

BroadwayMalyan^{BM}



Dunton Hills

Garden Village

Framework Masterplan
February 2020



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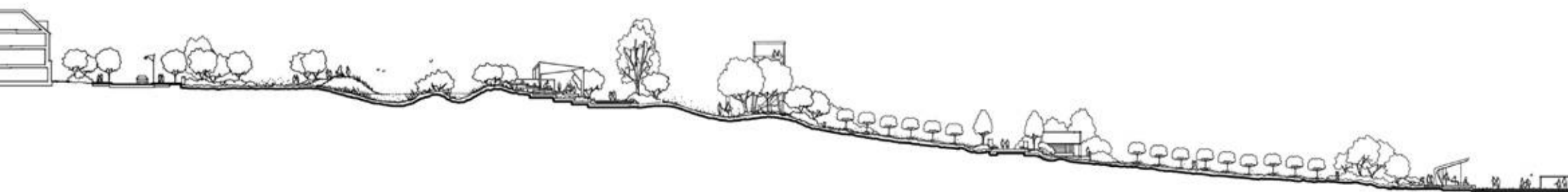
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EXECUTIVE SUMMARY

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EXECUTIVE SUMMARY

“ DUNTON HILLS GARDEN VILLAGE IS A NEW SETTLEMENT IN A BOROUGH OF VILLAGES. IT IS A PLACE WHERE PEOPLE’S LIVES ARE SHAPED THROUGH UNDERSTANDING THE VALUE AND PROTECTION OF THE LOCAL NATURAL ENVIRONMENTS. EDUCATION AND COMMUNITY FACILITIES AND AMENITIES ARE CENTRAL AND WELL INTEGRATED, CREATING AN PLACE THAT BECOMES A BLUEPRINT FOR HEALTHY AND SUSTAINABLE LIVING. ”

OVERARCHING VISION FOR
DUNTON HILLS GARDEN VILLAGE



KEY COMPONENTS OF DUNTON HILLS GARDEN VILLAGE



Up to 4,000 new sustainable homes as well as provision for elderly residents



New sports facilities including football and cricket pitches



Approximately 123ha of attractive and accessible open space



New community facilities provided within the Village Centre and Neighbourhood Hubs



Homes provided over a range of typologies



Community food production centred around the existing farm house



Designated employment land as well as flexible working space within the Village Centre and Neighbourhood Hubs.



Community concierge for online deliveries and a range of retail facilities at the Market Square



3 new primary schools, each at the heart of the community



Centrally located secondary school with community sports facilities



Electric vehicle charging stations and car clubs



Mobility Hub and Mobility Corridor facilitating bus, walking and cycle connections to West Horndon Station.



Integrated network of pedestrian and cycle paths



Accessible play facilities for all ages



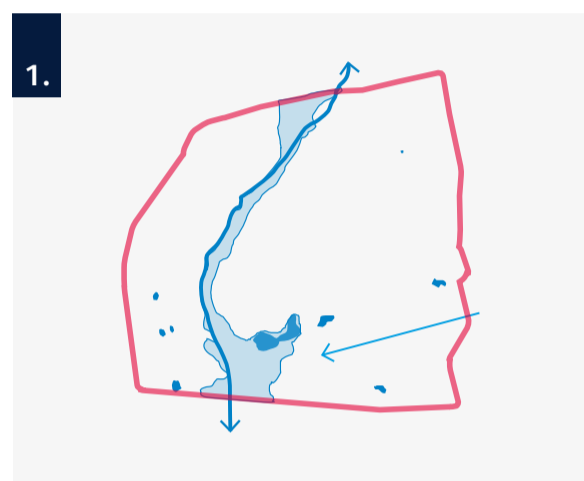
A 6.2 km wellness trail set within a landscaped setting



MASTERPLAN DRIVERS

PHYSICAL DRIVERS

Following on from an understanding of the sites constraints and opportunities, a number of spatial design drivers were developed for the site. As well as responding to the site features, the drivers reflect the discussions with Brentwood Borough Council, key stakeholder and Design South East.



1. BLUE - WATER

Several water elements influence the site:

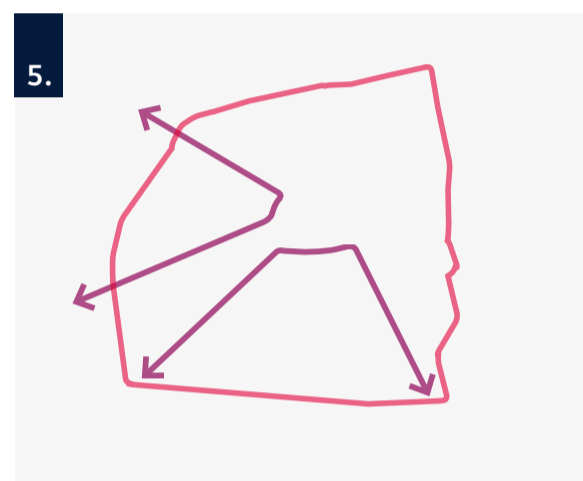
- Eastlands Spring, which runs north to south across the site
- The floodplain in the south of the site as well as the existing ponds. These together create a wetlands area



3. LANDFORM AND CHARACTER

There is a distinctive landform which the masterplan needs to respond to, comprising:

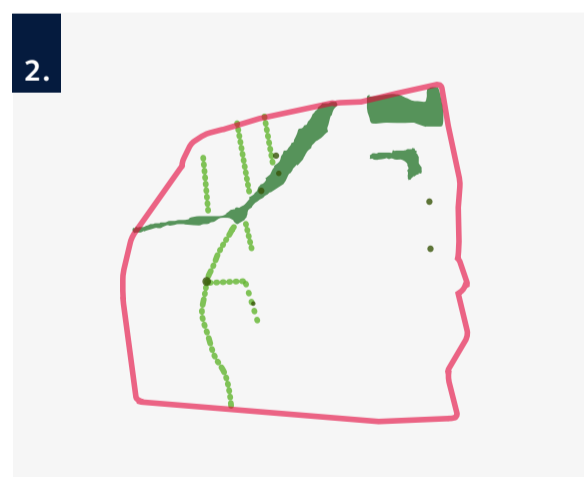
- A key ridge-line that snakes its way north to south
- Higher land to the north-east forming a plateau
- Low lying, reclaimed Fenn land to the west and south of the site



5. SCENIC VISTAS

The plateau in the north east of the site occupies an elevated position that:

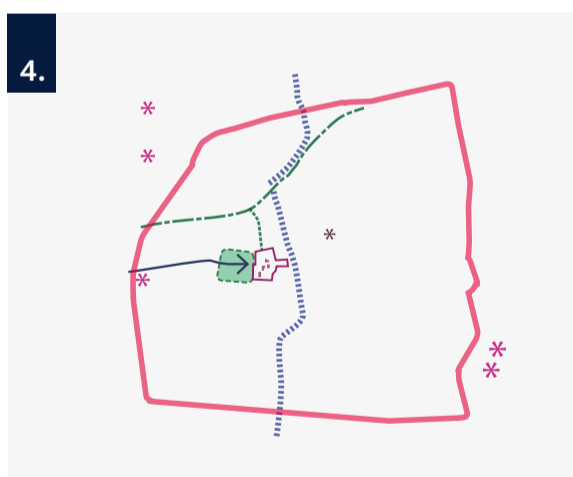
- Affords distant views towards the central London skyline in the west
- Allows distant views across to the North Downs in Kent to the south



2. GREEN - TREES AND WOODLAND

There is an established green framework across the site. This will be incorporated into the open space and ecology network and comprise:

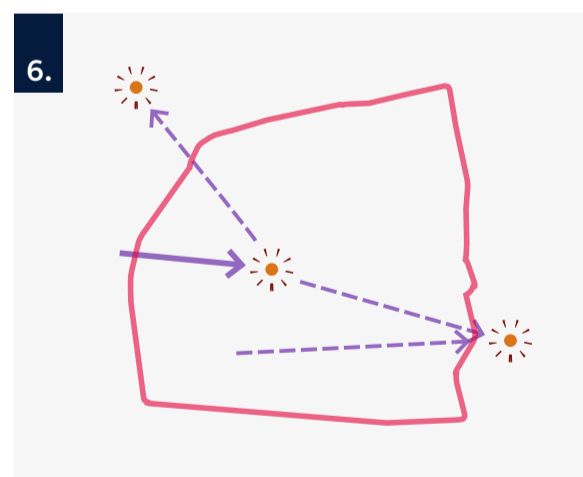
- Ancient woodland belt (in the north)
- Further woodland belts and blocks across the site
- Existing key (ecologically important) hedgerows and Cat A trees



4. PAST AND HERITAGE

There are a number of historic features both within and outside of the site, the setting of which needs to be preserved and respected. These comprise:

- Dunton Hills Farmstead which is a Grade II Listed Building and a prominent feature and orientation point within the agricultural and surrounding "Fanns" landscape
- Key historic features and routes through the site, including Nightingale Lane and the former Farmstead Driveway
- Key historic and gateway buildings surrounding the site



6. LOCAL VISTAS

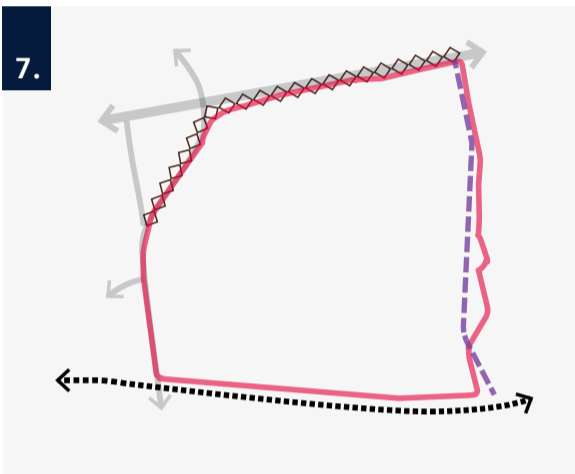
The site, its internal features and its immediate surroundings create a number of local vistas, comprising:

- Potential avenue view to Dunton Hills Farm from the A128 to the west
- Views out towards the neighbouring churches in the north west and south east

21ST CENTURY DRIVERS

Dunton Hills Garden Village must also be a place fit for the future and its design must take into account key trends, influences and societal changes. These include.

7.

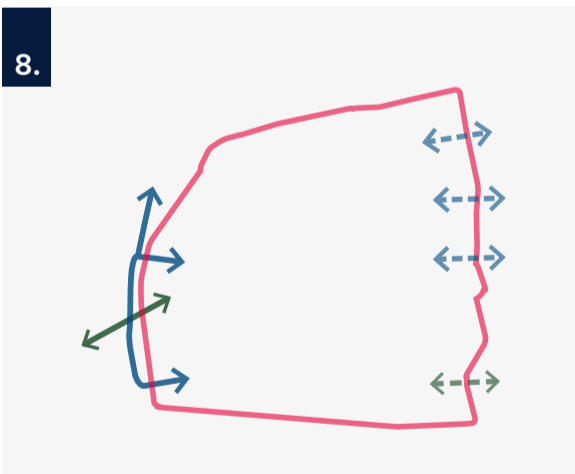


INFRASTRUCTURE

The site is bounded by transport infrastructure on three sides. These are major connectivity drivers but also barriers to movement/noise and pollution generators:

- A127 - busy, strategic road to the north
- A128 - busy, strategic road to the west
- A127/A128 interchange to the north west
- Main railway line to the south
- High pressure gas main line along eastern boundary

8.



ACCESS AND ARRIVAL

The configuration of the adjacent road network means that:

- The main vehicular access points will be from the A128 to the west
- The Station Road link to West Horndon Station to the west of the site is of key importance for pedestrians and cyclists
- Connections east towards Basildon need to be future proofed

SUSTAINABLE PLACE-MAKING



We need to plan and design for a village that is fit for purpose for current and future generations. Densities will not just seek to replicate our traditional impression of a rural village but will cater for a mixed community with housing facilities and spaces catering for families, the young and the old as well as those who choose to work from home. Renewable energy technologies will also need to be incorporated into the design of the village and its buildings.

MOBILITY



The Garden Village will accommodate a range of transport modes and have consideration for the role of new technologies such as automation and vehicle electrification. A Mobility Hub and Community Concierge will be provided at the heart of the village, providing for centralised deliveries, charging points as well as a car club and bike hire stands.

Mobility routes will provide dedicated pedestrian and cycle routes, promoting sustainable travel across and beyond the site.

EDUCATION AND LEARNING



Learning across different environments is becoming more and more important, particularly in relation to providing active social learning and apprenticeships.

For younger people within the community, the school locations will maximise their connection with the landscape, encouraging outdoor learning and promoting car free travel, ensuring children get regular exercise.

EMPLOYMENT AND WORK PATTERNS



Workspace will offer a wealth of opportunities for the next generation of workers including local co-work spaces that allow for people to live and work within the village and reduce the need to travel. The Garden Village will provide adaptable buildings and workshops with “grow on” floorspace for small start-ups to move to as they expand, helping to retain them within the village. New infrastructure with high speed digital connectivity will connect every home within the community, further facilitating working from home.

FOOD PRODUCTION



A productive landscape strategy is embedded in proposals for the new Garden Village. This could include provision of allotments and community gardens as well as orchards. Provision of these facilities not only promotes healthier lifestyles it also encourages community involvement, further physical activity, interaction with nature and provides opportunities for outdoor education.

RETAIL AND COMMUNITY FACILITIES



A 21st century village needs to respond to changes in the economy and consumer behaviour, particularly the growth of online shopping and the decline of the High Street. Community owned shops are a growing trend and shall be supported, alongside viable community and retail services and facilities. The importance of “meanwhile” and temporary uses will need to be explored to ensure the village is catered for at the offset.

A LANDSCAPE-LED MASTERPLAN

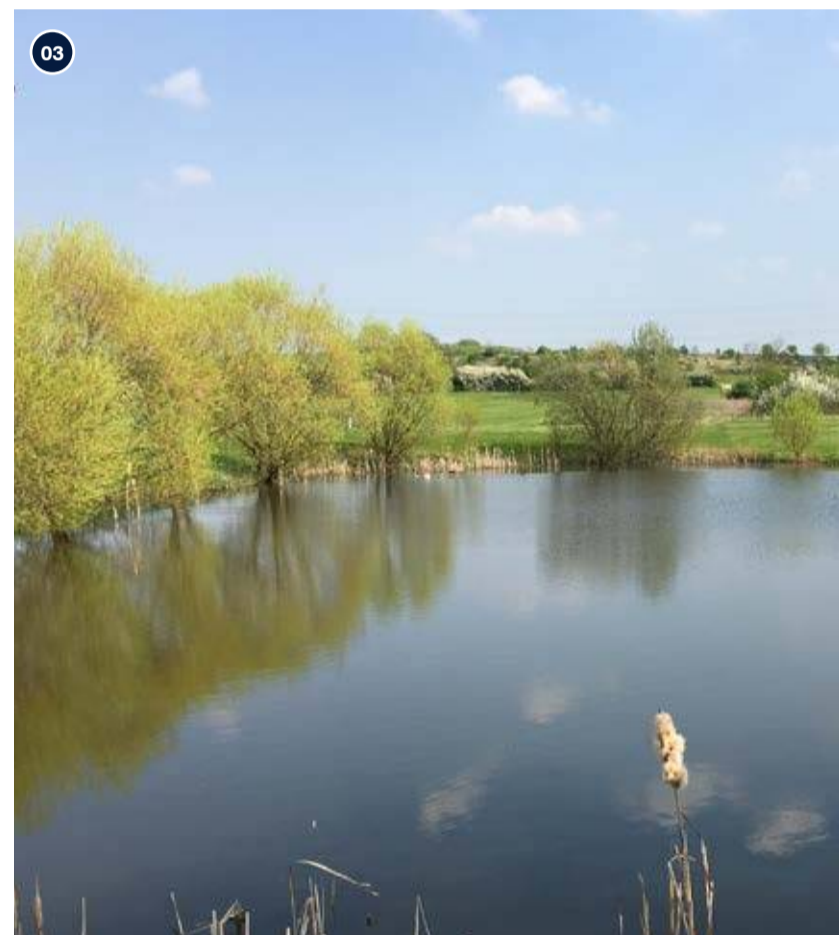
The landscape settings of the fenland and hills meet within the site, creating a diverse green and unique infrastructure network. A number of key existing character areas are identified that will be strengthened and interpreted into the design of the different neighbourhoods that will form the Garden Village. Significant areas of green infrastructure shall be safeguarded in the masterplan, celebrating the true and inherent nature of the site.

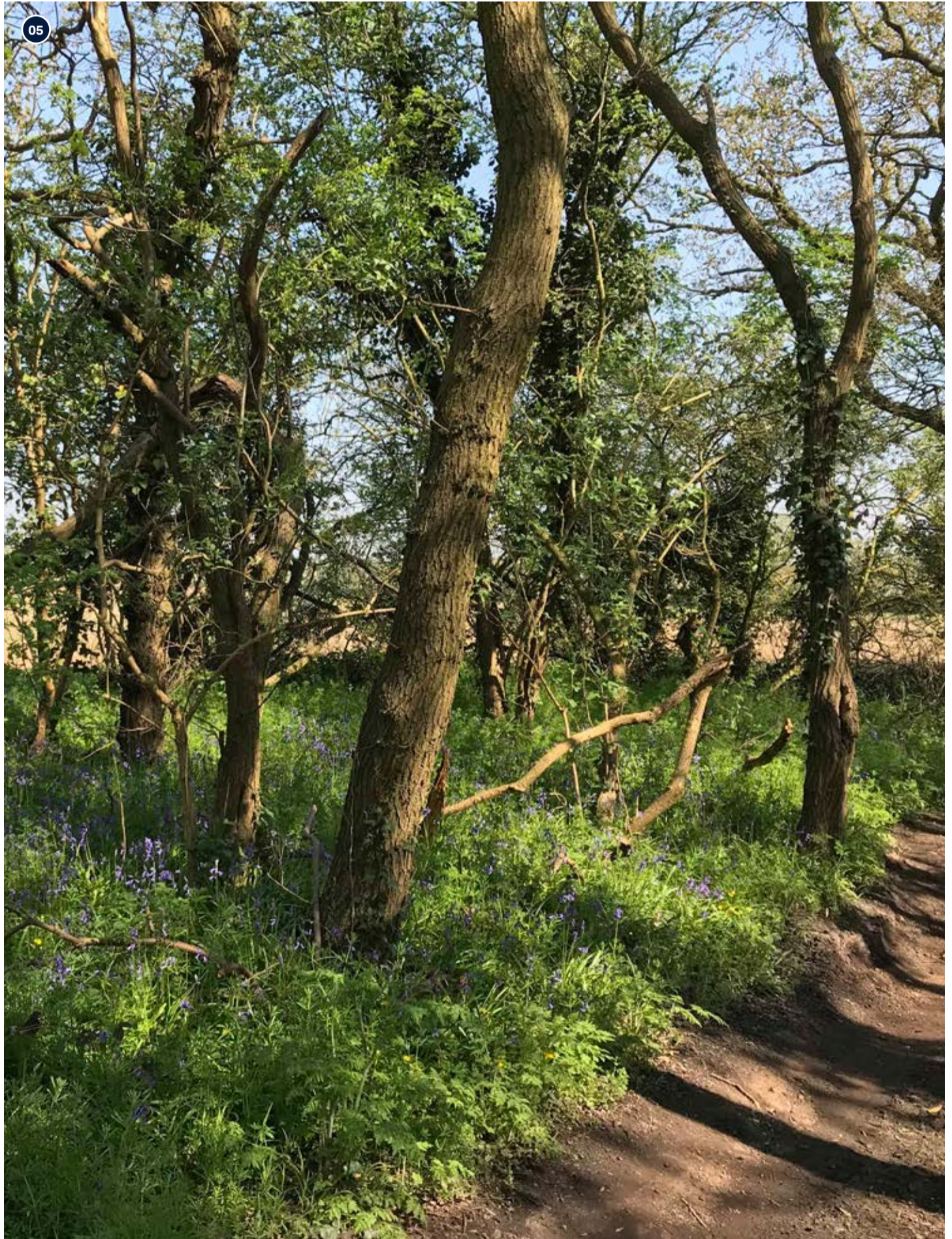
The distinctive landscape character areas are:

- 01 Dunton Fanns
- 02 Eastlands Spring
- 03 Dunton Wetlands
- 04 Ridge
- 05 Dunton Woods



Sitewide landscape character plan





FRAMEWORK MASTERPLAN

MANDATORY SPATIAL PRINCIPLES

A framework masterplan has been prepared for the Garden Village. This is supported by a series of Mandatory Spatial Design Principles covering: Layout and Spatial Organisation and Vistas and Access and Movement. These are illustrated below and set out on the opposite page.

MASTERPLAN LAYOUT PRINCIPLES PLAN



KEY

- | | |
|--|---|
|  Routes - mandatory alignment |  Routes - flexible landscape connections |
|  Routes - flexible alignment |  Indicative marker buildings |



MANDATORY SPATIAL PRINCIPLES

Further detail covering the themes outlined here can also be found in chapter 5 of the document alongside other Mandatory Spatial Principles including landscape, heritage, play, density and building heights. The aim of these Mandatory Spatial Principles are to ensure that the vision and objectives of the Garden Village are delivered through further design work and planning applications. Chapters 6-9 of this document also provide further Mandatory Overarching Principles relating to: Mobility; Sustainability; Community/Stewardship/Legacy; and Phasing and Delivery. These are equally important as the Mandatory Spatial Principles, but do not relate to the masterplan layout.

MANDATORY SPATIAL PRINCIPLES

LAYOUT AND SPATIAL ORGANISATION

- 01 **Location and arrangement of the Market Square** - will be positioned at the heart of the Garden Village and on the eastern edge of Dunton Fanns, facing the proposed Village Green and the historic farmstead. The Market Square will be designed to a suitable size to support the quantum of non-residential uses intended and will be enclosed by taller buildings with employment, retail and community uses activating the public realm.
- 02 **Definition of the Village Green** - will providing a setting for the historic farmstead as well a key communal open space for residents in which to interact and relax. The Green will be visible from the Market Square, across the landscape associated with the Eastlands Spring. The existing driveway will be retained and will become an important pedestrian route to Dunton Waters.
- 03 **Location of Dunton Fanns Primary School** - will be a central component of the Fann's community and will have frontage onto the proposed Mobility Corridor to promote sustainable travel.
- 04 **Secondary School** - will be visible from the wetlands along an east-west route connecting Dunton Fanns with Dunton Waters. The school building will front onto a lane and frame an arrival 'Schoolyard Square', comprising a car free setting.
- 05 **Location and arrangement of Neighbourhood Hub for Dunton Waters** - will be focused around a south facing lakefront plaza with views of the proposed cricket pitch and Dunton Waters Primary school, framed by buildings and activated by non-residential ground floor uses. The community element of the Secondary School will frame the northern edge of the plaza.
- 06 **Location and arrangement of Dunton Waters Primary School** - will be focused on the threshold of the wetlands landscape, maximising opportunities for outdoor learning whilst being visible from the lake front plaza.
- 07 **Location and arrangement of the co-located Dunton Woods Neighbourhood Hub and Primary School** - will be the central component of Dunton Woods, centred around a plaza at the northern end of a linear park which will form a view corridor to Dunton Waters. The plaza will be framed by taller buildings with non-residential ground floor uses.
- 08 **Location and arrangement of sports pitches and sports hub** - will be provided within the Secondary School parcel allowing both students and residents to make use of the facilities. The pitches will support a range of sports, forming a hub for community activity for social and competitive recreation. Other sports facilities include the cricket pitch and football pitches.
- 09 **Location of employment land** - will be in close proximity to the employment site proposed to the west of the A128. Employment land uses will be supported by a nursery and will adjoin open spaces, accessible for both workers and residents. Buildings will be positioned in an east-west orientation to establish a noise barrier against the A127.
- 10 **Location of Gypsy and traveller site** - will be positioned to allow for direct access from the A128 and with an interface with the proposed landscape edge. The site will allow for 5 pitches in line with policy, with the final configuration to be determined upon consultation with potential occupants.

VISTAS, ACCESS AND MOVEMENT

- 01 **Farmstead Avenue and view corridor** - will preserve a direct visual relationship between the A128 and the Grade II listed farmhouse. This is one of many masterplanning approaches that ensures the historic farmstead becomes a focal point within the Garden Village.
- 02 **Mobility Corridor (Station Road extension)** - will be the main access point to the village, accommodating pedestrians, cyclists and public transport. The Mobility Corridor will extend into the village along the alignment of Station Road, with a direct pedestrian and cycle crossing over the A128. This will facilitate and promote sustainable travel to the Market Square at the Village Centre which will include the Mobility Hub.
- 03 **Mobility route along the western edge** - will be incorporated into the landscape, facilitating safe and sustainable travel (for cyclists and pedestrians) north-south along the A128, but respecting the setting of the retained dwellings.
- 04 **Secondary School approach and landmark** - a direct route and view corridor will be established from the Secondary School building to the wetlands, ensuring its prominence as a landmark within the wider Garden Village, as well as promoting wayfinding.
- 05 **Schoolyard Square** - will be established in front of the Secondary School building, at the end of the proposed School Lane. The square will form a car free and landscaped gathering space for children and parents before and after school, as well as allowing for the retention of existing historic trees.
- 06 **School Lane** - a key pedestrian and cycling priority route will be established, connecting the Village Green and Secondary School with the wetland. The lane will run past the community orchard one side and be fronted and activated by new homes on the other.
- 07 **Potential future connections east towards Basildon** - will be safeguarded into the layout of the masterplan to allow for future expansion and connectivity.
- 08 **Dunton Woods viewing corridor** - will establish a visual relationship between the Neighbourhood Hubs of Dunton Woods and Dunton Waters, promoting a sense of community cohesion within the overall Garden Village.
- 09 **Wellness trail** - a pedestrian and cycling only trail will be provided within the landscape, promoting a healthy lifestyle within the Garden Village. The trail will connect the facilities provided within the Market Square and Village Green within Dunton Fanns to the other Neighbourhood Hubs and Schools.
- 10 **Nodes at intersections** - the point at where two or more routes intersect will inform the location of Neighbourhood Hubs and associated non-residential uses.
- 11 **Marker buildings (throughout masterplan)** - will be used to define key routes, vistas and places, promote placemaking and wayfinding within the neighbourhoods or landscape setting. Marker buildings shall be distinguished from other buildings through either architectural treatment, height or positioning within a prospective layout.
- 12 **Inter-neighbourhood connectivity (throughout masterplan)** - in conjunction with the wellness trail, pedestrian and cycle connections will be established to ensure a high degree of connectivity between the three neighbourhoods, further promoting safe and sustainable travel.





CHAPTER 1

INTRODUCTION

This section provides a brief overview of the project team, the document layout and its role in the creation of the exemplar sustainable new community of Dunton Hills Garden Village.



DUNTON HILLS: A NEW ESSEX GARDEN VILLAGE

DUNTON HILLS GARDEN VILLAGE

Dunton Hills Garden Village was designated as one of fourteen Garden Villages by the Government in January 2017 and is identified in the emerging Brentwood Borough Local Plan as a strategic housing allocation to meet the majority of the Borough's housing need within the plan period and beyond.

The emerging Local Plan requires the site to deliver a mix of uses comprising at least 2,770 homes within the plan period and up to 4,000 homes in total, together with the necessary community, utility, transport and green and blue infrastructure to support a self-sustaining, thriving and healthy community.

THE DEVELOPMENT DESCRIPTION

This Framework Masterplan Document sets out the foundations for the Garden Village based upon the policies of the emerging Local Plan and will include the following:

- Up to **4,000 new homes**
- **A Village Centre** (to include local shops, services, cafés, healthcare provision, community facilities, employment and a Mobility Hub) and two further smaller **Neighbourhood Hubs**
- **Education facilities**, including a Secondary School, three Primary Schools and early years provision. The Secondary School could be co-located with a Primary School.
- Up to **5.5 hectares** of employment.
- **3 care homes**, the exact type of facility to be determined at later stages in conjunction with the relevant authority.
- **Green and blue infrastructure**, including parks, greens, natural and semi-natural green space, informal and formal recreation and water attenuation features.
- **Access and mobility routes** including routes for pedestrians, cyclists, public transport and vehicular traffic.
- Associated **infrastructure**.

HOW TO USE THIS DOCUMENT

This document has been structured around the chapters set out below. The Framework Masterplan (Chapter 5) contains the key information that will inform and control the spatial design of the Garden Village, with preceding chapters setting out the background and vision and subsequent chapters supporting the design.

Chapter 1: **Introduction** to Dunton Hills Garden Village.

Chapter 2: **Context Analysis** of the current planning policy position as well as an assessment of the site and its surrounding context.

Chapter 3: **Masterplan Drivers, Future Trends and Evolution** explores some of the 21st century influences that will shape future developments such as Dunton Hills, including transport innovations and how we may live and work in the future. In addition to this a range of design drivers are established, informed by the context analysis in Chapter 2. A summary of the masterplan evolution through the design review process is also set out.

Chapter 4: **Landscape: Green and Blue Infrastructure** are key components of the Garden Village and this section sets out the strategy within the Framework Masterplan, covering elements such as bio-diversity, play and drainage.



Chapter 5: **Framework Masterplan** sets out the key information that will control the spatial design of the Garden Village over a range of plans and topic areas including built form and landscape.

Chapter 6: **Mobility Strategy** sets out the approach to sustainable movement to, from and around the Garden Village.

Chapter 7: **Sustainability Strategy** sets out a wide ranging sustainability strategy covering community interaction, health and well-being, education, the economy, energy efficiency and renewable technologies.

Chapter 8: **Community Stewardship and Legacy** covers elements such as the community management of the Garden Village.

Chapter 9: **Phasing and Delivery** illustrates how the Garden Village could be phased showing what community facilities and infrastructure will be provided at different stages.

Appendix A1: **Supporting Context Analysis and Technical Work**

Appendix A2: **Supporting Design Information**

THIS DOCUMENT HAS BEEN PREPARED ON BEHALF OF COMMERCIAL ESTATES GROUP (CEG) AND THE LANDOWNERS AND IN PARTNERSHIP WITH BRENTWOOD BOROUGH COUNCIL. THE FULL CONSULTANT TEAM RESPONSIBLE FOR THE DOCUMENT ARE LISTED BELOW.

Broadway Malyan - Masterplanning

Lichfields - Planning and Socio-economics

Vectos - Transport

Brookbanks - Utilities, Noise and Air Quality

Tyler Grange - Landscape

Montegu Evans - Built Heritage

SES - Ecology

Orion - Archaeology

WSP - Drainage, sustainability, waste and lighting

Star Planning - Project Management

Gateley Hamer - Overhead Powerlines

EFM Education



MASTERPLAN PROCESS

This Framework Masterplan Document for Dunton Hills Garden Village has been developed through a thorough masterplan process which captures and safeguards the aspiration of multiple stakeholders.

MASTERPLAN EVOLUTION

Whilst a significant amount of design and feasibility work has been undertaken for Dunton Hills Garden Village in recent years, the masterplanning commenced in earnest in April 2019. The development of this Framework Masterplan has been led by Broadway Malyan on behalf of the landowners and in partnership with Brentwood Borough Council and in liaison with key stakeholders including Essex County Council. It has been the subject of a detailed design process involving a large number of interested parties at various workshops and events, co-ordinated by Brentwood Borough Council and an independent Design Review Panel – Design South East.

Between April and October 2019 a number of formal and informal reviews were undertaken as the Framework Masterplan evolved, incorporating the aspiration of multiple stakeholders as well as Brentwood Borough Council. A summary of the design evolution can be found in Chapter 3. The master planning process has, as far as reasonable at a Framework Masterplan stage, taken into account the content of other good practice design guidance and the published planning policy documents.

In preparing this document Broadway Malyan and CEG have sought to respond positively to the design advice of Design South East and the stakeholders.

FRAMEWORK MASTERPLAN

The masterplanning evolution culminated in the Framework Masterplan for the Garden Village that is the basis of this document. The Framework Masterplan seeks to capture and enshrine the vision, and sets out Mandatory Spatial and Overarching Principles to be adhered to.

DOCUMENT HIERARCHY

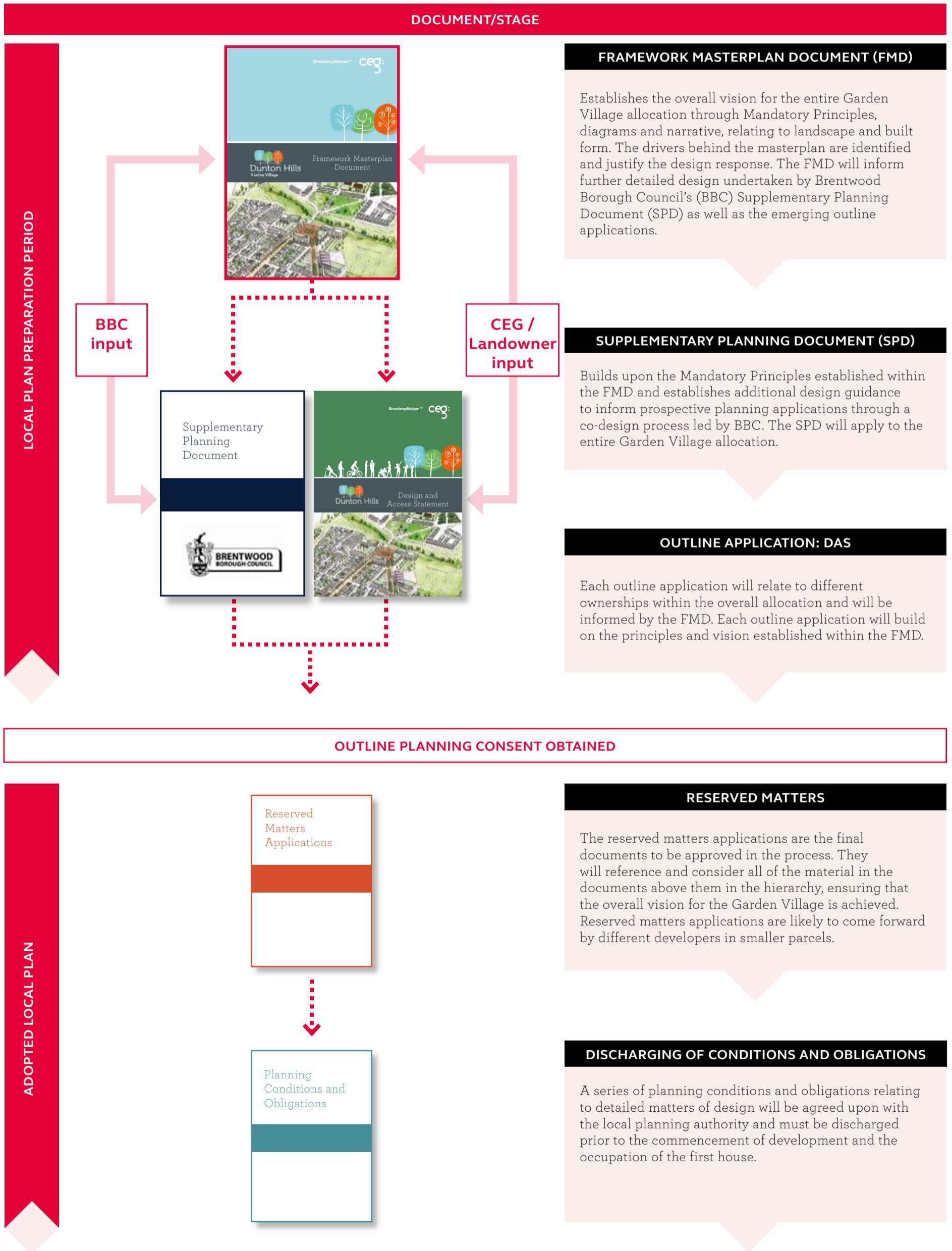
The starting point for the preparation of the Framework Masterplan is the emerging policy for Dunton Hills as well as other policies in the emerging Brentwood Local Plan.

The Framework Masterplan is the first in a series of documents which will control and guide the development of the Garden Village. Care has been taken to set out Mandatory Principles that go to the essence of the vision for the Garden Village, whilst also allowing for Brentwood Borough Council's Supplementary Planning Document (SPD) to focus on more detailed elements of design guidance.

This Framework Masterplan will sit alongside Brentwood Borough Council's SPD, and both will inform the design of future outline and reserved matters applications. As set out on the following page, each document in the hierarchy, will inform by the document sitting underneath.

Given that the Framework Masterplan is the first document in the hierarchy, the vision it establishes and the means of safeguarding and realising the vision is particularly important. For this reason the Principles the Framework Masterplan establish are mandatory.

DUNTON HILLS GARDEN VILLAGE DOCUMENT HIERARCHY:



MANDATORY PRINCIPLES

A series of Mandatory Principles are set out in this document. These will ensure that the vision for the Garden Village is realised, whilst allowing for a future-proof Masterplan Framework and flexibility in the design response.

INTRODUCTION TO MANDATORY PRINCIPLES

This Framework Masterplan Document sets out the vision for Dunton Hills Garden Village which has been established by a range of stakeholders through a comprehensive design review process. In order to ensure the vision for the new Garden Village is realised, a series of Mandatory Principles are established in different chapters throughout the document. The Framework Masterplan in Chapter 05 sets out the Mandatory Spatial Principles, whilst other Mandatory Overarching Principles sit within subsequent chapters (06-09) as set out in the flow diagram (opposite).

MANDATORY SPATIAL PRINCIPLES

The Mandatory Spatial Principles relate to plans within the Framework Masterplan Chapter (05) and inform layout, built form and landscape proposed within the Garden Village. The principles are worded so as to be clear about what is required, but allowing this to be interpreted with as great a degree of flexibility as possible in terms of detailed design.

MANDATORY OVERARCHING PRINCIPLES

This Framework Masterplan Document also sets out Mandatory Overarching Principles which relate to the following chapters:

- Mobility Strategy
- Sustainability Strategy
- Community, Stewardship and Legacy
- Phasing and Delivery

These plans are equally as important as the Spatial Principles in delivering a 21st century Garden Village for at Dunton Hills but do not relate specifically to the masterplan layout.

An example page spread from the Framework Masterplan (Chapter 05) with the Mandatory Spatial Principles on the right hand side of the page and advisory narrative on the left.

Subject of principles

Plan illustrating principles relating to subject


LAND USE AND SPATIAL ORGANISATION
The Framework Masterplan

NEW HOMES
Dunton Hills Garden Village will provide up to 4,000 new homes across three distinct neighbourhoods. New homes will comprise a range of residential typologies and tenures. Additional care and affordable care of approximately 1,000 beds.

The average density of the Garden Village will be approximately 40 dwellings per hectare (DPH) although the majority of the village will be lower density (approximately 20 DPH) with a number of strategically located apartment and mixed-use pods with higher densities.

The majority of apartments will be located within the Village Centre, around the Market Square, as well as along the mobility corridor connecting Dunton Road with the Market Square. It is envisaged that apartment buildings will run along the western edge of the village, forming a buffer against the A12. Some apartment buildings will also be provided within the key neighbourhood hubs, both in north west and the south. Additional apartment buildings will also be positioned at strategic locations within each neighbourhood throughout the Garden Village.

These new homes or similar uses could form part of the village centre or neighbourhood hubs. Provisions will also be made for a gym and travellers site.



MANDATORY SPATIAL PRINCIPLES - LAND USE AND SPATIAL ORGANISATION

- 1. **Location and arrangement of the Market Square** - will be provided at the heart of the Garden Village, forming a key hub for the village. The Market Square will be designed to a suitable size to support the provision of non-residential uses (retail, food and drink, employment, and community uses) and will be surrounded by taller buildings with employment, retail and community uses overlooking the public realm (see appendix A for justification).
- 2. **Location and arrangement of Dunton Woods Primary School** - will be located on the northern edge of the village, forming a key hub for the village. The school will be designed to a suitable size to support the provision of non-residential uses (education, employment, and community uses) and will be surrounded by taller buildings with employment, retail and community uses overlooking the public realm (see appendix A for justification).
- 3. **Location and arrangement of Dunton Woods secondary school and Primary School** - will be located on the southern edge of the village, forming a key hub for the village. The school will be designed to a suitable size to support the provision of non-residential uses (education, employment, and community uses) and will be surrounded by taller buildings with employment, retail and community uses overlooking the public realm (see appendix A for justification).
- 4. **Location and arrangement of sports pitches and community clubhouse** - will be provided within the Secondary School parcel, forming a key hub for the village. The pitches will support a range of sports, forming a hub for community activity for social and competitive recreation.
- 5. **Location of employment hub** - will be in close proximity to the employment site proposed in the west of the A12. Employment hub will be supported by small scale commercial uses and will be surrounded by taller buildings with employment, retail and community uses overlooking the public realm (see appendix A for justification).
- 6. **Location of traveller site** - will be provided to allow for direct access from the A12 and with an interface with the proposed landscape edge. The site will allow for 1 pitches in line with policy with the final configuration to be determined upon consultation with potential occupiers.

Advisory narrative setting out the vision for the Garden Village

MANDATORY PRINCIPLES ARE SET OUT WITHIN EACH OF THE FOLLOWING CHAPTERS IN THE FRAMEWORK MASTERPLAN DOCUMENT:

MANDATORY PRINCIPLES			
<p>05</p> <p>FRAMEWORK MASTERPLAN</p>	<p>MANDATORY SPATIAL PRINCIPLES</p> <p>LAND USE AND SPATIAL ORGANISATION 84</p> <p>VISTAS, ACCESS AND MOVEMENT 86</p> <p>LANDSCAPE 88</p> <p>HERITAGE 94</p> <p>DENSITY 96</p> <p>HEIGHTS 98</p>		
	<p>06</p> <p>MOBILITY STRATEGY</p>	<p>MANDATORY OVERARCHING PRINCIPLES</p> <p>MOBILITY STRATEGY 100</p> <p>OFF SITE INITIATIVES 107</p>	
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	<p>08</p> <p>COMMUNITY, STEWARDSHIP AND LEGACY</p>		<p>MANDATORY OVERARCHING PRINCIPLES</p> <p>MANAGEMENT STRUCTURE STRATEGY 122</p>
	<p>09</p> <p>PHASING AND DELIVERY</p>		<p>MANDATORY OVERARCHING PRINCIPLES</p> <p>PHASING AND DELIVERY STRATEGY 126</p>

SITE INTRODUCTION

The site comprises virtually the entire strategic allocation for the Garden Village and covers an area of 256.24ha. It is located in the south east of Borough of Brentwood, bounded to the north by the A127, the west by the A128 and the south by the C2C railway line. The eastern boundary comprises well defined field boundaries which also mark the administrative border between Brentwood Borough and the adjoining local authority of Basildon.

Today, the site primarily comprises undulating arable farmland, a family golf centre with its associated structures and a historic farmstead - Dunton Hills Farm, located at the heart of the site. Other land uses include a plant nursery and the curtilage of a dwelling. Vehicular access is principally taken from the A128 to the west with a dedicated access from the A127 to the nursery. There is also limited access from the west, north and east via public rights of way.

The entire strategic allocation is in a number of different land ownerships, but the majority is controlled by Commercial Estates Group (CEG). Other landowners or interests include Crest Nicholson, Bellway Homes, the Lowe family and Timmermans Nursery. The entire strategic allocation boundary is shown on the plan (opposite), but the site excludes the curtilages of the dwellings on the A128.



View from A128 looking east up driveway towards Dunton Hills Farm buildings



View looking east from Eastlands Spring towards Dunton Hills Farm buildings



View looking east across Eastlands Spring



View looking north towards the ancient woodland



View from the top of the ridge-line looking west across the golf course



View looking south from the top of the ridge-line across arable fields and the golf course





A127

A128

01

03

04

06

02

Dunton Hills Farm

Lower Dunton Road

05

Railway



CHAPTER 2

CONTEXT ANALYSIS

This section outlines the planning background and provides a synopsis of the comprehensive assessment and technical studies carried out to understand the existing site and how it fits within the wider south Essex area and its immediate surrounding. More detail is included in Appendix A 1.2.



PLANNING POLICY

This section provides a review of the relevant statutory national and local planning policy in respect of the proposal.

NATIONAL POLICY

Relevant national planning policy is contained within the National Planning Policy Framework (NPPF, February 2019). Paragraph 124 states that the creation of high quality buildings and places is fundamental to what the planning and development process should achieve and outlines that good design is a key aspect of sustainable development, creates better places in which to live and work and helps make development acceptable to communities.

The NPPF (para. 127) outlines that Local Authority decisions should ensure that developments:

- a. will function well and add to the overall quality of the area, not just for the short term but over the lifetime of the development;
- b. are visually attractive as a result of good architecture, layout and appropriate and effective landscaping;
- c. are sympathetic to local character and history, including the surrounding built environment and landscape setting, while not preventing or discouraging appropriate innovation or change (such as increased densities);
- d. establish or maintain a strong sense of place, using the arrangement of streets, spaces, building types and materials to create attractive, welcoming and distinctive places to live, work and visit;
- e. optimise the potential of the site to accommodate and sustain an appropriate amount and mix of development (including green and other public space) and support local facilities and transport networks; and
- f. create places that are safe, inclusive and accessible and which promote health and well-being, with a high standard of amenity for existing and future users; and where crime and disorder, and the fear of crime, do not undermine the quality of life or community cohesion and resilience.

The NPPF also encourages early discussion between applicants, the local planning authority and local community about the design and style of emerging schemes outlining that this is important for clarifying expectations and reconciling local and commercial interests.

In addition to the NPPF, the National Planning Practice Guidance (NPPG) will be a material consideration in the determination of any planning application. The NPPG, supplements the NPPF and includes a number of sections which deal specifically with design matters and has informed the continuing design of the scheme.

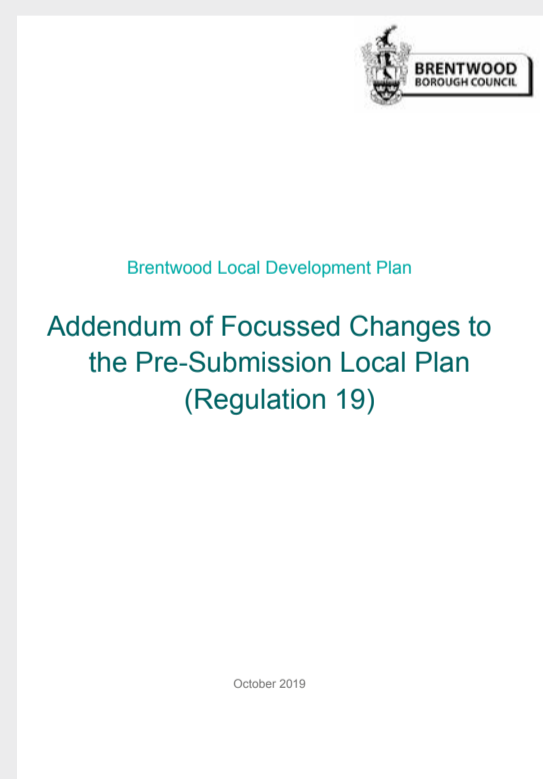
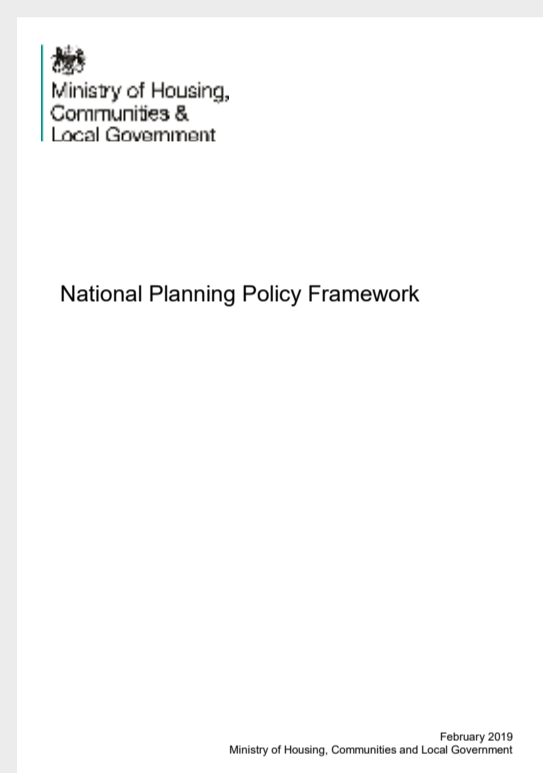
ADOPTED DEVELOPMENT PLAN

The statutory development plan relevant to the site comprises the Saved Policies of the Brentwood Replacement Plan (2005, saved 2008), the Essex Mineral Local Plan (2014), and the Essex and Southend-on-Sea Waste Local Plan (2017).

EMERGING LOCAL PLAN

The emerging Brentwood Local Plan: Pre-submission Document was published for consultation in February 2019. The Submission Local Plan is in the process of being prepared for submission to the Secretary of State for examination. The targeted date for submission is February 2020. The emerging Local Plan therefore carries weight in the decision-making process and will carry increasing weight as it nears adoption.

The design of Dunton Hills Garden Village has been developed in response to the relevant policies of the emerging Local Plan.



BRENTWOOD LOCAL PLAN SUBMISSION DOCUMENT

- **POLICY BE03:** Carbon Reduction, Renewable Energy and Water Efficiency
- **POLICY BE22:** Open Space in New Development
- **POLICY HP01:** Housing Mix
- **POLICY HP03:** Residential Density
- **POLICY HP06:** Standards for New Housing
- **POLICY HP12:** Planning for Inclusive Communities
- **POLICY HP13:** Creating Successful Places
- **POLICY HP14:** Responding to Context
- **POLICY HP15:** Permeable and Legible Layout
- **POLICY HP16:** Buildings Design
- **POLICY HP18:** Designing Landscape and the Public Realm
- **POLICY PC05:** Employment Development Criteria

SITE ALLOCATION

The site benefits from an emerging Strategic Allocation under Policy R01 Dunton Hills Garden Village which outlines that:

“The development will deliver a mix of uses to comprise around 2,700 homes in the plan period (as part of an overall indicative capacity of around 4,000 homes to be delivered beyond 2033) together with the necessary community, employment, utility, transport and green and blue infrastructure (GBI) to support a self-sustaining, thriving and healthy Garden Village.”

Focussed consultation proposes to increase the number of homes to 2,770 within the plan period.

The policy also requires the masterplan to be underpinned by Garden Community principles and qualities; proposals to creatively address the key site constraints and sensitively respond to the unique qualities and opportunities afforded by the historic landscape and environmental setting; and a holistic and comprehensive locally-led masterplan and design guidance to be developed.

With respect to spatial design of the Garden Village, Part (II) of Policy R01 provides a range of guidance under a number of headings:

- Distinctive Character, Harmonic Design, Compact Density

- Ecological Networks, Biodiversity Net Gain, Green Infrastructure and Public Realm
- Sport, Recreational, Leisure and Public Open Space
- Views
- Embedding Heritage Assets
- Sustainable Travel
- Transport Impact Mitigations
- Clean Vehicle Alternatives
- Street Hierarchy
- Village Centre(s) – Retail, Community and Employment Opportunities
- Social Infrastructure

ESSEX DESIGN GUIDE (2018)

The updated Essex Design Guide (2018), in particular the new sections relating to Garden Communities, is relevant to the Garden Village.

The Active Design Principles are also considered later in the document.

OTHER DOCUMENTS:

Account has been taken of other national and local policies and guidelines including Essex County Council’s Parking Policy Standards and the Essex County Council Developer’s Guide to Infrastructure Contributions (Revised 2016).



STRATEGIC LOCATION AND CONNECTIONS

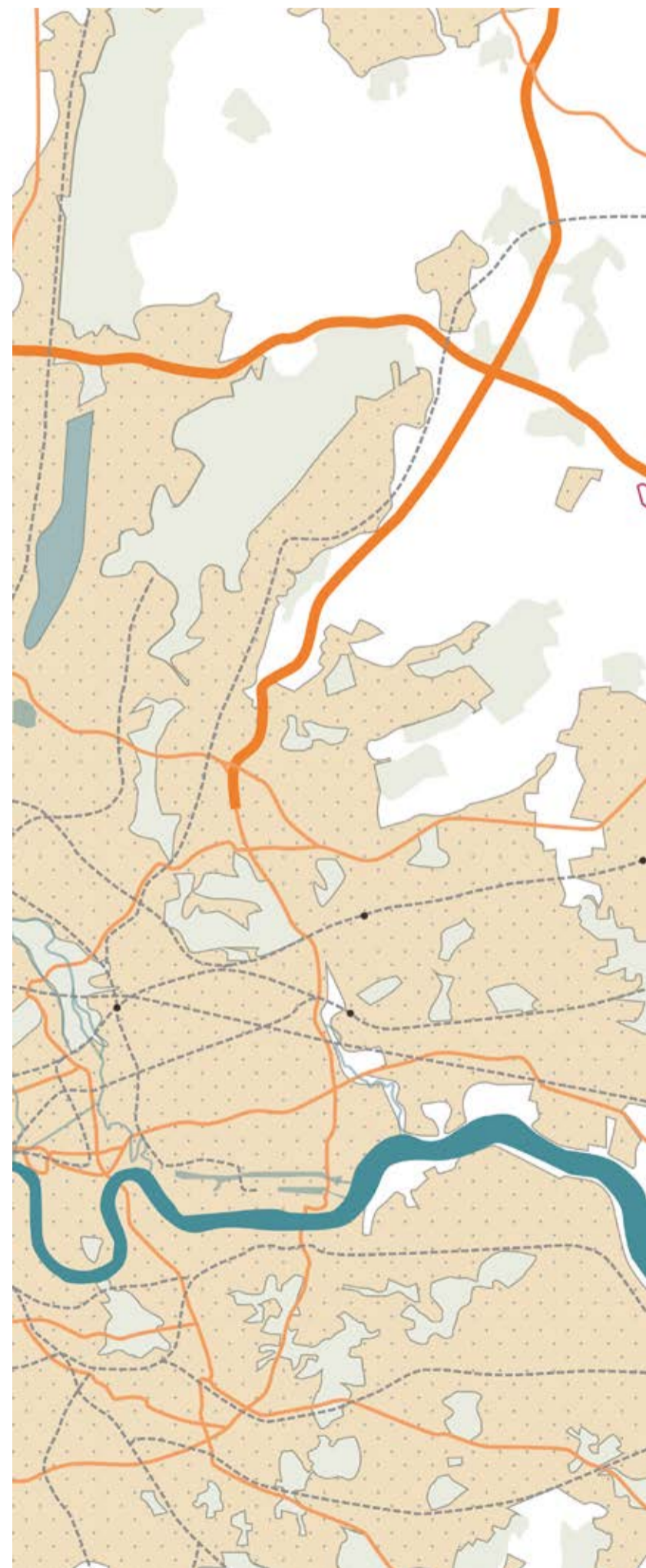
The site is located in Brentwood Borough and in the County of Essex.

The site sits approximately 32km east of the City of London and approximately 5.5km from the M25 motorway. To the east of the site is the town of Basildon, whilst Brentwood is located to the north west. The village of West Horndon lies just over 1km to the west of the site.

Other major destinations in the wider area comprise the regional shopping centre at Lakeside, Tilbury Docks, the new London Gateway Port and London Southend Airport.

In terms of strategic transport and movement, the site is within close proximity to two major strategic routes comprising the A127 to the north (which connects the area to London and the M25 to the west and Basildon and Southend in the east) and the A128 to the west which links the area to Brentwood in the north and the A13 in the south.

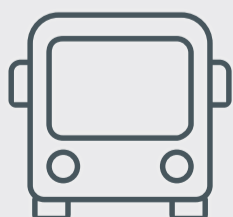
The site is within 15 minutes walking distance /10 minute cycle of West Horndon Railway Station to the west. From here, C2C train services are available to major destinations including London Fenchurch Street, Stratford, Barking, Basildon and Southend-on-Sea.



Wider regional context plan



STRATEGIC SUSTAINABLE MOVEMENT



WALKING AND CYCLING

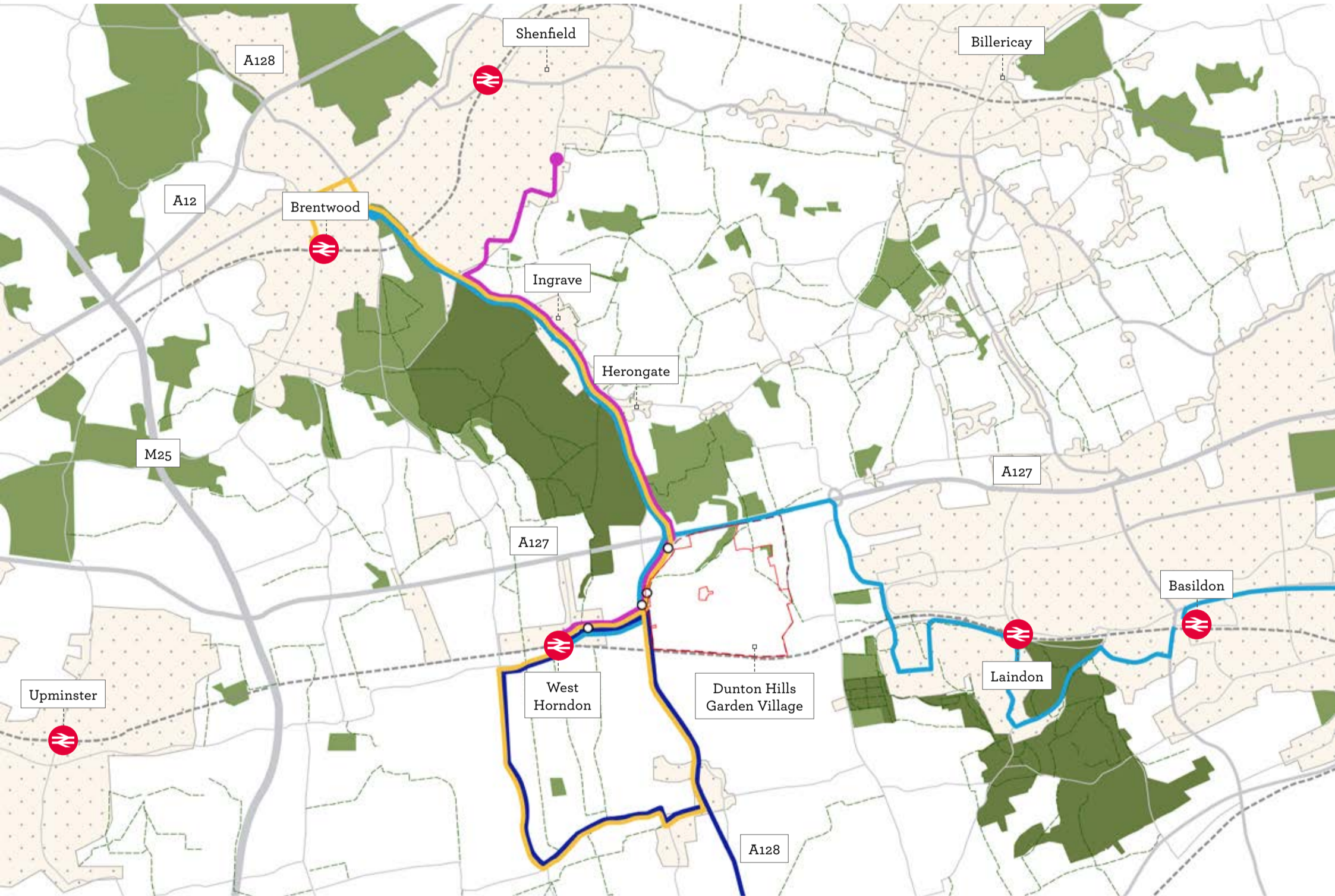
The surrounding area comprises a large network of pedestrian and cycle links, connecting into the surrounding towns and country parks such as Thorndon and Laindon Hills. Public Rights of Way connect into the site and these are explored later in this section

PUBLIC TRANSPORT

Bus stops are located directly adjacent to the west of the site along (A128) Tilbury Road. Bus route 565 links West Horndon with Brentwood, route 49 connects Basildon, West Horndon and Brentwood and route 265 runs from West Horndon to Grays.

The 481 school services also serves the site and runs from West Horndon to high schools within Brentwood.

As stated earlier, the site is bordered to the south by the C2C railway line, with two direct services an hour from West Horndon to London Fenchurch Street (link into the City of London in under 30 mins) and a service to Shoeburyness via Basildon which runs twice an hour and takes around 40 minutes.



Surrounding sustainable movement plan

- KEY**
- Site Allocation
 - Country Park
 - Open Space
 - Settlement
 - Railway Line
 - N Railway Station
 - Road
 - PROW
 - Cycle Route
 - Bus Stop (in walking distance of site)
 - Bus 49
 - Bus 565
 - Bus 265
 - Bus 481 - School Service



SURROUNDING LAND USE AND FACILITIES



Thorndon Country Park



West Horndon Shops



Horndon Industrial Park

EMPLOYMENT

A number of employment sites are located throughout the local area. The most notable of these include Horndon Industrial Park, comprising predominantly industrial uses, within a collection of low-rise warehouse units. However, this site is proposed to be substantially redeveloped for housing in the emerging Local Plan. The Ford Dunton Technical Centre is a major local employer and sits to the east of the site with further industrial uses found within the adjacent Southfields Business Park. Other employment destinations include central Basildon, central Brentwood and, of course, London. There are emerging employment proposals at East Horndon Hall and the Brentwood Enterprise Park (at the M25/A127 junction) and an expansion of the Childerditch employment site.

EDUCATION

The village of West Horndon contains a primary school (West Horndon Primary School) and a Pre-School (Bright Sparks) which are the closest educational facilities within walking distance of the site. Additional primary schools are situated close by in the Ingrave, Brentwood and Basildon. Six high schools are located a short bus ride from the site in Brentwood and Shenfield.

HEALTH

There is a GP surgery located close to the site in West Horndon. The closest hospitals are located in Brentwood (Nuffield Health, Brentwood Community Hospital and Spire Hartswood Hospital) and Basildon (Basildon University Hospital).

RETAIL/COMMUNITY FACILITIES

High order retail and community uses are found within Basildon and Brentwood town centres. Basildon town centre contains a number of major national retailers including Debenhams, H&M, Primark, and Asda. Brentwood is also home to a number of major retailers including M&S, Next and Halfords.

Further, smaller retail/community hubs are found in the western suburbs of Basildon, such as Laindon serving the surrounding residential communities. Uses here include a number of educational, medical and community facilities alongside retail facilities ranging from corner shops to larger supermarkets.

The village of West Horndon, located to the west of the site, is also home to a small number of local shops including convenience stores, a café and a butchers. Other uses within West Horndon include a church and a community centre.

OPEN SPACES

The site is surrounded by open farmland with areas of woodland and parkland found within the wider area. The most notable of these is Thorndon Country Park to the north west of the site and Langdon Hills to the south east. Both are important and popular recreational destinations.

A network of open spaces and parks are found within western Basildon which include a range of recreational facilities such as sports pitches and playgrounds.

There are a number of golf courses in the area. Thorndon Park Golf Club and the South Essex Golf Centre are located to the north of the site.



Surrounding land use and facilities plan

KEY			
	Site Allocation		Retail Park
	Road		Barnard's Farm (visitor attraction)
	Railway Line		Caravan Park
	Railway Station		Pub/Restaurant
	PROW		Medical facility
	Town Centre		Community/Religious
	Residential		High school
	Country Park		Primary School
	Open Space		Shop
	Golf Course		
	Light Industrial / Employment		



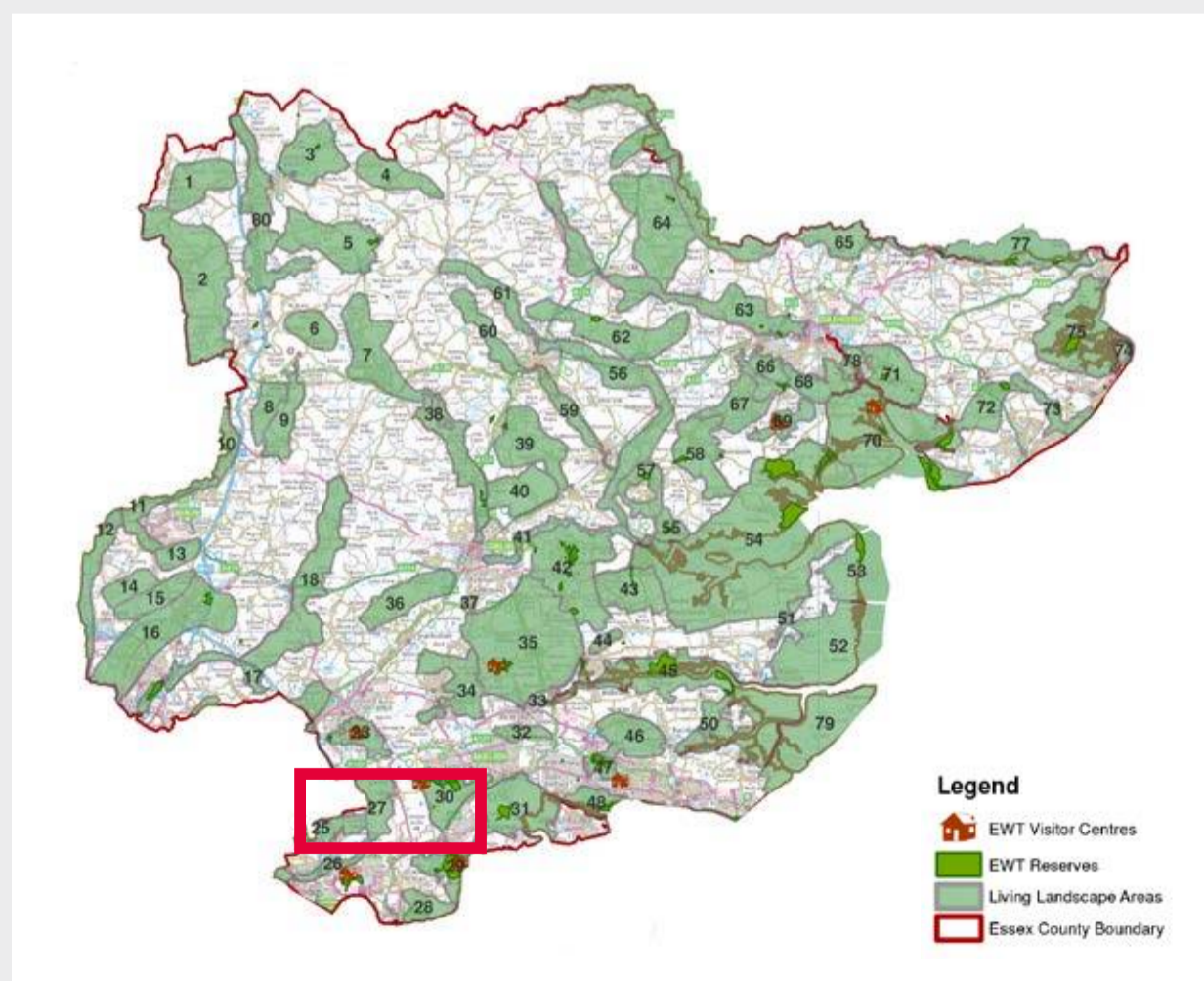
SURROUNDING GREEN INFRASTRUCTURE

There is a network of Country Parks within close proximity to the site. Thorndon and Langdon Hills Country Parks are located to the north-west and south-east respectively.

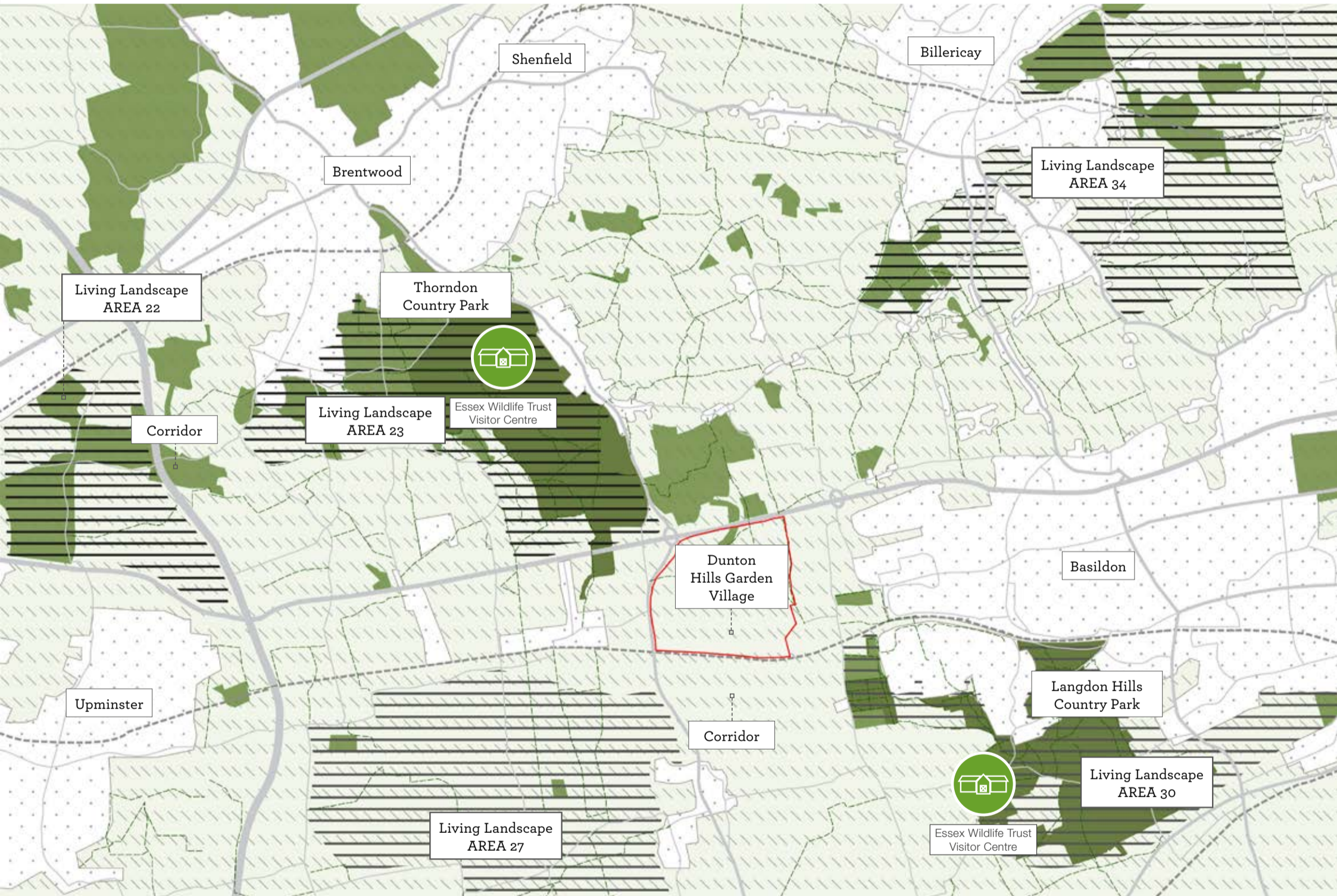
Thorndon Country Park provides 500 acres of walks through ancient woodland and an ancient deer park dating back to the 15th century (which has been designated a Site of Special Scientific Interest) alongside planted woodland and a landscape of small pastures, grassland and three small lakes.

Langdon Hills Country Park is a 400 acre park located on a hilly ridge, benefiting from panoramic views over the Thames Estuary and across to London. The park has ancient woodlands dating back to prehistoric times, with flower-rich grassland meadows and areas of dense scrubland. There are picnic areas and a good network of footpaths and horse and cycle tracks linking the surrounding countryside.

Both country parks are part of the Essex Living Landscapes network. The Living Landscapes vision aims to restore, recreate and reconnect local wildlife habitats so that the species living within them can move through the landscape more easily, and continue to survive and thrive long into the future. Living Landscapes is about wildlife, people and communities and the local economy. The existing Living Landscape areas are shown on the plan opposite which shows both country parks as well as a further Living Landscape area to the south west of the site.




Essex Living Landscapes Plan



Surrounding green infrastructure plan
 Showing the key green infrastructure areas, such as Country Parks and Living Landscapes surrounding the site.

KEY

- Site Allocation
- Road
- Railway Line
- Residential
- Country Park
- Open Space
- Green Belt
- Living Landscape



UNDERSTANDING THE LANDSCAPE CHARACTERS

A range of landscape characters are prevalent within the site and connect to the wider landscape context of the Fenland and the Hills. The landscape setting has had a fundamental influence on the vision and design of the masterplan for the Garden Village

The site lies at a transition between the low-lying, open landscape of the Fenlands that extends to the south and west, and the wooded Brentwood Hills at Thorndon to the north and Langdon Hills to the east. The transition between these two contextual landscape characters is encapsulated within the site and creates a diverse range of landscape typologies.

The low ridge-line that transverses the site in a roughly north west-south east alignment creates the topographical transition between the low-lying fenland and the hills. The transitional landscape is further reinforced by the Eastlands Spring, which also bisects the site in a north-south alignment near the eastern boundary.

These linear features are striking in the landscape and create a unique sense of place for the site itself. These landscape features, as well as the wooded hills, ancient woodland, water bodies and hedgerows create varied habitats and micro-climates for local flora and fauna.

Our vision for the Garden Village is landscape driven and the landscape character of the site and the adjacent areas have a key influence on the masterplan. The landscape strategy is outlined in full in Chapter 4 of this document. For a full analysis of the existing landscape context and character refer to the landscape analysis pages in Appendix 1.



LAND USE

1. Dunton Hills Family Golf Course

Dunton Hills Family Golf Course occupies the southern part of the site, extending from the western boundary with the A128 to the eastern boundary adjacent to Dunton Hall. To the west, the golf centre is divided by the access road off the A128 and separated from the remainder of the course by Eastlands Spring and associated line of trees. To the east of the watercourse, the club house, car park and driving range introduce built development on the lower-lying land that sits in a bowl below the ridge and slopes that rise to the north. To the east, the golf centre occupies the rising land and plateau on the higher ground.

2. Arable agricultural land

Aside from the golfing use, the remainder of the site is predominantly managed for agriculture, comprising medium-large rectilinear fields that span the low-lying land to the west of the site, as well as the slopes beyond Eastlands Spring and Nightingale Lane and the ridge and plateau. Beyond the eastern site boundary, the fields pattern comprises smaller rectilinear fields managed for both arable and pasture and including paddocks defined by post and wire fences bounding the site to the north of Dunton Hall.

3. Ridge-line

The slopes and low ridge-line that crosses the site are a distinctive features in the local landscape, forming a backdrop in localised views.

4. Eastlands Spring

Running north-south along the base of the ridge-line, Eastlands Spring divides the site and forms a distinctive feature, with the tree-lined watercourse providing a transition between the low-lying fenland and the base of the slopes that lead to the ridge.

5. Ancient woodland

Running along the line of the Eastlands Spring Watercourse and Nightingale Lane, a line of ancient woodland and tree belts form a strong linear feature that dissects the site at the base of the ridge-line to the east and sloping land to the north.

6. Dunton Hill Farm

Situated on the upper slopes to the centre of the site, Dunton Hill Farm and associated barns and agricultural buildings form a distinctive feature on the slopes of the ridge. To the west of the farmhouse, land either side of the driveway is managed as amenity grassland and provides a domestic, formal character and setting to the farmhouse and barns to the east of Eastlands Spring.

7. Woodland blocks

As is typical of the wider landscape character, there are blocks of woodland on the higher ground to the east of the site. This includes a field-corner copse and plantation woodland.

8. Waterbodies

There are a number of amenity waterbodies within the low-lying land to the south of the site. These include larger lakes with a formal character and smaller ponds including marginal vegetation and self-set trees within the golf centre.

9. Infrastructure

A wind turbine is situated on top of the ridge to the east of the farm buildings. The access track to the turbine crosses the fields east of the A128 and passes to the south of the farm buildings.

Two overhead 132 kW power lines cross the site. The westerly power line enters the site in the south west corner and runs towards the lower reaches of the ridge-line before diverting north and leaving the site across the A127. The easterly power line runs from the south east-corner and diverts (in close proximity to the other power line) towards the north east. The two lines do not cross/ meet.

The turbine and pylons form prominent features in the local landscape, detracting from the views and settings of churches on the high ground to the north - west and east of the site as historic local landmarks.



UNDERSTANDING LOCAL HERITAGE

Land within the Dunton Hills Garden Village site allocation is sensitive in heritage terms because it contains a grade II listed farmhouse and historic farmstead. There is also a setting relationship with All Saints Church, which is grade II listed, and the Church of St Mary, as well as other heritage assets in the surrounding area, including other listed buildings, a Registered Park, conservation areas and non-designated heritage assets. There are also historic landscape features.*

The site comprises lowland areas to the south and west, with a ridge running north-south and a high plateau to the east. The setting of the heritage assets is, extensive, with long views afforded within and across the landscape. This setting is further extended by historic functional relationships between the site and surrounding historic estates, including those formerly controlled by Lord Petre and King's College Cambridge.

Historic buildings and features of note within the site and surrounding areas include:

Within the site:

- The Dunton Hills farmstead, a cluster of vernacular, former agricultural buildings dating from the late-C17 to mid-C19, located near the ridge. This includes the Grade II listed farmhouse and two historic barns, the southern of which forms a prominent landmark.

Within the surrounding area:

- The Church of All Saints, an attractive red brick church of Tudor origin, which is located on high ground to the north-east of the allocated site. Listed Grade II*, the church is in the care of the Churches Conservation Trust.
- The Church of St Mary's, rebuilt in the late-Victorian period, and now converted to residential use. This is listed at Grade II. The spire of the former church can be seen across the site to the north-east.
- Dunton Hall, a C18 farmhouse re-fronted in the early-C19 and refurbished in the C20. This is located close to St Mary's Church to the north-east of the site.
- Thorndon Hall Registered Park and Garden (RPG) (Grade II*) and Thorndon Park CA, which comprise the surviving extent of a landscaped park laid out in the early-C18 and redeveloped by Lancelot 'Capability' Brown between 1766-72.

Additionally, a number of buildings of local and cultural significance located close to the site boundary, including the early-C20 Old Mill Cottages to the south-west, and the mid-C19 Old Rectory and Friern Manor to the east.

Other important features within the site include the medieval, east-west Nightingale Lane and its associated ancient woodland, the mid-C19 driveway to the Dunton Hills farmhouse, the underground remnants of Nightingale Hall which lie beneath the woodland block in the north east of the site and historic surviving hedgerows and field boundaries.

The presence of these historic buildings and features within and around the site mean that heritage considerations must be central to the design of the new Garden Village.



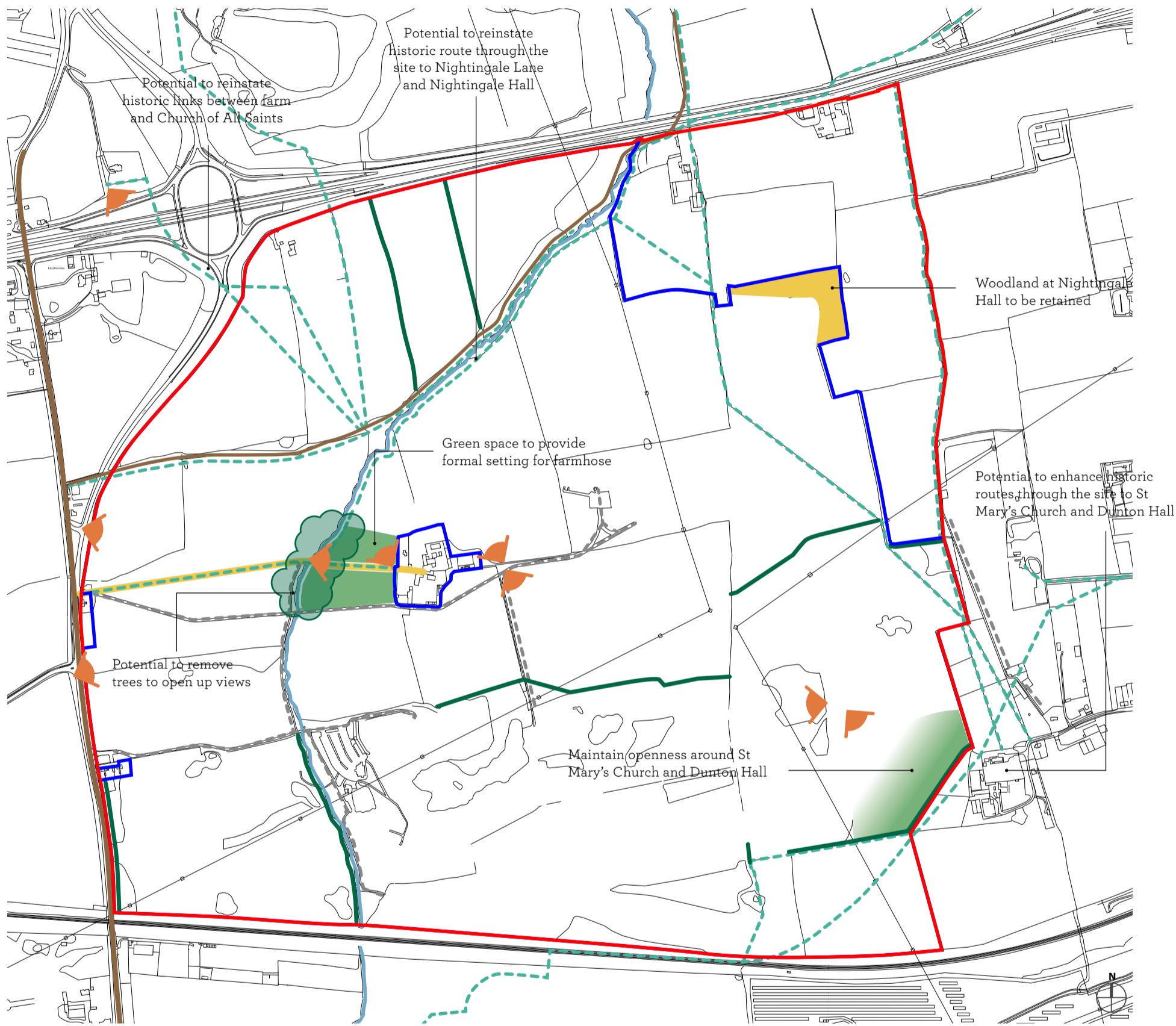
All Saints Church



Friern Manor



Principal south elevation fo the Dunton Hills farmhouse



Key

- Garden Village Allocation
- Dunton Hills Farmstead Boundary
- Eastlands Spring Watercourse
- Roads Dating from 1598 at least
- Farmhouse Drive laid out between 1838 and 1868
- - - Historic Footpaths
- - - Other Road or Track (no PROW)
- - - Historic and Existing PROW
- Historic Surviving Hedgerows
- Ancient woodland
- Location of Nightingale Hall (archaeology)
- ▲ OS Trig Point
- ▲ Viewpoint Location (views on following page)

Listed Buildings¹

1. Church of All Saints, Grade II*
5. Church of St Mary, Grade II
6. Dunton Hills Farmhouse, Grade II
10. East Horndon Hall, Grade II
13. Dunton Hills Farm, Grade II
14. Dunton Hall, Grade II

Non-Designated Heritage Assets¹

17. South barn at Dunton Hills Farm
18. North barn at Dunton Hills Farm
20. East Horndon Mills

UNDERSTANDING THE SETTING



B. View east from the A128 showing key ecological features that should be protected through design including veteran trees and the Eastlands Spring.



C. The view east along the existing driveway to Dunton Hills farm from Eastlands Spring.



A. The Church of All Saints (Grade II*) is situated to the north west of the site and long distance views from the farmhouse to the church should be preserved through the layout of the Framework Masterplan.



D. View southeast toward The Church of St Mary's. This important local landmark, short and long distance views to this should be celebrated within design proposals.

The selection of images shown below represent key historical features and elements (described in the previous pages) that have been pivotal in establishing the design and vision for Dunton Hills, one which is firmly embedded in its historical, environmental and cultural setting.



E. The distinctive spire of St Mary's church (Grade II) can be seen from higher points within the allocation site. View south-east from the ridgeline.



F. Long distance views west to Canary Wharf from the ridgeline



G. View east across the Fanns landscape toward Dunton Hills Farm from junction of Station Road/the A128

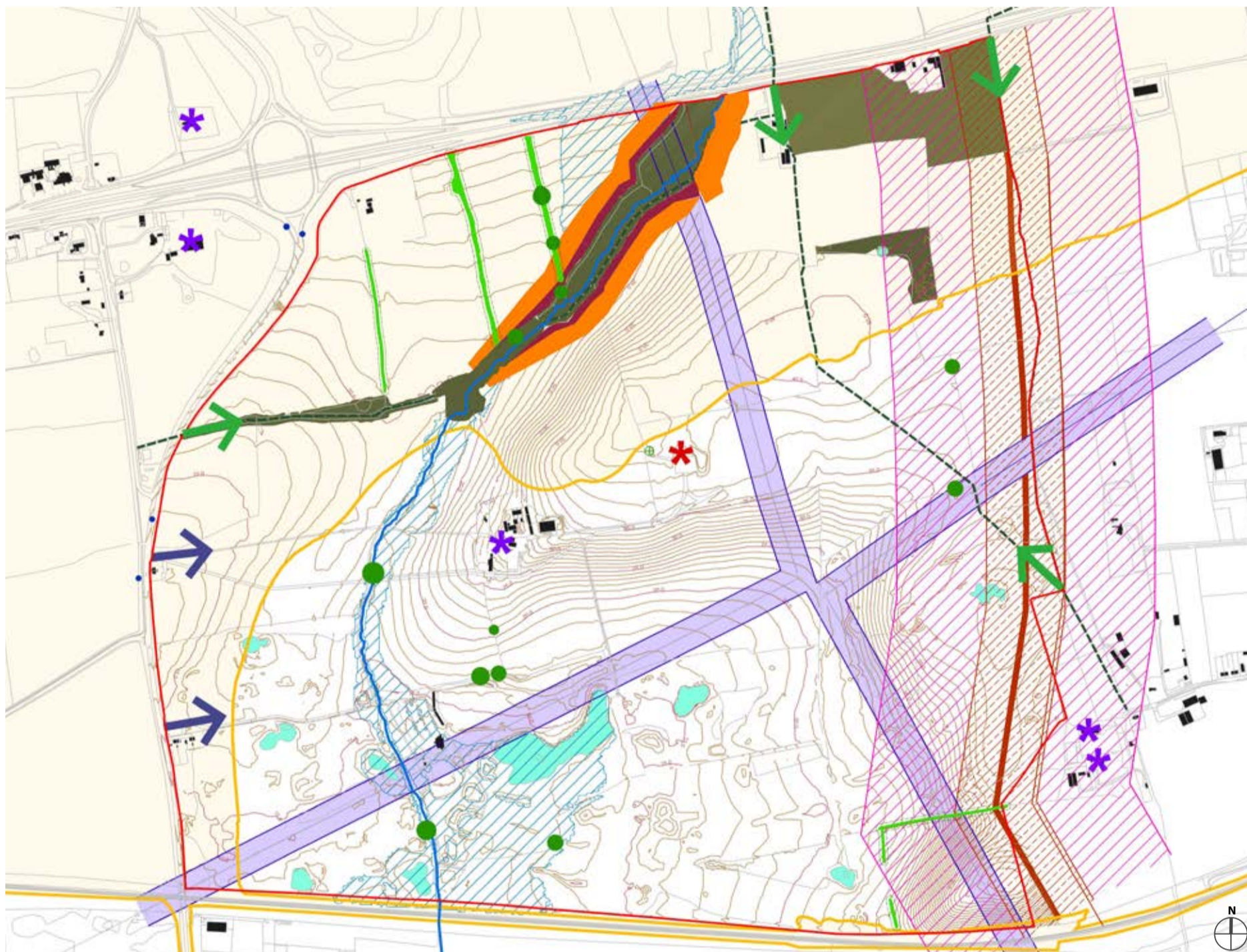


H. Looking south east towards from the Church of All Saints with the existing wind turbine (to be removed) visible to the rear.



I. The rising topography of the site is visible in the background. Looking north-west from Lower Dunton Road.

SUMMARY OF SITE CONSTRAINTS



The plan above provides an overview of the site constraints which are referred to and explained on the opposite page. There are a number of features around which the masterplan for the Garden Village will need to respond to.

A more extensive assessment can be found in Appendix 1.

KEY	
	Site Allocation
	Eastlands Spring Watercourse
	Waterbody
	Flood Zone 3
	PROW
	Pedestrian Access Point
	Vehicular Access Point
	Bus Stop
	Overhead 132 kW Powerline/easement (30m)
	500 kW Wind Turbine
	High Pressure Gas Main (no building easement 5m)
	HSE Inner Zone (78m)
	HSE Outer Zone (255m)
	> 55 db Noise Contour
	Trig point
	Listed building
	Existing built form
	Existing trees to be retained (Cat A/B)
	Important hedgerow to be retained
	Ancient/Semi Natural Woodland
	Ancient woodland 15m Buffer
	Ancient woodland 50m Buffer
	Contours

LANDSCAPE FEATURES

Topography

The site has a gently undulating topography with a north-south ridge line forming a distinctive feature, creating a plateau on the eastern side of the site. The eastern edge of the site sits at 40m Above Ordnance Datum (AOD) falling to 15m AOD along the south-western edge.

Flood and Drainage

The Eastlands Spring runs through the site in a north-south direction dividing the site. It enters the site under the A127 just to the west of Timmermans Nursery before running through an area of dense ancient woodland. It then heads south running to the west of the grounds of Dunton Hills Farm and the golf club house before leaving the site in a culvert under the C2C railway line.

The floodplain (flood zone 3) associated with Eastlands Spring covers a larger expanse of land as the topography changes into more open, flatter land around the golf course in the south.

Other water features on the site include a large lake and smaller ponds constructed as part of the golf course, some of which contain great crested newts.

Woodland

A strip of ancient semi-natural woodland and tree belts, running along the line of the Eastlands Spring Watercourse and Nightingale Lane, form a strong linear feature.

There are additional blocks of woodland on the higher ground to the east of the site. This includes a field-corner copse and plantation woodland.

A number of individual category A and Veteran trees and hedgerows located throughout the site have been identified for retention for their cultural, historical, nature conservation, landscape and ecological value.

HERITAGE FEATURES

A group of farm buildings, including Dunton Hills farmhouse (Grade II) sits at the centre of the site and are the most notable heritage features. In addition to this, former mill cottages sit along the western edge of the site and a historic OS trig point is also present to the north-east of the Dunton Hills Farm buildings.

Additional Grade II listed buildings in the immediate vicinity of the site include Dunton Hall and Old Church to the south-east of the site and All Saints Church and East Horndon Hall to the north-west of the site. The retention and enhancement of views to these features should be considered within any development proposals.

ACCESS

Vehicular Entry Points

The site is currently accessed from the A128 to the west. Existing access points from here comprise:

- the driveway to Dunton Hills Farm
- a track to a dwelling in the north-west of the site
- an access road to the golf club house in the south-west of the site

There is also vehicular access to the nursery from the A127. The C2C railway line restricts any access from the south.

Walking and Cycling

A Byway (Nightingale Lane) runs across the north-western part of the site, through the ancient woodland and out towards the A127 in the north of the site. A further Public Right of Way runs from the Timmermans Nursery in the north across the site and down towards the small settlement of Dunton to the south-east. There is a further footway paralleling the eastern boundary of the site which links the A127 to Dunton.

There are currently only a limited number of pedestrian crossing points across the A128 and these only consist of small central islands. A narrow public footpath exists on the western side of the A128, running between Station Road and Tilbury Road.

A cycle route runs along the south side of the A127.

Public Transport

A bus stop is located within the A128 public footpath serving the northbound route of the 565 bus. A further bus stop serving the southbound 565 bus route is located near the junction of the A128 and the driveway to Dunton Hills Farm. The 565 service runs 6 times a day with a journey time of around 20 minutes to Brentwood.

UTILITIES AND INFRASTRUCTURE

Power Lines

Two overhead 132 kW power lines cross the site. The westerly power line enters the site in the south-west corner and runs towards the lower reaches of the ridge-line before diverting north and leaving the site across the A127. The easterly power line runs from the south-east corner and diverts (in close proximity to the other power line) towards the north-east. The two lines do not cross/meet.

If left in their current location these would comprise a major site constraint as shown by the no-build buffer on the plan (left). These lines will be removed and placed underground to allow for development and should not be considered a constraint to development. The site will still need to host termination towers.

Gas Main

A high pressure gas main is located along the eastern edge of the site. This main (the Roxwell/Horndon High Pressure Gas Main) enters the site under the C2C railway line before diverting off in a northerly direction. The gas main has an immediate no-build buffer extending 6m either side of the main and a further buffer 10m either side of the main where there are planting restrictions.

The HSE provide indicative advice with regards to further zones comprising an Inner and Middle Zone (78m) and an Outer Zone (255m). Within the inner and middle zones no built development can take place. However, roads, open space and parking areas are acceptable. Within the Outer Zone any development can take place, with the exception of vulnerable uses e.g. care homes.

Turbine

A 500kW wind turbine also sits within the site and is located at the top of the plateau to the north-east of the Dunton Hills Farm buildings. It is proposed that this would be dismantled in the future to allow for development and should not be considered a constraint to development.

NOISE

The site has been assessed against the criteria contained in BS8233:2014. The highest noise levels were recorded to the north of the site, adjacent to the A127, and also along the western side, abutting the A128. The noise levels exceed the 55dB external threshold identified by BS8233:2014 and would require a combination of fencing, bunding and buildings to create an acceptable external noise environment in this location. For the purposes of master planning the site, the noise and vibration from the C2C railway line is neither as intrusive nor as significant as the traffic noise.

OPPORTUNITIES



The site's features provide an excellent opportunity to deliver a new and distinctive Garden Village which integrates seamlessly into the existing surrounding character and makes maximum use of its unique features. The plan above highlights these key elements and indicates how it could inform our initial design response.

KEY			
	Site Allocation		Potential Vehicular Access Point
	Eastlands Spring Watercourse		Potential Active Transport Corridor
	Blue/Green Corridor		Potential Village Centre
	Waterbody		Potential Neighbourhood Hub
	Ridge-line		Listed Building
	Existing trees to be retained (Cat A/B)		Key Listed Building
	Important hedgerow to be retained		Trig point
	Ancient woodland		Key local views
	Woodland		Long distance views
	Potential key green space		Potential extent of built form
	Potential enhanced structural planting		Potential adjacent employment
	Existing PROW		Railway
	Potential Pedestrian Access Point		

ENHANCED GREEN AND BLUE NETWORK

The existing woodland, hedgerows, spring and ponds provide the basis for an extensive green and blue network. These features can be enhanced and integrated into key spaces which correspond to their setting, offering a variety of spaces for relaxation, active recreation and interaction with nature. These spaces could potentially include a central village green, small pocket parks and a ridge-line park to open up views to the south (North Downs) and west (London skyline).

SuDS could be situated in open spaces to ensure flood mitigation.

Structural planting will be focused along the eastern boundary of the site, creating a soft boundary between the proposed development and adjacent land while also screening views into the development from the east.

CELEBRATING HERITAGE

A focal open space could be located to the west of the farmstead to maintain the rural setting and views toward this historic building.

Local views to key listed buildings both within and adjacent to the site should be retained and enhanced and necessitate further consideration as development proposals progress.

A key historic route providing access between the farmstead and Nightingale Lane could be revealed through the masterplan proposals.

Where possible, historic field boundaries should be maintained through the retention of existing hedgerows ensuring that the masterplan responds to the rich rural and ecclesiastical legacy evident within the area.

BUILT FORM AND STRUCTURE

The topography divides the site into upper and lower portions with Eastlands Spring creating a further natural division. The character of these areas will respond to their immediate landscape context, the details of this will be set out later in this document.

There is opportunity for the Village Centre to be close to the historic farmstead and located at the junction of the primary vehicular and Mobility Corridor. This location could be a positive response to the physical constraints of the site and further celebrate the site's distinctive heritage features.

A WELL INTEGRATED DEVELOPMENT

Our proposals should seek to integrate into the existing Public Right of Way network and strengthen cycle and pedestrians connections into the wider area.

New and enhanced pedestrian access points could be provided along the eastern boundary of the site. In addition to this, new pedestrian/cycle crossing points should be created which ensure safe and convenient links with Station Road and West Horndon to the west of the site.

There is the opportunity to provide a new bus service to West Horndon Station through a bus/cycle only 'active transport corridor' which connects the potential Village Centre with Station Road to the west of the site.

Vehicular access could be provided from two points along the A128 with the potential for additional vehicular access points from the east at a later date.



CHAPTER 3

MASTERPLAN DRIVERS AND FUTURE TRENDS

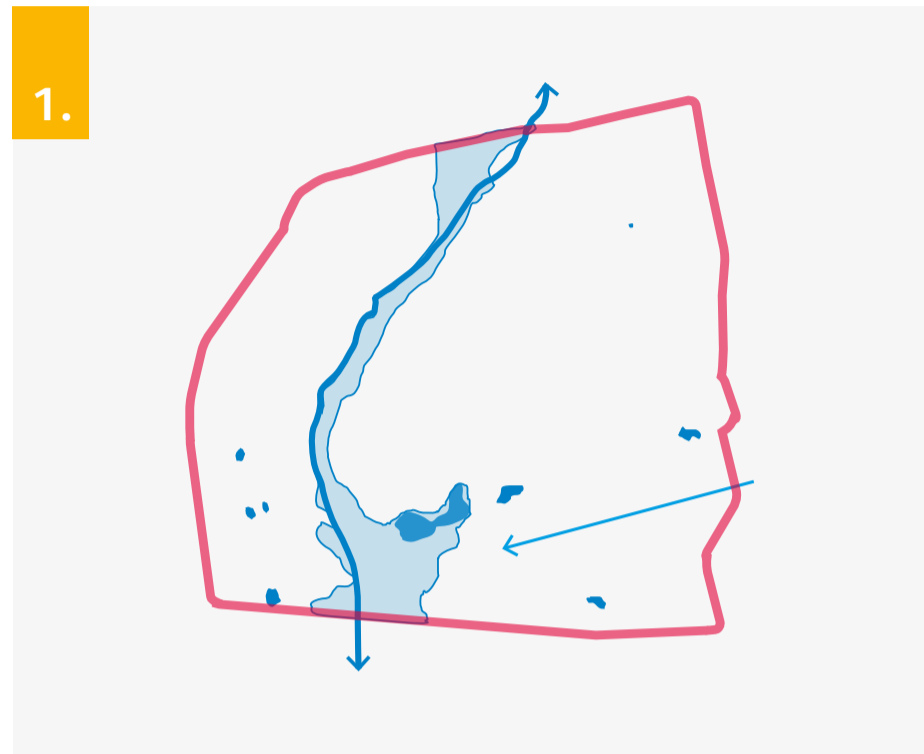
This chapter introduces the key spatial and site characteristics that will influence the masterplan along with broader societal and technological advances which will play an increasingly important role as the Garden Village continues to evolve. It also summarises the extensive design work undertaken by the CEG team in close consultation with a range of stakeholders and the subsequent evolution of the Garden Village proposals.

3



MASTERPLAN DRIVERS

Following on from the site constraints and opportunities set out in the previous chapter, a number of spatial design drivers have been developed for the site. These drivers reflect the site analysis and discussions and workshops held with key stakeholders.



BLUE - WATER

Several water elements influence the site:

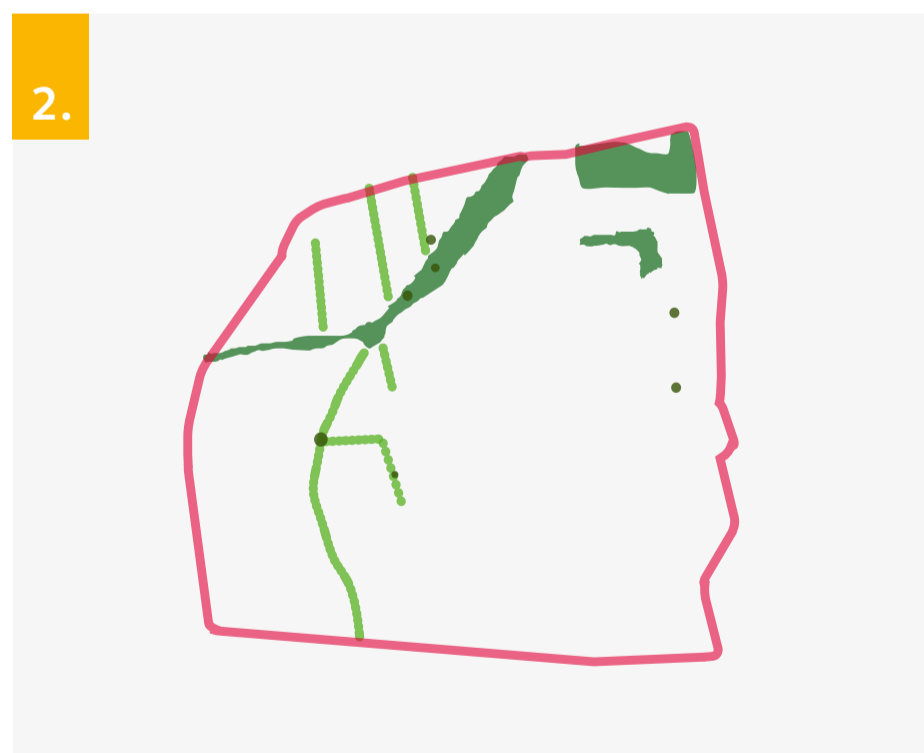
- Eastlands Spring, which runs north to south across the site
- The floodplain in the south of the site as well as the existing ponds. These together create a wetlands area



LANDFORM AND CHARACTER

There is a distinctive landform which the masterplan needs to respond to, comprising:

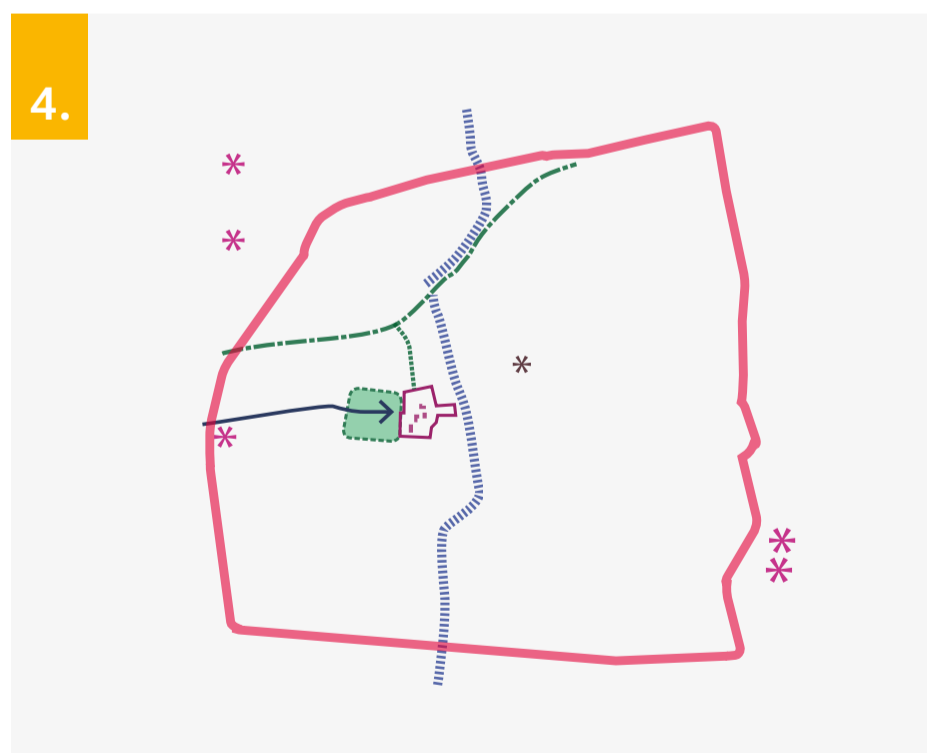
- A key ridge-line that snakes its way north to south
- Higher land to the north-east forming a plateau
- Low lying, reclaimed Fenn land to the west and south of the site



GREEN - TREES AND WOODLAND

There is an established green framework across the site. This will be incorporated into the open space and ecology network and comprise:

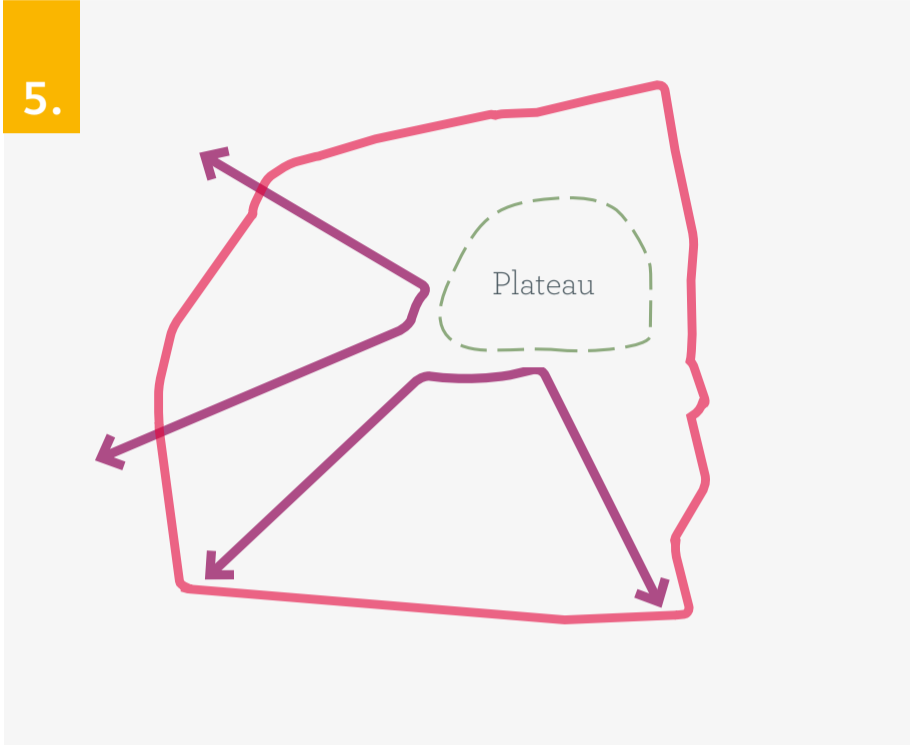
- Ancient woodland belt (in the north)
- Further woodland belts and blocks across the site
- Existing key (ecologically important) hedgerows and Cat A trees



PAST AND HERITAGE

There are a number of historic features both within and outside of the site, the setting of which need to be preserved and respected. These comprise:

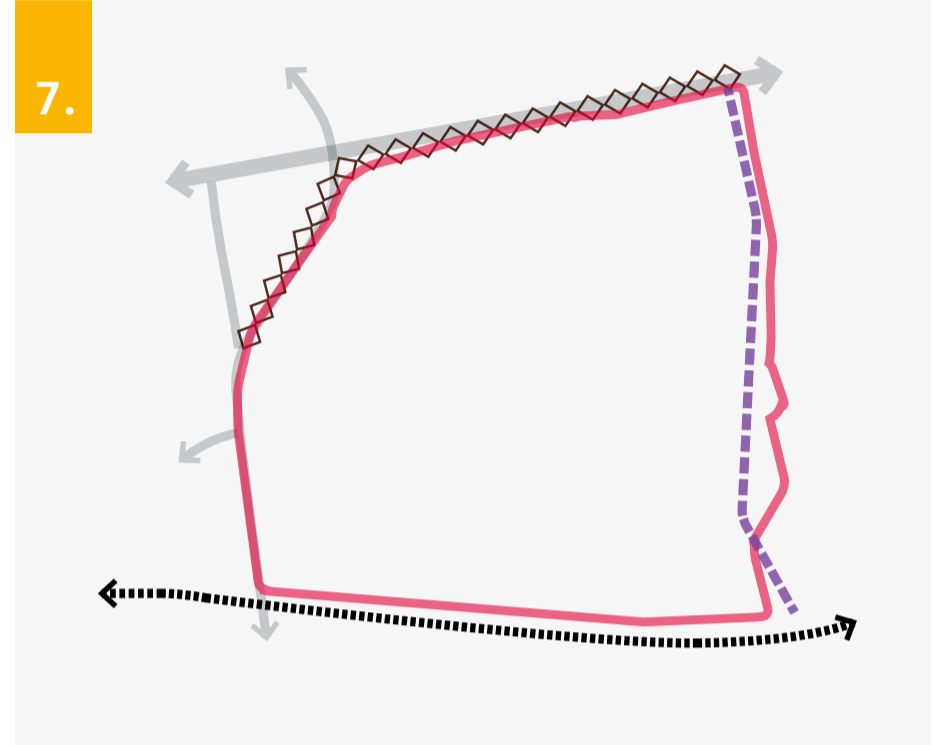
- Dunton Hills Farmstead which is a Grade II Listed Building and a prominent feature and orientation point within the agricultural and surrounding "Fanns" landscape
- Key historic features and routes through the site, including Nightingale Lane and the former Farmstead Driveway
- Key historic and gateway buildings surrounding the site



SCENIC VISTAS

The plateau in the north east of the site occupies an elevated position that:

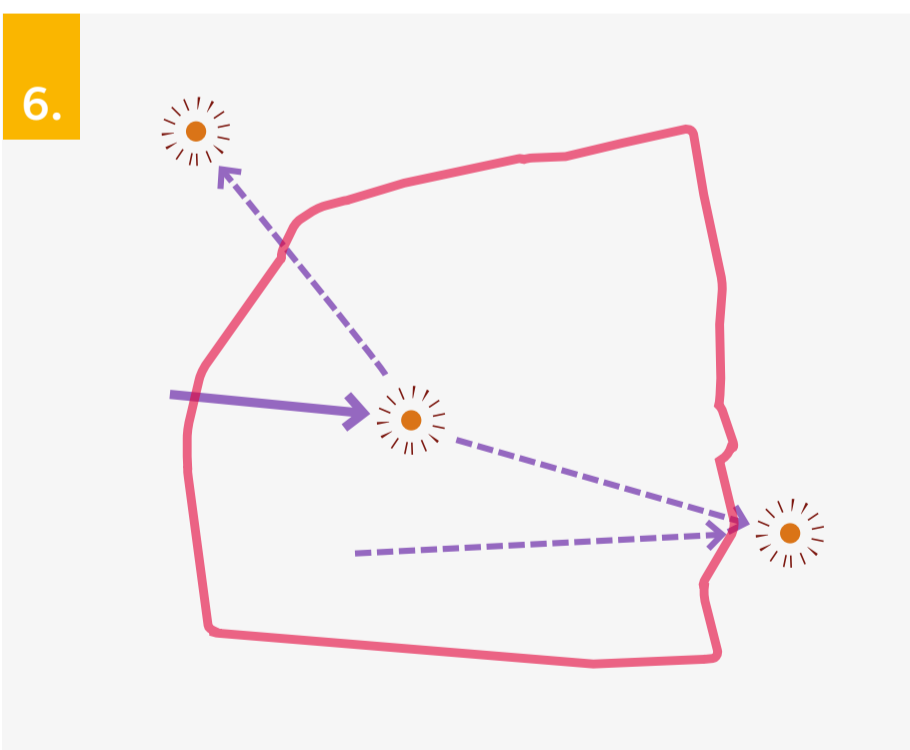
- Affords distant views towards the central London skyline in the west
- Allows distant views across to the North Downs in Kent to the south



INFRASTRUCTURE

The site is bounded by transport infrastructure on three sides. These are major connectivity drivers but also barriers to movement/noise and pollution generators:

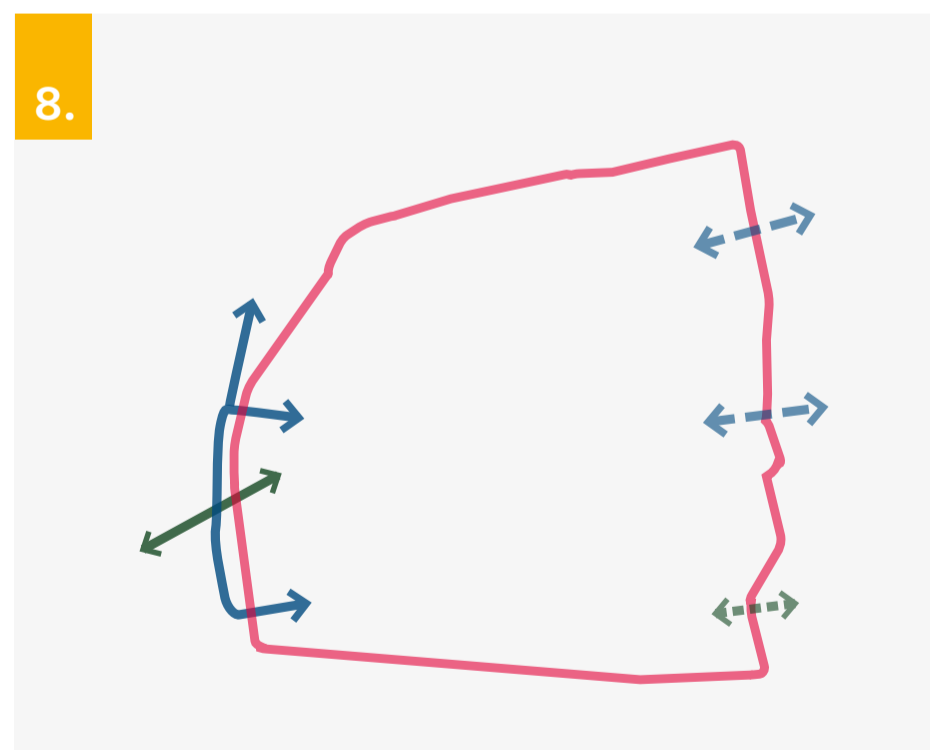
- A127 - busy, strategic road to the north
- A128 - busy, strategic road to the west
- A127/A128 interchange to the north west
- Main railway line to the south
- High pressure gas main line along eastern boundary



LOCAL VISTAS

The site, its internal features and its immediate surroundings create a number of local vistas, comprising:

- Potential avenue view to Dunton Hills Farm from the A128 to the west (Tilbury Road)
- Views out towards the neighbouring churches in the north west and south east



ACCESS AND ARRIVAL

The configuration of the adjacent road network means that:

- The main vehicular access points will be from the A128 to the west
- The Station Road link to West Horndon Station to the west of the site is of key importance for pedestrians and cyclists
- Connections east towards Basildon need to be future proofed

FUTURE TRENDS AND INFLUENCES

Dunton Hills Garden Village must be a place fit for the future. This section briefly outlines some of the key trends, influences and societal changes that we believe need to be understood and embedded into the design to create a futureproofed masterplan which is to be delivered over the next 10-20 years and meet the needs of the new community long into the future.

Sustainable place-making and density

Education and learning

Mobility

Food production

Employment and work patterns

FUTURE TRENDS AND INFLUENCES

Retail and community facilities

MOBILITY

We are living in a time of unprecedented change in transportation technology and what this means for mobility. While the car will continue to have its place in the short term future, the new Garden Village must allow flexibility to accommodate alternative modes of transport. The trends most relevant for further consideration, which should be considered during the design process include:

- The role of new technologies such as automation and vehicle electrification (by 2035).
- The sharing economy and the rise of on-demand mobility, hail and ride services.
- Behavioural shifts away from a car oriented existence. People are making fewer car trips, the car driving mileage per adult is reducing and car ownership amongst younger people is decreasing.
- An increasing reliance on public transport and shared mobility within younger generations (17-35).
- The impact that the above trends could have on design (e.g. fewer parked cars and less need for car storage on plot and on the street).

Walking and cycling

A sustainable development should ensure people of all ages have the environment and incentive to walk and cycle within the site (to/from the village/Neighbourhood Hubs, the schools, employment locations or nearby mass transit hubs). This can be achieved through:

- The provision of high quality, safe and direct routes (known as Active Corridors) which should be off road where possible but overlooked. Such routes should be children centric in their design to allow younger people to move safely across the site.



Electric car charging points



Local food production and farmers markets



Work Hub- flexible working spaces for the community

- High quality pedestrian/cycle links to West Horndon Railway Station to ensure a seamless and safe connection.
- Cycle hire schemes (alongside electric bikes and scooters) could help encourage active movement within the site.

Mobility Hub and community concierge

Mobility Hubs and community concierge services are now being planned for in large scale schemes such as this. They offer a focal point for the administration of the Travel Plan within the scheme, a place to pick up deliveries, book transport, charge your bike and provides information and help for those who are mobility impaired. This should be at the heart of the scheme. The services which could be located here include:

- Car club.
- Cycle and electric cycle hire and maintenance.
- Public transport interchange.
- Community Concierge and micro consolidation. Going forward local deliveries within the site could be provided through ground drones – a concept that is being rolled out in Milton Keynes.

EMPLOYMENT AND WORK PATTERNS

The way we work is already changing and will continue to do so. Job agility is increasing and many roles are less tied to a physical location. The new wave of working includes more self-employed people, entrepreneurs and new business start-ups and this trend is likely to continue. Many workers may be home based whilst others will require/prefer affordable and flexible working environments with the possibility to interact with others and share knowledge. The necessary space/buildings need to be provided within the 21st century village to offer wealth of opportunities for the next generation of workers. The Garden Village should include:

- Local co-work spaces which provide the opportunity for people to live and work within the village and reduce the need to travel.
- Flexible and adaptable buildings and workshops with “grow on” floorspace for small start-ups to move to as they expand, helping to retain them within the village
- High speed digital connectivity.



Communal spaces provide opportunities for outdoor learning and events

RETAIL AND COMMUNITY FACILITIES

The 21st century village needs to respond to changes in the economy and consumer behaviour. The biggest changes influencing the retail market include:

- Growth of online shopping which is a major factor behind the decline in traditional bricks and mortar retail.
- A shift away from large store retail formats.
- Retail and community facilities traditionally associated with villages have suffered decline (e.g. post offices and public houses). However, community owned shops are a growing trend in rural locations (support local produce/a link to community control) and there is a nationwide boom in farm shops reflecting a societal shift toward eating sustainably, locally and organically.
- Co-location of community/retail facilities. The village High Street or centre of the future is likely to comprise multi-functional buildings with flexible space as these offer the opportunity for viable community and retail services and facilities to be provided
- The importance of “meanwhile” and temporary uses at the outset, in order to establish a sense of community and reduce unsustainable travel patterns from day one.

FOOD PRODUCTION

We are seeing a growing societal preference for organic, local and sustainable food production. A productive landscape strategy should be embedded in proposals for the new Garden Village. This could include provision of allotments, community gardens and vineyards. Provision of these facilities not only promotes healthier lifestyles, it also encourages community involvement, further physical activity, interaction with nature and provides opportunities for outdoor education. Local produce could be sold on site, increasing access to fresh fruit and vegetables.

EDUCATION AND LEARNING

The emerging Local Plan at Dunton Hills requires a secondary school, three primary schools and early years provision. The learning environments of the future are likely to change and learning across different environments is becoming more and more important.

- Active social learning is important. A key output from the stakeholder workshops was to ensure that the schools, should be located



Cycle hire schemes will promote sustainable transport

adjacent to green open spaces, creating opportunity for outdoor learning which will have significant health and well-being benefits related to this.

- Prioritising apprenticeships opportunities to pupils leaving the secondary school would also engender ownership.

The schools should be easily accessible to their surrounding neighbourhoods through sustainable means of transport ensuring that children and young people remain active and get regular exercise. A key aim of Dunton Hill Garden Village should be to create car free environments around schools as much as possible and little or no drop off parking provision, reflecting current national trends.

SUSTAINABLE PLACE-MAKING

Whilst the existing character of a local area should be understood, it does not necessarily mean that it should be duplicated in the new Garden Village. We need to plan and design for a village fit for purpose for current and future generations, not a pastiche of the past. The following elements will be critical in creating a Garden Village for the future.

Urban structure

An appropriate design approach needs to respond to the site’s unique context and landscape setting alongside its future function as a highly sustainable place that maximizes the use of public transport.

Density

Density and form should not just seek to replicate our traditional impression of a rural village. The site will need to cater for a range of densities, to support a mixed community with housing catering for families, the young and the old. Densities, particularly in the west of the site (closest to the station) need to be maximized to reflect this. Furthermore, government policy has, over the last 20 years, encouraged an increase in density to support public transport and create more efficiency in the use of land. This will continue to be the case in the future.

Urban fabric

Whilst detailed guidance will come in the form of a Supplementary Planning Document (SPD), the design of buildings is important and must meet contemporary and future housing needs. It should be adaptable over time and support changing life needs, whilst also catering to the needs of those who choose to work from home. It is key that houses be located on active, well designed and attractive streets with access to public open space – not just private back gardens.

SUMMARY

The above is not an exhaustive list of considerations for the future village, but some of the key known changes in society that are happening now and will help shape the masterplan. The masterplan must contain a degree of flexibility to respond to future changes. Indeed, innovations today are likely to be out of date in 20 years time.

DESIGN EVOLUTION TIMELINE

This section provides a brief synopsis of the stakeholder engagement process and how it has helped inform the design evolution. Whilst it should be noted that masterplanning and local stakeholder engagement (including CABE workshop reviews) for the site has been on-going since 2014, a collaborative process of work on the current masterplan began in early 2019 with a series of stakeholder workshops and Design South East review panels.

**TECHNICAL
STAKEHOLDER
BRIEFING AND
MASTERPLAN
WORKSHOPS
(FEBRUARY 2019)**

**DESIGN
SOUTH EAST
WORKSHOPS
(APRIL 2019)**

**DESIGN
SOUTH EAST
WORKSHOPS
(MAY 2019)**

**DESIGN
SOUTH EAST
CHECKPOINT
MEETING
(MAY 2019)**

**1ST FORMAL
DESIGN
REVIEW PANEL
(JUNE 2019)**

**PUBLIC
EXHIBITION IN
WEST HORNDON
(JUNE 2019)**

This involved presentations from the Borough Council and CEG followed by group discussions and feedback at the end focussing on:

- Landscape, green infrastructure and biodiversity
- Heritage assets
- Social infrastructure (education, community, health and Village Centre)
- Sustainable infrastructure (energy, travel and other)

Chaired by Design South East (D:SE) these workshops were broken into individual themed sessions covering:

- Vision, concept and narrative workshop
- Green and blue infrastructure workshop
- Heritage and design workshop
- Socio-economic workshop

At each workshop CEG presented the most recent design work before a wider Q+A session and table discussions took place. D:SE provided a summary note after the event.

Two further sessions following the previous format were held in early May covering:

- Smart and sustainable infrastructure workshop
- Sustainable transport workshop

CEG explored the site capacities and densities to provide the Borough Council and D:SE with the assurance that 3,500 – 4,000 homes could be accommodated on the site and the level of social and community infrastructure required.

This was a formal presentation to D:SE, Homes England, landowners and the Borough Council setting out:

- CEG's vision for the Garden Village;
- Key masterplan drivers and the evolution of three neighbourhoods;
- Initial plans on access and movement.

Held at Francis Church Hall in West Horndon, this exhibition focused on the area of the site controlled by CEG. A number of boards with information about the scheme and the masterplan were presented to the public with members of the CEG team on hand to discuss the proposals and listen to concerns.



Stakeholder Consultation Workshop (February 2019)



Stakeholder Consultation Workshop (February 2019)



PRE-APP HERITAGE MEETING (JUNE 2019)

This was a meeting between CEG, Historic England and Borough Council Heritage to explore the key heritage features within the and surrounding area and their sympathetic integration in to the masterplan.

2ND FORMAL DESIGN REVIEW PANEL (JULY 2019)

This was to a similar audience as the previous Design Review Panel with the CEG team presenting:

- Key spatial drivers which had shaped the landscape led design proposals;
- Further detail on each of the three neighbourhoods;
- Changes to the masterplan since the previous session.

INNOVATION AND DESIGN GUIDELINES WORKSHOP (SEP 2019)

This was chaired by D:SE and included key stakeholders with discussions covering:

- Transport and community building;
- The level of detail required for the Framework Masterplan and the subsequent SPD.

EDUCATION WORKSHOPS (SEP 2019)

These were run by the University of Birmingham with the assistance of CEG and the Borough Council. The purpose of these workshops were to:

- Inform the SPD document;
- Actively engage local students with the masterplanning process;
- Educate students about future career opportunities in urban design, architecture and planning.

3RD FORMAL DESIGN REVIEW PANEL (SEP 2019)

This was the final Design Review Panel. D:SE supported the design rationale and updated masterplan presented by CEG and suggested minor amendments to the masterplan and Masterplan Framework document including:

- The need for additional mandatory design principles to be outlined in the MFD to protect the design concept;
- Further exploration into the mobility and sustainability strategy.

MASTERPLAN STAKEHOLDER UPDATE AND DESIGN SOUTH EAST CHAIR REVIEW (JAN 2020)

A further draft of the Masterplan Framework Document was discussed at a meeting with the Chair of the D:SE Design Review Panel and officers from Brentwood Borough Council. The main purpose of this was to present and agree on the approach to the Mandatory Principles. The Chair provided final comments prior to the completion of the document.



Education Workshops Student Presentations (September 2019)



Education Workshops design activities (September 2019)

DESIGN EVOLUTION SUMMARY DIAGRAM

FRAMEWORK MASTERPLAN EVOLUTION



Stakeholder workshops (April 2019)

Through these workshops locations for the key community hubs within the site were identified. This was informed by:

- A need to provide facilities within walking distance of residents;
- The topography of the site;
- Emerging local plan policy requirements for the site.

The main Village Centre was located to the south with a Neighbourhood Hub in the west and a third Neighbourhood Hub was located in the north (on the upper plateau).



Preferred option 1 (May 2019)

Following the workshops this spatial option was drawn up. Further capacity testing took place ensuring that the proposals met local plan requirements and could support the range of social infrastructure set out in the emerging local plan. This detailed assessment informed discussions with D:SE and the Borough Council in mid May. These meetings covered the heritage and the need for the farmstead to be more at the heart of the Garden Village and for a stronger east-west street connection across the south eastern part of the site, as opposed to the longer loop shown.



Design Charettes

Detailed design

Further exploration and internal design reviews

Internal interrogation of the design proposals ran in parallel to the external workshops and presentations. Key matters explored in further detail included the sensitive integration of existing site features with particular focus on the relationship between the Village Centre and the existing farmstead to ensure our proposals respected the setting of this feature and embedded this at the heart of the Garden Village. The need to establish direct (traffic free) connections between the site and West Horndon Station and providing convenient pedestrian and cycle links within the site were also explored.



Parcel testing

The illustrative masterplan proposals for Phase 1 were tested further through design optioneering and detailed sketch layouts for key spaces. This ensured that the design proposals are based on a robust and achievable design rationale. This analysis focussed on elements such as character, density, heights, parking, the location of non-residential land uses, open space provision and phasing.



More detail on the design evolution and review process is contained on the appendix.

Design Review Panel 1 (June 2019)

A refined masterplan was presented to D:SE. Key facilities were located close to the farmstead (to the south) and the site is divided into three distinctive neighbourhoods.

- Western Neighbourhood on the flat land between the A128 and Eastlands Spring
- South Eastern Neighbourhood on gently undulating land to the east of Eastlands Spring.
- North Eastern Neighbourhood - on the plateau at the top of the ridge-line.



Design Review panel 2 (July 2019)

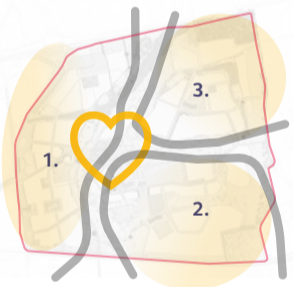
The feedback from the 1st Design Review Panel was positive, but there was still a clear desire for the centre of the village to be more closely linked to the historic farmstead and better linked to the Mobility Corridor connecting to West Horndon Station. The Village Centre was, therefore, relocated to the west of the farmstead and presented at the July Design Review Panel. This was received positively.



Design Review panel 3 (October 2019)

The Framework Masterplan plan below was presented to D:SE and was the culmination of the design moves agreed upon through the design review process and stakeholder discussions. It received support from the group. It addresses previous concerns raised and seeks to embed the Garden Village firmly within its historic and environmental context. These elements are covered in more detail later in the document.

THE SITE IS DIVIDED INTO THREE CHARACTER LED NEIGHBOURHOODS, DUNTON FANNS (1), DUNTON WATERS (2) AND DUNTON WOODS (3)



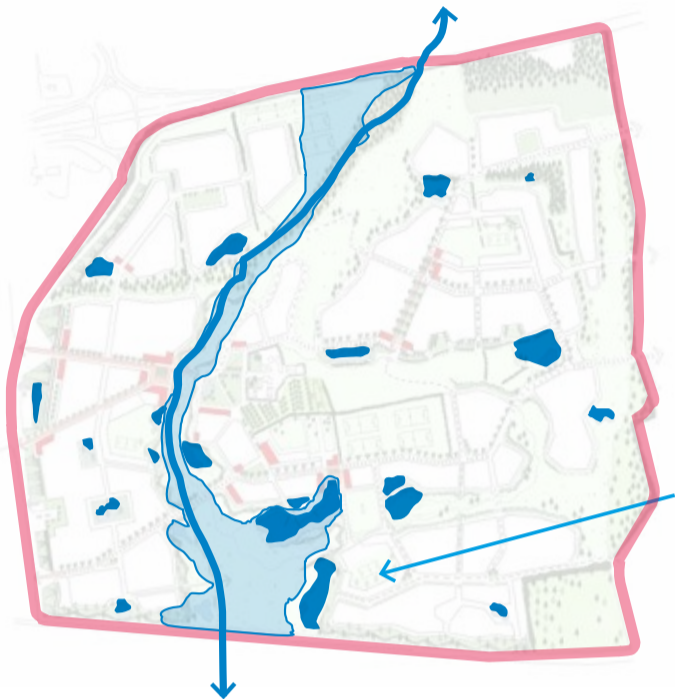
Illustrative vision

On defining the overall desi framework and appropriate location of facilities key arer of the masterplan proposakt were explored in 3-D bringing the Garden Village to life. These illustrations gave a clearer indication of the interplay between the proposed layout and existin landscape and heritage elements and helped to spatially define key element of the site such as the Market Square, village gree and all through school in further detail.



RESPONDING TO THE DRIVERS

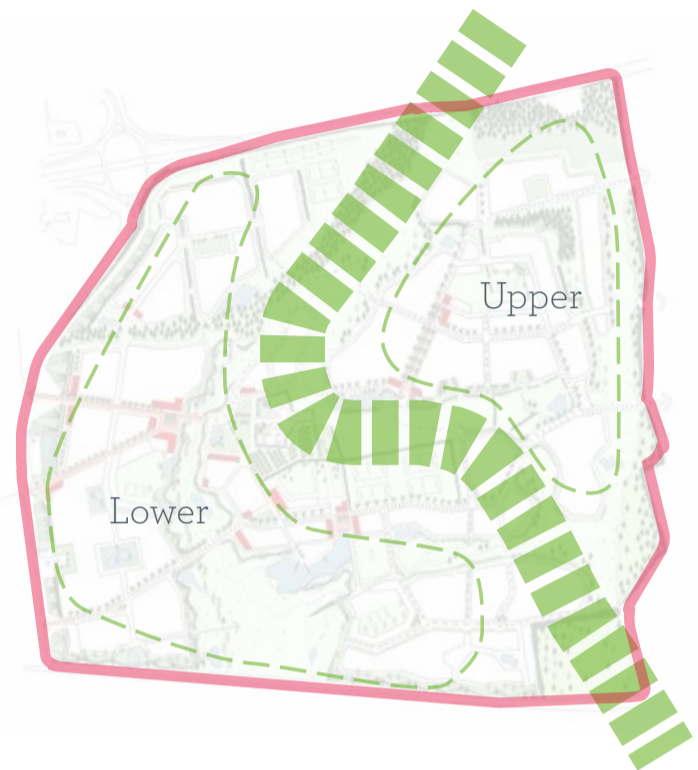
1.



BLUE - WATER

The Framework Masterplan establishes a positive frontage onto the Eastlands Spring which celebrates the wetland setting, respecting the floodplain and associated ecology. A number of existing ponds are retained and additional sustainable drainage areas added.

3.



LANDFORM AND CHARACTER

The ridge-line forms an integral part of the site's green infrastructure and open space network.

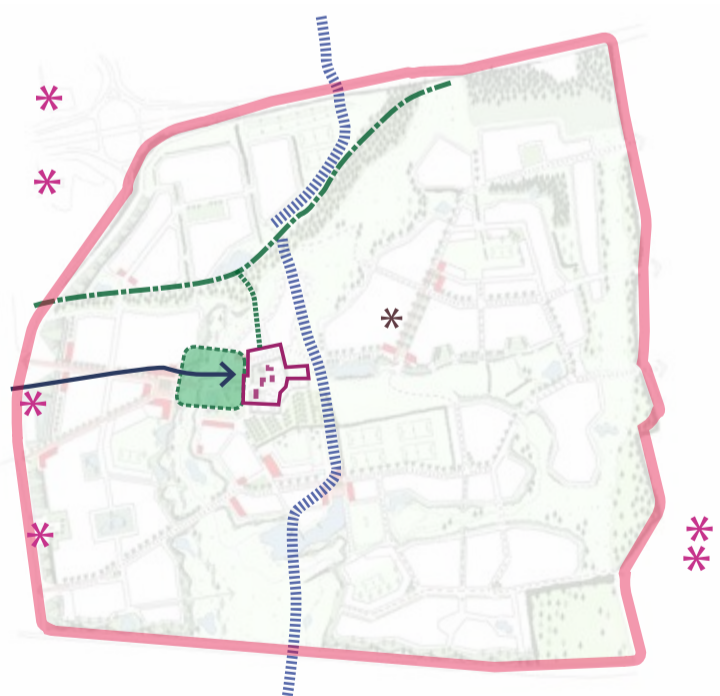
2.



GREEN - TREES AND WOODLAND

The key green element that informs the layout are the woodlands, some of which are ancient. These are strengthened to form a woodland setting for adjacent neighbourhoods. Historic hedgerows also inform the layout, protecting both their heritage and ecological benefits.

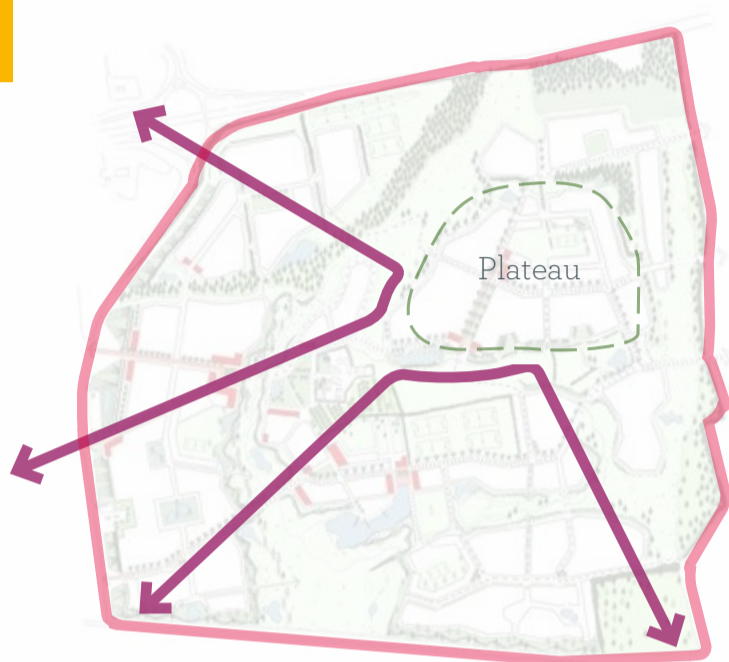
4.



PAST AND HERITAGE

The historic farmstead becomes a key node around which the masterplan is organised. The Village Green is located to the west of the farmstead, respecting its setting whilst ensuring its integration into the centre of the Village. Key views to the surrounding church spires are preserved.

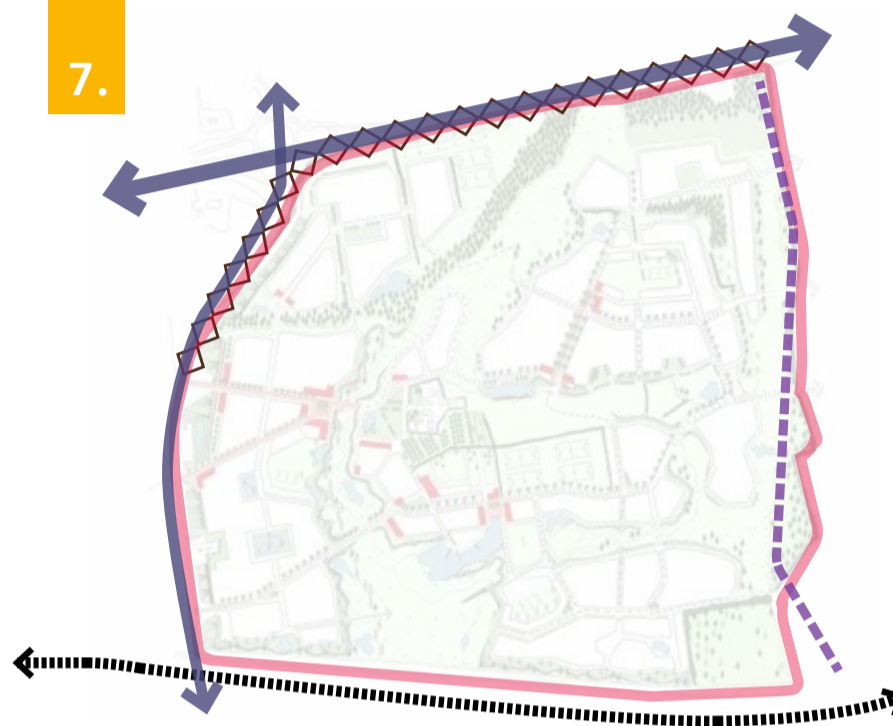
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SCENIC VISTAS

The layout responds directly to the elevated areas within the site at the top of the ridge-line, establishing views across to the North Downs to the south and towards the London skyline to the west.

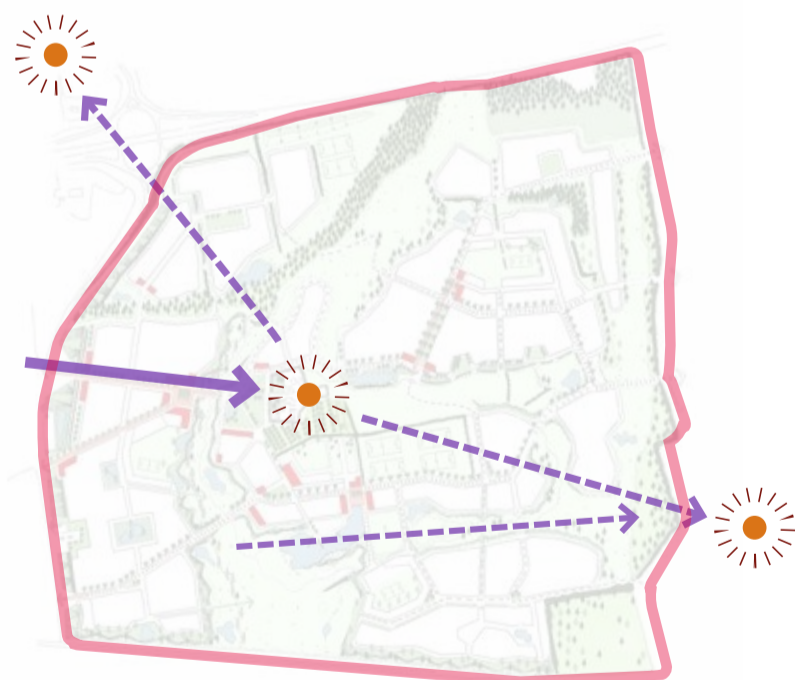
7.



INFRASTRUCTURE

The framework respects the surrounding transport infrastructure to the north, south and west and the gas pipeline to the east. Appropriate buffers are created to ensure set backs, but each buffer forms part of a network of usable green spaces.

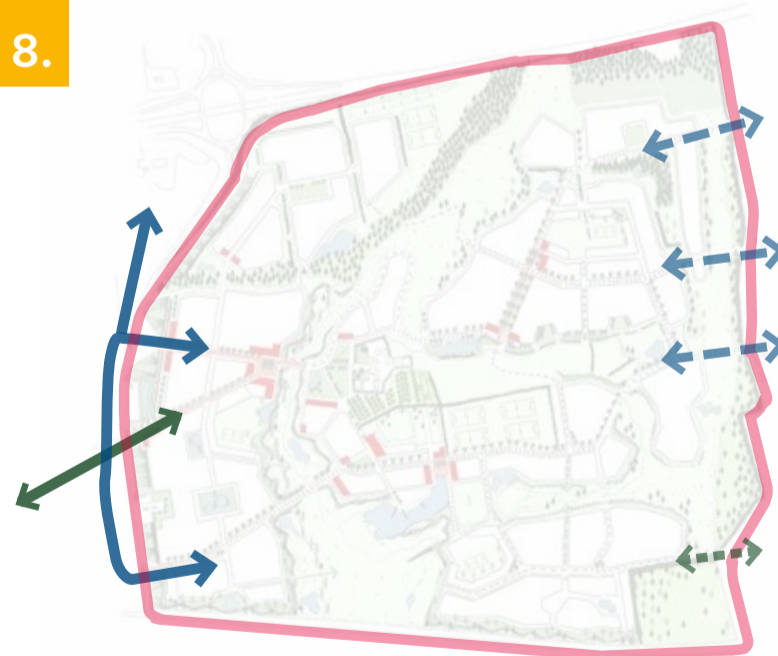
6.



LOCAL VISTAS

Important local vistas which are primarily linked to the heritage assets, are safeguarded and designed into the layout of the Garden Village. Most significantly a Boulevard from the A128 establishes a key view corridor to the Farmstead. The buildings heights and layout also preserve views to the spires of neighbouring churches.

8.



ACCESS AND ARRIVAL

Key vehicular access points are taken from the A128 to the west. A central pedestrian and cycle corridor aligns with Station Road leading to the heart of the Village around the Market Square. Further access opportunities are future proofed into land to the immediate east of the allocation. There is scope for a pedestrian, cycle and emergency access link to the south east of the site, but this is subject to planning permission from the adjoining local authority.

“

THE SITE'S WONDERFUL AND PLENTIFUL LANDSCAPE ASSETS PROVIDE A UNIQUE SETTING WITHIN WHICH TO CREATE THE NEW GARDEN VILLAGE. THE ARRAY OF NATURAL PHYSICAL FEATURES INCLUDING THE SOUTH ESSEX FENLAND, THE WETLANDS, THE EASTLANDS SPRING, THE RIDGE AND THE WOODLAND HELP TO INFORM THE CHARACTER AND THE SENSE OF PLACE OF DUNTON HILLS AND CREATE THE OPPORTUNITY ON WHICH TO CREATE A MULTI-FUNCTIONAL AND VARIED GREEN AND BLUE INFRASTRUCTURE NETWORK.

THIS NETWORK WILL NOT ONLY ENCOURAGE HEALTHY WHOLE LIFE LIVING, ENHANCE ECOLOGICAL BIODIVERSITY, EMBED CLIMATE RESILIENCE AND FACILITATE ENVIRONMENTAL LEARNING, BUT WILL ALSO ACT AS THE THREAD WHICH BRINGS THE THREE NEIGHBOURHOODS TOGETHER AS ONE COMMUNITY. IT ALSO OFFERS THE SEEDS OF OPPORTUNITY IN WHICH TO SET NEW FORMS OF PLAY, SPORT AND RECREATION, POCKET PARKS, ACCESSIBLE VIEW-POINTS, HABITAT CREATION, WALKING AND CYCLING MOVEMENT FOR ALL AGES, COMMUNITY FOOD PRODUCTION AND SUSTAINABLE AND WELL-DESIGNED WATER MANAGEMENT.

DUNTON HILLS WILL BE, WELL AND TRULY, A LANDSCAPE LED GARDEN VILLAGE FOR THE FUTURE.

”

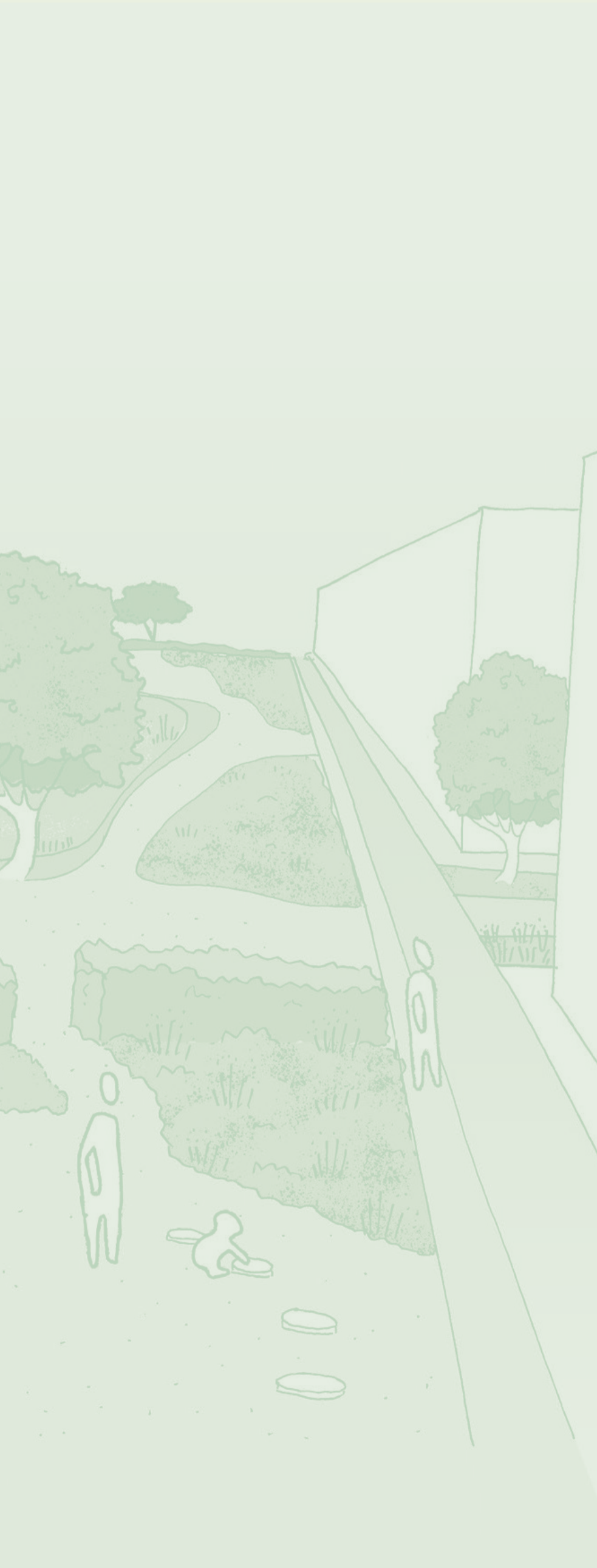
LANDSCAPE VISION



CHAPTER 4

LANDSCAPE: GREEN AND BLUE INFRASTRUCTURE

Dunton Hills Garden Village is a landscape led masterplan. This section illustrates how the existing landscape features and character influence the development of the Framework Masterplan and sets out principles for the integration of an attractive and ecologically sensitive network of green and blue spaces into the Garden Village.



4.

LANDSCAPE ANALYSIS: GREEN AND BLUE INFRASTRUCTURE

OVERARCHING LANDSCAPE STRATEGY

Dunton Hills will be a 21st century Garden Village, embodying the characteristics of modern living in a rural setting. The landscape will seek to celebrate and enhance the existing natural assets of the site, whilst also forming new landscapes that people will enjoy living, working, and playing in.

The landscape will create a base layer for the development of new homes within neighbourhoods. A range of different landscapes will form the spaces between the buildings, and will create a setting for moments of enjoyment, recreation, exercise and learning.

The landscape strategy for Dunton Hills Garden Village will be developed with the following design principles in mind:

- 1. Green Infrastructure** - respecting the existing distinctive landscape features and enhancing existing ecological habitats.
- 2. Blue Infrastructure** - Welcoming blue infrastructure into every aspect of the landscape strategy to create a symbiotic green and blue platform for the development of landscape spaces.
- 3. Site Wide Landscape Characters** - building on the inherent landscape character and natural assets of the site to develop the site wide landscape character areas.

These objectives will help to deliver a true landscape-led masterplan for Dunton Hills (explained over the following pages).

GREEN INFRASTRUCTURE

The natural landscape of Dunton Hills is varied and majestic, with a number of robust landscape features which will create a unique sense of place. The key physical elements of the landscape infrastructure which will contribute to this are as follows:

- Ancient woodland
- Eastlands Spring
- Wetland meadows
- Ridge
- Linear hedgerow elements

A description of these elements and how they could be incorporated into the masterplan are set out below:

Ancient woodland

The ancient woodland follows the line of the Eastlands Spring southwards, creating a strong linear feature in the landscape. The ancient woodland is protected by national planning policy and is conserved, protected and enhanced within the masterplan. A Public Right of Way provides access through the ancient woodland, allowing for future communities to learn about and enjoy the woodland.

Eastlands Spring

The Eastlands Spring marks the low point of the topography and provides a vital ecological function, it is an important natural asset to celebrate within the masterplan.

Wetland Meadows

A floodplain lies to the south-east of the Eastlands Spring, forming wetlands. The integration of existing blue infrastructure networks with Sustainable Drainage Systems (SuDS) will be critical to the success and future sustainability of the new Garden Village. A series of natural and man made water bodies exist within the site which create a mosaic of habitats and recreational environments. These can be incorporated into the landscape, enhancing biodiversity and creating an attractive setting for residents

Ridge

The sloping topography of the ridge forms a striking feature within the site and reinforces the transition from the fenland to the hills. This elevation affords long distance views to the east and south from the ridge which allows a celebration of the drama created by the expansive landscape. As the ridge snakes through the site it forms a series of slopes with different aspects, micro-climates, and view opportunities. The open character of the ridge should be preserved in the masterplan to retain views both out and in.

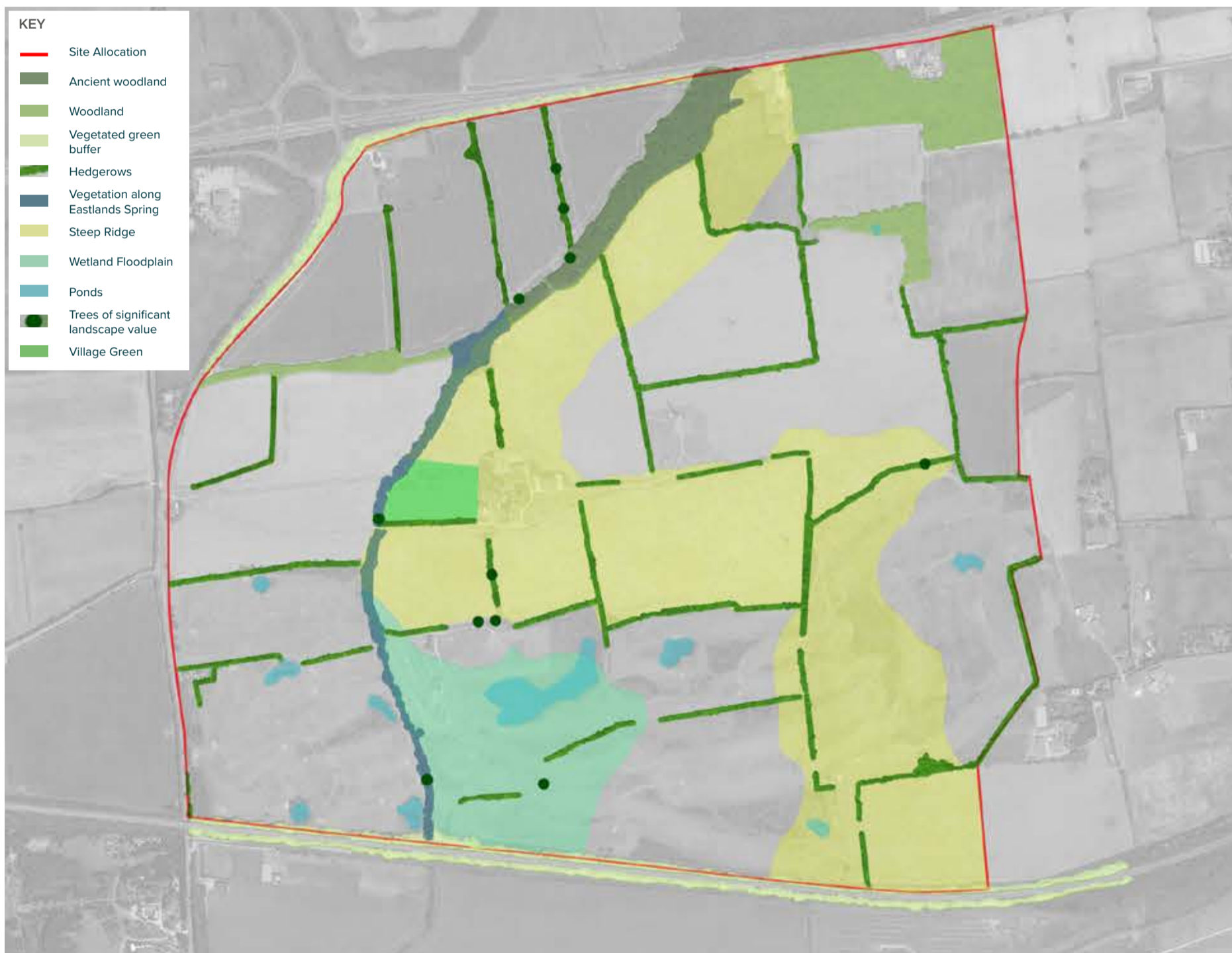
Linear hedgerow elements

The historic land use over the last few hundred years has been farmland and elements of the Dunton Hills Farmstead have been present in the landscape from the early 17th century. The patchwork of fields around the farmstead were demarcated with hedgerows, some of which still remain today. The masterplan should retain the historic hedgerows in the north-west part of the site and should seek to retain any other linear landscape features within the site. Any existing hedges that are retained can be enhanced by creating green infrastructure connections to and from them, as well as hedgerow infill.

A robust landscape framework

These landscape elements will make up a robust framework and will inform the development of a masterplan; which will sensitively integrate with the setting and celebrate the inherent nature found at Dunton Hills for generations to come.

The masterplan will provide a net gain in environmental and social benefits with increased access to open space, and promote habitat creation and biodiversity across the site. The principles of protecting, conserving and enhancing the landscape infrastructure of Dunton Hills are set out in in Section 5.



Existing green and blue infrastructure



BLUE INFRASTRUCTURE

Dunton Hills Garden Village should focus on celebrating water and sensitively integrate blue elements with green elements.

SuDS are required in order to ensure the development parcels are suitably managed in terms of surface run off and stormwater management. A series of interventions for SuDS will be implemented in the Garden Village including dry attenuation basins, new ponds and basins for attenuation, swales, rain gardens, culverts and traditional stormwater pipes to facilitate moving water along slopes.

In order to fully integrate the blue infrastructure network into the landscape and green infrastructure for the Garden Village, the following principles will be adopted:

- The water management will celebrate visibly 'on the surface' through the use of permeable paving, swales and rain gardens within the development parcels. Swales will be favoured over traditional culverts and pipes in order to manage the water at the surface, which can also include planting elements.
- Focal points for play and social interaction will be located adjacent to elements of blue infrastructure such as the existing ponds, detention basins and swales. These areas can provide a tangible connection to nature and also allow for learning and education of water management.
- The water management and catchment systems will be designed to sensitively integrate into the wider landscape. New basins will be aligned with existing green infrastructure elements such as existing hedgerows to create a green and blue infrastructure link for the promotion of biodiversity.
- The manicured golf course will be replaced by fenland meadow within the floodplain of the Eastlands Spring, with existing ponds being retained and enhanced through planting to promote biodiversity. Within this meadow a series of new ponds will allow for the translocation of Great Crested Newts and promote a wetland habitat for migrating birds.

CASE STUDY: WATERCOLOUR, REDHILL

This scheme for over 520 homes on a former sand washing plant has seen the restoration of existing water attenuation features, including; an industrial outwash lagoon and a settlement lagoon.

The Gatton Brook, which had been culverted under the plant, was re-established, which along with a Blue Spine is a key component of the site's multifunctional environmental infrastructure. 'Water at every turn' was the team's slogan for the scheme.

The Blue Spine takes on 3 characters - a brook, a canal, and reed beds. It issues into the lagoons which are now linked together, and then to the Redhill Brook. Awareness of water is central to the vision - as an attractive setting for homes, filtering and attenuation of surface water, and as a wildlife resource. The restored lagoons buffer between town and countryside.



The Blue Spine runs through the centre of the scheme, the restored brook runs around the edge.





CASE STUDY: THE MISSING LINK - VAUXHALL WALK RAIN GARDENS, LONDON

The 'Missing Link' scheme completed in Vauxhall in 2015 is a series of pocket parks and promenades created to promote walking and cycling connections. Part of the design included a series of new rain gardens to help combat surface run off and excess stormwater. The scheme was the product of an RIBA design competition and included elements from winning gardens from the Chelsea Flower Show.

The rain gardens were planted by a not-for-profit organisation who train unemployed young people back into full time employment. Free-draining urban meadows form the raingarden network which run alongside paths, streets and within the public realm. The planting uses the surface run-off water from the adjacent hard-standing areas as irrigation.



SITE WIDE LANDSCAPE CHARACTER AREAS

Whilst the whole of the green and blue infrastructure network provides the framework and setting for the Garden Village and should be seen as a whole, its varied character means it can be divided into five main landscape character areas, these are;

- Flat Fanns Edge
- Eastlands Spring
- The Wetlands
- The Woodlands
- The Ridge.

These character areas are particularly important in defining the character of different neighbourhoods within the Garden Village and are explained over the next few pages.



Site wide landscape character areas

SITE WIDE LANDSCAPE TYPOLOGIES

The character areas are also explored in more detail and are further categorised into landscape typologies which celebrate the variety and uniqueness of the site's natural elements. These landscape typologies will help shape how detail design comes forward. Further definition is provided for each of the spaces and what they will bring to the Garden Village in terms of recreation, biodiversity and natural landscapes.



Site wide landscape typologies

FLAT FANNS EDGE



EXISTING CHARACTER

The western boundary of the site is characterised by the wider landscape character of the fenland to the west and south. The Flat Fanns Edge is characterised by wide, open, level landscapes and this typology sweeps up and into the site to meet the development edge. Key features of the Fanns include:

- Open views
- Large feature trees visible from long distances
- Strong rectilinear patterns in field boundaries and drainage elements

These characteristics and features will be embodied within the Flat Fanns Edge landscape both at the edges of development and within the neighbourhoods themselves.



View looking east across the Flat Fanns Edge

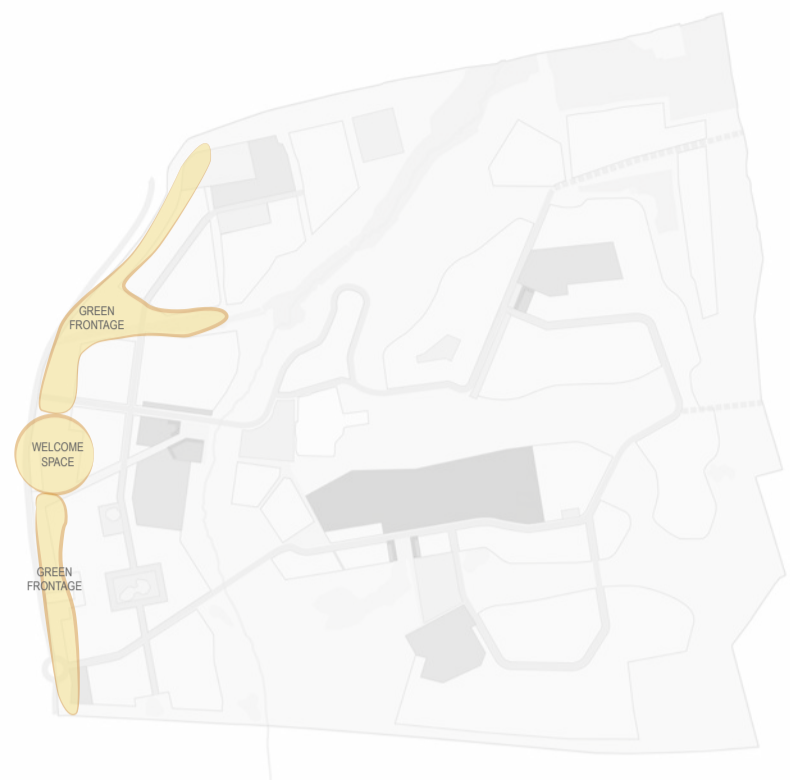
CASE STUDY: NEWHALL, ESSEX

Newhall is a new urban community based outside of Harlow in Essex. The founding principles of nature, colour, distinctiveness, flexibility and public realm are established within the many open spaces throughout the development.

Landscape 'at the doorstep' is a key feature of the base development at Newhall where you are never more than 60m away from a green space. A network of cycle paths open spaces to provide a convivial active landscape for the community. These green spaces form frontages to the development which celebrate the life and activities of the residents.

The green frontage at Newhall successfully created a vegetated buffer at the fringes of the development, which then opens out onto a recreational landscape for all residents to enjoy.





LANDSCAPE TYPOLOGIES - RESPONDING TO EXISTING CHARACTER

Green Frontage

The landscape that abuts the A128 forms the link between the Flat Fanns landscape to the west and the development within the site. These spaces have three vital functions:

- To sensitively integrate the development into the wider context,
- Providing a sense of arrival into the development from the A128; and,
- Providing an attractive frontage to the edge of the development.

The areas of Green Frontage should be landscaped to create a conscious link to the Fanns in the west, through tree a planting selection sensitive to the character of the reclaimed Fenland. These areas should provide space for recreational and leisure pursuits, as well as a landscaped doorstep for the development.

Welcome Space

The Welcome Space provides the masterplan with a formal arrival landscape from the A128, between the confluence of the existing road and proposed roads into the scheme. This space should also embody the characteristics of the reclaimed Fenland, with space for play, recreation, leisure and feature gateway trees.

The Welcome Space should create a sense of arrival from the A128, and provide a landscaped setting for new pedestrian and cycle crossings over the A128. This area can also incorporate SuDS features in a formal layout or arrangement to celebrate water management at the entrance to the development.

KEY LANDSCAPE OBJECTIVES

- To create a formal welcome space at the confluence of the A128 and main Mobility Corridor into the site.
- To retain the 'open' character of the Fanns within the development, with views from built form westwards towards the Fenland.
- Landscape layout and design should be rectilinear in arrangement to embody the Fanns character. This in turn should lead to a more formal urban structure within this part of the site.



An impression of the Flat Fanns landscape character area

EASTLANDS SPRING



EXISTING CHARACTER

The gentle Eastlands Spring provides a riparian corridor that runs north-south in the western part of the site. It forms the lowest levels of the site topography and links the wetlands to the woodlands character areas.

The spring forms the eastern edge to the Flat Fanns character area and provides biodiversity benefits and an aquatic environment on the doorstep of the neighbourhood.



Eastlands Spring

CASE STUDY: HAM VILLAGE GREEN

The Ham Village Green is nestled within the London Borough of Richmond and provides accessible green space under the 'Friendly Parks for All' initiative.

The green itself provides open space for recreation, play equipment, space for fitness classes, a wildflower meadow and waymarked trails for walking and exercise.

The Ham Village Green is supported by a community group who value the green and have adopted stewardship of the space, called the Friends of Ham. They have worked with the council to implement new tree planting, wildlife zones and improved play equipment. It is envisaged that this type of community ownership and dedication to their green space will provide longevity for the Village Green at Dunton Hills Garden Village.



LANDSCAPE TYPOLOGIES - RESPONDING TO EXISTING CHARACTER

Eastlands Spring Corridor

The riparian corridor of the Eastlands Spring will be conserved and enhanced for both biodiversity and public benefits. Where necessary, existing vegetation will be thinned back to allow local communities to interact with the spring. Access will be provided right up to the banks in places to allow a tangible connection with the water.

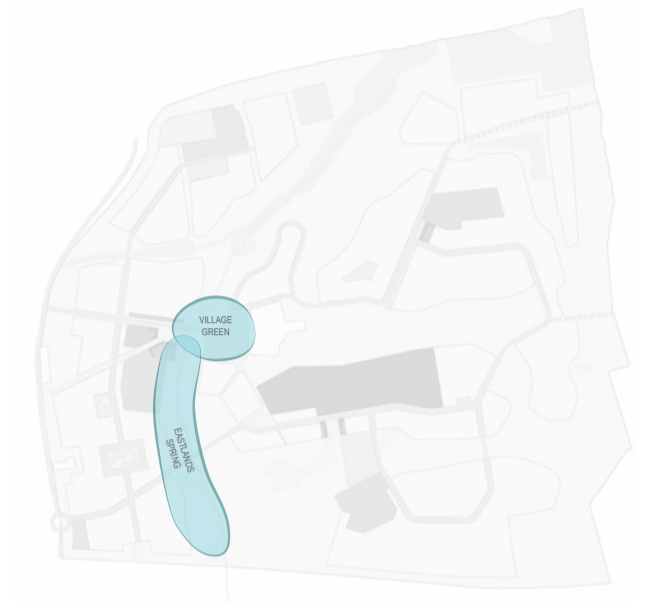
Village Green

The Village Green will form a social space for residents to enjoy and become a space for celebration, village fêtes, leisure, social activity and social congregation.

The Village Green will form a connective space between the Village Centre and the farmstead and will celebrate the retention of long vistas to the farmstead as well as the protection of veteran trees.

The landscaping will be formal to echo the traditional appearance of a village green, with a softer wetland edge to the west.

The riparian corridor of the Eastlands Spring will form the eastern boundary of the Village Green, forming a wetland habitat for both the promotion of biodiversity and education. SuDS elements such as dry basins will also form part of the Village Green, providing a mosaic of habitat types within the heart of the Garden Village.



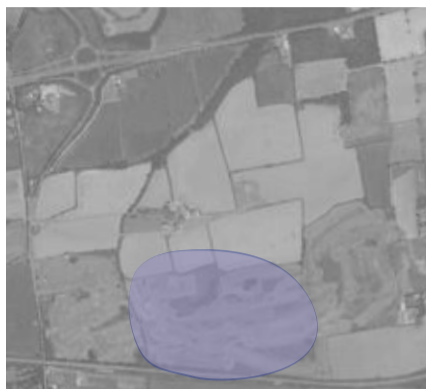
KEY LANDSCAPE OBJECTIVES

- Veteran trees and trees of landscape value along the spring corridor should be retained and protected.
- Some clearing of vegetation should occur along the spring corridor to allow access to the banks of the watercourse.
- Complementary habitats should be integrated adjacent to the Eastlands Spring to promote biodiversity.



An impression of the Eastland Spring character area

THE WETLANDS



EXISTING CHARACTER

The Wetlands character area is located within the central southern part of the site, on the lowest part of the land and adjacent to the Eastlands Spring. It currently comprises a manicured golf course.

The floodplain from the Eastlands Spring covers much of this area, lending the space naturally to be developed as biodiverse and recreational wetland habitat.

There are attractive views across the pond to the farmhouse to the north and the Church of St Mary's to the east which should be maintained where possible. The natural hydrology, drainage and existing bodies of water found in this area of the landscape form the aquatic assets from which this character area is derived and these features should be enhanced and celebrated through the landscape strategy and masterplanning process.

New ponds for SuDS and biodiversity enhancement will be created, with reed bed and wetland meadow habitat creation forming green infrastructure links for both flora and fauna between the bodies of water.



View looking east across the existing pond toward the ridge line

CASE STUDY: WOOD MILLS NATURE RESERVE

Wood Mills Nature Reserve is operated by the Sussex Wildlife Trust. It provides excellent opportunities for outdoor learning and interaction with nature alongside a variety of habitats including streams, ponds and unimproved meadows which attract a range of birds, mammals, insects and amphibians.

The Sussex Wildlife Trust work closely with local volunteers to maintain the reserve and run educational events throughout the year for all age groups.

Through the wetlands character area, a multi-functional green space and key habitat area that strengthens local biodiversity can be created.



The Wetlands

The Wetlands will celebrate water management and riparian habitats, and promote use and access to nature by adopting a 'doorstep' approach between residential uses and open green space. Enhancing the existing ponds and integrating new habitats within the Wetlands will ensure easy access to a range of ecological and conservation environments, promoting understanding, education and enjoyment within the community.

Within the wetlands a variety of SuDS features should be implemented including swales, dry basins and wet ponds. These features should be celebrated and integrated sensitively into the landscape.

New habitats can be formed by enhancing existing ponds and the creation of new ponds, reedbeds, ephemeral water ditches and fen meadows with wet grassland mixes to support the translocation of Great Crested Newts and migrating bird populations.

The Wetlands should be designed with equal regard to biodiversity protection and recreational access for the community, with boardwalks, play spaces, open walkable landscapes, new walking routes and recreation spaces located in suitable areas in order to protect the emerging habitat diversity.

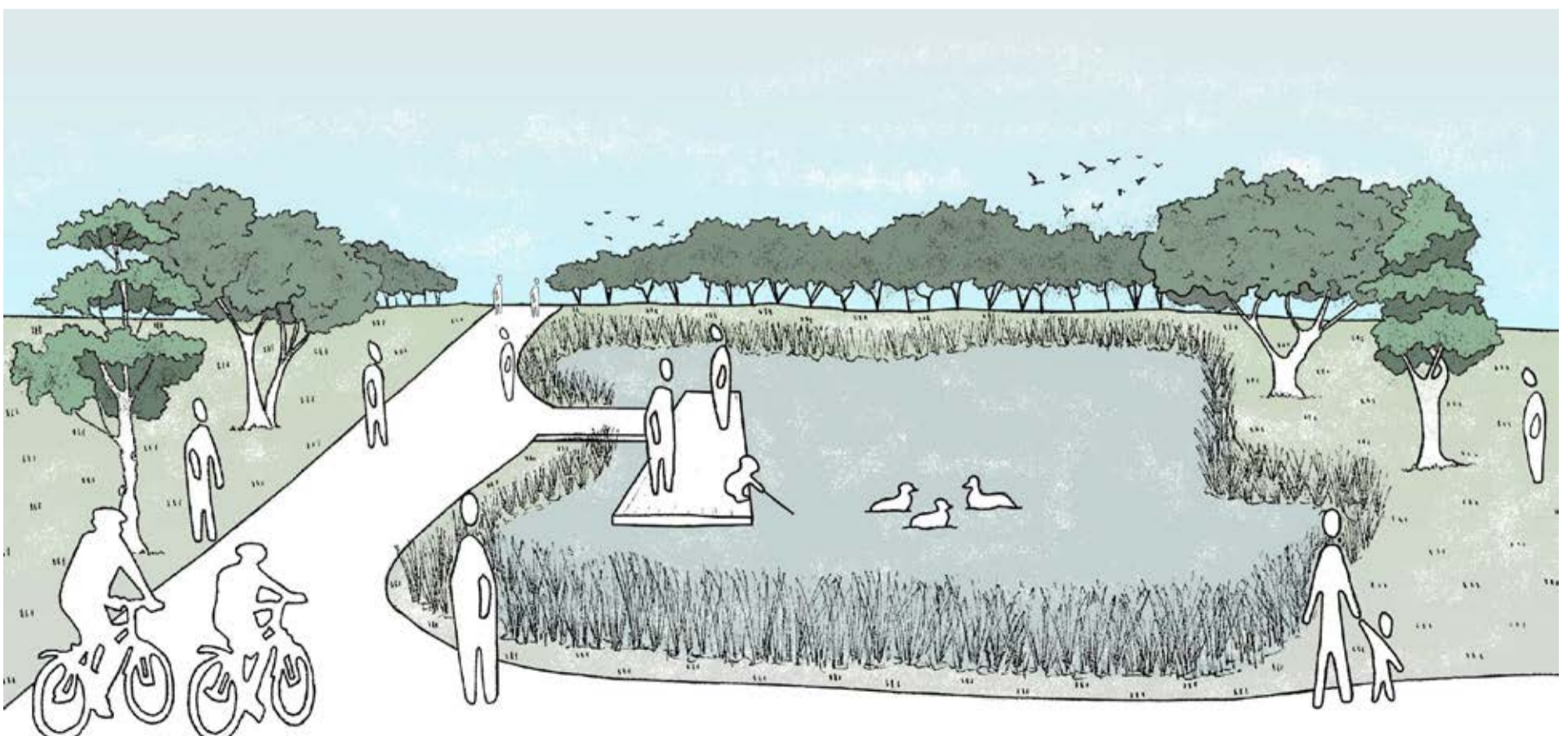
Community Park

An improved and accessible green corridor that runs east-west through the wetlands links the Eastlands Spring corridor to the Ridgeline, and could form a new community park. This space creates a transitional landscape between the low lying land and the higher topography of the ridge, and should incorporate sustainable water management at the surface to promote understanding and interaction with the local hydrology.



KEY LANDSCAPE OBJECTIVES

- Existing ponds should be retained and enhanced.
- Access to certain areas should be limited (through planting strategies) to ensure flora and fauna are protected.
- A variety of new, complimentary habitats should be integrated into the Wetland habitat to promote biodiversity.
- The wetlands should preserve views across the existing pond through to the ridgeline.



An impression of the Wetlands character area

RIDGE



EXISTING CHARACTER

The natural topography that runs through the site forms the Ridge character area. The sloped land forms the boundary between the Fanns Character Areas to the west and the Langdon Hills and Farmland to the east.

The Ridge is characterised by wide open sweeping views across the landscape, that extends westwards towards London in the distance.



The ridgeline

CASE STUDY: DUNSTABLE DOWNS, BEDFORDSHIRE

Dunstable Downs is within the Chilterns Area of Outstanding Natural Beauty and comprises several SSSI's, extensive chalk grasslands and several historic features including Scheduled Ancient Monuments. The walk along the top of the ridge is one of the most popular routes taken by visitors today. Expansive views over the landscape below are celebrated on the ridge walk.

The site is managed by the National Trust and a programme of activities has raised the level of exercise and well-being including a new Health Walk, a kite festival and a weekly fitness group.



CASE STUDY: ORCHARDS EAST

Orchards East is an environmental initiative that takes place across six counties, including Essex. It is funded by the Heritage Lottery with the aim to understand the past, present and future of orchards.

The Leigh-on-Sea Allotments Orchard is a project based on conservation and celebration of Essex varieties of pears and apples. The orchard is surrounded by a native species hedge and as well as the fruit trees, the orchard contains a wildlife pond, composting areas, and allotment space. Today, thanks to the volunteers the orchard now contains all 35 Essex varieties of apple.

Initiatives such as Orchard East can be employed at Dunton Hills Garden Village to engender a sense of ownership for the productive space, and to keep the communities connected with nature of local provenance.



LANDSCAPE TYPOLOGIES - RESPONDING TO EXISTING CHARACTER

The Ridge-line

The Ridge-line will encapsulate the natural undulating topography between the higher Langdon Hills to the east and the lower Fenland to the west. The Ridge-line is an intrinsic part of the site's landscape and will be protected and celebrated.

Key views to the west over the historic farmstead, long vistas west towards London, and views south-east towards heritage features outside of the site boundary, will be maintained and used as resting points that encapsulate these views.

The slopes of the Ridge-line will be managed for biodiversity improvements including scrub and tussocky grassland for invertebrates.

Higher levels of the Ridge-line will form a linear walking route, with landscaped spaces that flow into the neighbourhoods.

Hillside Common

Forming part of the Ridge landscape character area will be a large open common space that links the Ridge-line walk to the eastern boundary. From here views open up to the west towards London, as well as south-east towards Dunton Hall and the Church of St Mary.

This area will be managed for both recreational benefits and habitat enhancement. This common space will be accessible to all with walking routes, social spaces and play spaces all nestled within pockets of scrub grassland created for invertebrate promotion.

Productive Space

A productive landscape will sit at heart of the Garden Village, associated with the farmstead's history of arable farming. Orchards, beehives, self growing and community growing spaces will be provided, with a focus on species of local provenance such as the Essex Heritage variety apples. The Productive Space will also provide educational and learning benefits, with opportunities for school involvement and educational programmes for the residents to learn about food production.

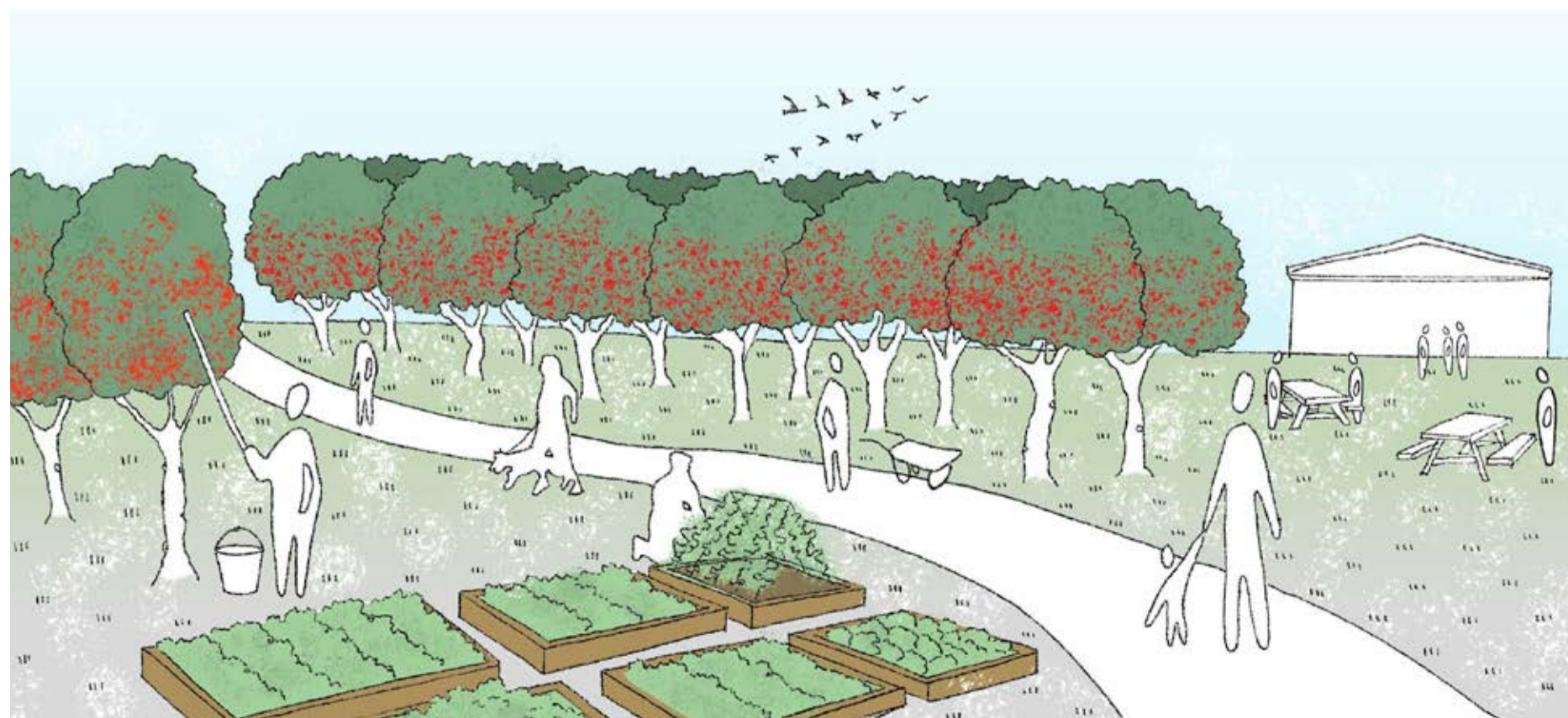
Re-wilding

Other than a potential link to Church Lane to the east, the south-east corner of the site will provide an area of landscape specifically for habitat creation, only accessible by those charged with its management for biodiversity enhancement. Once established it will be used as an area for education and learning, with school groups having organised visits to the area. Woodlands with glades and rides should be created to form receptor sites for local reptiles.



KEY LANDSCAPE OBJECTIVES

- Landscaped spaces should be created along the Ridge-line walk to connect development parcels with the Ridge.
- The productive landscape should include orchards, bee hives, self-grow and community facilities.
- Open views to heritage features and long vistas should be retained and celebrated.
- The Ridge itself should be managed for both recreation and biodiversity benefits.



An impression of the Ridge character area

WOODLAND



EXISTING CHARACTER

The northern and north-eastern parts of the site are characterised by areas of broadleaved woodland. The ancient woodland follows the historic Nightingale Lane, which leads to the original farmstead, and also connects to Eastlands Spring, whilst an area of new plantation woodland to the east of the Ancient woodland creates a connection both north and south of the A127.



Nightingale Lane running through Ancient Woodland

CASE STUDY: HEARTWOOD FOREST, HERTFORDSHIRE

The Heartwood Forest is managed by the Woodland Trust and comprise 347 hectares of new native woodland and protected ancient woodland on formerly agricultural land.

The Heartwood provides a network of recreational walking routes through the woods, meadows, adjacent to water bodies and grasslands which are clearly marked with artistic route markers.

Volunteering groups from the Woodland Trust and the Hertford Natural History Society are involved with monitoring plant and wildlife populations throughout the Heartwood.



LANDSCAPE TYPOLOGIES - RESPONDING TO EXISTING CHARACTER

Nightingale Woods

The Ancient woodland which runs along the historic Nightingale Lane will be protected by a minimum 15m offset from built development to allow for regeneration, and new planting of an eco-tone buffer on each side. The new broadleaved tree planting will be provided in a variety of stock sizes to create a varied canopy. Enhancements such as a demarcated path edge through the woodland will help prevent damage to the under-storey within the woods, and the installation of a gate at each end will prevent vehicular access.

The Hedges

In the north-western part of the site a number of heritage hedgerows form a pattern of historic field boundaries. These hedgerows will be retained and protected within the Garden Village. The hedges area will help towards providing an open landscape between the development and the boundary of the A127.

The Meadows

The Meadows will be established on the sloping land between the Ancient woodland and the development edge, providing an area of open landscape for recreation, leisure, exercise and biodiversity enhancement.

The Meadows will be managed for habitat improvement, as a transitional green space between the existing mature woodland, through scrubby grassland and into meadows. This mosaic of habitats will echo the Langdon Ridge SSSI to the south east of the site.

North Woods and The Plateau

The woods will provide a strong green corner-piece for the Garden Village, connecting to Nightingale Woods. Increasing tree canopy coverage will strengthen the woodland character along the eastern boundary. North Woods will be managed for recreational purposes, such as enhanced walking routes, birdwatching, and social interaction whilst maintaining habitats for the inherent flora and fauna of the area. By focusing recreational activities within the North Woods and Plateau, the Ancient woodland will be further protected from these activities.

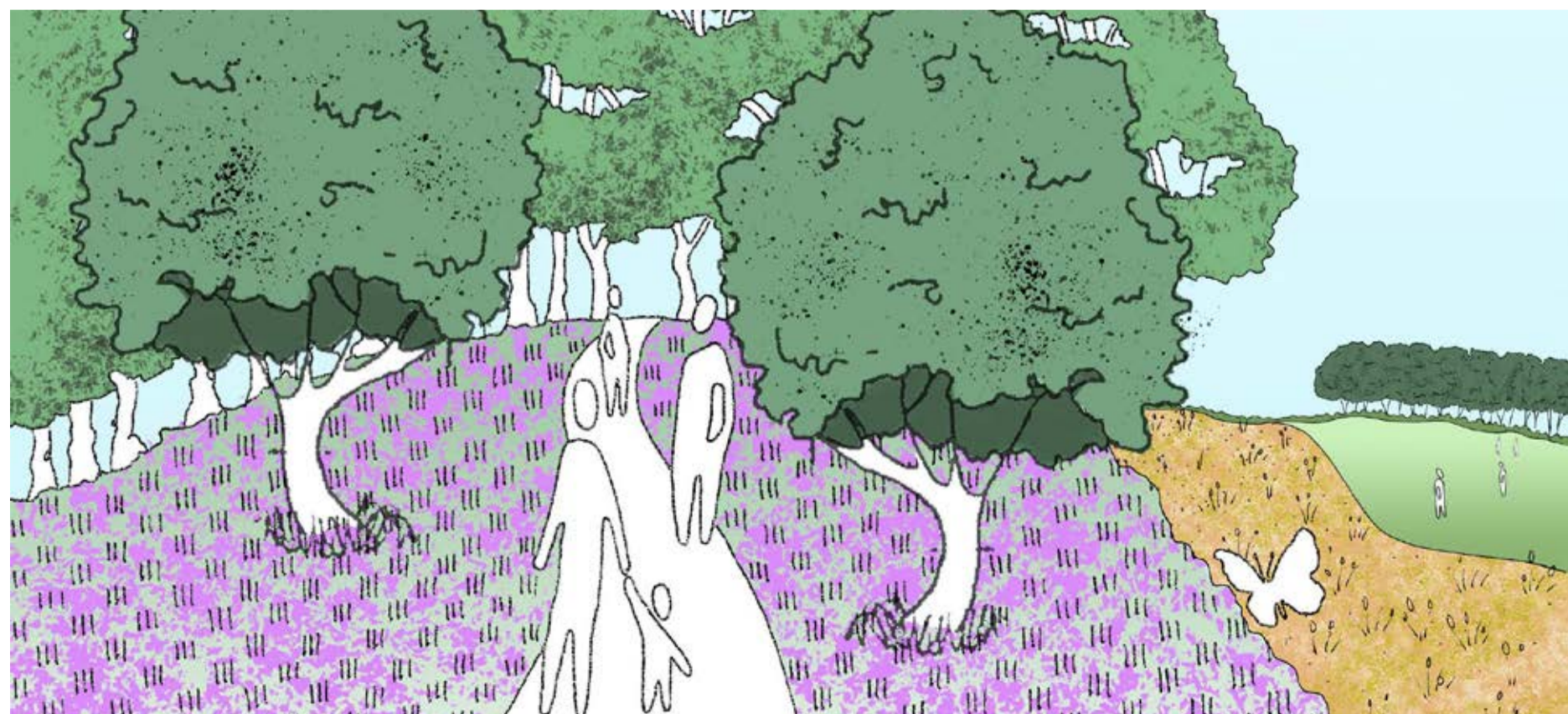
The Plateau landscape creates a buffer between the development edge and the greenbelt to the east. Reinforcing the green edge of the Green Belt is vital to establish a strong vegetated buffer of native trees and hedgerows along this edge.

Recreational activities, play, and exercise should be encouraged within the Plateau, through the provision of meandering walking routes, natural play spaces, exercise trails, landscaped social spaces and new pockets of woodland.



KEY LANDSCAPE OBJECTIVES

- Eco-tone buffer to be provided along the edges of the ancient woodland, 15m minimum.
- Recreational landscape to be provided throughout the Woodlands area to include walking and jogging routes, informal play space, landscape restful spaces, exercise routes and open space.
- New trees to be planted extensively to increase canopy cover and embody the woodland character.
- The Green Belt boundary should be clearly and robustly defined with new hedges, hedgerow trees and woodland.



An impression of the Woodland character area

BIODIVERSITY

BIODIVERSITY STRATEGY

Dunton Hills Garden Village is located to the west of the Langdon Ridge Site of Special Scientific Interest (SSSI) and to the south east of Thondon Park SSSI; their designated features provide the rationale for the development of habitats within Dunton Hills.

Proposed Habitats

The habitats within Dunton Hills Garden Village should either be restored or created and should seek to create a similar mosaic as that found at Langdon Ridge SSSI. It should comprise:

1. Ancient and long-established woodlands
2. Scrub/grasslands
3. Lowland meadows
4. Open water
5. Running water
6. Fen meadows
7. Traditional orchard

Ancient and long-established woodlands

Broadleaved woodlands within the site must be retained. Eastlands Spring Local Wildlife Site, which is an Ancient woodland, is a woodland of damp soils and dominated by mature ash, whilst smaller areas of woodland on higher ground are drier types and dominated by mature and veteran oaks.

Woodlands should be connected by retained and enhanced and new species-rich hedges, new woodlands and scrub. These should be improved over time by woodland management plans. Other improvements should include increasing the deadwood component within woodlands and the translocation of the rare Deptford pink flower to dry woodland and scrub margins. Deptford pink is a key feature of the nearby Langdon Ridge SSSI.

Scrub/grasslands

Retained and new mosaics of mixed species scrub and meadow grasslands will provide a range of habitats for barn owls, bats, reptiles and great crested newts. Transitional habitats should grade from scrub, to brambles, rose, and tall herbs to grassland meadow. Scrub should be managed to maintain a 'youthful' early successional structure and managed by rotational cutting (1-3 years).

The aim of management will be to produce a diverse habitat of varied age and structure to attract a rich variety of species.

Lowland meadows

The opportunity to create species rich neutral grasslands managed as hay meadows will attract key target species including notable species recorded at Langdon Ridge SSSI such as green-winged orchid. These areas include grassland along the southern boundary (rail bank) which is an open herb rich sward (including red clover, knapweed, red bartsia).

Wildflower rich grassland 'strips' with areas of bare ground, including scattered scrub will target the Grizzled Skipper butterfly. These areas should be located in sunny, sheltered conditions and contain an abundance of early spring nectar plants. These 'strips' should be cut in rotation.

Open water with reeds

The masterplan will retain many existing bodies of water. These retained ponds and their marginal vegetation must have all non-native species removed and the extent of marginal reed-beds maximised.

SuDS basins will be naturalistic and designed with irregular shapes and shelves that allow 'draw down' conditions.

Running water

The Eastlands Spring will be retained along with its boundary woodlands. The stream will be buffered with complementary habitats such as grasslands, ponds and scrub and some sections of trees will be pollarded to allow light to penetrate the stream.

Debris will be allowed to gather in the stream to create a variety of conditions such as slow moving, deepwater pools and faster moving 'runs' and riffles.

Fen meadows

The southern part of the masterplan establishes a fen meadow and rush pastures as part of the wetlands character area. Areas that are naturally drier will be oversown with a wildflower mix. This should include areas of scrub, longer grass, and shorter grass mosaics. Management of water levels and landform creation will be crucial to the wetness and thus the habitat composition.

Some cutting of rush pastures may be required and drier areas should be managed by rotational cutting. This habitat type will target invertebrates and reptiles such as grass snake. Ponds within the habitat mosaic will provide the environment for the translocation of great crested newts. Log piles and turfed log piles will enhance this habitat area for reptiles and amphibians.

Hedgerows

Species rich native species hedges should be retained and new ones created to provide linear green corridors across the site.

Some retained hedges should be maintained by regular hedge laying, with infill and new planting using a palette of native species. These hedgerows will be of particular attraction to farmland birds such as the Yellowhammer.

Essex orchard

Within the productive landscape there is an opportunity to establish a traditional orchard with species of local provenance to Essex; this will create a destination for recreation as well as a rich wildlife habitat.

For orchard biodiversity to flourish a variety of trees of varying age will be required. Some veteran trees should be encouraged through management with features such as hollow trunks, rot holes, split bark, tears, and sap runs relatively quickly. Because of the wide tree spacing in orchards compared to woodland, the dead and decaying wood should be located within open, sunny locations; these conditions create a good habitat for rare and notable insects and other invertebrate species which depend on deadwood. The orchard grasslands should also be flower rich and hence important for a different range of invertebrates.



Scrub grassland



Deptford Pink in the woodland



Fen meadows

KEY	
	Ancient Woodland
	Woodland Buffer
	A low deciduous woodland
	Existing hedges, some layed
	Barn Owl boxes
	Scrub / grasslands
	Lowland meadows
	Specifically managed flower rich
	Open water with reeds
	Running water
	Fen meadows
	Buffer vegetation
	Essex orchard
	Great crested newts and reptile receptor areas
	Rewilding area
	Habitat buffer to waterway
	Green infrastructure links



KEY BIODIVERSITY OBJECTIVES

- Application of the mitigation hierarchy to deliver landscape- ecological networks by creating, enhancing, complementing and interconnecting the site's habitats. The Village will provide an invaluable building block of integrated habitats which are both coherent and resilient.
- The Village's ecological network will provide a similar mosaic of habitats to that found at Thorndon Park and in particular Langdon Ridge SSSI. Designated features will provide an important rationale to the development of habitats within the Village along with targeted mitigation and enhancement for a number of protected and notable species.
- Aspirational target of 20% Biodiversity Net Gain (BNG) through the provision and recovery of Habitats of Principle Importance to UK Biodiversity (priority habitats). Creation of a BNG 'legacy' through provision of mechanisms to enable management and maintenance of habitats.
- Provision of ecosystem services through the creation of a wildlife-rich landscape both within the built realm and semi-natural landscape. The Village will provide different levels of interactions between the public and wildlife to enable biodiversity to flourish whilst also reconnecting people to the natural world.

PLAY

PLAY AND RECREATION

A range of sport and recreational opportunities will be provided for, including the provision of playing fields and sports pitches, play areas in the form of LEAPs (Locally Equipped Areas of Play) and NEAPs (Neighbourhood Equipped Areas of Play), and amenity grassland for non-prescriptive play.

The creation of a suite of complimentary play spaces will ensure there is close access for all residents living at Dunton Hills Garden Village, and that these create multifunctional spaces for a variety of ages and abilities.

Children's play spaces will incorporate a range of natural and imaginative provision, aligned with more traditional prescriptive play preparations. Provision of play and social spaces for youth should be aligned with both sports activities and community cultural facilities with the potential to create sporting events throughout the year, both indoor and outdoor activities, as well as connecting play space with community buildings and areas of public open space.

All areas of play will be sensitively integrated into the landscape using planting and vegetated buffers to create enclosures coordinated with the character areas in which they sit.

Locally Equipped Areas of Play (LEAP)

The function of a LEAP is to provide stimulating and challenging play experiences for children with a minimum of six individual play elements. The LEAPs should be sited within a five minute walking distance of dwellings and distributed across the masterplan to ensure the catchment area covers the development parcels.

Play features will include equipment and space should be provided for physical activity and informal games. The recommended space provision for a LEAP is 400m² with a 10m buffer between the play space and the nearest residence.

LEAPs will be themed to the landscape character areas that they sit within, for example the play spaces within the Fanns landscape character may retain a flat landscape, whilst the play spaces within the Ridge character area could include landscaped mounding to provide height.

Neighbourhood Equipped Areas of Play (NEAP) and Multi Use Games Area (MUGA)

The function of a NEAP is to provide play space primarily for older children with some provision for younger play too. NEAPs should be sited within a fifteen minute walking distance of dwellings; two spaces for the provision of NEAPs will be located within the masterplan.

Play opportunities within a NEAP should include sport and informal balls games, and an area of hard-standing will be provided. NEAPs can be located adjacent to MUGAs to provide a range of play and sports facilities. The recommended space provision for a NEAP is 1000m² with a hard-surfaced area of a 465m² minimum. A buffer zone of 30m from the nearest dwelling will be provided.

NEAPs will be themed to the character area they sit within. For example, aquatic play could be explored within the wetlands character area.

Sports

A range of sports facilities will be provided within the Garden Village. A sports hub with pitches, a sports hall and a multi-use games area is centrally located, and within the secondary school. Pitches should support both rugby and football and potentially accommodated by a summer athletics track.

In the north of the development a series of football pitches will provide further sports facilities, whilst in the south, a cricket pitch will be located close to the southern neighbourhood centre.

Healthy Living

Supporting the formal play areas and sports facilities will be a variety of exercise elements and features to promote a healthy lifestyle. Parks and open spaces will house activity trails, trim trails and cycle routes which will flow through the landscape connecting the neighbourhoods. Informal kick about spaces should also be provided adjacent to play areas.

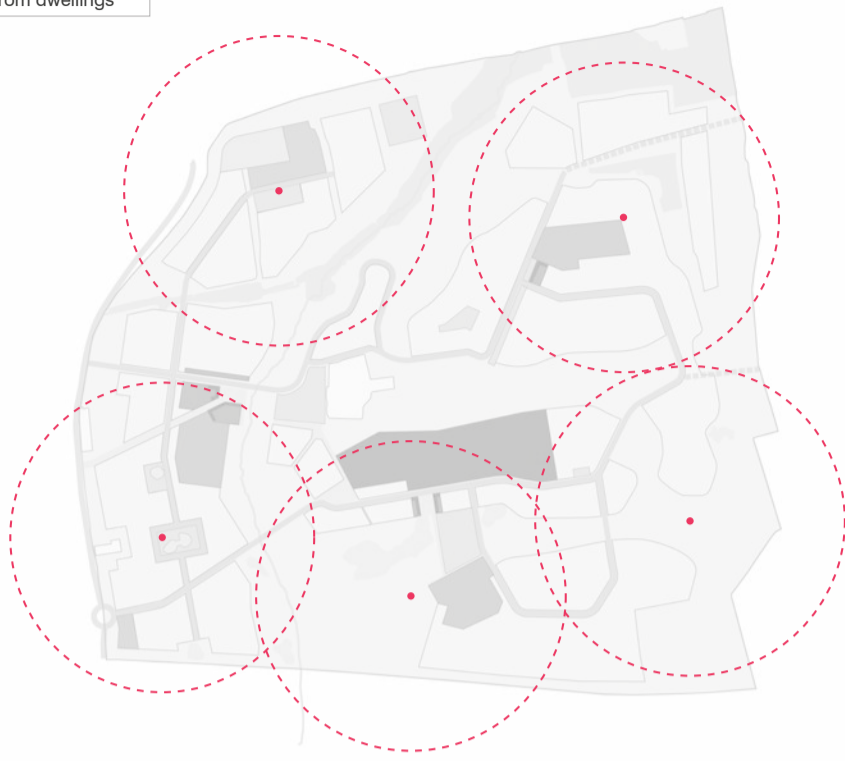
A proposed wellness trail is illustrated on page 112.

NEAP CASE STUDY: ONSLow PLAY AREA, GUILDFORD

Designed to include nature, Onslow has more natural elements than most playgrounds, with boulders, soft surfaces, sand, tree stumps and hornbeam hedges. It reflects its location adjacent to the Onslow arboretum, with brown paths where the roots would be, and a grass maze where the canopy would be. The signage is made from hardwood timber and engraved with tree leaves from native trees. These natural features help children learn about the nature around them. Designed to enhance its setting, there is no fencing around the play area. Timber posts and sections of hornbeam hedges form entrances, but the majority of the play area is open to the playing fields and tree and hedgerows that surround it. By spreading into the surrounding areas, the play area provides further space for exploration and opportunities for imaginative play.

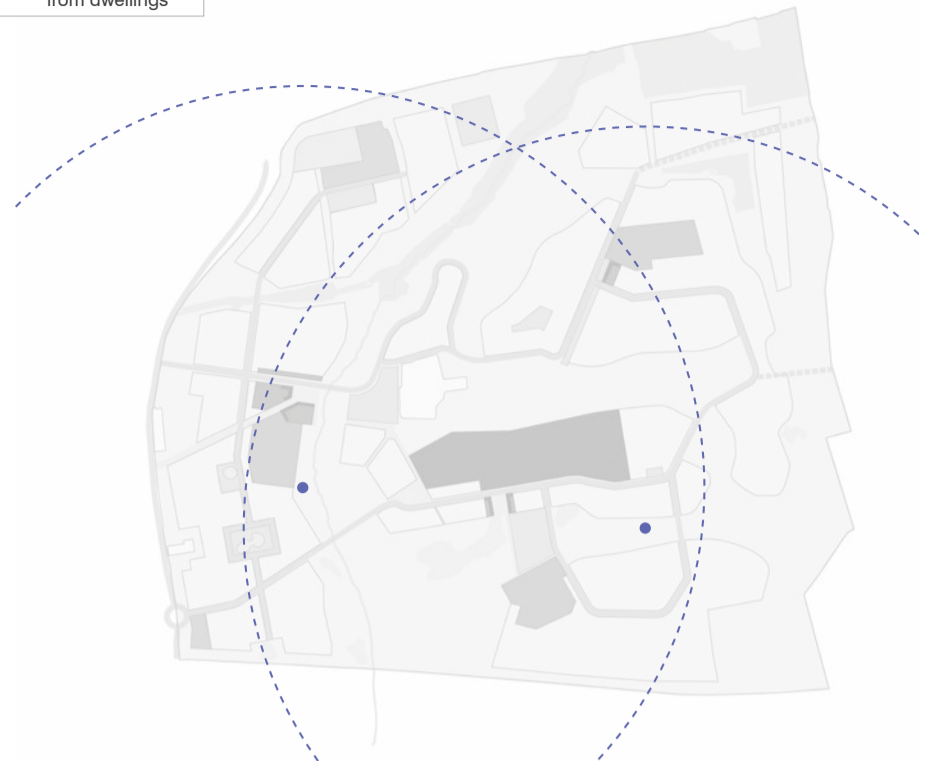


KEY
 LEAPs - 400m from dwellings



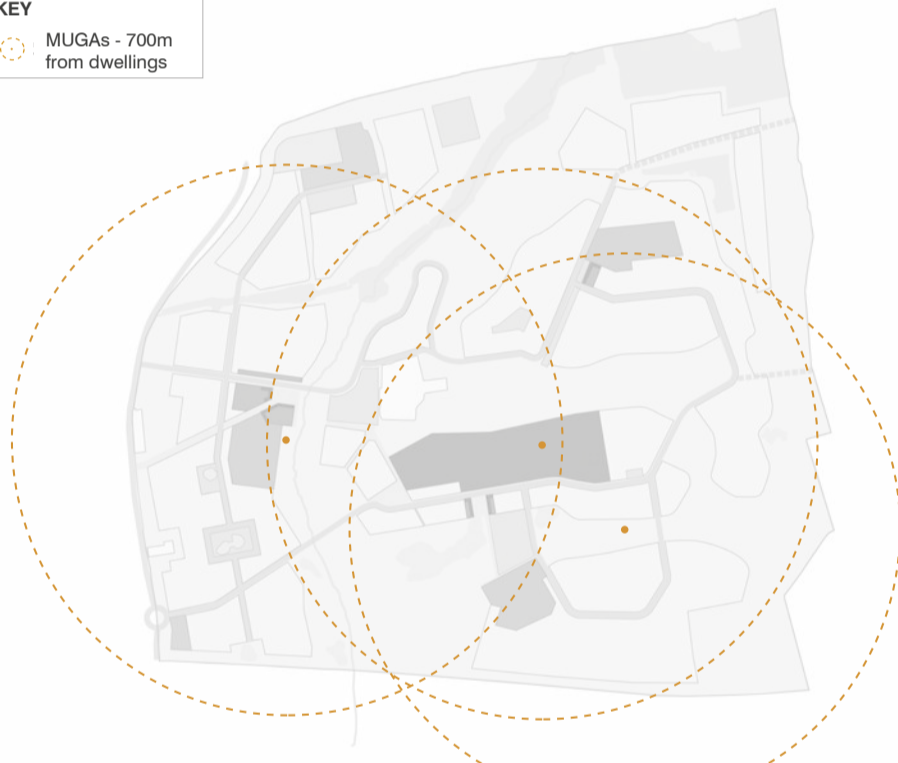
LEAPs

KEY
 NEAPs - 1000m from dwellings







NEAPs

KEY
 MUGAs - 700m from dwellings



MUGAs

KEY
 Community sports facilities
 School sports facilities (no public access)
 Cricket pitch
 Football pitches



SPORTS

**LEAP CASE STUDY:
 BRICKHILL, BEDFORD**

Brickhill in Bedford, a large scale residential scheme, included the creation of a variety of play spaces ranging from doorstep play for toddlers to LEAPs and NEAPs.

Natural elements and undulating landscape levels were combined to create imaginative play spaces, and equipped areas of adventure play space were also provided.

All play spaces included seating areas for supervision and were located adjacent to pathways. The LEAP was sensitively designed to include timber play elements that were sympathetic to the local vernacular.



“

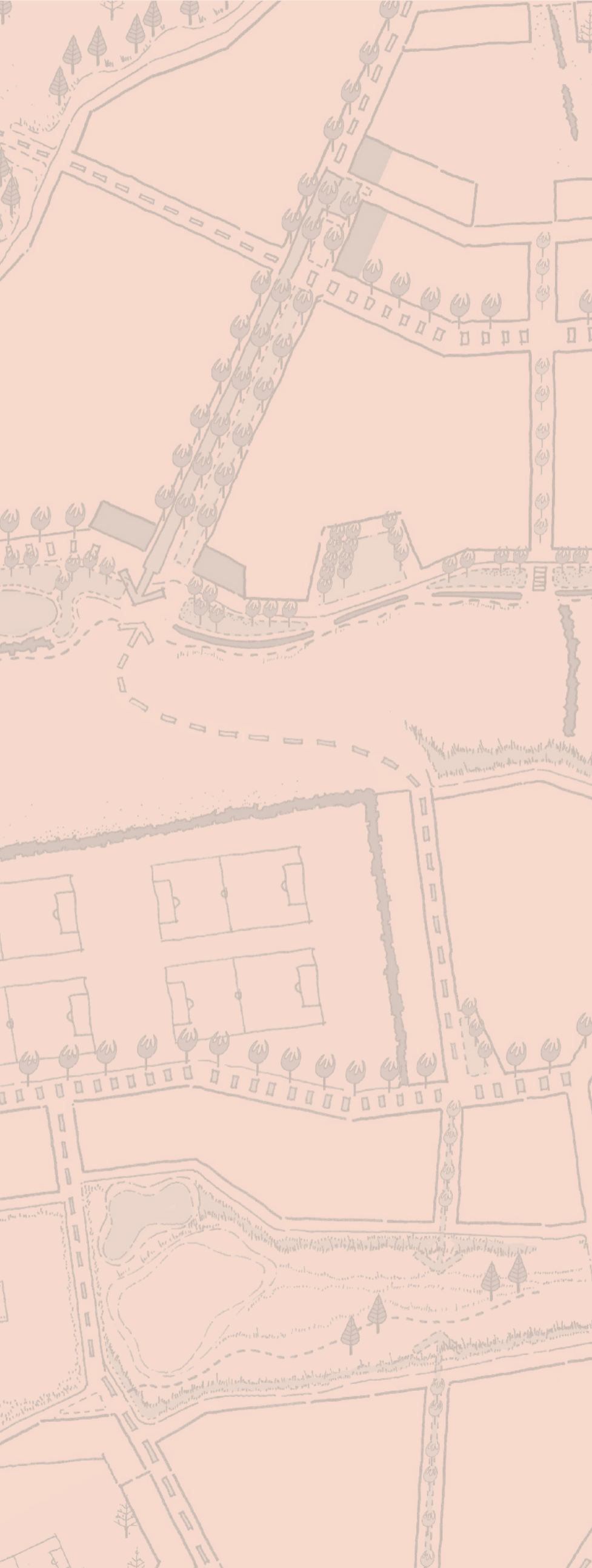
SET WITHIN THE WONDERFUL GREEN AND BLUE LANDSCAPE FRAMEWORK, THE GARDEN VILLAGE WILL BE A VIBRANT, SELF-SUSTAINING AND CHARACTERFUL PLACE WITH A STRONG SENSE OF IDENTITY.

THREE UNIQUE AND INTEGRATED LANDSCAPE LED NEIGHBOURHOODS WILL BE CREATED, EACH ANCHORED BY A PRIMARY SCHOOL, SMALL SCALE LOCAL FACILITIES AND EMPLOYMENT OPPORTUNITIES, ALL WITHIN A SHORT WALK. THE HEARTBEAT OF THE GARDEN VILLAGE WILL BE THE VILLAGE CENTRE, LOCATED TO MAXIMISE ITS: ACCESSIBILITY TO THE WHOLE VILLAGE; DIRECT CONNECTIONS VIA A MOBILITY CORRIDOR TO WEST HORNDON STATION; AND ITS RELATIONSHIP TO DUNTON HILLS FARMSTEAD, THUS CELEBRATING THE SITE'S PAST. THE VILLAGE CENTRE WILL BE FOCUSED AROUND A MARKET SQUARE AND A VILLAGE GREEN, CREATING WONDERFUL SPACES FOR COMMUNITY EVENTS AND INTERACTION. AN EMPLOYMENT AREA IN THE NORTH OF THE VILLAGE WILL OFFER GROWTH OPPORTUNITIES FOR LOCAL BUSINESSES WITHIN THE VILLAGE AND BEYOND.

THE MASTERPLAN WILL BE DESIGNED AROUND KEY ROUTES, VISTAS AND SPACES, ENSURING A LEGIBLE STRUCTURE, STRONG IDENTITY AND THE PROTECTION OF IMPORTANT VIEWS. THE GARDEN VILLAGE WILL BE VARIED IN ITS BUILT FORM WITH DENSITIES AND HEIGHTS GRADUATING FROM A DENSER WESTERN EDGE AND VILLAGE CENTRE TO THE MORE RURAL EDGES IN THE EAST. THE THREE NEIGHBOURHOODS OFFER THE CHANCE TO CREATE VARYING ARCHITECTURAL CHARACTER WITHIN THE OVERALL LANDSCAPE CHARACTER THEMES ESTABLISHED.

”

MASTERPLAN VISION



CHAPTER 5

FRAMEWORK MASTERPLAN

This chapter shows the indicative masterplan proposals and provides Mandatory Spatial Principles for the development of the site and the key strategies that underpin this design approach. The key objective is to meet the needs of all its users by creating a vibrant community that celebrates its unique heritage and landscape setting.



MANDATORY SPATIAL PRINCIPLES AND ADVISORY GUIDELINES

This document establishes two levels of the masterplan: a Framework Masterplan that sets out mandatory spatial principles and an Illustrative Masterplan that provides further neighbourhood guidance.

UNDERSTANDING THE HIERARCHY

A clear vision has been established for Dunton Hills Garden Village by the design team and Brentwood Borough Council with support from stakeholders and Design South East through a formal review process.

To ensure this vision is realised a series of Mandatory Spatial Principles have been established, and is the focus of this chapter. A further set of Advisory Neighbourhood Guidelines can then set out in Appendix 2 of this document.

MANDATORY SPATIAL PRINCIPLES

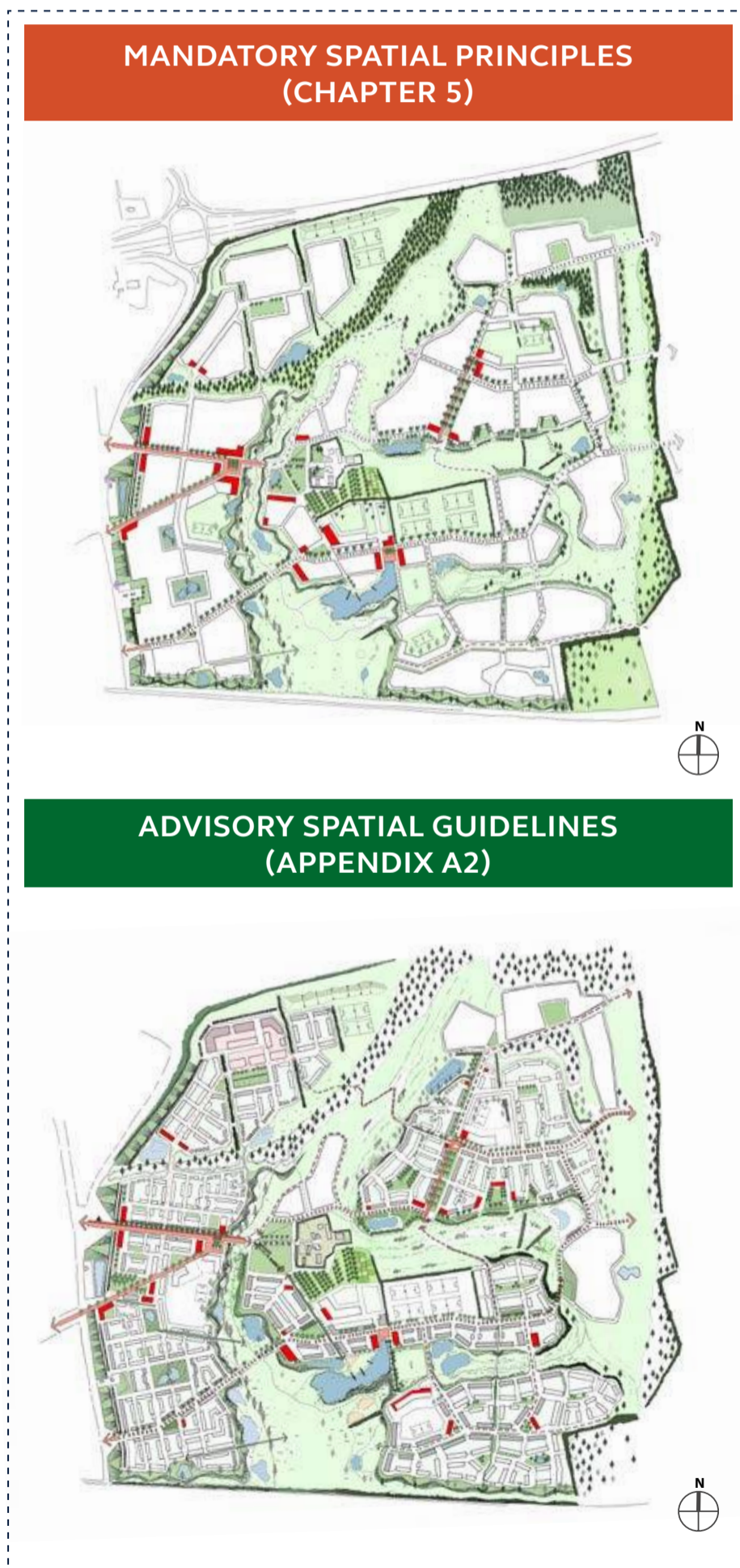
The Mandatory Spatial Principles relate to landscape and heritage as well as spatial layout and built form. The Mandatory Spatial Principles reflect critical outcomes from the Design Review process undertaken with Design South East and establish a robust Framework Masterplan whilst allowing sufficient flexibility for future detailed designs to emerge. The Mandatory Spatial Principles will ensure that a series of unique and high quality new neighbourhoods are developed, which are reflective of their setting within the overall Garden Village.

ADVISORY SPATIAL GUIDELINES

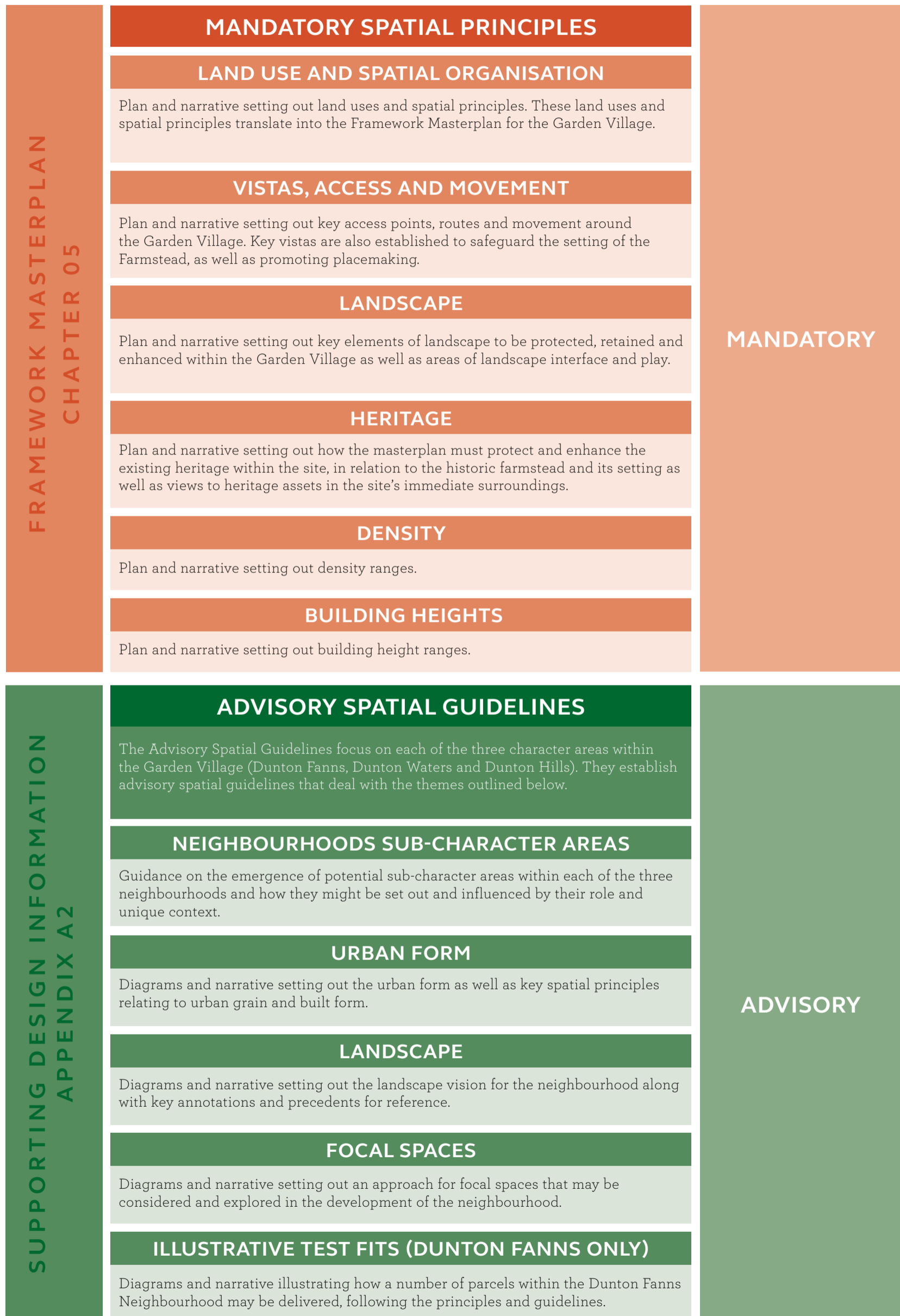
The Advisory Guidelines are intended to give further understanding and validity to the Mandatory Spatial Principles and are located within Appendix A2 of this document. The Advisory Guidelines set out broad illustrative sub-character areas within each neighbourhood for future design teams to consider. The Advisory Guidelines consider urban form and landscape as well as focal spaces and some illustrative test fits. It is hoped that the Advisory Guidelines will assist in stimulating a well considered and appropriate design response.

A STARTING POINT FOR BRENTWOOD BOROUGH COUNCIL'S SUPPLEMENTARY PLANNING DOCUMENT

The intention of the principles is to provide a framework for the evolution of Brentwood Borough Council's Supplementary Planning Document (SPD) as well as detailed design as proposals emerge. The guidelines ensure that a coherent masterplan comes forward which is firmly grounded in the wide range of matters which have been explored in this document.



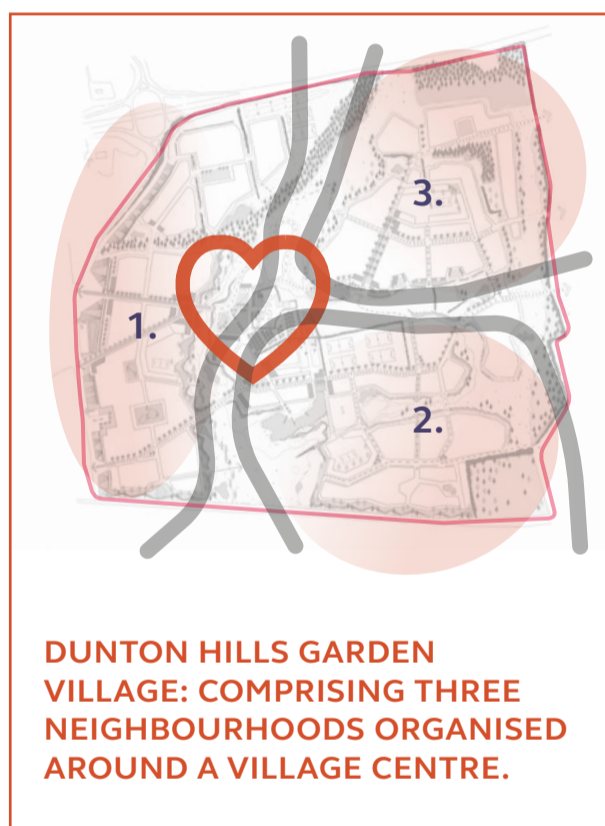
**STRUCTURE AND RELATIONSHIP BETWEEN THE OVERARCHING PRINCIPLES
IN THIS CHAPTER AND THE MANDATORY GUIDELINES WITHIN THE APPENDIX:**



LAND USE AND SPATIAL ORGANISATION

The Framework Masterplan

The Framework Masterplan sets out the land uses and spatial organisation of the Garden Village.



NEW HOMES

Dunton Hills Garden Village will provide up to 4,000 new homes across three neighbourhoods that will have their own character but will be integrated into a coherent village. New homes will comprise a range of residential typologies and tenures, delivered over a net developable area of approximately 126 ha.

The average density of the Garden Village will be approximately 40 dwellings per hectare (dph) although the majority of the village will be lower at approximately 37 dph, with a number of strategically located apartment and mixed-use parcels with higher densities.

The majority of apartments will be located within the Village Centre, around the Market Square as well as along the Mobility Corridor connecting Station Road with the Market Square. It is envisaged that some apartment buildings will be sited along the western edge of the village, forming a formal frontage to the A128. Some apartment buildings will also be provided within the two Neighbourhood Hubs, both in north east and the southern neighbourhoods. Additional apartment buildings will also be positioned at strategic locations within each neighbourhood throughout the Garden Village to assist legibility.

Three care homes or similar uses could form part of the Village Centre or Neighbourhood Hubs. Provision will also be made for a gypsy and travellers site.

NON-RESIDENTIAL USES

A Village Centre is proposed at the heart of Dunton Hills around a new Market Square. It is envisaged that this square will be framed by both apartments with non-residential uses (such as retail) at ground floor level as well as stand alone community buildings.

RETAIL/FOOD AND DRINK

As stated above, retail facilities will be located within the Village Centre. The two Neighbourhood Hubs will also contain retail. The retail offer could comprise a supermarket, convenience stores, professional services, pubs, takeaways, restaurants and cafés.

COMMUNITY

Community uses that are envisaged for the Garden Village include, a health centre, dentist, gym and a variety of sport pitches and equipped play areas for children alongside accessible open space. The range of facilities available will promote healthy lifestyles and ensure that everyday needs can be met within the site.

EDUCATION

There is potential to provide up to three primary schools and a secondary/all through school within the Garden Village. These will be in walkable locations at the heart of each neighbourhood and close to retail and community facilities promoting a synergy of uses. Most of the schools will also lie adjacent to open green space. As part of the Village Centre and the other Neighbourhood Hubs, private nurseries or crèches will be proposed.

EMPLOYMENT

The employment offer will comprise a mixture of office and workshop spaces provided in the Village Centre as well as an Employment Hub (in the north-east along the A127). This will provide jobs in an accessible location, creating the space for local businesses to grow in an innovative and supportive business environment. The Neighbourhood Hubs should also support employment.

MOBILITY










A Mobility Corridor links the Village Centre to Station Road creating a high quality pedestrian, cycling and public transport corridor toward West Horndon Station. A further key route is established between the A128 and the Villager Centre. At the heart of the Village Centre is the Mobility Hub (see later in this report). The neighbourhoods are also connected by a strong network of walking and cycle routes.

Land Use	Total Ha (approximate)
Residential	93.60
Mixed Use	1.41
Secondary/All Through School	7.91
Primary School	6.36
Employment Hub	3.19
Gypsy and traveller Site	0.38
Informal Open Space	124
Formal Open Space	3.11
Sports Pitches	2.58
Access	12.40

LAND USE AND SPATIAL ORGANISATION



KEY

 Routes - mandatory alignment	 Residential	 Education	 Gypsy and traveller site	 Informal Open Space
 Routes - flexible alignment	 Mixed-use	 Employment	 Formal Open Space	

MANDATORY SPATIAL PRINCIPLES - LAND USE AND SPATIAL ORGANISATION

- 01 Location and arrangement of the Market Square** - will be positioned at the heart of the Garden Village and on the eastern edge of Dunton Fanns, facing the proposed Village Green and the historic farmstead. The Market Square will be designed to a suitable size to support the quantum of non-residential uses intended and will be enclosed by taller buildings with employment, retail and community uses activating the public realm.
- 02 Definition of the Village Green** - will provide a setting for the historic farmstead as well as a key communal open space for residents in which to interact and relax. The Village Green will be visible from the Market Square, across the landscape associated with the Eastlands Spring. The existing farmstead driveway will be retained and will become an important pedestrian route to Dunton Waters.
- 03 Location of Dunton Fanns Primary School** - will be a central component of the Dunton Fann's community and will have frontage onto the proposed Mobility Corridor to promote sustainable travel.
- 04 Secondary School** - will be visible from the wetlands along an east-west route connecting Dunton Fanns with Dunton Waters. The school building will front onto a lane and frame an arrival 'Schoolyard Square', comprising a car free setting.
- 05 Location and arrangement of a Neighbourhood Hub for Dunton Waters** - will be focused around a south facing lakefront plaza with views of the proposed cricket pitch and Dunton Waters Primary School, framed by buildings and activated by non-residential ground floor uses. The community element of the Secondary School will frame the northern edge of the plaza.
- 06 Location and arrangement of Dunton Waters Primary School** - will be focused on the threshold of the wetlands landscape, maximising opportunities for outdoor learning whilst being visible from the lakefront plaza.
- 07 Location and arrangement of the co-located Dunton Woods Neighbourhood Hub and Primary School** - will be the central component of Dunton Woods, centred around a plaza at the northern end of a linear park which will form a view corridor to Dunton Waters. The plaza will be framed by taller buildings with non-residential ground floor uses.
- 08 Location and arrangement of sports pitches and community Sports Hub** - will be provided within the Secondary School parcel allowing both students and residents to make use of the facilities. The pitches will support a range of sports, forming a hub for community activity and for social and competitive recreation. Other sports facilities include the cricket pitch and football pitches.
- 09 Location of employment land** - will be in close proximity to the employment site proposed to the west of the A128. Employment land uses will be supported by a nursery and will adjoin open space, accessible for both workers and residents. Buildings will be positioned in an east-west orientation to establish a noise barrier against the A127.
- 10 Location of Gypsy traveller site** - will be positioned to allow for direct access from the A128 and with an interface with the proposed landscape edge. The site will allow for 5 pitches in line with policy, with the final configuration to be determined upon consultation with potential occupants.

VISTAS, ACCESS AND MOVEMENT

Sustainable travel is prioritised throughout the Garden Village with dedicated pedestrian and cycle routes as well as a Mobility Corridor providing an efficient link to West Horndon.



OVERALL MOBILITY STRATEGY

A further explanation of the Mobility Strategy is set out in Chapter 6. Their chapter(s) cover the spatial implications of the movement strategy within the Garden Village.

ACCESS

A new Mobility Corridor will be provided linking the Village Centre to the A128 and onwards to Station Road. This will accommodate pedestrian, cyclists and buses only.

In the early phases, all mode connections will be provided from the A128 to the north and south of the Mobility Corridor. It is envisaged that additional eastern connections towards Basildon will be provided in later phases, albeit subject to approval of others.

MOVEMENT

Internal movement is aligned to a clear hierarchy of streets, providing efficient links within the Garden Village and ensuring permeability. Pedestrian and cycle movement will be prioritised to encourage active transport, with new routes linking with the existing PROW network and providing connections into the surrounding countryside.

BUS ROUTE

The proposed bus route will connect key community facilities within the Garden Village and provide connections between the site, West Horndon Railway Station and places such as Brentwood. Bus stops will be situated to provide maximum accessibility to residents. In addition to the 'loop' bus route, a second route could potentially connect into the north east portion of the Garden Village and through into Basildon.

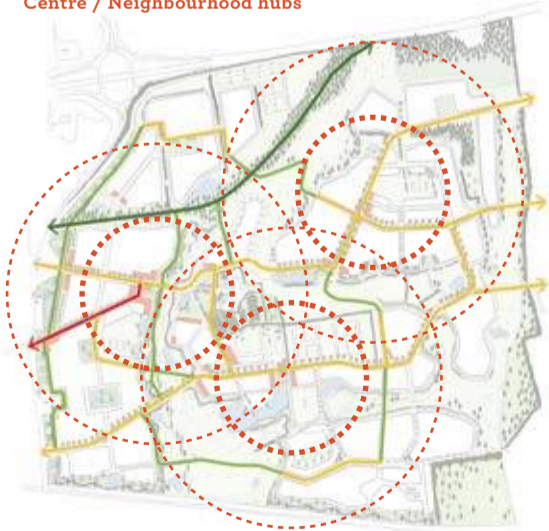
PROMOTING HEALTH AND RELAXATION

The wellness trail will link a number of key destinations within the Garden Village along direct and safe, pedestrian and cycle friendly routes designed for all residents including children. Key nodes along this route include the Village Centre, the northern Employment Hub, the two Neighbourhood Hubs and the schools.

Large parts of this route will be through the landscape including the ancient woodland, the ridge-line, and the linear corridor along the Eastlands Spring.

As well as providing sustainable and high quality connections, this route will include trim trails for outdoor exercise and interpretation boards.

Walking times to/from Village Centre / Neighbourhood hubs



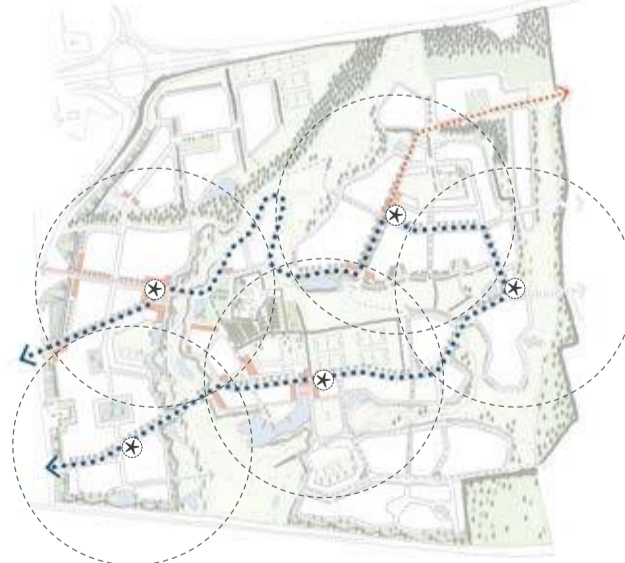
- KEY
- 500m or 6 minute walking catchment
 - 1,000m or 12 minute walking catchment

Sustainable transport routes



- KEY
- Pedestrian and cycle car free route
 - Pedestrian and cycle route along street
 - Bus, pedestrian and cycle route (dedicated)
 - Existing PROW

Proposed bus routes







- KEY
- Bus route
 - Potential future bus route
 - ⊗ Bus stop and 400m catchment

VISTAS, ACCESS AND MOVEMENT



KEY

- | | |
|--|---|
|  Routes - mandatory alignment |  Routes - flexible landscape connections |
|  Routes - flexible alignment |  Indicative marker buildings |

MANDATORY SPATIAL PRINCIPLES - VISTAS, ACCESS AND MOVEMENT

- 01 Farmstead Avenue and View Corridor** - will preserve a direct visual relationship between the A128 and the Grade II listed farmhouse. This is one of many masterplanning approaches that ensures the historic farmstead becomes a focal point within the Garden Village.
- 02 Mobility Corridor (Station Road extension)** - will be the main access point to the village, accommodating pedestrians, cyclists and public transport. The Mobility Corridor will extend into the village along the alignment of Station Road, with a direct pedestrian and cycle crossing over the A128. This will facilitate and promote sustainable travel to the Market Square at the Village Centre which will include the Mobility Hub.
- 03 Mobility route along the western edge** - will be incorporated into the landscape, facilitating safe and sustainable travel (for cyclists and pedestrians) north-south along the A128, but respecting the setting of the retained dwellings.
- 04 Secondary School approach and landmark** - a direct route and view corridor will be established from the Secondary School building to the wetlands, ensuring its prominence as a landmark within the wider Garden Village, as well as promoting wayfinding.
- 05 Schoolyard Square** - will be established in front of the Secondary School building, at the end of the proposed School Lane. The square will form a car free and landscaped gathering space for children and parents before and after school, as well as allowing for the retention of existing historic trees.
- 06 School Lane** - a key pedestrian and cycling priority route will be established, connecting the Village Green and Secondary School with the wetland. The lane will run past the community orchard on one side and be fronted and activated by new homes on the other.
- 07 Potential future connections east towards Basildon** - will be safeguarded into the layout of the masterplan to allow for future expansion and connectivity.
- 08 Dunton Woods viewing corridor** - will establish a visual relationship between the Neighbourhood Hubs of Dunton Woods and Dunton Waters, promoting a sense of community cohesion within the overall Garden Village.
- 09 Wellness trail** - a pedestrian and cycling only trail will be provided within the landscape, promoting a healthy lifestyle within the Garden Village. The trail will connect the facilities provided within the Market Square and Village Green within Dunton Fanns to the other Neighbourhood Hubs and Schools.
- 10 Nodes at intersections** - the point at where two or more routes intersect will inform the location of Neighbourhood Hubs and associated non-residential uses.
- 11 Marker buildings (throughout masterplan)** - will be used to define key routes, vistas and places, promote placemaking and wayfinding within the neighbourhoods or landscape setting. Marker buildings shall be distinguished from other buildings through either architectural treatment, height or positioning within a prospective layout.
- 12 Inter-neighbourhood connectivity (throughout masterplan)** - in conjunction with the wellness trail, pedestrian and cycle connections will be established to ensure a high degree of connectivity between the three neighbourhoods, further promoting safe and sustainable travel.

LANDSCAPE

The green and blue infrastructure creates a robust platform for the creation of habitats, social interaction, exercise and recreation, and biodiversity gain.

GREEN AND BLUE FRAMEWORK

The core vision for Dunton Hills Garden Village is to have three neighbourhoods all with community facilities at their heart, within a short walking/cycling distance of their residents.

These neighbourhoods will be connected through the multi-functional green and blue infrastructure which weaves its way through the site and maximises the site's wonderful assets including the ridge, Eastlands Spring and the woodland watercourse corridor. The site has a varied and dynamic existing green and blue infrastructure network, and the landscape vision seeks to enhance and celebrate these assets.

The Mandatory Spatial Principles in this section are broken down into landscape areas and landscape interfaces.



Eco-tone tree planting to protect the Ancient woodland edge



Recreation routes through wetlands

MANDATORY SPATIAL PRINCIPLES - LANDSCAPE AREAS

- 01 **Productive landscape** - will be located south of the farmstead in the site of a former orchard. The productive landscape has the potential to include orchard tree species and varieties of local provenance and will become a focal point of the community.
- 02 **Ancient woodland** - will be protected and conserved with a 15m eco-tone buffer of native woodland along its boundary to provide a structured edge and enhance the wooded character.
- 03 **Eastlands Spring** - will be preserved as a distinctive feature, defining the transition from the Fanns neighbourhood to the wetlands. Accessible in parts for play and learning whilst also providing for biodiversity.
- 04 **The Ridge** - will remain open in character and retained as a key feature of the site as set out by the masterplan drivers, separating Dunton Woods from Dunton Waters. The ridge will be managed to provide for both biodiversity as well as recreation.
- 05 **Ridge-line route** - will be provided along the top of the ridge, with restful landscaped spaces where views across to the North Downs and towards London can be enjoyed. Tree planting will ensure a wooded skyline balances new homes along the ridge-line.
- 06 **Dunton Waters water management** - rain gardens and swales will be used within Dunton Waters to celebrate water management within the public realm, managing the transition of surface water from higher ground to the east, to the lower wetlands areas in the west.
- 07 **Existing landscape features to be retained** - historic hedges, trees and waterbodies will be retained where possible, ensuring that the Garden Village responds to its setting and is delivered within the landscape and not imposed on it.
- 08 **Woodland** - will be retained for recreational benefits as well as enhancing the woodland character existing in this part of the site, wrapping around the homes within Dunton Woods.
- 09 **Wetland landscape** - will provide for biodiversity gain and recreation. Wetland area to provide habitat for aquatic and migratory birds and great crested newts translocation. Recreational routes through wetland to be defined to allow access without disturbing wildlife.
- 10 **Play spaces (throughout masterplan)** - will be sensitively incorporated and distributed within the wider landscape as well as within the neighbourhoods. Play spaces will be safe and both formal and informal, and provide for a range of ages and abilities.
- 11 **Noise barrier** - will be established against the A127 and A128 within the north east corner of the site. This barrier will be sensitively integrated into the landscape with tree and shrub planting.
- 12 **SuDS (throughout masterplan)** - will be sensitively integrated into the landscape, working with existing hydrology and topography.
- 13 **Habitat creation and management** - for the promotion of biodiversity should be explored at every opportunity. Refer to pages 76-77 for the biodiversity strategy for Dunton Hills Garden Village.

LANDSCAPE AREAS AND INTERFACE

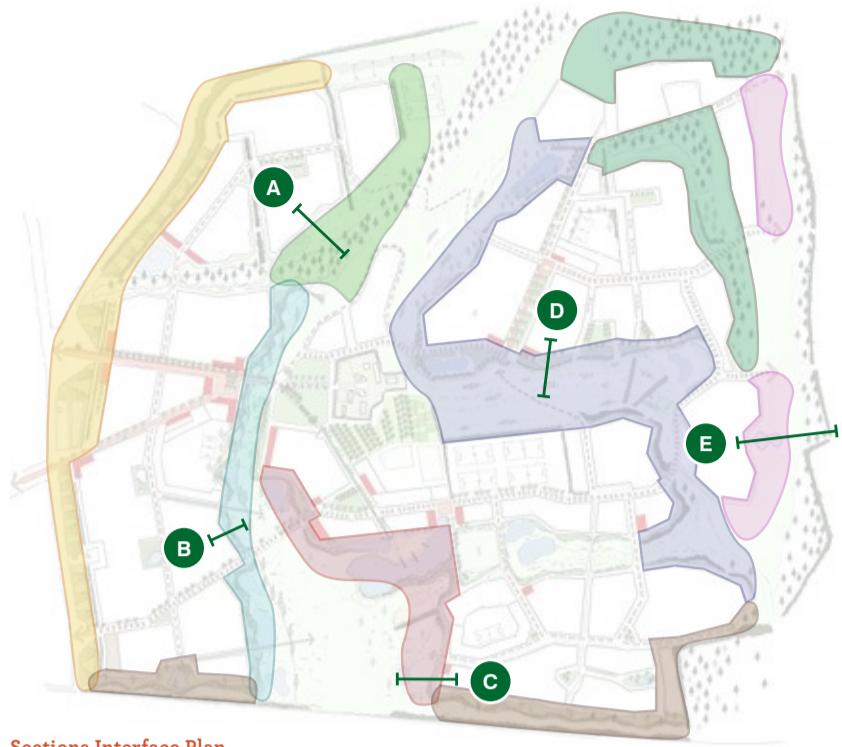


KEY

A Dunton Fanns interface	C Eastlands Spring interface	E Ridge interface	G Eastern boundary/green belt interface
B Ancient woodland interface	D Wetlands interface	F Woodlands interface	H Wildlife corridor interface

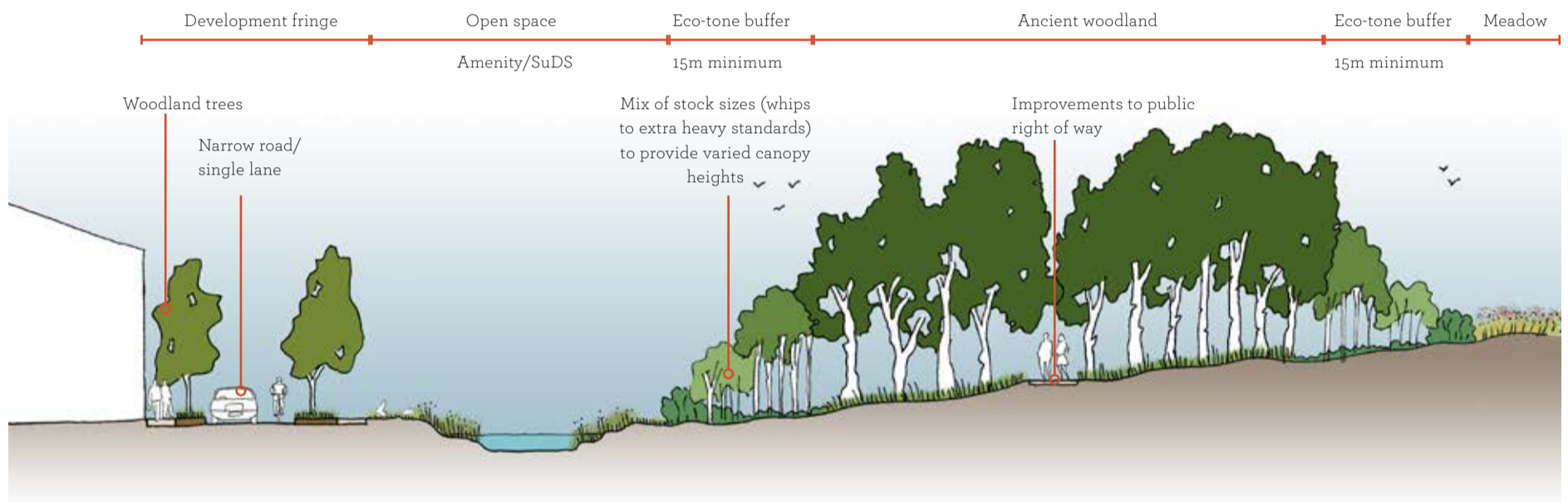
MANDATORY SPATIAL PRINCIPLES - LANDSCAPE INTERFACES

- A Dunton Fanns interface** - will be formal in character, and with the proposed built form, will announce the address of the Garden Village along the Tilbury Road (A128). The landscape will incorporate recreational open space embodying the Fanns character within an approximate 30m set back from the A128.
- B Ancient woodland interface** - will have a wooded character with native deciduous street trees. New homes will be offset approximately 50m from ancient woodland. Within this offset, an eco-tone buffer of native woodland will be implemented, providing a structured edge enhancing the woodland character. The development fringes will consider sensitive lighting designs to preserve dark corridors.
- C Eastlands Spring interface** - the edge of the neighbourhood will be lined with trees native to the Fanns landscape, alongside a narrow lane. Formal areas of recreational space will be provided along the western edge of the spring, amongst retained and enhanced vegetation, providing both a visual and physical transition to spring edge. The eastern side of the spring will have an informal wetland character.
- D Wetlands interface** - will be characterised by a robust and substantive vegetated boundary along development fringe with a narrow lane lined by rain gardens and hydrophilic trees. SuDS basins and surrounds will include recreational space.
- E Ridge interface** - will be characterised by a tree lined avenue running along the ridge-line, embodying the woodland character and including informal play opportunities for all residents within the neighbourhood. Woodland trees will be grouped informally within the landscaped amenity spaces to frame views out of the development edge, and views to the development
- F Woodlands interface** - will ensure short distances from building façade to woodland edges to achieve 'woodland on doorstep' character, with recreational routes leading directly from the neighbourhoods to existing woodland pockets.
- G Eastern boundary interface** - will be established through robust vegetation of native hedges, hedgerow trees and woodland, reinforcing and defining the Green Belt edge. A rural frontage character will be achieved through narrow lanes fronting the meadow.
- H Wildlife corridor and re-wilding area** - will become a target habitat for reptiles, managed as a wildlife corridor. Recreational route through the wildlife corridor to be provided which defines publicly accessible space. A wide vegetated bank to railway edge will include native trees and form a wildlife corridor.

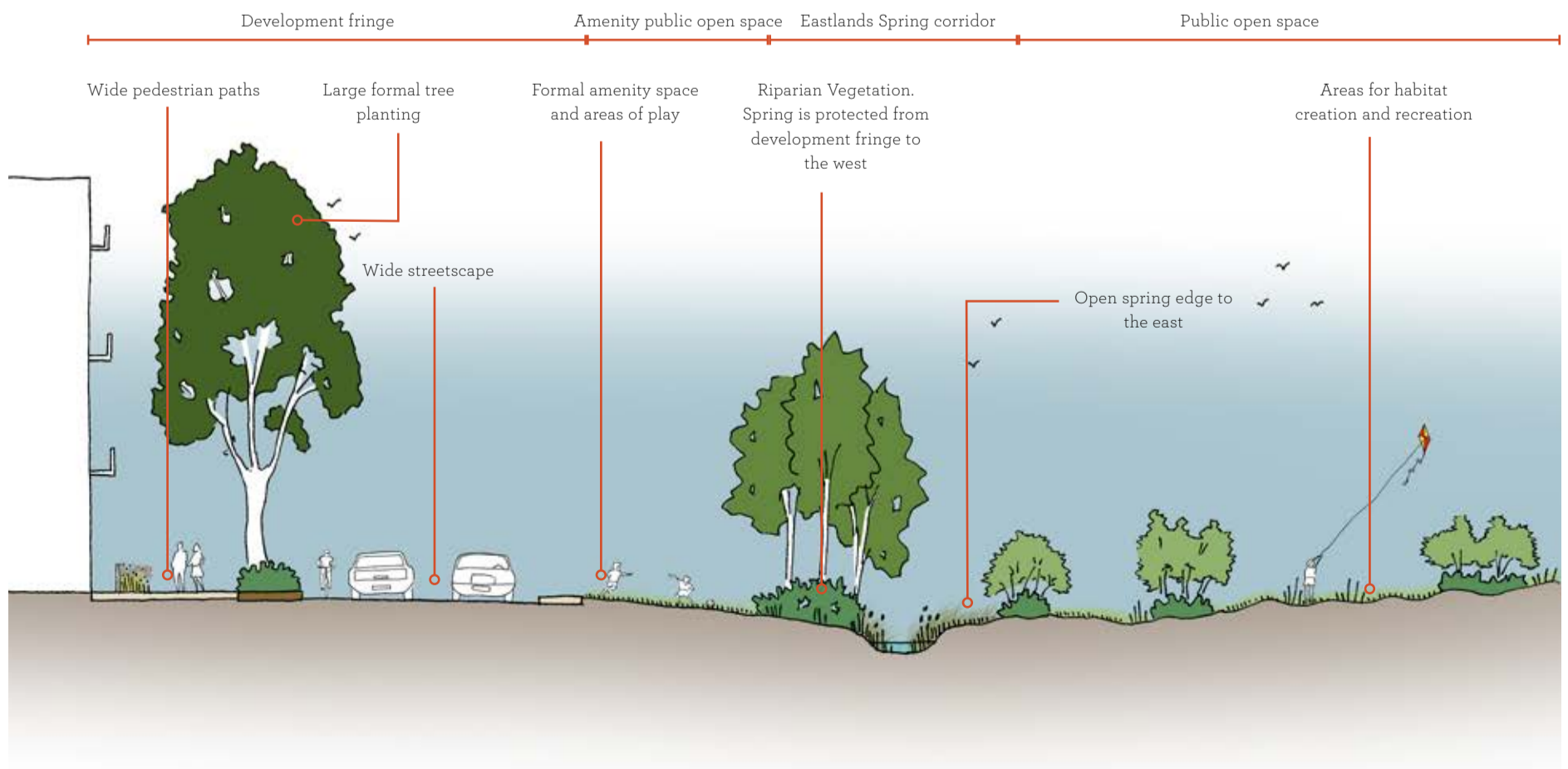


Sections Interface Plan

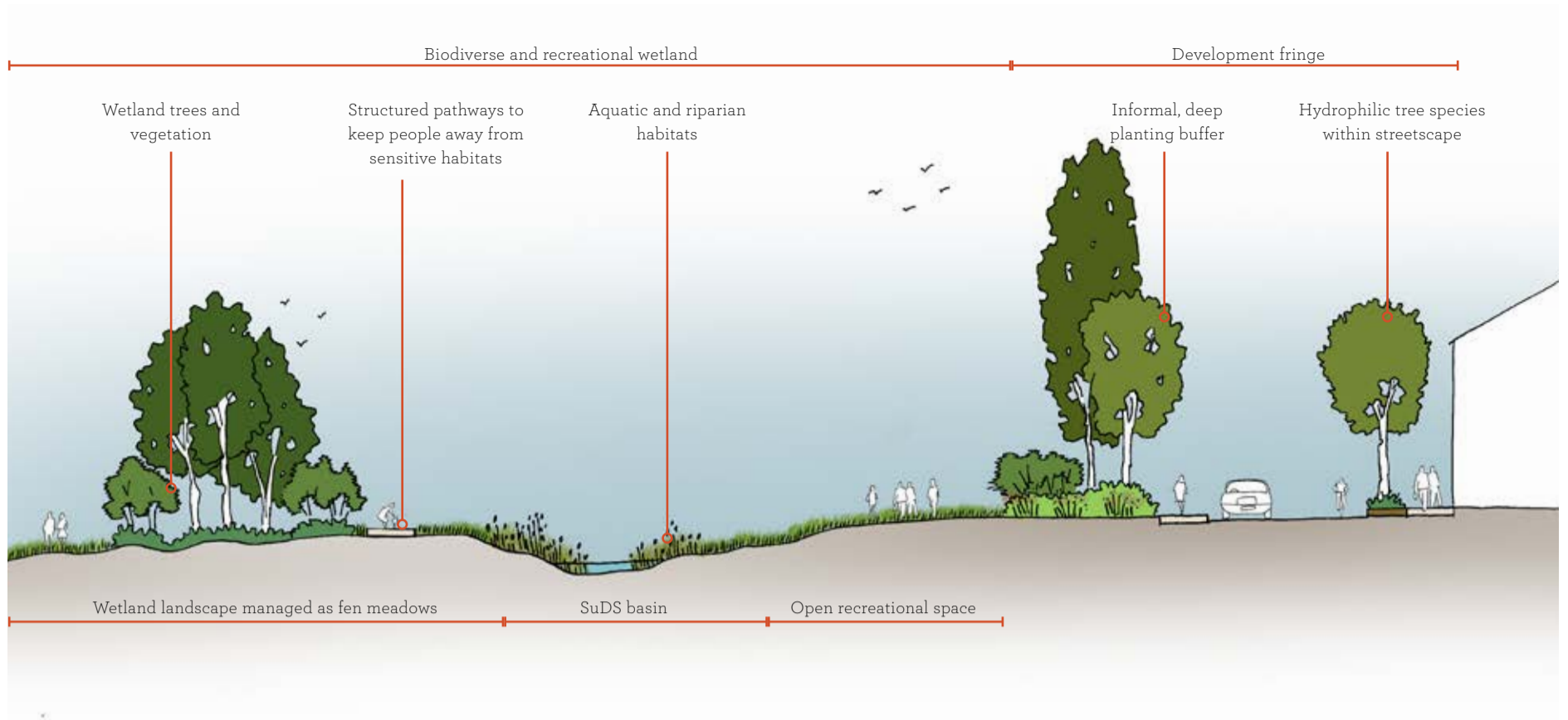
SECTION A: INTERFACE WITH Ancient woodland



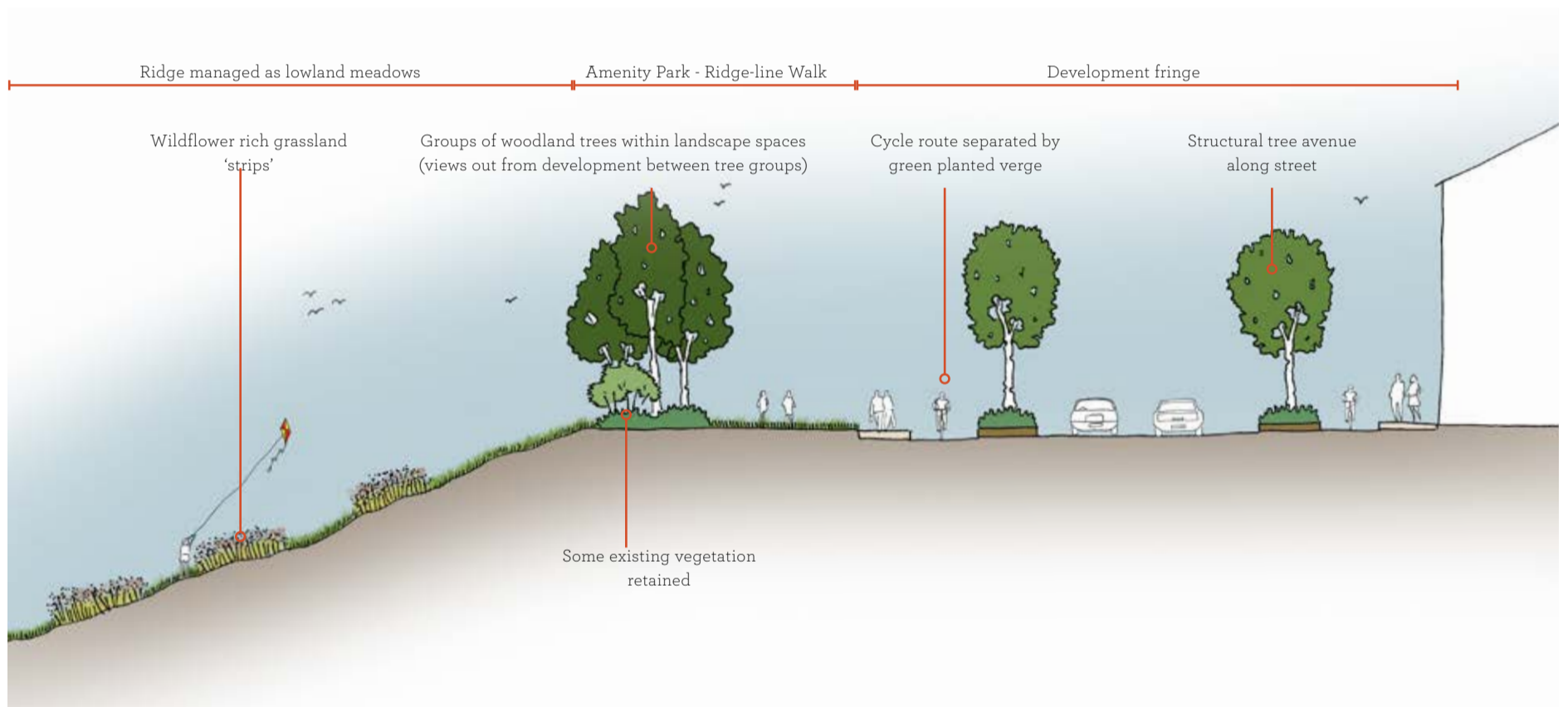
SECTION B: INTERFACE WITH EASTLANDS SPRING



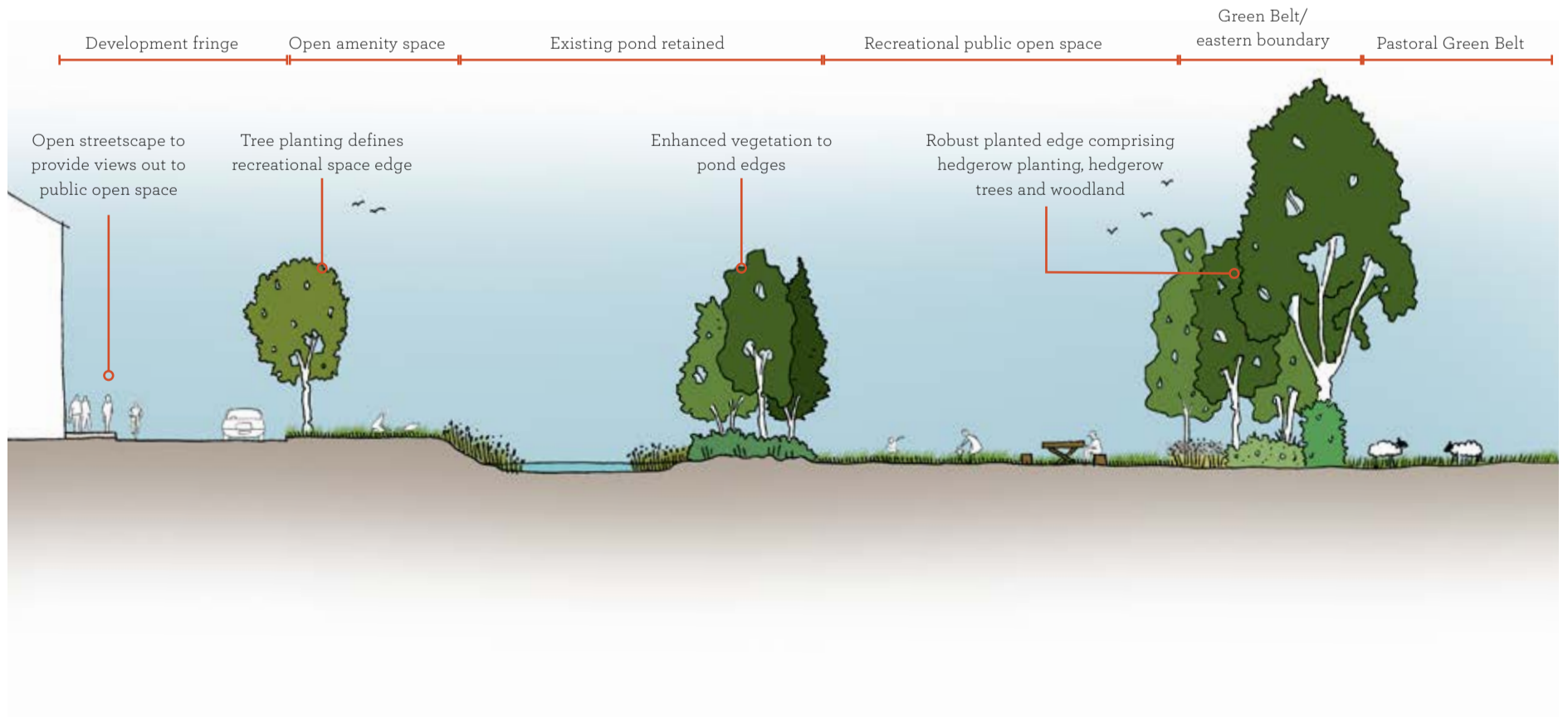
SECTION C: INTERFACE WITH WETLANDS



SECTION D: INTERFACE WITH RIDGE



SECTION E: INTERFACE WITH EASTERN BOUNDARY/GREEN BELT EDGE



Playing is not just for children; play can address fundamental human needs for interaction, movement, social interaction and activity.

PLAY

Dunton Hills Garden Village will embrace all aspects of play for all ages and abilities, and provide a social, convivial and truly playful environment within the landscape.

Dedicated play areas will be provided for young children as well as formal and informal pitches. As identified, the wider landscape contains woodland areas and the sloping ridge, as well as wetlands with the associated spring and water bodies. Together these form a unique series of areas to be explored by residents and visitors of all ages.

Adult play and recreation provision can be provided through the wellness trail (see page 112), wellbeing and cycling routes and outdoor gyms.



Multi-purpose pitches



Interactive play equipment within areas of open space



Eastlands Spring will be accessible and open to exploring



Formal pitches within the Primary Schools

PLAY



KEY

01 LEAPs	03 MUGAs	05 Cricket pitch	07 School sports provision
02 NEAPs	04 Football Hub	06 Community sports provision	

MANDATORY SPATIAL PRINCIPLES - PLAY

- 01 Locally Equipped Areas of Play (LEAPs)** - will be at least 400m² in area and at least 10m away from the closest residence. LEAPs will be distributed throughout the Garden Village to ensure catchments cover all development parcels. The maximum walking distance to each LEAP will be 400m. Each LEAP will provide a minimum of six individual play elements.
- 02 Neighbourhood Equipped Areas of Play (NEAPs)** - will be at least 1000m² in area, with a minimum of 465m² hard surfaced. A 30m buffer will be established between each NEAP and closest residence. Play provision will be for both older and younger children, including space for sport and informal ball games. Play elements should be stimulating and challenging, with a minimum of nine individual play elements. A minimum of two NEAPs will be provided within the Garden Village, with walking distances less than 1000m.
- 03 Multi Use Games Areas (MUGAs)** - will include provision for tennis, netball, basketball and 5-a-side football with a minimum space requirement of 665m². A minimum of two MUGAs will be provided within the Garden Village, with walking distances limited to 700m.
- 04 Football Pitches** - two full-size football pitches will be provided within the masterplan and will include buildings for changing and gathering at fixtures.
- 05 Cricket Pitch** - will be provided on flat land in Dunton Waters, overlooked by homes to the north and south. A Cricket Pavilion accommodating changing and social facilities will also be provided adjacent to the cricket pitch.
- 06 Community Sports Provision (as part of the Secondary School)** - will include the provision for four pitches (two of which are artificial), sports hall (to include four badminton courts) and a MUGA. Pitches will be designed to have interchangeable uses - football and rugby. A summer athletics track will also be provided. The needs of the school and the community will be balanced in sharing the facilities at different times of the day and year.
- 07 Primary School Sports Provision** - will serve the school but not be accessible to the wider neighbourhood.
- 08 'Doorstep Play' opportunities (throughout masterplan)** - will be provided throughout the Garden Village, maximising and integrating play into the landscape. Existing landscape elements such as the Eastlands Spring, the larger waterbodies and the woodland will all be made accessible for play and exploration. Informal kick-about spaces in addition to formal provision will be accommodated within the landscape. Activity and trim trails will connect development parcels and recreational landscape spaces.

HERITAGE

The Masterplan for the Garden Village sensitively integrates the site's rich agricultural heritage, whilst respecting the setting and character of the local environment.



The masterplan respects key heritage assets both within the site and the immediate surroundings including Dunton Hills Farm and All Saints Church, East Horndon.

The presence of a number of historic buildings and features within and around the site mean that heritage considerations have been central to the development of the Framework Masterplan. This has resulted in a scheme which not only seeks to sensitively preserve the historic landscape and nearby heritage assets, but enhance them where possible.

Key heritage design features incorporated into the Framework Masterplan are:

1. A comprehensive green infrastructure scheme, which seeks to improve the existing historic landscape features (such as the ancient woodland along Nightingale Lane, planting along Eastlands Spring and important hedgerows) and mitigate potential harm, (e.g. structural planting), to protect views of All Saints Church from Thorndon Park and the church itself.
2. The provision of generous 'buffer zones' around historic buildings, which provide new publicly-accessible green spaces from which to appreciate historic buildings but also respect their setting. This includes the provision of a new village green to the west of Dunton Hills farmhouse and grassland meadows in the vicinity of St Mary's Church and Dunton Hall.
3. The retention of key views across the site, including those towards and between the Dunton Hills farmhouse, Church of All Saints and Church of St Mary.
4. The proposals also seek to retain and reinstate historic routes through the site (e.g. the farmstead driveway).

Furthermore, the sensitive layout of new built form, the building heights, density and detailed design will be sympathetic and appropriate to its location and the surrounding areas.

Additional design benefits include the removal or mitigation of existing features which detract from an appreciation of the historic landscape and buildings, for example: the removal of the 78m high wind turbine; the removal of electricity pylons and overhead wires through burial; and the screening and noise mitigation of vehicle activity along the heavily-trafficked A127 and the A128 interchange.

The proposals have been developed in consultation with Brentwood Borough Council and Historic England, with advice and constructive criticism carefully considered and incorporated into the emerging design proposals.

HERITAGE



KEY



Routes - mandatory alignment



Routes - flexible landscape connections



View corridors



Routes - flexible alignment



Indicative marker buildings

MANDATORY SPATIAL PRINCIPLES - HERITAGE

SETTING AND ROUTES

- 01 Village Green setting** - will provide an appropriate setting for the farmstead within which residents and visitors can interact, play and relax. The setting will be defined by the farmstead to the east, the fields existing to the north and south, and the Eastlands Spring to the west. New homes will define, and be orientated to activate the edge of the Village Green. Heights will be limited to 3 storeys and the design will respond to the architectural vernacular of the farmstead, sensitively respecting this historic setting within the Garden Village.
- 02 Existing farmstead drive** - to the east of the Eastlands Spring will be preserved and incorporated into the design of the Village Green. The existing farmstead drive will form a key part of the pedestrian and cycle route that connects the Village Centre to the Secondary School and Dunton Waters, in addition to connecting the farmstead with the Market Square.
- 03 Historic farmstead drive** - the original and historic drive to the farmstead will be re-instated, enhancing the connectivity between the Village Green, the historic farmstead and Nightingale Lane.
- 04 Nightingale Lane** - will be integrated into the design of the movement network, promoting sustainable movement within the wider Garden Village as well as healthy living.
- 05 Nightingale Hall Woods** - historic setting will be preserved and respected as a key feature within Dunton Woods.

VIEW CORRIDORS

- 06 Farmstead Avenue and view corridor** - will preserve a direct visual relationship between the junction onto the A128 and the Grade II listed farm house and associated farmstead. This is one of many masterplanning approaches that ensures that the historic farmstead becomes a focal point within the overall Garden Village. There is potential to thin the trees along Eastlands Spring to improve visibility of the farmstead.
- 07 Church views:** between the farmstead forecourt and All Saints Church - the silhouette of the Church against the skyline should be preserved, so new development in the foreground and middle ground should not occlude views of the Church, and should preserve the viewers' ability to recognise and appreciate the landmark.
- 08 Church views:** development in the foreground and middle ground will not occlude the views of the Church of St Mary from the viewpoint to the east of the farmstead, and will preserve the viewers' ability to recognise and appreciate the landmarks.
- 09 Church view:** development in the foreground and middle ground will not occlude the view of the Church of St Mary from the south-west of the site, and will preserve the viewers' ability to recognise and appreciate the landmark.

DENSITY

A range of densities should be applied to further emphasise the character of the development. These will be appropriate to their location and setting within the Garden Village.

The Garden Village will comprise a range of different densities within the overarching framework.

The highest densities are accommodated around the Village Centre and at key gateways along the A128, comprising apartment buildings and terraces of townhouses.

The central areas of Dunton Fanns allow for mid-high densities, creating the ability to deliver a mixture of apartments and housing that is more compact. Areas of higher density are located around the Neighbourhood Hubs within Dunton Woods and Dunton Waters close to local amenities and services.

Large areas of Dunton Lakes and Dunton Woods would comprise lower density family housing of up to 40 dph.

Lower densities of up to 30dph are found along the more sensitive eastern boundary of these neighbourhoods to maintain a rural feel.

The table below shows the potential numbers of homes which could be achieved within each development parcel as shown on the adjacent plan. These totals are based on the density ranges within the table to the right.

Density ranges for the indicative density strategy

Range	Lower	Middle	Highest
Up to 30	22	25	28
Up to 40	32	35	38
Up to 50	42	45	48
Up to 60	52	55	58
Over 60	62	65	68

Indicative densities for each sub-phase



Phase	Total units - at the lower density range	Total units - at the middle density range	Total units - at the highest density range
Phase 1A	758	798	839
Phase 1B	391	417	442
Phase 1C	360	390	420
Total	1509	1605	1701
Phase 2A	648	708	767
Phase 2B	200	218	236
Phase 2C	266	291	317
Total	1114	1217	1320
Phase 3A	423	462	500
Phase 3B	148	161	175
Phase 3C	199	222	246
Total	770	845	921

DENSITY



KEY

	Over 60dph		up to 50dph		up to 30dph
	up to 60dph		up to 40dph		

MANDATORY SPATIAL PRINCIPLES - DENSITY

General note: the density plan sets out broad density parameters for the Framework Masterplan (based on the density ranges above), in line with the overarching vision for the Garden Village. Depending where the boundary line is drawn, there may be pockets of density that exceed the overall density of the parcel. This is acceptable so long as the overall average density parameter is not exceeded.

- 01 Village Centre** - As per the plan, higher densities are permitted within in the area envisaged as the Village Centre. This area stretches from the A128 along the western edge to the Market Square, where taller buildings will need to provide a suitable degree of enclosure. Higher densities in this location will allow for a range of different residential typologies to be delivered, including apartments, maisonettes and townhouses.
- 02 A128 edge** - in addition to the Village Centre, the A128 edge will allow for higher densities with apartments and townhouses forming a prominent frontage address onto this main road. Taller buildings will particularly be encouraged around gateways into the village. Whilst a wall of built form will not be permitted, taller buildings here will aid in screening noise from the A128 and create a presence on the road frontage.

- 03 Dunton Waters and Woods Neighbourhood Hubs** - greater densities are allowed for within the Neighbourhood Hubs, permitting apartments with non-residential uses at grade. This will ensure that these hubs realise their potential in becoming active and vibrant nodes within the village.

- 04 Reduced outer densities** - outer areas, away from the Village Centre or Neighbourhood Hubs are designated with lower densities and are envisaged as comprising larger housing typologies on more generous plots.

BUILDING HEIGHT

A range of building heights will add variety and interest to the streetscape, enhance internal legibility and ensure that the Garden Village has a distinctive identity.

The building heights within the Garden Village will vary, but broadly correspond to the same spatial strategy as the proposed densities on the previous page.

Taller buildings will comprise apartments with the potential for non-residential uses at ground level. The tallest of these buildings will be located at the Village Centre, and in particular around the Market Square and the Station Road extension/Mobility Corridor. This will help to create a sense of enclosure to these key public spaces and routes.

Furthermore, taller buildings will be required along the western edge of the Garden Village as part of a noise mitigation strategy dealing with traffic noise on the A128. Taller buildings here will also offer the chance for more prominent gateway buildings at key entrance points into the site.


Taller buildings could be located in other parts of the site including key areas around the wetlands area (to prevent a uniform approach to height here) and in the area around the Neighbourhood Hub in Dunton Waters - to achieve higher density close to the facilities here.

As with the density plan, heights generally reduce towards the east of the site and along the more sensitive ridge-line, with a maximum height here of 12.5m. This area is likely to comprise housing of no more than two stories in height.

HEIGHTS



KEY

	5 storeys (18.5m)		3 storeys (13.5m)
	4 storeys (15.5m)		3 storeys (12.5m)

MANDATORY SPATIAL PRINCIPLES - BUILDING HEIGHTS

General note: the building heights plan sets out broad building height parameters for the Framework Masterplan, in line with the overarching vision for the Garden Village.

The building heights parameters established for the Village Centre and Neighbourhood Hubs must be adhered to in terms of the upper limits. Outside of these areas the upper limits are set at 3 storeys. However, some flexibility for occasional taller buildings in carefully considered locations could be considered where appropriate. This would add interest to large areas which might otherwise become overly uniform in height.

- 01 Village Centre** - will allow for taller mixed-use buildings, up to 5 storeys in height with non-residential uses at ground floor level. The tallest buildings will be focused around the Market Square and provide an appropriate degree of enclosure.
- 02 A128 edge** - will allow for a range of taller apartment buildings, ensuring that a prominent frontage address can be established along the western edge of the Garden Village. Taller buildings will particularly be encouraged around gateways into the village however, building heights should not affect views towards All Saints Church, identified in the Mandatory Spatial Principles relating to Heritage.
- 03 Neighbourhood Hubs** - will allow for taller mixed-use buildings up to 4 storeys, ensuring that a small but prominent centres can be established at the centre of both Dunton Waters and Dunton Woods.

- 04 School buildings** - will allow for the flexibility to deliver 2 storey landmark buildings with generous floor-ceiling heights.
- 05 Village Green and farmstead setting** - heights surrounding the Village Green will be limited to 3 storeys, balancing the need to respect the historic farmstead (which sits on higher ground) setting, whilst ensuring that the large Village Green is appropriately fronted and overlooked.
- 06 Employment buildings** - will allow for flexibility in providing buildings with generous floor-ceiling heights. Building heights of up to 3 storeys will be required so as to provide a suitable noise barrier against the A127, shielding homes to the south.
- 07 Linear park** - will allow for taller apartment buildings up to 4 storeys in height, providing a definition for the open space that leads from the ridge-line to the Dunton Woods Neighbourhood Hub. Taller buildings here will also signify the centre of Dunton Woods from lower ground within the overall Garden Village and
- 08 Eastern outer edges** - will be lower in height (as well as density) to ensure that development doesn't adversely impact views from Basildon or views towards the church of St Mary, identified in the Mandatory Spatial Principles relating to Heritage.



CHAPTER 6

MOBILITY STRATEGY

This chapter details the overarching Mandatory Overarching Principles for mobility in the Garden Village. These promote a step change in personal mobility and delivers a sustainable transport vision that underpins the Masterplan for Dunton Hills Garden Village.



MOBILITY STRATEGY

The overarching objective of the mobility strategy is to contribute positively to climate change and healthy living whilst creating an integrated and socially inclusive society.

Dunton Hills can do this, and it will do this, because of its size, its location and its design.

It is not enough to simplistically do, and assess, mobility on the basis of what has gone before. Attitudes to mobility are shifting faster now than they have at any other time in recent history, and there is a marked difference between the generations. This is fuelled by equally fast changes in mobility technology,

creating new options and expectations that meld liveability, mobility, health and climate effect with each element inextricably linked with the other.

The building of a new Garden Village is an opportunity for radical step change in the way people move around, both within the development and across the surrounding area.

At the core of the objective is an aspiration for local living, measured across the day and week, and including but not focussing on the commuter peak period. When education, visiting friends, leisure, working, home or work hub working, shopping, healthcare and the other day to day activities are taken into account it is not unreasonable to aspire to 60% of activity to be undertaken locally, within the scheme or neighbouring settlements, employment and residential areas.

The design of the scheme itself, and connections to neighbouring villages, is at a pedestrian scale, and so this local living represents an opportunity to reinforce community spirit and inclusive society.

For travel within and beyond the vicinity of the local area, the design, availability and convenience of choice and behavioural influences are aligned in an order of priority that places those that achieve the objectives as highest first. Namely:

- Virtual Mobility
- Active Travel
- Shared Travel
- Single Occupancy Car Travel



Working from home



Convenient and high quality pedestrian and cycle links



Facilitating Active Travel



Delivery Drone (on land)

VIRTUAL MOBILITY

The internet is changing mobility patterns. Social media for is increasingly used for communication and the internet for shopping, research and home or hub working within the Neighbourhood Hubs, extending ones reach beyond their home. It is mobility without travel.

The consequences of virtual mobility, such as deliveries, will be dealt with through micro consolidation centres by the Community Concierge team, enabling either personal pick up, which is good for community integration, or efficient last mile of travel techniques using amongst others, ground drones.

To achieve virtual mobility high quality broadband connectivity is to be provided serving all homes, employment/commercial areas and community buildings.

ACTIVE TRAVEL

The masterplan has been designed at a walkable and cyclable scale. Clearly legible Mobility Corridors (set out earlier in this document) promote easy and direct access to key hubs and facilities by foot, bike, or scooters within the Garden Village. These form a mobility skeleton and are the most important network of corridors. This approach will make walking and cycling (aided or unaided) the default choice of travel for most residents and visitor, and make choosing to use a private car both unnecessary and less attractive.

Where some of these corridors happen to incorporate a carriageway it will be designed to be no more than 20mph and the cycleway/footway will be segregated to create a safe environment for pedestrians and cyclists.

Active Travel extends beyond the site with the sustainability route leading from the Village Centre to connect to an improved footway/cycleway along the north side of Station Road to promote walking and cycling towards West Horndon railway station for which there are improvements proposed. A footway/cycleway link is being proposed towards Laindon and Basildon albeit this relies upon the consent of the adjoining authority.



Online taxi service



Facilitating sustainable personal mobility

SHARED TRAVEL

The sharing economy is most significantly embraced by the younger generations, including Millennials, although not exclusively.

Modern shared travel includes buying rides from Transport Network Companies (TNCs such as Uber), and creating networks for private shared travel. Dunton Hills will create a real time private shared travel network, administered by Community Concierge team, and be alive to shifts in the way these networks are evolving, given the very fast pace of change.

It will also work with demand responsive (DRT) public shared travel companies to provide either a new or extended DRT service connecting the site with local employment sites and neighbouring settlements such as Brentwood, Basildon and Thurrock. This will provide significant benefit to the rural area surrounding Dunton Hills, reducing rural vulnerability.

The scale of Dunton Hills is sufficient to attract an increased provision of fixed route bus services, providing further benefits to West Horndon as well as adding to the attractiveness of shared travel for residents and visitors of Dunton Hills.

Finally, Dunton Hills is well connected to mass transit at West Horndon railway station. For people travelling occasionally, or even regularly, further afield, West Horndon station, which will be accessible by active travel and shared travel, provides excellent strategic connections, including to Central London, Basildon and Southend.

In the initial stages DRT and bus services to local secondary schools will be required until the new facility within Dunton Hills is available.

Choices such as Uber and other taxi services available in the local area are equally part of the choices available for shared travel.

INFLUENCING BEHAVIOUR

A important element in the promotion of sustainable travel choices is the Mobility Hub. This is prominently located within the Village Centre where there will be the highest level of use and access by the community. This facility will provide a focal point for the administration of the Mobility Plan and the shared transport initiatives, including Car Club, cycle and electric cycle hire, Community Concierge and micro consolidation.

The key principles of the Mobility Hub are as follows:

- Be in place (at first in a temporary facility) for the first residents moving into the development and act as a gateway facility for visitors;
- Forecourt/wide footway to allow cycles to be stored in front of the hub during main operational hours where, for example, people then go on to use other shared travel choices to go off-site;
- Internal storage facilities for bike share bicycles, electric bicycles, conventional cycles, electric scooter and cargo bikes within the hub to provide high levels of security for overnight storage etc;
- Locally accessed storage space for electric car sharing;
- Storage space for parcels for 'last mile' delivery and convenient drop off/loading facilities for delivery vehicles to allow transfer to storage area, for subsequent pick up, or cargo bikes or ground drones for efficient onward delivery. This will include appropriate future proofing for autonomous delivery vehicles as they are adopted; and
- Information provision covering Site Wide Travel Plan, Demand Responsive Transport (DRT), walking and cycling routes within the wider area, Car Club operation and car share schemes across Dunton Hills and Real Time Passenger Information.

The Community Concierge service will be based at the Mobility Hub to:

- Monitor the success of achieving the sustainable travel mode target;
- Provide the IT platform for the various shared travel initiatives and maintain the travel section of the community website and smart phone application;
- Deliver Personalised Travel Planning to residents and employees including the provision of digital or physical Welcome Packs;
- Co-ordinate the preparation and implementation of Travel Plans for employment and school users under the umbrella of the Mobility Plan;
- Offer bespoke travel planning advice to future businesses and schools when they are developed and co-ordinating these with the wider travel planning initiatives for Dunton Hills;
- Support the active travel across the Dunton Hills site, including promotional initiatives or activities;
- Hold regular events, including trials with new operators and organised community walks and rides;
- Manage the Car Club, car sharing and cycle hire and ensure that the mobility routes are available for people to use;
- Provide maintenance for cycles and other personalise modes of travel;
- Ensure the goods are delivered to the Mobility Hub reach their final destination; and
- Being alive to changes in travel habits and respond to emerging technologies.



EV charging



Easy, secure cycle parking and storage should be located at key destination points

PARKING

Dunton Hills Garden Village will support a modal shift towards a reduced need for cars. Appropriate levels of cycle and scooter parking provision should be located at key community and retail facilities and the Mobility Hub ensuring that cycling, both as a means of commuting and for leisure purposes, is made as convenient as possible.

Safe and secure cycle and scooter parking for each dwelling. Such parking can be provided in various forms and include the ability to charge e-bikes.

While the car will be accommodated in early phases, the Garden Village must be designed to promote and encourage sustainable modes of transport and be future proofed to take account of emerging policy with regards to provision of electric charging points. A critical factor in delivering this vision will be the development of an efficient, site specific parking strategy reflecting the reduced dependency on single user car travel. This strategy will pay particular focus to areas of higher density, the Village Centre/ Neighbourhood Hubs and promote car free education facilities. The reduced requirement for parking provision will yield more space to create an attractive, human scale public realm with a distinctive sense of place.

In light of this, the parking arrangement should be flexible and should be designed to preserve the human scale character of the streetscapes and avoid creating a car dominated environment. Masterplanning work undertaken to date has been based on both Essex County Council Policy Standards (September 2009) and discussions with Brentwood Borough Council relating to lower standards in line with advice from transport consultants Vectos (summarised on this page).

Indicative parking approaches are shown overleaf. Alternatively, more remote parking approaches could be considered to make driving less appealing (e.g. parking barns).

INDICATIVE CAR PARKING STRATEGY

Structure

- Garages generally provided for 3 bed houses and above.
- Parking to the front of dwellings to be utilised for terraces of 2 and some smaller 3 bed units. These can also be used to create parking squares where necessary.
- Parking courts for apartments should be secured and overlooked.
- Rear parking areas should be generally avoided but where they are to be used, this should be to serve a small number of houses (limited to 10 cars) and the area should be gated and overlooked.
- Visitor parking to be provided through on-street, parallel bays.

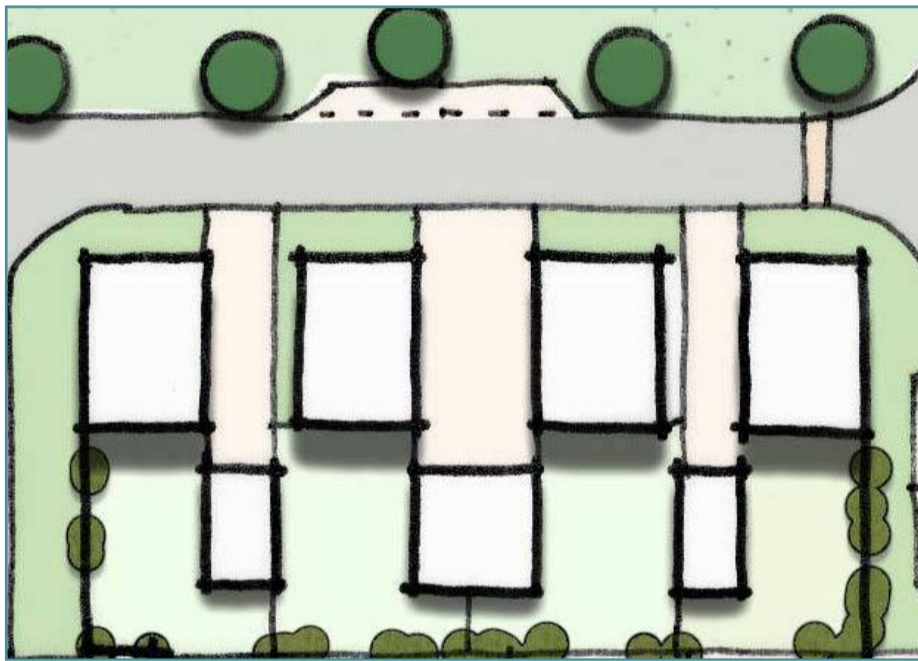
Potential parking ratios:

- 1 bedroom flats - 0.5 spaces/dwelling
- 2 bedroom flats - 0.75 spaces/dwelling
- 2+ bedroom houses - 2 spaces/dwelling
- Visitor parking - 0.25 spaces/dwelling

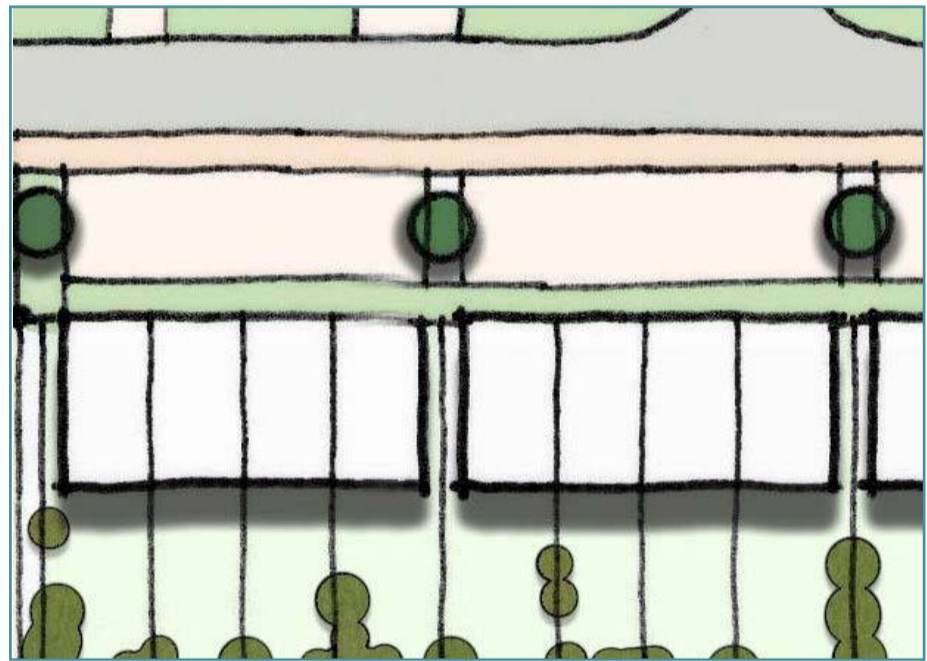
Other:

- Access to charging points for electric vehicles.
- Ability to charge e-bikes.

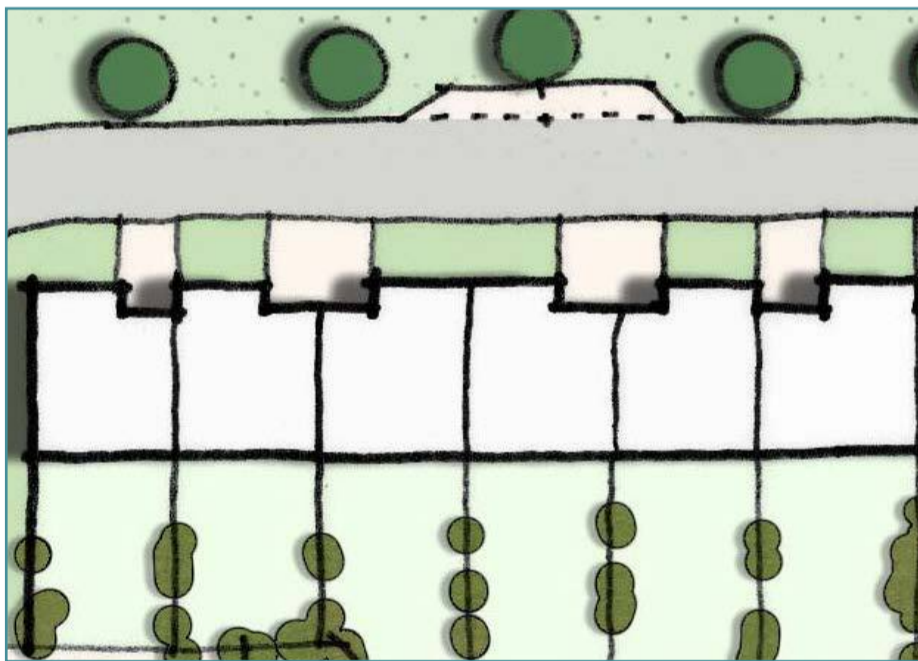
Indicative parking approaches



On-plot side parking



On-street - perpendicular Parking



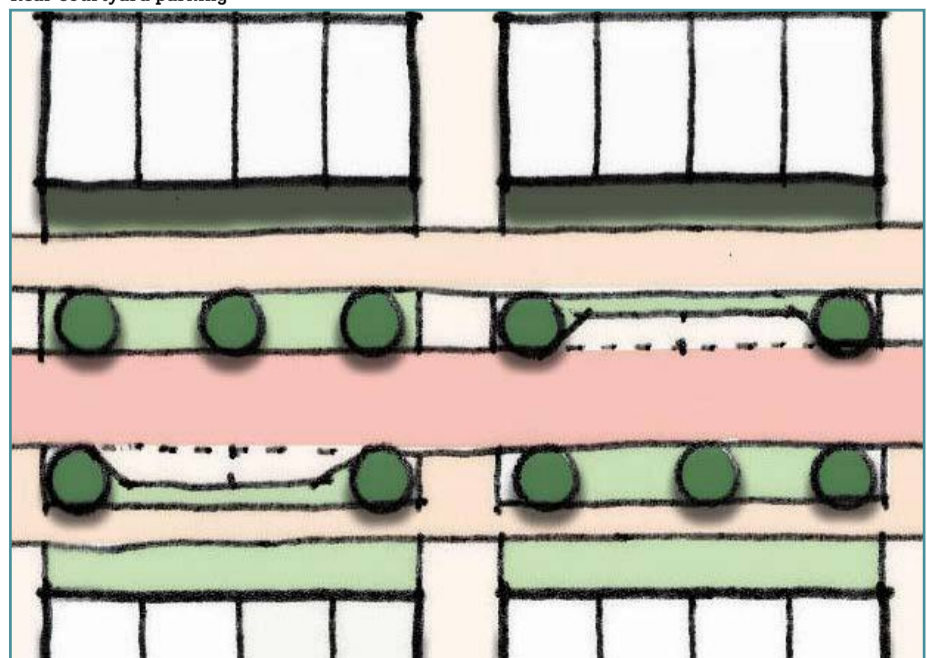
On-plot undercroft parking



Rear courtyard parking



Front courtyard/mews court parking



On-street parallel visitor parking

MANDATORY PRINCIPLES - MOBILITY

The Mobility Plan which promotes a step change in personal mobility and delivers a sustainable transport vision which underpins the Masterplan for Dunton Hills Garden Village by addressing the following key matters:

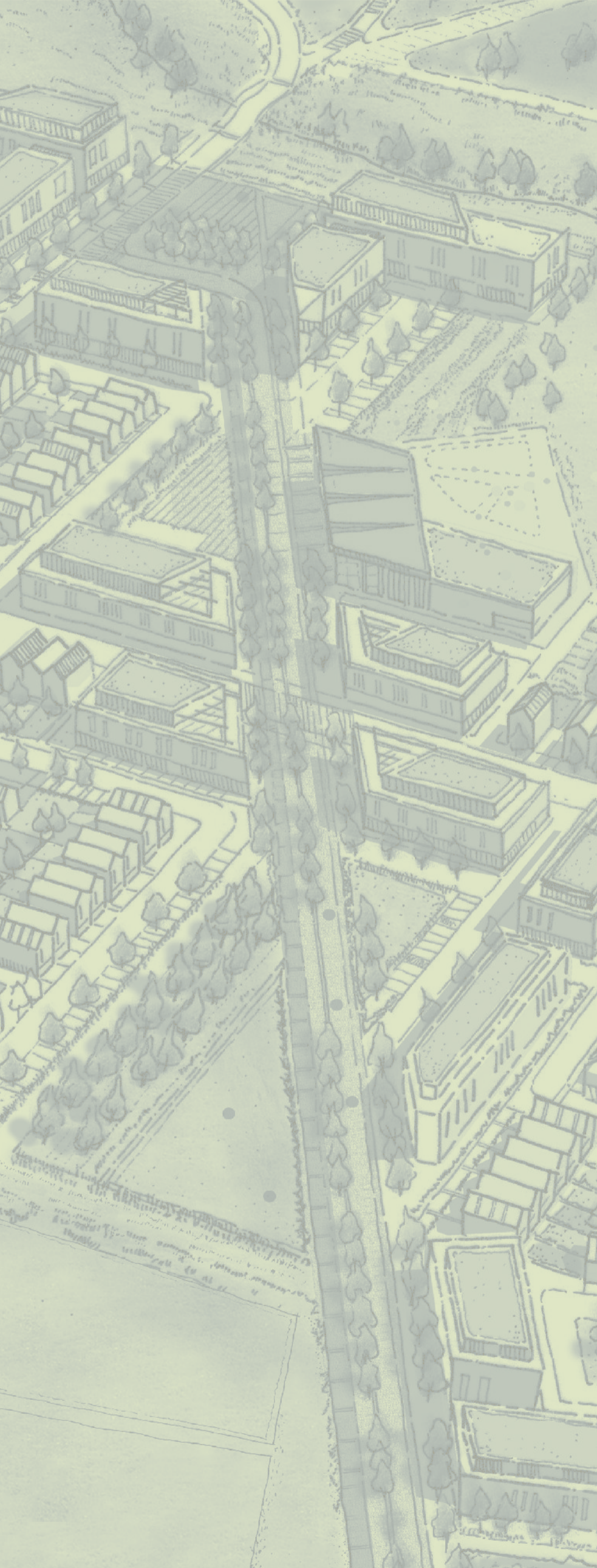
- 01 **Promoting sustainable travel and healthy lifestyles within the Garden Village** - creating and maintaining safe, attractive pedestrian and cycle routes, integrated within the network of streets and open spaces, including the wellness trail, a footpath/cycle route adjacent to the A128 and a connection to the A127 cycleway.
- 02 **A Mobility Hub** - a Mobility Hub located within the Village Centre shall provide electric vehicle charging points, bicycle parking and hire, car club, bus stop, Demand Responsive Travel node, accommodation for the Community Concierge service and other related mobility facilities.
- 03 **Community Concierge** - Community Concierge Service which will co-ordinate and monitor mobility/travel planning, provide information about travel options whether via the web or other communication channels, operate the car club and car share schemes, co-ordinate occupiers' and schools' travel plans and promote other initiatives, including receiving delivered goods, shopping or parcels for onward transport to homes and businesses by cargo bikes and drones.
- 04 **Share Travel Initiatives** - the creating the ability for future residents and occupiers to use shared travel as a first choice for trips off-site including Demand Responsive Travel, traditional fixed bus services and other initiatives such as car sharing. The Primary Mobility Route shall be designed to accommodate buses to access all three neighbourhoods to encourage the creation of viable services.
- 05 **Travel to School** - establishing arrangements for pupils to travel to secondary schools (until the new secondary/all through schools is open) and 6th form education establishments via shared travel (i.e. principally buses)) rather than relying on personal travel.
- 06 **Parking strategy** - will be developed to control/limit parking to encourage a reduction in single use car travel both within the site and to other destinations within the local area. The Strategy will include a details of public bicycle parking.
- 07 **Electric Charging** - the provision and management of public charging facilities for electric vehicles, bicycles and mobility vehicles.

MANDATORY PRINCIPLES - MOBILITY (OFF SITE)

As part of the wider mobility initiatives secured by condition or obligation, the Garden Village will deliver or support the delivery of the following physical off-site works to promote wider connectivity:

- 01 **Station Road** - widening of the existing footway to provide a safe and lit route for pedestrians and cyclists from the Garden Village to West Horndon, including a controlled junction at Station Road to enable ensure pedestrians, cyclists and buses to have direct access to the Village via the Mobility Corridor.
- 02 **East Horndon Hall** - a controlled crossing of A128 Tilbury Road between the Village and this employment area.
- 03 **A128 Tilbury Road** - through design reducing traffic speed.
- 04 **Thorndon Country Park** - a footpath/cycle route to Thorndon Country Park's southern entrance.
- 05 **West Horndon** - financial support for improvements within West Horndon to improve safety conditions for pedestrians and cyclists.
- 06 **West Horndon Railway Station** - financial support for the delivery of improvements to West Horndon railway station.
- 07 **A127 Corridor** - financial support for the delivery of appropriate and necessary schemes suggested in the A127 Growth Corridor Strategy and as may also be identified in the Infrastructure Delivery Plan.
- 08 **Basildon Link** - subject to the approval of Basildon Borough Council, a footway/cycleway link via Church Lane to Lower Dunton Road which can also serve as an access for emergency vehicles.

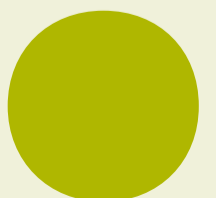




CHAPTER 7

SUSTAINABILITY STRATEGY

Creating a truly sustainable place is key to the long term success of Dunton Hills Garden Village. This strategy is wide ranging and includes social vitality, mental and physical well-being, education, employment and sustainable energy which are described in this chapter.



COMMUNITY INTERACTION, HEALTH AND WELLBEING

To create a truly sustainable, healthy and socially integrated community, Active Design Principles promoting physical activity and well-being have been embedded at the heart of our vision for Dunton Hills Garden Village.

ACHIEVING ACTIVE DESIGN - ESSEX DESIGN GUIDE AND SPORT ENGLAND

The Essex Design Guide 2018 has presented a new theme in its latest edition establishing the need to give far greater weight to aspects of active design. These core principles are a driver to help activate spaces and encourage involvement and the strengthening of community.

The ten Active Design Principles echo urban design best practice and are also highly relevant for new Garden Villages. We consider these Active Design Principles as a strong starting point for the creation of well-being and a physically active community.

Activity for all



The Framework Masterplan ensures a range of recreational needs of the new community are met with easily accessible facilities including sports pitches for all ages (e.g. cricket and football), play facilities for toddlers to teenagers (LAP, LEAP, NEAPS), outdoor gym facilities and the Wellness Trail and high quality open spaces encouraging healthy movement, community engagement, physical activity and by extension social, physical and mental well-being. The indoor sports needs are catered for at the community Sports Hub associated with the secondary school.

Walkable communities



The Village Centre and two Neighbourhood Hubs are located to ensure maximum walkability at the wider settlement and neighbourhood scales. Schools, retail, employment facilities and open spaces are all linked by a comprehensive and convenient network of walking and cycling links.

Connected walking and cycling routes



Dunton Hills will have a sustainability connected Garden Village with a safe and attractive cycle routes integrated within the network of roads and open spaces. A 6.2 km wellness trail will further promote active recreation and connectivity within the site. The no-car Mobility Corridor provides a direct connection to Station Road and then on to West Horndon railway station.

Co-location of community facilities



The distribution of facilities within the Framework Masterplan is based on the co-location of retail, education and community facilities within three interlinked hubs. This will ensure a synergy of uses and will create active and well-populated public spaces to support an active community. The Village Centre with its Market Square provide the key central location for facilities and services.



Network of multifunctional open space

Dunton Hills is a landscape led masterplan and as such homes are set within an extensive network of multi-functional open spaces to support a wide array of users and uses including play and sports facilities, woodland, existing ponds, drainage features and parkland. The Village Green is a key social space for community activities.



Appropriate infrastructure

Key to creating a vibrant and attractive Garden Village is the early delivery of infrastructure and services on site which fully meets the future needs of residents and supports healthy and sustainable lifestyles. The range and nature of facilities has been fully considered to ensure that the majority of everyday needs can be met within the site. One of the facilities is a healthcare centre located within the Village Centre to cater for the needs of future residents and the wider local community.



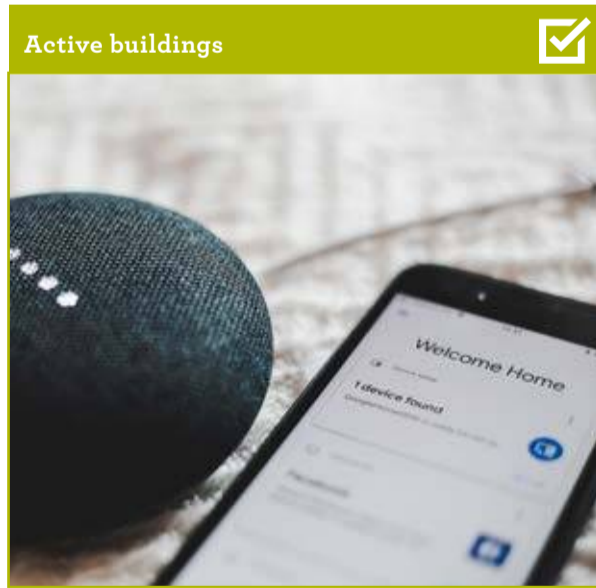
Management, maintenance and evaluation

The site management and legacy of the Garden Village will be overseen by the community comprised of residents and representatives from the Borough and Parish Councils alongside an Estates trust (e.g. The Lands Trust). These parties would be responsible for the day to day management and maintenance of the site facilities and open spaces to make neighbourhoods safe, attractive and secure places to live and encourage active participation.



High-quality streets and spaces

Dunton Hills will comprise of permeable, inclusive neighbourhoods which prioritise sustainable transport and are connected through safe walking, cycling and bus routes. Attractive and well maintained green streets that accommodate all users will facilitate leisure and active transport opportunities.



Active buildings

Buildings will be designed to ensure sustainability and energy efficiency are achieved. While this is an issue for later stages of detailed design and the SPD it is envisaged that this could include achievable methods of green energy generation such as P.V. panels, heat pumps, passive heating and homes with smart technologies that reduce energy consumption. In addition the housing mix should enable people to live at Dunton Hills throughout their lifetime, including the provision of suitable care home accommodation and affordable homes available to those residents in need.



Activity promotion and local champions

Local residents groups, clubs and forums will be established to promote opportunities for social engagement, active citizenship and interaction helping create a vibrant and integrated community. The Community Orchard and Community Growing Space are ideal focal points for such groups or clubs.



Creating opportunities that encourage outdoor activity and sustainable transport are to central to the design ethos and vision for Dunton Hills.

WELLNESS TRAIL

Our approach to connectivity is inextricably linked to mobility (touched upon in previous chapters) and is integral to promoting health and well-being within the Garden Village encouraging people to walk and cycle between their homes, place of work, learning and recreation.

The 6.2 Km wellness trail provides residents with a convenient way to get out of the house and keep active with their neighbours. It links together a number of key destinations along direct, pedestrian and cycle friendly routes. Key nodes include the Village Centre, the northern Employment Hub, the two Neighbourhood Hubs and the schools.

Large parts of this route are through open green space including the Ancient woodland, the ridge-line, and the linear corridor along the spring. As well as providing sustainable and high quality connections, this route could include trim trails for outdoor exercise for all age groups.

HEALTHY STREETS

Through the careful design of the streetscape we will improve air quality, reduce the dependence on the car and help make communities greener, healthier and more attractive, to optimise the network of open spaces and wooded areas within Dunton Hills Garden Village.

While the detailed design will come through at a later stage, street design should:

- Encourage walking and cycling for all residents especially children;
- Create streets that are easy to cross;
- Ensure there are adequate places to stop and rest (shade and shelter)
- Help people feel safe and are relaxed;
- Ensure that streets are overlooked and there is activity.

These elements have been incorporated into initial designs for the Framework Masterplan



Proposed route of the Wellness Trail

KEY

- ■ ■ Proposed Wellness Trail

MANDATORY PRINCIPLES - COMMUNITY INTERACTION, HEALTH AND WELLBEING

The Masterplan Framework includes the following mandatory principles for delivering community infrastructure and creates formal and informal spaces for social, cultural and recreational activities to encourage interaction, foster a healthy community and promote individual wellbeing:

- 01 **Accessibility** - shops, schools and community facilities at locations which are both accessible and prioritise foot and cycle as the preferred mode of travel.
- 02 **Village Green** - a safe space to relax, play and interact at the heart of the Garden Village. The Green provides a setting for events that could be hosted throughout the year.
- 03 **Market Square** - a formal space events that could be hosted throughout the year including farmers' markets.
- 04 **Healthcare Centre** - will be provided within the Market Square, providing healthcare services for all residents at the heart of the Garden Village.
- 05 **Other Formal Spaces** - other areas provided as part of the Neighbourhood Hubs, principally associated with the schools, allowing parents/carers waiting for their children to interact.
- 06 **Formal Play Areas for Children** - spread throughout the site with different levels of equipment to serve different age groups.
- 07 **Green and Blue Infrastructure** - an extensive area of land, including interpretation boards and a viewing platform, available to the community for general recreation and play.
- 08 **Community Orchard and Growing Space** - providing a space for community interaction at the heart of the Garden Village while also promoting healthy eating and providing opportunities to learn new skills
- 09 **Wellness Trail** - a dedicated and signposted pedestrian/cycling trail through the Green Infrastructure incorporating external gym equipment.
- 10 **Footpaths/Cycleways** - including Nightingale Lane, non car routes connecting neighbourhoods, hubs, schools and other facilities. Externally, connections to the cycleway along the A127 and to the southern entrance of Thorndon Country Park.
- 11 **Community Sports Hub** - a sports hall and sports pitches at the centre of the Village shared by the community with the secondary/all-through school.
- 12 **Sports Pitches** - dedicated football hub and cricket pitches including changing rooms.
- 13 **Community/Village Hall** - a space within a building available to the community for a variety of meetings or activities.
- 14 **Mobility Hub** - promoting mobility initiatives to encourage sharing transport and sustainable forms of mobility.
- 15 **Housing Mix** - homes that allow people to stay in the community over changing circumstances and life stages, including homes for the older and vulnerable members of the population.
- 16 **Healthy and Energy Efficient Buildings** - including houses with gardens for play and growing food.

MANDATORY PRINCIPLES - OTHER INITIATIVES

- 01 **Social Events** - the ability through the community management body or Friends of Dunton to use the buildings and spaces within the Village for a programme of events that would bring the community together.
- 02 **Affordable Housing** - devising a housing strategy to support a planning application which can retain existing residents, especially younger people, and priorities identified key worker groups at Dunton Hills.



Creating a strong sense of community is a key aspect of a truly sustainable Garden Village.

EDUCATION, EMPLOYMENT AND LEARNING

The Masterplan integrates a range of education and employment facilities throughout the masterplan ensuring the Garden Village meets a wide range of needs and requirements.



The Framework Masterplan will provide up to three new primary schools while also offering opportunities to learn new skills through outdoor learning.

EDUCATION

The rationale for the physical location of the education facilities, required as an integral part of the Garden Village, has already been established through the Mandatory Spatial Principles. These education facilities include free-standing nurseries, co-located 2 form entry primary schools and either a secondary school or an all-through school are focused on the Village Centre, Neighbourhood Hubs and the Employment Hub. All should include car free spaces by their entrances. These locations place the primary schools facilities at the heart of the three neighbourhoods and the secondary school and its sporting facilities at the heart of the Dunton Hills.

All these facilities are accessible on foot and foster vibrancy and activity at these hubs. The specifications and standards for the schools are a matter for detailed design. The secondary or all through school will include sporting facilities that will be a shared resource with the community.

By providing a range of schools and nurseries there will be enough places on-site for every child living at Dunton Hills who wants one. There is the basis to create an all through learning environment for the community with children being able to progress from early years to secondary education at Dunton Hills.

The first co-located primary school will be available at an early stage of the development as part of the Village Centre so that there is a realistic opportunity for children to attend their local school. There will inevitably be a gap in the delivery of the secondary education provision whilst the new school is delivered and it will be necessary for suitable sustainable transport provision to be provided between Dunton Hills and local education facilities.

Some of the new educational facilities may attract children from a wider area and, as such, there is a need to ensure the provision of suitable space for buses, DRT vehicles, cycles and scooters at the schools to encourage the use of sustainable modes of travel. Active travel planning for all educational facilities will need to fit within the umbrella of the wider mobility principles for Dunton Hills.

Education is more than just the physical location of any buildings and their high design standard. Instead, there is the access to, and creation of, external spaces for educational activities enabling children to directly connect to their surrounding landscape and wildlife. The connectivity also extends to the provision of a range of constructive and challenging play areas and other facilities which are accessible to children of all ages and abilities.

Connectivity to the wider environment, whether through formal learning or play, is about enabling children to be actively engaged in understanding, maintaining and positively contributing to their surroundings instilling a culture of being proud to be part of the Dunton Hills community. Connecting children with their wider environment will support their physical and mental health and well-being as well as their learning development.

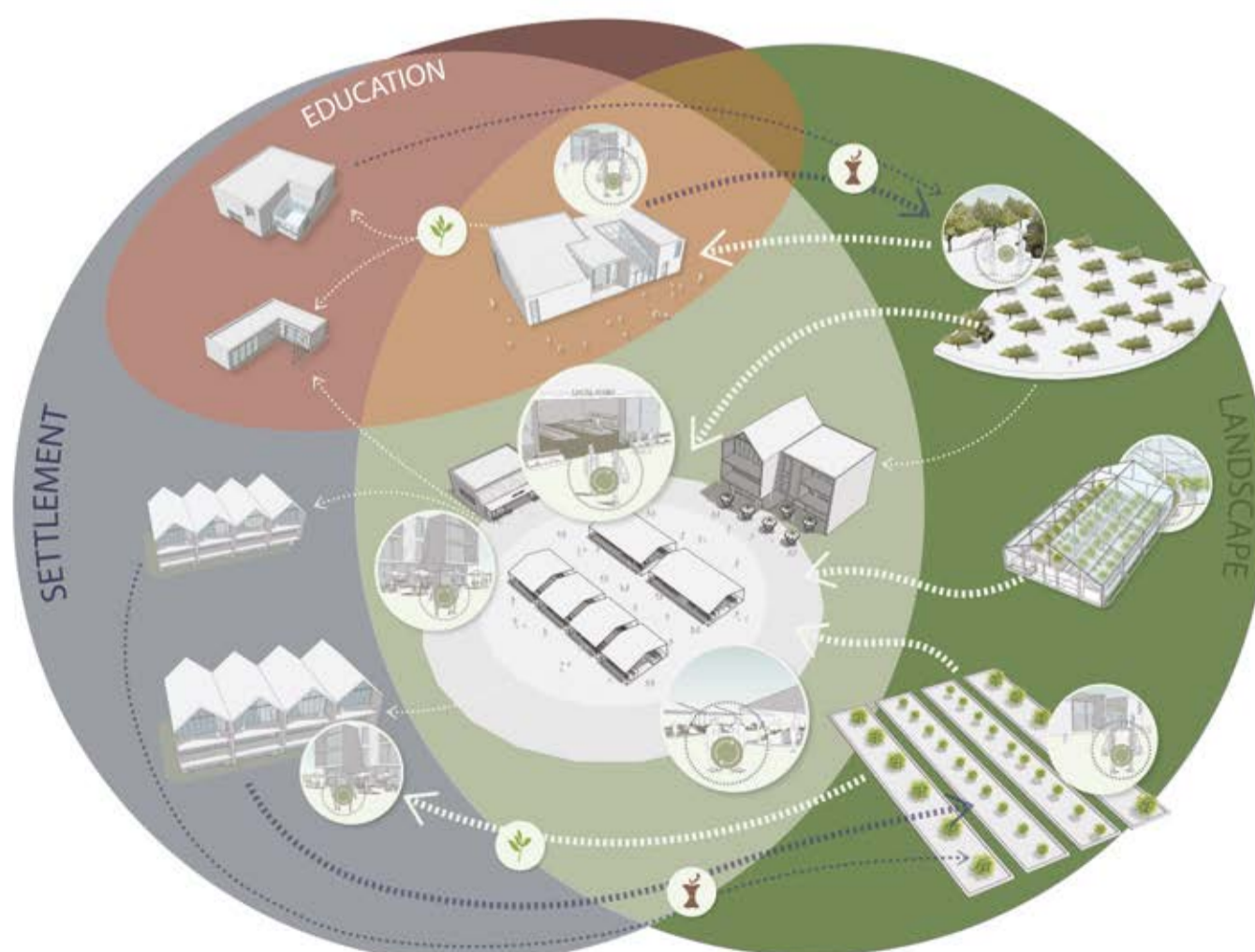
Who might operate the schools has yet to be determined. However, the operator will be required to sign up to the vision and principles which underpin Dunton Hills Garden Village and be an active partner in the ongoing management of the community. Through the schools, the young voices of children living at Dunton Hills should be heard about what they want to be provided as part of the community, whether physical items or social events. Exploring the potential for key worker accommodation for teacher and other support staff should be explored as part of the housing strategy.

Learning also extends outside the formal education system to encompass apprenticeships being available for those living at Dunton Hills to engage younger members of the community to be involved in the place where they live, work and play. The opportunity exists to create apprenticeship and training schemes based at Dunton Hills which could, if the demand existed, be extended to retraining adults.

MANDATORY PRINCIPLES - EDUCATION AND LEARNING

The Masterplan Framework fosters a learning environment with the mandatory principles being:

- 01 **Primary Schools** - inclusion of sites for a primary school with early years provision within each Neighbourhood.
- 02 **Early Years** - up-to a further 4 nurseries or crèches located at the Neighbourhood Hubs and the Employment Hub.
- 03 **Secondary Schooling** - a secondary school or all through school site at the heart of the Garden Village with associated sports provision shared with the community.
- 04 **Space Around Schools** - establishing safe car free spaces for taking children to and collecting them from schools and creating clean air zones around schools.
- 05 **Outdoor learning** - will be facilitated though careful positioning of school buildings within the Garden Village to enable access to quiet areas within the surrounding Green infrastructure for outdoor learning.
- 06 **Apprentices** - recruiting young local people to be taken on as apprentices during the construction period and for the management of the Green and Blue Infrastructure.
- 07 **High Quality and Innovative Design Standards** -taking the best practice and innovative ideas for school design, both internally and externally, but applying these within the context of the design vision for Dunton Hills to create a high quality learning environment for children
- 08 **Heart of the Community** - the schools themselves, including the Community Hub, and the operators of the schools will be an active partner in the community and will promote the voice of children and other young people



The framework masterplan facilitates a synergy of uses ensuring that educational facilities are in close proximity to outdoor learning environments and public spaces.



Apprenticeships will be supported through the construction and on-going management while a range of jobs will also be provided for through services and on-site facilities.

EMPLOYMENT AND LEARNING

Supporting a vibrant community at Dunton Hills is not just about delivering housing and community facilities. Instead, it is about quality and availability of employment space to foster a dynamic economy. This is particularly true at Garden Villages where the opportunity should exist to live work and play and where the close proximity of residents and job opportunities minimises the need to travel, especially by private car.

However, because of technology the modern economy is flexible and traditional employers are less tied to a specific geographical space. Technology enables firms and workers to be footloose. The same technology enables people to innovate and start new businesses from their homes without needing formal employment floorspace. High quality broadband and other communication technology is key for the modern economy and this includes its provision at Dunton Hills.

To create the innovation and entrepreneurship culture, and to enable such businesses to thrive, Dunton Hills will provide a range of flexible spaces for business to establish and grow with excellent access to modern technology, a high quality environment and supporting local services such as shops, nurseries and both recreation and leisure opportunities. These spaces will be from people working from home, to small scale office space with support services such as meeting rooms in the Village Centre and then more traditional accommodation within the Employment Hub.

Jobs will also be created on-site through the retail, leisure and community facilities, including the healthcare centre and schools. People will be employed to manage and maintain Dunton Hills. However, flexibility is not just a matter for employment floorspace but equally applies to retail outlets. The high street is changing and whilst some shopping facilities and support services will inevitably be required on-site, other traditional retailers are moving more on-line. The aim to promote virtual mobility and the use of micro consolidation opportunities through the concierge service will discourage some retailers from operating at Dunton Hills. The retail floorspace within the Village Centre and Neighbourhood Hubs will need to be able to respond to changing shopping behaviour.

Dunton Hills is not expected to have large scale employment uses on-site because they are already planned elsewhere along the A127 growth corridor. Dunton Hills will complement rather than compete these strategic employment locations, including East Horndon Hall. Connectivity with these other locations is an integral part of the mobility strategy. This strategy extends to connectivity to West Horndon railway Station and places such as Basildon and Brentwood which are established employment locations.

The opportunity exists to employ local labour at Dunton Hills. This will be secured through young local people being taken on as apprentices and promoting the employment of people in the local area with the necessary skills or capable of learning such skills, including through Construction Training and Employment initiatives. These jobs can be both during the construction period and beyond. The availability of a good supply of skilled labour are now much more important than other location factors and this equally underpins the delivery of high quality educational opportunities at Dunton Hills.



MANDATORY PRINCIPLES - ECONOMY

The Masterplan Framework provides the opportunity to promote economic growth through the following mandatory principles:

- 01 **Living/Working at Dunton Hills** - space being available in a proportion of homes with connectivity to high speed broadband to enable people to work from home or start-up their own companies.
- 02 **Support Space and Facilities** - dedicated and available space, such as meeting rooms or teleconference facilities, where people living/working can hire/use to support their business activities.
- 03 **Employment Floorspace** - different types of flexible and adaptable employment and commercial floorspace at the Employment Hub, Village Centre and Neighbourhood Hubs offering a range of accommodation to potential occupiers both upon construction and in the future responding to market demands.
- 04 **Enabled Buildings** - provision of high speed broadband connectivity for all employment and commercial buildings.
- 05 **Retail Space** - commercial units within the Village Centre and Neighbourhood Hubs to be of a flexible design to adapt to changes in the retail sector.
- 06 **Apprentices** - recruiting young local people to be taken on as apprentices during the construction period and for the management of the Village.
- 07 **Local Recruitment Strategy** - promoting the employment of people with the necessary skills or capable of learning such skills through Construction Training and Employment initiatives.

ENERGY EFFICIENCY AND RENEWABLES

Dunton Hills will be a low Carbon Garden Village. This section sets out the site's sustainability strategy.

SUSTAINABILITY STRATEGY

Energy Strategy which maximises energy efficiency, minimises energy use and promote renewable energy technologies will be prepared. However, energy efficiency and renewable energy initiatives continue to evolve alongside Government legislation and policy and, for these reasons, the Energy Strategy will need to be a living document to enable changes to be made in response to these external factors.

RENEWABLE ENERGY

Dunton Hills will be a very low carbon development and the starting point is to reduce energy use and hence carbon dioxide emissions. Although a matter for detailed design, high fabric standards combined with smart control systems enable buildings to be operated well from an energy perspective, reducing energy use and cost of utility bills.

The masterplanning of Dunton Hills has considered how it would be possible to maximise the number of buildings which can be orientated to maximise solar gain and daylight albeit there will be a need to minimise the risk of overheating. However, these types

of measures principally address heating of buildings, including reducing the risk of fuel poverty, but energy will be required for other activities, including lighting and changing of electric vehicles.

Through the Design Review process opportunities to incorporate renewable energy technologies have been explored. These opportunities have included those which are currently available. However, this is not to say that over the lifetime of the construction these will be the only technologies because new innovations may arise and become commonplace.

At this time, wind power has been ruled out on practical considerations. Biomass and combined heat and power have been discounted because they require a heat network which is considered unviable at Dunton Hills due to the low thermal demand density. Gas combined heat and power is now considered to be a high carbon technology due to the de-carbonisation of the electrical system. This might change if hydrogen gas becomes the norm.

Initially, some of the properties will include gas-fired boilers to provide space heating and hot water. However, this will stop in 2025 for new homes to be replaced by electricity. The renewable electricity generating technologies will include solar panels which themselves influence the orientation of buildings, air source heat pumps and ground source heat pumps. The potential for battery storage of renewable electricity, especially from solar panels offers the opportunity to reduce, rather than totally eliminate, the need for Dunton Hills to be on the grid. The current best practice is directed towards battery storage adjacent to sub stations rather than a battery for each dwelling. Storage of surplus daytime electricity offers a solution of charging of vehicles overnight by homeowners. Equally, vehicle batteries can be drawn upon by the occupiers at each dwelling.

MANDATORY PRINCIPLES - RENEWABLE ENERGY

The Energy Strategy shall address the following key matters::

- 01 **Target for Carbon Reduction** - placing shops, schools and community facilities at locations which are both accessible and prioritise foot and cycle as the preferred mode of travel.
- 02 **Domestic Energy Efficiency** - how buildings maximise energy conservation and efficiency through layout, siting, orientation, design and a 'fabric first' approach achieving, as far as is practicable based upon relevant technologies, nearly zero energy use.
- 03 **Smart Homes** - technology to monitor energy efficiency.
- 04 **Commercial and Community Efficiency** - achievement of BREEAM 'excellent' rating.
- 05 **Overheating** - principles for designing out overheating of buildings and avoiding the creation of urban heat islands.
- 06 **Construction** - use of low carbon technologies, materials and methods of construction.
- 07 **Domestic Heating** - adopting the Government's stated policy of methane gas not being used for domestic heating from 2025.
- 08 **Renewable Energy Target** - achieving the Local Plan minimum of 10% of the predicted energy needs of the development from renewable energy.
- 09 **Renewable Energy Technologies** - identification of the suitable and appropriate technologies. The use of photovoltaic panels, air sources heat pumps and ground source heat pumps as the initial renewable energy technologies are currently the most appropriate forms of technology.
- 10 **Centralised Heating** - the potential for apartment schemes, commercial buildings and community facilities to incorporate low carbon combined heat and power technologies.
- 11 **Battery Storage** - using suitable battery storage facilities on-site to recover excess renewable energy for use later.

OTHER SUSTAINABILITY CREDENTIALS

ADDITIONAL PRINCIPLES

There are some mandatory principles which do not fit neatly into the previous chapters but are important to the delivery of a high quality Garden Village at Dunton Hills. These other Mandatory Principles are included in this section and are self-explanatory in their aims and objectives and are highlighted below.

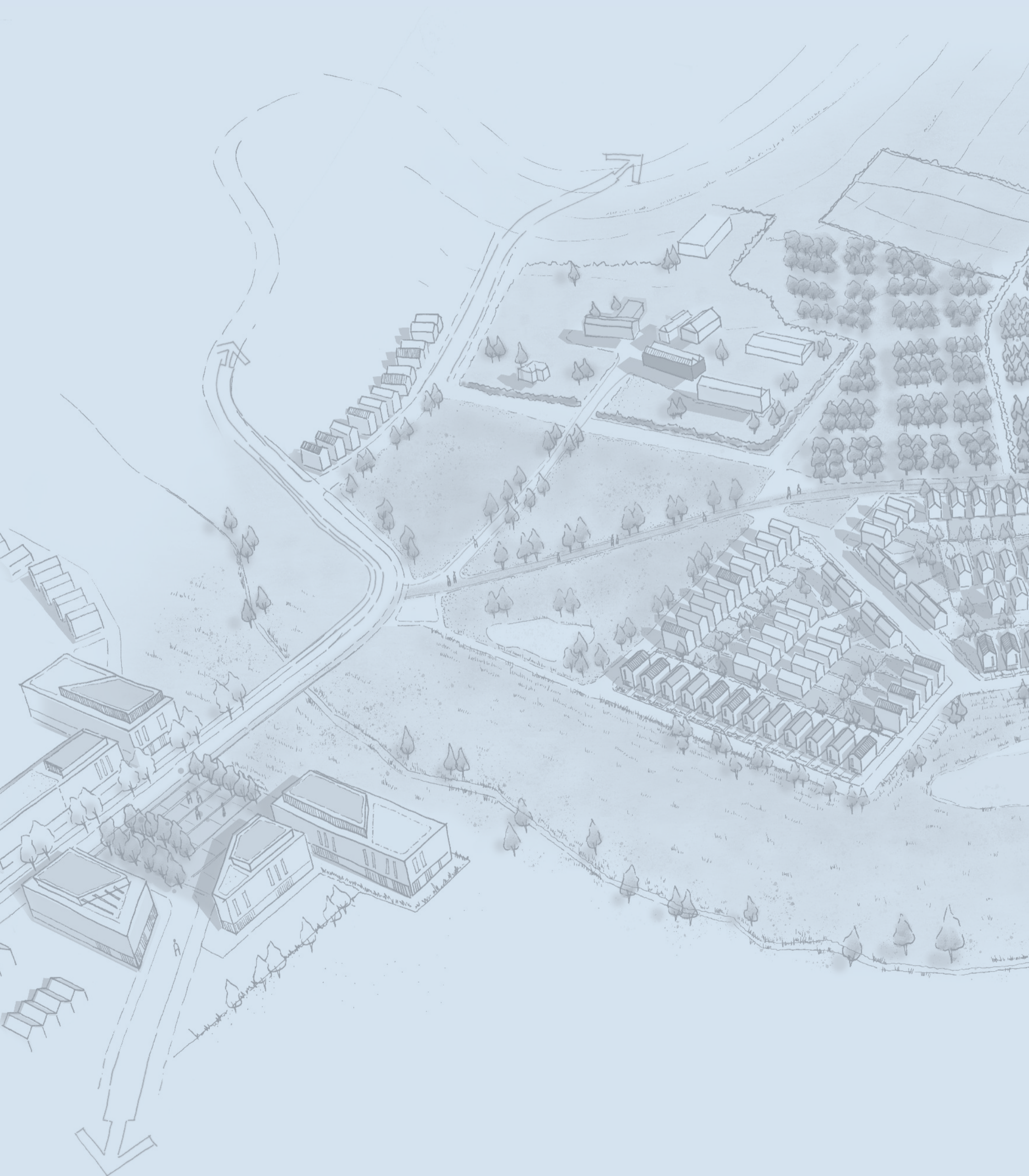


Well integrated drainage will be key to placemaking and sustainability.

MANDATORY PRINCIPLES - OTHER SUSTAINABILITY CREDENTIALS

There are other principles that will need to be taken forward from the Masterplan Framework:

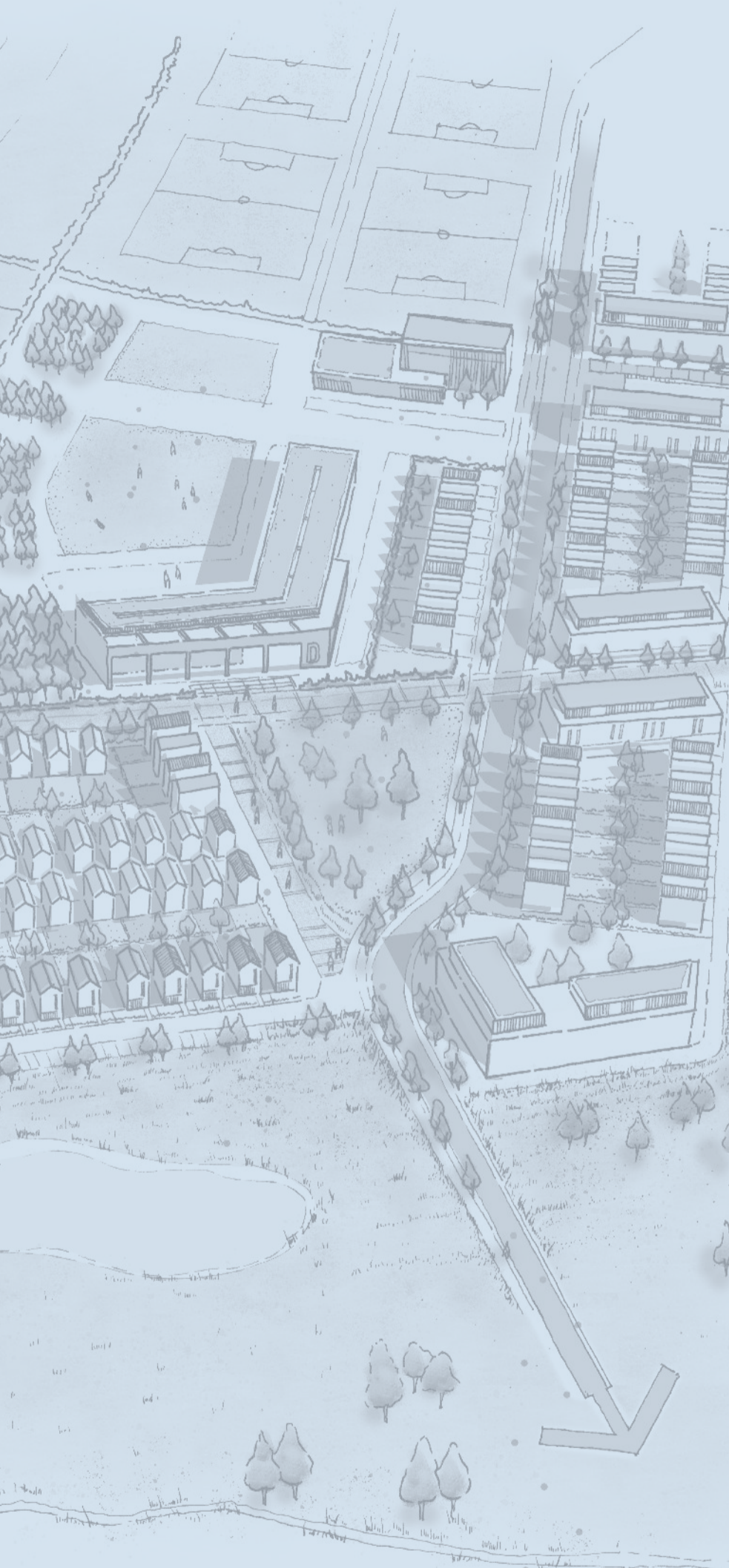
- 01 **Air Quality** - minimise emissions associated with Dunton Hills including through appropriate energy technologies, making walking and cycling the way to move around, clear employment uses and promoting electric vehicles.
- 02 **Biodiversity** - a net gain in biodiversity, protecting and retaining species and important green assets on the site, informal rather than formal landscaping and creating spaces/ planting species for wildlife to flourish.
- 03 **Climate Change Resilience** - through the construction period keeping sufficient flexibility to adapt to climate change and adopt new technologies as they emerge.
- 04 **Heritage** - retain and respect designated heritage assets and integrate these into the Garden Village.
- 05 **Noise** - careful layout of relationships between noisy and non-noisy uses and use of appropriate attenuation within building fabric.
- 06 **Soil** - retaining and re-using soil on-site.
- 07 **Sustainable Drainage** - incorporation of sustainable drainage techniques based upon the Masterplan Framework's strategy and for buildings to keep out of the flood zone.
- 08 **Virtual Mobility** - a strategy to enable on-line shopping and similar initiatives to enable goods and services to be purchased over the internet, including broadband, mobile telephone coverage and WiFi. Also allows for initiatives such as autonomous cars and ground drones to be adopted.
- 09 **Waste Minimisation** - a Waste Management Statement identifying measures to reduce waste during construction and operation.
- 10 **Water Efficiency** - limiting the use of potable water to no more than 110 litres/person/day and harvesting rainwater, especially for maintaining gardens and landscaped areas.



CHAPTER 8

COMMUNITY, STEWARDSHIP AND LEGACY

This chapter outlines the long term sustainable management of Dunton Hills Garden Village, its public spaces and community assets for the benefit of all residents.



COMMUNITY, STEWARDSHIP AND LEGACY

MANAGEMENT STRUCTURE

The Management Approach to secure the legacy of the Garden Village is summarised in the hierarchy on the adjacent spread.

Community Management Organisation

The oversight of the management of Dunton Hills Garden Village is provided by the Community Management Organisation (CMO) which will predominantly comprise members of the Dunton Hills community together with representatives of the Borough and Parish Councils. The community representatives would be elected/appointed to serve an agreed on term.

The CMO would be responsible for the management strategy for Dunton Hills Garden Village; overseeing the activities of the Estate Trust; oversight of the concierge service, including the appointment of the key staff; approval of yearly management and business plans; agreeing to collective purchasing of services and utilities; monitoring local employment initiatives and confirmation of the annual precept payable by the occupiers. The CMO would hold the freehold of the site save for residential properties, the Employment Hub and other parcels of land as may be agreed. If established, the CMO would have input into the operation of a site specific Housing Association. Retaining the freehold would enable the CMO to capture any land value from sales or development.

Estate's Trust

To enable the effective day-to-day management of the Green Infrastructure and other public spaces, potentially including the sustainable drainage features, an Estates Trust would be set up or the Lands Trust appointed. The Trust's role could include collecting the precept from the occupiers of the properties; ensuring any other estate covenants are observed and administrative support for the CMO Board. The income, including from any commercial activities operated by the Trust, would be distributed to and used by the Trust.

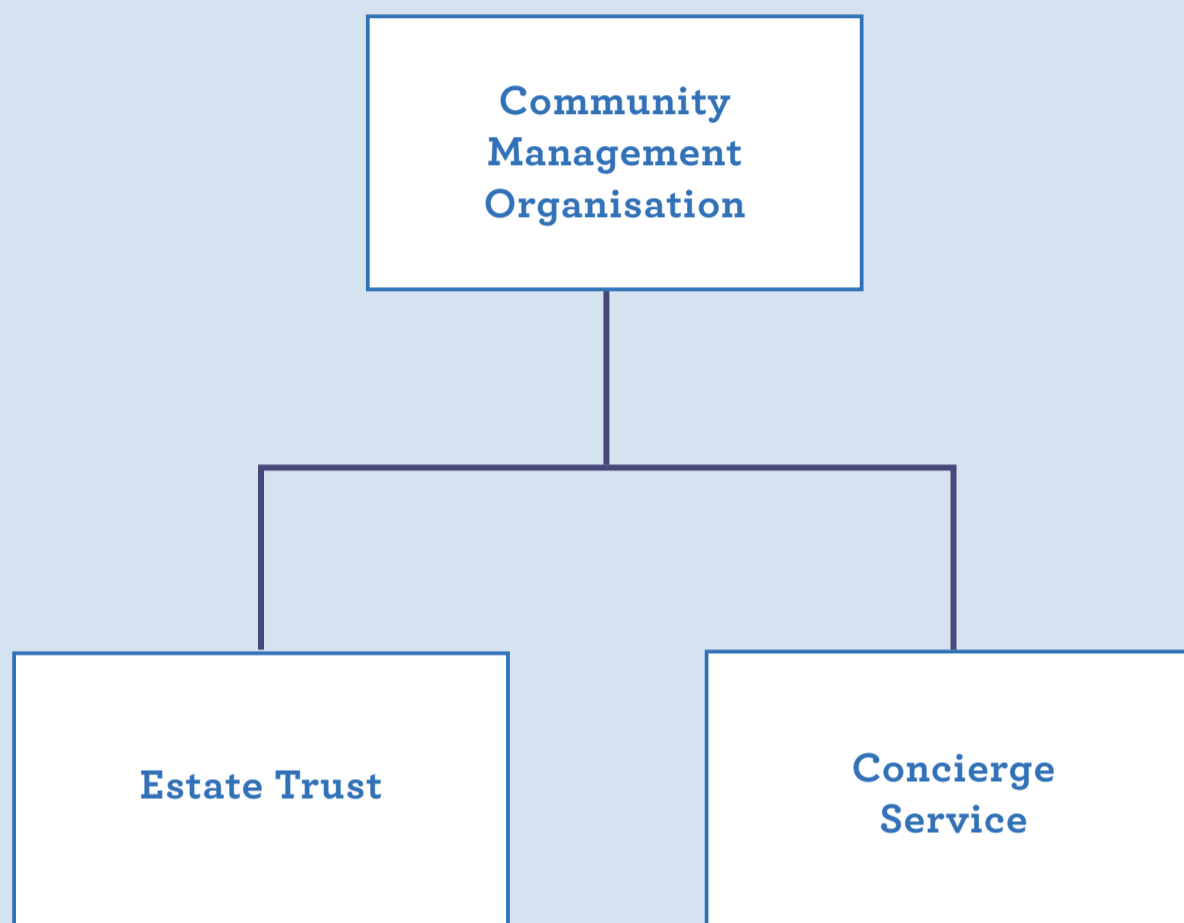
If the Lands Trust is involved then it would have a long leasehold of the land to be managed and maintained. The Trust would liaise with the management company for the Employment Hub to ensure effective management of the green spaces and parking areas is maintained.

Concierge Service

The concierge service, based at the Mobility Hub, would be overseen by the CMO but with the input from an independent Transport Review Group which would include members of the community together with representatives of the Borough and County Councils. The Group's role is to monitor and review the operation of the Mobility Plan and advise the CMO how it is performing; what additional actions might be required by the concierge service and whether the Plan requires amendment to reflect new ideas/change in circumstance. The concierge service would undertake personal travel planning and assist with the preparation of Travel Plans by others, such as schools and employers, to ensure they incorporate the Mobility Plan's initiatives. Any commercial income to the concierge service would be used to off-set operating costs.



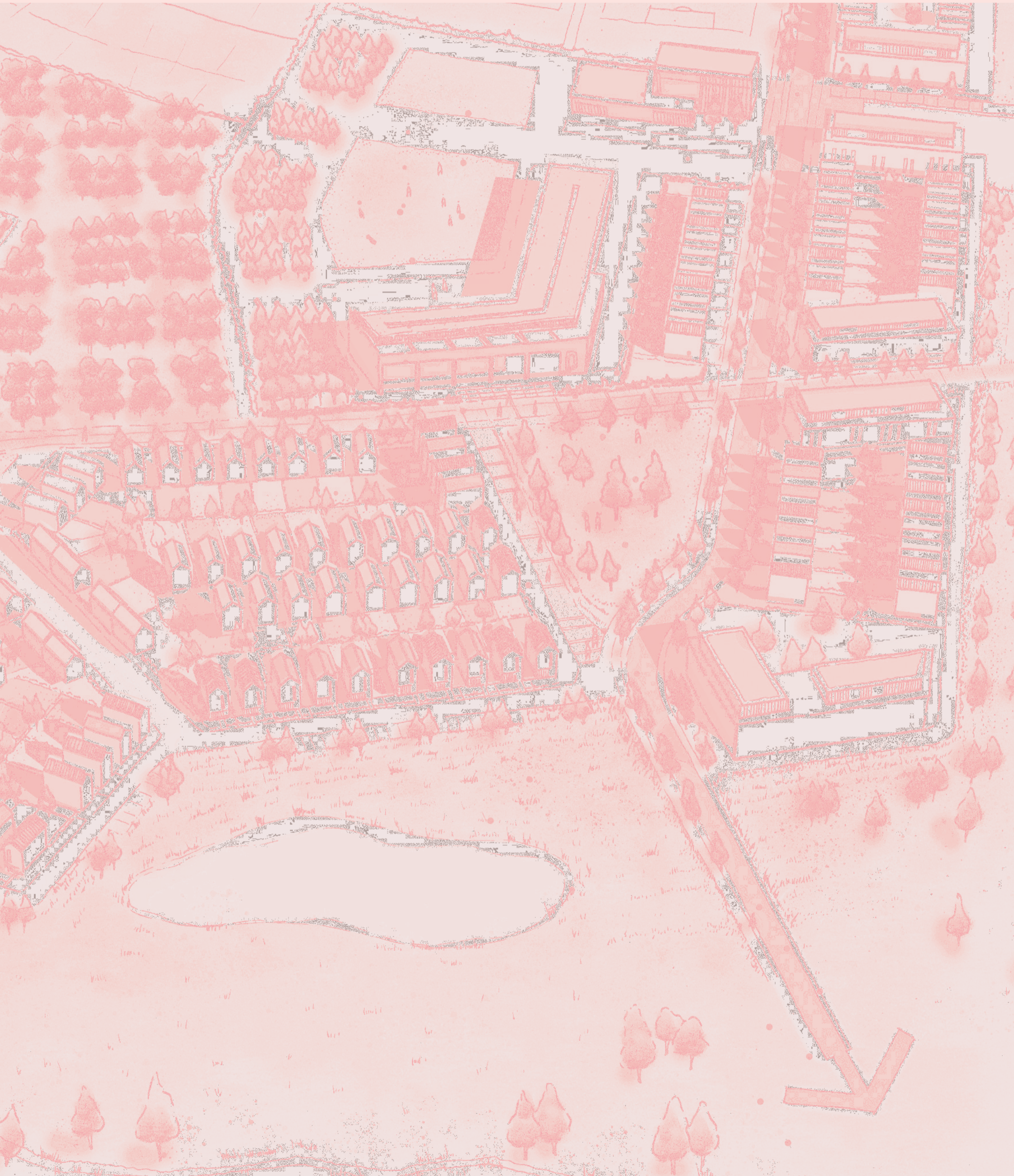
DUNTON HILLS MANAGEMENT STRUCTURE



MANDATORY PRINCIPLES - COMMUNITY, STEWARDSHIP AND LEGACY

The indicative management structure for the Garden Village above will evolve further as the legacy proposals are discussed between the stakeholders. However, based upon what is being discussed the key elements which can be taken forward are:

- 01 **Community Management Organisation** - will be established and comprise residents of the Garden Village as well as representatives from the Borough and Parish Councils.
- 02 **Management Body** - the body which will undertake the management and maintenance of the Garden Village initially funded via the landowners but the through income from community facilities and precepts.
- 03 **A Community Concierge Service** - located at the Mobility Hub to undertake a range of services set out in the Mobility Section.
- 04 **Management Strategy** - will be put in place with yearly management and business plans.





CHAPTER 9

PHASING AND DELIVERY

This chapter details the potential phasing strategy for Dunton Hills Garden Village and sets out estimated residential capacity, community facilities and other related works.

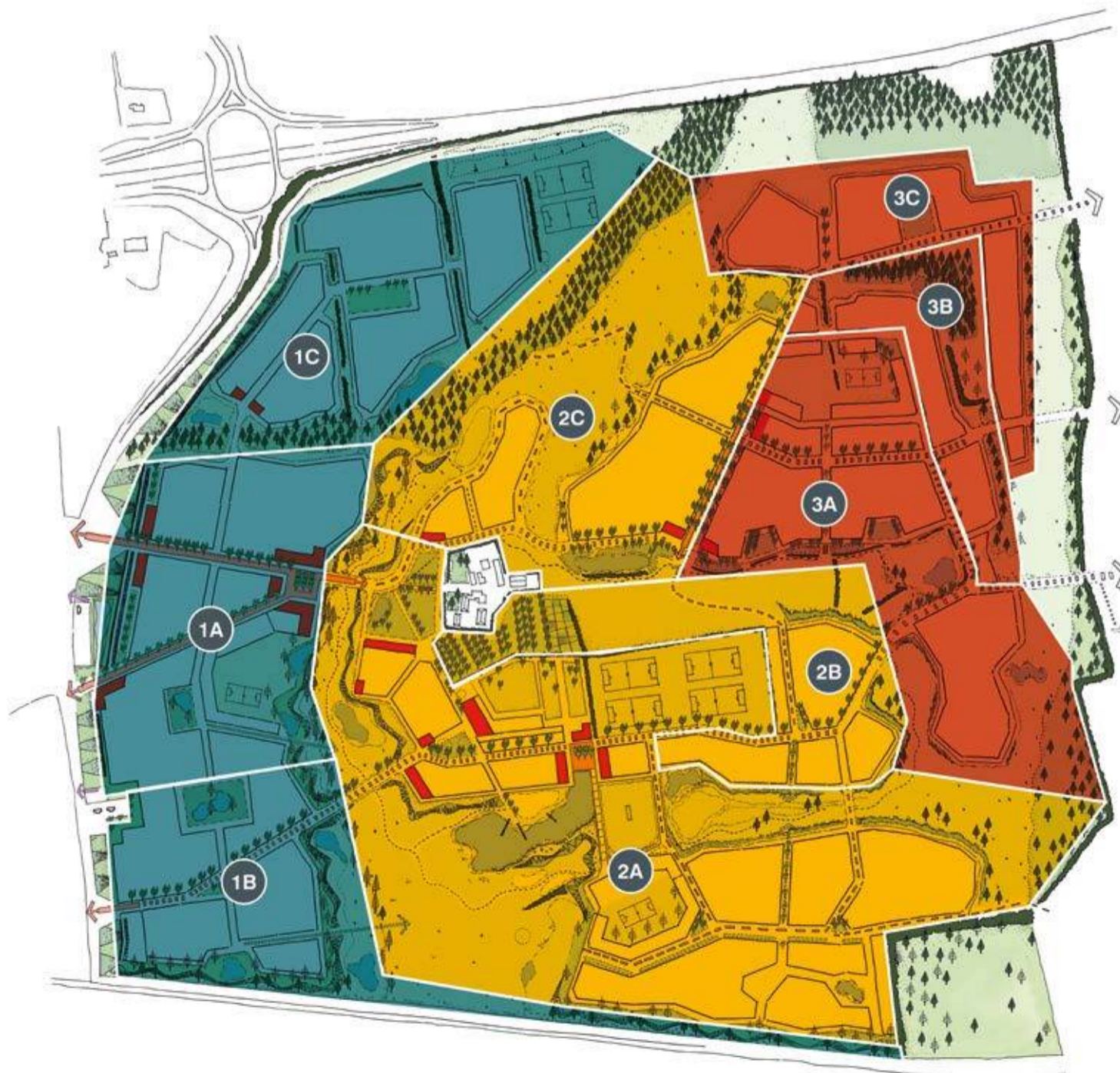


PHASING AND DELIVERY

MANDATORY PRINCIPLES - PHASING AND DELIVERY

Prepare a delivery plan which includes:

- 01 **Phasing Plan** - identifying the location of each phase and sub-phase. Together with estimated housing capacity and other uses.
- 02 **Housing Delivery** - anticipate rates of delivery of new homes.
- 03 **Physical Infrastructure and Services** - timing of key access, utilities/services, undergrounding of overhead electricity lines, ecological mitigation and advance planting for each phase and sub phase.
- 04 **Social and Community Infrastructure** - education, healthcare, open spaces, sporting facilities, village hall, etc. for each phase and sub phase.
- 05 **Business Uses** - phasing of Village Centre, Neighbourhood Hubs and Employment Hub within each phase and sub phase.



	Estimated Capacity	Estimated Time Period	Examples of Facilities to Be Provided On-Site	Examples of Other Related Works
Mobilisation		Years 0 to 1		Northern Access Services and Utilities to the site Start of undergrounding overhead lines – 3 years
Dunton Fanns				
Phase 1A	798	Years 1 to 3	2FE Co-located Primary School Healthcare Facility Mobility Hub and related facilities Temporary Management Facilities Private nursery Care Home Start of Village Centre around Square Play Facilities	Sustainability Route Mobility Routes Station Road footway/cycleway Station Road/Sustainability Route junction West Horndon Station interim works Temporary sports pitches using golfing facilities as a base Blue Infrastructure - SuDS Green Infrastructure - landscape/ecology including advanced planting Southern Access an remainder of A128 corridor works
Phase 1B	417	Years 3 to 4	Ongoing Village Centre Community Hall and Management Facilities 5 travellers pitches Play Facilities	A127/A128 Junction Link towards Country Park Mobility Routes Blue Infrastructure - SuDS Green Infrastructure - landscape/ecology including wetlands area
Phase 1C	390	Years 4 to 7	Ongoing Village Centre Employment Hub - take-up demand related Crèche/Nursery Football Hub Play Facilities	Noise attenuation Mobility Routes Blue Infrastructure - SuDS Green Infrastructure - landscape/ecology including orchard
Dunton Waters				
Phase 2A	708	Years 6 to 10	Ongoing Village Centre 2FE Co-located Primary School Private Nursery Neighbourhood Hub Play Facilities Cricket Pitch Village Green Care Home Secondary School including Community Sports Hub	Mobility Routes Blue Infrastructure - SuDS Green Infrastructure - landscape/ecology Link through to Basildon - pedestrian/cycle and emergency access
Phase 2B	218	Years 10 to 12	Ongoing Village Centre Community Growing Space Community Orchard	Mobility Routes Blue Infrastructure - SuDS Green Infrastructure - landscape/ecology including part of Ridge Park
Phase 2C	291	Years 12 to 14		Mobility Routes Blue Infrastructure - SuDS Green Infrastructure - landscape/ecology including rest of Ridge Park
Dunton Woods				
Phase 3A	462	Years 14 to 16	Play Facilities	Mobility Routes Blue Infrastructure - SuDS Green Infrastructure - landscape/ecology Wind turbine removal
Phase 3B	161	Years 14 to 15	2FE Co-located Primary School Private Nursery Neighbourhood Hub Play Facilities Care Home	Mobility Routes Blue Infrastructure - SuDS Green Infrastructure - landscape/ecology
Phase 3C	222	Years 15 to 17	Play Facilities	Mobility Routes Blue Infrastructure - SuDS Green Infrastructure - landscape/ecology