CYBER CENTRAL GARDEN COMMUNITY

WEST CHELTENHAM STRATEGIC MASTERPLAN

DRAFT SUPPLEMENTARY
PLANNING DOCUMENT
December 2019

Tewkesbury Borough Council

CHELTENHAM BOROUGH COUNCIL

Contents

PART

A

INTRODUCTION AND CONTEXT

1 Introduction

1.1 A unique opportunity

Cheltenham is located at the heart of 'Cyber Valley', a regional-scale cluster of cyber-related businesses running along the Severn Valley, but also connects into a much larger 'cyber arc' running from Birmingham to Bristol and beyond. The establishment of Cyber Central – a new cyber security mixed-use cluster in West Cheltenham – is becoming the centrepiece of the town's and wider Gloucestershire's economic development strategy, as set out in the emerging Local Industrial Strategy and Gloucestershire Strategic Economic Plan.

Responding positively to the Government's Garden Communities and National Cyber Security agendas, the objective is to deliver a pioneering new community that combines world-class cyber business and academic facilities, exemplar housing and state-of-the-art amenity and leisure facilities in a highly accessible and environmentally sustainable development.

As part of a number of key strategic sites being identified in the Joint Core Strategy, the site presents a unique opportunity to proactively deliver new investment, new jobs, new homes and new infrastructure in an innovative environmentally sensitive manner. Key requirements for the allocated site can be summarised as follows:

- The delivery of approximately 3,000 new homes, including affordable housing and diverse living options;
- The creation of a mixed-use Cyber Central Cluster including the creation of over 50 Ha of land, bringing together leading cyber businesses and innovators alongside academic facilities dedicated to cyber and digital technologies;
- Creating a cohesive site wide green infrastructure, for the benefit of people, environment and wildlife;
- The establishment of a diverse and vibrant neighbourhood with activities throughout the day and into the evening;
- A development which creates new and helps to transform existing communities, ensuring they are healthy, biodiverse environments which encourage physical and social wellbeing;
- An exemplar development, setting high sustainability and design standards that is responsive to the character of the landscape;
- Deploying new 'smart' technologies to reduce the use of resources including water and energy in both the development construction process, long term use of buildings and environments, and transport connections to, through and from the site; and
- An accessible development that is physically, digitally and culturally integrated.

Context

1.1.1 Since the arrival in Cheltenham of GCHQ in the 1950s, the town and its people have played an increasingly important role in the cyber security sector. This role was emphatically underwritten with GCHQ's decision to consolidate operations in West Cheltenham. Their 'Doughnut' HQ facility, which opened in 2005, is a strong and prominent symbol of the existing importance of the cyber security sector in the town, which now boasts an existing cluster of over 200 organisations. Investment has continued, with the GCHQ Cyber Accelerator programme opening in 2017 which provides support for start ups in the UK's cyber security sector.

1.1.2 The National Cyber Security Strategy and Industrial Strategy place huge importance on cyber growth. Cheltenham Borough Council's economic development ambitions as defined by the Cheltenham Place Vision, GFirst LEP's Local Industrial Strategy and the Gloucestershire Strategic Economic Plan have all found that tapping into growth opportunities in the cyber security sector will produce high value, high growth employment opportunities which will help achieve key objectives of both of these strategies. Co-ordinated effort to support growth in this sector will help to boost productivity.

1.1.3 Cyber Central will be the first of its kind in the UK; a unique location dedicated to the development of cyber research, skills and capability to counter a threat estimated to cost the UK up to £30bn annually. The ambition is to deliver one of the best places in the world to design, create, grow and operate innovative cyber security businesses of any scale. Cyber Central will be a campus that integrates high-tech workplaces with academic facilities, accommodation and leisure, attracting and developing the best talent. These cutting edge facilities will be set within a new garden community with homes of all tenures and types, contributing significantly to local housing needs.

Policy framework and infrastructure needs

1.1.4 The full potential of this unique employment-led mixed use development opportunity in West Cheltenham was considered during the preparation of the Gloucester, Cheltenham and Tewkesbury Joint Core Strategy (JCS), adopted in December 2017. This was a direct response to the longer term economic challenges and the need for new employment land. Working with key stakeholders, the JCS Councils collaboratively crafted a new growth strategy for the area.

1.1.5 Under JCS Policy A7, the site has been allocated for employment, housing and wider mixed-use development with the ambition to attract very significant levels of inward investment whilst also helping neighbouring communities to regenerate and actively engage in the opportunities new development will create.

1.1.6 Connectivity is key for West Cheltenham to maximise its potential, ensuring both direct access to the motorway and the effectiveness of the local highway network, through physical connections and suitable linkages for sustainable transport options. West Cheltenham's close proximity to the M5 is, however, currently undermined by its relatively poor accessibility to the national road network. Cheltenham and Tewkesbury councils are working with Gloucestershire County Council and Highways England to gain government support and direct funding, via the Housing Infrastructure Fund, to deliver upgrades to Junction10 (M5) to ensure it can fully support the strategic growth earmarked for North and North West Cheltenham.

1.1.7 The SPD also seeks to respond to the recent publication of national design guidance (October 2019)[1].

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1 https://www.gov.uk/government/publications/national-design-guide

Cyber Central Garden Community

1.1.8 The national housing crisis is presenting acute housing supply challenges across the country and particularly the south of England. Homes England, the Government's non-departmental body tasked with accelerating the delivery of housing across England, share Cheltenham and Tewkesbury's vision and ambition for the establishment of a new garden community in Cheltenham. The vision for Cyber Central in West Cheltenham encompasses the widest spectrum of uses and activities, clustered around the core cyber security commercial and research activities, to create an integrated and connected new garden community.

1.1.9 There are a number of key elements from the joint Garden Communities bid submitted by Cheltenham and Tewkesbury councils that are intended to be carried through into this SPD including:

- Diverse living options – varied affordable and flexible tenancies with the significant numbers of homes possibly being delivered by CBC

- Connected – an accessible development that is physically, digitally and culturally integrated

- A 24/7 campus – a dynamic community that integrates a diverse mixture of uses and people

- Inclusive – a transformational development that creates strong communities

- Healthy – a green and biodiverse development that encourages physical and mental well-being

- Environmentally innovative – an ecologically friendly development that is restorative to its natural surroundings in pursuit of carbon neutrality.

- A smart ecosystem - a connected community that is digitally, environmentally and socially intelligent

- Intense &and tranquil – a vibrant and thriving community within a unique landscape setting

- A world class campus – a collaborative community that brings together leading cyber businesses and innovators alongside academic facilities dedicated to cyber and digital technologies.

1.1.10 Significant challenges will need to be addressed to help realise the potential, but collaborative and co-ordinated action is now being taken to address these issues. Land has been safeguarded for further phases of growth. As well as providing supplementary guidance to help co-ordinate new development within the allocated site, this SPD also looks beyond the current plan period towards further phases of growth, highlighting the potentially very significant benefits associated with the relocation of the Hayden Sewage Treatment Works.

A living document

1.1.11 This SPD, prepared with the benefit of wide-ranging public and stakeholder engagement, presents a broad and flexible masterplan framework for the allocation site and adjacent safeguarded land. Detailed proposals will be expected, through the development management process, to respond positively to the objectives, principles and guidance contained in this SPD which supplement relevant JCS policies. See also 1.3 below for more information on the status of the document.

1.2 The site

1.2.1 The SPD area is shown in Figure 1 which outlines both the strategic allocation land identified in the JCS and the land safeguarded to the west which is earmarked to come forward in the next plan period. The SPD area is located to the west of Cheltenham between the westerly extent of the town and the M5 corridor. The land sits between Junction 10 and 11 of the M5.

1.2.2 The 132 Ha allocated site extends from the A4019 in the north to Pheasant Lane in the south. It borders the residential communities of Hester's Way, Springbank and Fiddler's Green to the east. Some of these communities suffer from significant issues of deprivation and therefore the delivery of regeneration benefits from this development is of key importance The site's western boundary runs along Hayden Lane and the field boundaries close to Hayden Village. The 69 Ha safeguarded area takes in the Hayden Sewage Treatment Works to the south west.

1.2.3 A larger strategic allocation site north of the Tewkesbury Road, Elms Park, covers an area of 320 Ha and along with the West Cheltenham site, forms part of the ambitious growth vision for Cheltenham. To the west of this is another area of safeguarded land covering an area of 150 Ha, again planning for Cheltenham's long term development needs.

1.2.4 The borough boundary between Cheltenham and Tewkesbury runs north-south through the SPD site and both councils have been joint collaborators on this SPD.

1.3 Status and structure

1.3.1 The purpose of this SPD is to provide further guidance and details relating to the interpretation of policies set out in the relevant Development Plans. In this case, the JCS. This SPD supplements a number of JCS policies, but in particular Policy A7 West Cheltenham. The relevant policies include:

- Policy SA1 - a delivery policy that sets the context of how the JCS strategic allocations will be delivered. Development proposals should enable a comprehensive scheme to be delivered via a masterplan. The policy sets out expectations in policy terms of use of local green space, the planning of infrastructure and transport.

- Policy A7 - formally designates land at West Cheltenham for approximately 1,100 new homes and approximately 45 hectares of employment land. The policy provides detail within the context of Policy SA1 and Policy SD5 relating to comprehensive master planning, constraints and transport.

- Policy SD5 - details the JCS policy for green belt, this also includes land identified to meet longer term development needs and allocated as safeguarded land. Land at West Cheltenham immediately adjacent to land allocated for development by Policy A7 is safeguarded. The trigger for development on this area is through a review of the JCS.

1.3.2 Public and stakeholder engagement has been central to the process of SPD preparation. Having been prepared in accordance with the relevant regulations, the SPD is a material planning consideration and will have substantial weight in the determination of relevant planning applications by the two local planning authorities.

1.3.3 This SPD is structured in two parts. Part A introduces the site and its context. Part B contains the strategic masterplan framework, objectives and key principles. This includes the vision and

key objectives for the site which are outlined over several key chapters. Guidance on Placemaking and more detailed design guidance for new development is contained, along with longer term strategic guidance on the potential redevelopment of the Hayden Sewage Treatment Works site.

1.3.4 A summary is also provided which set outs the next steps and makes reference to a planning and delivery strategy which will be developed in parallel to the SPD.

1.3.5 The appendices sets out further detail on the site's context, its physical and environmental constraints and a summary of engagement activities to date.

Assessment matrix

1.3.6 New development proposals will be assessed against the objectives and principles outlined in this SPD using the assessment matrix in Section 9.2.

Figure 1 **Location of site showing the allocated land (red outline) and safeguarded land (dashed red line)**

PART

B

MASTERPLAN FRAMEWORK AND OBJECTIVES
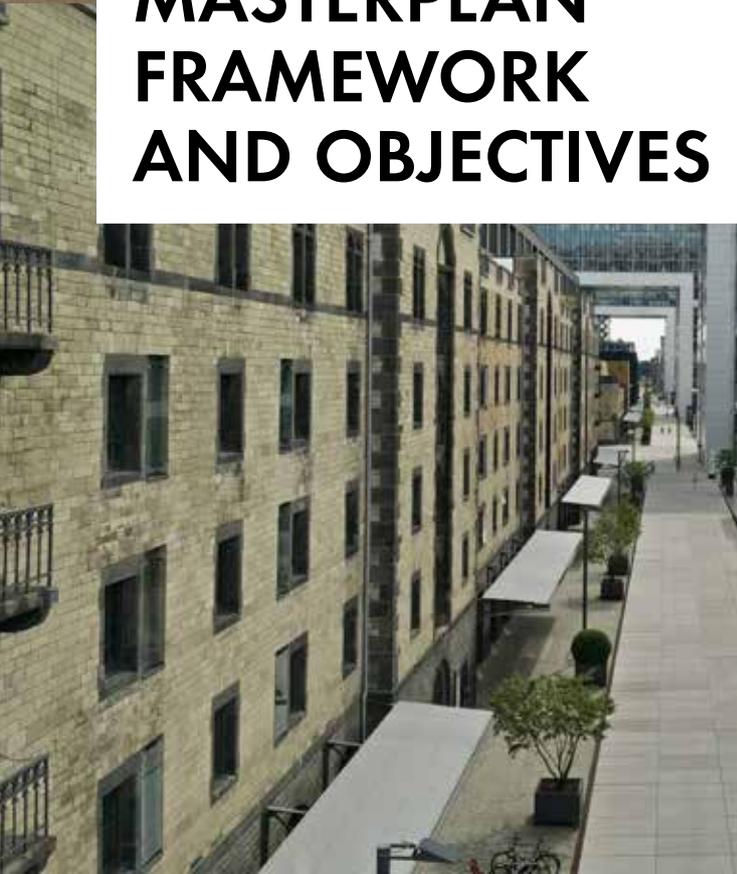
2 Vision and Strategic Objectives

2.1 Vision Statement

Cyber Central creates a vibrant pioneering community integrating hi-tech business, residential and leisure uses. At its heart the UK home of cyber, digital and creative sectors arising from Cheltenham's international reputation for leadership in cyber innovation. This is a sector that is experiencing rapid growth. The ability for the industry to scale-up is essential to maintain and enhance the UK leading role. With a significant development site adjacent to GCHQ in a highly accessible location with great connectivity, the opportunity exists to create a destination of global significance.

This is a place that is culturally rich and exciting, where the edges are blurred between living, working and play.   A magnet for businesses, leaders, creators and innovators, built around a strong sense of community, somewhere exciting with soul and with a clear identity. Its energy and creative core will be an attractor to entrepreneurs and investors as much as it will be to local people and visitors.

Cyber Central will be the UK home of hi-tech innovation, nurturing an environment of creativity and collaboration. It is a place where this deep routed pioneering culture thrives; a place where the boundaries of innovative thinking are constantly pushed. A place that bright minds and young talent co-create and want to live.

It will require the highest standards of environmental sustainability integrating exemplar homes as part of a thriving campus and garden community, defined by its quality in design, public spaces and approach to connectivity both digitally and physically.

Located in the heart of the UK, and anchored between existing centres of industrial and academic excellence in cyber tech such as Bristol, Oxford, Bath, Cardiff, Malvern and Warwick. This significant site is in a highly accessible location with great connectivity.

2.2 The masterplan framework and strategic objectives

2.2.1 The Cyber Central Garden Community Framework Masterplan is presented in Figure 2. The Masterplan Framework encapsulates a number of key objectives for the delivery of the Cyber Central Garden Community. These objectives are as follows:

- **OBJECTIVE A:** Embracing the highest standards of sustainability through ensuring development is resource efficient and carbon neutral; resilient through the application of sponge city principles; will enrich local biodiversity; forms the basis of a sustainable community and embraces the opportunity for sustainable transport and full urban integration.

- **OBJECTIVE B:** Cyber Central, a new and unique dedicated campus for the cyber-tech community, will be the focus of a vibrant, integrated, inclusive and diverse range of uses and activities, serving existing and new communities at densities which make effective use of land.

- **OBJECTIVE C:** Working with the natural landscape and its features to create new environments which integrate existing landscape assets; provision of generous and flexible network of formal and informal open spaces of varying scales which help to integrate with and connect to new and existing communities; create landscapes which help to minimise and mitigate flood risk; promote local food production; support and promote local public art initiatives; and, benefit from an appropriately resourced management regime.

- **OBJECTIVE D:** An integrated and connected extension of West Cheltenham through the establishment of an open and permeable network of streets and routes; the design and delivery of streets and junctions which prioritise the needs of people and sustainable modes of transport; the provision new direct connections to existing communities and facilities; and, a flexible approach to the application of parking standards to ensure development promotes modal shift.

- **OBJECTIVE E:** Promoting the highest standards of design quality through making effective use of land through higher density development, learning from local, national and international exemplars of good design, and applying good urban design principles.

2.2.2 It should be noted that this masterplan framework is indicative and for illustrative purposes only. Whilst it has been prepared in view of a high level understanding of the site's environmental, utilities related, topographic and other assets and constraints, it is meant to be a flexible framework. More detailed work will be required to ensure compliance with all relevant policies in the development plan and that development proposals are viable.

2.2.3 Under each objective, a number of key principles, each with supporting guidance, is outlined in the following sections. These objectives, principles and their guidance will be used when assessing development proposals for the site. See 9.2 for the Qualitative Assessment Matrix which will be used during that assessment process.

Key

■ **Higher density mixed use** - Cyber Central related activities including the Innovation Centre, workspace, R&D and academic space, retail and support services

■ **Mid density mixed use** - general mixed use development including commercial, community and residential uses

■ **Mid density development** - housing-led garden communities including community infrastructure

⟳ **Cyber Central hub** - cluster of employment, retail, leisure and community activity

▬ Primary street frontage - most suitable for ground floor commercial, retail, community and leisure uses

▬ Formal landscape frontage - development should address these key public spaces

⟷ Connection with existing green space - urban integration

★ Key proposed flexible green open spaces

▬ Existing bus route

▬▬ Potential / enhanced bus route

⇢ Pedestrian/cycle connection

❀ Vehicular access/connection (major & minor)

OLD GLOUCESTER ROAD

Springbank

Whyddiode Lane

B46434

Hayden

Springbank Road

Hesters Way Road

Fiddler's Green

GCHQ

Princess Elizabeth Way

Telstar Way

Fiddler's Green Lane

B4063

A40
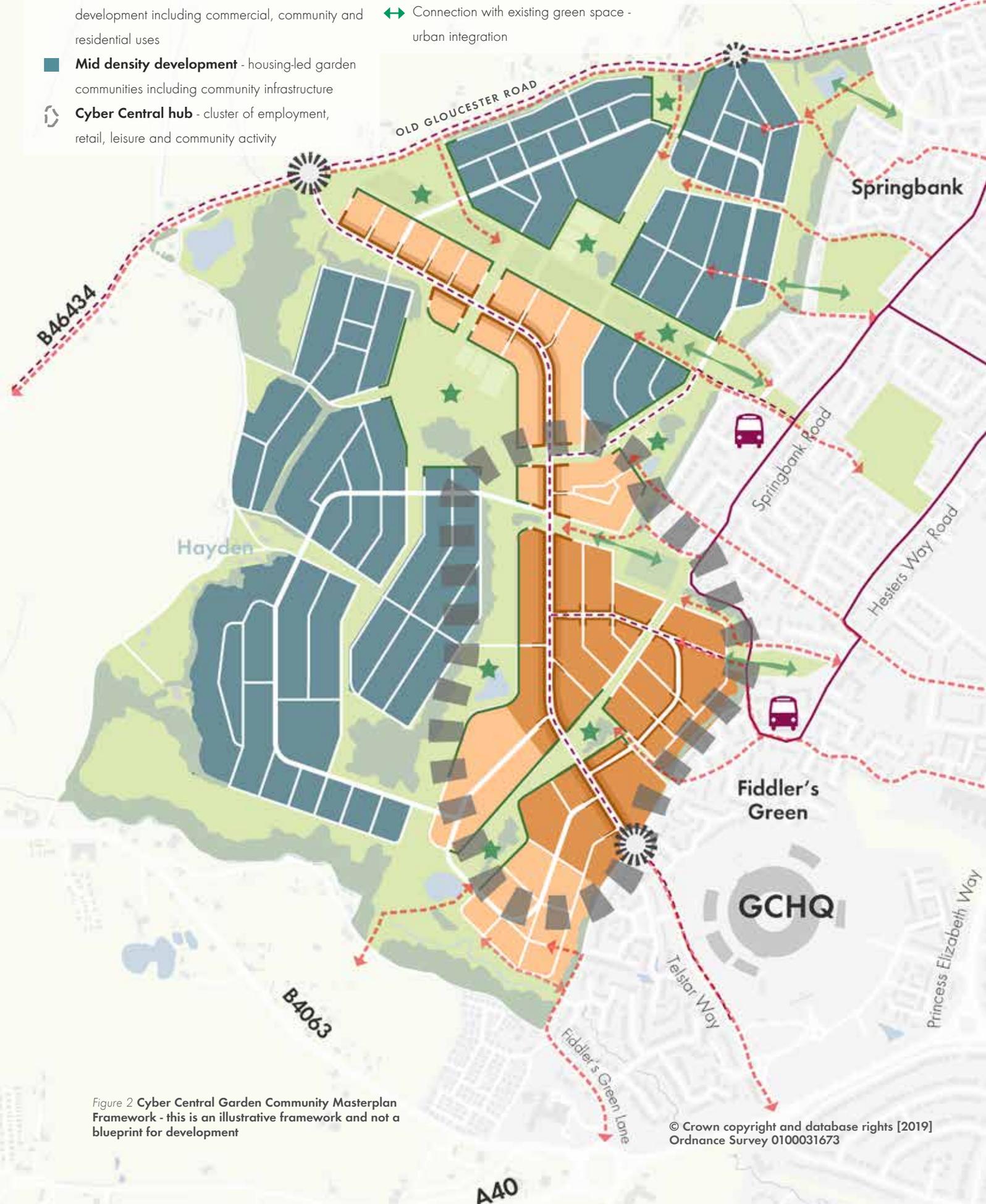
Figure 2 **Cyber Central Garden Community Masterplan Framework - this is an illustrative framework and not a blueprint for development**

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Ordnance Survey 0100031673

2.3 Key benefits to the wider area

2.3.1   A key objective of the Cyber Central Garden
Community Framework Masterplan is to deliver
a range of benefits to the wider community and
existing residents in the West Cheltenham area.
Responding to each of the identified objectives
which are addressed in turn in the following
sections, the lists below highlight some of the
key wider community benefits and improvements
that will be made as the development of the Cyber
Central Garden Community is delivered:

Objective A - Sustainability

- Infrastructure investment to make the local area more resilient

- Measures to help manage local flood risk which benefits the wider community

- Ecological net gains which will benefit all residents in the wider area

- Provision of new open spaces and community facilities which are accessible to all existing residents

- A new integrated mixed community which is integrated with existing neighbourhoods

- Improvements to local public transport facilities, including improved links to Cheltenham Spa station

- Potential for lower energy bills for residents

Objective B - Land uses and activities

- New community facilities to complement existing local provision and open to the existing community

- New leisure and community services, accessible to existing local residents

- A new local centre to support local community life without undermining but supporting existing local facilities

- Significant new jobs created in this growth sector and inspiration to future generations seeking to address the current levels of deprivation in surrounding areas

- Wider benefits to help strengthen the local supply chain

- Increased local spend will benefit the local economy including potential investment in Coronation Square

- Strengthening links with local education providers to offer improved choices and enhanced facilities to local people in education

Objective C - Landscape

- Extensions to local open spaces

- Creation of a new network of landscape spaces, open to all

- New allotments to help meet increased needs

- New sports facilities

- Enhancements to local biodiversity

Objective D - Movement

- New street network will ensure new facilities are fully integrated with and connected to existing communities

- Expansive network of connected pedestrian and cycle routes and paths

- Improved access to Cheltenham Station and the town centre

- Expansion of and improvements to local bus services and network

- Opportunities for existing local people to gain access to bicycle and car hire schemes

3   Embracing the highest standards of sustainability

3.1   Introduction

3.1.1   Alongside many of its partners, Cheltenham Borough Council has declared a climate emergency and is committed to making Cheltenham carbon neutral by 2030.

3.1.2   Strategic developments of this scale and nature present unique opportunities to deliver an exemplar development in sustainability, which form catalysts for surrounding communities.

3.1.3   Supported and served by completely new site infrastructure, the Cyber Central Garden Community will help demonstrate the far reaching and long-term benefits of planning positively for more sustainable patterns of living and working. The application of smart technologies will have a central role to play in meeting public pledges made to carbon reduction.

3.1.4   The sustainability strategy for West Cheltenham is formed of five key themes, within which we outline both the aspiration and several key opportunities specific to the site.

- Resource efficiency
- Resilience
- Connection to nature
- Community and culture
- Mobility

3.1.5   The principles outlined below cover some of the core issues associated with delivering sustainable development and environmental resilience, but all the principles outlined in this SPD have an important role to play in delivering sustainable, carbon neutral, growth which takes proper account of the current climate emergency.

3.1.6   Development proposals will be assessed against the following key principles to ensure new proposals within the Cyber Central Garden Community meet this objective. Delivering against this objective will require long term prioritisation of this issue. This action might require the prioritisation of delivery objectives.

The adjacent plan is numbered to highlight some of the key points of the sustainability strategy for West Cheltenham, as follows:

1   Site-wide sustainable water conservation and management strategy, including sustainable drainage measures, attenuation areas and technologies to reduce water consumption.

2   New development which implements zero/low carbon technologies, delivering buildings with low energy and water demands.

3   A permeable network of streets and lanes, which respects existing Public Rights of Way, to help to encourage active and sustainable travel choices.

4   Direct pedestrian and cycle connections with immediately adjacent neighbourhoods to help ensure integration and facilitate regeneration.

5   Delivery of essential community infrastructure to meet the needs of a growing population.

6   A mixed use new community delivering a balance of new jobs and homes.

7   Integration of retail, services and community uses that help meet the daily local needs of residents, workers and visitors

8   Extension of local allotments - which act as an increasingly important ecological and social/community resource.

Smart Cities

3.1.7   Smart city principles will underpin the planning and delivery of the Cyber Central Garden Community. However, this will present challenges and conflicts given the rapidly evolving thinking around the provision of smart infrastructure. These conflicts must be managed and risks identified including timescale and viability considerations for implementation.

3.1.8   Therefore the approach within this SPD and masterplan framework is to ensure that infrastructure which is to be delivered from the start of the scheme is done so on the basis of applying smart place thinking and smart place planning. In practical terms this means streets and buildings being well designed at detailed planning stages to ensure that they can support smart technologies as they evolve.

3.1.9   See the box on Page 19 below for more reflections on how the principles of Smart Cities could be applied in West Cheltenham.

Key

- ☐ Site boundary
- ▬ Existing bus route
- ❙❙ Potential bus route
- ▬ Cycle way
- --- Informal cycle way
- •• Public right of way
- --- Other pedestrian connection
- ▤ Commercial mixed use area
- ⬚ Allotment
- ⬤ School
- ⬤ Attenuation pond

Uckington

New pedestrian connection to future secondary school

OLD GLOUCESTER ROAD

B46434

All Saint's Academy

New Primary School

Springbank Primary Academy

Hester's Way

Pate's Grammar School

Princess Elizabeth Way

Hayden

New Primary School

St Thomas Moore Primary School

Gloucestershire college

Fiddler's Green

Improved links to Coronation Square and Cheltenham Spa station

Golden Valley

B4063

Telstar Way

GCHQ

Figure 3 **Plan showing sustainability interventions**

Fiddler's Green Lane

Arle Court Roundabout

Credo Music Academy

Arle Court Park & Ride

3.2 Key sustainability principles

A1. Resource efficiency: New development at Cyber Central Garden Community will be net carbon zero (or better) and an exemplar in water and energy conservation and waste management, employing the highest standards of environmental sustainability

3.2.1 Low or zero carbon (LZC) technologies will be installed throughout the site, at both at individual plot and community level (see Figure 4 for guidance on steps to achieve a net zero carbon building). Creating decentralised community energy centres for heat and power will add to a sense of social participation and responsible energy management, as well as offering an opportunity for cheaper, greener energy.

3.2.2 Technologies such as solar PV, wind, waste to energy, solar thermal and heat pumps (air, water, ground-source) will all have a role to play. The use of active network management tools alongside these technologies will enable the energy-user to control how their energy is used and when. Whilst this up-front investment carry a financial cost, it will help to reduce long term development cost and will help future proof the scheme as a whole.

3.2.3 Site-wide masterplanning will take account of opportunities to maximise solar/wind potential whilst minimising wider detrimental impact to views and conflicts with existing landscape assets.

3.2.4 An integrated strategy incorporating renewable technologies, energy storage and smart metering/ controls will be required. The implementation of an on-site smart-grid will be pivotal in delivering an infrastructure strategy that minimises energy use and positively contributes to decarbonising and decentralising the energy networks.

3.2.5 Waste management forms a key part of Gloucestershire planning policy and is contained within its Waste Core Strategy. The scheme

1. Establish Net Zero Carbon Scope*

1.1 Net zero carbon – **construction**

1.2 Net zero carbon – **operational energy**

2. Reduce Construction Impacts

2.1 A whole life carbon assessment should be undertaken and disclosed for all construction projects to drive carbon reductions

2.2 The embodied carbon impacts from the product and construction stages should be measured and offset at practical completion

3. Reduce Operational Energy Use

3.1 Reductions in energy demand and consumption should be prioritised over all other measures.

3.2 In-use energy consumption should be calculated and publicly disclosed on an annual basis.

4. Increase Renewable Energy Supply

4.1 On-site renewable energy source should be prioritised

4.2 Off-site renewables should demonstrate additionality

5. Offset Any Remaining Carbon

5.1 Any remaining carbon should be offset using a recognised offsetting framework

5.2 The amount of offsets used should be publicly disclosed

D New buildings and major refurbishments targeting net zero carbon for construction should be designed to achieve net zero carbon for operational energy by considering these principles.

* Please also note, a further scope for net zero whole life carbon (1.3) will be developed in the future.

Figure 4 **Steps to Achieving a Net Zero Carbon Building, from Net Zero Carbon Building - A Framework Definition by the UK Green Building Council (UKGBC 2019).**

will adopt the principles of the waste hierarchy by minimising waste and promoting material recovery of any construction and demolition waste. In operational terms development should prioritise waste prevention, re-use, recycle, recovery and disposal only as a last resort. Early engagement with Cheltenham and Tewkesbury Councils waste service UBICO will be essential to collaboratively develop effective solutions for waste minimisation and efficiency in disposal.

Smart City principles:
Opportunities in West Cheltenham

The application of 'Smart City' principles, utilising information technology in the design and management of our cities, towns and villages, offers potentially revolutionary opportunities to improve the efficiency and effectiveness in the delivery of public services and utilities.

The potential to deliver benefits from applying new technologies to existing and planned neighbourhoods and communities should be fully explored with the relevant authorities. These benefits could include but should not be limited to:

- **Incorporating measure of reducing energy consumption in buildings:** *Buildings will be built to high energy efficiency standards to reduce the need to heating/cooling. In addition, new development will be encouraged to employ smart heating and ventilation systems which use IT to help reduce unnecessary heating and cooling processes.*

- **Introducing measures for on-site electricity generation:** *This will help to reduce energy costs for those in the area, including existing residents in adjacent neighbourhoods. Working with existing housing agencies in both the management of existing stock and the provision and management of new dwellings, smart technologies, potentially designed into new buildings from the outset, can help to move new development towards the Councils' net zero carbon targets.*

- **Providing live information on public transport services:** *Cheltenham town centre already benefits from the provision of live travel information at bus stops, but expanding these measures to surrounding areas will help reduce waiting times, increase revenues for operators, and help support the shift towards more sustainable modes of transport.*

- **Introducing smart approaches to storing, collecting and processing waste:** *The smart waste collection solutions are being developed by waste management companies to improve efficiency of waste collection services. They are based on a network of sensors - acting as fill gauges and identification chips - installed on waste containers. The approach gives those involved - the collection operator and local policy makers - the possibility of anticipating new economic models, including individual incentive pricing that benefits all the parties concerned and users in particular. The benefits are potentially wide ranging, but will help to optimize sorting practices, particularly among the public, and, ultimately, will reduce the volume of waste overall.*

- **Creation of a digital twin:** *A visualisation model of the site that can assist in the customisation of the housing product which may link with modern methods of construction. There is scope for this technology to also support the capturing of data flows from smart infrastructure and associated revenue streams to help to maintain and manage the site via a management company.*

Figure 5 **A smart city is a designation given to a city that incorporates information and communication technologies (ICT) to enhance the quality and performance of urban services** ©AESG, 2019
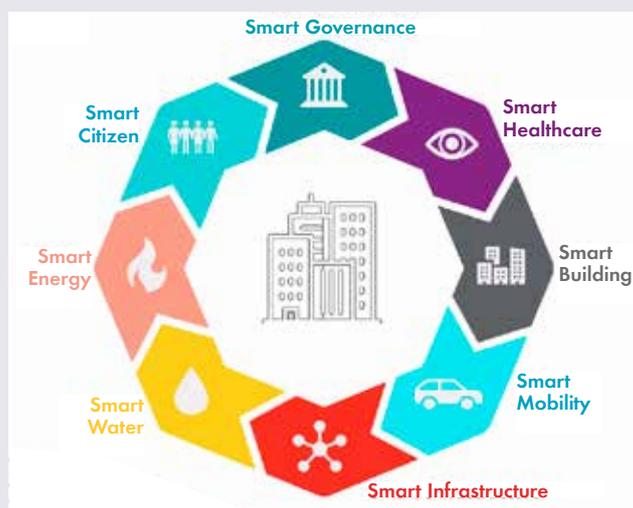
3.2.6 The new development within West Cheltenham will promote the shift towards a circular economy. This will include disclosure of material embodied carbon and material efficiency at design stages, exemplary levels of recycling and reuse during construction, modularisation and standardisation of components and the ability to disassemble components for reuse at end of life.

3.2.7 The adjacent Hayden Sewage Treatment works could provide opportunities in terms of waste heat or energy production. However, as this site is being earmarked for a future phase of development, decisions regarding further investment in this facility will need to be taken in view of the facility's potential future relocation.

Figure 6 **The "Triangle" by Glenn Howells Architects was supported by the Government's Low Carbon Investment Fund. Homes have bicycle storage built in to the front canopy of each house**

A2. Resilience: The design of new buildings, streets, open spaces and other required infrastructure will ensure new development is resilient in terms of flooding and overheating

3.2.8 Minimise the risk of flooding through the incorporation of sustainable drainage measures. This will include the provision of street trees, landscape verges including swales and the use of permeable surfaces. This thinking should extend across all scales, from how surface water is managed as it moves across the site to how rainwater and greywater could be harvested and reused to reduce the site's environmental footprint.

3.2.9 Careful development of building form and position of glazing in response to orientation is required. Minimising the solar exposure of south and west facing glazed elements reduces risk of overheating during summer months. Careful street planning and provision of external shading (including shading devices, balconies and facade articulation) will be used to limit solar exposure.

3.2.10 Increasing the provision of blue and green infrastructure and proximity to green space and large water bodies (within 100m radius) reduces the localised impacts of heat island effect, absorbing less heat and stabilising temperatures during peak summer conditions.

3.2.11 The landscape strategy outlined in this SPD for the site as a whole (see Objective C) has been devised in response to the topographic profile of the site, with locations identified for the provision of stormwater attenuation. The generous network of open spaces will play an important role in helping to manage surface water and reduce the risk of flooding across the new community.

3.2.12 Flexibility in terms of how buildings and spaces might be used over the long term is a fundamental principle of sustainability. Developers will be asked to demonstrate how their proposals (buildings and spaces) have been designed to be flexible and capable of conversion, adaptation and reuse over the course of their life.

Sponge City principles: Opportunities in West Cheltenham

'Sponge cities' incorporate urban design that aims to reduce the risk of floods, by enabling environments to absorb water. In bringing development proposals forward for the site, the role played by green infrastructure in reducing the risk of flooding should be considered at every scale.

Large area of impervious hardstanding should not be provided within dwellings, parking courts and other areas for parking should employ permeable surfaces, streets design should incorporate sustainable drainage measures, the design of public open spaces and the wider network of green spaces which help to link neighbourhoods together should be designed to retain existing landscape features such as hedgerows and trees, with new trees and planted

Figure 7 **Upton SuDS flood attenuation measures integrated into public space design**

areas provided. Within the wider green infrastructure network, appropriated sized water attenuation areas should be provided which are not in areas already liable to flood. These will provide, in the longer term, a valuable ecological resource.

A3. Connection to nature: Development at Cyber Central Garden Community will enrich local ecology and biodiversity and will take proper account of air quality issues

3.2.13 Air quality is an issue in West Cheltenham due largely to pollution from road vehicles. New development will need to consider off-site effects from traffic accessing and egressing sites through an existing area of poor air quality to ensure air quality remains within acceptable levels.

3.2.14 The provision of new, and management of existing, landscape areas and features across the entire site is one the most exciting aspects of the Cyber Central Garden Community. These will include the provision of informal naturally landscaped spaces; new allotment spaces to meet both existing currently unmet and future demand; formal sports provision; and, new high quality and well managed flexible formal spaces which provide opportunities for meanwhile uses, events and other outdoor activities.

3.2.15 The site's biodiversity and ecology opportunities are of particular significance, with scope for collaborative working with key partners within the Gloucestershire Local Nature Partnership. All principal public sector partners involved in bringing this site forward through the JCS have signed up to the Gloucestershire Green Infrastructure Pledge. New development will be assessed against the Building with Nature Benchmark.

3.2.16 Working collaboratively with the Gloucestershire Local Nature Partnership, and particularly the Wildfowl and Wetlands Trust, the site presents a unique opportunity to support and foster birdlife in the context of the nearby Slimbridge Wetland Centre.

A4. Community and culture: Cyber Central Garden Community will mature into a thriving and mixed sustainable community, providing jobs, homes and community facilities for existing and new residents in a beautiful landscape setting

3.2.17 The Cyber Central Garden Community will, first and foremost, be a place for people. The Garden Community will provide a diverse range of environments including vibrant tech-based flexible workspaces, local community hubs serving new and nearby existing neighbourhoods and mixed residential neighbourhoods with a mix of housing types and tenures.

3.2.18 A connected network of streets and lanes will ensure different districts and environments of the development are linked and fully integrated, the design of which helps to encourage active and sustainable patterns of movement.

3.2.19 Whilst potential locations for new school premises are identified in the masterplan framework, additional financial contributions will be required through a S106 agreement towards provision of pre-school and primary school places.

3.2.20 The proposed new secondary school at Elms Grove has been planned at a size to serve that housing development. Financial contributions will be required and additional land may be required within the SPD area to allow the secondary school to be planned at a larger size if necessary to meet increasing needs. However, timing and delivery of development will be critical and it may be necessary to provide additional places at All Saints Academy if the Elm Grove development is not progressing to the same timescale.

3.2.21 Through ongoing liaison with health care providers and their relevant authorities, contributions towards additional health facilities will be required to ensure the health needs of new communities are adequately catered for.

Figure 9 **Precedents: Kingsbrook Aylesbury, Set a new benchmark for wildlife friendly housing development. 2,459 homes have been built on greenfield land, and designed so wildlife can move freely through the residential areas. Swift boxes are shown here, built into the roofs of new home**
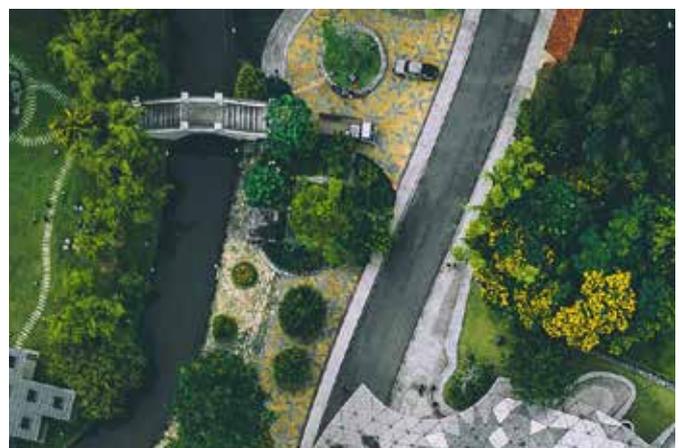
Figure 8 **Flood management scheme**

A5. Mobility: Cyber Central Garden Community will be an integrated and fully connected extension of west Cheltenham

3.2.22 New development will be supported by infrastructure which helps to support local employees, visitors and residents to choose active and sustainable modes of travel. Electric bicycle and car hire facilities will be required in new development to meet the day-to-day needs of those who live in, work in and visit the area. New development will embrace new technologies in the rapidly evolving car and mobility sector. Car charging facilities will be made available to new residents and dwellings will be designed to take proper account of the space requirements of bicycle ownership for all occupiers.

3.2.23 New smart street furniture provides the opportunity to help support the delivery of smart new technologies. Street lighting provides scope to improve the efficiency of street lighting as well as supporting other initiatives such as integrated CCTV, movement detection to support smart traffic management measures, air pollution detection and WiFi services.

3.2.24 Connections to existing public transport infrastructure will be provided and contributions to the delivery of improvements to existing services will be required. This will include improved cycle and walking linkages to Cheltenham Spa Railway Station, the expansion of existing bus services across the site, and the establishment of pedestrian and cycle linkages to immediately adjacent neighbourhoods, including the provision of safe routes to schools – both those provided within the development and those nearby planned or existing schools which will help to meet demand for school places from new

development. The site is well placed to benefit from more strategic improvements in public transport between Cheltenham and Gloucester, including the ambition to bring forward a mass transit option. Development at West Cheltenham should take proper account of any such opportunities through the provision of interchange facilities as part of any such provision or other appropriate contributions.

Figure 10 **Top: scooter hire is convenient and integrated into local neighbourhoods and, Bottom: electric vehicle car clubs**

4 A vibrant and diverse range of uses and activities, serving existing and new communities

4.1 Introduction

4.1.1   In 2015 as part of its revised National Cyber Security Strategy, the UK government announced that it would be setting up two Cyber Innovation Centres, one in London and one in Cheltenham. The innovation centre will foster an increase in the number of UK companies able to grow their business to a critical mass and compete internationally.

4.1.2   Cyber Central aims to be the first of its kind in the UK – a unique location dedicated to the development of cyber technology research, skills, business and capability. It will be a integrated and inclusive community where people can live, work and play and enjoy excellent quality of life.

4.1.3   Cyber Central will be a world class campus that integrates high-tech work places and academic facilities with supporting facilities which will serve those who live and work in the area. New dwellings will offer a wide range of living options and will support a tenure mix that matches the needs of the workforce in Cyber Central and the town more widely.

4.1.4   The Cyber Innovation Centre will measure itself against other world class facilities such as the Cyberspark Campus in Israel which is combining military intelligence, academia and industry in one place, and leading examples of innovation buildings such as the Bright building at Manchester Science Park.

4.1.5   Cyber Central will be an exemplar of social and environmental sustainability which provides for the educational needs of the new community, enables healthy and active lifestyles and where mental and physical well-being is a priority. Once established, the site will host a connected community that functions 24/7 and is digitally, environmentally and socially responsive.

The adjacent plan is numbered to highlight some of the key points of the land use strategy for West Cheltenham, as follows:

1   Cyber Central - an expansive mixed-use campus and clustering of business, enterprise, R&D and education activities within the cyber-tech sector.

2   Innovation Centre - a state of the art shared, semi-public facility which acts as a hub for interaction, knowledge share and exchange and events for the cyber-tech community.

3   Integration of retail, services and community uses that help meet the daily local needs of residents, workers and visitors.

4   A mix of sites and locations which will provide wide ranging and flexible opportunities for inward investment - many of which may form part of the cyber-tech supply chain.

5   A number of attractive, beautifully landscaped neighbourhoods, each with their own character. These will provide a mixed and balanced range of residential accommodation and tenures, including affordable housing and housing for more specialists sectors.

6   A new primary school to help meet the education needs of a growing local population.

7   Open market employment spaces of varying sizes which will enjoy good access to the motorway network and provide new job opportunities for local people.

4.1.6   The distribution of uses in the masterplan must have regard to the existing town and neighbouring communities and also the property market drivers which will underpin a successful and viable project. The Cheltenham area is already home to a dynamic and growing network of several hundred Cyber Technology Businesses, ranging from highly innovative start-ups to established international players such as BAE Systems, L3 TRL, Raytheon and many others.

4.1.7   The masterplan envisages a vibrant and diverse range of uses and activities which will serve both the existing and new communities. The range of uses will combine to deliver a successful Garden Community, making the best use of land to create vibrancy, local character, new facilities and services, integrated and accessible transport, innovative uses of technology and beautiful green spaces.

Key

- ■ **Higher density mixed use** - Employment-led tech-sector, retail, leisure & community with residential
- ■ **Mid density mixed use** - A balanced mix of residential, employment and other uses
- ■ **Mid density development** - Housing-led garden communities
- ■ **Potential school** - Primary school to serve new and adjacent neighbourhoods
- **Cyber Central hub** - Cluster of employment, retail, leisure and community activity

Potential improvements to M5 J10 proposed

OLD GLOUCESTER ROAD

B46434

Springbank

Springbank Road

Hesters Way Road

Fiddler's Green

GCHQ

Golden Valley

B4063

Telstar Way

Fiddler's Green Lane

Princess Elizabeth Way

Figure 11 **Land use concept plan**

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Ordnance Survey 0100031673

Arle Court Roundabout
↓ Arle Court Park & Ride

A40

4.2 Key mixed use principles

B1. Delivered in partnership, a high profile and state of the art 'Cyber Innovation Centre' will be the focal point of the Cyber Central Garden Community

- The Innovation Centre and the surrounding campus will provide comprehensive infrastructure to support and foster the cyber tech industry, providing an open and welcoming environment where collaboration, research and innovation takes place. This would include:

  - A variety of flexible workspaces and R&D facilities to accommodate growing businesses through their lifecycle from hot-desking to stand-alone buildings;
  - Links with universities, education, and skills programmes such as the University of Gloucestershire, Gloucestershire College, C11 Berkeley, Universities of Bristol, Cardiff and West of England and UTC Swindon;
  - Support services such as business support, marketing, funding and legal advice;
  - Digital and physical infrastructure that is future-proofed and upgradable;

- A place that promotes creativity and innovation through leading cultural and event programmes;
- State of the art facilities, landmark architecture and inspirational surroundings;
- An environmental exemplar including a mix of commercial, residential and amenity buildings in a green landscape; and
- A new centre at the heart of the cyber tech network with direct links with existing cyber tech business networks including CyNAM and their Hub8 co-working space in Cheltenham town centre.

- Delivery of the Cyber Innovation Centre will require a committed partnership between business and the public sector. A dedicated organisational structure and operational model will be devised to drive forward the vision and provide leadership and the management and operational expertise to represent the key interests. These are envisaged to include Government agencies, local authorities, universities and educators, SMEs and industry, leisure and retail providers and local communities.

Figure 12 **Employment and learning uses with active retail frontages at ground floor at Westworks, part of the White City campus (Allies and Morrison)**

B2. 45Ha of mixed-use employment land, focussed around the Cyber Central hub, will provide flexible business space, hotels, retail and leisure provision and cultural and community uses to serve the local community and wider region

- Cyber Central proposal has the scale to deliver circa 2m square feet of commercial space on 45 hectares supporting circa 7,500 jobs. This critical mass of employment land will enable the cyber tech cluster to develop adjacent to GCHQ and offer a range of property types to support business through their growth lifecycle.

- Cyber Central will be highly connected, physically, digitally and socially. Cyber Central will have access to the best digital infrastructure available to support the development and incubation of cyber enterprise. The development is perfectly located to take advantage of the UK's high capacity fibre network, providing completely secure, ultra-high-speed and unlimited fibre connectivity to the site.

- Beyond the Cyber Innovation Centre, the Cyber Central hub will be a mixed-use zone with a focus of commercial, community, leisure and residential uses, located centrally to best serve existing and new communities, all served by a high quality and flexible public realm.

- The Cyber Central hub will serve a vibrant and thriving community located within a unique landscape setting. The hub would be open and active at all times of the day and throughout the week and would host significant events and cultural facilities designed to attract the broadest range of users and visitors

- With access to the site being radically improved through the planned improvements to Junction 10 of the M5, the main street axis through the site will provide opportunity for a wide range of uses and activities which would benefit from prominent and accessible locations.

- A new primary school will be required to serve the new residential community and potentially the wider area. The new school should be designed to ensure community access to shared facilities.

- Secondary school capacity will be met by existing nearby schools and a planned new secondary school north of the site.

Figure 13 **The Cyber Centre hub area will be a focus of a mix of activities, open to all (Grant Associates)**

B3. A sustainable and deliverable range of housing tenures, including affordable housing and self-build, to meet local needs supported by community infrastructure

- New housing will need to address local needs and contribute to the creation of mixed and balanced sustainable communities. This means providing sufficient housing of the right sizes, types and mix to meet current and future needs as the West Cheltenham extension evolves over the delivery period.

- Delivering a mix of market tenures, from market sale to market rent, will underpin the economic viability of the development. In particular, market tenures will play a critical role in meeting the potential housing needs of younger professionals who will be attracted by the employment opportunities in new and emerging technologies, the ambitious vision of the area, the range of supporting infrastructure and the quality of the environment being created. The delivery of market rent housing has the potential to meet growing demand for this form of housing which is being supported by institutional investors.

- There will be a range of living space responding to the needs of the cyber tech start-up community. This could include co-living (shared apartments designed for new graduates), build to rent housing and apartments, self-build parcels, live/work space and affordable and key worker housing for employees.

- The Housing Investment Strategy will see Cheltenham Borough Council take a leading role in bringing forward high quality and affordable homes offering different tenures. New housing development will need to meet the requirements of current policy regarding affordable housing including levels of provision (35% within JCS Policy SD12) and tenure blind distribution throughout the site. Affordable housing is also expected to contribute towards meeting the identified housing needs as outlined in the relevant Local Housing Needs Assessment.

- New communities will be supported by the provision of social infrastructure including

Figure 14 **The Cyber Central Garden Community will provide mixed housing types and tenures at a range of densities but in all cases building should positively address public realm and prioritise people over cars (Allies and Morrison)**

B4. Higher densities and a range of dwelling typologies which make the best use of available land

- A key driver of the SPD is to increase densities in order to make the best use of land and deliver an exemplar development that creates a sense of community. The SPD promotes a flexible approach in terms of the type of housing provided. Apartments, stacked maisonettes and other forms of higher density housing will have a role to play in helping to ensure Cyber Central is supported by an appropriate housing mix and housing densities.

- The planning authority and its partners will support the delivery of higher density development to help meet the strategic objectives of the JCS. Both Cheltenham and Tewkesbury Borough Councils support the focus on making the very best use of the land within the area in a way that delivers high quality homes.

- The development proposals are expected to facilitate higher densities through measures which will include:

  - The use of innovative housing and mixed typologies, especially in the southern area including mixed use buildings with apartments over other ground floor uses;

  - Densities in the west of the site are expected to go above 'conventional' housing densities that might otherwise be built on a rural edge in light of the potential future reserve land (HSTW);

  - New development should learn from local and national precedents which demonstrate how successful higher density development can work alongside Garden Community objectives – see Section 7.2; and

  - Areas within the Cyber Central hub and along the main street axis will be designed to foster the establishment of mixed use environments with a higher proportion of apartments and smaller unit sizes.

Figure 15 **Employment buildings that sit comfortably within a mixed use setting in Earlsfield, London (Allies and Morrison)**

5 Working with the natural landscape and its features

5.1 Introduction

5.1.1 The Masterplan framework for the West Cheltenham SPD takes a 'landscape first' approach to site planning. This means that existing assets within the site such as waterways, trees and hedgerows are incorporated into the planning of site wide green infrastructure and new public spaces.

5.1.2 The overall strategy proposes an inter-linked network of natural, semi natural and more formal open spaces that together form connected routes through the site, between existing and new communities, and to the countryside beyond. These spaces will be designed to support the social, environmental and ecological objectives contained within this document.

5.1.3 It is important to cross reference the adjacent landscape concept plan (Figure 17) with the constraints plan (see appendix). This help explains the extent and location of some of the open spaces which are often defined by constraints such as flooding, existing trees and hedgerows and watercourses.

5.1.4 The following principles have shaped the landscape strategy and will need to be met when delivering growth in west Cheltenham:

The adjacent plan is numbered to highlight key points of the green infrastructure strategy. The strategy for West Cheltenham should:

1   Retain existing landscape assets including hedgerows, trees and water bodies which will help to inform the design of a multifunctional and connected green infrastructure network

2   Integrate a site-wide SuDS strategy that is informed by the existing topography, geology and soils. The potential for SuDS features to maximise amenity and habitat should be explored

3   Integrate strategic ecological corridors and create and connect a diversity of habitats through the site. Opportunities for habitat creation will be explored at all scales from site wide, to the design of development layouts, public spaces, streetscapes, and buildings. To include nature reserves

4   Create pedestrian and cycle connectivity with existing communities and facilities in West Cheltenham. To include the integration and expansion of PRoW and the promotion of nearby regional and local cycle routes

5   Establish a food strategy to enable food growing and foraging across the site. The Terry Ashdown allotments will be expanded for new and existing residents, alongside community orchards. Land will be safeguarded with statutory protection to ensure long term demand for allotments can be accommodated

6   Create a network of new public spaces that each create a focal point for a new neighbourhood, or form a connection between existing residents and the emerging community

7   Provide sports and recreational opportunities and a quantum of space typologies in line with CBC/TBC Open Space Policy

8   Create a formal and flexible space which creates a focus within Cyber Central. This space will present opportunities for a wide range of events and activities

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OLD GLOUCESTER ROAD

PARK
6

5

2

1

NATURE
RESERVE

SPRINGBANK

NATURE
RESERVE
2

3

7

7

4

PARK

PARK
6

1

HAYDEN

HESTER'S WAY

3

ALLOTMENTS
5

3

NATURE
RESERVE

1
4

8

6

GCHQ

2

3

Figure 17 **The landscape concept**

GLOUCESTER ROAD
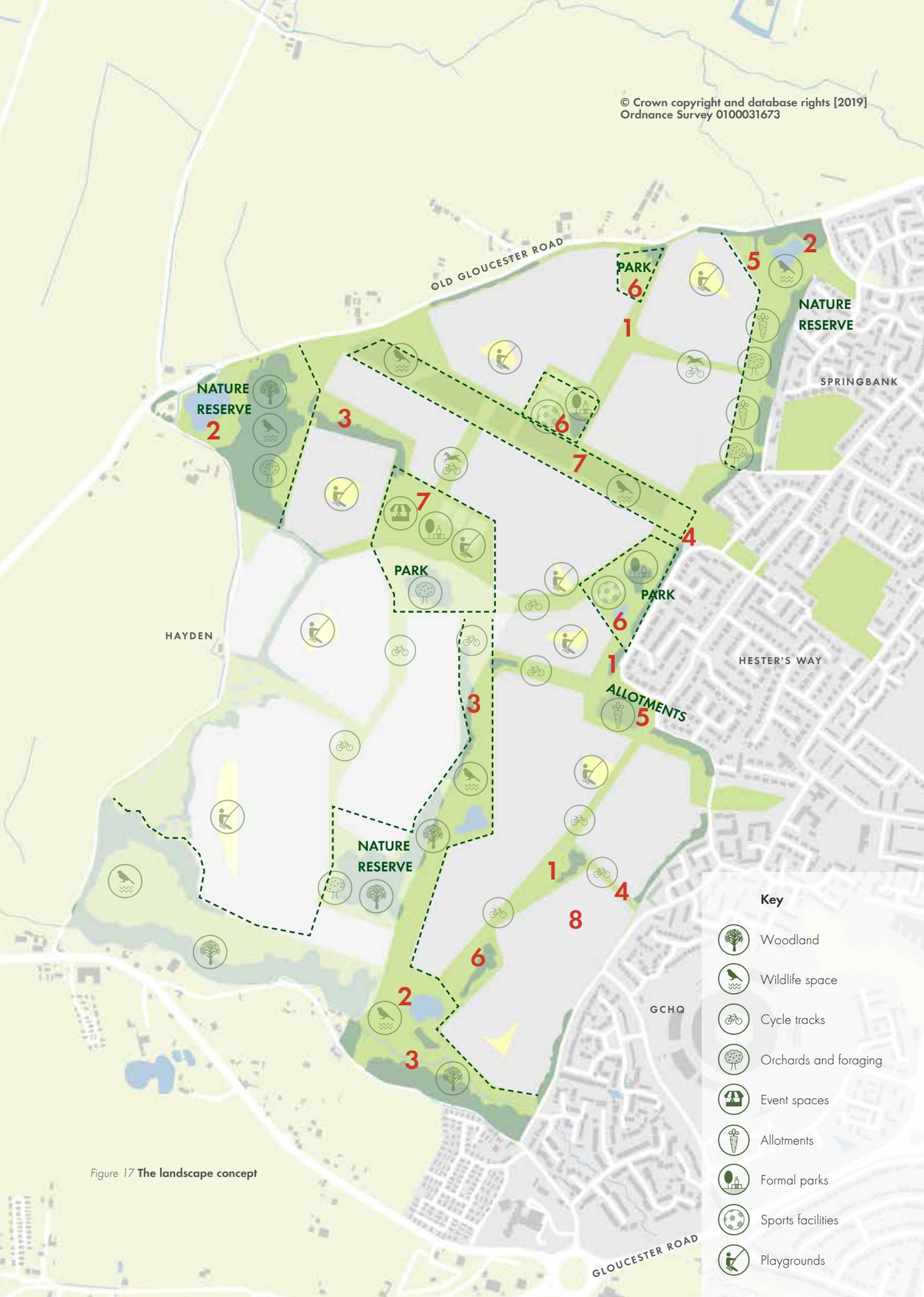
Key

Woodland

Wildlife space

Cycle tracks

Orchards and foraging

Event spaces

Allotments

Formal parks

Sports facilities

Playgrounds

Figure 18 **The public realm between buildings will be multi- purpose, incorporating SuDS, trees and seating areas (Grant Associates)**

Figure 19 **The scale of the Cyber Central Garden Community will opportunities to nurture a wide range of landscapes, including wildflower planting (Grant Associates)**

Figure 20 **Natural areas will be designed to be accessible to all (Grant Associates)**
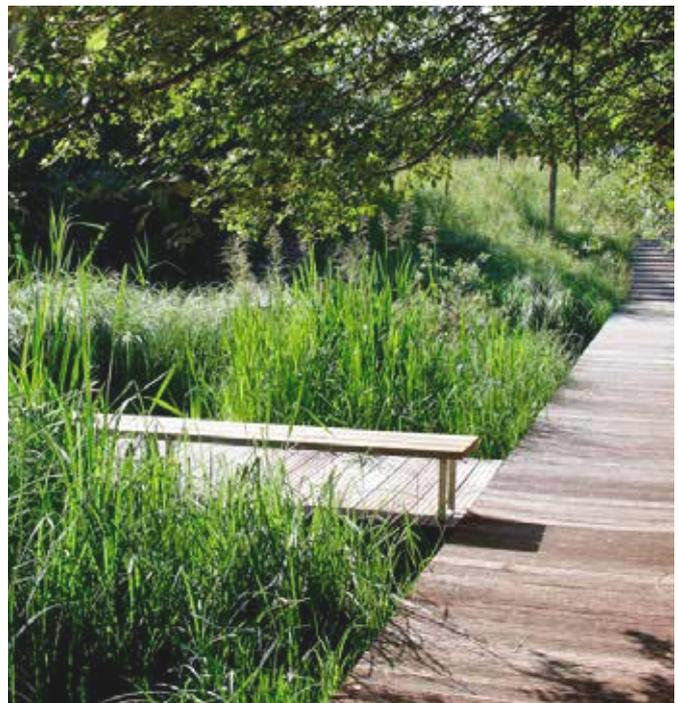
Figure 21 **Development proposals for the site should work with existing water features and channels (Grant Associates)**

Figure 22 **Hard landscaped areas within the Cyber Central hub will be designed to offer flexibility for a range of activities and events (Grant Associates)**

Figure 23 **Tree avenues and planting form soft edges to development areas, with informal leisure routes helping to link communities (Grant Associates)**

Figure 24 **SuDS attenuation basin and swales can create natural boundary edges (Grant Associates)**

5.2 Key landscape principles

C1. Development must positively integrate existing landscape assets and features and use these features to inform the development of a green infrastructure network for the site

- Existing assets will be considered early in the design process and integrated within development proposals.

- These natural assets should form the backbone of the landscape strategy and in doing so, play a key role in defining the size, location, boundaries and extent of proposed development parcels.

- Proposals should deliver biodiversity net gain to help diversify and enhance the existing landscape.

- Assets to be considered include;

- The network of hawthorn hedges and hedgerow trees

- Mature and veteran trees and patches of woodland

- Existing streams, ditches and water bodies

C2. Proposals should respond to views into and out of the site and react to the existing topography and strategic landscape character

- Proposals need to respond to strategic opportunities to create visual and ecological connection with/to the wider landscape and countryside.

- Long views to the Cotswolds AONB and Hayden Hill need to be carefully considered during the design of the location and layout of open spaces and built development

- Proposals will need to consider the impact of built form/massing/roofscape/layout on views both in and out of the site.

- The topography of the site should influence the location of routes which traverse the topography and work with the fall of the land, creating views from existing and proposed public open spaces.

- At a more local scale, the network of hawthorn hedges and hedgerow trees give the impression of a well treed landscape and provide good visual containment and screen views to some areas in the wider landscape.

Figure 25 **Development proposals for the site should work with existing water features and channels (Grant Associates)**

Figure 26 **Existing long views west from the site (Allies and Morrison)**

Figure 28 **Precedent: North West Cambridge**
Top - the integration of soft landscaped spaces within the street scene alongside cycle routes and pavements
Bottom - attenuation spaces with a natural character incorporated within a country park (AECOM)

C3. Proposals shall include a network of public spaces to meet local open space requirements

- Existing spaces at Springbank and Hester's Way should be considered in the planning of the location of new spaces and connections, noting Pilgrove Way playground, Henley Road open space, Elm Farm open space and the Terry Ashdown allotments in particular.

- New spaces should be overlooked by new development to improve surveillance and community ownership of spaces.

- Figure 27 sets out the range of typologies of formal and more natural open spaces which will need to be accommodated within any future detailed masterplan for West Cheltenham. This will include a complete spectrum of managed spaces to more natural areas which will feel more like part of the wider countryside.

- Public spaces must be accessible and include areas of seating, shade and accessible paths in order that the widest range of the community is able to enjoy new spaces.

- In line with both borough's open space and sports standards, at a minimum the open spaces will provide a range of amenity spaces (2.91ha), natural and semi-natural spaces (0.61 ha), parks and garden (1.49ha), play spaces for children and young people (0.10ha), and sports facilities including 1 adult football pitch and 1 youth football pitch.

- Allotments will also be provided to serve the new population (0.63ha) alongside reallocation of statutory allotments to meet future demands currently allocated elsewhere in Cheltenham.

- Constraints to built development such as the overhead power cables create areas of open space which must be carefully integrated within the masterplan (see National Grid provides guidelines for development https://www.nationalgridet.com/document/130626/download).

- The masterplan shall integrate green infrastructure proposals in order to achieve Building with Nature Design accreditation, with a view to achieving full accreditation ('Excellent') upon delivery to exceed the statutory minima for green infrastructure.


woodland | wildlife spaces | cycle tracks and bridleways | orchards and foraging | events spaces | allotments | formal parks | sports facilities | playgrounds

informal → formal

management and maintenance
lower — intensity of public use — higher
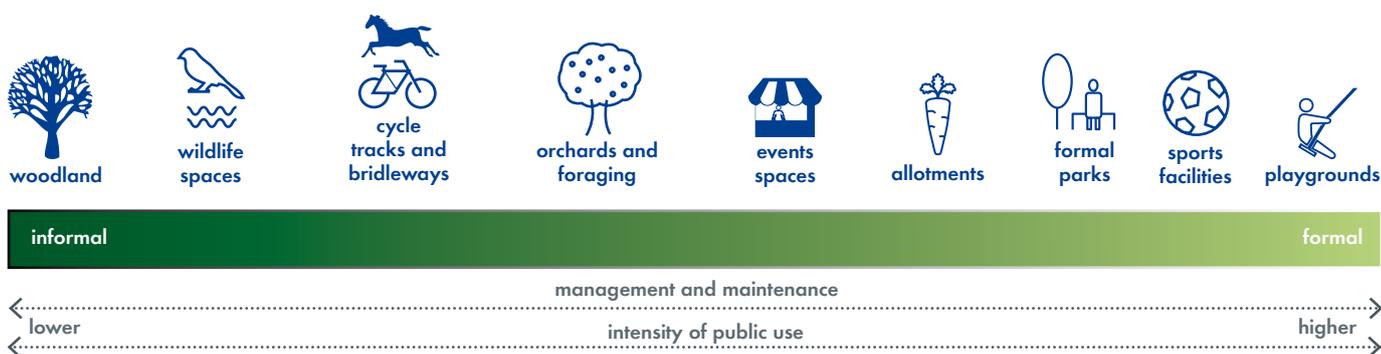
Figure 27 **All of the above types of formal and more natural open spaces will need to be accommodated within any future detailed masterplan for West Cheltenham. The spectrum illustrates how open spaces across the site will vary in the extent to which they are managed. The spaces which are most intensively used by the public will often requite the most maintenance, whist spaces which are intended as natural or wildlife spaces will feel more like part of the wider countryside, left as wilder spaces for nature and wildlife (Allies and Morrison)**

C4. A high quality new public space will be provided at the gateway of Cyber Central which will be designed to provide flexible spaces for events and activity

- The quality of the landscape at Cyber Central will be a distinguishing factor that makes this development exemplary.

- A formal space will provide a distinctive, high quality and stand-out address around which new buildings will cluster alongside the new Innovation Centre.

- This flexible space will create spaces for community events, provide spill out opportunities for the bars and cafes to serve the surrounding neighbourhood, working with existing water features across this part of the site.

C5. New development should take a creative approach to sustainable drainage to reduce the long-term risk of flooding

- Surface water drainage will need to be planned at a site-wide scale alongside the planned green infrastructure and network of routes.

- It must be a multifunctional asset that has amenity, ecological and educational value, whilst improving the quality of water in the public realm and therefore the wider hydrological catchment. There should be an exemplary approach to the use of wetland habitats, sustainable drainage and rainwater gardens.

- The masterplan aims to promote 'Sponge City' principles, where the development is part of a permeable system that allows water to filter through the ground and be absorbed to be re-used within the area (see Section 3.2). Interconnected green spaces, green roofs, porous surfaces and water recycling methods should all be considered to contribute to this system. In this way, residential properties can play an important role in rainwater recycling for grey-water as part of the overall SuDS strategy.

- Locations for attenuation water storage are shown indicatively on the masterplan (labelled 2 on Figure 17), which need to be downslope of the proposed development parcels within each catchment (please see the appendix for more technical detail).

C6. Development should promote a strategy for new tree planting and retention of existing species

- A tree planting strategy will help support ecological, water management, food production and broader environmental and design aspirations.

- The strategy should include a mix of native and non-native trees as well as an appropriate mix of life expectancy and size.

- The aspiration for a Community Woodland over the whole of the site will help to drive this ambition. The potential for the development to achieve 20% canopy cover across the whole site shall be evaluated at the start of the masterplanning process and a % aim agreed with the LPA. Canopy cover aims shall be taken forward as part of the green infrastructure strategy.

C7. The boundaries with existing communities, the wider countryside, the sewage works, and between phases of development shall be carefully planned and designed to maximise opportunities for physical and visual integration

- New development must respond positively along the edges where the masterplan area interfaces with existing homes, with a need for particularly high quality architecture and landscape provision.

- New landscape which is delivered to help respect the amenity of existing neighbourhoods should provide connections and shared facilities for all local residents. Landscape must not create leftover space or barriers.

- The Telstar Way entrance is the site's principal gateway and a high profile point of arrival. Architecture of the highest quality and street design with landscaping and tree planting will help to mediate between the character of new and existing places.

Figure 29 **Allotments in semi-natural open space in Bristol (Grant Associates)**

C8. The development must promote a positive approach to local food growing through the adequate provision of allotments as part of a wider strategy to meet existing and future need

- The Terry Ashdown allotments will be expanded for new and existing residents, alongside community orchards. Allotments will also be provided to serve the new population (0.63ha) alongside reallocation of statutory allotments to meet future demands currently allocated elsewhere in Cheltenham.

- The location of new allotments and other food growing opportunities must be in accessible locations that could be tools to help build a sense of community.

- Opportunities should be explored to connect to existing food networks and initiatives such as community supported agriculture projects, and local food banks to help improve the supply and availability of fruit and vegetables locally.

- The management of these spaces will need to be considered as a key part of the wider management strategy for the site and advice taken from organisations such as the Gloucestershire Orchard Trust.

- Allotment should be a key part of a wider strategy to enable food growing and foraging across the site. Other opportunities might include:

- Private gardens and balconies to accommodate growing spaces

- Shared community gardens and orchards.

- Wilder and more natural spaces for foraging.

C9. Proposals should be devised with partners to develop and deliver an innovative public art programme

- The role and identity of any new public art should help to celebrate the natural setting and assets within the site.

- Opportunities for use in wayfinding and in helping to shape the identity of neighbourhoods within the overall area could be explored.

- This strategy should be considered in conjunction with informal playful spaces.

- Public art projects could also play a role in encouraging community participation and integration during the early build out phases together with helping to tie in cyber tech with everyday engagement of business users, residents and businesses.

C10. A management strategy shall be developed across the site to inform the design process and with consideration to longer term sustainability

- The strategy should be designed to plan and design for a low maintenance landscape, with reference to climate change and low resource inputs.

- The strategy will include the establishment of intended responsibilities and broad maintenance standards for the streetscape within residential areas and the cyber park, for parks and public spaces, growing spaces, sports facilities, and site wide green infrastructure.

- The streetscape design will be required to demonstrate that landscape and planting proposals have been fully coordinated with highways and drainage design.

- Discussions are required at an early stage to explore the potential for partnership working with charitable trusts such as the Woodland and Wetland Trusts. Setting up a Community Land Trust may be one possibility to help organise the management of spaces.

- Broad landscape management principles will need to be agreed with the Local Planning Authority early in the design process/at the pre-application stage.

- Any future planning application must include a detailed 25 year management and maintenance plan.

Figure 30 **Public art precedents (Allies and Morrison)**

6 An integrated and connected extension of West Cheltenham

6.1 Introduction

6.1.1 Cheltenham Borough Council's recently published Connecting Cheltenham report outlines an ambitious long-term strategy and delivery plan for transport in Cheltenham. In outlining a series of drivers for change, the strategy acknowledges that priority must be given to supporting more active, shared and sustainable modes of transport alongside the overriding need for streets to be attractive, pleasant and accessible for all. The Cyber Central Garden Community provides a unique opportunity to demonstrate how the principles outlined in the Connecting Cheltenham strategy can be delivered.

6.1.2 JCS Policy A7 West Cheltenham includes the requirement for new development to be integrated with the existing neighbourhoods and communities on the western side of Cheltenham. Fundamental to this objective is the delivery of physical connections which provide direct and safe routes between the development opportunities at West Cheltenham and the Springbank and Hester's Way neighbourhoods. Further afield it will also be important to ensure connections with Cheltenham Rail Station and the town centre beyond. The site will be a place for people and local trips by sustainable modes and will ensure that it is attractive to make segments of longer trips (i.e. by rail) on foot or by cycle.

6.1.3 The local highway network in the adjacent communities is characterised by roads which provide frontage access to housing, have high levels of on-street parking and provide traffic calming. The impact of potential traffic generation on these local roads as a result of the phased delivery of the West Cheltenham development is a particular concern for local people. Priority will be given to pedestrian, cycle and public transport connections which will encourage sustainable travel to and from the development whilst ensuring it is fully integrated into the existing community.

6.1.4 Sustainable travel will be encouraged between different uses on the site (i.e. residential and employment) and this will also assist with containing trips within the site. The creation of sustainable networks and priority bus measures will also encourage existing residents living locally to walk, cycle and travel by bus to the site for employment use.

6.1.5 New development will help to deliver real behaviour change to tackle both local air quality and global climate change issues and the design will positively embrace and drive a modal shift from car use. In this regard, and to encourage sustainable travel and connect into wider sustainable travel initiatives, the development will tie in with and facilitate the measures set out in Connecting Cheltenham.

The adjacent plan is numbered to highlight some of the key points of the movement strategy for West Cheltenham, as follows:

1 Principal all modes vehicular junction to the site - these are the primary first impression places, the gateways to the site. The quality of the environment here is of particular importance.

2 The alignment of the principal vehicular route across the site is informed by existing below ground constraints.

3 Secondary vehicular access -providing local access to an articulated early residential phase of development.

4 Potential bus gate access - controlled bus-only access.

5 Opportunities to extend local bus routes to serve the site.

6 To ensure new development is integrated with existing communities, direct connection with and improvements to the pedestrian / cycle link between Springbank and Coronation Square will be delivered.

7 These routes illustrate how the masterplan can secure a network of pedestrian and cycle routes which are directly informed by the existing pattern of PRoW across the site.

Key

- - - - Potential extended bus routes
──── Potential street-based pedestrian / cycle network
- - - - Potential park-based pedestrian / cycle network
✷ Principal all modes junction
▦ Local vehicular access
● Bus gate access
● Potential pedestrian / cycle access integration
▣ Cycle hire, electric charging points and car clubs

OLD GLOUCESTER ROAD

SPRINGBANK

HAYDEN

HESTER'S WAY

GCHQ

GLOUCESTER ROAD

Figure 31 **Movement strategy**

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Ordnance Survey 0100031673

6.2 Key movement principles

D1. The design and delivery of new development will prioritise and support active and sustainable travel patterns and behaviour – public transport

- The Cyber Central Garden Community strengthens the case for new investment in radically improved public transport infrastructure linking Cheltenham and Gloucester along the A40 axis. Integration of or interchange with any such investment will radically improve connections to and from Cyber Central.

- Existing bus services will be diverted through the site and frequencies increased to serve new residents and employees as well as improve services for existing residents. This will encourage a modal shift to public transport for existing and potential future residents. Scope for improved services include:

  - Route C – Town centre to Kingsditch and Springbank;
  - Route A – GCHQ and Coronation Square to Cheltenham town centre;
  - Route H – Cheltenham town centre to Wymans Brook, Swindon Village and Arle Farm; and
  - Route 94 – Cheltenham to Churchdown and Gloucester.

- Within the site itself, bus priority measures, supporting by smart technology, will be provided across the street network and beyond.

- Opportunities to provide cleaner buses using electric or hydrogen fuel sources should also be provided to help address air quality issues.

- To mitigate against the threat of rat running on local streets, the use of bus gates (or similar) should be considered, particularly in the vicinity of Henley Road.

D2. Deliver new direct pedestrian and cycle connections to existing communities and facilities

- New pedestrian and cycle connections will be created with existing routes and paths in neighbouring communities. These walking and cycling routes will be direct, safe, well lit, comfortable and attractive. This will help to ensure new development at West Cheltenham is fully integrated with its surroundings.

- The following opportunities exist for the establishment of new pedestrian and cycle connections along the existing west Cheltenham boundary which will ensure good linkages are established with Coronation Square, Springbank Community Centre, All Saints Academy, Gloucester College Hester's Way community centre, Cheltenham Station and Cheltenham town centre and other important local facilities and locations:

  - In the vicinity of Meadow Close, towards the southern end of Fiddler's Green Lane;
  - On the east-west axis of Niven Courtyard;
  - At the existing agricultural access point opposite Lazenby Court;
  - At the junction with Telstar Way;
  - South of Beverley Croft;
  - At the existing stile off Beverley Croft;
  - At Springbank Road open space;
  - Adjacent to the Terry Ashdown Allotments off Henley Road;
  - Opposite Gloucester Road to link with the existing foot and cycle path;
  - At the northern bend in Henley Road, either side of the pylons;
  - Off Hope Orchard;
  - Off Harry Yates Way at Wheatlands Drive; and
  - At Pilgrove Way open space.

Figure 32 **Typical primary street with carriageway, cycle lanes and footpaths with avenue tree planting, Jarmers Square, Copenhagen, Denmark (Grant Associates)**

Figure 33 **Shared space at junctions to slow traffic and promote pedestrian movement, Poynton (Grant Associates)**
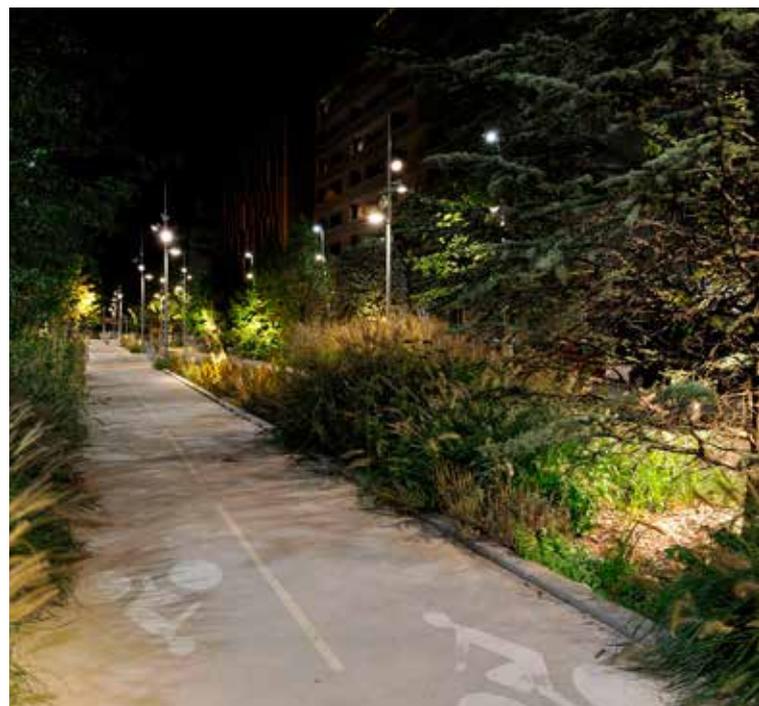
Figure 34 **Dedicated cycle routes with planted verges and street lighting, Boulogne, France (Grant Associates)**

- Other points of pedestrian and cycle connections will be provided around the remainder of the site perimeter to take account of Public Rights of Way, footpaths and other desire lines.

- The site will have both commuter and leisure trails for cycling. Routes adjacent to main streets will have segregated walking and cycling infrastructure, including a 3m wide segregated cycling lane. Leisure routes linking urban areas within the site would have a shared footway / cycleway width of 3 metres.

- Routes will need to accommodate provision for electric bikes (or low carbon alternatives), subject to legislation and these modes will need to be a key consideration within the design.

- The site will facilitate improved connections to Springbank and Hester's Way, Cheltenham Station and the town centre beyond, in accordance with the Connecting Cheltenham strategy. A continuous and high quality off-carriageway link to Cheltenham Rail Station will be provided linking to the site from the southern access and via Telstar Way and the A40. Signage and road marking improvements for cyclists will be considered within existing residential areas to further encourage and facilitate sustainable travel via direct routes.

- Fiddler's Green Lane offers scope to provide enhanced cycle connections towards Arle Court roundabout, the park and ride and areas to the south of the site, further strengthening the connections to the surrounding area.

## D3. Creation of an open network of streets and routes which can be managed to meet local needs

- As endorsed through the Connecting Cheltenham strategy, successful places are connected, accessible and open places which are easy to find and easy to navigate. The phased delivery of development at West Cheltenham will establish a network of streets, walking and cycling routes which will ensure new development is fully integrated with, and not separated from, existing adjacent communities.

- The delivery of fully integrated communities, connected in a straightforward manner by legible streets, will enable and support the wider long-term regeneration of the existing neighbourhoods of west Cheltenham.

- Development should generally take a perimeter block form resulting in a clear distinction between private and public space. To ensure walking and cycling movements are shortest and quickest, additional routes away from traffic will offer direct and attractive links between areas within the site.

- Conditions on existing local roads will be a key consideration. New routes will be aligned to provide direct connections to existing neighbourhoods. These routes will be managed to ensure the impact of new development on existing neighbourhoods is acceptable and to prevent 'rat running'.

- Analysis tools such as Space Syntax or similar should be used to assess levels of connectivity and integration. The Transport for New Homes checklist may also be useful in this assessment.

Figure 35 **Potential future bus routes**

Key

- ▬ A routes
- ▬ B route
- ▬ C route
- ▬ F route
- ▬ 41, 42 route
- ▬ 94 route

Potential improvements to M5 J10 proposed
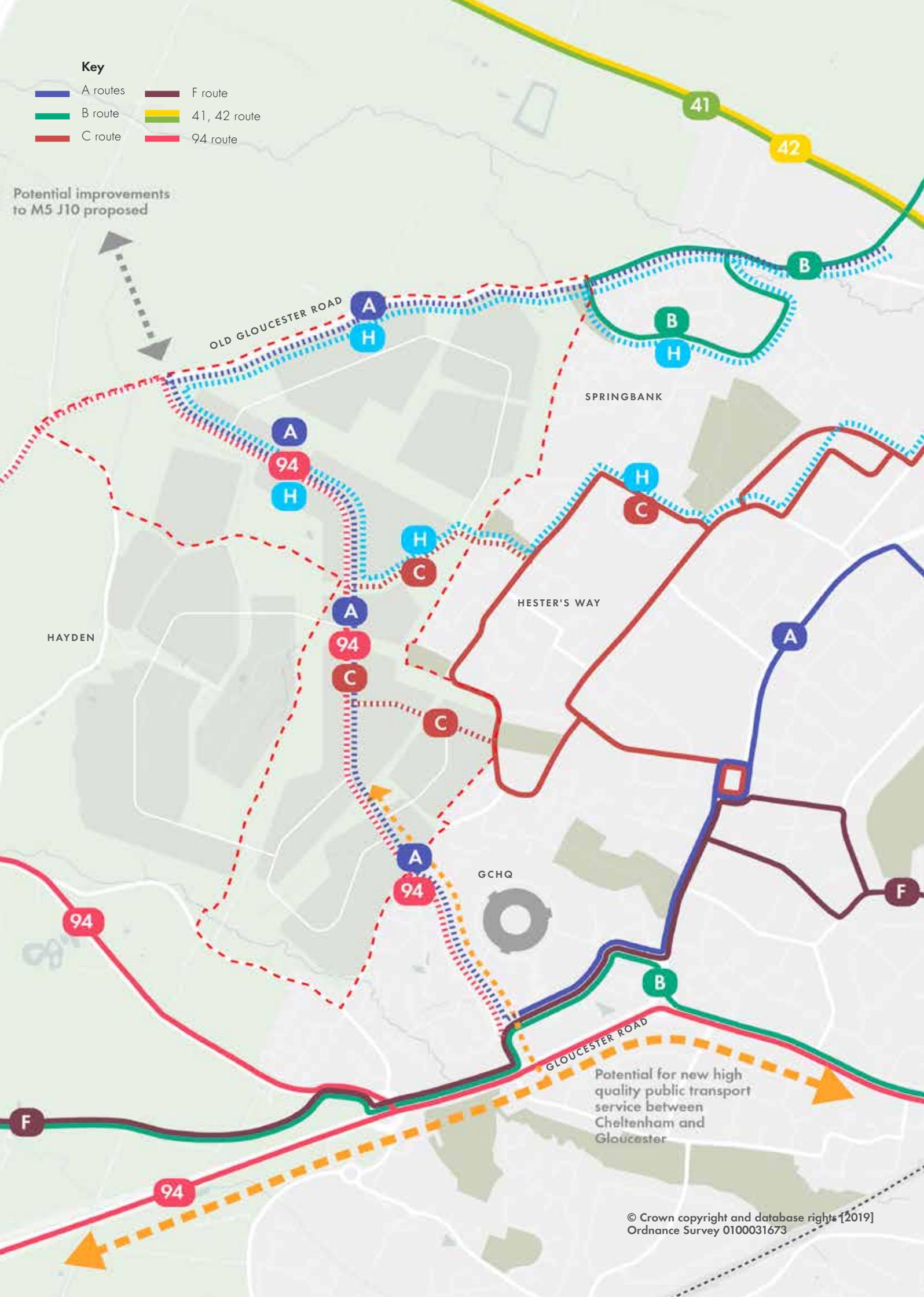
OLD GLOUCESTER ROAD

SPRINGBANK

HESTER'S WAY

HAYDEN

GCHQ

GLOUCESTER ROAD

Potential for new high quality public transport service between Cheltenham and Gloucester

41

42

D4. Delivery of a new 'main street' between Telstar Way and Old Gloucester Road, designed as a street for people, not a road for vehicles

- The site will accommodate a main street connecting Telstar Way with the anticipated new road linking to an improved 'all directions' M5 Junction 10 to the north. The nature of this key piece of infrastructure through the site will play a very significant role in determining the character of West Cheltenham.

- This 'main street' should not be viewed as a high-speed direct route through the site, but as an integrated part of West Cheltenham, with mixed-use development providing frontage activity along its length.

- It will be designed to slow vehicle speeds through the site and encourage walking, cycling and public transport through the provision of footways, 3m cycleways and bus priority measures along its length.

- Subject to detailed design and capacity constraints, the main street should be a single carriageway road with a design speed of 30mph and straight sections would be of a short length to assist in enforcing low vehicle speeds. Frontage activity and side junctions will also assist in reducing vehicle speeds. It would incorporate at-grade pedestrian crossings and bus stops.

D5. Principal junctions should be designed to minimise land take and create safe and direct crossing points for pedestrians and cycles

- The key junction at the southern end of the site will be designed to give priority to pedestrian and cyclist movements. The walking / cycling routes will continue onto Telstar Way and provide a continuous pedestrian / cycle link between and within the site and onto the A40 and the wider area.

- The key junction in the north of the site would tie into the proposed M5 J10 link road. The J10 link road is proposed as a dual carriageway and the site access could either be a roundabout or signalled junction. A roundabout would allow for a transition from single to dual carriageway, as well as acting as a traffic calming measure to slow vehicle speeds entering and exiting the site. Formal crossings will be provided on the key arms of the roundabout to facilitate crossing movements, although pedestrian and cyclist activity is likely to be lower at this location than at other accesses across the site.

- Where further vehicular access points are provided, priority will be given to walking and cycling movements. Further connections directly into the existing Hester's Way and Springbank areas will be provided to ensure the site is fully permeable and integrated into the existing community. These links will encourage walking, cycling and public transport.

- If feasible, vehicle connections could be provided although these would need to consider the impact of vehicle movements on existing local streets and pedestrian / cycle environments.

D6. Provision of safe routes to schools, which will be provided within or beyond the West Cheltenham site

• Safe routes to local schools will be delivered through the network of walking and cycling routes within the site and numerous connections to the existing areas. These routes will provide dedicated, safe, direct, overlooked and well-lit routes which connect externally to the Springbank Primary Academy, St Thomas More Primary School, All Saints Academy as well as the required new primary school within the West Cheltenham site and the planned new secondary school at Elms Grove to the north.

• Where access across main roads is required, good quality dedicated controlled crossings will be required.

D7. A flexible and creative approach to the application of parking standards and emerging and new vehicle technologies and initiatives

• Attitudes towards car use and ownership are changing. Levels of car ownership, particularly for younger people, are generally falling and car hire services (car clubs) are becoming increasingly popular in built up areas. These changes are helping to reduce reliance on the private car and development at West Cheltenham will positively take account of the opportunities these trends raise.

• The planning system, and the local authorities' response to planning applications submitted in response to this SPD, will need to respond to these rapid societal changes as plans are prepared and reviewed and as standards are revised. The special and unique nature and scale of the development at West Cheltenham provides an opportunity to take a fresh and bespoke approach to the application of parking standards, supported by a robust management regime.

• Flexible and innovative approaches to the provision of residential parking will be encouraged, including implementing unallocated parking on-street parking, particularly in high density areas. Flexible parking between employment and residential uses will be introduced to maximise the use of the same parking spaces during different periods of demand. This will help to ensure that development is more resilient to the ongoing changes in personal mobility and vehicle technology, thereby helping to future proof the long-term phased delivery of the development as a whole.

• The development will be supported by good electric bike and car charging facilities and hire schemes (subject to legislation). A cycle parking and hire scheme 'hub' will be provided to encourage cycling throughout the site. It will be highly attractive to cycle within and around the site utilising the extensive network of dedicated routes.

• Provision of a decked parking structure will be supported within the Cyber Central campus hub. This will provide parking capacity for the new employment uses and the wider development as a whole. Large expanses of surface parking will not be permitted.

• Parking management measures such as Controlled Parking Zones and contractor parking strategies may be required to help protect local residents from the impacts of new development. This would reduce the attractiveness of travelling by car to workplaces and encourage and enhance sustainable travel behaviour.

7 Promoting the highest standards of design quality

7.1 Introduction

7.1.1 Although there is one overall vision for the Cyber Central Garden Community, there will be a range of neighbourhoods within the area which should each have a distinctive local identity.

7.1.2 This section provides some specific design guidance about a number of site wide themes including densities, building typologies and developing locally distinctive places within Cyber Central that are 'friendly relatives' of the regency character of the town centre.

7.1.3 Principle E3 expands the description and zooms in to a number of key locations within the adjacent neighbourhoods to help communicate the varied character and identity within Cyber Central Garden Community. This guidance is set out within four themes; streets and movement; character and scale; landscape and public realm; and uses and activities. The Local Planning Authority will require design review to be built into the pre application and application process with appropriate time built into the process to allow recommendations to inform the detailed masterplanning process.

7.1.4 The adjacent plan is numbered to highlight some of the key neighbourhoods within the Cyber Central Garden Community at West Cheltenham.

1 **Cyber Central neighbourhoods**
Focus of the employment-led mixed-use zone with a strong physical relationship with GCHQ. Vibrant and thriving within a high-quality landscape setting dedicated to the development of cyber technology research. Cyber Central neighbourhoods will form the heart of the community, with shops, a public square, leisure spaces and community uses

2 **Main Street neighbourhoods**
A collection of accessible smaller mixed residential neighbourhoods and employment areas along the main street through the Cyber Central Garden Community

3 **Old Gloucester Road neighbourhoods**
Mixed use residential neighbourhoods with shared community facilities including a new school and public open spaces for new and existing communities

4 **The Works - Future neighbourhoods**
See Chapter 8 for details

OLD GLOUCESTER ROAD

SPRINGBANK

3 Old Gloucester Road
neighbourhoods

2 Main street
neighbourhoods

HAYDEN

HESTER'S WAY

4   The Works - Future
neighbourhoods

1   Cyber
Central

GCHQ
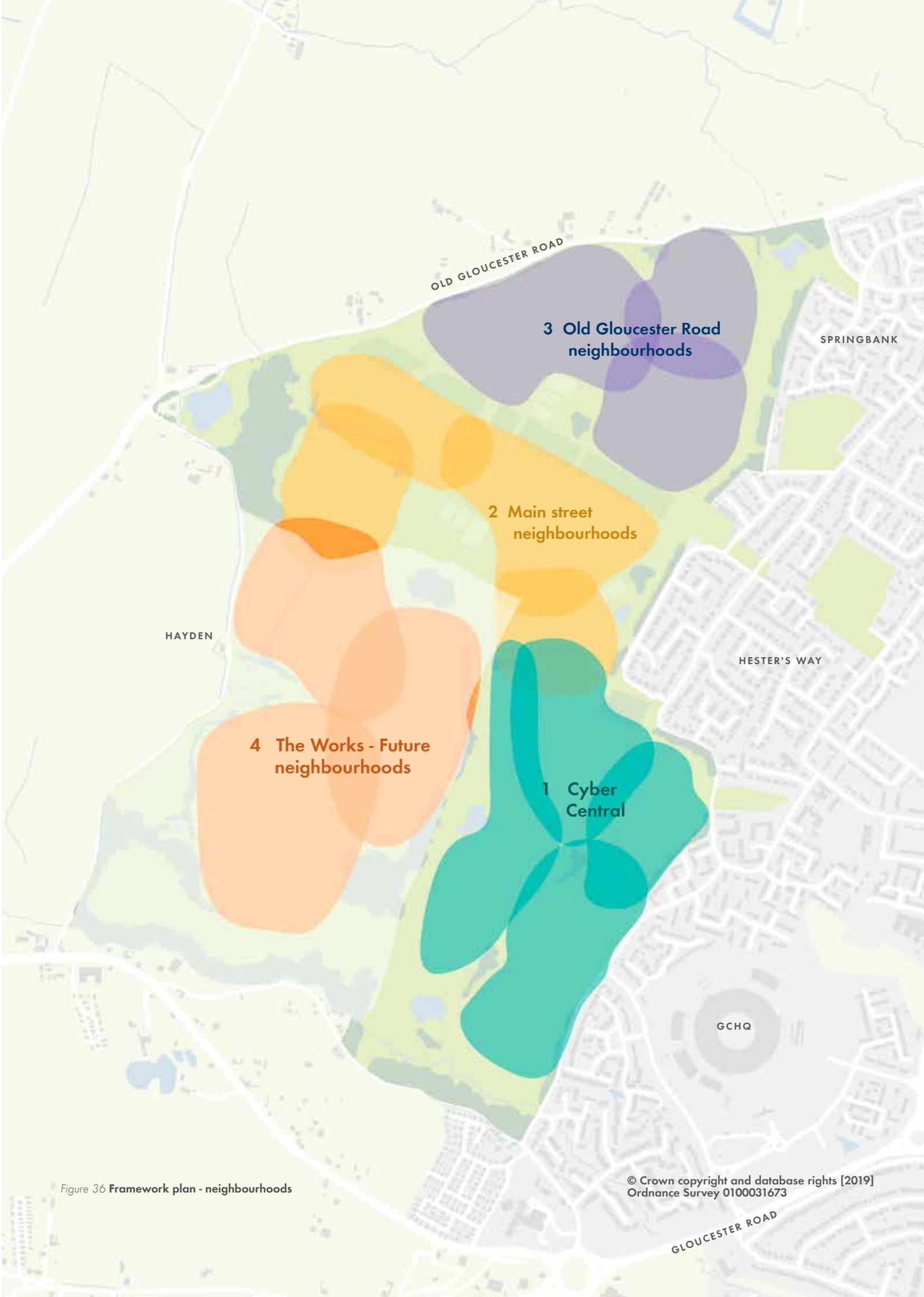
Figure 36 **Framework plan - neighbourhoods**

GLOUCESTER ROAD

7.2 Key character and placemaking principles

E1. New development will deliver a range of housing densities and typologies to ensure effective use of land is made

7.2.1 Releasing land from the green belt can only be done in exceptional circumstances. The case was made through the preparation of the JCS that the opportunity presented by West Cheltenham to deliver a new highly connected, diverse and mixed use sustainable garden community was an exceptional one.

7.2.2 To justify this position and ensure that the optimum use of land is made, housing typologies should be mixed to ensure there is a range of tenures and forms of housing to meet a wide range of needs.

7.2.3 The guidance provided below demonstrates the range of housing typologies considered to be appropriate for the Cyber Central Garden Community. The densities outlined are higher than those found in the immediately adjoining neighbourhoods, but higher densities will help to ensure best use is made of the new infrastructure provided.

7.2.4 Within the best connected and most diverse areas, housing typologies that deliver higher densities will be most appropriate, including more apartments, stacked maisonettes, town and terraced houses. Other neighbourhoods further away from services will also need to deliver a range of higher densities through housing typologies including mews, terraces, town houses and semi-detached properties.

3) Old Gloucester Rd neighbourhood			1) Cyber Central		
	2) Main street neighbourhood				dph
20 30	40	50	60	70	80+
DETACHED HOUSES	SEMI-DETACHED HOUSES	MEWS HOUSES AND TERRACES	TERRACED HOUSES/TOWN HOUSES/FLATS	STACKED MAISONETTES/ FLATS	FLATS
Typically 2 storeys	Typically 2 - 3 storeys	Typically 2 - 3 storeys	Typically 2 - 4 storeys	Typically 4 - 5 storeys	Typically 4 - 7 storeys
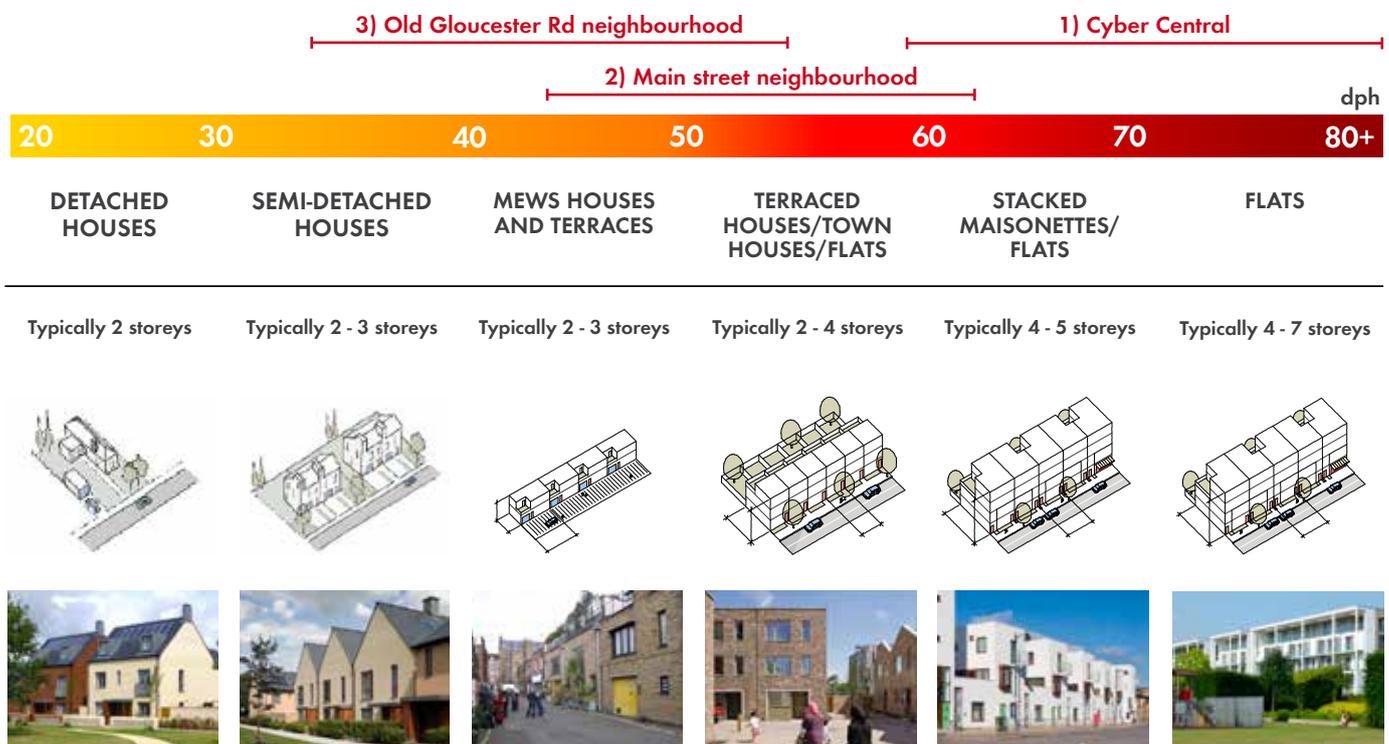
Figure 37 **Density and typology spectrum**
This spectrum illustrates the range of housing typologies and their likely densities which should be promoted within each of the neighbourhoods within the Cyber Central Garden Community (Allies and Morrison)

Figure 38 **Plans and photos of Goldsmith Street - diverse housing typologies, quality spaces and architecture (© Mikhail Riches)**

Goldsmith Street, Norwich

The 2019 RIBA Stirling Prize winning residential scheme for Norwich City Council at Goldsmith Street provides a good practice precedent as a higher density, environmentally friendly Passivhaus, Council-led residential scheme of exceptional design quality:

Numbers:

- 45 houses and 60 flats

- 112 dwelling per hectare / 1.04 FAR density

Block types:

- Typically two storey houses with three storey roof pop-ups and corner blocks

- Corner blocks consisting of flats with their own front door to the street, generous lobby for prams and bikes and private balconies.

Street widths:

- Typically 3.5m front gardens/space, 3.5m pavements, and 4m road (generally 12-14m front to front dimensions). Dimensions are tighter than allowed by policy but precedents from Norwich's historic terraced street typologies are used as precedents to justify local distinctiveness.

- On street parking conditions (2.5m parking with a smaller 1.5 pavement)

Character and open spaces:

- Secure and shared 'ginnels' between back gardens to encourage children to play together and a wide landscaped walkway within the street

- Materials to reference the city's history - black roof pantiles, creamy clay bricks.

- Passivhaus standards, consideration of building orientation, sun shading and recessed windows.

- Only residential use - no integration of employment or community spaces

E2. New development will look to local precedent in Cheltenham to help deliver locally distinctive forms of development

7.2.5   Cheltenham has a rich and diverse built character which provides exciting opportunities for contemporary architecture that does not slavishly copy its past. Opportunities should be taken to create sophisticated contemporary 'relatives' of the existing buildings and townscape. Future planning applications should deliver high architectural quality that is 'of Cheltenham' using robust and locally distinctive materials that celebrate the special mix of Victorian and regency proportions in the town. Some examples from Cheltenham which set out a number of key learning points for Cyber Central Garden Community are highlighted here:

Figure 39 **A dense four storey typology with use of stone - a modern relation to the rhythm of the regency Cheltenham style (Bath, Alison Brooks Architects)**

Royal Crescent

Numbers: 75 homes within 0.6ha = 125 dph

Description: Grand regency crescent in the town centre. 3.5 to 4.5 storeys with half basements and some roof extensions.

Street widths: Half basements and grand entrance staircases provide set back space from street (around 2m). 3m pavements and 12m carriageway with on street chevron parking.

Learning for West Cheltenham:

- A typology to deliver higher density development, but in a style that is 'of Cheltenham'

- A typology that is flexible and resilient and can be houses, apartments or offices.

- A precedent for restrained but consistent facade decoration and features including balconies, window proportions and materials.

Victoria Place

Numbers: 55 homes within 0.74ha = 74dph

Description: Two storey Georgian terraced homes stepping up to larger houses at the end of the blocks, terraced and back to back gardens.

Street widths: 0-3m gardens, 1.5m pavements and 7.5 - 9m carriageway with on street parking. 12 - 18m building front to front.

Learning for West Cheltenham:

- Mixed use at the corners of blocks and some internal yards to incorporate employment spaces.

- Range in house sizes within a block - narrow two bed terraced houses alongside larger double fronted homes.

- Narrower streets with on-street car parking to make best use of land and help increase densities.

Albert Street

Numbers: 110 homes within 1.11ha = 99dph

Description: Very narrow Victorian two storey terraced homes with more prominent corner plots, alleyways for access at rear.

Street widths: No front gardens, 1.5m pavements and 6.5m carriageway with on street parking. 9 - 12m building front to front. 3.5m alleyways at rear.

Learning for West Cheltenham:

- Sustainable building typology due to efficient use of land and potential for well insulated forms.

- Bins and bikes are stored at rear and accessed via alleyways to reduce the overall street section.

- The character of the street is defined by the rhythm of the facade treatment.

- Homes were built with basements/cellars, many of which have been converted to living space.

7.3   Character studies

E3. New development will contribute to the distinct character of its neighbourhood whilst delivering the overall vision for Cyber Central Garden Community

7.3.1   This section contains character studies of our contrasting areas across the Cyber Central Garden Community. The three areas have been chosen to correlate with the three character areas (with the exception of the Hayden Works site) identified in Figure 41. They are as follows:

1   The Cyber Central cluster area, the area's principal arrival point, community hub with services and facilities;

2   The Gloucester Road neighbourhood, a predominantly residential area to the north of the site.

3   The main street area, a mixed use area with some employment uses and residential uses, centred around a main through route passing through the heart of the site; and

7.3.2   For each area the following design and development guidance is provided.

- An illustrative site plan - this is not a blueprint but a guide to demonstrate important principles and opportunities for the area.

- Urban design guidance relating to streets and movement, character and scale; landscape and public realm; and land uses and activities.

- An annotated artist impression or CGI view of each neighbourhood to help communicate an appropriate scale and character for new development and provide a vision for the public realm in each area.

Figure 40 **Temple Gardens, Temple Cloud, Bristol. Reinterpretation of traditional forms and fenestration with use of brick and stone window surrounds. A design that feels rooted in place without resorting to pastiche. (Archio)**

OLD GLOUCESTER ROAD

SPRINGBANK

HAYDEN

HESTER'S WAY

GCHQ
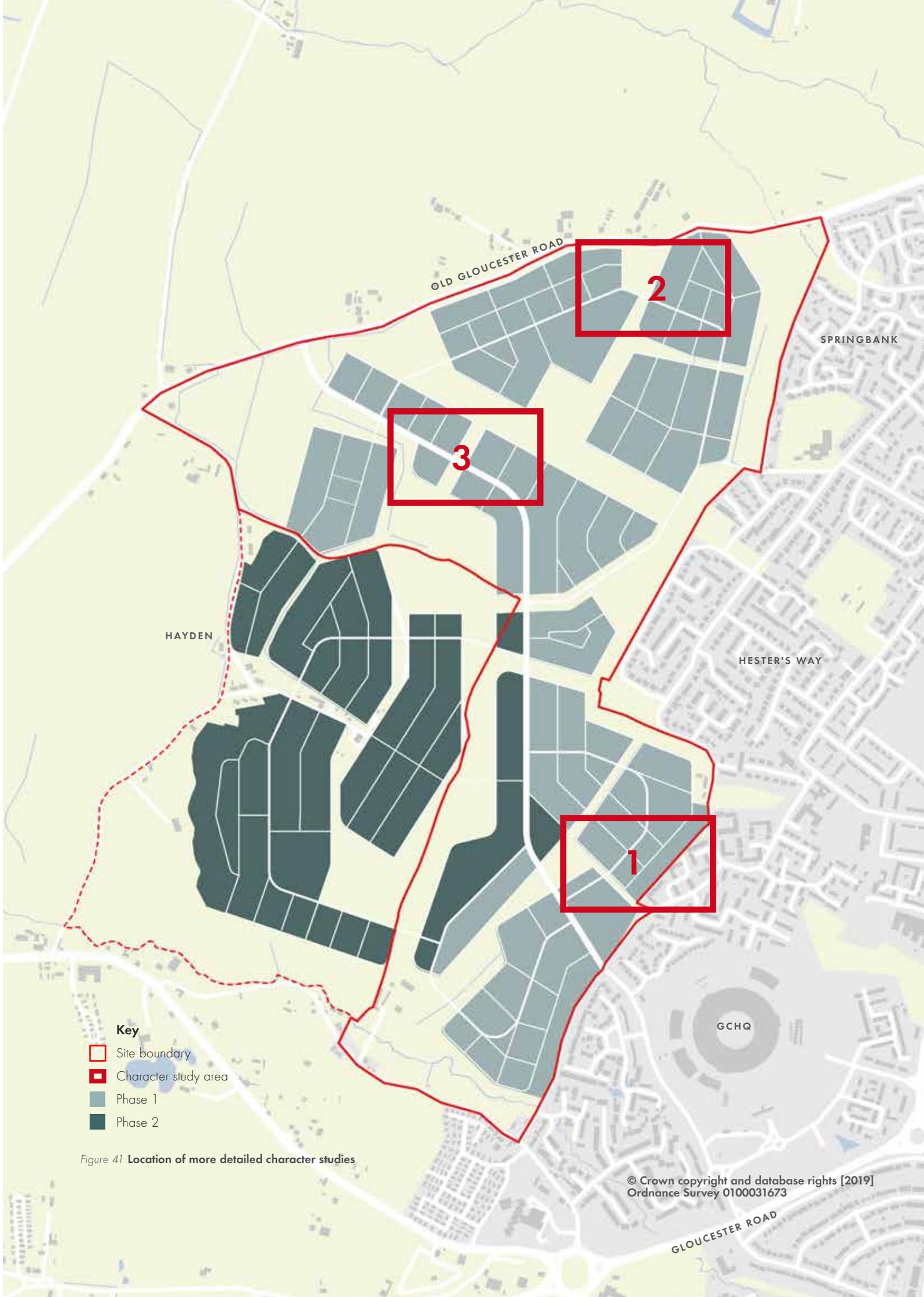
Key

Site boundary

Character study area

Phase 1

Phase 2

Figure 41 **Location of more detailed character studies**

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Ordnance Survey 0100031673

GLOUCESTER ROAD

7.4 Place 1: Cyber Central hub

Indicative layout plan

7.4.1   Figure 42 shows an indicative prospective layout plan for part of the Cyber Central hub, the principal gateway to, and community hub for, the new garden community. The annotations on the plan provide an overview of some of the more important opportunities that any proposals coming forward will be expected to respond positively to.

Streets and movement

1   A tree lined boulevard will be the principal connection for vehicles and buses to Telstar Way and the wider Hester's Way Neighbourhood. This will have active frontage provided by the mixed use buildings and have an easily navigable route for pedestrians and cyclists.

2   A new signalled junction at the main entrance to the site will have a smaller land take and allow new development to have a stronger street frontage, as well as delivering a more cycle and pedestrian friendly environment.

3   Scope for a multi-storey car park will ensure that enough car parking is provided to serve employment uses. Car parking in this form, rather than surface car parking, allows the land to be intensively uses and the environment to not be dominated by tarmac.

4   A high quality and regular bus service will make this sustainable mode an obvious choice to get to Cyber Central. A pull-in area will allow people to be dropped in the most convenient location and allow a shuttle service to the station to easily operate.
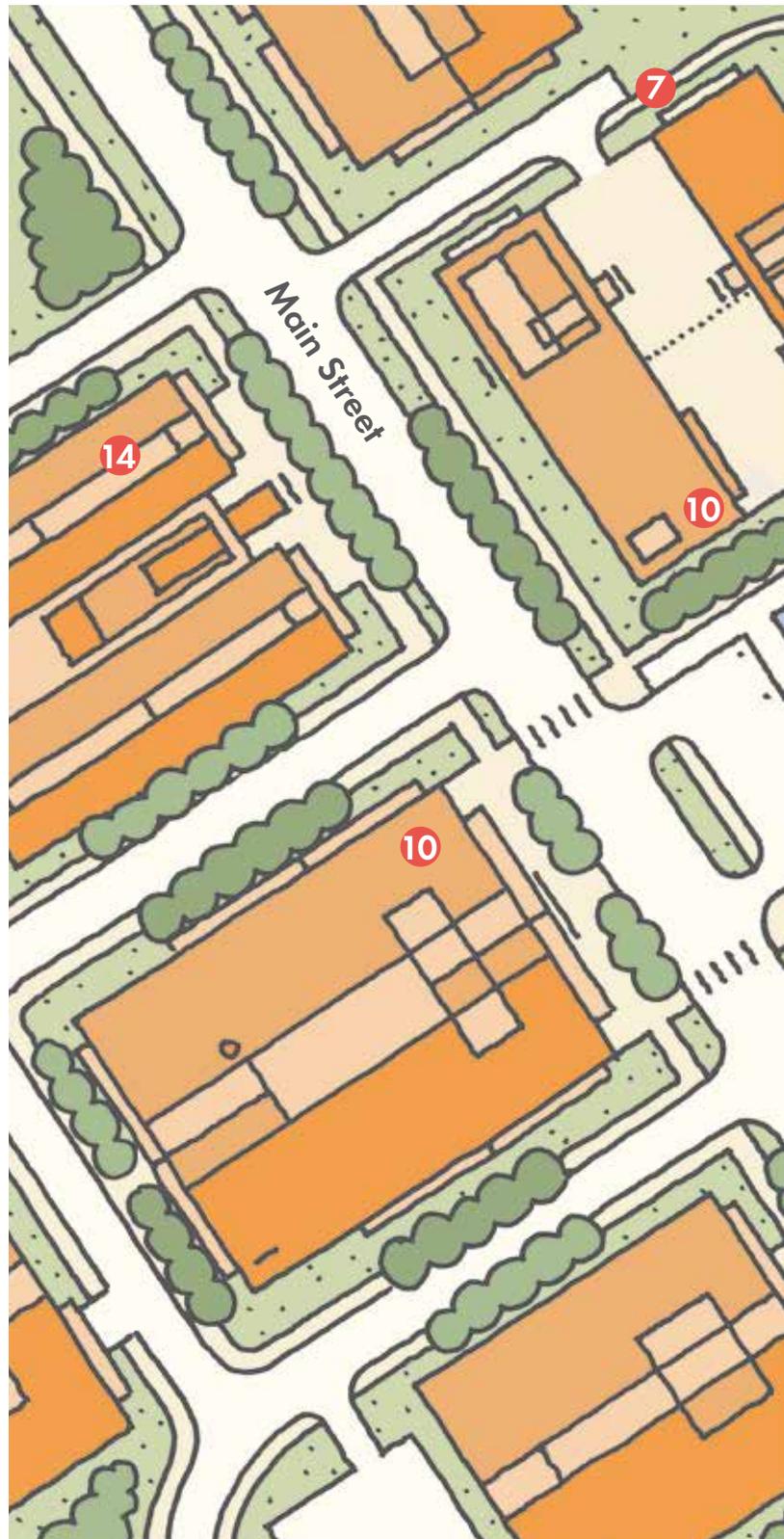
Figure 42 **A sketch plan illustrating the character and identity of the neighbourhood at the threshold of Cyber Central, with the existing area at Telstar Way. These high level sketches are designed to give an indicative sense of the character of the place. Their purpose is not to provide detailed design guidance on street layout, building design or layout (Allies and Morrison)**

Fiddler's Green Lane
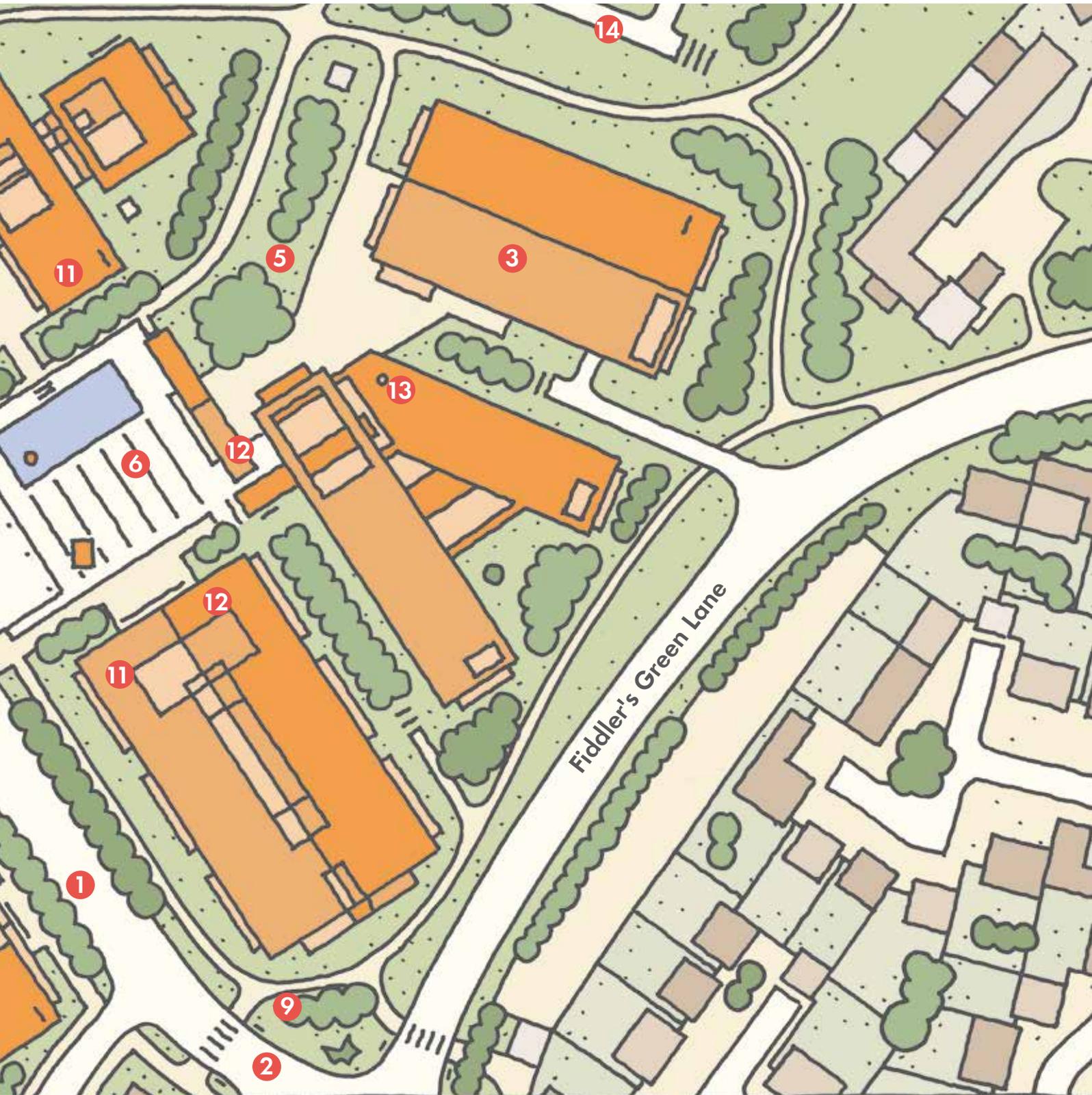
Landscape and public realm

5 The high quality landscape setting will be a key part of what sets Cyber Central apart. Its landscape will be part of its distinct identity and will be a key attractor to new businesses locating here.

6 A hard landscaped event spaces will allow festivals, markets and community events and help signpost the 'heart' of cyber central, adjacent to the Innovation Centre.

7 A network of off-road cycle and pedestrian routes will provide direct connections between buildings, through the green infrastructure network.

8 New buildings will make intensive use of the land, whist balancing the need to deliver appropriate green infrastructure and create high quality streets and spaces by enhancing the existing assets within the site such as mature trees and waterways.

Character and scale

9 A distinctive and exciting threshold for the Cyber Central Garden Community. A high quality point of arrival where new buildings will have a positive relationship with this important corner. Public art and high quality landscaping will help mark the arrival.

10 Generally mixed use buildings will range from three to six storeys and will vary in scale and proportion to deliver the required range of uses. The grain of this area is likely to be coarser than other areas of Cyber Central Garden Community with larger and taller buildings, given the focus of employment mixed-use intended within this area.

Figure 43 **The Kings Cross masterplan is a framework for incremental mixed use with spaces and routes driving placemaking (Allies and Morrison)**

Land uses and activities

11 The Cyber Central hub will be home to a Innovation Centre - a flexible workspace facility to be shared with representatives from industry, academia and government. This facility will occupy a prominent location in the heart of Cyber Central, surrounded and supported by a wide range of uses and facilities within a high quality landscaped environment.

12 Shops, cafes, bars, restaurants, community and other leisure uses will be incorporated into buildings to serve employees and local residents and provide activity to streets and spaces.

13 Other uses such as hotels will be incorporated into this part of Cyber Central, serving the business community and local residents

14 Residential uses will also be located within the immediate area. These new homes are likely to be a mix of flats and town houses

Figure 44 **New development in Hereford creates mixed use streets and spaces delivering shops, leisure and employment uses within characterful buildings that are locally distinctive (Allies and Morrison)**

Figure 45 **A CGI of what the Innovation Centre at Cyber Central could look like (for illustrative purposes only) (Allies and Morrison)**

Residential areas are mixed with more employment focused streets to ensure that people are in Cyber Central throughout the day and into the evening

The high quality landscape is a distinctive part of the identity of Cyber Central

Shops, cafes, hotels and leisure spaces bring activity to Cyber Central - making it a 24 hour campus

The Innovation Centre is a landmark building and will be the most prominent address in Cyber Central. Event and meeting spaces, support services and public cafes make the building the hub of the campus

Hard landscaped spaces have been created that provide the platform for an exciting programme of events throughout the year, animating the public realm

An electric bus shuttles people into Cheltenham and to the station

Figure 46 **An artist's impression of what the Cyber Central community hub might look like (Allies and Morrison)**

High quality cycling infrastructure will help to encourage residents and commuters to choose other means of transport than the private car

Ground floors that provide the street edge with overlooking and activity - to help make streets and spaces feel safer for all uses

Priority is given to sustainable transport modes including bus provision

A range of types of dwelling to meet the needs of a wide cross section of people - including apartments suitably sized for families

New development is set around new high quality public space with area of planting, places to play and spaces for events and activity

New development steps up in height at the corners given the well connected location. Office and employment space in accessible locations which help to create mixed use environments and create footfall throughout the day

E-Cycle Hire

7.5 Place 2: Old Gloucester Road neighbourhood

Indicative layout plan

7.5.1　Figure 47 shows an indicative prospective layout plan of the area proposed for the residential neighbourhoods within the north of Cyber Central Garden Community. The annotations on the plan provide an overview of some of the more important opportunities that any proposals coming forward will be expected to respond positively to.

Streets and movement

1　New properties will actively address the Old Gloucester Road but retain the existing mature trees and hedgerows. Homes will be accessed from lanes within the new development.

2　There will only be a small number of vehicular connections out onto the Old Gloucester Road but regular pedestrian and cycle connections.

3　Bus services will stop along Old Gloucester Road to serve the primary school, existing residents and new homes. Buses will also stop on the main street, a short walk from school. These routes will need to be carefully designed with crossings and wide pavements to ensure safe route to schools.

4　A strong network of Rights of Way and cycle connections will link existing neighbourhoods to the east and out towards the countryside to the west.

5　Residential streets will be delivered through a series of connected streets (not cul-de-sacs). Residential parking will be provided in a range of ways including integrated garages, on-plot and on-street spaces.


Figure 47 **A sketch plan illustrating the character and identity of neighbourhoods near Old Gloucester Road. These high level sketches are designed to give an indicative sense of the character of the place. Their purpose is not to provide detailed design guidance on street layout, building design or layout (Allies and Morrison)**

Old Gloucester Road

Character and scale

6 The scale and grain of this area will be more modest in comparison to areas of Cyber Central to the south nearer Telstar Way. Buildings will generally be two to four storeys with scope for taller buildings on key corner plots or for significant locations and uses.

7 Employment uses, leisure and community facilities such as schools will need larger land parcels and buildings.

8 Residential streets will have a more intimate scale which may be shared space or home-zones to incorporate green infrastructure, play spaces, and car parking.

9 Residential typologies will vary which will influence the character and scale of streets. Some streets will be denser with flats and town houses, whilst other areas will incorporate slightly lower densities to include terraced houses and semi-detached homes. This variety will be important to deliver a varied and interesting neighbourhood as well as meeting a variety of housing needs.

Figure 48 **Residential neighbourhoods must incorporate a range of typologies, tenures and densities. These photos illustrate examples of terraced houses, town houses and flats sitting comfortably within the same street (Allies and Morrison)**

Landscape and public realm

10 New green spaces will be generous and accessible, within the heart of neighbourhoods, overlooked by homes. These spaces will provide opportunities for play, sport and community activities.

11 Existing green infrastructure such as mature trees and waterways will influence the structure of new spaces and green routes.

Land uses and activities

12 A diversity of residential typologies will offer a wide range of high quality and distinctive homes. This should include homes of a complete mix of tenures, including affordable homes, and homes for every stage of life.

13 A primary school and a cafe will be located at the corner of the park, forming the centre of this neighbourhood.

Figure 49 **Lower and higher density housing typologies should always address the street directly with door and windows (Allies and Morrison)**

Figure 50 **An artist's impression illustrating the environment within the residential neighbourhoods in the north of Cyber Central Garden Community (Allies and Morrison)**

New schools and community facilities form the centre of local neighbourhoods

Slightly higher densities at key locations to help improve legibility and support viability of local businesses

Play spaces in central and well overlooked places at the hear of new communities. Places designed for people - that bring people together to help build community spirit

Electric vehicles charging points and e-bike hire docks provide an integrated sustainable travel network

A range of types of dwelling to meet the needs of a wide cross section of people - including apartments suitably sized for families

High quality cycling infrastructure will help to encourage residents and commuters to choose other means of transport than the private car

7.6 Place 3: Main street neighbourhood

Indicative layout plan

7.6.1 Figure 51 shows an indicative prospective layout plan of the area proposed for the neighbourhoods along the Main Street, to the north west of Cyber Central Garden Community. The main street axis will provide the opportunity for a range of uses and activities - employment, community, commercial and residential - to share good quality access. The annotations on the plan provide an overview of some of the more important opportunities that any proposals coming forward will be expected to respond positively to.

Streets and movement

1 Designed as a multi-purpose street not a road designed only to efficiently move traffic along. Although this is likely to be a busy road for traffic, the route will have a priority measures for buses and cyclists to help prioritise sustainable modes.

2 Tree planting, high quality public realm and pavements of a comfortable dimension will help the environment feel like a good street.

3 A number of high quality crossings will allow pedestrians and cyclists to easily cross the boulevard, accessing the linked network of green open public spaces.

4 There will be on-street parking to allow people to easily park to visit friends or local businesses.

Figure 51 **A sketch plan illustrating the character and identity of neighbourhoods along the main street through the area. These high level sketches are designed to give an indicative sense of the character of the place. Their purpose is not to provide detailed design guidance on street layout, building design or layout (Allies and Morrison)**

5   Residential properties will have car parking provided in a range of ways including integrated garages, on-plot and on-street car parking. Segregated access lanes would enable good quality access and frontage if access is restricted from the main street direct.

6   Employment areas will have car parking provided in multi-storey or small decked car parks to make most efficient use of land. In some places, service areas and small parking courts may be provided if well landscaped and carefully designed, away from the primary frontage.

Character and scale

7   The scale of development should step up towards the main street to balance the scale and width of this street. This might include development of four and five storeys in some areas.

8   Generally residential neighbourhoods located along the main street will consist of a range of typologies from flats and terraced homes in the most accessible locations, to semi-detached homes in more secluded locations.

9   Employment buildings will be mixed in typologies from small office buildings to semi-industrial sheds, coarser and larger in grain and footprint.

Figure 52 **Glider bus, Albertbridge Road, Belfast**

Figure 53 **Southwark Street is a busy traffic route with regular buses and heavily uses as a route for cyclists. Tree planting, pedestrian crossings, cycle parking and high quality public realm create a positive street environment (Google)**

Figure 54 **Signage, planting and a changes in surfacing indicates that the street is a Home Zone, a residential space designed to be safely shared by people, children and vehicles (Northam Home Zone)**

Landscape and public realm

10   A meadow grassland public space is established under the existing pylons axis to the rear. See National Grid design guidance for support and ideas on the potential design and uses for this these spaces (https://www.nationalgridet.com/document/130626/download).

11   To the south of the main road is a nature reserve that is publicly accessible but intended to be a quieter area with varied habitats.

12   Existing landscape assets such as waterways and mature trees have shaped the development coming forward and have influenced the proposed connected future network. A small stream is retained and enhanced and will form an attractive feature between more employment and residential focused areas.

Land uses and activities

13   Accessible areas of mixed employment are located here, with good access to the proposed road to the M5 junction.

14   Residential areas of mixed tenure and type are accessed from the main street through the site.
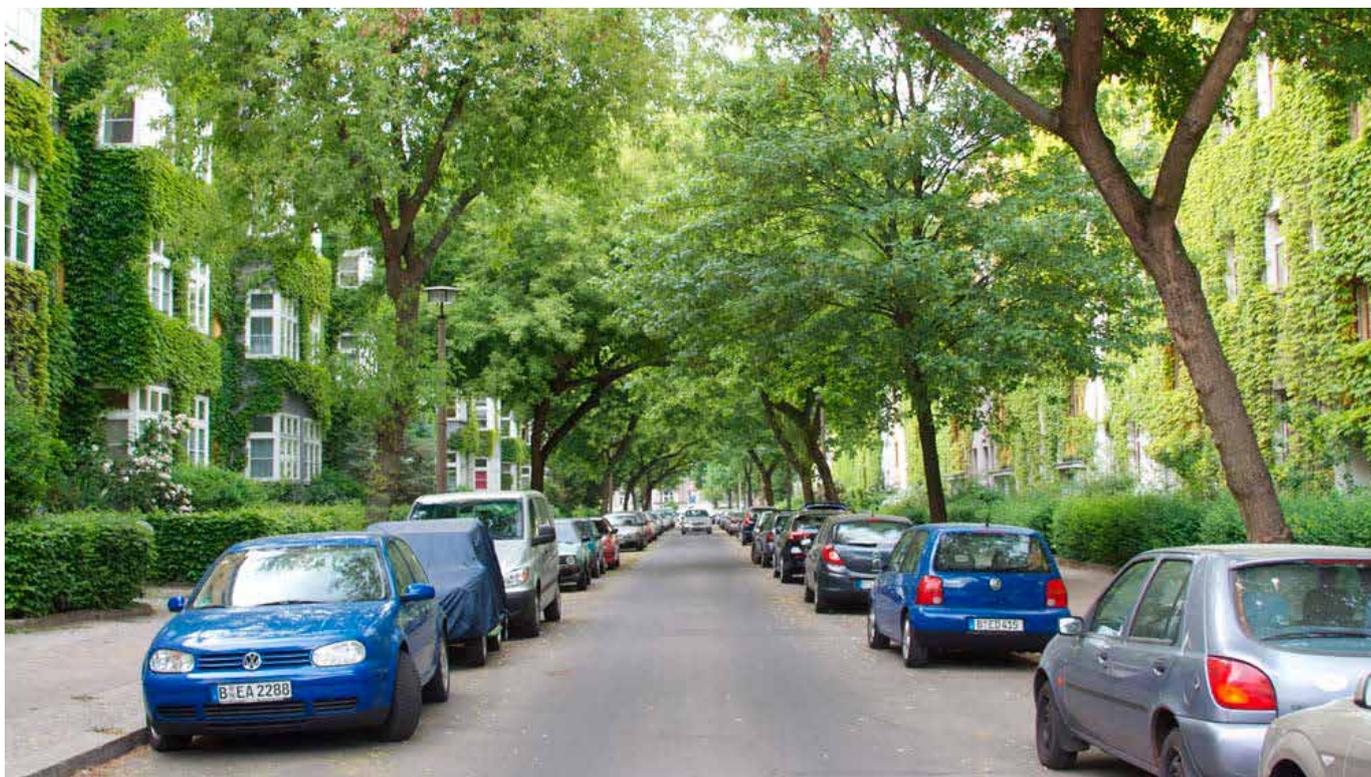
Figure 55 **Tree lined streets with on-street parking provides a flexible and space efficient way of meeting parking demands (Grant Associates)**

Figure 56 **An artist's impression illustrating the environment along the main street through the Cyber Central Garden Community (Allies and Morrison)**

Employment spaces provide activity to the main street and are a mix between small offices, workshops and semi industrial space

A green route connects across the street, linking two new open spaces, following the line of an existing water course

A cycle and bus only lanes means that sustainable transport modes have priority and are appealing to use

On street parking allows visitors to homes and businesses to easily stop

New homes provide activity to the street and have their front doors facing this main route

Pavements are provided all the way along the road with high quality materials and landscaping

8 Longer term phases of growth - Hayden Works site

8.1 Introduction

8.1.1 Through the adoption in December 2017 of the JCS, the Hayden Sewage Treatment Works (HSTW) site, whilst not forming part of the West Cheltenham strategic allocation under Policy A7, was removed from the Green Belt and earmarked as 'safeguarded land'. This policy shift was made in view of the longer-term opportunity to bring the works site forward for redevelopment as part of the Cyber Central Garden Community. It is anticipated that the site will be included in the emerging JCS first review, as a forthcoming site allocation. If the JCS review is adopted by 2021, this would require extending the plan period to at least 2041.

8.1.2 To do so, the existing operational treatment works would need to be suitably relocated. This would be an expensive and complex operation, but if a suitable and viable alternative location can be agreed and the replacement facility is made operational in advance, the release of this site for redevelopment would potential deliver significant benefits. Further technical assessments (such as Odour Modelling and Contamination Assessments) will be required to aid the delivery of the allocated land. It is accepted that the delivery of homes and employment space on the allocated land will come forward well in advance of that on the safeguarded land. Appropriate provision of infrastructure must therefore be considered at a wider strategic level. Principles set out in Part B of this SPD shall inform the delivery of development on the 'wider site' as a whole, potentially delivering circa 3000 homes and 50ha employment land up to 2041 over both the strategic allocation and the safeguarded land as a whole.

8.1.3 Redevelopment of the works site at Hayden would contribute positively to many of the key objectives for the Cyber Central Garden Community development at West Cheltenham. Reflecting on each the key objectives outlined in the preceding chapters, this section provides an overview of the positive contribution redevelopment of the site could make to the Cyber Central Garden Community. Should this site opportunity come forward for development earlier than expected, any new development must be fully considered and tested against the context of the policy requirements set for the wider existing allocation including this SPD. Furthermore, at whichever time the site does come forward any new development is expected to conform to the design principles set out in this SPD.

The adjacent plan is numbered to highlight some of the key points relating to the longer term phases of growth for West Cheltenham, as follows:

1   A natural extension of the Cyber Central Garden Community development, with on principal road but two access points. This principal vehicular route would be suitable for bus services.

2   Landscape features will provide high quality landscape setting between different phases of development and help to reduce the impact of the redevelopment of the Hayden Works site on adjacent residents.

3   A permeable network of routes will provide access to all parts of the development and help to shorten walking distances between destinations thereby helping to encourage active and sustainable travel choices.

4   Access for pedestrian and cycles only will be possible via Hayden Lane. There will be no car access to the redevelopment via Hayden Lane.

5   New development should respect the rural character and scale of Hayden Village.

6   Hayden Knoll farm house is retained, with development to respect the setting and amenity of this existing building.

Figure 57 **Illustrative masterplan - longer term phases of growth**

8.2 Key principles for Hayden Sewage Treatment Works site

SUSTAINABILITY - Embracing the highest standards of environmental sustainability

8.2.1 Redevelopment of the HSTW site does present exciting opportunities to continue a further phase of growth within the Cyber Central Garden Community. The latest technologies should be employed to reduce water and energy consumption of new development and the Smart Cities objectives within this SPD should be considered for the HSTW site.

LANDSCAPE - Working with the natural landscape and its features

8.2.2 Earlier phases of development are likely to have put a landscape structure in place which forms the basis of the establishment of a country park on the western side of the site. The availability of the HSTW site will underpin the establishment of a country park. Existing landscape assets and features will be retained where possible to help influence the form of development. In particular, existing hedgerows, trees and the mature features along the Hatherley Brook should be retained to help ensure new development is appropriately integrated with existing communities.

MOVEMENT - An integrated and connected extension of West Cheltenham

8.2.3 A permeable and connected network of streets and lanes will allow the later development of the HSTW site to be fully integrated with the development at Cyber Central Garden Community. New communities within the site will benefit from infrastructure which supports active and sustainable travel choices. New dwellings will be supported by vehicle charging points, which will be designed to have dedicated space for bicycle storage and will have access to the use of environmentally friendly vehicle hire schemes. The area will also be served by appropriate extensions to the local bus services.

LANDUSES - A vibrant and diverse range of uses and activities, serving existing and new communities

8.2.4 This objective is not directly relevant to the HSTW site and it is acknowledged that the relocation of the HSTW will be of significant cost and therefore any alternative uses are likely to be residential led in order to generate the required land values. The cluster of cyber-tech uses will be concentrated on the West Cheltenham allocation site. Street design will incorporate sustainable drainage features to ensure flood resilience. New development will be designed to high energy and efficiency standards.

8.2.5 The design quality of both the houses and the public realm and landscape context of development across the HSTW site will be of paramount importance to its long-term environment, social and economic success and sustainability. Garden communities principles, which have underpinned the development of the core West Cheltenham SPD site, will be applied to the design of new housing neighbourhoods across the HSTW site. Fundamental to this is the application of good urban design principles which include creating safe and accessible streets and neighbourhoods, a clear distinction between public and private land, developments which create strong street edges which ensure public spaces are overlooked, and a mix of dwelling types and tenure to meet local needs.

Key

Site boundary

Initial phases

Later phases

Figure 58 **Parcels to come forward within the longer term phase**

OLD GLOUCESTER ROAD

SPRINGBANK

HAYDEN

HESTER'S WAY

GCHQ

GLOUCESTER ROAD
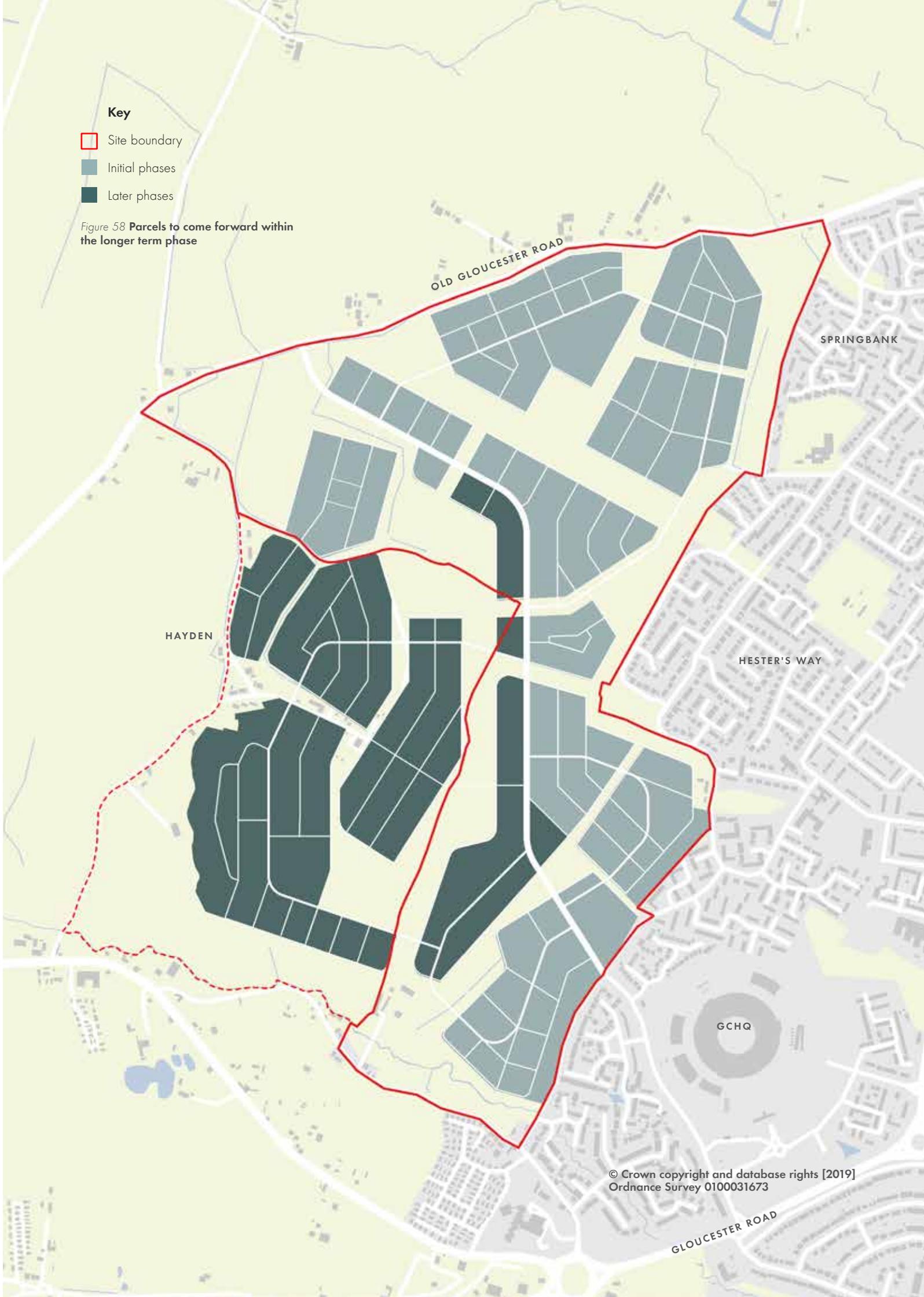
9

NEXT STEPS

9 Longer term phases of growth - Hayden Works site

9.1 Next steps

9.1.1 As established by JCS policy A7, the Councils require a comprehensive and coordinated approach to development. This is in order to deliver the aspirations of this planning framework which is a material planning consideration (and is therefore offered considerable weight in the determination of planning applications), and the wider policy framework including the policies within the Joint Core Strategy and the relevant local plans.

9.1.2 In their role as enablers, the Councils may use their statutory powers including compulsory purchase powers to facilitate comprehensive development and delivery of the site in order to deliver the policy framework.

9.1.3 Cheltenham and Tewkesbury Borough Councils will consider in conjunction with relevant partners, the following key stages (or subsequent stages to be agreed) which will need to be carried out, as outlined in Figure 60.

Validation checklist

9.1.4 In addition to the assessment of proposals against the objectives and principles outlined in this SPD, the following strategies and reports are likely to be required in support of forthcoming planning applications:

9.1.5 Landscape strategy

9.1.6 Utilities strategy

9.1.7 Energy strategy

9.1.8 Maintenance strategy

9.1.9 Employment plan

9.1.10 Other strategies/plans arising from SPD objectives.

Figure 59 **Draft SPD programme**

Stage of Delivery	Task
Stage 1- Mechanism for Delivery	A Delivery Options Report has been prepared for CBC (as landowner) in parallel to the preparation of this SPD to inform the identification of the preferred delivery mechanism for the Council's land in the context of the whole site. This will assist TBC and CBC as LPAs to identify and agree a strategy for physically delivering development on the overall site. This SPD is being informed by a delivery testing model with high level informed inputs to understand the headline position and conditions required in order to ensure that a commercially viable proposition can come forward. However given the high level nature of the masterplan, the SPD is not based on fully costed infrastructure provisions or confirmed planning obligation costs. This analysis will need to take place during stage 2 below.
Stage 2- Pre- Planning Application Submission	Formation of one or more planning applications; pre application discussions with both LPAs, further technical and modelling works will be undertaken, and further public consultation will take place. The delivery of infrastructure and future management of such provision will need to be considered as early as possible in the planning process, this will include the mechanisms for delivery either via Section 106, CIL or other means being established. Given the extent of works required to open up the site these costs are likely to be significant and therefore further viability analysis will be required to identify any shortfalls and where external funding opportunities may need to be explored. Therefore, an Infrastructure Delivery Plan will need to be agreed by developers and landowners prior to the submission of the first planning application on site, this plan will need to set out a timely manner in which infrastructure will be delivered and include site wide phasing and trigger targets. The Delivery Plan will need to ensure that the scheme remains commercially viable and market facing.
Stage 3- Formal Planning Application Submission(s)	Submission of a formal planning application(s); Irrespective of which LPA boundary the application(s) fall in, officers at both CBC and TBC will be provided with an opportunity to comment on technical and design elements of each planning application, based on the requirements of the SPD, national and local planning policy.
Stage 4 - Condition Discharge and Phased Development	Commencement of development and key infrastructure secured through S106 agreement(s) / CIL shall be delivered on site in accordance with the agreed phasing and trigger mechanisms.

Figure 60 **Future stages of work**

9.2 Assessment matrix and Design Review

9.2.1 The masterplan framework, its objectives and principles as outlined in this SPD will be used to assess development proposals as they come forward. To aid this process, all those involved in the preparation, assessment and determination of development proposals are encouraged to use assessment matrix below (Figure 61) to make qualitative assessments of how proposals can be considered to perform against key masterplan principles.

9.2.2 Alongside this process, schemes will be assessed through a formal design review process and, in the case of residential development, through the Design Council Cabe's Building for Life 12 assessment (or current equivalent) and requirement for Building with Nature.

ASSESSMENT RATING

		Red	Amber	Green	
CYBER CENTRAL GARDEN COMMUNITY VISION					
V	Does the proposal accord with the spirit of the Cyber Central vision and would its implementation help to realise this vision?				V
OBJECTIVE A: Embracing the highest standards of sustainability					
A1	Resource efficiency: New development at Cyber Central Garden Community will be net carbon zero (or better) and an exemplar in water and energy conservation and waste management, employing the highest standards of environmental sustainability				A1
A2	Resilience: The design of new buildings, streets, open spaces and other required infrastructure will ensure new development is resilient in terms of flooding and overheating				A2
A3	Connection to nature: Development at Cyber Central Garden Community will enrich local ecology and biodiversity and will take proper account of air quality issues				A3
A4	Community and culture: Cyber Central Garden Community will mature into a thriving and mixed sustainable community, providing jobs, homes and community facilities for existing and new residents in a beautiful landscape setting				A4
A5	Mobility: Cyber Central Garden Community will be an integrated and fully connected extension of west Cheltenham				A5
OBJECTIVE B: A vibrant and diverse range of uses and activities, serving existing and new communities					
B1	Delivered in partnership, a high profile and state of the art 'Cyber Innovation Centre' will be the focal point of the Cyber Central Garden Community				B1
B2	45Ha of mixed-use employment land, focussed around the Cyber Central hub, will provide flexible business space, hotels, retail and leisure provision and cultural and community uses to serve the local community and wider region				B2
B3	A sustainable and deliverable range of housing tenures, including affordable housing and self-build, to meet local needs supported by community infrastructure				B3
B4	Higher densities and a range of dwelling typologies which make the best use of available land				B4
OBJECTIVE C: Working with the natural landscape and its features					
C1	Development must positively integrate existing landscape assets and features and use these features to inform the development of a green infrastructure network for the site				C1
C2	Proposals should respond to views into and out of the site and react to the existing topography and strategic landscape character				C2
C3	Proposals shall include a network of public spaces to meet local open space requirements				C3
C4	A high quality new public space will be provided at the gateway of Cyber Central which will be designed to provide flexible spaces for events and activity				C4
C5	New development should take a creative approach to sustainable drainage to reduce the long-term risk of flooding				C5
C6	Development should promote a strategy for new tree planting and retention of existing species				C6
C7	The boundaries with existing communities, the wider countryside, the sewage works, and between phases of development shall be carefully planned and designed to maximise opportunities for physical and visual integration				C7
C8	The development must promote a positive approach to local food growing through the adequate provision of allotments as part of a wider strategy to meet existing and future need				C8
C9	Proposals should be devised with partners to develop and deliver an innovative public art programme				C9
C10	A management strategy shall be developed across the site to inform the design process and with consideration to longer term sustainability				C10
OBJECTIVE D: An integrated and connected extension of West Cheltenham					
D1	The design and delivery of new development will prioritise and support active and sustainable travel patterns and behaviour – public transport				D1
D2	Deliver new direct pedestrian and cycle connections to existing communities and facilities				D2
D3	Creation of an open network of streets and routes which can be managed to meet local needs				D3
D4	Delivery of a new 'main street' between Telstar Way and Old Gloucester Road, designed as a street for people, not a road for vehicles				D4
D5	Principal junctions should be designed to minimise land take and create safe and direct crossing points for pedestrians and cycles				D5
D6	Provision of safe routes to schools, which will be provided within or beyond the West Cheltenham site				D6
D7	A flexible and creative approach to the application of parking standards and emerging and new vehicle technologies and initiatives				D7
OBJECTIVE E: Character and placemaking					
E1	New development will deliver a range of housing densities and typologies to ensure effective use of land is made				E1
E2	New development will look to local precedent in Cheltenham to help deliver locally distinctive forms of development				E2
E3	New development will contribute to the distinct character of its neighbourhood whilst delivering the overall vision for Cyber Central Garden Community				E3
P1	Cyber-centra hub - streets and movement; landscape and punlic realm; character and scale; land uses and activites				P1
P2	Gloucester Road neighbourhood - streets and movement; landscape and punlic realm; character and scale; land uses and activites				P2
P3	Main street neighbourhood - streets and movement; landscape and punlic realm; character and scale; land uses and activites				P3

Figure 61 **Qualitative assessment matrix**