and segregates the eastern and western halves of the NEC. Development parcels are inward looking, there are few public routes connecting across the NEC and there is a distinct lack of permeability.

2.3.3 Development should aim to overcome external and internal barriers to walking and cycling, connect well with surrounding areas, and provide a high level of permeability and good connectivity across sub-areas. Public transport routes should be planned so as to provide accessible services for all areas.

Land Uses

2.3.4 The area is predominantly in commercial use, comprising office and industrial development, and the waste water treatment works. There is currently no local centre in the area to serve current employees and visitors. Cambridge North Station provides a hotel and a small convenience offer, but it is isolated and peripheral to the main NEC area. Cambridge Regional College is an important education destination in the west of the area.

2.3.5 Increasing the mix of uses and introducing significant numbers of new homes to the area are necessary to create the foundation of a sustainable urban district. Services and facilities should be concentrated in a district centre that is centrally located to NEC to serve the entirety of the district. Given the size of the area there will be the need for small local centres to provide convenience use and facilities within easy walking distance for residents and employees.

Townscape Character

2.3.6 The surroundings of the NEC are varied and comprise of a number of suburban neighbourhoods with a mix of characters, and open lands, including the Fen landscape along the River Cam and the historic village of Fen Ditton to the east. Development in the NEC will need to respond sensitively to its neighbouring lower rise context and the sensitive historic and landscape contexts, especially to the east and north east of the area.

2.3.7 The townscape within the NEC area is diverse and fragmented. Only Cambridge Science Park provides a sense of identity and character with its campus style development, central green space and artificial lakes. Generally, the NEC area is characterised by a patchwork of inward looking development parcels accessed from principal roads, each with their own approach to site layout and built form. Development mainly comprises standalone buildings, typically set back from the street, often accompanied by surface car parking or industrial yard spaces and separated by landscaped margins.

Figure 2.4: Neighbourhoods surrounding NEC

2.3.8 Apart from Cambridge North Station and the adjoining hotel, the area does not comprise an urban character with street based development form and offers little in terms of townscape qualities. As such, development in the NEC area has an opportunity to establish its own distinct sense of place through imaginative design and development. Development of different sites should ensure that they integrate across site boundaries with each other and that overall they deliver a coordinated approach to place making.

2.3.9 The townscape assessment has identified a number of landscape elements that provide structure and character to the area. These include the First Public Drain, the artificial lakes and green centre in Cambridge Science Park and mature wooded margins along edges and corridors. It is important that landscape and water features, and mature planting is retained, integrated with development and remains part of the green and blue structure and character of this area.

2.3.10 There are a few existing buildings and structures in and around the area that act as landmarks and help with wayfinding and orientation. These include Jane Coston Bridge, the Napp Building, the hotel at Cambridge North Station and the Maurice Wilkes Building. The townscape assessment also identified a number of gateways and areas of visual centrality at the confluence of different routes that naturally are more visually exposed and prominent.

2.3.11 Development should explore how existing landmark features can be integrated into the urban fabric and how the overall legibility of the NEC area can be enhanced by delivering distinctive places with carefully placed contextual landmarks, especially in key views and vistas.

2.3.12 The townscape assessment forms part of a suite of documents that provide the evidence base for the Townscape Strategy and the Area Action Plan for NEC. It should be read in conjunction with the Landscape Character and Visual Impact Appraisal and the Heritage Impact Appraisal.

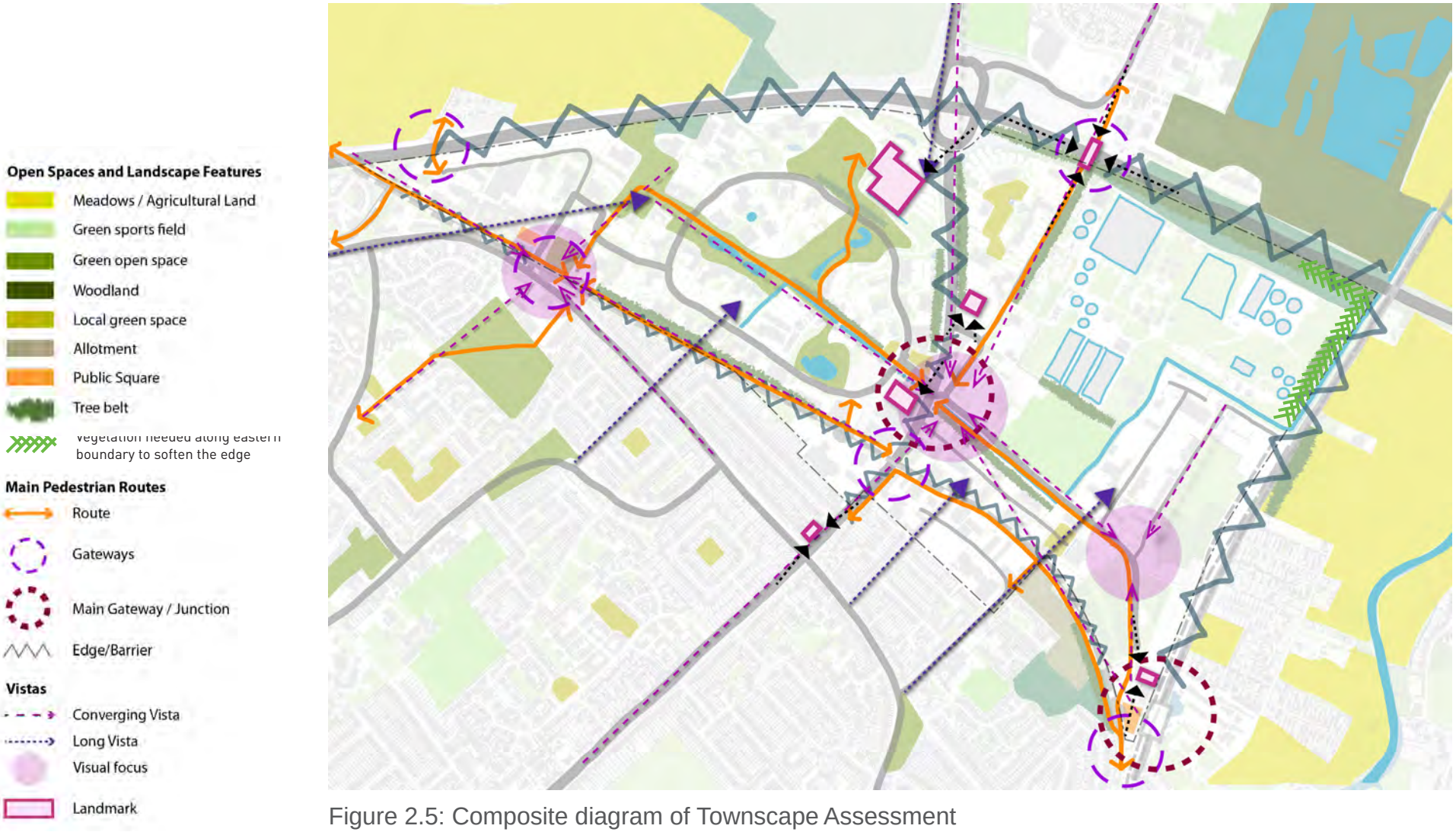


Figure 2.5: Composite diagram of Townscape Assessment

2.4 Review of Draft Area Action Plan

2.4.1 As part of the process of creating the NEC Townscape Strategy, Urban Initiatives Studio undertook an independent review of the Draft NEC Area Action Plan Regulation 18 version. The review has informed the formulation of the Townscape Strategy. The review is provided in an Appendix to this report, and the main points are summarised below.

Connectivity

2.4.2 Proposed connections with surrounding area are generally sensible. However, better connections could be established to Cambridge North Station, Mere Way and northwards across the A14, particularly to the planned Waterbeach Greenway.

2.4.3 Milton Road is the major barrier within NEC. It is suggested to redesign it as a more hospitable environment for pedestrians and cyclists and improve crossings. However, it is acknowledged that there is a challenge in implementing high quality level crossings without affecting the road's capacity and traffic flows, which do not result in queuing back onto the A14.

2.4.4 The proposed network of mobility hubs/bus routes does not provide access for all parts of NEC within a five minute walk. It is suggested to rethink the public transport network to ensure all residents and visitors can access services within a short walk, to discourage car use. Furthermore, it is suggested to create a bus interchange with the Guided Busway at Milton Road.

2.4.5 The Draft AAP proposes 'strategic routes for pedestrians and cyclists'. It is suggested that networks for cyclists and pedestrians be considered separately as these users have different requirements and travel speeds. Cycle routes should provide high capacity cycle lanes to connect to further destinations like the city centre.

2.4.6 There is concern that the AAP's proposed street network may separate vehicles from pedestrians and cyclists. This may result in poor overall legibility and disperse activity away from the centres. Care should be taken that the aim of prioritising walking and cycling does not result in poorly navigable streets or cul-de-sac arrangements for other street users. Essential pedestrian connections into or through neighbourhoods should benefit from passive surveillance from other street activities to feel safe, especially during the evening and night time. A clear hierarchy of routes should be created where the most connected higher order streets cater for all modes to maximise their safety for walking and cycling after dark.

Open space

2.4.7 It is considered that the AAP does not provide enough public open space for the density of residents that is expected in NEC and that the proposed spaces a generally linear green corridors, which limits potential activities. It is suggested that a large, central public open space is provided as the focus of recreation in NEC, with smaller neighbourhood spaces alongside the linear green corridors.

Figure 2.6: Cyclist and pedestrian network proposed in Draft AAP NEC

Figure 2.7: Suggested cycling network from Draft NEC AAP Review Appendix. Primary cycling routes shown in blue and secondary routes shown in red dashed line.

Land Uses

2.4.8 The rationale for the location of district and local centres in the Draft AAP is not clear. Large parts of Cambridge Science Park and the north-east section of NEC would not be within 5 minutes walk of a centre under this plan. It is suggested to move the district centre closer to Milton Road so it can also serve people in Cambridge Science Park. Two local centres should be repositioned to the northeast and southeast of NEC to serve residents here.

2.4.9 Schools require large sites and there is concern that placing schools in centres will detract from their activity and fine grain. It is suggested that schools are located at the edge of centres and close to the main residential neighbourhoods of NEC.

2.4.10 The land use distribution proposed by the Draft AAP appears fragmented and it is unclear how mixed the area will be. There is no housing proposed west of Milton Road and much of the eastern half appears to be for business use. It is suggested that the entire NEC area be more mixed-use with a greater residential element and break down barriers between land ownership parcels.

2.4.11 There is concern over the viability and demand for industrial uses co-located with residential and business uses. Perhaps a more realistic approach is to make use of compact industrial forms that are separated from housing to minimise negative impacts.

Heights and Density

2.4.12 The building heights proposed in the Draft AAP step up from the site edges towards the centre, which is a good approach. However, the height ranges seem to allow for highly intense development and there is concern over the quality of the environment. It is suggested that the heights be better guided to reflect the character areas, with greater guidance on taller buildings.

2.4.13 It is suggested that density be the outcome of good design rather than a determinant. Therefore, design principles should guide development rather than a target density.

Character and Townscape

2.4.14 The Draft AAP requires development to respond to the characteristics of Cambridge and Cambridgeshire. It is suggested that development in NEC should respond to the unique character and image of Cambridge city and learn from the city's morphology.

Development Approach

2.4.15 North East Cambridge is split into numerous land ownerships, which presents the challenge of how the sub-areas can be designed to integrate seamlessly. It is suggested that in addition to the Spatial Framework and Townscape Framework, the preparation of a parameter plan and design code for the entire NEC development area is considered to ensure development follows a common approach.

Delivery Challenges

2.4.16 It is accepted that some of the suggestions within the review of the Draft AAP have delivery challenges, such as adding additional junctions to Milton Road and the introduction of residential uses in Cambridge Science Park. It is felt that the Strategy should seek to achieve the best

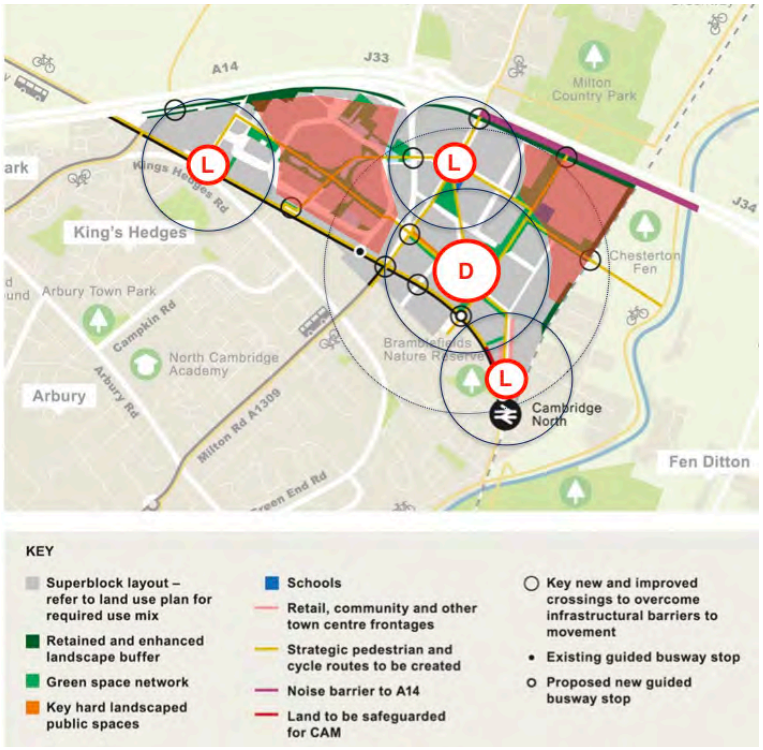


Figure 2.8: Location of centres proposed by Draft NEC AAP, annotated to show walking radii and areas not served shown in red

outcome for NEC and the city and so these elements are included in the Townscape Strategy to set longer term delivery goals, even if they may not realistically be achieved in the short term.

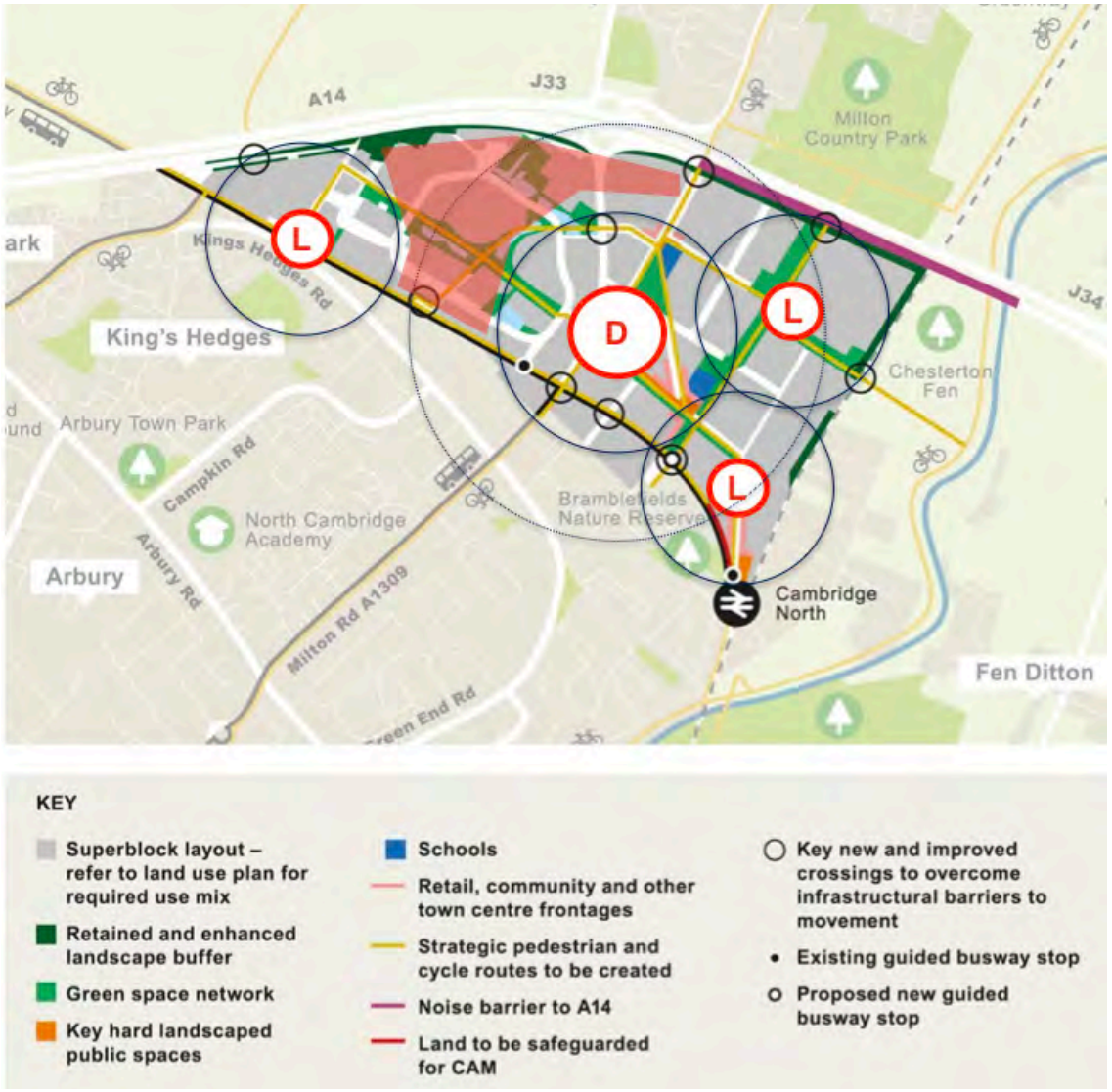


Figure 2.9: Suggested location of centres from Draft NEC AAP Review Appendix

3.0 TOWNSCAPE PRINCIPLES

3.1 What is Townscape?

3.1.1 Townscape, like the rural landscape, reflects the relationship between people and place and the part it plays in forming the setting to our everyday lives. It results from the way that the different components of our environment – both natural and cultural - interact and are understood and experienced by people (Natural England, 2014).

3.1.2 The term townscape first came into popular use in the UK in the 1940s and 1950s, when there was a concern amongst some architectural critics that the identity of our villages, towns and cities was being eroded by poorly planned post-war reconstruction. They derived their definitions of townscape from the Roman “genius loci”, which translates as “the prevailing character or atmosphere of a place”.

3.1.3 However, it does not mean only preservation, and ‘townscape’ was used as a way of explaining how modern development could co-exist alongside historic buildings and areas, contributing positively to the evolution of a place. The townscape movement helped to raise the public profile of the conservation of built heritage, leading to the establishment of groups such as the Victorian Society and the 20th Century Society.

3.1.4 The Landscape Institute describes townscape as, ‘the landscape within the built-up area, including the buildings, the relationship between them, the different types of urban open spaces, including green spaces and the relationship between buildings and open spaces.’ (Guidelines for Landscape and Visual Impact Assessment (GLVIA3), paragraph 2.7)

3.1.5 Townscape is therefore a broad term, encompassing many aspects of the built and natural environment, and describes the physical character of a place, town or city. It also considers how function, mix of uses, activities and urban management contributes to character and urban life. Importantly, townscape is concerned with how the various elements of a place (buildings, spaces, routes) function together as a cohesive whole and are experienced by residents and visitors of the place.

Townscape as a Design Philosophy

3.1.6 In his seminal work The Concise Townscape (1961), Gordon Cullen describes townscape as being fundamentally about the individual experience of the environment. It is a means of providing excitement, drama and emotional response to the physical environment. To this end, we must understand the visual and physical elements that create a sense of ‘place’.

3.1.7 One the key concepts put forward by Cullen is the idea of ‘serial vision’, which is the kinetic experience of the observer moving through the environment, involving a constant playoff between existing views and emerging views. The example shown in Figure 3.1 illustrates the rich journey one can have through an urban environment, with ever changing views, perspectives and focal points, enhanced by urban elements such as gateways, framed views, landmarks, detail, contrast between open and enclosed, urban and natural elements.

General Townscape Design Principles

3.1.8 Discussions by Cullen and others have highlighted important points and principles that design should follow to create rich and distinctive townscapes, a few of which are outlined below:

- Aim to create a degree of complexity that offers 'Variety with Order';
- Satisfy not just functional but a fuller range of human needs including emotional well being;
- Emphasise the visual quality of the urban environment and the creation of a strong image and distinctiveness;
- Not divorce form from content (integrity of design that ensure visual and cultural messages are aligned);
- Respond to the setting and reinforce the uniqueness of the place;
- Balance local identity with the wider identity of the place;
- Focus on how traffic and movement can be applied to vitalise parts of a city or place;
- Aim to create distinct quarters with inherent characteristics and recognisable edges;
- Provide a network of landmarks (buildings or spaces) as calling 'rallying points' of areas; and
- Consciously apply design devices that can stipulate emotional or active interaction of individuals with the environment, such as 'juxtaposition', 'immediacy', 'framing', 'accentuation', 'enclosure', 'homogeneity', 'hierarchy', 'surprise' or combinations of 'open and closed', or 'concentration and release'.

3.1.9 These principles and objectives have been considered in developing the townscape strategy for the NEC contained in this report.

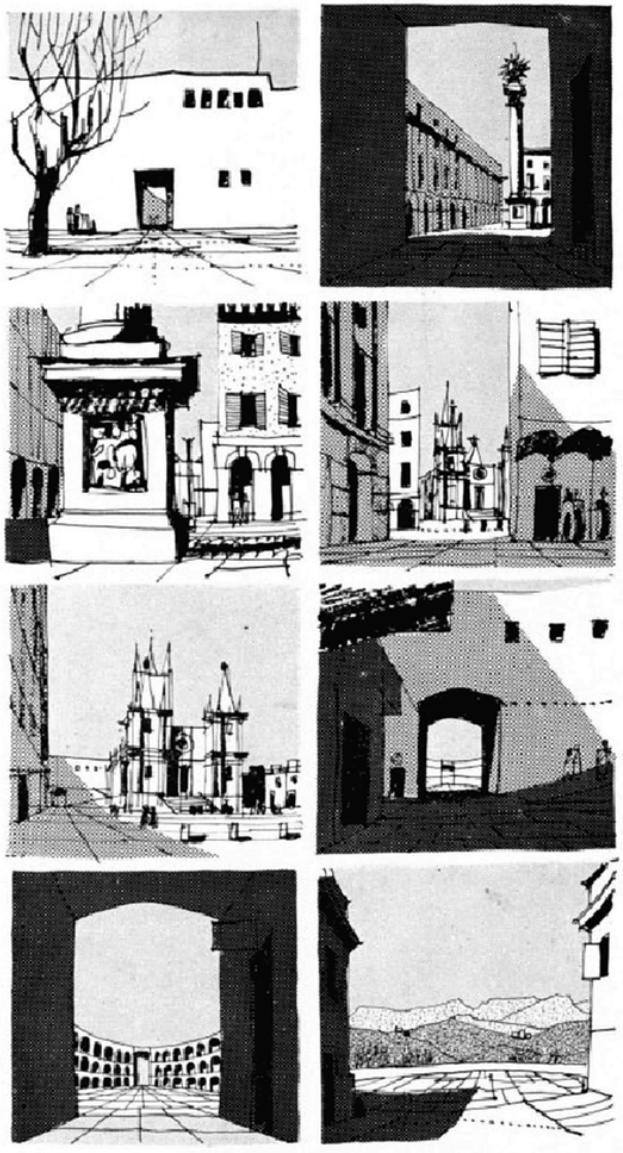


Figure 3.1: Example of a serial vision analysis Source: Cullen (1961) The Concise Townscape

Figure 3.2: Cambridge Aerial View © GoogleEarth

3.2 Cambridge Townscape Identity

3.2.1 The townscape of the NEC area will need to respond to and integrate with the general characteristics of Cambridge. The city of Cambridge can be broadly divided into the following character zones:

- **A compact and cohesive historic city core** – comparably large for a city of its size, characterised by an intact medieval street pattern of narrow streets, alleyways and small squares, and very distinctive architectural set pieces of University Colleges, civic and ecclesiastical buildings with towers and spires that are set against fine grain historic urban fabric. The juxtaposition of the great with the humble is a defining characteristic (e.g. King's Parade). Large trees are present within most of the green spaces to create a layering of green amongst the urban fabric and spires.
- **Residential low-rise suburbs** surrounding the core, including Victorian terraces and villas, Postwar estates and post-1980 semi and detached housing, interspersed with institutional, industrial, residential or mixed use developments of sometimes increased scale. The suburbs often feature long gardens with trees;
- **Historic villages** such as Chesterton that were incorporated in the built form of Cambridge but that are still recognisable with their scale and identity;
- **Major growth areas** such as North West Cambridge, East Cambridge, Addenbrooks, Cambridge Science Park (part of NEC) and Cambridge Station. They bring forward larger scale and more intense mixed use, commercial, university or residential developments and have an (emerging) identity of their own and distinct from other areas in the city. Major growth sites often juxtapose with a large open space offering such as Trumpington Country Park and the green corridor east of Clay Farm; and
- **Historic villages** outside of the urban fabric, such as Fen Ditton, that are set in the landscape and have a distinctly rural character.

3.2.2 A defining feature of the city is the **River Cam and its meadows** (known locally as 'The Backs'), that meanders through the city and around the city centre. The pastoral rural character of the river corridor juxtaposes with Cambridge's urban fabric and opens up views to the imposing College buildings and spires, thereby creating a unique and defining characteristic.

River Cam

3.2.3 Cambridge is an inherently **green city**. According to the city's Open Space and Recreation Strategy (2011), 'An essential part of Cambridge's character stems from the relationship between the City's buildings and its open spaces, and the important role of trees and landscape features.' Trees are prevalent in many areas including the river corridor, the colleges, rural areas and some Victorian areas. In many views across the city, trees are a dominant feature on the skyline, with only few more significant buildings rising above them.

3.3 Townscape Principles

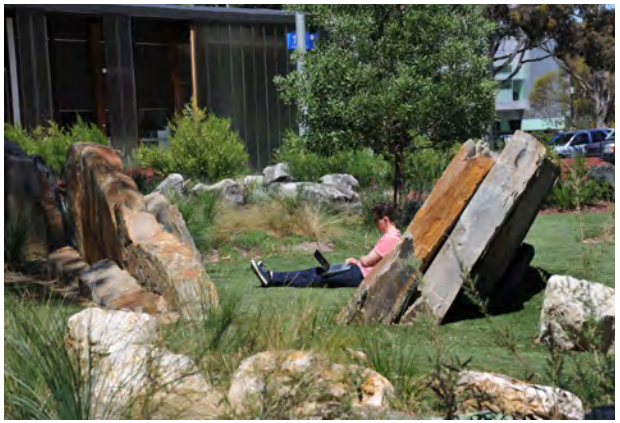
3.3.1 Based on the understanding of the wider and immediate context of the area, its characteristics and sensitivities, as set out in the Townscape, Heritage and Landscape Assessments, ten overarching townscape principles have been developed that guide the development of more detailed townscape parameters set out within the strategy. Their overarching aim is to:

- Preserve vital aspects of Cambridge's existing townscape character; and
- Engender a new successful townscape and sense of place within North East Cambridge.

3.3.2 The overall approach to the townscape strategy is one that focuses on allowing flexibility for innovation and novel approaches whilst defining important design parameters that should be met to ensure the development hangs together, integrates well with its context and develops a distinct character and sense of place without being a stylistic straight jacket.

1. **Respond sensitively to and preserve the special character of the River Cam corridor, meadows and Fen Ditton by stepping down development heights towards the landscape edges to avoid becoming visually prominent and intrusive, and detracting from the pastoral landscape qualities.**

2. **Respond appropriately to the adjacent residential context by stepping heights and densities down towards its interface with existing settlements and avoiding stark contrasts in heights with existing neighbouring buildings.**



3. **Enhance legibility and distinctiveness through appropriately scaled landmark buildings at places of visual prominence and functional significance where they can make a positive contribution to the skyline and do not cause an inappropriately adverse impact on heritage assets or landscape character.**

4. **Create a coherent network of direct and continuous walking and cycling routes across North East Cambridge that join up with routes in the surrounding areas and create a legible place that is easy to navigate.**

5. **Create a distinctly green place that retains and enhances existing landscape features, provides a network of green corridors, ample tree planting and landscaping of development, and distinct and recognisable green and public 'feature' spaces that provide identity. Local green spaces within each site should create doorstep play as well as recreation and social spaces.**

6. Create a hierarchy of centres that respond to their intended levels of use and functions in accessible and prominent locations. As natural, local hubs of activity, these areas should be expressed appropriately through their urban form. Opportunities to increase densities around activity hubs should be explored.

7. Create distinct character areas that are clearly differentiated from one another through their uses, development pattern, typologies and building scale. Character distinctions will be stronger where edges to areas are discernible and expressed well. Quarters should comprise compact low and mid-rise rather than high-rise buildings. They should provide 'gentle density' that supports urban vitality without feeling crowded. Density should respond to accessibility and uses.

8. Create well-defined and coherent street scenes that respond to human scale and perception. This should consider bringing forward a finer grain of development with variations in density, well-enclosed and diverse street spaces, articulation of the facades with particular attention to ground floor and roof detail, and the creation of a rhythm of vertical sub-divisions along streets.

9. **Create variation of forms and architectures within a common set of parameters for each character or sub-area. Parameters may cover the structure of street blocks, building lines, heights and massing and other common aspects of form, roof detail, materiality and colour. Avoid monotonous or monolithic development as well as indiscriminately varied architecture. Collaboration of different architects within each development site is encouraged to achieve this principle. Contrasting key buildings to be added where appropriate.**

10. **Support the emergence of a sense of place and identity through meanwhile uses and events that promote the area and generate interest and activities both within buildings and public spaces.**

4.0 STRUCTURING PRINCIPLES

4.1 The Vision for North East Cambridge

4.1.1 The Draft North East Cambridge AAP (Reg18 Consultation) has set out a bold new vision for North East Cambridge. The NEC is envisaged as an inclusive, walkable, low-carbon new city district with a lively mix of homes, workplaces, services and social spaces, fully integrated with surrounding neighbourhoods.

4.1.2 The following principles should guide new development in the area:

- **North East Cambridge must respond to the climate and biodiversity emergencies, leading the way in showing how we can reach net zero carbon.**
- **It must have a real sense of place – a lively, mixed-use, and beautiful area which fosters community wellbeing and encourages collaboration.**
- **It should be firmly integrated with surrounding communities – physically connected, and socially cohesive.**
- **It will provide a significant number of new homes, a range of jobs for all, local shops and community facilities.**
- **It must be a healthy district where wellbeing, recreation and community safety are built into its design.**
- **It will be planned around walking, cycling and public transport first, discouraging car use, in order to address climate change.**

4.1.3 The Townscape Strategy establishes a structuring framework and design guidance to achieve this vision and to establish a distinctive and attractive place.

4.2 Spatial Concept Diagram

4.2.1 The Spatial Concept Diagram (Figure 4.1 on page 30) sets out a broad spatial vision for the NEC. It identifies its main character areas, the locations of central nodes, and the principal structuring elements that will define the townscape of North East Cambridge in the future.

4.2.2 The townscape strategy envisages the emergence and strengthening of following character areas in the NEC area:

- **Mixed Use Spine** – an urban mixed use development corridor that stretches along the guided busway and the First Public Drain and connects Cambridge Regional College in the west with Cambridge North Station in the east;
- **Office Campus** – a concentration of office developments in a green campus setting;
- **Cambridge North District Centre** – a new mixed use district centre as the focus of town centre activities in NEC;
- **Urban Living Quarter** – a green residential neighbourhood with a strong sense of place;
- **Regional College** – a major regional education destination;
- **Mixed industrial Quarter** – a productive quarter with a mix of workspaces, industrial uses and housing; and
- **Chesterton Fringe** – the transformation of the Nuffield Road Industrial area into a residential neighbourhood and transitional area between Chesterton and the NEC.

4.2.3 Spatially,North East Cambridge will need to be embedded within and extend the existing green space networks. It needs to establish a network of high quality pedestrian, cycle and public transport routes that link up its various character areas and connect with surrounding established neighbourhoods. It needs to overcome the barriers created by Milton Road and the A14, and it will need to define hubs of activity where routes converge and people meet.

Figure 4.1: Spatial concept diagram

4.2.4 The spatial concept diagram (Figure 4.1 on page 30) identifies the following principal elements:

Key Structuring Features:

1. **Milton Road** – Transformation of this road corridor into a civic street with easy crossing points to overcome the segregation between the east and west of the NEC area.
2. **Network of Green Corridors** – the establishment of new green corridors that connect within the NEC area and across the A14, the busway and the railway line, and that provide tree-lined strategic walking and cycling networks.
3. **Central Park** – a 3 hectare new public park next to the district centre that will become a new destination space, providing amenities to residents and workers in the heart of the NEC.
4. **Campus Green** – the enhancement and opening up of the central green space of the Cambridge Science Park with a natural landscape focused around artificial ponds.
5. **First Public Drain** – a linear water course with green embankments that passes through the NEC area, providing a strong character feature, and offering routes along and across.
6. **Wooded A14 buffer** – an intensely wooded area along the A14 that creates a positive edge and shields the NEC from visual impact and combined with an effective acoustic barrier,.
7. **Guided Busway** – a strategic public transport, walking and cycling corridor along the southern edge of the NEC area.

Central Nodes:

A. **NEC District Centre** – located at the intersection of Milton Road with the First Public Drain this will be the main centre and activity hub for NEC.

B. **A new neighbourhood centre** at the intersection of green corridors and serving the Urban Living Quarter at the meeting point of Green Corridor with the First Public Drain.

C. **Cambridge North Station Hub** – a new local centre focused around the station and benefiting from footfall and interchange activities.

D. **Kings Hedges Local Centre** – a new local centre serving the west of the NEC area including the Regional College.

4.3 Movement

4.3.1 Walking, cycling and public transport will be prioritised in NEC and private car use discouraged, in order to minimise the impact on the surrounding road network and to help create a low carbon district and reduce its climate impact. This movement section sets out general design principles to ensure the provision for people movement is of high quality, attractive and integrated with the wider townscape approach. It also identifies strategic routes and network principles that should be delivered to ensure that the NEC will become a well connected, permeable and legible place.

A Walkable Neighbourhood

4.3.2 A walkable place is one where it is easy to move around on foot. Walking will be the principal mode for people to move around the district especially over short distances and for leisure purposes. Each home should be generally within a 5 minute walk (assumed as 400m) to the nearest local centre, neighbourhood space or primary school to encourage local walking.

4.3.3 All streets and spaces should be designed to create a good walking experience. This entails that they should:

- Have good enclosure and benefit from passive overlooking from development and other street users (especially on main routes);
- Be continuous and follow desire lines, with crossing points at convenient places, placing those walking and cycling at the top of the movement hierarchy and to encourage sustainable travel;
- Join up seamlessly at site boundaries. This requires strong coordination and enforcement between neighbouring sites;
- Provide permeability and a choice of routes – more than one reasonable route should always lead from any one place to a destination;
- Offer generous footway dimensions to accommodate expected footfall volumes comfortably - as a minimum 2m wide footway width that allow wheelchairs to pass easily. In places with more pedestrian traffic such as centres and at bus stops this should be wider (minimum 3.5m-4m);
- Provide continuous footway levels at side entries of minor streets or site entrances (also known as Copenhagen Crossings). Turning traffic effectively should pass over the footway level to give drivers a clear indication that they are not on the street and need to look out and stop for pedestrians;
- Provide good lighting levels on footways and coherent quality surface treatment and consider the needs of impaired people;
- Provide greening and street trees to soften the environment, combat air and noise pollution, provide shelter and enhance the quality of the street space for walking;
- Provide high quality street furniture, coordinated throughout the NEC area, including:
  - Formal and informal seating opportunities at least every 100m (ideally 50m), and more frequently in centres and public space, to offer people an opportunity to rest or stay, and to provide a vital support for

the elderly or people with physical impairments. Seating should be in places where it is does not obstruct movement, ideally backing onto a building or wall to offer the seated person a sense of protection at the back, and looking out over places where activities happen especially at junctions and open spaces. A mixture of sunny and shady locations will give people choice during hot and cold seasons;

  - Public litter bins - minimum at each major route intersection and in centres;
  - Public toilet facilities and water fountains in the district centre, local centres and in major public spaces; and
  - Coordinated signage and wayfinding approaches to embed ‘smart’ technology.

- A low dependency on motor vehicles allows for more innovative streets types to be designed. These will require design speeds of below 20mph.
- Public realm quality and design standards should be governed by a design code for the NEC area to ensure consistency across the district.

Example of a continuous footway across a side street, Stockholm

Generous footway width, Maidstone Kent

Example of formal seating in a pedestrian-focused public realm in Valence, France

Example of quiet residential street with high quality walking and cycling space, Stockholm

Strategic Walking Routes

4.3.4 A number of strategic walking routes are proposed. These provide direct connections between key destinations (Cambridge North Station, District Centre, Milton Country Park) and offer an attractive, green and generous movement and recreational environment. As feeders to destinations these routes will naturally attract greater levels of footfall. They also form part of the strategic walking network and as such are important leisure routes linking with open spaces such as the central park, the First Drain and Milton Country Park. Generally they will need to be delivered as green tree lined routes with generous footways. Routes should be continuous through major open spaces, such as the central park and the green heart in the Science Park.

4.3.5 To ensure the network is well connected within NEC and with adjoining areas a number of major barriers will need to be overcome. In three locations this will involve the construction of new underpass or bridge links, while in three other locations it requires junction improvements. Figure 4.2 identifies proposed locations for interventions. All identified interventions will need to provide for both walking and cycling. Underpasses should be of generous width and height, offer good forward visibly and be well lit. Active supervision and management should ensure they don't attract antisocial behaviour and feel safe and convenient to use. Bridge crossings should ideally provide steps along the desire lines in addition to ramps. Ramps are more pleasant when integrated with the landscape/public realm and switchback ramps are avoided.

4.3.6 The existing connection from Chesterton to Cambridge North Station along Moss Bank will need to be enhanced to be legible, attractive and well lit for walking and cycling, whilst respecting the amenity of local residents. This could involve the establishment of a shared street environment with a distinctive public realm design that emphasises the corridor, together with signage and bespoke lighting and the creation of more defensible spaces in front of existing homes. Some of these interventions are outside of the NEC boundary and may need to be secured through legal agreements.

Generous underpass under major road (Queen Elizabeth Park, Stratford)

4.3.7 A new pedestrian route through the Bramblefields Nature Reserve from Laxton Way to the Guided Busway is proposed. This would be a very important connection with several benefits as it provides direct access for Chesterton residents to Cambridge North Station and the facilities of its local centre. However, further investigation would be needed to ensure there is no adverse impact on the local nature reserve's biodiversity and habitats, whilst ensuring that the route feels safe at all times of the day.

4.3.8 Minor walking routes connect the strategic routes and provide more options for local journeys along quiet streets or shared spaces. This grid of walkable streets creates a highly legible and permeable network across NEC. It is important that routes extend seamlessly across ownership boundaries to avoid the creation of isolated communities or business parks.

Figure 4.2: Proposed walking network

Cycling

4.3.9 Cycling will be a key part of the way people move around North East Cambridge. Cycling should be the natural choice for distances that feel slightly too far to walk, for combined trips or when transporting items such as groceries. It is also the most convenient mode to move around Cambridge more widely, as the entire city can be reached by bike from here in under 30 minutes.

4.3.10 All streets and paths in North East Cambridge should in principle be cyclable, with the exception of paths in public spaces where cycling should only be permitted on dedicated routes to prevent pedestrian conflicts. On minor and shared streets with low traffic volumes cyclists could be accommodated on street. Dedicated cycle lanes separated from vehicular and pedestrian traffic should be provided on higher order streets and on locally important cycling routes as indicated in Figure 4.3.

4.3.11 The plan proposes a number of strategic cycling corridors that connect North East Cambridge with the city centre and other destinations. This includes the existing Guided Busway corridor and Cowley Road with Jane Coston Bridge that in some parts already provide high quality cycling routes separated from traffic.

4.3.12 The Plan proposes an additional strategic route that traverses from Milton Road diagonally across the NEC site to a proposed new underpass below the A14, leading to Milton Road Country Park and a planned strategic cycling route northwards to Waterbeach New Town. This route will run through the district centre and along the central park and bring additional footfall into these areas. An additional connection of this route with the Guided Busway route is also proposed to connect with Cambridge North Station and beyond.

4.3.13 Strategic cycling routes should allow for (faster) commuter cycling, as well as leisure cycling. For this reason they should be traffic free, limit the number of cross-overs of streets (with clear indication of priority) and provide generous space for riding in both directions. The design of routes should follow the Department for Transport's LTN 1:20 Cycle Infrastructure Design guidance. Where significant cycling numbers will be expected the separation from pedestrian paths should be considered. The establishment of the high quality cycling network requires the delivery of cycle infrastructure across the railway line, underneath the A14 and the northern section of Milton Road, as well as at grade junction improvements at the Guided Busway and Milton Road.

Example of high quality, separated cycle lanes

4.3.14 Easy access (at grade) and secure cycle parking for all members of a household should be provided within each development in line with best practice and the emerging cycle related policies in the NEC AAP.

Figure 4.3: Proposed cycling network

Public Transport

4.3.15 Strategic public transport access to the NEC is provided by Cambridge North Station with direct connections with Cambridge (main station), London, Norwich, King's Lynn, Ely and Stansted Airport.

4.3.16 The Cambridgeshire Guided Busway to the south of the NEC area connects Cambridge North Station Huntington, St Ives and a planned new town of Northstowe to the north west of the NEC area. Two additional stops are proposed between Cambridge North Station and Milton Road to provide high quality public transport access to the NEC area and the district centre. It will also serve residents of north Chesterton.

4.3.17 Regular bus routes along Milton Road to Milton and the Milton Road Park and Ride site provide local public transport access with Cambridge and the city centre and will serve the proposed new district centre. However, much of the new neighbourhoods within NEC will not be well served by these existing routes. Therefore a new bus route is proposed along the main east-west route through NEC, connecting with the southern branch of Cambridge Science Park Road, and terminating at Cambridge North Station. Regular bus stops along this route ensure that the majority of the NEC area will be within a 10 minute walk (800m) of public transport.

Example of a covered bus stop with high quality seating

Guided Bus Route (Photo by John Sutton, CC BY-SA 2.0)

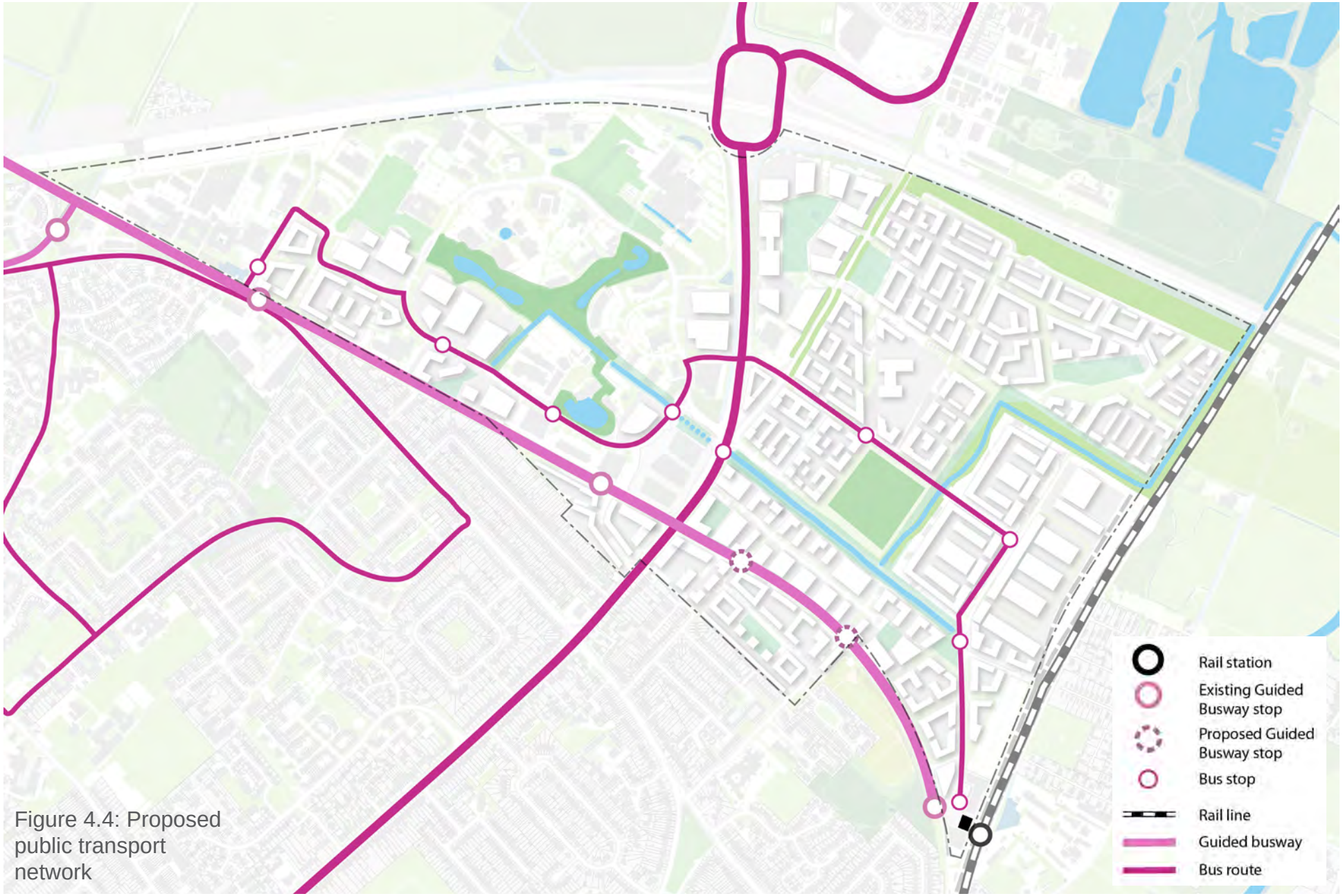


Figure 4.4: Proposed public transport network

Motorised Transport

4.3.18 Milton Road at the centre of NEC creates a major physical and perceptive barrier between east and west, and results in a poor quality environment for people walking and cycling. To provide better pedestrian and cycling crossing facilities in the centre of NEC (at the level of the First Public Drain) it is proposed to move the main vehicular access point into Cambridge Science Park northwards to the junction that currently serves the eastern half of the NEC at Cowley Road. This would allow traffic entering NEC from the A14 to exit Milton Road earlier, reducing the need for the large strategic junction at the main entrance to Cambridge Science Park. This junction and section of Milton Road could then be 'tamed' to provide a better environment and direct, easy at-grade crossing for cyclists and pedestrian between the east and west of NEC. Further engagement with the relevant landowners, leaseholders and other stakeholders such as Highways England and Cambridgeshire County Council would be needed to explore this further.

4.3.19 A new strategic access street to the eastern NEC area is proposed to connect the principal access point on Milton Road with Cambridge North Station. This provides the main vehicular access to the eastern area and will need to be delivered early on.

4.3.20 Primary streets provide vehicular access to sub-areas and feed into secondary streets. Secondary streets are for local access and servicing only. The interior of larger street super-blocks should be primarily traffic free with shared spaces providing necessary access for servicing, emergency services and disabled access.

4.3.21 The network configuration should direct traffic to the primary streets and naturally prevent non-destination traffic from passing through residential / sub-areas. Primary and secondary streets should be considered as loops, leading back to the same higher order feeder street and thereby avoid creating rat-runs, whilst providing efficient local access and minimising the need for U-turns (such as in a cul-de-sac). Local traffic management measures should not affect the overall layout and pattern of development

Strategic roads such as Milton Road can be softened with trees and greening

Example of a play street, Stoke Newington

including the creation of a permeable grid of street blocks. Whilst some streets will closed off for vehicular through-traffic, they should remain open and continuous for cyclists and pedestrians. Street sections not used for vehicular traffic may also offer the opportunity for the creation of pocket spaces or play streets.

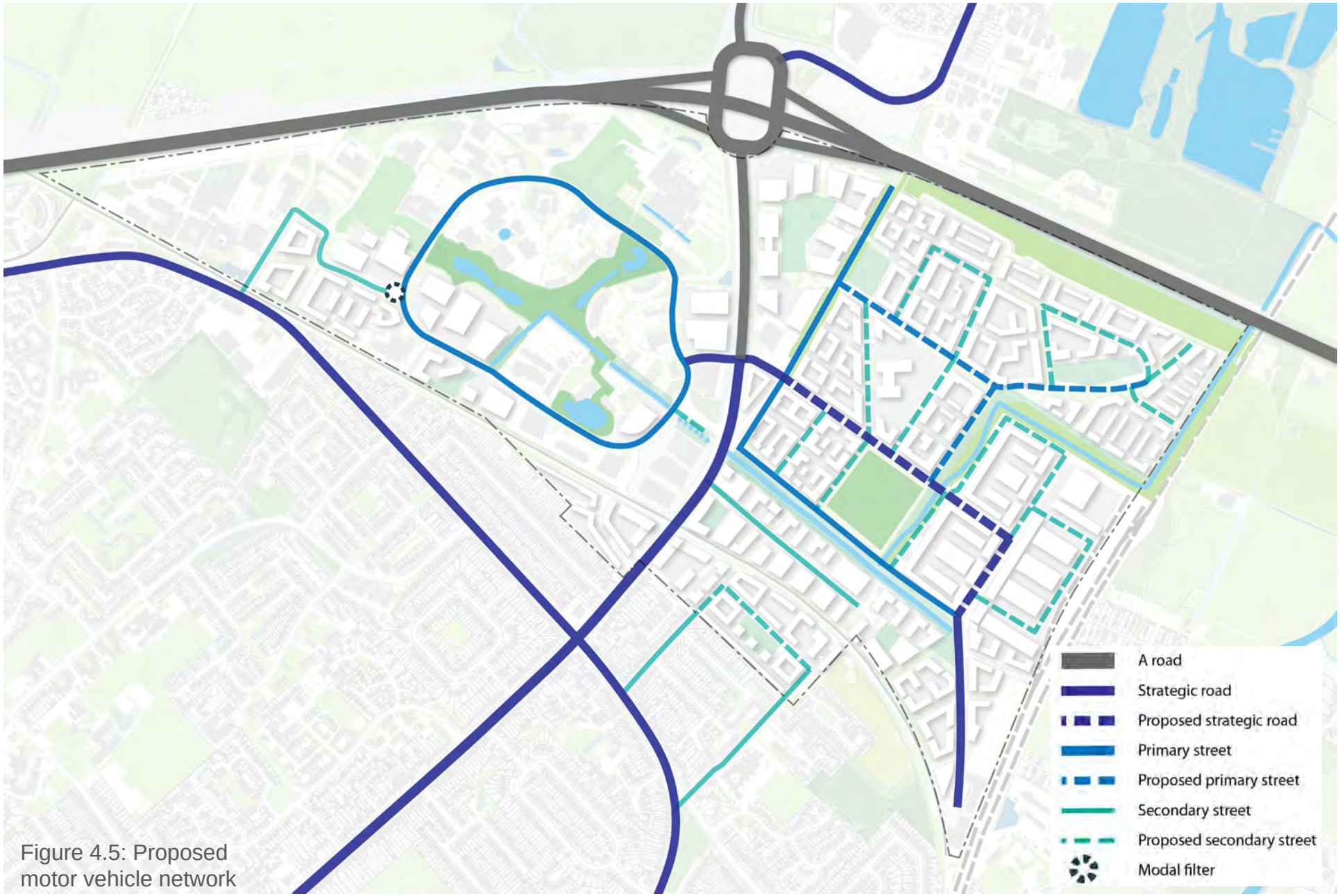


Figure 4.5: Proposed motor vehicle network

Car Parking

4.3.22 North East Cambridge will be designed to minimise dependency on private car use by capitalising on good pedestrian, cycle and public transport accessibility. It will have a critical mass of residents to support the provision of local facilities to meet their daily needs, reducing the need to drive. The parking strategy and provision of a car club support this aim.

4.3.23 Generally parking outside of a home or directly accessible by lift or stairs from a flat should be discouraged (with the exception of disabled parking provision). This can be achieved by moving car parking into dedicated car parking areas such as multi-storey car parks / car barns or under deck courtyard car parks located at the periphery of a residential development. The same approach should be applied to avoid the immediacy of parking in office or commercial developments, or in centres. The idea behind this strategy is that the effort and time it takes to access your car at the origin and to park your car at the destination is greater than if one would walk or cycle instead. Combined with direct and quality pedestrian and cycling routes, as well as ample and convenient cycle parking facilities at destinations is a powerful approach to instil a step change in behaviour.

4.3.24 The design and management of the public realm will need to complement and support the parking strategy. Generally cars should not be parked along streets, with the exception of disabled, servicing or short stay parking. Streets should be places for people not car storage. Space freed up on streets that usually would accommodate car parking should be used for cycle parking, landscaping, open space amenities, play facilities, SUDS and planting to encourage biodiversity. This will establish greener, more attractive and healthier street spaces that invite social interaction and instil a greater level of social interaction.

4.3.25 People are creatures of habit and convenience, and there may be some that will always try to park as close to their home as possible. Inappropriate parking behaviour should be designed-out through a street design that avoids ambiguity and prevents footway parking. This will need to be complemented with a proactive estate management approach and effective enforcement. A CPZ (controlled parking zone) may need to be established to enable the effective enforcement of parking control on the adopted highway. Clear identification and control of visitor car parking will be needed.

4.3.26 Parking structures often are utilitarian and unanimated buildings that can have a negative effect on the quality of the urban environment where they are visually exposed to the public realm. Parking structures therefore should generally not be visible from the public realm unless they provide an animated and positive interface at ground-floor and the façade integrates well with the character of the area utilising common façade treatments.

4.3.27 Wrapping a car parking building with other (animated) development such as commercial buildings may also be an option, as well as under deck parking solutions where parking areas are situated below a communal courtyard. Less space hungry automated car parking systems could also be explored.

4.3.28 The adaptability or redevelopment potential of car parking structures should be considered at the design stage to cater for a potential future reduction in parking demand that may derive from technological changes. Large surface parking areas should be avoided.

Example of a fully automated high capacity car park


CAFE ROUGE

4.4 Land Uses

4.4.1 North East Cambridge will provide a mix of uses, and the Area Action Plan sets overarching principles on how uses should be distributed across the area. The townscape strategy complements the AAP by illustrating how uses could be provided and integrated with each other across the NEC to form a coherent and joined up district.

4.4.2 Post-war urban planning has favoured the zoning of single use districts with commercial and residential uses being strictly separated. This trend can be seen in the development of Cambridge Science Park, Cambridge Business Park and St. John's Innovation Park. In the past thirty years however there has been a growing recognition that providing a mix of uses can have significant positive effects on cities as they offer diversity and richness, provide a reduced demand for transport and other infrastructures, offer local employment opportunities, support footfall to shops and local facilities, and create a more animated and interesting urban fabric with enhanced property values.

4.4.3 Planning for NEC firmly embraces the concept of mixed use development, and seeks to increase the mix of uses in existing employment parks.

Land Use Distribution

4.4.4 The land use diagram (Figure 4.6 on page 46) identifies the broad distribution of uses.

1. Mixed use spine

4.4.5 A mixed-use spine is proposed that links from Cambridge North Station in the east to Cambridge Regional College in the west. The area is bounded to the south by the Guided Busway and to the north by the green movement corridor comprising of the First Public Drain and Cambridge Science Park Green Space. The spine benefits from centrality within the NEC area, supported by strategic public transport access from Cambridge North Station and the Guided Busway, as well as excellent local walking and cycling connections. As such it has the prerequisites for the creation of an intense and vibrant urban environment. The strategy proposes to introduce a greater mix of other uses into traditional employment park areas including residential uses, and to establish a more street based and compact urban form. Delivery of this mixed use corridor would require buy in from the relevant landowners.

4.4.6 Two local centres are proposed at either end of the corridor at Cambridge North Station and Cambridge Regional College. In both locations they can benefit from footfall from public transport and co-location with important destinations in their own right. As NEC is built out, the Cambridge North Station transport hub will see greater levels of passenger use. The station is already supported by a public square and a hotel. This local centre will provide convenience retail, food and drink and leisure uses to further support the anticipated levels of visitors and local residents.

4.4.7 King's Hedges Local Centre adjacent to the Regional College is the perfect location for a new small services hub in the west of NEC as it sits at the interface of Cambridge Science Park, King's Hedges and Cambridge Regional College. It is also located close to a Guided Busway Stop, acting as gateway into the area. The centre will provide convenience retail, food and drink uses, fronting onto a new public square. It will serve the day to day needs of those living, working and studying in this area and would benefit from public realm and highways enhancements at the junction of Kings Hedges Road.

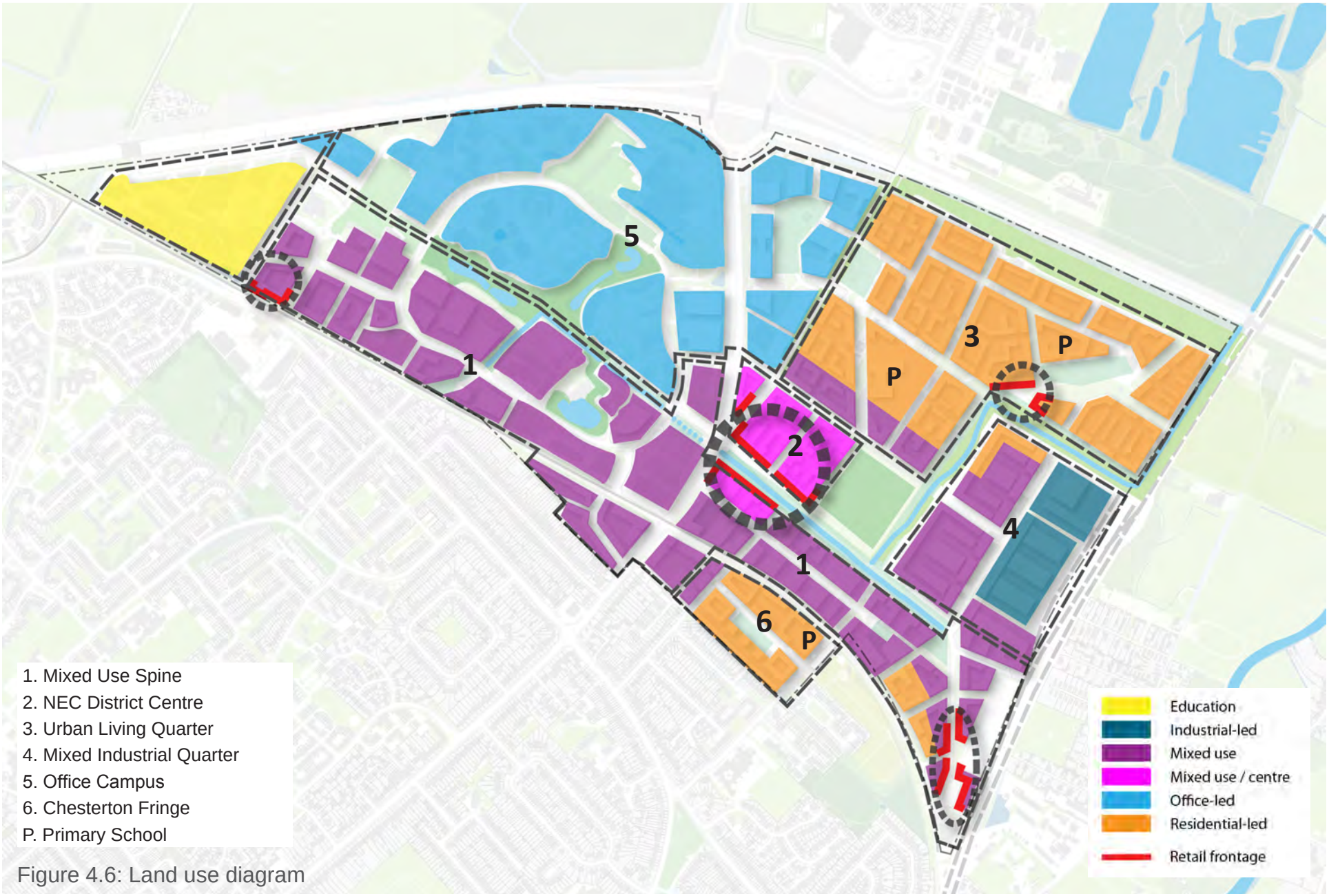


Figure 4.6: Land use diagram

2. North East Cambridge District Centre

4.4.8 At the intersection of Milton Road with Cowley Road the new district centre for the NEC is proposed. It is strategically located at the heart of NEC at the intersection of important routes along Cowley Road/First Public Drain and Milton Road, Cowley Road and Cambridge Science Park Road. It is also co-located next to the Central Park. This position means it will benefit from passing trade by those walking and cycling through the area, as well as being easily accessible from the new residential neighbourhoods of NEC. There is, however, a risk that this location could encourage car-based journeys to the centre, which must be carefully mitigated.

4.4.9 The centre will provide a High Street on Cowley Road with a mixture of retail, eating out and leisure uses. Centre uses at ground floor will be complemented with residential flats on upper storeys and potentially other commercial, cultural or leisure uses. A high quality public realm along the First Public Drain provides opportunity for outdoor seating and dining. The centre is expected to extend into the north west corner of the Cambridge Business Park site, directly to the south.

3. Urban Living Quarter

4.4.10 The area to the north and east of Cowley Road will be a predominantly residential area, supported by local facilities, schools and some opportunity for commercial and community ground floor uses along the principal access street. The majority of development will be apartments but schemes should provide a range of sizes and tenures mixed throughout that can support a cohesive community.

4.4.11 Apartments will need to be high quality and spacious, so they can compete well against the surrounding suburban housing offer, and be attractive to people with greater spending power and families with children. Apartments should be generously sized (ideally 10% more than the minimum standard) with greater floor to ceiling heights (min 2.7m) and should offer spaces for home working, ample storage and well-sized private balconies. Privacy and a green and varied outlook is important, maximising on dual aspect and satisfying daylight and sunlight BRE standards.

4.4.12 Compact townhouses could be provided along the northern and eastern edge, and within the core of super-blocks

Superblock in Malmo with townhouses inside block and apartments buildings at perimeter

(discussed in Chapter 5.0), to offer more traditional family accommodation. This will be served by a centrally located neighbourhood centre that provides a local offer of convenience retail, services and eateries.

4. Mixed Industrial Quarter

4.4.13 This area is served by a railhead and will continue to accommodate the existing aggregates yard together with other light industrial uses. It is proposed to create a modern industrial estate here that can offer relocation space for existing commercial floorspace from Cambridge Commercial Park and Nuffield Road Industrial Estate. The area will be directly served from Milton Road by the main access street, and as such its traffic impact is limited to this route only. Business and industrial development should aim to be compact and look at opportunities to minimise surface storage and parking areas and to maximise on multi-storey provision, especially along the main streets.

4.4.14 On the western edge the industrial area is proposed to be 'wrapped' by residential development that offers positive frontages onto the First Public Drain and Central Park and that can benefit from this quality outlook. Single aspect residential units that only orientate towards industrial uses should not be allowed. The design of the development and the management of the estate should provide effective safeguarding distances and ensure that residential amenities are not undermined by noise, odour, pollution, traffic and other adverse impacts by industrial uses. This should also consider how to mitigate against night-time impacts of the development.

5. Office Campus

4.4.15 It is proposed to retain the northern section of Cambridge Science Park and St John's Innovation Park as a predominant office and Research and Development location given the existing development and land use profile, its more peripheral location in NEC and the impacts and visual exposure from the A14. Development here should strive to make more efficient use of land with compact development and the strengthening of the area's green campus character with well managed landscaped spaces and avoidance of surface car parking areas.

High quality housing should be the standard for the NEC area (Eddington, Cambridge)

6. Chesterton Fringe

4.4.16 This area is proposed to be transformed into a predominantly residential area, responding to the residential character of the Chesterton area to the south. Moving industrial uses out of this area will reduce the impact of heavy traffic on local streets and deliver substantial benefits to the existing local community. There is potential here to accommodate a new primary school to serve the southern section of the NEC area, which must be carefully phased with the relocation of industrial uses out of the area.

School Planning

4.4.17 The draft AAP sets out that 3 new primary schools are required as well as safeguarding land for a secondary school if it is required in the future.

4.4.18 Planning for the location of schools should consider how safe walking routes to schools can be implemented that minimise the crossing of heavily trafficked corridors. Primary schools should be accessible from their immediate catchment in less than 5 minutes walk (400m). Secondary school accessibility should be generally no more than 10 minutes walk (800m), whilst also benefiting from safe access from the cycling network. Schools should be planned not too far away from local or district centres so they can support footfall to local shops and services by parents, staff and pupils, whilst also potentially offering an out of hours resource for community activities.

4.4.19 To make best use of land, schools in urban areas should be compact multi-storey buildings that are innovative, flexible and efficient in their use of space. Often they will make use of roof spaces and terraces for outdoor sports and as play areas, and also consider the use of public spaces nearby for school sports and break activities. Where possible, schools should be integrated within a larger street block with only its public front accessible from the street space. The remainder of the site should be surrounded with other development that create defined and animated street environments all around. Apart from the front, school grounds should generally avoid directly adjoining streets to avoid security issues, inappropriate fences, lack of animation and overlooking of the street space, especially outside of school hours.

4.4.20 The land use diagram identifies three potential locations where these schools could be accommodated so as to satisfy the above principles. They are spaced out throughout the eastern NEC area so that they are easily and safely reachable from all of the residential area within 5 minutes walk, are located on the strategic walking and cycling network and in close proximity to proposed public spaces and centres.

4.5 Height and Landmarks

General Building Heights

4.5.1 General building heights across North East Cambridge are proposed to be of a medium rise urban scale, delivering gentle densities through compact development form. Gentle density is a medium - high level of density that supports vibrant, mixed-use, walkable and sustainable communities while avoiding overcrowding. The maximum height of sub-areas range between 4 and 7 storeys (assuming residential 3m floor to floor heights or the equivalent height in meters for non-residential uses). Tall buildings, that break the context height are discussed in the following section.

4.5.2 This approach to height will be able to deliver the number of planned homes and commercial spaces required by the AAP, whilst avoiding an adverse impact of the development on landscape and heritage sensitivities. Across the UK and Europe heights in this range have proven their ability to deliver attractive urban neighbourhoods with well-enclosed and human scale streets that can engender a sense of community and create sustainable densities to support a variety of facilities, social and transport infrastructures.

4.5.3 Heights differ between character areas. The highest buildings are concentrated in the District Centre, with heights gradually reducing towards the edges of the NEC area. Where the site interfaces with existing low-rise homes in King's Hedges and Chesterton, building heights are reduced to generally 4 storeys. This avoids a drastic shift in scale but does signify that one has entered a new part of the city, with a more urban, medium-density form. Similarly, development is 4 storeys high on the eastern and north eastern edge, close to the Fen landscape, to avoid rising above the trees and imposing on the landscape and heritage sensitivities.

4.5.4 Buildings located within the interior of larger street blocks should generally be one or two storeys lower than the heights of development at the perimeter of the street block. This will help express the different nature and more informal character of development in the block interior, support a more intimate environment with smaller scale of streets and buildings, allow more light into the courtyards and open up views across the block centre.

4.5.5 The recommended maximum building heights per area are indicated in Figure 4.7. The top floor of a building should generally be set back from the building line by at least 2m or alternatively form an integral part of the roof structure (for example by being incorporated in a mansard roof). This will ensure that more light reaches street and courtyards, the effective visual height of a building from street space appears lower, and it delivers a more interesting roof and skyline. Set backs can also deliver attractive outdoor spaces for top-floor flats. It is not expected that all development goes up to the maximum height, but that there is a degree of variation in height that creates a lively street scene and varied roof-line.

4.5.6 It is assumed that plant and lift overruns are incorporated in the roof structure and do not significantly add to the overall building height.

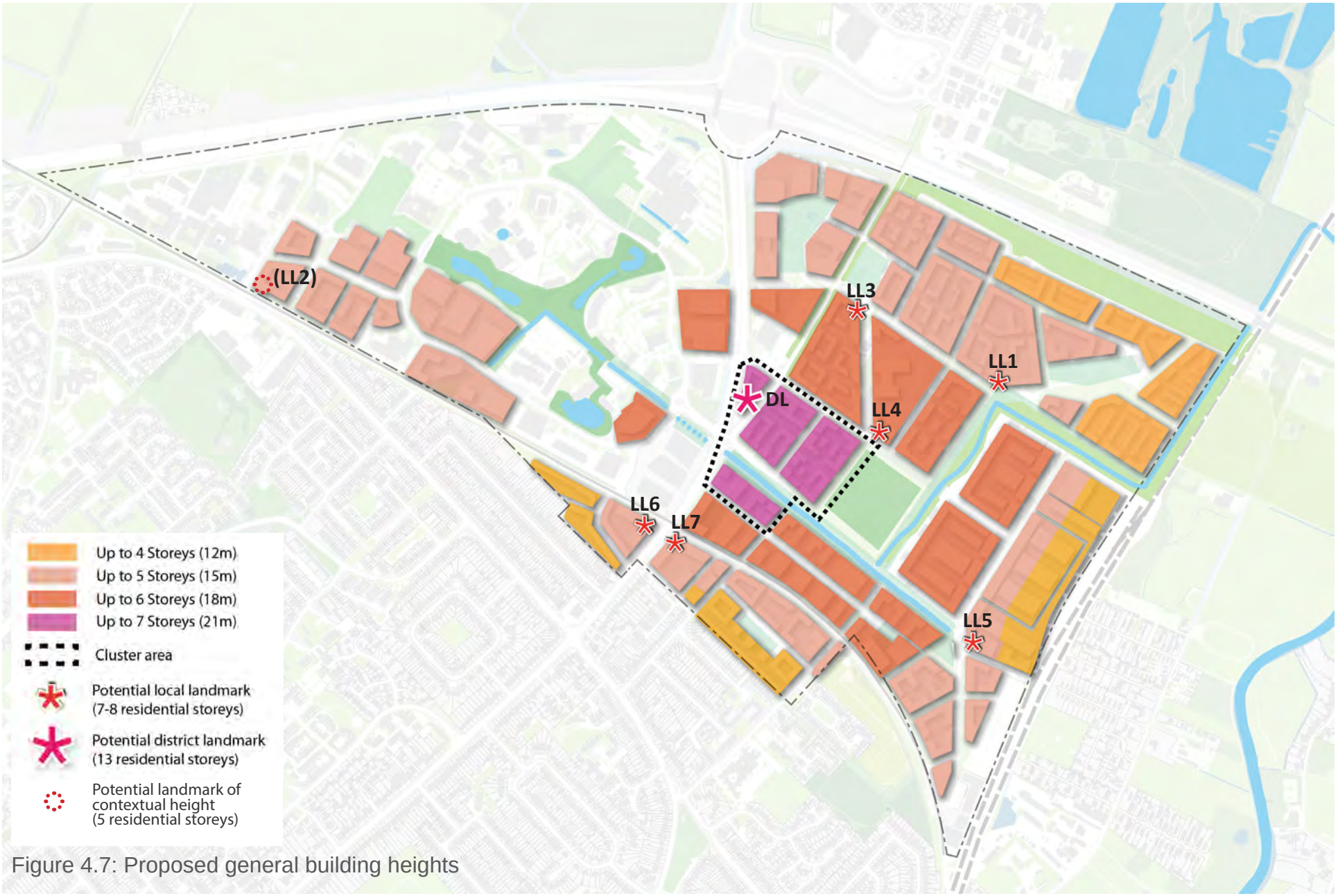


Figure 4.7: Proposed general building heights

Tall Buildings

4.5.7 The NEC area has the capacity to accommodate a few taller buildings as landmarks that enhance legibility and distinctiveness. Landmark tall buildings are by their nature exceptional and should only be permitted in very few locations where they can be fully justified.

4.5.8 Tall buildings are highly visible and in our minds we expect them to be associated with an important location or use. To be meaningful, landmark tall buildings should emphasise a place of spatial or functional significance within NEC. Landmark buildings should be located carefully to be prominent in relevant vistas and to be clearly associated with a place. They should clearly contribute to greater distinctiveness and enhance the local townscape character. Tall buildings must not compete with each other, but play a clear role in the vision for the wider area.

4.5.9 The height of a tall building should consider the general height of the area within which it is located, and be proportional to the relative significance of the place that it is marking. This helps deliver a legible skyline through which the hierarchy of places is expressed.

4.5.10 The townscape strategy has identified a number of potential locations for tall buildings in the NEC area. Locations and heights have initially been tested in the 3d model in respect of their landscape and heritage impact and have broadly found to be of an acceptable scale with minimal impact. Any proposal for a tall building will need use appropriate visual, heritage and landscape impact assessments to demonstrate that it does not harm the skyline and this includes impact on any heritage assets.

District Landmark (DL)

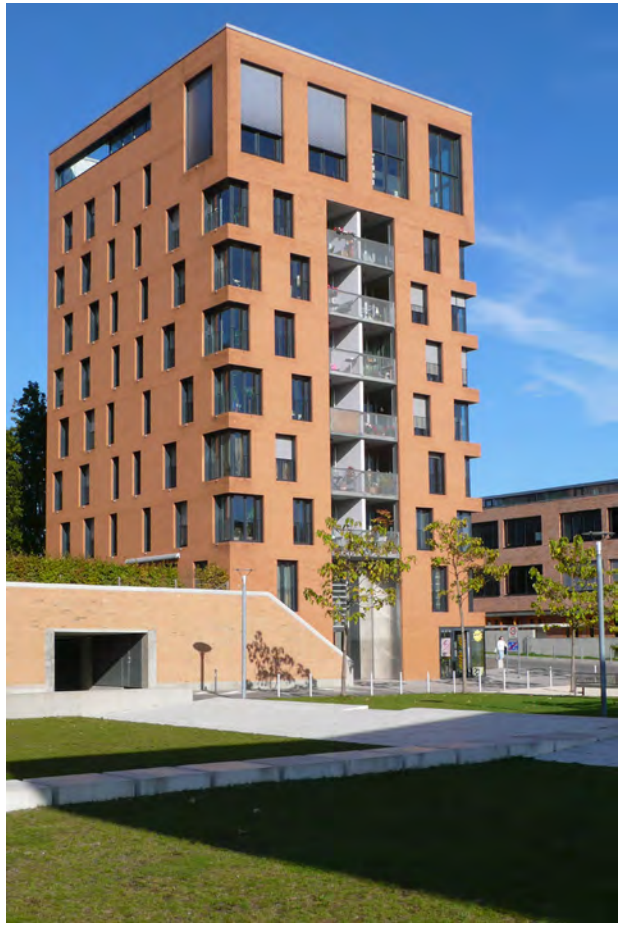
4.5.11 This proposed tall building marks the heart of North East Cambridge at the district centre. This is the highest order place and as such could accommodate the tallest building in the district. 3d model testing, supported by the landscape and heritage impact assessment work, indicates that a tall building of up to 13 residential storeys (equivalent of 40m above ground) could be acceptable here. This should be located at the triangle site between Milton Road and Cowley Road where it will be prominently visible in approaching views along Milton Road (both north and south) as well as Cowley Road (from north), clearly marking the district centre.

Local Landmarks (LL)

4.5.12 Figure 4.7 identifies six specific locations in the NEC where a local landmark of 7-8 residential storeys (22m to 25m) could be appropriate and help mark important places at visually prominent locations, contributing to legibility and distinctiveness of the NEC area. Given the proposed general height in the NEC area, local landmarks do not need more than two additional storeys above the typical height to be notable and successful. The following landmark buildings have been identified:

- **LL1** - Marking the local neighbourhood centre in approach views along the First Public Drain and approaching street (up to 7 residential storeys);
- **LL2** - An opportunity was identified to mark the King's Hedges Local Centre with a local landmark, visible from approaching views. However, the area is potentially within views from high points in Cambridge to Ely Cathedral. To avoid any adverse impact on these views no greater height for this landmark is recommended (up to 5 residential storeys as the context height).
- **LL3 and LL4** – Marking the northern and southern entrance into the diagonal pedestrian and cycling connection that links Cowley Road with Central Park, lending prominence to this route and enhancing local legibility (LL3 up to 7 residential storeys and LL4 up to 8 residential storeys);
- **LL5** – Marking the visual terminus of the view along Cowley Road / First Public Drain to the east and the intersection with Milton Avenue (up to 7 storeys). This building must be carefully designed and tested to avoid negatively impacting on sensitive landscapes and heritage assets at Fen Ditton; and
- **LL6 and LL7** – Framing the gateway into the NEC on Milton Road at the intersection with the Guided Busway (up to 7 storeys).

4.5.13 Landmark buildings need to stand out through their exceptional architectural approach and quality, not only through their greater height.



Example of a 10 storey Local Landmark

Cluster Location

4.5.14 The District Centre is identified as having potential for a few slightly taller buildings (8-10 residential storeys). Their role is to contribute to place making, a distinct character and to mark the centre on the skyline, whilst also delivering higher densities to support the vitality of the centre. Generally heights of tall buildings (and that of lower buildings) in the district centre should vary so that they create a lively skyline. Height points should be located where they would be visually prominent, such as important street corners. Taller buildings in this cluster will need to be carefully located so as to ensure they do not overdominate the environment, create canyons, cause excessive overshadowing, loss of daylight or incursion of residential amenity and privacy.

Design of Tall Buildings

4.5.15 Tall buildings should be distinctive and elegant buildings from all sides that express their verticality. Tall buildings should be of the highest quality of architecture. Particular emphasis should be given to the articulation of the top of the building so as to enhance its distinctiveness and legibility in views and on the skyline. Equally the base will need special attention. Tall buildings should generally be integrated within a street block and join up with neighbouring buildings.

4.5.16 They should respond appropriately to the street space, providing animated frontages and wider footways and contributing through the articulation of the base or podium to a human scale street scene. Microclimate testing should be undertaken at an early design stage to enable an effective mitigation of wind impacts on the public realm, overshadowing and glare.

Example of a taller local highpoint with articulated top and base

Views to Landmarks

4.5.17 Landmark buildings have been carefully located to enhance the legibility of North East Cambridge by acting as landmarks for locally important locations. A selection of key views towards these landmarks is shown in Figure 4.8, and illustrated on the following pages using images from a 3d massing model of the site (Figure 4.9 - Figure 4.14). Note that the 3d model shows only the basic massing of how development on site could look and is not a detailed proposal.

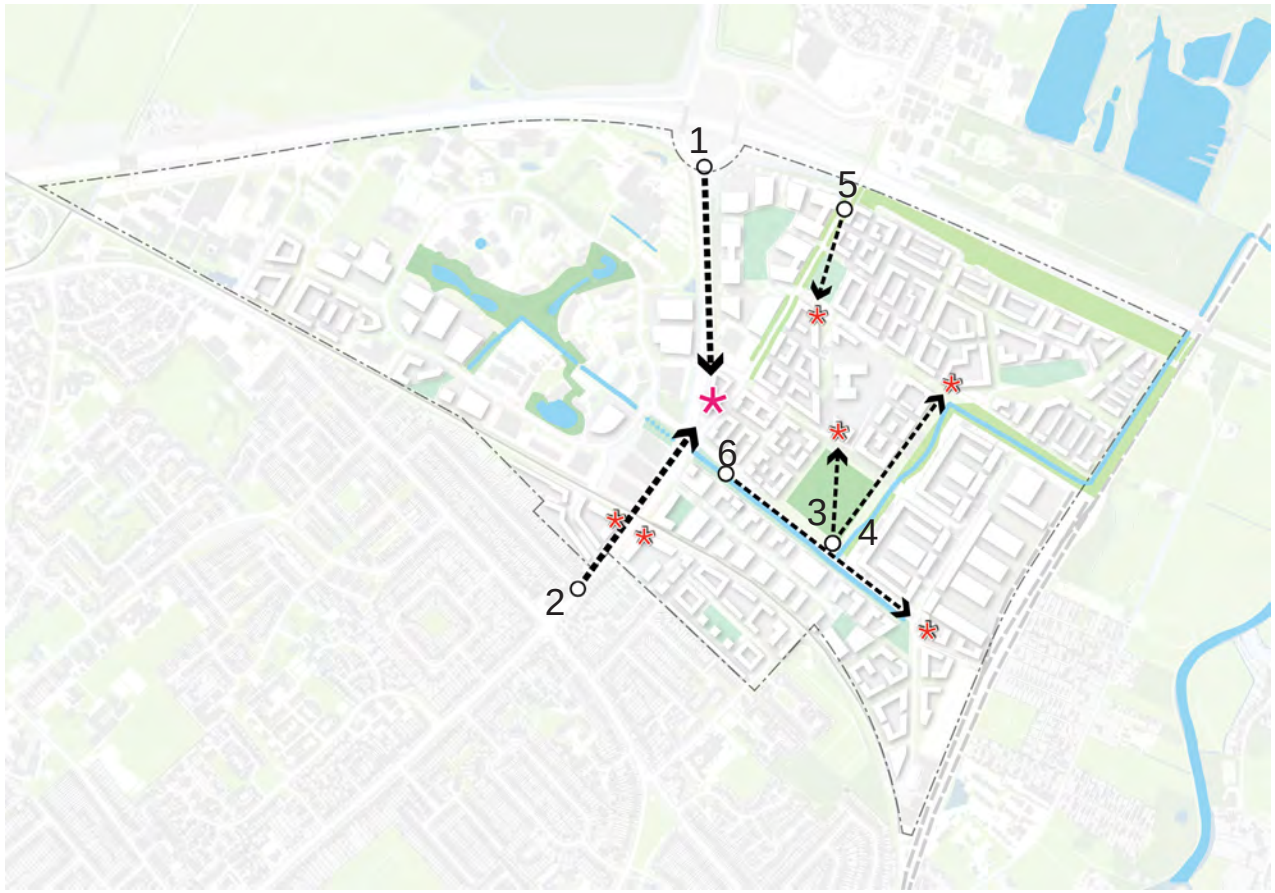


Figure 4.8: Key views to landmark buildings

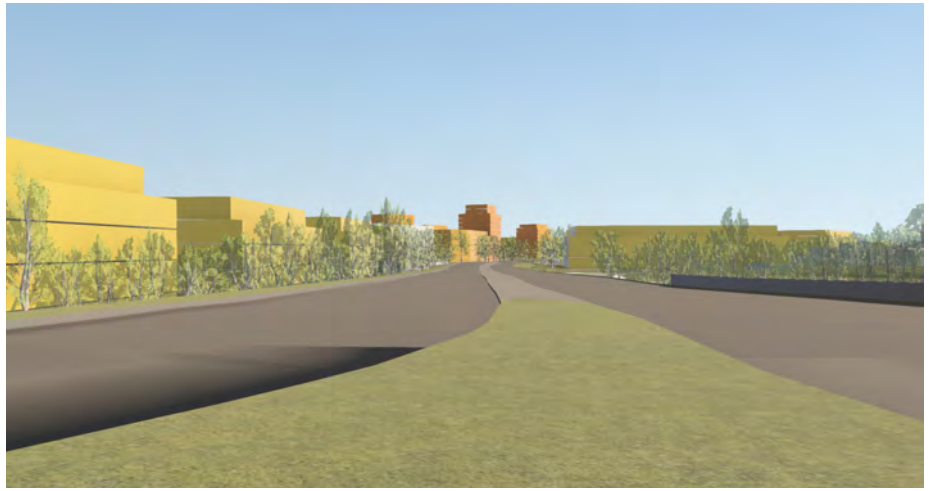


Figure 4.9: View 1 - from A14 roundabout southwards to District Landmark (DL) and the cluster of tall buildings in the District Centre

Figure 4.10: View 3 - over Central Park towards LL4

Figure 4.11: View 2 - northwards along Milton Road towards District Landmark (DL) and cluster, with two tall buildings (LL6 and LL7) marking the gateway into NEC

Figure 4.12: View 4 - northwards along First Public Drain towards LL1 marking the centre (Winter view)

Figure 4.13: View 5 - from Cowley Road southwards over neighbourhood open space towards LL3, guiding into the route to Central Park

Figure 4.14: View 6 - eastwards along First Public Drain towards LL5

5.0 GENERAL URBAN DESIGN PRINCIPLES

This chapter sets out general design principles that should be applied by all development in the NEC area. This covers principles on street definition and urban form, urban grain and plot-subdivision and the materiality and appearance of buildings.

A well defined, enclosed and animated urban street with coherent frontages, active ground floor usesand good levels of natural surveillance - set out by urban street blocks that enhance the view to the local parish church

5.1 Definition and Urban Form

5.1.1 Development should establish a pattern of street blocks, where generally buildings front onto, enclose and define the street space. The layout of sub-areas should accord with the spatial principles set out in this report and deliver proposed connections and features. It should provide a clear hierarchy of public routes that are expressed through the width, scale and enclosure by development and contribute to a legible and navigable urban fabric.

5.1.2 Buildings along streets should establish a coherent frontage and orientate their principal front and entrances towards the street. Buildings should be positioned along a consistent building line that is normally parallel to the street. This will ensure a coherent development response, provide consistent enclosure and a sense of continuity.

5.1.3 Development should be designed to ensure that urban streets and public spaces have good levels of natural surveillance from buildings. Buildings should ensure that the street space is overlooked by active ground floor uses or habitable rooms and upper floor windows. Undercroft parking areas or service yards that are exposed to the public realm as well as blank walls are not appropriate. Buildings on street corners will need to 'turn the corner' to address both streets and provide overlooking to the street space.

5.1.4 Private, semi-private or communal space should generally be provided to the rear of buildings within a street block, avoiding ambiguity of public and private spaces, and naturally securing these amenity spaces from intrusion and creating a strong sense of ownership.

5.1.5 Development in North East Cambridge will need to deliver high quality design. Applications will need to make reference to the townscape strategy and demonstrate that the design has responded to the design principles established in this document. Larger and smaller applications should be subject to a design review process that scrutinises the early stage design on its consistency with the strategy and, at the later stages, in respect of its detail and design quality.

5.2 Urban Grain and Plot Sub-division

5.2.1 Key to the development of lively urban neighbourhoods is ‘flexible, midrise, medium-density housing models that have served our cities so well’ (Kelvin Campbell, Making Massive Small Change (2018)). Different cities across the world have evolved their own specific building blocks that have endured and gave rise to diverse urban and vibrant neighbourhoods. Examples are the tenement blocks in New York’s East Village, the Georgian Townhouses in London, the Berlin Tenement Blocks and the Haussmann Parisian Apartment Buildings.

5.2.2 A common characteristic of these housing types are small to medium size footprints with different land ownerships and management. Sometimes they are messy ensembles of different forms and heights, whilst in other places they form highly coherent quarters. What unites them is that they form the building blocks that deliver the ‘fine grained neighbourhood’ that have endured and that in many places are now highly desirable urban living districts.

5.2.3 However, one does not need to cast the eye as far as these examples, as even Cambridge’s city centre and its surrounding inner-urban neighbourhoods are manifestations of a fine grain approach to development.

Lifestyle magazine Monocle promotes the urban city block typology (Source: Monocle Magazine)

5.2.4 Development in the NEC area should be led by this local context and tradition and actively promote a fine grain approach to development. The guiding principle is to break down larger sites and street blocks into smaller and independent development plots that ideally are owned, designed and delivered separately and independent from one and another. Differentiation and competition between different developments can lead to a greater variety development products, which can support a more socially and economically diverse community. It will also deliver a rich and varied spatial environment characterised by a mélange of development forms, typologies or

architectures. The degree of differentiation permitted between neighbouring developments will vary subject to character and role of areas. In more urban locations this could see greater diversity in height, form and architectures, while in more residential areas variation may be more subtle and limited to architectural detail and the spectrum of colours.

5.2.5 Successful case studies of this plot-based development approach are Scandinavian, Dutch and German examples such as the Västra Hamnen Quarter in Malmo, Hammerby in Stockholm or Amsterdam's Ijburg District, or the communal self-build housing that now dominates urban development projects in central Berlin. The typical British house builder model is not accustomed to this type development. However, there may be an opportunity to attract smaller progressive developers or builders into the NEC area that realise the potential of a different approach that may appeal to the particular cohort of people living and working in Cambridge's academic, tech and creative clusters.

Smaller scale buildings in a super-block in the Västra Hamnen Quarter in Malmo

Development Approaches

5.2.6 North East Cambridge could be used a test-bed of different delivery and development approaches. One potential scenario that could be explored is one where the preparation of land and the delivery of development sites are not undertaken by the same entity. A master developer could take on the preparation of the site, the parcelisation of plots and the building of key infrastructures, whilst smaller developers and builders may deliver the development of plots independent from each other. The master developer could be a private or Local Authority owned company supported by Homes England or other funding sources. It could sell serviced plots or parcels for different types of development to other developers or builders, whilst also delivering some key sites itself. It also could hold land in reserve for later development to benefit from the longer-term value uplift as NEC develops and matures. The master developer would establish the key development principles for sub-areas and secure them through an outline planning permission (or alternatively a development order), de-risking planning applications on individual building projects and ensuring a coordinated approach to development.

Example: Ijburg, Amsterdam

Example: Sluseholmen, Copenhagen

Example: Berlin town houses

Example: Västra Hamnen Quarter in Malmo - superblock

5.2.7 Notwithstanding the ultimate delivery approach, as a minimum, development in NEC's mixed use and residential areas should sub-divide larger sites into smaller plots on which independent designs, ideally by different architects are delivered. Development should further follow the guidance for each character area on the degree of variation and diversity between plot developments as well as recommended plots dimensions where appropriate.

5.2.8 Breaking street blocks down into independent plots with different architectures will provide a rhythm of vertical sub-divisions that positively contribute to human perception of a street. It creates a more calm and measured street scene and a sense of diversity and richness. Introducing the finer grain in NEC also establishes a townscape character link with Cambridge City Centre that also comprises many narrow fronted vernacular buildings and the fine urban grain of an East Anglian market town. Similar to the college buildings there could be exceptions to the finer grain with buildings that have a greater functional importance or prominence being allowed to break

Avoidance of car parking within the development enables simple and independent buildings developed by different landowners

Sub-division of blocks create a calmer and measured street space

the rules and to become 'deliberate eye catchers' and landmarks in the street scene.

5.2.9 The proposed fine grain approach to development is significantly helped and supported by NEC's approach to car parking. Concentrating parked cars into dedicated car-barns removes the need to develop large scale parking solutions within street blocks themselves (such as underdeck parking) that would otherwise complicate or prevent a parcelisation approach. It also relieves individual developments from the need to provide complex, expensive, and sometimes inefficient or unsightly on-plot parking solutions. Removing parking from the equation allows not only for simpler development schemes, both for apartment buildings and townhouses to be delivered. It also provides traffic-calmed streets with more opportunity for quality ground floor living, and it sustains of the natural drainage capacity and supports mature landscaping and tree planting in courtyards.

5.3 Materiality and Appearance

5.3.1 The townscape appraisal of Cambridge City Centre Conservation Area notes that Cambridge is characterised by a mixture of building types, ages, heights and materials, that create a rich townscape which offers variety within an overall consistency. Historically buildings comprise a range of materials, including exposed timber frames, light washed render, and various bricks of red, pink, heavy yellow and brown colour often set off against white or otherwise dark painted contrasting window frames. Roof coverings are a mix of clay-tiled roofs that are traditionally of buff, brown and red hues, as well as Welsh slate roofs.

5.3.2 The College buildings are constructed from a variety of different materials including imported Limestone, red and pink bricks, as well as locally sourced ‘clunch’, which is a hard chalk stone with a grey-ish white to light beige colour. The use of limestone on the most imposing buildings contrasts with the more humble vernacular buildings of the town.

5.3.3 In many places inner urban areas surrounding the city centre comprise of a less diverse mix of materials and colours, often expressed not at individual houses

Brick and stone in historic Cambridge centre

but on larger urban units such as terraces, streets or small areas of development. Whilst there may be some variation in form and detail within an ensemble such as a Victorian or Georgian Terrace or street, their choice of materials and colours is generally more consistent and uniform, creating a greater level of coherence in the street scene. This is an important characteristic of these residential areas that differentiates them from the city centre.

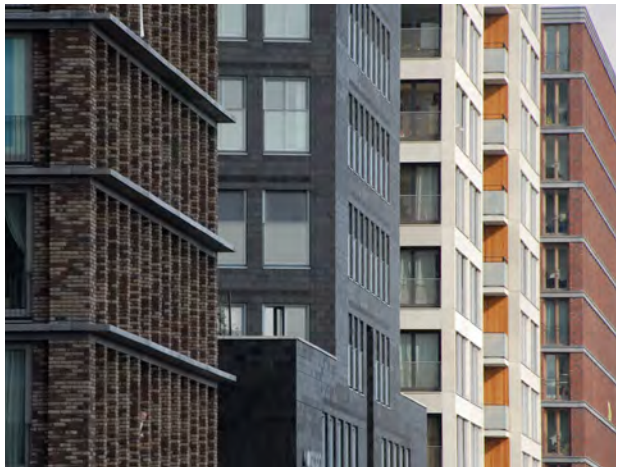
5.3.4 In summary, materiality and colours in Cambridge capture a wide range of earthy and muted spectrums including reds, pinks, yellow browns, light beige, whitish and darker greys. Masonry facades prevail that give the city a sturdy and solid feel. In urban areas there is great variety

Historic facade and roofing materials/colour

Brick terraced streets typical of Cambridge

Example of contemporary building with muted materials and colour

Set back with glass and grey panelling



A range of muted natural colours, brick and masonry façades can create a varied yet coherent townscape (Amsterdam waterfront)

of materials and colours expressed in the fine urban grain, whilst in inner urban residential areas adjoining individual houses may be more uniform and differences are expressed between larger urban units.

5.3.5 The typical Cambridge context of colours and materials should be reflected in the NEC development. Mixed use urban and residential areas generally should make use of the prevailing spectrum of earthy or muted colours with facades of brick, masonry or similar sturdy materials. Large scale, uniform or dominant use of panel systems, metal or glass facades should be avoided.

5.3.6 Central and urban areas (such as the District Centre, the Cowley Park Quarter, the East Side Mixed Use Area, the Station Quarter, the urban sections of Cambridge Science Park South Area and the southern half of the Urban Living Quarter) should generally differentiate functionally independent development units with facades of different colours and materials, to express the fine grain of development and provide a varied and textured streetscape reflective of their urban character and vitality.

5.3.7 In areas with a prevailing residential character (such as the northern section of the Urban Living Quarter, the Nuffield Road Neighbourhood, and peripheral sites in the Southern Gateway) differentiation in materiality and colour should be less stark between individual houses or apartment buildings of the same scheme, but between larger development units, such as a row or terrace of houses, or an ensemble of joined up apartment buildings that form part of a street block. Variation of colour or materiality generally should be an expression of (and complement) different architectures of a development scheme rather than a pure decorative feature
that suggest variety where there is none.

This is especially important in areas with terraced housing, where subtle differences between individual houses are welcome but stark contrasts are not.

5.3.8 Residential and mixed use development should develop a family of approaches to façade designs with a pattern of fenestration that provide depth and articulation, and express a sense of verticality and rhythm in views along a street scene.

5.3.9 Roof coverings or set backs of ordinary buildings throughout the mixed use and residential areas should provide more muted colours of dark reds, browns or greys to create an element of greater coherence that joins together the variety of façade colours and materials into a harmonious whole, and provides a coherent and reticent pattern on the skyline.

5.3.10 Like higher status buildings in Cambridge city centre, some buildings or developments that may have a special function, prominent setting or a wider landmarking role in the district should express their role through higher quality finishes and materials, that could divert from the prevailing spectrum of materials and colours set out above, especially where this can enhance legibility and distinctiveness of the area.

5.3.11 Office buildings in the St. Johns Quarter and Cambridge Science Park can accommodate a greater range of materials as they are perceived on their own in a campus setting where the landscape is a dominant feature. This can include metal and glass facades but should avoid large scale, bland use of panelling systems, uniform façade treatments or the use of reflective or brightly coloured materials in parts of the building that are visible on the skyline or prevent people from looking into the buildings as they are walking by.

5.3.12 Urban green space and vegetation are important features of Cambridge's character. Development in the NEC should embrace urban greening measures as a fundamental element of site and building design. Schemes should incorporate measures such as high-quality landscaping, trees, the greening of roofs, balconies, terraces and podiums, provision of green walls where it is ensured that they are properly irrigated and maintained, and sustainable drainage. The inclusion of urban greening measures in new development will result in an increase in green cover, and should be integral to planning the layout and design of new buildings and developments. The different shades of green and natural colours will complement the proposed material and colour spectrum of the façades, visually enrich the area, and as a common feature further enhance the overall coherence of the townscape character.

6.0 CHARACTER AREAS

6.1 Introduction

6.1.1 North East Cambridge is a large area, similar in size to Cambridge city centre. It is important that the whole area does not get built out in a monotonous and bland development style. Equally, extreme variety in urban form and architectural style would result in a part of the city with no distinct character or identity. Therefore, a number of character areas are proposed, each with their own internally coherent and distinct design approach. Although movement between character areas should be seamless, the creation of distinct visual edges will make NEC more legible and provide a sense of identity for local sub-areas. The townscape framework provides high level design principles for each character area to guide more detailed masterplanning for sub-areas to be undertaken by project promoters.

6.1.2 The Townscape Strategy identifies the following character areas for the NEC (for locations refer to Figure 6.1):

1. **NEC District Centre**
2. **Mixed Use Spine**
3. **Urban Living Quarter**
4. **Mixed industrial Quarter**
5. **Office Campus**
6. **Chesterton Fringe**
7. **Cambridge Regional College**

6.1.3 Each character area is described on the following pages in more detail.

Figure 6.1: NEC Character Areas

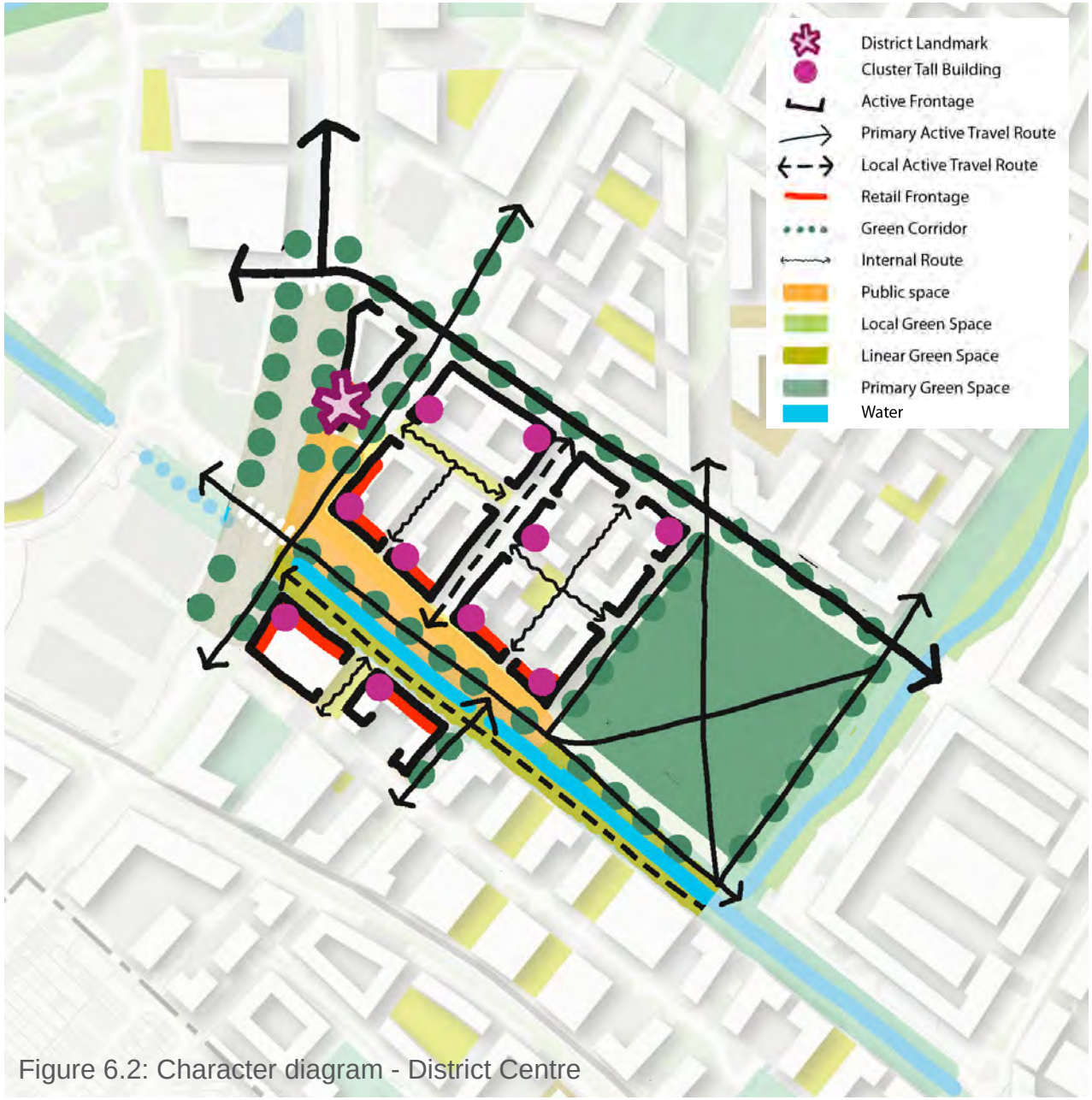


Figure 6.2: Character diagram - District Centre

1 NEC DISTRICT CENTRE

6.1.4 This will be the principal urban hub of activity at the heart of North East Cambridge. The District Centre should become a genuine mixed-use place with housing, commercial spaces and retail, and a lively place for people to live, work, visit and stay. Its vibrancy and vitality should be mirrored and expressed through a greater diversity and richness of its built form and architecture. A new public space along the First Public Drain will create a strong amenity focus in the centre, invite visitors to stay and contribute to a strong sense of place.

Informal Yard spaces in the interior of the block with small commercial units and cafes

Layout, mix of uses and design principles:

- A permeable pattern of street blocks should be created with strong urban frontages towards main streets and the edges of the centre.
- Principal retail and food and drink uses should be concentrated along frontages that overlook the First Public Drain and around the corner with Milton Road.
- Pedestrianised permeable courtyard spaces should be created in the interior of street blocks that could offer opportunities for independent retail, workspaces and live-work units.
- Flexible commercial units and work space opportunities should be provided at ground floors throughout other parts of the centre.
- The servicing areas of convenience retail should be internalised and hidden away from sight within the street block.
- Residential amenities should be provided in form of green terraces, semi-private court yards, accessible roof spaces, as well as large balconies.

Example of high density centre with active ground floors

Height Principles:

- Generally heights should vary between buildings of up to a maximum height of 7 (residential) storeys.
- Opportunity for a few taller buildings between 8 and 10 (residential) storeys in prominent locations to provide height accents, and to contribute to a lively skyline and character.
- Opportunity for a new district landmark on Milton Road of up to 13 (residential) storeys as a marker of the district centre and the NEC more widely.

2 MIXED USE SPINE

6.1.5 The mixed use spine connects Cambridge North Station in the east with Cambridge Regional College in the west. A broad mix of residential and commercial uses is promoted in this corridor to provide the backbone for a lively, urban and sustainable environment. The area is well served by public transport, local walking and cycling routes and benefits from the green corridor of the First Public Drain. The mixed-use spine comprises the following four sub-areas:

- Cambridge North Station Hub
- Central Area
- Milton Road Gateway
- Science Park South

6.1.6 Currently this area contains many bulky, large footprint buildings. There is an opportunity to establish a step change towards a fine grain urban fabric with continuous frontages and a variety of architectures and forms that reflect the central nature of the spine and draw inspiration from the historic Cambridge city centre. Proposals should respond in particular to Townscape Principle 8 in Chapter 3.0 and section 5.2 of the General Urban Design Principles.

2a Cambridge North Station Hub

6.1.7 This area is a key gateway into North East Cambridge. The area will see increased activity and buzz as people come and go to the station, interchange at the bus terminal, and pass through along the strategic walking or cycling route to Cambridge city centre via the river corridor. Served by this footfall a new local centre is proposed to provide a convenience offer to local people, invite commuters to stay and spend time here. The character of this area should be urban and celebrate the arrival in the NEC area.

A busy street environment with retail frontage

Layout, mix of uses and design principles:

- Development should take the form of urban street blocks that establish coherent frontages towards the central boulevard, the Guided Busway to the west and local access streets.
- Active ground floors with convenience uses should be concentrated around the station and along the southern end of the boulevard.
- Provide a mix of residential and office uses is promoted.
- Station car parking should be accommodated in a multi-storey car park, which must be carefully integrated into the area.
- A small neighbourhood space is proposed at the northern end of the boulevard as a focal space for local residents.

Urban Blocks provide green and calm interiors

Height Principles:

- Heights to vary between buildings up to a maximum of 5 (residential) storeys.
- Two taller buildings are already permitted / constructed next to the station (Hotel and office development), which provide prominence and legibility to this gateway. No further tall buildings are necessary or proposed in this area.
- Opportunity for a local height accent of up to 7 residential storeys to terminate the view along Cowley Road / First Public Drain at the intersection with the boulevard.

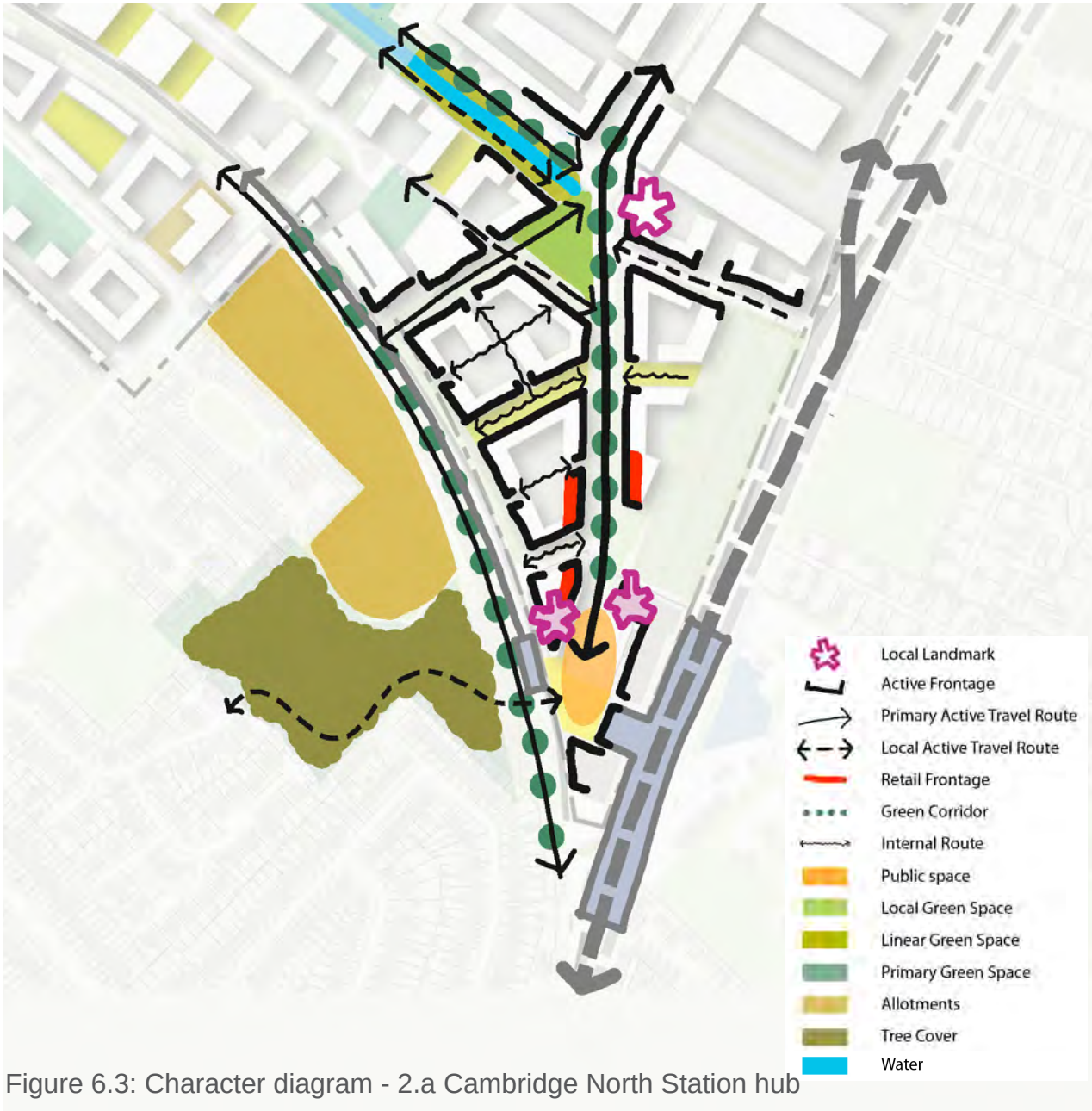


Figure 6.3: Character diagram - 2.a Cambridge North Station hub

2b Central Area

6.1.8 It is proposed to transform the current business park into a vibrant urban quarter with a mix of office, residential and other uses, full of buzz and activity throughout the day and evening that appeals to creative industries and those seeking an urban life-style. The activities from the district centre will spill into the northwestern corner of the quarter, offering eating out, café and other active ground floor uses overlooking the First Public Drain.

Layout, mix of uses and design principles:

- A pedestrian priority internal route should connect the area from Milton Road in the West with the station boulevard in the east.
- The pattern of development should provide visual and physical connections between the Guided Busway to the south and the First Public Drain in the north and define urban frontages towards important pedestrian routes.
- A playful mix of commercial and residential buildings should be provides that supports the urban character of the area.

Animated spaces

Residential buildings overlooking pocket green spaces

Cafes and Workplaces

Restaurant overlooking First Public Drain

- The quarter is crossed by two important pedestrian and cycling connections, continuing local streets Green Park/ Gainsborough Close and Nuffield Road to the north, that link the Chesterton Neighbourhood with the district centre and Central Park. Two new bus stops on the Guided Busway are proposed on each of the routes. Development should appropriately respond to these routes by establishing active frontages and create a street profile of sufficient width that make this a legible entrance into the NEC area.
- The central access spine should be largely a shared space with pedestrian priority, and parking should be provided in a multi-storey car park close to the site entrance. A coherent high quality public realm with trees and intensive landscaping should be established throughout the area. Pocket green spaces for residents, including children's play facilities, should be provided at the central spine. The character area should seamlessly join with the surrounding area and not feel like a private enclave surrounded by fences and boundaries. The character area should have an open

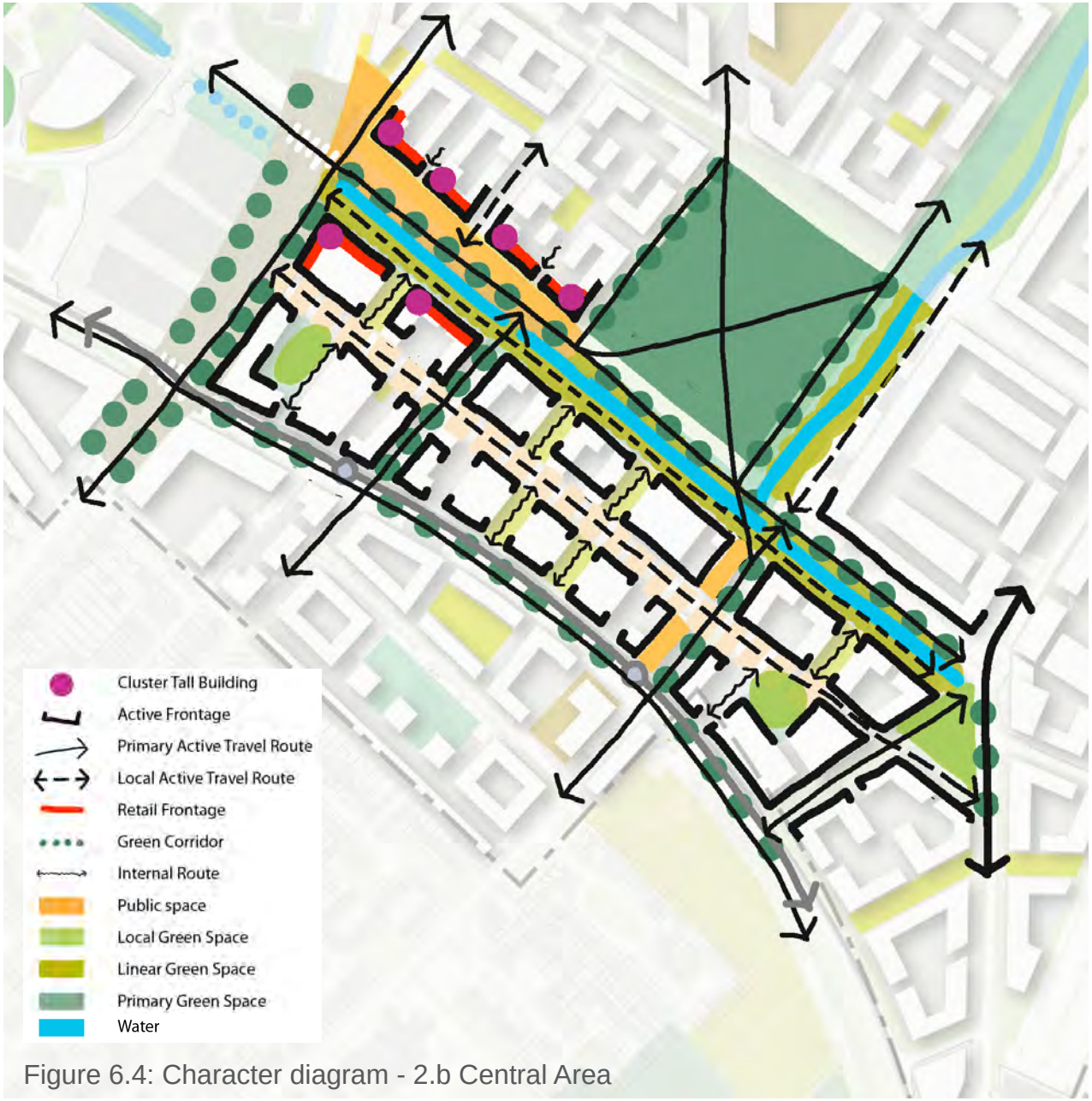


Figure 6.4: Character diagram - 2.b Central Area

2c Milton Road Gateway

and permeable interface with the First Public Drain and connect at dedicated and permanently open entrance points with the station quarter to the east and the Guided Busway to the south.

- The character of this area is inspired by historic warehouse style architecture that can accommodate a broad mix of residential and office uses in a variety of blocks, whilst their masonry facades with large openings provide a degree of architectural coherence that visually holds the quarter together. Bespoke buildings designed specifically to respond to the deep plots and varied outlook should contribute to the special and quirky urban character of the strip. Different architectural practices should be employed to ensure richness and variety of solutions.

Height Principles

- Heights should vary up to a maximum height of six residential storeys or five commercial storeys.
- Height can increase to a maximum 7 storeys for buildings fronting on the First Public Drain that form part of the district centre.
- The district centre part of the area also offers an opportunity for up to two taller buildings of up to 8 and 10 (residential) storeys located in prominent locations including on the corner with Milton Road.

6.1.9 The potential future redevelopment of the sites flanking Milton Road at the intersection with the Guided Busway present an opportunity to transform this into an appropriately defined gateway into North East Cambridge, providing a sense of arrival and signifying the general change of character from the residential suburbs to the south.

Layout, mix of uses and design principles:

- Development should establish good urban frontages onto Milton Road and the Guided Busway.
- Active ground floor uses should be provided on either side of Milton Road to animate and provide passive supervision to the street space.
- Non-residential uses should be provided along Milton Road while the rear of either site could be developed with residential uses.
- The proposed removal of the underpass at Milton Road offers the potential to improve access to the Trinity Hall Farm

Industrial Estate site from Milton Road itself and alleviate the need for this site to be accessed via Nuffield Road.

- The car retail site offers an opportunity to provide a new pedestrian link from Milton Road to the guided busway stop and onwards into the Cambridge Science Park.

Height Principles

- Heights of up to a maximum of five storeys will be appropriate on Milton Road, but heights should step down towards existing housing to the south.
- There is an opportunity to mark each corner with the Guided Busway with a building of maximum 7 residential storeys (equivalent to 22m) to frame the entrance into the district.

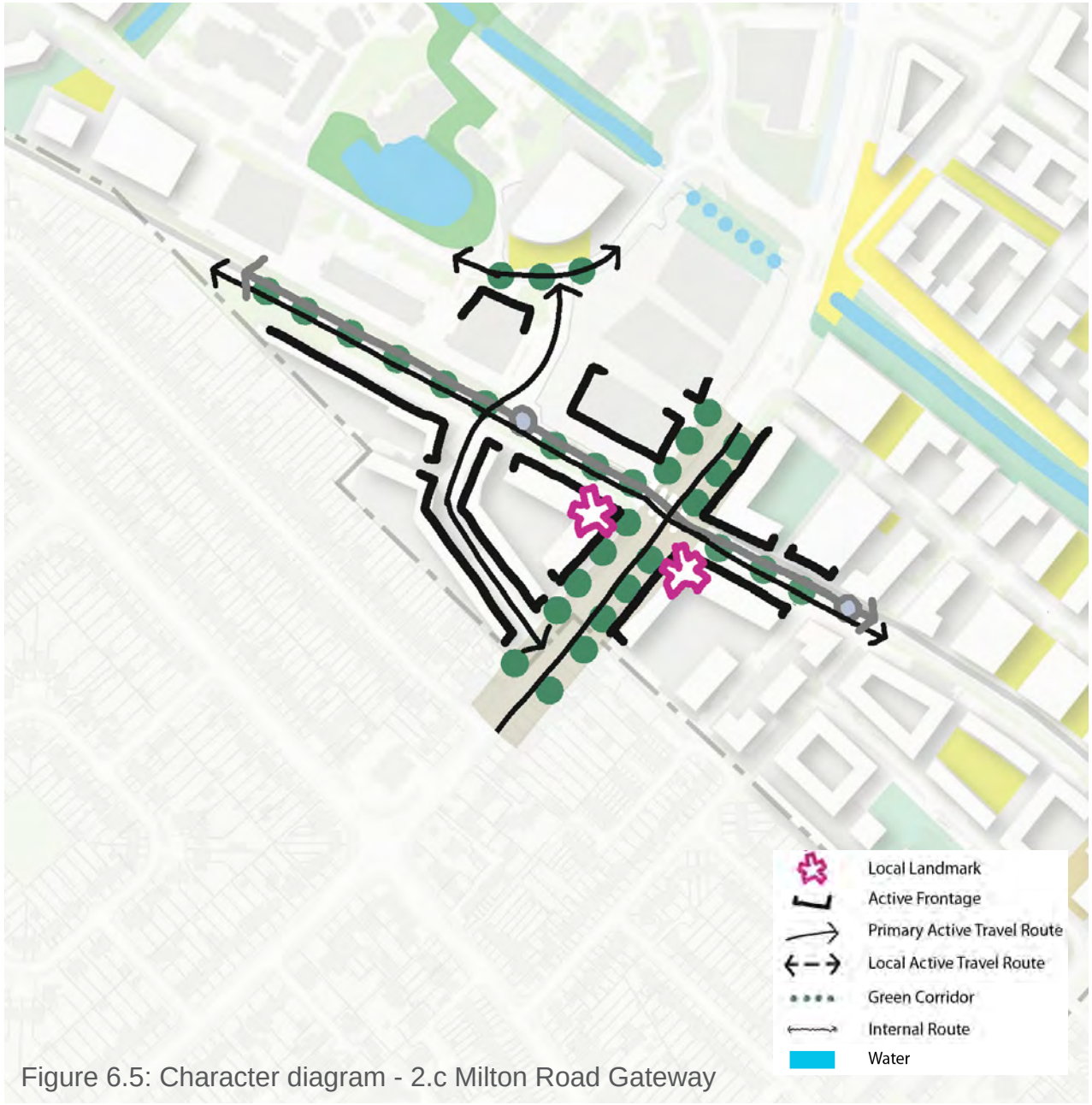


Figure 6.5: Character diagram - 2.c Milton Road Gateway

Figure 6.6: Character diagram - 2.d Cambridge Science Park South

2d Cambridge Science Park South

6.1.10 The southern part of Cambridge Science Park between the central green space and the Guided Busway offers great opportunity for intensification. When sites come forward for development the aspiration here should be to intensify development, introduce a greater variety of uses (including residential uses) and to provide a more urban character. This will make more effective use of this well accessible area, enhance the sustainability of the site and establish a more lively character that is favoured by workers and modern office operators alike.

6.1.11 A local centre is proposed at Kings Hedges to provide facilities for worker, students and local residents in the west of the NEC area.

Layout, mix of uses and design principles:

- New mixed use development should respond to and define the street space and provide a sense of enclosure and continuity of frontages, especially along the Guided Busway.
- Development overlooking Cambridge Science Park Road and the Guided Busway should provide animation to the street space and make the environment feel safe for walking and cycling, especially after hours.
- Development between the Science Park Road and the central green space could be more openly spaced in small building clusters to retain the campus feel and visual connections from Science Park Road into the green space.
- Car parking should be accommodated in multi-storey car parks, freeing up land for more compact urban development and a high quality public realm.
- Opposite the Regional College, there is opportunity to develop a local centre with mixed use development and a new public space adjacent to the Guided Bus Stop, as a place to meet and sit out.
- Development should facilitate an important new walking and cycling connection between the Science Park Green Space along the First Public Drain with Garry Drive across the Guided Busway.
- Development should also establish a more legible and direct connection from Cambridge Science Park Road with Cambridge Regional College and the bus stop on the Guided Busway to integrate the area. Segregated cycling facilities should be developed along Cambridge Science Park Road.

Compact offices in a landscape setting

Height Principles

- Heights should be generally up to 5 residential or 4 commercial storeys
- There is a visually exposed location at the Kings Hedges Local Centre where a landmark building would be visually prominent and could provide distinctiveness and enhance legibility. However, this area is located in the viewing corridor from Cambridge City Centre to Ely Cathedral any taller structure is likely to interfere with this view and there for this landmark building can not be higher than the general height of 5 storeys but should be expressed through its architecture and appearance.

3 URBAN LIVING QUARTER

6.1.12 This will be a new residential-led neighbourhood that combines the fun and convenience of city centre living close to jobs and facilities with an attractive and green environment and immediate access to open spaces and the countryside.

Layout, mix of uses and design principles:

- The area should comprise urban scale street blocks that define and provide good enclosure to a network of boulevards and tree lined streets.
- Some street blocks could be super-blocks and offer a less formal layout in their interior, providing a permeable network of paths that are overlooked by smaller apartment buildings and compact town houses, with access only for pedestrians and emergency/servicing vehicles.
- Block edges should offer a coherent height all around the block with coherent frontages that are sometimes broken to offer glimpses and occasional access into the interior of blocks.

Lower density housing at the centre of blocks

Communal spaces

Local Centre

Street-based urban blocks, Sluseholmen, Copenhagen

- A mix of small semi-public pocket green spaces, semi-private residents spaces and SUDS provide an informal atmosphere with a strong community feel and sense of ownership.
- Homes and active frontages should overlook the streets and public open spaces to provide passive surveillance.
- The vegetated buffer to the A14 should be retained and enhanced to form the

northern edge of the quarter, mitigating noise and air pollution.

- The layout of streets should allow an open outlook to landscape beyond.
- A local centre should be established in the north east of the area with a primary school and public open space. This will act as local hub for residents of the Urban Living Quarter.

Height Principles:

- Generally building heights should be greater in the south and west of the neighbourhood (5-6 storeys), and step down towards the northern and eastern edges (3-4 storey).
- Height within superblocks should be generally lower than at the edge of superblocks.
- One taller building is proposed to mark the local centre in views along the First Public Drain. Two smaller landmark buildings are proposed at either end of the diagonal, emphasising the entrances into this important connection.

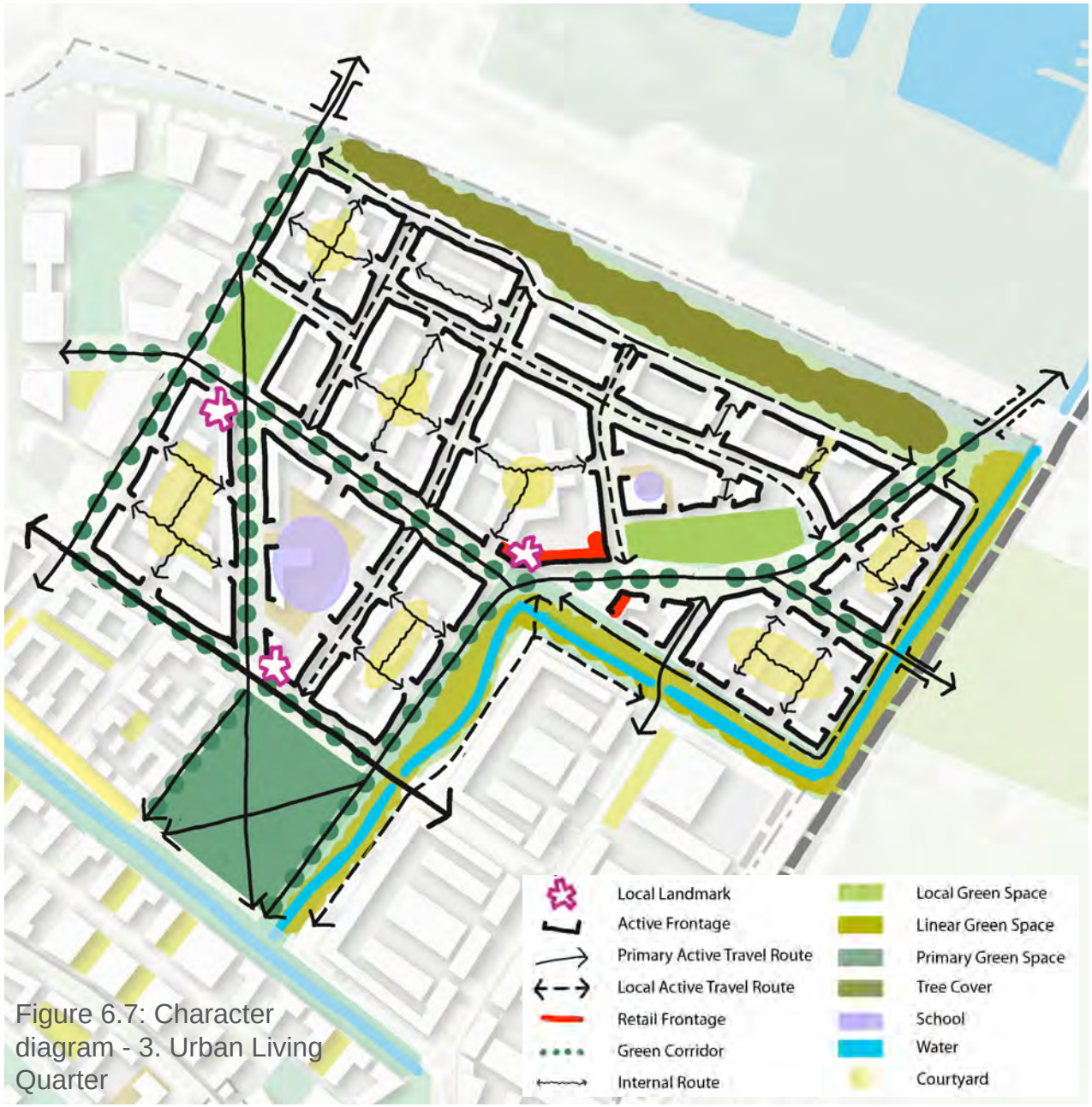


Figure 6.7: Character diagram - 3. Urban Living Quarter

4 MIXED INDUSTRIAL QUARTER

6.1.13 This area will be transformed into a mixed living and working quarter that provides a range of work spaces and industrial uses that are carefully arranged with and hidden away behind an outer edge of housing.

Layout, mix of uses and design principles:

- Provide a mix of larger and smaller light industrial spaces with smaller business units fronting the main north-south street. This street will be an important route linking Cambridge North Station to the Urban Living Quarter and so should be an attractive environment with positive frontages.
- A new primary street from Milton Road should provide the main access route for this area.
- Two large courtyards blocks to the west of the spine offer opportunity to develop into a series of yard spaces with an industrious atmosphere that could be especially attractive for smaller and creative industries.
- Residential development along the western, southern and northern edges of the blocks will provide a positive interface with the remainder of the area, with homes overlooking green space and the First Public Drain. The residential perimeter should feel part of the Urban Living Quarter.

Example of business units combined with residential (Caxton Works)

Residential flats overlooking park (Kidbrooke,Greenwich)

- The existing aggregates yard and railheads should be retained on site, with industrial uses acting as a buffer between it and residential uses.

Height Principles:

- Heights of development should be up to 6 residential storeys at the western edge and step down to the equivalent of maximum 4 residential storeys (13m) along the rail line to limit the visual impact of development on sensitive landscape and heritage assets.

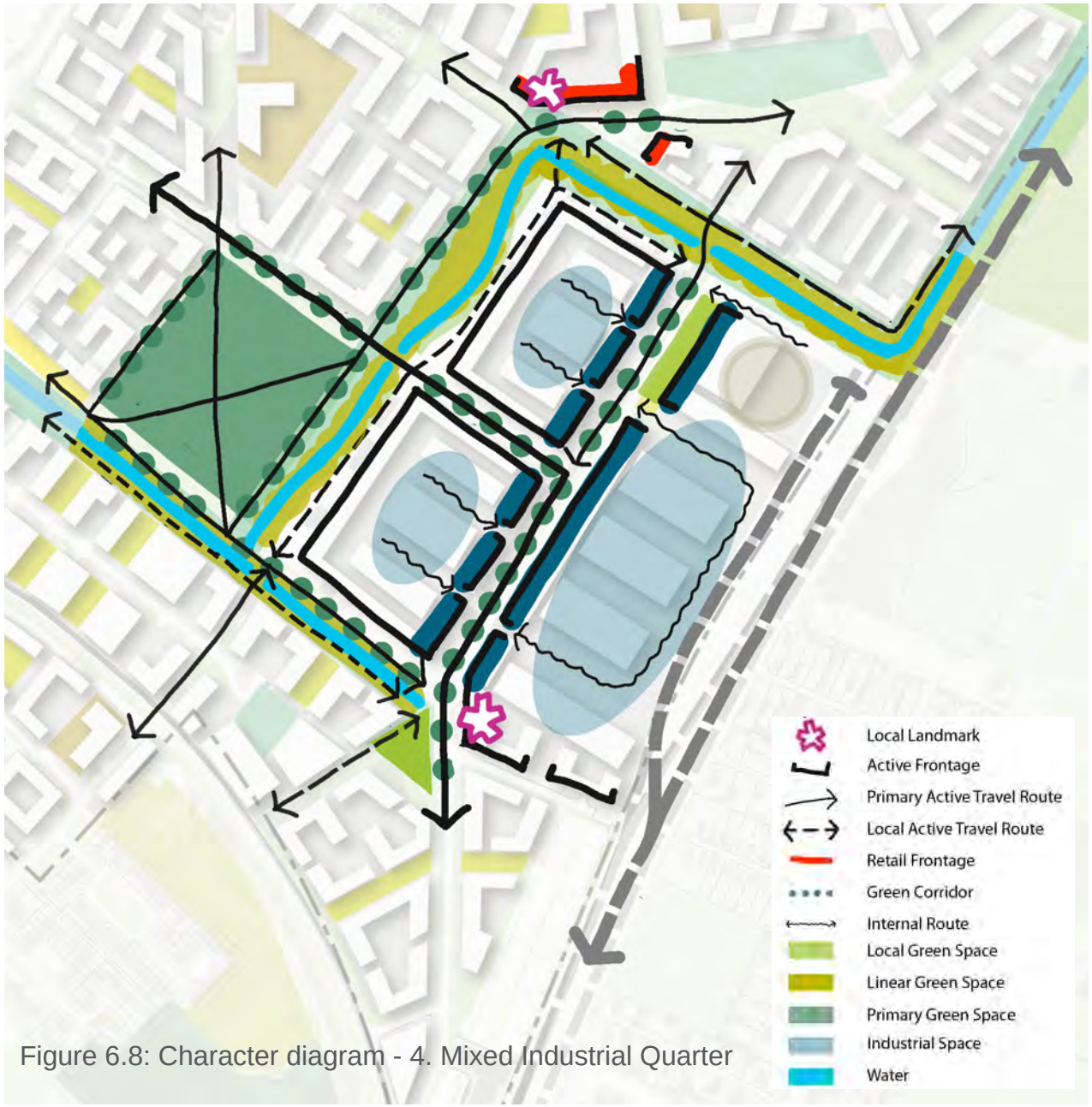


Figure 6.8: Character diagram - 4. Mixed Industrial Quarter

5 OFFICE CAMPUS

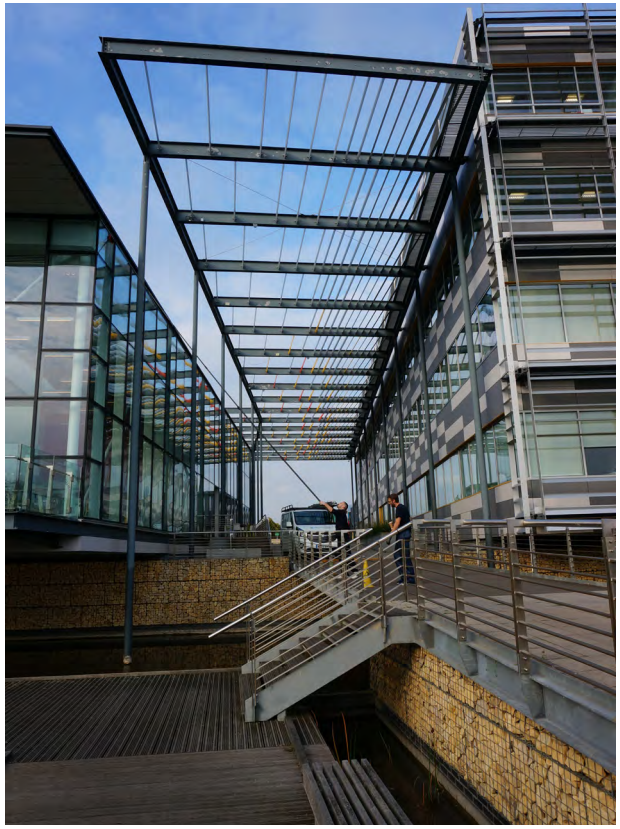
6.1.14 The Office Campus Character Area comprises large scale purpose-built offices and R&D facilities in a landscape setting. It is functionally one character area, but is divided by Milton Road into two sub areas: Cambridge Science Park North and St John's Quarter.

5a St. John's Quarter

This quarter will be developed into a campus style compact business park focused around a green central space that provides a strong identity and amenity to workers.

Layout, mix of uses and design principles:

- Grade A office should be situated around and fronting onto a green open space.
- Buildings on Cowley Road should have their principal entrance on the street and a secondary one on the central space
- Parking should be consolidated into a multi-storey car park to create more space for development and landscaping.
- Shared facilities such as a café or gym should be established and accessible via the central green space.
- The campus should not be fenced off, but rather be open for access by the general public.
- Development should facilitate a new pedestrian and cycling connection across Milton Road.



Contemporary high quality office buildings

Height Principles:

- Heights of four commercial storeys (16m) are appropriate to the north of the pedestrian route, whilst buildings to the south could be up to 5 storeys (20m).

Offices clustered around a central green space(Chiswick Park)

Figure 6.9: Character diagram - 5.b St John's Quarter

5b Cambridge Science Park North

The open campus character of the northern part of the science park is reinforced whilst a network of circluar paths is proposed that offer access through the landscape for leisure walking and jogging, and that links development with the central Campus Green Space.

Layout, mix of uses and design principles:

- Retain the principle of standalone development situated in a landscape setting.
- Future redevelopment of existing premises should consolidate parking into multi-storey car parks and bring forward compact office development in a landscaped setting.
- A network of green corridors should be established that links all development clusters with the central green space and provides continuous walking and jogging routes through the area.
- Segregated cycling facilities should be developed along Cambridge Science Park Road.

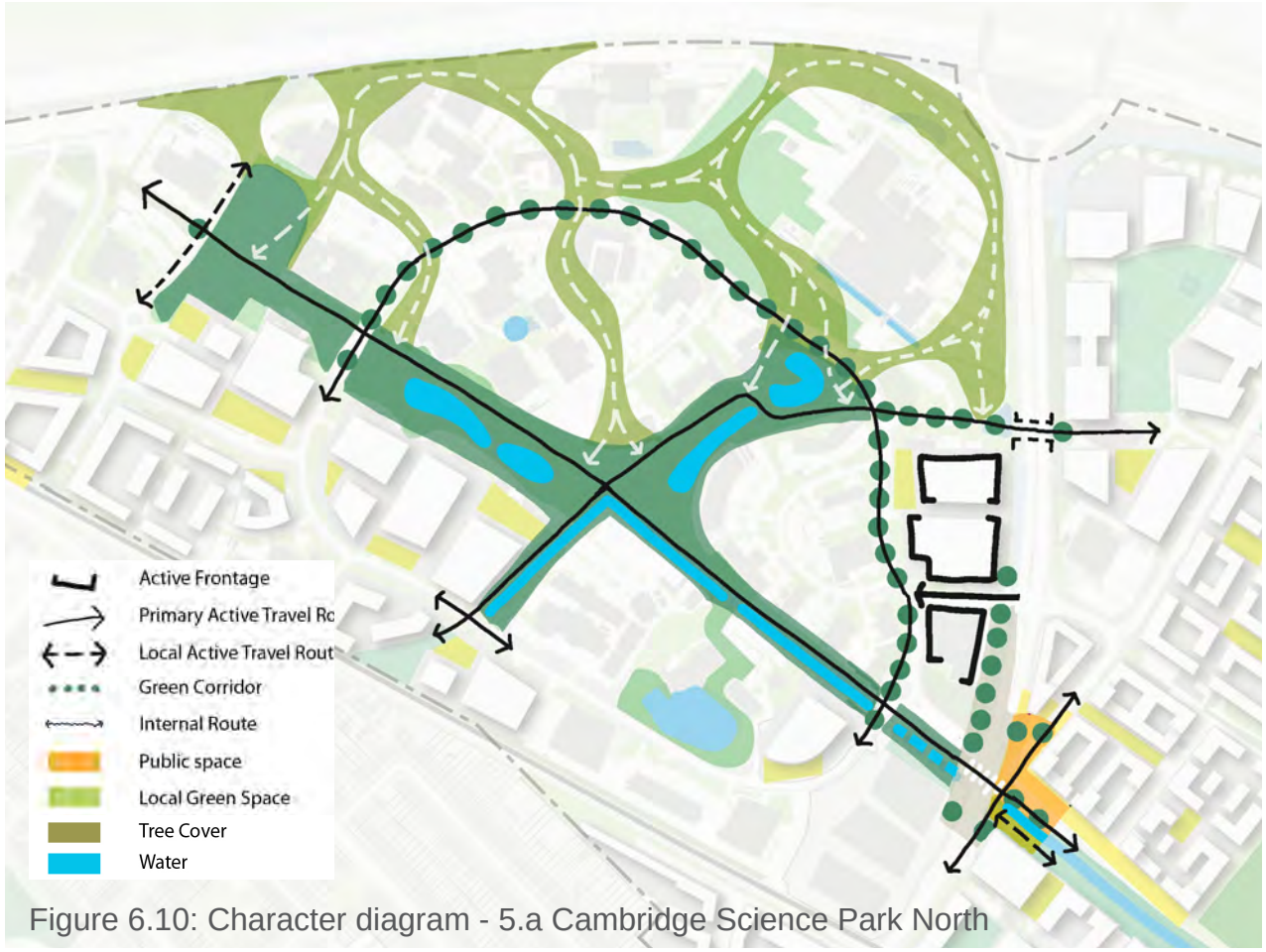


Figure 6.10: Character diagram - 5.a Cambridge Science Park North

- Development should facilitate high quality underpass connection at Milton Road for walking and cycling.

Height Principles:

- Buildings should generally be 3-4 commercial storeys in height to create a more urban atmosphere.

6 CHESTERTON FRINGE

6.1.15 This small residential neighbourhood will mediate the transition between the low-rise Chesterton neighbourhood to the south and the more intense NEC. The quarter will feel like a natural extension of the Chesterton area, spanning between two existing streets (Green Park and Nuffield Road) and creating a new green space as a focal area central to the development.

Terraced housing along the southern site boundary to respond to lower rise context (example: Kidbrooke, Greenwich)

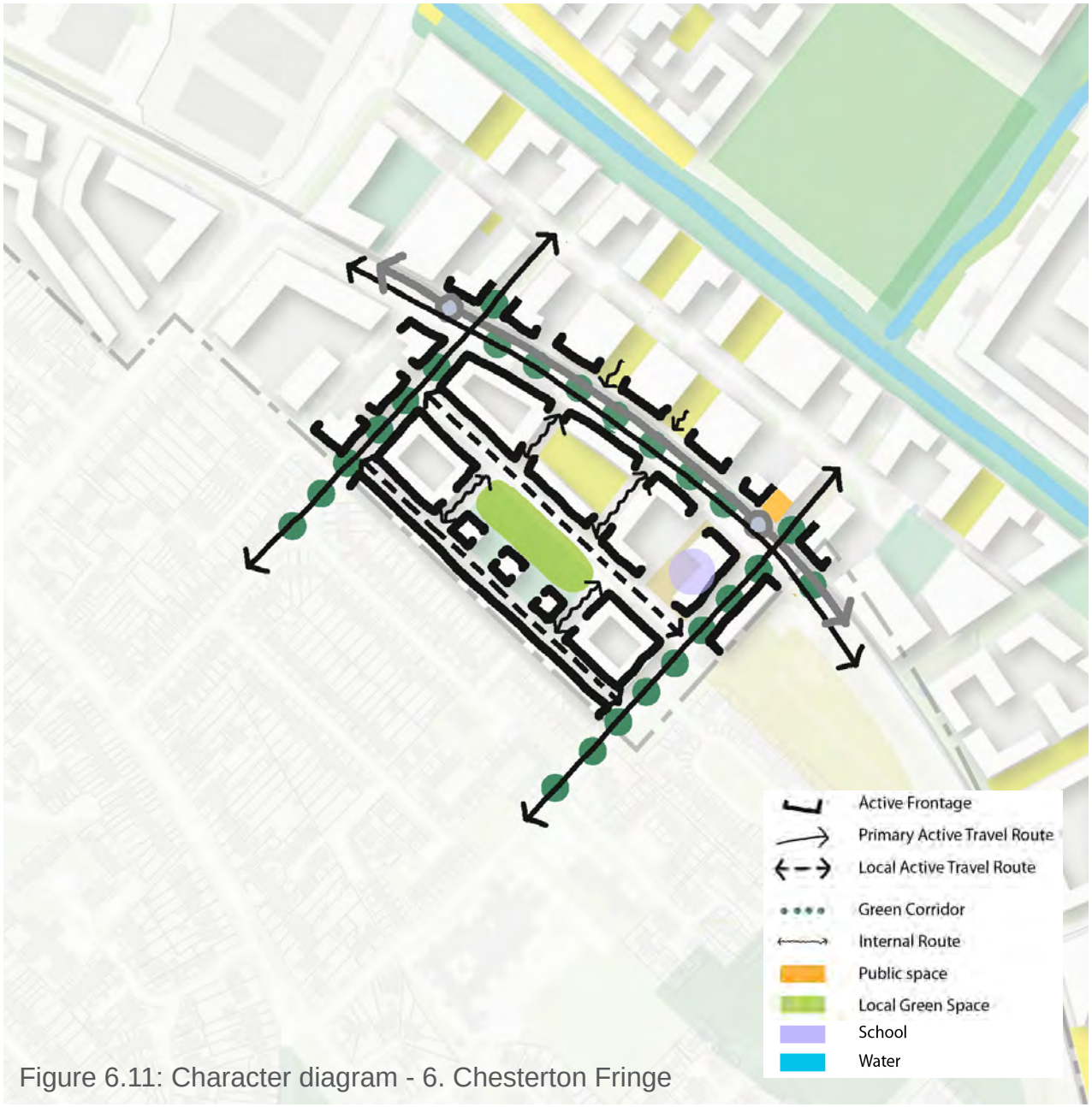


Figure 6.11: Character diagram - 6. Chesterton Fringe

Layout, mix of uses and design principles:

- A row of terraced houses should be provided along the southern site boundary, securing the backs of existing housing and completing the existing street block.
- The remainder of the site should be composed of urban street blocks of flats, arranged around communal courtyards.
- Development should overlook and front onto streets, a new local green space and the Guided Busway.
- Two new high quality pedestrian and cycling connections should be established from Green Park and Nuffield Road into the NEC area and across the Guided Busway.
- There is an opportunity to provide a new primary school on Nuffield Road where it can benefit from safe pedestrian and cycling access into the NEC area and to Central Park.

Height Principles:

- Heights at the southern edge of the site should be no more than 3 residential storeys, stepping up to 4 storeys at the centre of the site and 5 residential storeys along the Guided Busway.

Smaller street blocks with communal courtyard over car park (example: Kidbrooke, Greenwich)

7 CAMBRIDGE REGIONAL COLLEGE

6.1.16 Cambridge Regional College is an important educational hub in NEC. It is unlikely to see significant change in the coming years. However, there is opportunity for improvements to how the site functions and interfaces with surrounding areas.

Layout, mix of uses and design principles:

- The site could be better organised if parking was consolidated into a multi-storey car park, which would free up space for the development of further facilities as well as public realm improvements.
- Consideration could be given to introducing commercial or community facilities to better animate the area.
- An important walking and cycling connection passes between the college and the A14 and connects underneath the A14 with Mere Way to the north and with Orchard Park to the west. Development should provide active frontages along this corridor to provide overlooking and enhance the quality of this important route.

Figure 6.12: Character diagram - 7. Cambridge Regional College

7.0 PUBLIC SPACES AND PUBLIC REALM

7.1 Public Realm Quality

7.1.1 Public realm and landscape features will contribute significantly to the character of NEC and the creation of a successful place. The public realm should be high quality throughout, using a consistent palette of materials, a common set of public realm furniture and lighting, and a coherent approach to planting and landscaping throughout the area.

7.1.2 It is important that the public realm flows seamlessly across different ownership boundaries and that the standard of design and maintenance remains high even if they are managed differently. Ideally a single management organisation is responsible for the maintenance of the public realm throughout the NEC area. To ensure a coherent approach, a binding design code should be established that sets out key principles and criteria. All streets and open spaces should be designed to be multi-functional, intergenerational, and used in every season.

7.2 Major Public Spaces

7.2.1 A number of proposed public spaces are of strategic importance and will have a bearing on the character, image and overall success of the entire NEC development. Their impact will go beyond the immediate area.

7.2.2 Their delivery should be prioritised and funding should be pooled from all development sites to ensure their timely and high quality delivery. They form part of the critical infrastructure that need to be delivered early on in the project (equal to strategic access streets) to change perception and unlock important assets of the area.

7.2.3 Major public public spaces as shown in Figure 7.1 are:

a. **Milton Road Boulevard**
b. **Central Park**
c. **First Public Drain Linear Park**
d. **First Public Drain Green Corridor**
e. **Chesterton Fen**
f. **A14 Buffer**
g. **Milton Country Park**

7.2.4 More detail on these spaces is provided on the following pages.

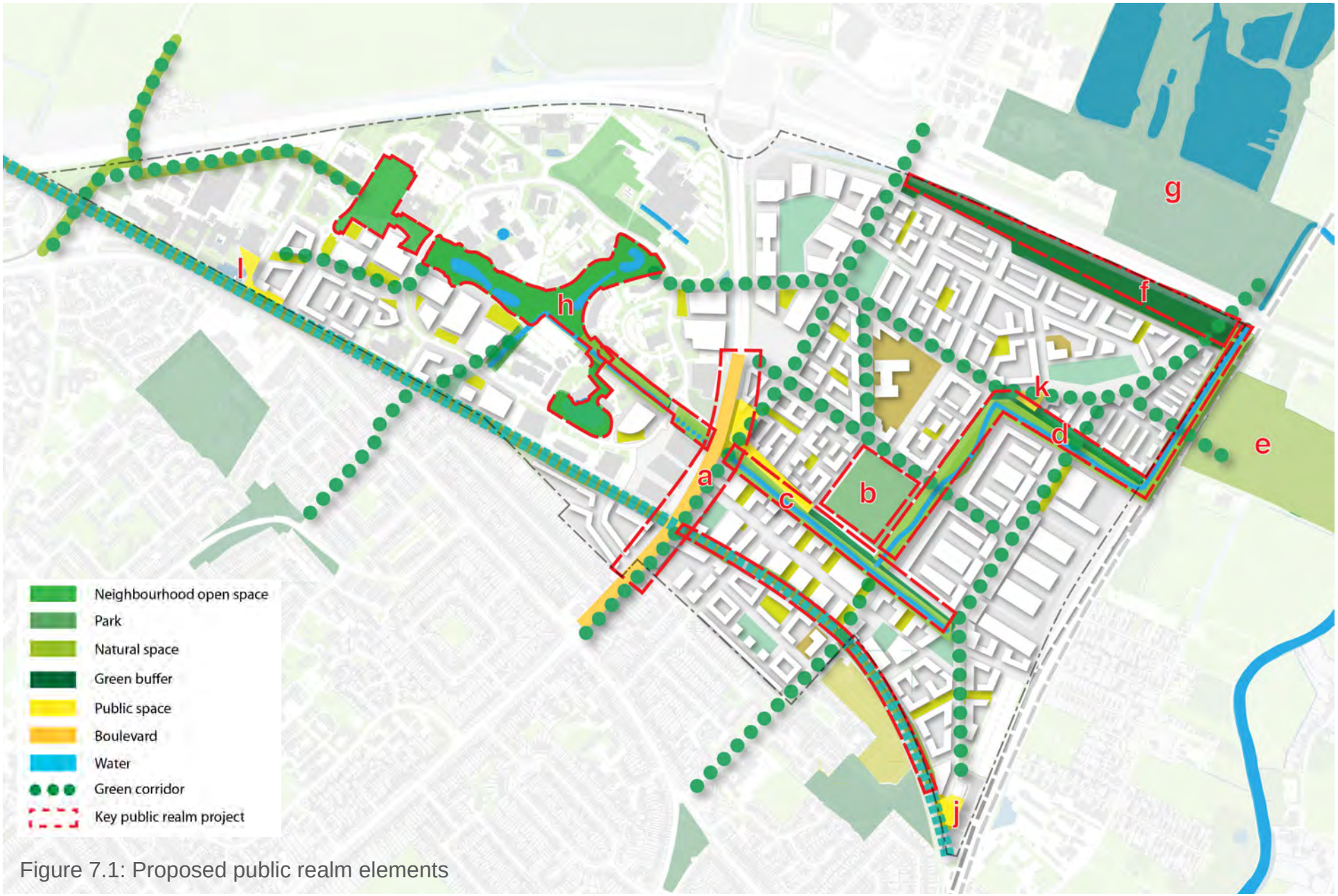
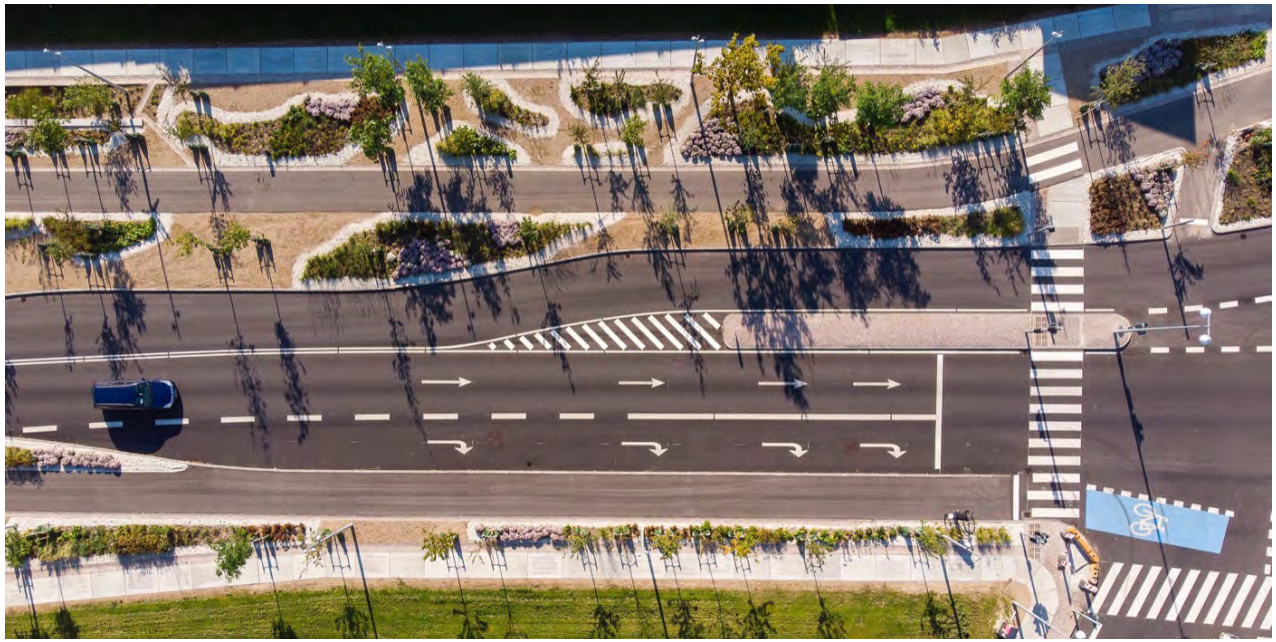


Figure 7.1: Proposed public realm elements

a MILTON ROAD BOULEVARD

7.2.5 The section of Milton Road from the southern edge of NEC up to the proposed new junction with Cowley Road (see Section 4.3 for more information) should be transformed from a traffic-choked corridor into a tree-lined civic boulevard. Vehicular access to Cambridge Science Park and into the eastern section of the NEC area should be consolidated at the current junction with Cowley Road, allowing for the reduction in vehicle lanes and provision of more space for people walking and cycling on Milton Road further south. Tree planting along the road will provide a sense of enclosure and welcome cover on rainy or sunny days.

7.2.6 The existing multi-stage pedestrian crossing at the entrance to Cambridge Science Park should be simplified into a direct, single stage crossing for pedestrians and cyclists, to improve connectivity between the east and west of NEC. A similar crossing should be provided at the junction with the Guided Busway. The existing pedestrian underpass should be back-filled (possibly using material from site excavation) and a formal pedestrian and cycling environment established.



Example of a civic boulevard with high quality pedestrian environment and direct crossing, Copenhagen. Source: landezine.com

7.2.7 New development should establish coherent buildings lines with active frontages along Milton Road. Binding new building lines should be set as part of the Milton Road Public Realm Improvement Scheme.

Boulevard corridor treatment (Oslo)

b CENTRAL PARK

7.2.8 The Central Park will be a key element of North East Cambridge's new identity, as a continuation of Cambridge's green space and open space networks. The Park should be of high quality design with an attractive contemporary feel that provides a strong draw in the area. The park should provide sub-areas of different character, including a large children's play area, landscaped section and multifunctional green space for hanging out and kicking a ball about. To the east it should integrate with the First Public Drain.

7.2.9 The park will need to accommodate the desire lines of two diagonal routes to facilitate strategic walking connections with the district centre and Cambridge North Station. The space should accommodate a large flexible area that can host a wide range of formal and informal events. Areas with more intense tree planting will provide shade in summer and rain cover in winter as well as enhancing the biodiversity and aesthetics of the park.

Multi-functional green space

Walking and cycling path allowing movement across the open space

Large children's play area

Overlooked by development and offering different landscape character areas

c FIRST PUBLIC DRAIN LINEAR PARK

7.2.10 This historic watercourse has a structuring role in the NEC, establishing the boundary between a number of character areas. It provides an important linear green corridor with significant biodiversity value and visual open space amenity. The southern section of the First Public Drain parallel to Cowley Road should offer a more formal and linear park-like design, providing parallel paths, tree planting and seating, opening up views and where appropriate access to the water for play. Frequent bridge links will need to be put in place to connect the Cowley Park Quarter with the district centre and Central Park, especially at approaching pedestrian and cycling routes from the south. This open space should provide a leisurely green and calming character, complementing the more active public realm in the district centre.

Potential for active engagement with the water body (Oslo)

Formal design - sitting out opportunity close to the water

Example: Cheonggyecheon River in Seoul, Korea

Frequent bridges connect across

d FIRST PUBLIC DRAIN GREEN CORRIDOR

7.2.11 The section of the First Public Drain running north from Cowley Road alongside the Central Park and beyond should have a naturalistic and more informal design approach with sympathetic landscaping, small paths, seating and informal play opportunities, undisturbed biodiversity areas and where appropriate access to the water. The re-profiling of the channel and an integration with area's Sustainable Drainage network should be considered, with the corridor potentially accommodating retention ponds and infiltration areas. Ground vegetation in the southern part of the area should be kept low to enable the visual connection and passive surveillance of areas on either side of the watercourse, whilst further north, against the industrial area and the railway bushes and tree planting should be employed to establish a natural visual barrier. A continuous path along the First Public Drain should be inviting for leisure walks and jogging around the neighbourhood.

Biodiversity habitats

More informal design approach to the water body and landscape (Oslo)

Example: Vegetated sustainable drainage watercourse in Upton, Northampton

Informal open space with a rural and natural landscape

Open area with path along the settlement edge

Skate park

Children's informal play area

e CHESTERTON FEN

7.2.12 Chesterton Fen, at the other side of the railway tracks, will be accessible by the proposed pedestrian and cycling bridge across the railway. The existing meadows will provide a large informal open space, which provides access for NEC residents to a more rural environment and the River Cam path.

f A14 BUFFER

7.2.13 This dense strip of vegetation should be retained and integrated with a new noise barrier to provide a separation from the A14 motorway and mitigate the potential impact of noise and air pollution.

7.2.14 Its southern edge should accommodate lower vegetation and open areas with a path and grassed areas that invite for informal and children's play, outdoor gym facilities and walking trails.

7.2.15 The area could also accommodate a multi-use games area or a skate park as the focus for older kids and teenagers. This could be located in the north eastern corner, where it could provide activity to and be overlooked by the proposed strategic cycle and walking route underneath the A14.

Milton Country Park

High quality design with a variety of routes

Opportunity to sit out and enjoy

g MILTON COUNTRY PARK

7.2.16 The Milton Country Park is a fantastic local asset that could be well used by future residents on NEC. Development should enhance access to the Park from the east by providing a new access path into the park from the proposed strategic walking and cycling link and A14 underpass in the north east of the NEC area. Development may also need to contribute to enhanced café, toilet, bicycle parking and children's play provision to cater for the increased footfall.

7.2.17 A quality green pedestrian route through the Cambridge Road Industrial Estate should be established to link the Country Park with Jane Coston Bridge and to establish a quality walking loop with the NEC.

h CAMPUS GREEN

7.2.18 This existing landscaped open space in the Science Park provides an attractive and green environment, but currently feels private and more like a visual amenity and buffer space around office buildings than a park for use by everyone. With more development in Cambridge Science Park, pressure on open space will increase and the Central Open Space will need to work harder to cater for local people.

7.2.19 The current arrangement of paths should be reviewed to offer more choice of routes and especially allow circular walks and provide for an extended jogging circuit.

7.2.20 Areas directly associated with office development should be clearly distinguished through edge and landscape treatments, to overcome the current ambiguity of where open space use may be permitted.

7.2.21 The open space offer should be expanded to include a greater variety of activities including for sports and children's play, and provide a public café and toilet facility, as well as ample formal and informal seating.

7.2.22 Signage at the entrance of the space should invite people in and advise on the rules of the space and the type of activities that may be permitted in the area.

7.3 Local Public Spaces

7.3.1 The Townscape Strategy proposes the establishment of a few new hard landscaped public spaces. The detailed location and design of theses spaces will need to be established by masterplans for sub-areas. This should carefully consider how the space can maximise on its open space function in respect of its location and orientation and interaction with surrounding development.

7.3.2 Public spaces should be welcoming spaces with a high quality public realm. They should provide a mix of sun-exposed and tree-covered areas that offer shelter, formal and informal sitting out opportunities, decorative planting areas, places for meeting, mingling and play.

7.3.3 Public spaces should be animated by at least one active frontage, preferably south facing that spills out activities onto the pavement with occasional or permanent café seating.

7.3.4 Proposed local public spaces as shown in Figure 7.1 are:

i. **District Centre Promenade** – a linear south-facing promenade with opportunity for café seating, overlooking the First Drain Linear Park;

j. **Cambridge North Station Square** – the square outside of station is already established but needs further animation from surrounding development;

k. **Urban Living Quarter Centre Square** – small public space to meet and accommodate local centre activities;

l. **King's Hedges Local Centre Square** – public space between the proposed centre development and the Guided Busway, connecting with the public space outside the college.

Seating and interactive public realm elements

A mix of hard landscape and planted areas

7.4 Neighbourhood Green Spaces

7.4.1 Proposed new neighbourhoods should provide neighbourhood green spaces that serve local residents.

7.4.2 Locations of four neighbourhood green spaces have been identified in Figure 7.1. Two spaces are in the Urban Living Quarter, one space is in the Mixed Use Spine at the eastern end of the First Public Drain, and one space central to the Chesterton Fringe Neighbourhood. The location, size and form of these spaces are indicative. However, it is important that they are located in places where they are well connected to the neighbourhood, enable natural surveillance and can contribute to the wider character and identity. Internalised or otherwise hidden away spaces will not be successful in this respect. The Cowley Park quarter should also provide neighbourhood green space amenities but it will be up to its masterplan to establish how this can be best provided within the scheme.

Neighbourhood playground

7.4.3 Neighbourhood spaces should provide children's play facilities, outdoor gym equipment and where possible a multi-games court. Furthermore they should offer a range of landscape characters areas including multi-purpose green areas and planted sections that are more quiet and calm. Trees should offer shade and spatial definition. Ample seating opportunities should be provided. Each space should have its own bespoke design.

Example of neighbourhood green space

Informal play space

7.5 Pocket Spaces

7.5.1 Smaller, incidental public spaces can enrich the character and amenity of a neighbourhood, and provide meeting and play spaces for the local community. The master planning of each area should actively explore how a range of pocket spaces can be delivered, what character they may have and the amenities that they can provide. The key for pocket spaces to work is that they offer something the local community (or a sub-group) may desire, are accessible from a common route through the area, and are overlooked by development or otherwise managed (such as by a community group) so that they feel safe and supervised.

7.5.2 Their design can be simple and formal, such as a tree with a circular bench and decorative planting, or informal, such as a community garden, or experimental, such as public art inviting play. Development could implement these spaces as part of their masterplan approach. Alternatively development could safeguard some sites with interim uses (perhaps using them as a building compound or a sales office), and make them available at a later date for local people to rally around and to create a space of their own. Such an approach, if carefully managed and supported by a place making team with a reasonable budget, can develop a stronger sense of community, identity and ownership than providing all of the open spaces ready made from the outset.

Interactive public realm inviting play

7.5.3 New development should explore ways of providing open space for residents in courtyards, on rooftops and podiums. For these spaces to be successful, they must be clearly accessible and welcoming for residents and offer something desirable such as a playground, picnic tables or flexible space for parties. There may be scope for publicly accessible components too, such as a rooftop bar or viewing area.

Community food growing space

Play space overlooked by flats

7.6 Street Design

7.6.1 The draft Area Action Plan has already set out its aspiration for the street design, which the townscape strategy endorses. The removal of stationary cars from streets into dedicated car-barns or parking areas is a powerful concept that can enhance the overall townscape quality of the area. Removing car parking frees up valuable street space that can be used to make streets more pedestrian friendly and safe, and to provide healthy green environments and social places to meet and play.

7.6.2 There will still be a need to have some parking provision in the street, to provide for disabled residents, or the servicing and drop-off needs of residents close to their home (for example for having supermarket food delivered, bringing weekend shopping home, having an engineer come to install a new telephone line, packing your car for a long holiday or picking up someone with limited mobility). However, these situations should be the exception and should not allow cars to dominate the visual quality of the street. They also will need to be well managed to avoid abuse.

Freeing streets up from parked cars can create attractive pedestrian spaces

7.6.3 The freed-up space provided by this approach should be used for a creative design approach that treats streets more like open spaces rather than as vehicular traffic conduits that also have to provide for other road users.

7.6.4 Street design principles for each street type in the hierarchy should be set out in the design code for NEC. The following pages provide a set of key principles that the design of streets should consider.

A creative public realm approach can be implemented with opportunity for play, Stoke Newington, London

Removing on street car parking creates more space for greening, Accordia, Cambridge

Primary Streets Streets

7.6.5 Higher order streets will have more conventional street profiles with a central carriageway and a green buffer strip alongside (potential for a SUDS corridor), dedicated cycle lanes and wide pavements. They should include tree planting, seating and other landscape features, as well as provide central refuges at junctions to allow the safe crossing of streets. Raised continuous foot and cycleways at side entries should also be considered.

Figure 7.2: Indicative street sections for primary streets (draft NEC AAP)

Secondary Streets

7.6.6 In these streets the carriageway should be modulated in width and position, like in a play street, to break the linearity of the route, creating narrow sections, off-sets or obstacles that mean drivers have to slow down and be more careful and observant to other on-street pedestrian and play activities. Cyclists would be expected to share the vehicular street space. The street design and width should allow cyclists to feel safe and have enough space. Footways should be provided separate from the street to provide a completely safe and unimpeded walking space. Available surplus street space can accommodate a range of facilities such as bicycle parking or storage, tree planting, landscaping, SUDS installations, seating areas, play areas or communal waste and recycling facilities (possibly underground and fob controlled to prevent abuse).

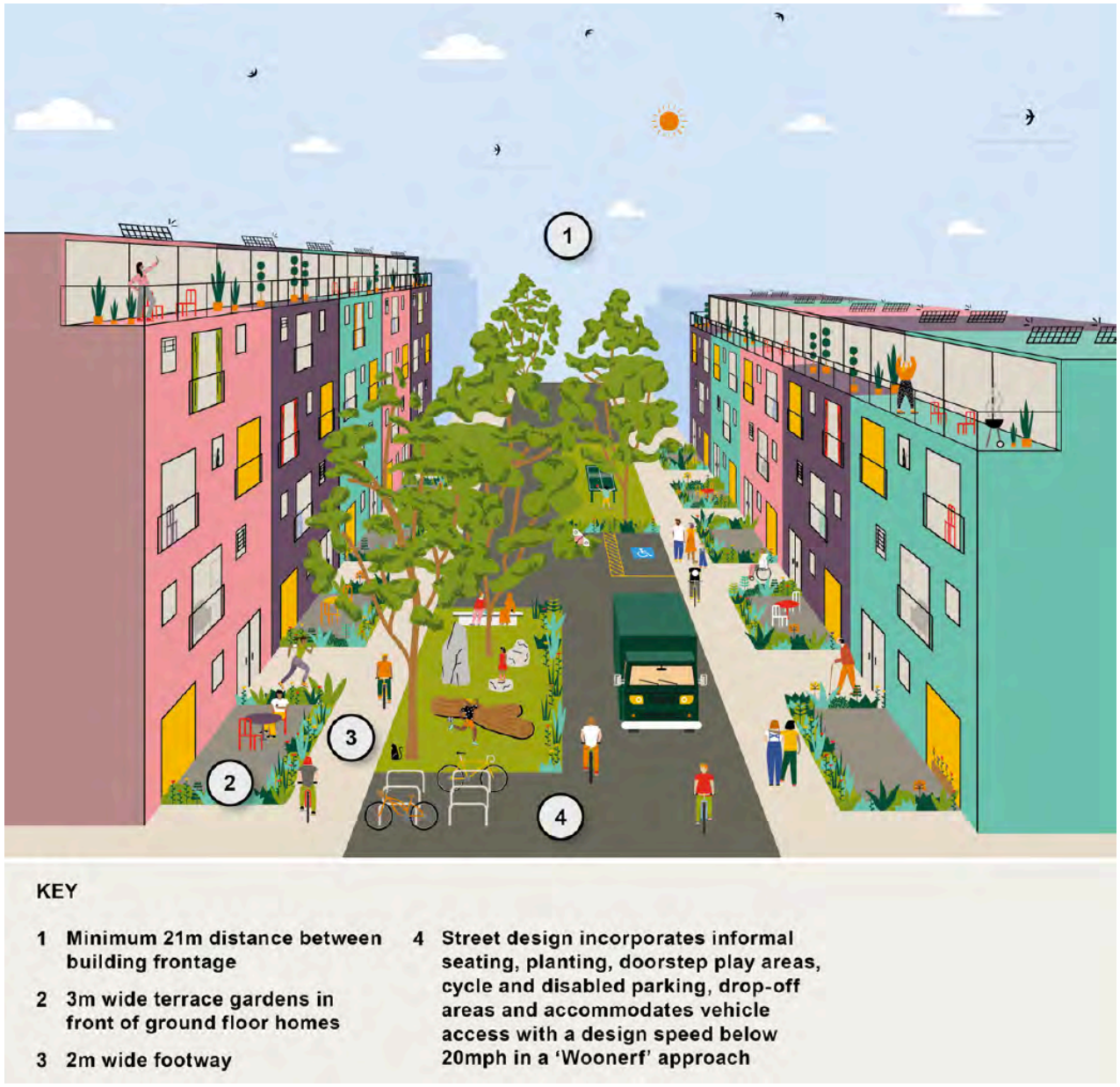
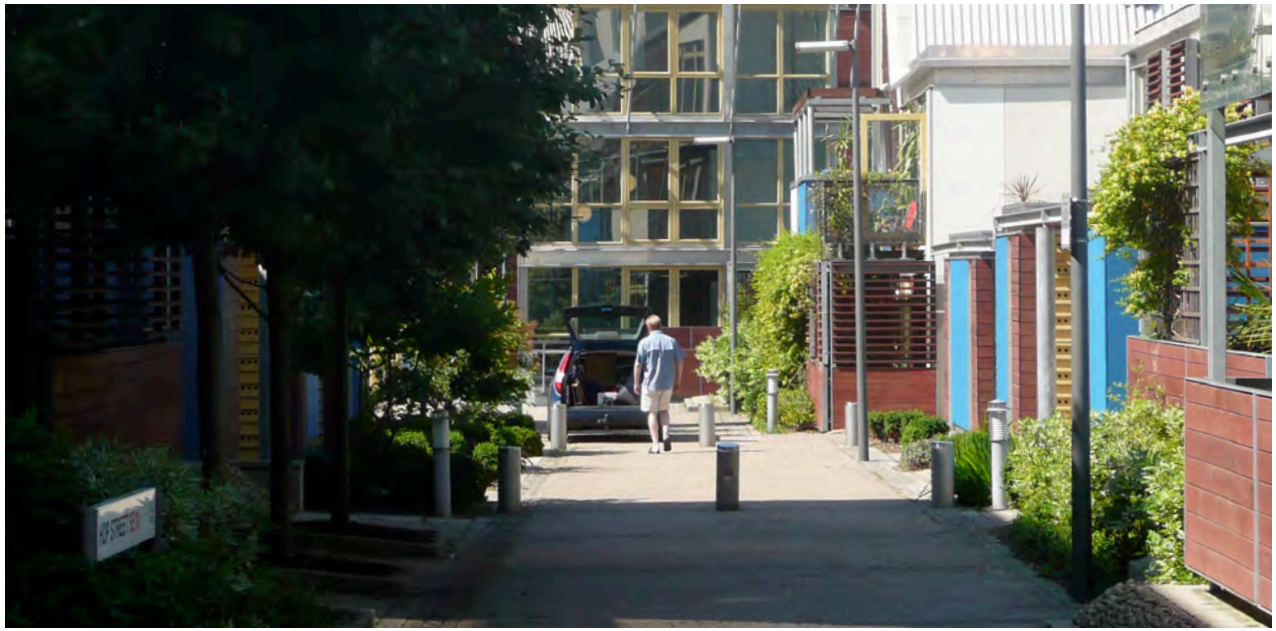


Figure 7.3: Indicative Street sections for secondary streets (draft NEC AAP)

Shared Streets

7.6.7 Access routes through the interior of street blocks that permit emergency, servicing and local vehicular access should be designated as pedestrian priority with permitted cycling access. A shared space design should be implemented that facilitates very slow vehicular speeds and maximum freedom for pedestrians to roam. This should include smaller pavements or gravel surfaces, planting areas, SUDs channels, seating objects, small walls and other features that ensures the priority for pedestrian is clearly legible and inviting. Shared streets can be challenging for those with visibility impairments, and so designers must consider how all users can safely make use of these spaces.



Shared street with bollards to limit vehicle access

Shared street with greening

Shared street with an urban quality

Shared streets act as public spaces for the community

8.0 CONCLUSION

8.1.1 This report has set out the Townscape Strategy for North East Cambridge (NEC). Its purpose is to guide the development of the area and individual sites so that together they create a coherent, beautiful and successful new place. Building on Cambridge's unique townscape identity, NEC will be a new city district comprised of neighbourhoods and quarters, each with their own character. The Strategy provides an illustrative framework for NEC, which demonstrates how the area could be built out by following the principles within this report. However, it should not be a considered a straightjacket or final product. Developers of each site must fully test their designs against impacts on heritage, landscape, resident amenity, daylight and sunlight, wind and other factors, and so in reality site layouts and building footprints may differ from those shown in the illustrative framework.

8.1.2 The following key principles of the Townscape Strategy should guide development proposals in NEC:

- The retention and enhancement of existing natural features like watercourses, trees and public spaces as the structuring elements of the place;
- A medium density, mid-rise approach to development throughout NEC, with a small number of tall buildings only in exceptional circumstances and in the right locations;
- A clear hierarchy of street users, with people walking at the top, then cyclists, then public transport, and finally private vehicles as lowest priority;
- Streets as public spaces, not (just) as movement corridors or as parking locations;
- Sufficient mixing of uses to avoid the need to drive for everyday needs;
- The creation of fine grain, street-based urban blocks as the fundamental organising component of NEC;
- Distinct character areas with visual edges, but with seamless movement throughout; and
- The use of materials and colour should be informed by those prevailing in Cambridge.

8.1.3 Figure 8.1 is an illustrative framework that applies the recommendations of the Townscape Strategy. The illustrative framework sets out the strategy's principles and visualises some of its more detailed recommendations. It provides a workable spatial approach to the area and is meant to inspire more detailed design work. It is meant to inform revision to the NEC AAP and the policies within it as well as the production of any site-wide Design Code or SPD.

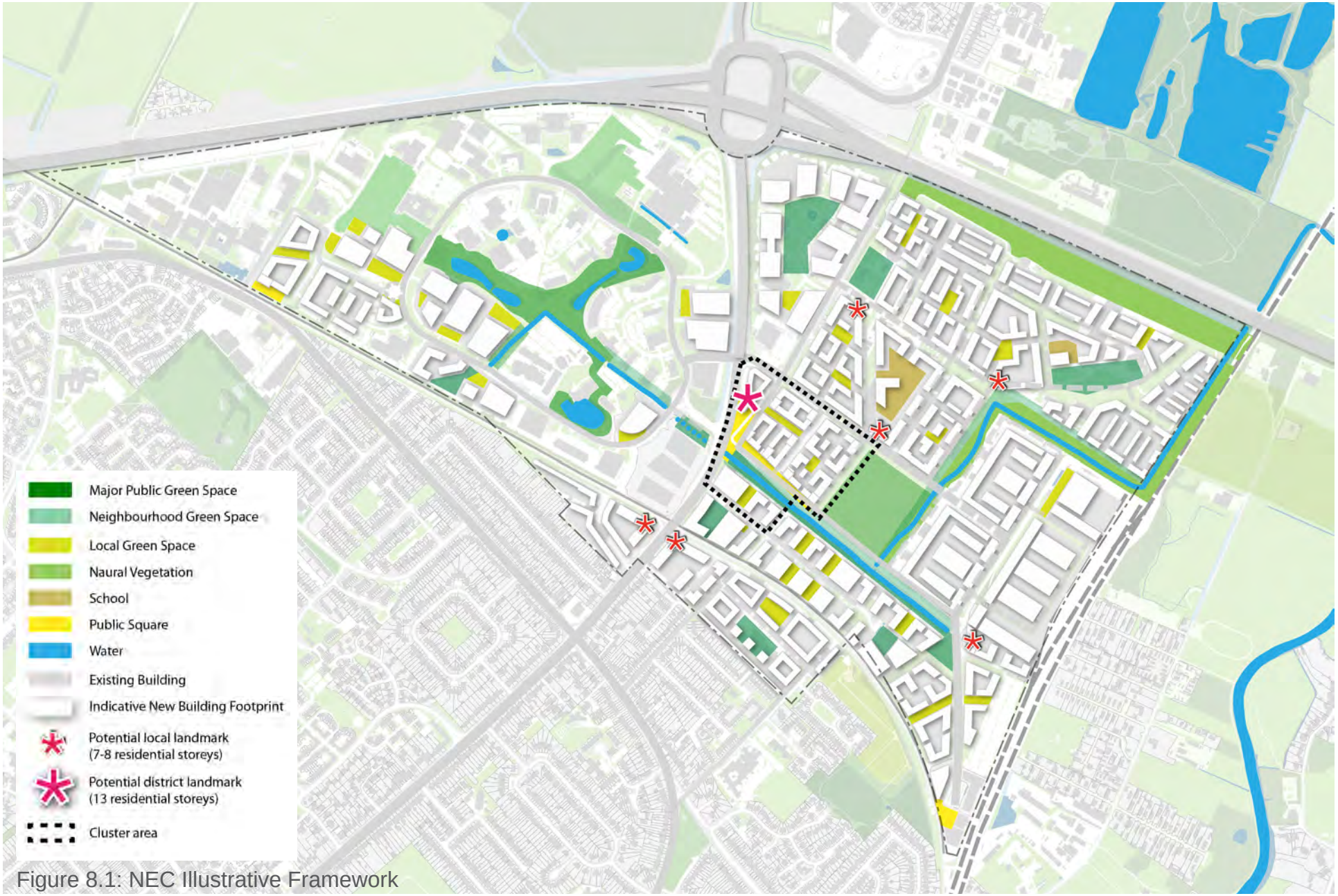


Figure 8.1: NEC Illustrative Framework