



EFDC

**STRATEGIC
MASTERPLAN
FRAMEWORK
& DESIGN CODE**

SOUTH EPPING

STATUS: FOR SUBMISSION
May 2024



Document Status:	For Submission
Revision:	F
Author:	Various
Prepared by:	RB
Checked by:	SW
Issue Date:	May 2024

Table of Contents

A. CONTEXT

A1.Introduction	7
1.1 Background	
1.2 Purpose and Scope of the SMF	
1.3 Process Programme	
1.4 Glossary of Key Terms	
1.5 Key Issues	
A2.Planning Policy and Guidance	11
2.1 Planning Policy Context	
2.2 Design Guidance	
A3.The Site and Context	14
3.1 Site Context	
3.2 Site Analysis	
3.3 Masterplan Constraints Summary	
3.4 Masterplan Opportunities Summary	
A4.Engagement	46
4.1 Stakeholders	
4.2 Identify Mechanisms of Engagement	
4.3 When We Will Engage	

B. STRATEGIC MASTERPLAN FRAMEWORK

B5.The Vision	49
5.1 Vision Wheel	
5.2 Design Drivers	
5.3 Future Trends	
5.4 Urban Design Influences	
B6.Framework Principles	56
6.1 Masterplan Framework Principles	
6.2 Land Uses	
6.3 Green and Blue Infrastructure	
6.4 Acoustic Mitigation Strategy	
6.5 Access & Movement Strategy	
6.6 Urban Form Strategy	
6.7 Environmental & Socio-Economic Sustainability	
6.8 Waste, Energy and Utilities	
6.9 Strategic Masterplan Framework Plan	
B7.Parameter Plans	90
B8.Character Area Guidance	92
8.1 Creating Distinctive Character	
8.2 Primary School Site	
8.3 Waterside Character Area	
8.4 Brook Valley Character Area	
8.5 Hillside Edge Character Area	

C. IMPLEMENTATION

C9.Phasing and Delivery	101
9.1 Stewardship	
9.2 Phasing & Sequencing	
C10. Design Code	104
10.1 Overview	
10.2 Nature	
10.3 Movement	
10.4 Public Spaces & Legibility	
10.5 Character & Built Form	
APPENDICES	172
Green and Blue Parameter Plan	
Density Parameter Plan	
Building Heights Parameter Plan	
Land Use Parameter Plan	
Access and Movement Parameter Plan	
Local Character Study - Historic Development	
Opportunities and Constraints Plan (Technical Version)	

Vision Statement

South Epping responds to people’s desires not only for quality new homes but for a whole new way of life, one that’s sustainable, healthy, convenient and community focused. The development will give people a chance to own or rent a home in their local community, by delivering a variety of homes to meet local needs.

The development will deliver new areas of accessible high-quality open space as part of a comprehensive green and blue infrastructure network that connects with the existing landscape setting helping to enhance existing wildlife habitats and improve biodiversity through a variety of multi-functional landscapes. The development aims to create a community that integrates with the existing residents of Epping through shared services and facilities.

The development will be a place where people genuinely want to live and play. Designed to minimise the use of the car and maximise walking, cycling and local public transport, to help encourage healthy living and community interaction ensuring that Epping remains a great place to live.

EFDC Local Plan Policy P1(M) states that the Strategic Masterplan must make provision for:

 <p>A minimum of 450 Homes with 40% 'affordable' homes</p>	 <p>Potential offsite / onsite medical provision*</p>	 <p>Site for a 2FE primary school with early years provision</p>	 <p>Community square & flexible use of school facilities</p>	 <p>Enhancement of walking & cycling facilities</p>	 <p>A minimum of 10Ha of SANG</p>
 <p>Re-provision of Brook Road recreation ground</p>	 <p>Protection of existing landscape features & BNG net gain</p>	 <p>A distinct character and placemaking</p>	 <p>Sensitive response to topography and views</p>	 <p>A masterplan which facilitates sustainable lifestyles</p>	 <p>On-site attenuation of surface water</p>



*Offsite or onsite medical provision to be agreed in collaboration with Herts and Essex Integrated Care Board



A. CONTEXT

1.1 Background

This Strategic Masterplan Framework document covers the South Epping Masterplan Area (SEMPA) which is designated in the Epping Forest District Local Plan 2023 as two separate allocations being:

- EPP.R1 (western parcel),
- EPP.R2 (eastern parcel).

This Strategic Masterplan Framework has been prepared by Stantec on behalf of The Consortium comprising: Bellway Homes Limited (Essex), Barwood Land, Landvest on behalf of Greenacres, and Mount Street Development.

The SMF and Design Code has been developed through extensive consultation with EFDC and ECC and with reference to relevant planning policies and guidance and will be endorsed by EFDC as a material planning consideration. The SMF and Design Code has also been prepared in line with the process set out in the EFDC Strategic Masterplanning Briefing Note 2018.

Policy P1 provides the framework in which development at the site should be brought forward, providing for a minimum of 450 homes, land for a new primary school, Suitable Alternative Natural Greenspace, re-provision of Brook Road recreation ground and enhancements to walking and cycling facilities.



Figure 1. Site Location Plan

1.2 Purpose and Scope of the SMF

The development of the SMF has been informed by a range of consultation activities with a number of stakeholders. The site opportunities and constraints have been fully examined and assessed with stakeholders.

The SMF provides a summary of detailed analysis undertaken to inform the principles and parameters set out in this document. This includes the site location, planning context, site features as well as the immediate and wider surroundings.

The framework, principles and parameters set out in this document have evolved from this work and are articulated through the illustrative masterplan presented within this document which sets out how the development specifications in the Local Plan policy may come forward on the site.

Following endorsement of the document by the Council as local planning authority, it will form a material consideration in the determination of planning applications.

The preparation of the SMF will help ensure the successful implementation of the development within the SEMPA, helping secure the timely delivery of new housing and infrastructure, supporting the delivery on enhanced pedestrian and cycle facilities, school, SANG, roads drainage and environmental protection measures, creating a high quality living environment which is well integrated with the wider urban area.

The purpose of this Strategic Masterplanning Framework document is to:

- Set out the broad distribution of different types of development across the site;
- Provide a high level overarching framework to ensure that planning and delivery of development and infrastructure is properly coordinated, distributed and timed across the Masterplan area;
- Ensure that the development is 'front-loaded'

and where possible accelerated, so that key planning issues are considered and where possible resolved jointly by all relevant parties prior to the submission of planning applications;

- Provide the spatial vision and development objectives for the area at the outset, building on the Local Plan allocations/spatial strategy and vision;
- Incorporate appropriate effective engagement and consultation with stakeholders and the local community, including town and parish councils, in order to build a sense of community ownership and inform the progress of the preparation of the Strategic Masterplan;
- Incorporate appropriate and effective engagement with elected Members;
- Be informed by the Quality Review Panel;
- Set out the rationale and structure for the site's planning and delivery as a comprehensive development;
- Incorporate placemaking principles and guidance for individual phases of development;
- Enable the Council to endorse the Masterplan as a material planning consideration and reflect the relevant requirements so that it can be adopted in future as a Supplementary Planning Document if required; and
- The SMF and Design Code have been prepared to demonstrate how the EPP. R1 and EPP.R2 Strategic Masterplan area can be developed so as to meet the requirements of the EFDC Local Plan. The SMF and Design Code do not deal with the commercial arrangements between the respective landowners of EPP.R1 and EPP.R2.

Structure of the document

Section A introduces the site, its context, the planning policy background and provides a baseline site analysis. Concluding with a summary of how these constraints and opportunities will impact on the masterplan. The process and mechanisms for stakeholder engagement are described.

Section B deals with site wide spatial principles. Illustrative material is presented that demonstrates these principles are deliverable. This section culminates in a set of five parameter plans which set out the mandatory spatial requirements for the SEMPA.

Section C covers the implementation of the spatial framework in terms of the phasing strategy, monitoring, review and delivery. Key elements of the SEMPA are given coding instructions in order to provide EFDC with a definitive list of criteria against which to determine future planning applications.



1.3 Process Programme

The development of the SEMPA SMF and Design Code has evolved through extensive discussions with relevant stakeholders and following the principles of Strategic Masterplanning Briefing Note 2018. The key stages in the endorsement process are illustrated in the diagram opposite.

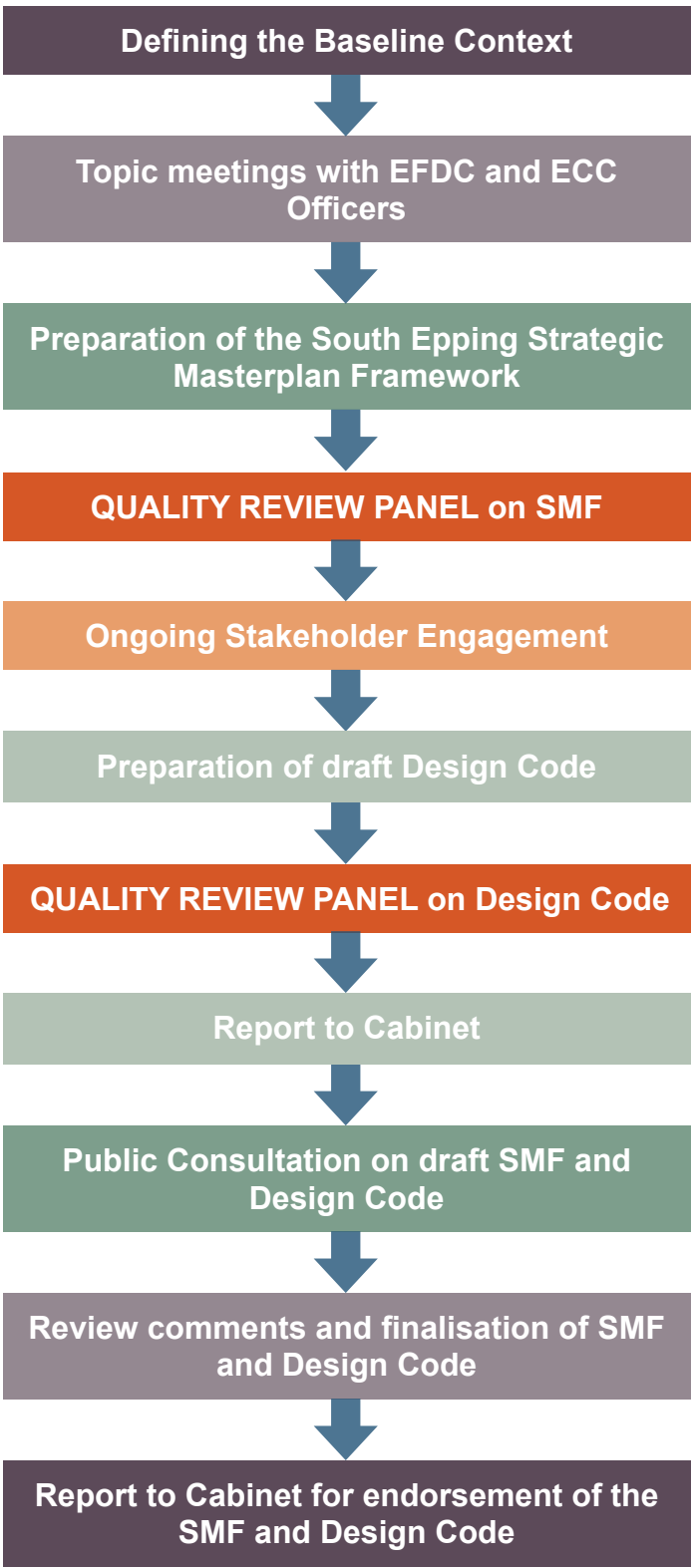


Figure 2. Endorsement Process Key Stages

1.4 Glossary of Key Terms

BNG - Biodiversity Net Gain is the process of increasing the biodiversity value of a development above that of the existing site.

ECC - Essex County Council

EDG - Essex Design Guide. A web based tool that provides a useful reference during the design process to ensure the development fits with the Essex character and its local context.

EFDC - Epping Forest District Council

DPH - Dwellings per hectare

Illustrative Masterplan - The Illustrative Masterplan demonstrates one way the mandatory principles could be interpreted to provide assurance that these principles have been tested and are proven to achieve their stated aim.

LEAP - Locally Equipped Area for Play. An area of open space specifically designed and laid out with features including equipment for children who are beginning to play independently. The number and nature of equipment and structures is a matter for local decision, though provision for a minimum number of six play experiences is recommended.

Mandatory Spatial Principles - A series of drawings and written principles in the endorsed Strategic Masterplan Framework that set out key deliverables in future development applications, such as strategic land uses, key movement routes, landscape character and number and approximate location of access points. The strategic design code builds on these mandatory spatial principles.

NEAP - Neighbourhood Equipped Area of Play. This is an area of open space specifically designated, laid out and equipped mainly for older children but potentially with play opportunities for younger children as well. It can provide play equipment and a hard surface area for ball games or wheeled activities.

Placemaking - The process of design and planning and delivering places that are of high quality, that achieve the aims of the development and that maximise the opportunities of the site to enhance the way the place is experienced.

PROW - Public Right of Way

QRP - The Essex Quality Review Panel is a peer group review that aims to ensure the new developments in Essex are of high quality.

SAC - Special Area of Conservation. A large part of the Epping Forest contains a Special Area of Conservation (SAC) which has been identified primarily for its value in respect of beech trees and wet and dry heaths and for its population of stag beetle. As an internationally important site it is afforded the highest level of protection due to its habitats and species that are vulnerable or rare within an international context.

SANG - Suitable Alternative Natural Green Space. SANGs are intended to provide alternative open spaces that avoid an increase in visitor pressure created by residential development on a SPA .

SEMPA - South of Epping Masterplan Area

Stewardship - Ensuring that long-term community-led care of public places and community development is in place for the new buildings and neighbourhoods for a thriving community and long-term quality of life for residents.

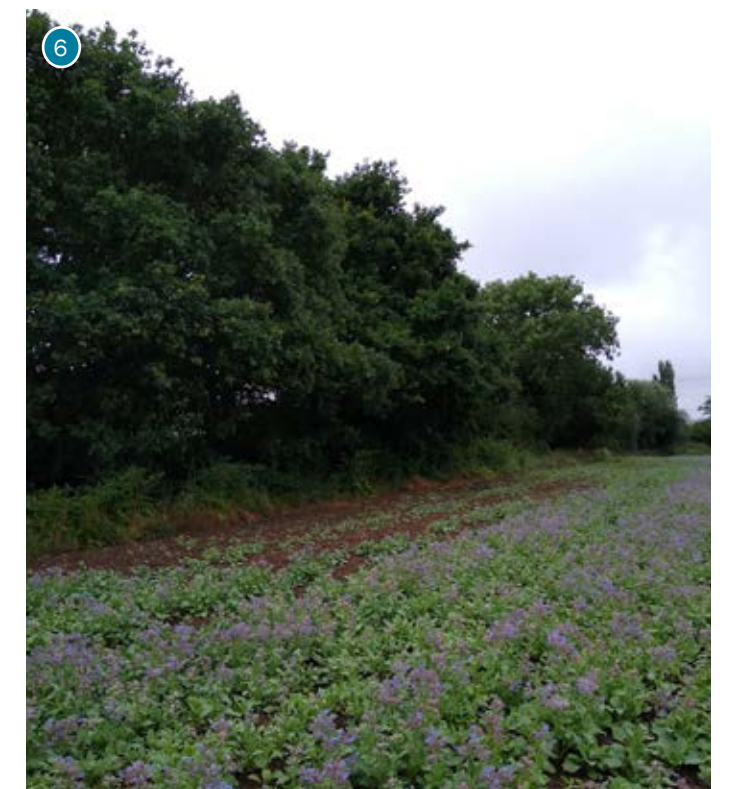
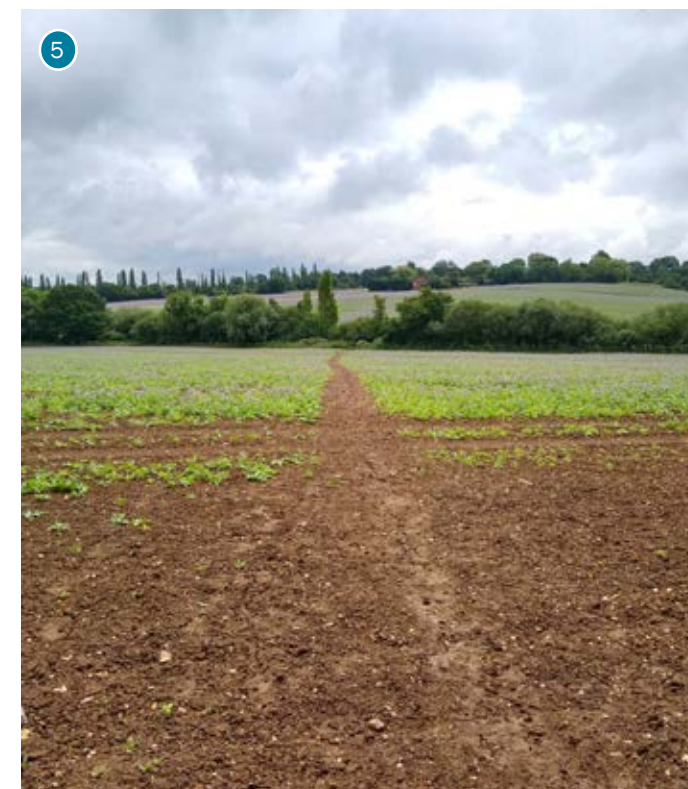
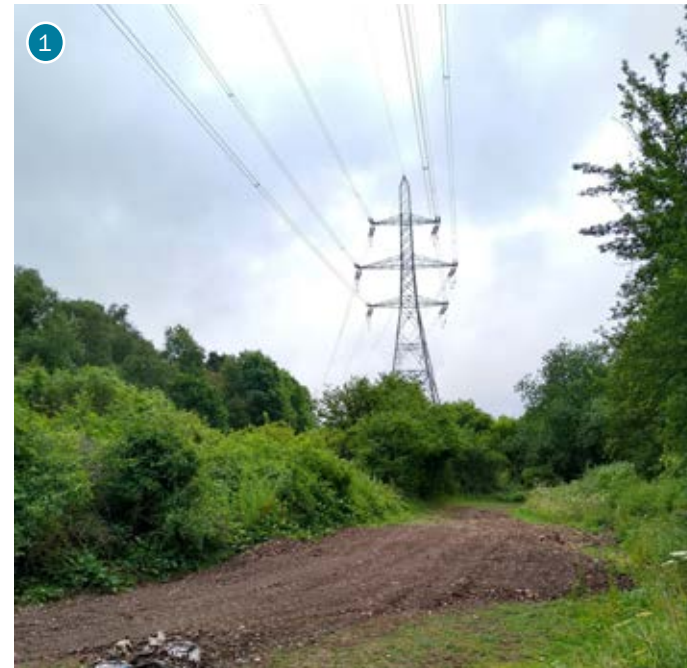
SMF - Strategic Masterplan Framework. A strategic masterplan process requires organisations to undertake analysis and prepare strategies, and the proposals that are needed to plan for major change in a defined physical area. The strategic masterplan framework resulting from this process acts as a context from which development projects come forward. The mandatory spatial fixes in the SMF identify those elements that are essential to future development.

TPO - Tree Preservation Order

1.5 Key Issues

Key issues regarding the development of the SEMPA are as follows:

- ① The presence of utilities, both underground gas mains and overhead power lines with their associated visual impact.
- ② The noise and air quality associated with the M25 and tube line. Potential requirement for acoustic bunds.
- ③ Planning policy constraints particularly relating to the adjacent Green Belt and the requirement for on-site SANG due to the proximity to Epping Forest SAC.
- ④ The subdivision of the site by the rail line and consequent need for a bridge to connect the two halves in order to improve connectivity across the SEMPA.
- ⑤ Topography, in particular the potential effect of development on the elevated land in the region of listed buildings at Gardner's Farm.
- ⑥ The ecological and drainage requirements associated with the watercourse running across the site.
- ⑦ Requirement for off-site improvements to highways and Public Rights of Way to facilitate connectivity and mitigate any impact on existing residents.
- ⑧ Building a resilient and sustainable new place at South Epping which ensures harmonious diversity of character across the site where there are four different landowners.



2.1 Planning Policy Context

National Planning Policy Framework

National policies, including a presumption in favour of sustainable development at the heart, are provided within the National Planning Policy Framework (NPPF) and supporting Planning Practice Guidance (PPG). The NPPF is a material consideration in planning decisions.

The NPPF states that ‘the purpose of the planning system is to contribute to the achievement of sustainable development’ which includes achieving economic, social and environmental sustainable development.

At a strategic level the relevant national policies include:

- Achieving sustainable development
- Delivering a sufficient supply of homes
- Promoting healthy and safe communities
- Promoting sustainable transport, Supporting high quality communications
- Making effective use of land
- Achieving well-designed places
- Meeting the challenge of climate change, flooding and coastal change
- Conserving and enhancing the natural environment

Epping Forest District Local Plan 2011-2033

The Epping Forest District Local Plan 2011 to 2033 was adopted by the Council on 6 March 2023 and is the statutory development plan for the District. It therefore has full weight in determining planning applications.



Key policies of particular relevance to the South Epping Masterplan Area are:

Policy SP1 sets out the spatial development strategy for the District, including the allocation of sites in Epping to deliver 709 new homes.

Policy SP2 includes the place shaping principles for Strategic Masterplans and all development proposals. These principles include: providing a mixed tenure homes and range of housing sizes; ensuring biodiverse rich green and open space provision; maintaining and enhancing the important features, character and assets of existing settlements; providing sustainable movement corridors; and having regard to Active Design principles and supporting healthy living.

The SEMPA is allocated as sites EPP.R1 (Land South of Epping, West) and EPP.R2 (Land South of Epping, East) within the Local Plan. Policy P1 requires the submission of a Strategic

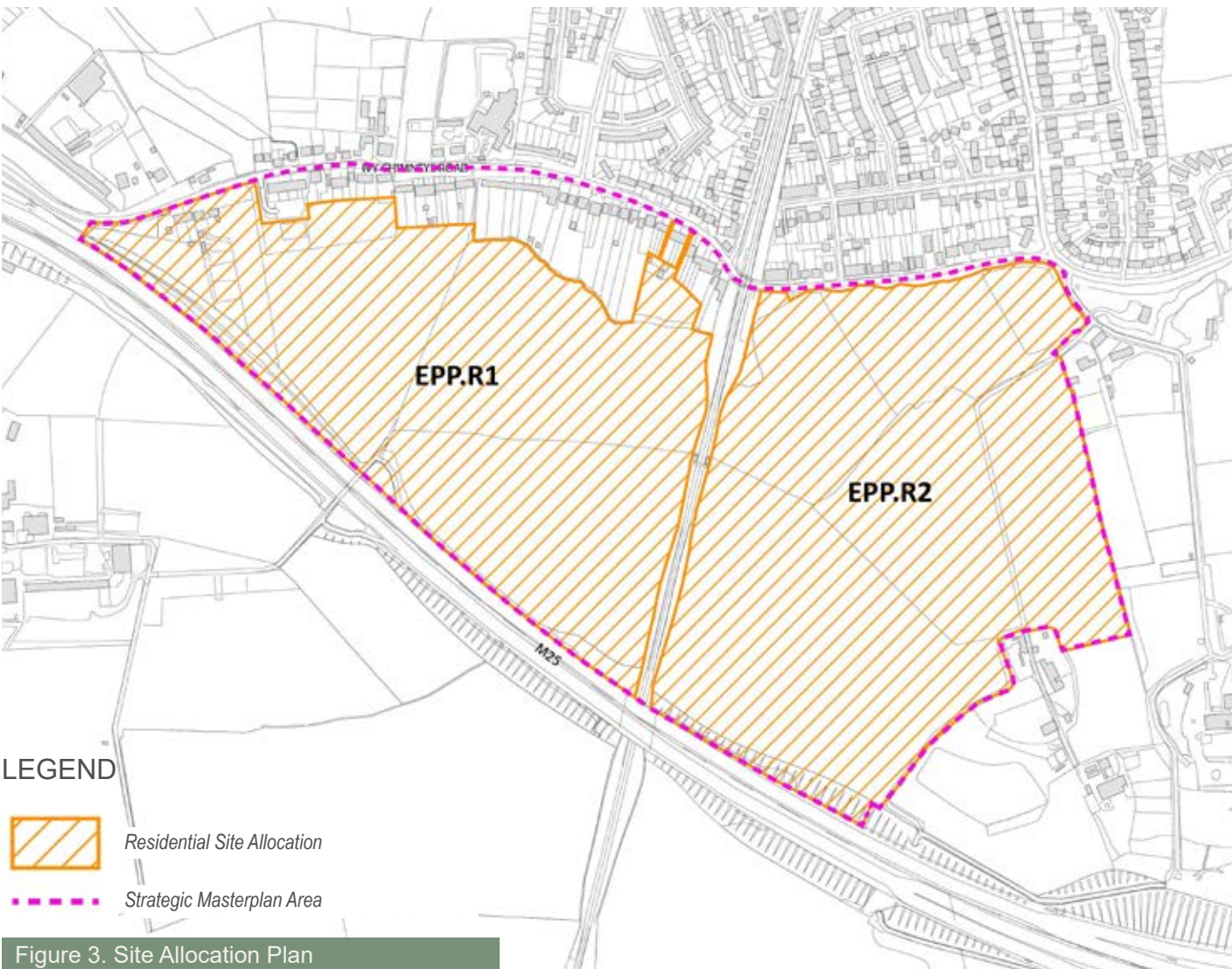
Masterplan Framework that demonstrates the development requirements of the Policy have been accommodated and which has been endorsed by the Council.

Policy P1(M) states that the Strategic Masterplan must make provision for:

- i) a minimum of 450 homes;
- ii) appropriate community and health facilities, employment and retail uses;
- iii) a new primary school;
- iv) provision or enhancement of walking and cycling facilities, Public Rights of Way and

linkages both within the site, over the railway line, the footbridge over the M25, and to key destinations including Epping London Underground Station and the Town Centre;

v) vehicular access/egress which provides safe access to the local highway network, does not impact on its safe and efficient operation, does not result in the loss of important boundary trees and/or hedgerows, or cause material harm to the living conditions of adjoining residents as a result of noise, light pollution or privacy;



vi) preserving or enhancing the setting of the Grade II listed Gardners Farm and Grade II listed farm buildings;

vii) minimising the impact upon the Biodiversity Action Plan Priority Habitat within the site and nearby Local Wildlife Site;

viii) incorporation of an appropriate buffer to protect the amenity of future residents with regards to noise and air quality from the M25 and an appropriate buffer from the High Voltage Transmission Cables and land impacted by the BPA Oil Pipeline constraints;

ix) the sloping topography of the site by incorporating sensitive design responses to the level changes and by ensuring a positive relationship is established between the new development, the town and the wider landscape;

x) the continued protection of those trees benefiting from a Tree Preservation Order and other identified Veteran Trees;

xi) land to the South of the indicative 'build to' line in EPP.R2 within the Masterplan Area must be retained for public open space or for other appropriate uses as agreed through the masterplanning process;

xii) the strengthening and/or creation of new Green Belt boundaries to the East and West of the site;

xiii) the integration, retention and improvements to the existing watercourse;

xiv) adequate levels of high quality public open space, including the retention or re-provision of Brook Road Informal Recreation Ground; and

xv) a Suitable Alternative Natural Greenspace.

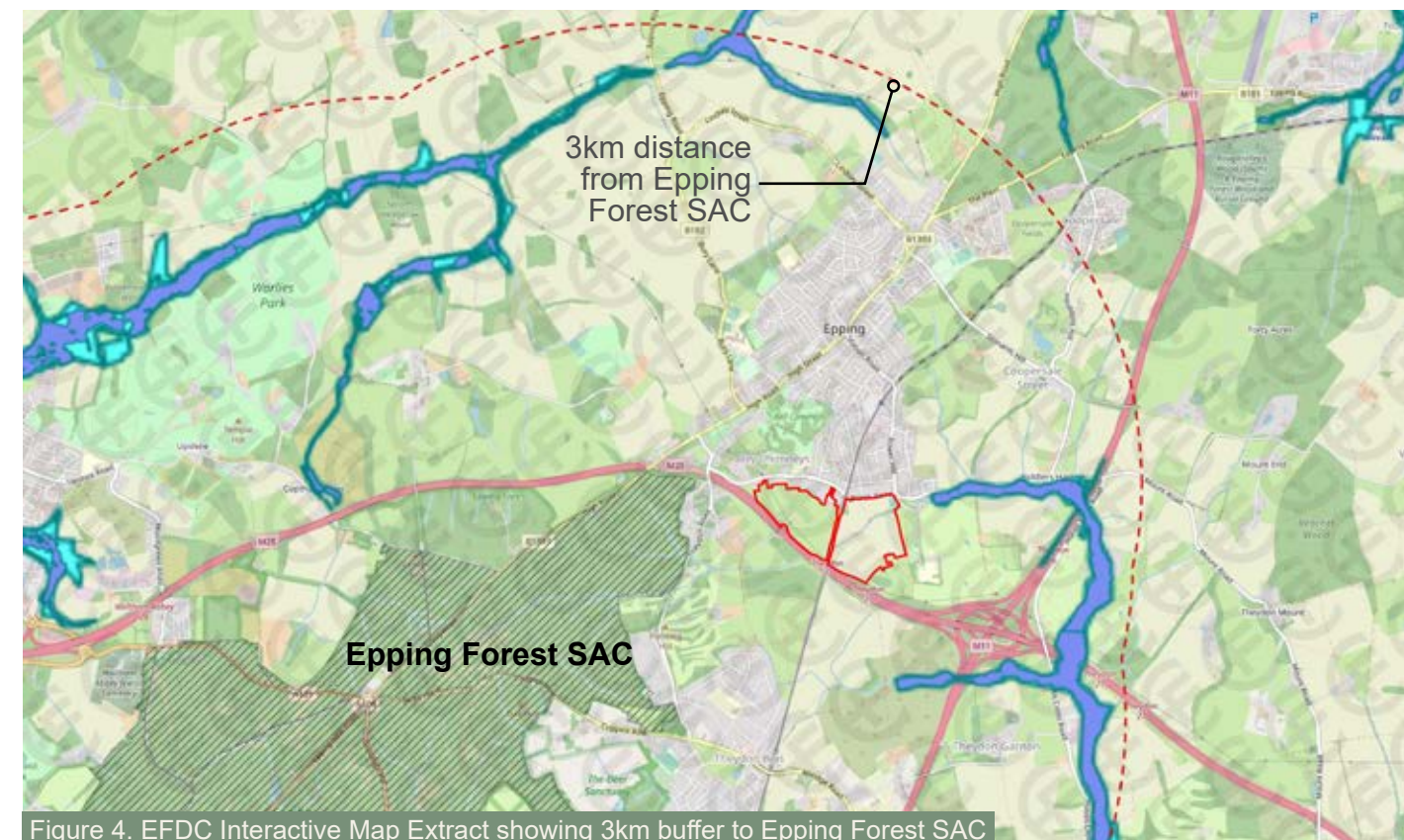


Figure 4. EFDC Interactive Map Extract showing 3km buffer to Epping Forest SAC

The Strategic Masterplan and subsequent applications should be considered and informed by the Quality Review Panel and be subject to public consultation, including in respect of Masterplans, consultation with all those with a development interest in the defined area.

The Strategic Masterplan must incorporate measures to promote and encourage the use of sustainable methods of transportation and provide viable alternatives to single occupancy private car use including car clubs/car sharing or pooling arrangements. Such measures are to be planned in consultation with Essex County Council (and relevant passenger transport providers). The proposed measures should be underpinned by feasibility evidence that comprehensively demonstrates the delivery of modal shift by way of sustainable travel measures.

The Plan also includes a number of Development Management Policies covering the Natural Environment and Green Infrastructure, Historic Environment, Design and Environmental Policies. Of particular note in addition to those already mentioned are; SP6 (The Natural Environment, Landscape Character and Green and Blue Infrastructure), T1 (Sustainable Transport Choices), DM2 (Epping Forest SAC and Lee Valley SPA) and DM22 (Air Quality). Other relevant EFDC specific guidance which has informed the approach include:

- EFDC Air Pollution Mitigation Strategy
- EFDC Sustainability Guidance and Checklist /Major Developments - March 2021
- EFDC Green Infrastructure Strategy - April 2021

2.2 Design Guidance

From a vast array of national and local guidance, some key documents are as follows:

National Design Guidance

National Design Guide (2021)

The Government places great importance on the design of the built environment in the National Planning Policy Framework (NPPF, 2021), which recognises that design quality matters and emphasises achieving well designed places. The National Design Guide, published in October 2019, sets out ten characteristics of well-designed places and demonstrates what good design means in practice. The National Model Design Code (2021) expands on these ten characteristics reflecting the government's priorities.

This SMF document commits to the principles of the National Design Guide and 'the creation of high quality, beautiful and sustainable buildings and places'. (Paragraph 126) This will be achieved through careful and holistic design development that applies good urban design principles.

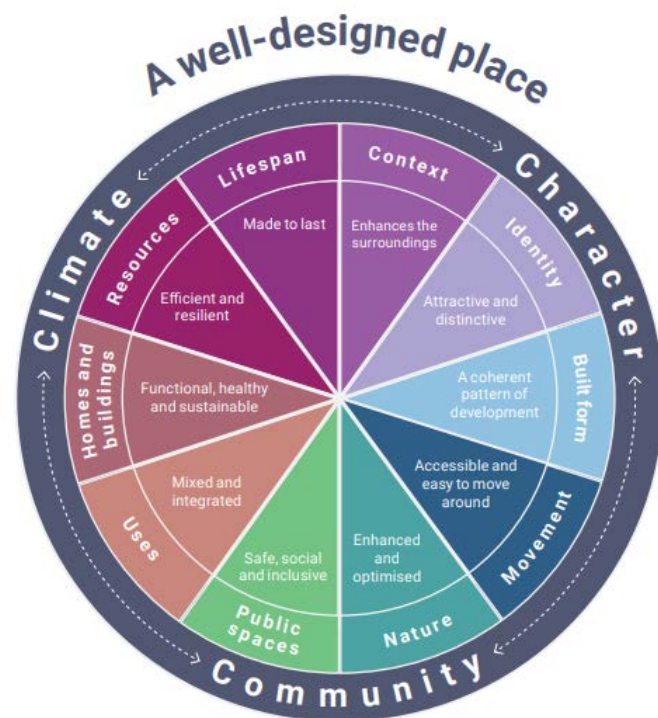
Secured by Design

Secured By Design is a police initiative that improves the security of buildings and their immediate surroundings to provide safe places to live, work, shop and visit. There are a series of helpful design guides to assist the building, design and construction industry to incorporate security into developments.

Building for a Healthy Life

The proposed site layout needs to create opportunities for both new and existing resident in the adjoining neighbourhood, to be both physically and socially active via the provision of areas of public open spaces. Leisure footpaths should be provided to encourage a healthy lifestyle and increase physical exercise.

The development is committed to deliver the following:



- Accessible and walkable local facilities including play areas and primary school.
- Direct and segregated safe pedestrian and cycle routes to key destinations.
- Active building frontage to public realm to maximise natural surveillance.
- High quality, well-lit and well surveilled pedestrian and cycle routes.
- Local Equipped Area for Play (LEAPs) located within 5 minutes walking distance from dwellings.
- Provision of a network of multi-functional open spaces, including recreation ground, as well as informal semi-natural open spaces.

The new guidance Building for a Healthy Life (BHL) is also an useful tool that allows developers, local authorities and local community to evaluate what is important when creating good places to live.

Lifetime Homes Design Guide.

This guidance advocates for enabling residents to live in their homes for longer. All new development therefore shall comply with Building Regulation M4 (2) for accessibility arrangements whilst 10% shall be built to category M4(3) or its successor standards. All of those units intended for affordable or shared ownership shall be built to M4(3) for wheelchair users.

Manual for Streets

Sets out guidance on layout and connectivity, streets as quality places rather than just catering for the needs of the motorist. The Essex Design Guide has been updated to reflect the Manual for Streets.

Cycle Infrastructure Design (LTN 1/20)

Proposals for this site will be compliant with this guidance, published in July 2020, on designing high-quality, safe cycle infrastructure.

Building for Beauty

The Building Beautiful Places plan encourages members of the local community to become involved in decision making associated with the economic development process. It is meant to improve community infrastructure, prioritise high quality neighbourhood design and support walking and cycling to boost physical health and mental wellbeing.

ECC Design Guidance

Essex Design Guide

Originally published in 1973 but now a web-based design tool, the Essex Design Code provides a useful reference during the design process to ensure the development fits with the Essex character and its local context.

The guide covers all aspects from how to achieve character within the housing layout to locally typical house types and street material from a local Essex palette. This guidance focusses on development under 50 dwellings per hectare.

A New Development Model for Essex

A study published in July investigating the feasibility of new development models in Essex that encourage walking and cycling, and reduce reliance on cars through the design of compact walkable neighbourhoods.

Parking Standards Design and Good Practice (2009)

Responsibility for determining parking standards has shifted to individual planning authorities. The level of supply within developments should be used as part of a wider package for managing transport demand and influencing travel choices, alongside measures to improve public transport accessibility, walking and cycling. Reserved matters application will reflect the parking standards current at the time of submission.

Green Infrastructure Strategy, April 2021 Implementation: Green Infrastructure In strategic Allocations

This document provides detailed requirements for the open spaces and SANG provision within the SEMPA. The main opportunities are seen as the ability of the site to provide complementary network of green open spaces tying together new and existing communities, including the provision of SANG and providing access between existing and proposed communities and into the surrounding countryside.

Garden Communities and Planning School Places. Jan 2022

This document describes how new mainstream state funded schools in Essex, will be established to be consistent with the principles of Garden Communities. It outlines the requirements of the school site and its relationship to the masterplan and movement routes.

EFDC Sustainability guidance & checklist / major developments (+10 units) March 2021

The purpose of this guidance is to help applicants meet EFDC's goals of becoming net zero carbon by 2030, as well as building strong and integrated communities across new and existing places.

Section A / CONTEXT

A3.The Site and Context

3.1 Site Context

Site Context Location

Epping is a historic market town located in the district of Epping Forest in Essex. The District is largely rural with over 90% of the land designated as Metropolitan Green Belt. Epping is situated approximately 17 miles (30 km) northeast of London, linked by the London Underground Central line. Immediately to the south of the town lies the M25 motorway.

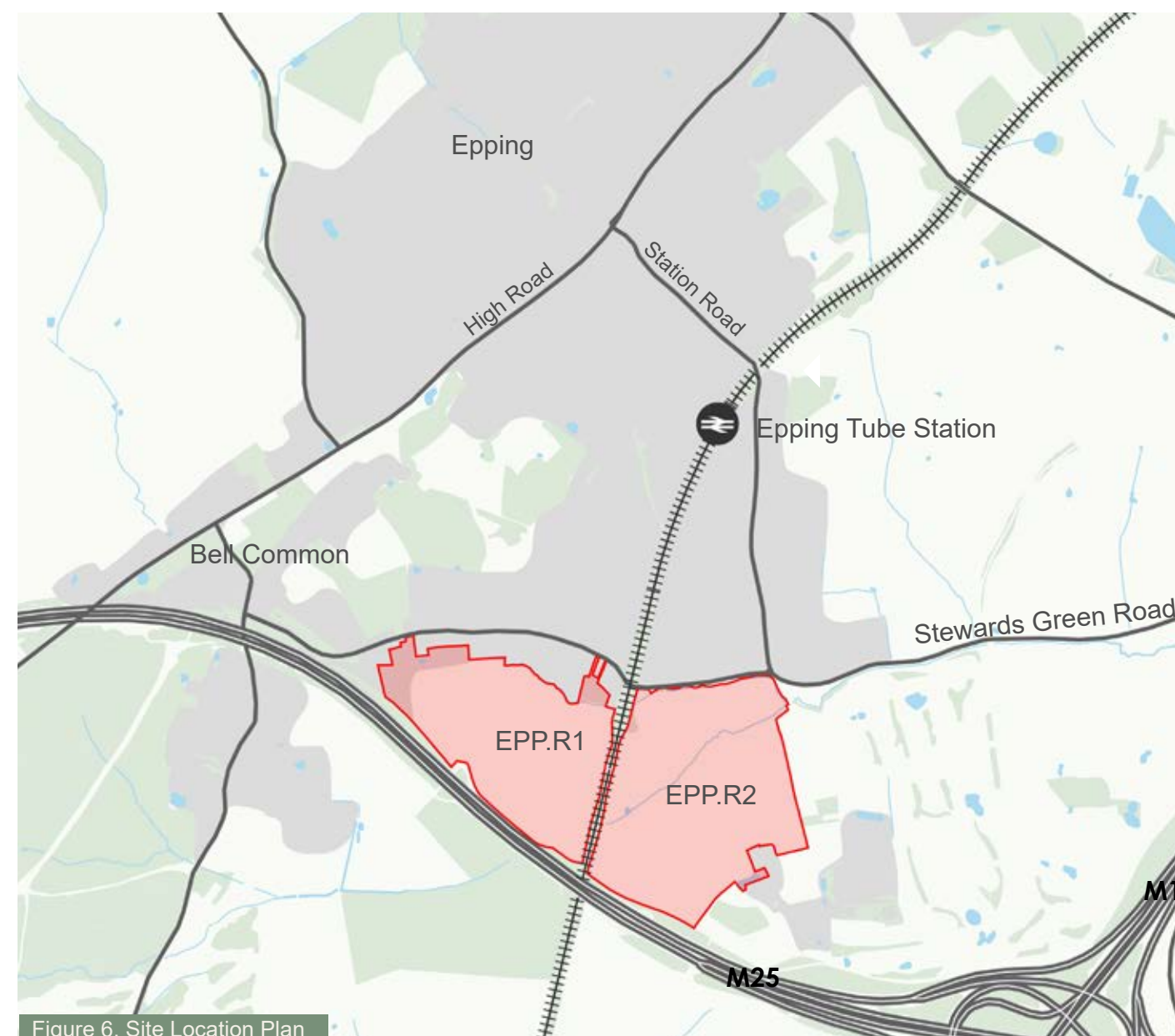
Epping is surrounded by the northern end of Epping Forest, which is almost 6,000 acres of ancient woodland designated as a 'Special Area of Conservation', in 2005. The countryside of the District is gently undulating, dissected by two river valleys (the Lea and the Roding) and their tributaries.



Site Location

The SEMPA is located 1.2km to the south of the centre of Epping, and 0.7km south of Epping tube station. The northern boundary is defined by residential streets that are named Ivy Chimneys Road in the west, then Bridge Hill, Brook Road and then Stewards Green Road in the east. The M25 Orbital Motorway runs along the southern boundary with Epping Golf course to the east. The London Underground Central line runs directly through the SEMPA.

The site has been removed from the Green Belt through the Local Plan.



Site Assessment

To the west of the site, the northern boundary is defined by residential rear gardens, many of which have mature domestic planting in long plots, providing a soft settlement edge. The site is bisected by the Central Line underground railway line. The short western boundary is timber post and rail fence, used to separate horse paddocks from the site.

The eastern part of the site is bound to the north by Brook Road that forms the existing settlement edge to Epping. This road is characterised by terraced 2-storey housing that looks southwards towards the site. The north-eastern corner of the site contains the existing Recreation Ground, with the remainder of the eastern boundary formed from a treeline of poplars that follows the alignment of Fluxs Lane, with Epping Golf Course further east. The land rises towards the south-east corner of the site, where the Listed Gardners Farm is well-contained by off-site vegetation. The entirety of the southern boundary is formed by the M25 and all the paraphernalia associated with a major transport corridor.

Site Fabric

The western parcel of the site comprises a single large, open and featureless arable field, alongside a small narrow field in the west, separated by a defunct hedge and timber post and rail fence. The site is generally devoid of natural features, save for a short section of a small stream in the south east corner of the western parcel and two small remnant trees along the PRoW.

The eastern parcel is formed from two large arable fields, separated by the treelined brook that heads north-east through the site. A smaller arable field lies to the east of an arm of Fluxs Lane leading to Gardners Farm. The existing recreation ground is located in the north-eastern corner of the site.

Recreational

The western parcel is crossed by one Public Right of Way (PRoW) travelling north-south meeting a bridge over the M25. A second PRoW follows the north-eastern boundary, meeting up with a footbridge across the central line. This footpath continues into the eastern parcel, following the alignment of the brook towards Fluxs Lane. A third footpath connects Brook Road to the north with Gardners Farm to the south-east. A fourth footpath follows the eastern boundary providing access to the south, with a fourth providing access to an underpass below the M25 motorway.

Visual & Perceptual

From the first vantage, the site looks tranquil, however, upon ascending the ridge, the detracting influences of the pylons, overhead wires and transport corridor become visually apparent. The landscape feels relatively enclosed in the north, with views being curtailed by the existing rising settlement, and to the south by the rising topography. However, from the centre and south of the site, on higher land, the landscape opens up with longer distance views available to the south across the M25 and east over the Central Line. From the elevated south-east corner of the eastern parcel, near Gardners Farm, there are views looking north towards Epping that clearly demonstrate the late-19th and 20th century settlement growth southwards away from the historic ridgeline location. There are also views towards open countryside to the north-east of the site, however fieldwork has confirmed that publicly accessible views from this area are screened and filtered by intervening vegetation.



View looking south-east towards Gardners Farm following the alignment of PRoW 189_21



View looking west towards the western parcel from PRoW 189-31 with southern settlement edge of Epping to the right of view



View looking north towards existing settlement edge of Epping from the western parcel



View looking east across both parcels of the site from PRoW bisecting the western parcel

National Landscape Character

The site is located within **National Character Area (NCA) 111 Northern Thames Basin**, that exhibits the following main characteristics:

- The Northern Thames Basin is a large and diverse landscape with an overarching character of agricultural land, interspersed with woodland, dissected by rivers, and influenced by the urban areas of North London;
- The area retains a substantial legacy of funerary monuments and settlement sites associated with the prehistoric period and was intensively settled in the Roman times, with a number of major and minor towns having a Roman origin;
- The area merges with the outer London suburbs of Enfield, Barnet, Harrow, Hillingdon, and Hounslow;
- The whole area is a combination of countryside mixed in with urban areas, with important habitats and species, especially woodland and wetland habitats, and associated species; and
- The rural area acts as a recreational opportunity for those living in the surrounding towns and cities and the urban areas offer work and recreation opportunities for those living in more isolated villages and settlements in the rural environment

County Landscape Character

The Essex Landscape Character Assessment (2008) identified 35no. Landscape Character Areas (LCA) - geographical areas with a recognisable pattern of landscape characteristics, both physical and experiential, that combine to create a distinct sense of place.

The north-western part of the site lies within **LCA D1 Epping Forest and Ridges**, where key characteristics include:

- Elevated moderate to steep sided ridges, crowned by woodland;
- Very large crescent shaped block of ancient deciduous woodland to the west;
- Wooded skylines;
- Distinctive grassy plains and large ponds within Epping Forest, greens and commons associated with settlements; and
- Small to medium scale pattern of hedged pasture and arable fields with frequent hedgerow trees.

The LCA also notes that the main settlements including Epping have a historically linear form of development, including associated large commons, and although they have been much expanded by modern suburban development this is not widely apparent in the surrounding landscape due to enclosing woodland and/or their own high tree cover.

The remainder of the site, including the eastern parcel, lies within wholly within **LCA C4 Roding Valley**, where key characteristics include:

- Wide valley, deepening to the south;
- Gently to moderately undulating valleysides, occasionally intersected by small tributary valleys;
- Strong pattern of valleyside vegetation with thick hedgerow field boundaries, many hedgerow trees and scattered small woodlands;
- Meadows on flat valley floor, with occasional riverside trees; and
- Tranquil character except in the south.

We conclude that the site shares some characteristics with the wider LCAs:

- The site is a modern sub-urban edge location, with the adjacent settlement having good tree cover;
- The ridge off-site to the west and south-east

is well-wooded and forms the skyline; and

- The M25 is a major visual transport route that heavily influences the local character.

However, the site differs from the published LCAs in that:

- It has little, or no, woodland cover;
- It has no remaining functional hedgerows (which have been previously grubbed up); and
- The site is comprises uncharacteristically large field sizes; and
- The M25 has also had a fundamentally disruptive effect on the field pattern.

District Landscape Character

At a District level the entirety of the site lies within the **G2 Theydon Garnon LCA**. This character area is of the landscape type **Wooded Ridges and Valleys**, described as a series of small valleys which are encapsulated by minor ridges, resulting in an undulating landform. An intact historic field system with scatters of veteran trees and patches of ancient woodland which provide an intermittent sense of enclosure within views across the landscape. Strong sense of tranquillity in places, at distance from major road corridors.

Key characteristics of this LCA include:

- The interchange between the M11 and M25 road corridors dominates landscape pattern within this area;
- Both road corridors introduce a source of noise and movement into the area and disturb overall sense of tranquillity;
- Strongly undulating topography in places as a result of the series of ridges and slopes;
- A patchwork of arable and pastoral farmland, often lined with mature hedgerows, containing hedgerow trees;

- Rows of pylons form dominant vertical elements within certain views; and
- A network of minor roads cross the area.



















Settlement Edge Landscape Sensitivity Study

This study provides a more detailed understanding of sensitive landscape and environmental features around the edges of the twenty-two principal settlements within the District. The site is identified as being located within the **Landscape Setting Area 4 of the Epping / Coopersale Common Fringes** study area.

The study notes that the southern fringe of Epping is characterised by large-scale fields which are lined with mature hedgerows. The route of the M25 motorway crosses these fields and disturbs the sense of tranquillity within this area. The road corridor creates a visual and physical barrier between fields at the southern edge of the town and other arable fields to the south. At the south-western corner of the settlement, the large expanse of woodland within Epping Forest provides a sense of enclosure. At this point, the route of the M25 is within a tunnel.

The majority of the site is determined to be historic fields with boundaries lost, with an overall **Low** sensitivity to change, based on a **Low** overall landscape character sensitivity and **Moderate** overall visual sensitivity.

LEGEND

-  EPP.R1 and EPP.R2 Boundary
-  Existing Woodlands, Copses and Tree Belts
-  Existing Scrub
-  Existing Water Courses and Features
-  Contours/Spot Heights (Metres AOD)
- National character Area (NCA) Profiles**
-  South suffolk and North Essex Clayland
-  Northern Thames Basin
- East of England Landscape Character Areas**
-  Lowland Settled Claylands
-  Valley Meadowlands
-  Wooded Hills and Ridges
-  Wooded Plateau Farmlands
- Essex Landscape Character Areas**
- River Valley Landscapes**
-  Lee Valley(C3) Roding Valley (C4)
- Wooded Hill and Ridge Landscapes (D)**
-  Epping Forest and Ridges (D1)
- Wooded Hill and Ridge Landscapes (D)**
-  B River Valley
-  D Wooded Ridges:
-  F Ridges and Valleys:
-  G Wooded Ridges and Valleys
-  Urban

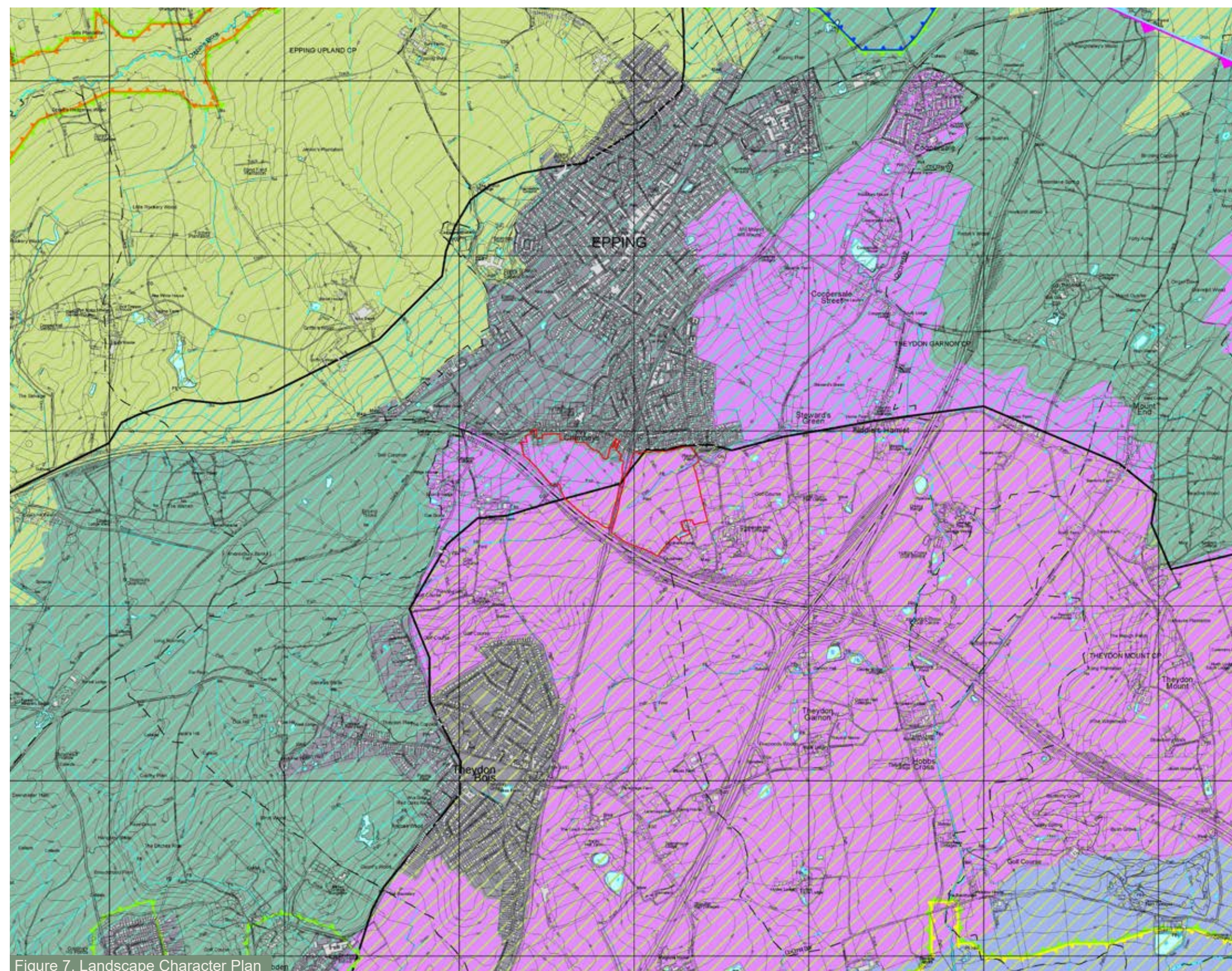


Figure 7. Landscape Character Plan

Key Views

A Landscape & Visual Appraisal of the site has concluded that the visual envelope is very limited:

- The most significant views of the site are limited to receptors in close proximity to the site boundaries (**VP01, VP02 & VP05**);
- There are no longer-range views towards the higher ground in the vicinity of Fluxs Lane (i.e. beyond the 1km study area);
- There are no views towards the elevated ground to the south-east of the site from locations to the south of the M25, however views are available of the western parcel due to topography (**VP04**);
- There are no views towards the site from the Epping Forest SAC;
- There are no views towards the site from any other designated landscapes, including from Coopersale House Registered Park and Garden, or Epping Conservation Area;
- Unobstructed views towards the higher ground within the site from the surrounding PRow network are limited to footpaths within the site, including from areas to the west of the Central Line (**VP03**);
- Transient and glimpsed views towards the higher ground are available from the road network in the immediate vicinity of the site, but heavily screened and filtered by the boundary vegetation with views available along the PRow (FP21 189) from Brook Road (**VP05**);
- In general, views towards the site from the road network are almost completely obscured by intervening built form and roadside vegetation and there are two identified locations where channelled views towards the higher land are available (**VP06 & VP07**); and
- Views from open agricultural land to the north-east are filtered and screened by intervening vegetation (**VP08**).

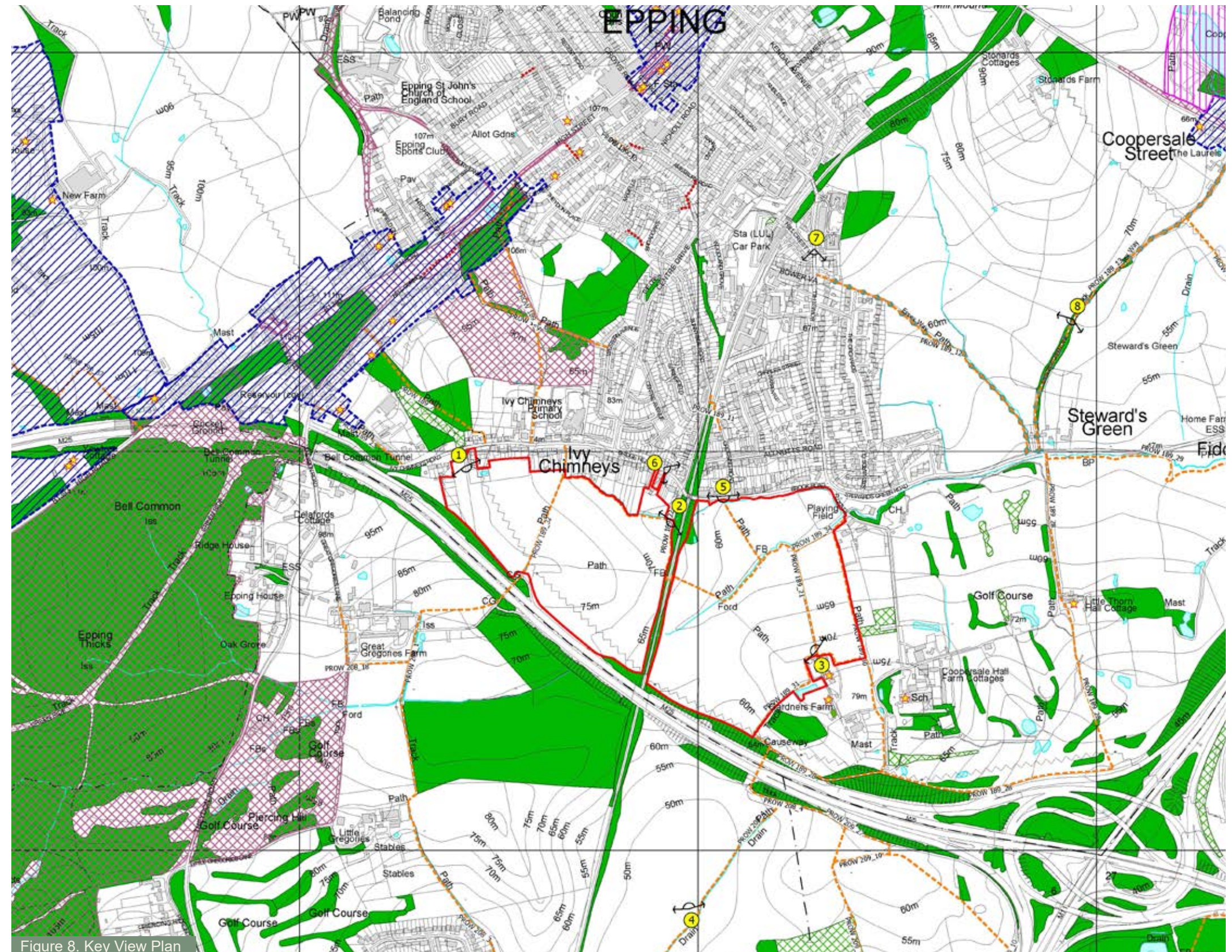


Figure 8. Key View Plan



VP01: View from Ivy Chimneys Road looking south towards the site



VP05: View looking south from Brook Road and towards elevated south-eastern corner of the site



VP02: View taken from north-eastern corner of western parcel



VP06: View looking south-east over the Central Line from Bridge Road / Ivy Chimneys and towards elevated south-eastern corner of the site



VP03: View taken from Gardners Farm looking north west across the eastern parcel towards the western parcel



VP07: View looking south along the corridor of Bower Hill and towards elevated south-eastern corner of the site



VP04: View looking north-west from south of M25



VP08: View looking south-west towards the site from agricultural land to the east of Epping and PRoW 189_13

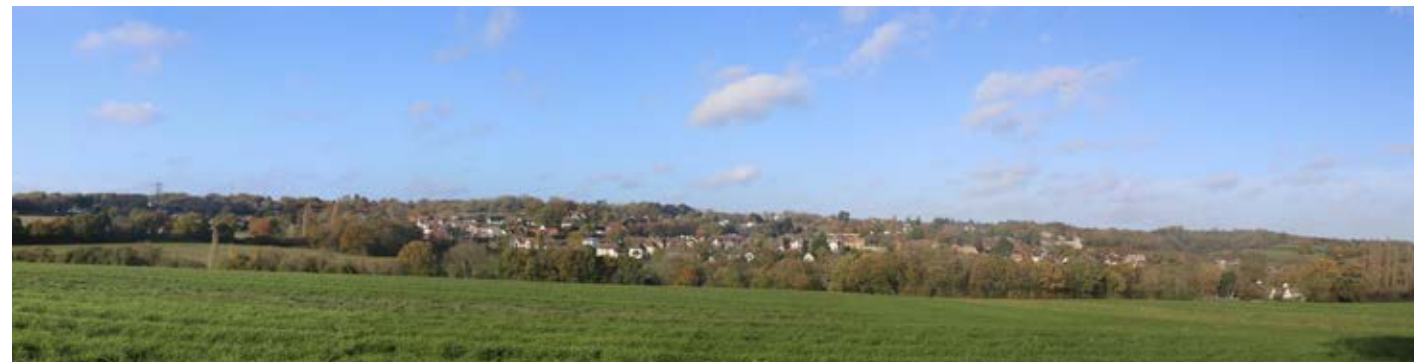
Trees & Woodland

The well-wooded, ridgeline character of Epping is visible from the elevated south-eastern part of the site. Bell Common and Epping Thicks form a stretch of dense mixed woodland and grassland that emerges from below Ambresbury Banks and Genesis Slade to meander towards Epping and to the south-west of the site. Blocks of Ancient Woodland forming part of Epping Forest are situated to the north-east of Epping at The Lower Forest and enclosing Coopersale approximately 2km to the north-east of the site. There are pre 18th Century Fields surrounding Epping, some of which abut the eastern edge of the settlement. Many of the fields surrounding Epping have suffered boundary loss.

The SAC lies approximately 390m to the south of the western part of the site. There is no intervisibility with the SAC given the well-vegetated site boundaries, in particular along the M25 corridor and to the rear of the

residential properties at Ivy Chimneys that adjoin the northern site boundary.

There are blocks of intermittent woodland to the south of the M25 and the M25/M11 interchange is well-screened by existing roadside vegetation. To the east of the site lie the fairways of Epping Golf Course with associated tree planting. The main landscape feature within the eastern part of the site is the treebelt that follows the brook as it heads on a diagonal alignment towards Flux Lane to the north-east. The tree survey has identified higher quality tree stock at the boundaries of the Brook Road Recreation Ground, and isolated specimens elsewhere along the site boundary.



View looking north-west towards the well-wooded ridgeline of Epping from the elevated south-east corner of the site



Epping Forest SAC to the south-west of the site



Tree belt along perimeter of Brook Road Recreation Ground

LEGEND

- Site Boundary
- Green Belt
- Unimproved Grass
- Scrub
- Scrub Grass
- Mixed Woodland Shrub
- Mixed Woodland
- Deciduous Woodland
- Deciduous Woodland Scrub

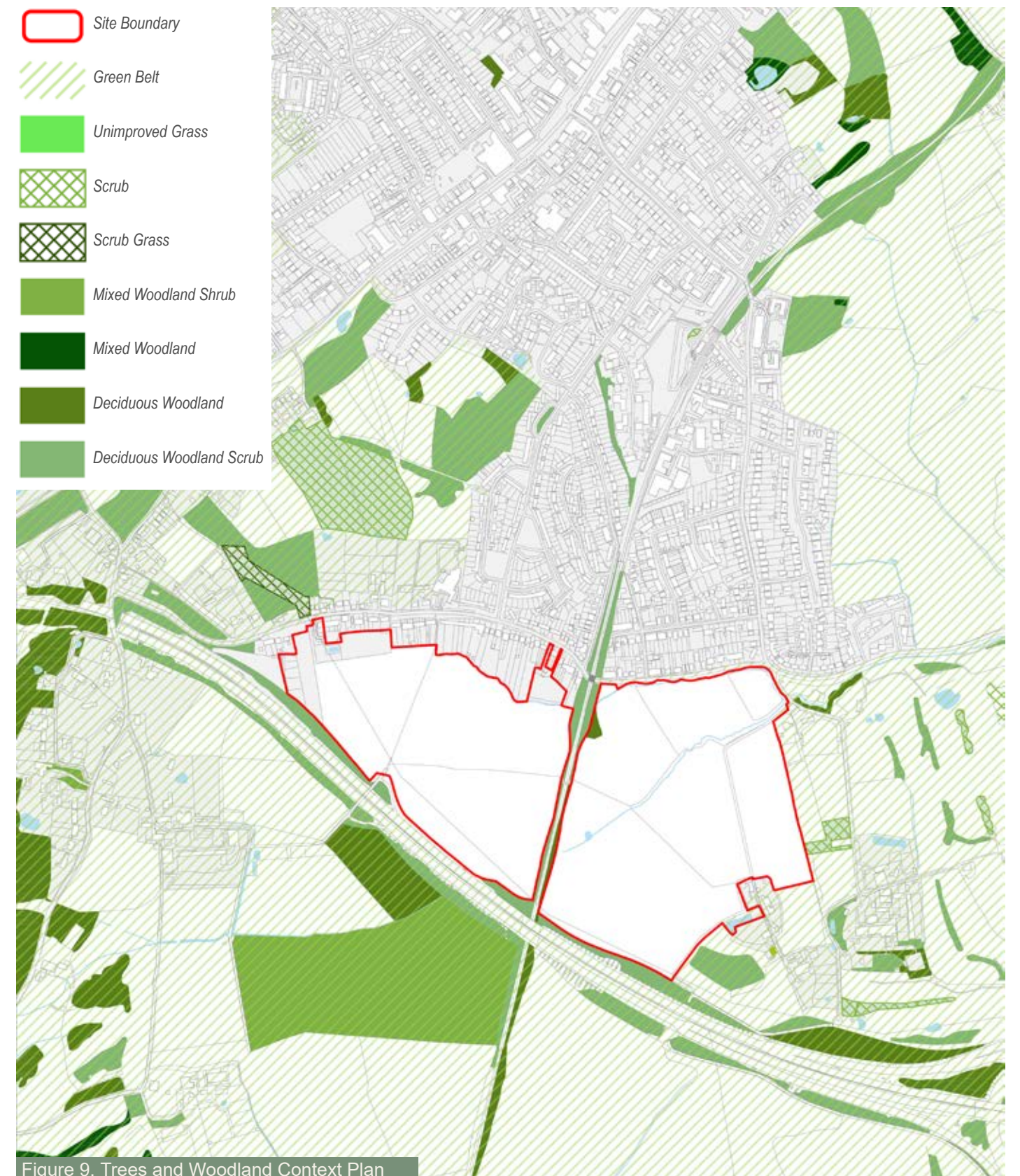


Figure 9. Trees and Woodland Context Plan

Open Space Typologies

The District is largely rural and over 92% of the land is currently designated as being in the Green Belt. Agriculture is mainly arable. The southern fringe of Epping is characterised by large-scale fields which are lined with mature hedgerows. The route of the M25 motorway crosses these fields and disturbs the sense of tranquillity within this area. The road corridor creates a visual and physical barrier between fields at the southern edge of the town and other arable fields to the south.

To the south-west of Epping, the large expanse of woodland within the Epping Forest SAC provides a sense of enclosure. At its closest point, the fairways of Epping Golf Course are located approximately 120m to the east of the site, with Theydon Bois Golf Course approximately 500m to the south-west.



Epping Golf Course looking north



Bell Common to the north-west of the site



Epping Forest SAC



Theydon Bois Golf Course

Bell Common lies approximately 415m to the north-east of the site. As little as 20 years ago, the majority of Bell Common was open green space. However, as it is no longer managed as a common, the grassed area is rapidly being taken over by scrub and young woodland.

LEGEND

	Site Boundary		Informal Recreation Grounds		Woodland & Semi-Natural Open Space with Public Access
	Allotments		Children's Playgrounds		Managed Open Space with Public Access
	Cemeteries & Graveyard		Indoor Facilities for High Levels of Use		Epping Forest
	Formal Playing Pitches		Community Centres & Village Halls		Golf Courses

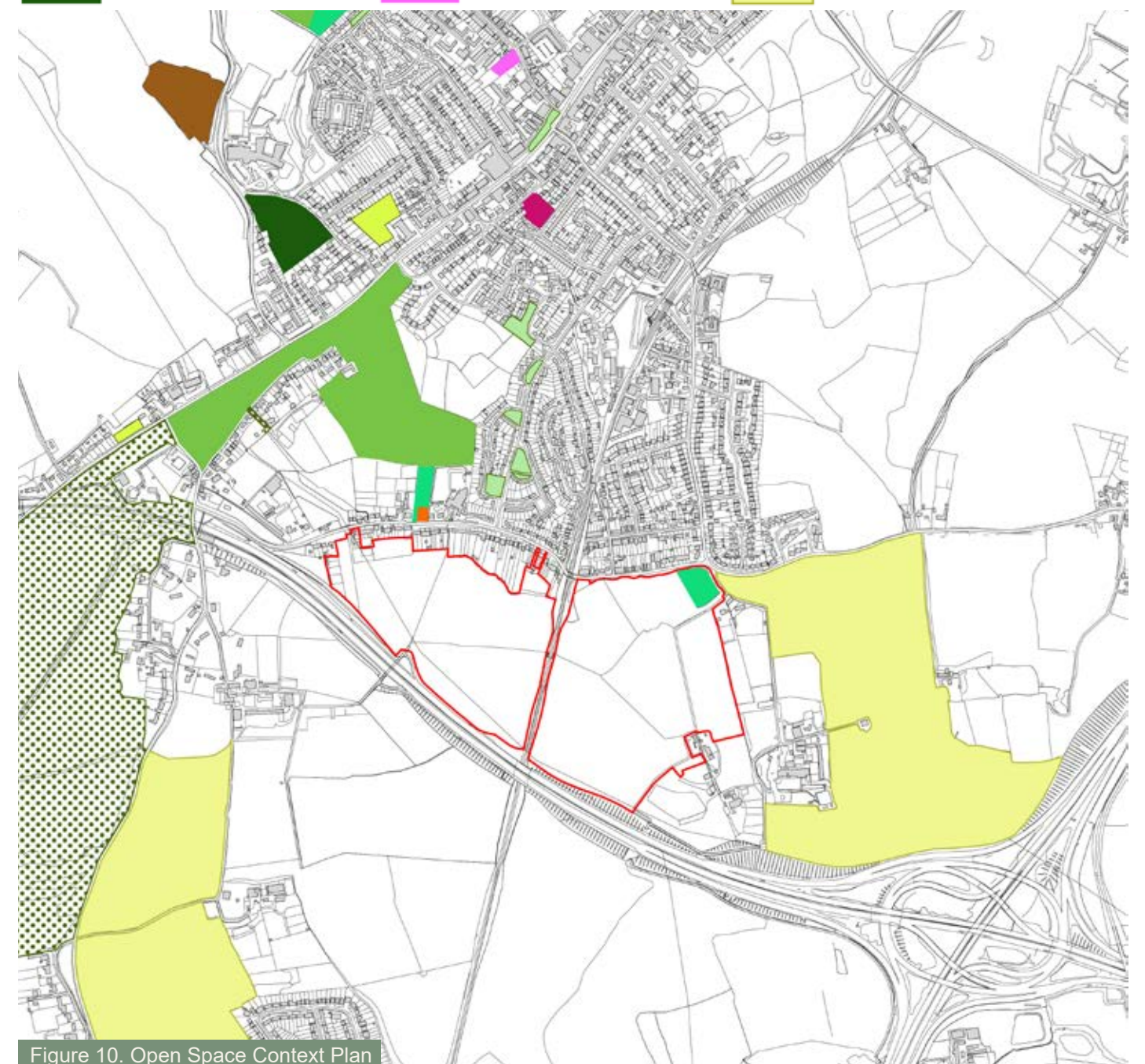


Figure 10. Open Space Context Plan

Wider Movement Network

The site lies to the south of Ivy Chimneys Road, Bridge Hill and Brook Road, which form a continuation of the same road running in an east to west alignment. These streets are best characterised as residential distributor roads, fronted by properties on one or both sides, and with on-street parking.

To the east, Brook Road meets Steward Green Road and Bower Hill at a priority junction. Bower Hill is a residential distributor road which continues north to Epping Underground Station and the town centre. Stewards Green Road is a rural road which leaves Epping to the east.

To the west, Ivy Chimneys Road meets Theydon Road at a priority junction. Approximately 250m north of this junction, Theydon Road meets B1393 High Road at a signalised junction known as 'Bell Common'.

B1393 High Road continues north-east into Epping town centre and south-west towards Epping Forest, and via the A121 to Junction 26 of the M25.

Centre Drive meets Ivy Chimneys Road and Bridge Hill at a priority junction. The residential distributor road provides a route towards Epping Underground Station and the town centre.

Cycle Network

Epping has limited designated cycle provision, but the largely residential nature of the town lends itself to cycling, with relatively lightly trafficked and slow speed environments being prevalent. The town centre of Epping features a number of sets of 'Sheffield' style cycle stands, in areas such as the High Street and at the hospital.

Sheltered secure cycle parking is provided at Epping underground station, offering commuters facilities to store their bikes and providing the opportunity for sustainable multi-modal journeys. The cycle parking is covered and well located - adjacent to the main station entrance with high levels of passive surveillance.












There is an off-road cycle route that connects Epping to Coopersale to the west.

Public Rights of Way (PRoW)

A network of public footpaths run through the site, including:

- Epping 32 / Theydon Bois 1, which runs north-south between Ivy Chimneys Road and the bridge over the M25;
- Epping 22 which runs east-west between site EPP.R1 and EPP.R2, crossing over the railway line at a footbridge.
- Epping 21, 31, 30 and 34, which form a network of routes within site EPP.R2 between Brook Road / Fluxs Lane to the north and an underpass beneath the M25 to the south.

LEGEND

	Site Boundary		Cycle Routes
	Motorway		Railway
	'B' Category Roads		Railway Station
	Residential Distributor Roads		National Trail
	Minor Streets		
	PRoW		
	Bridleway		

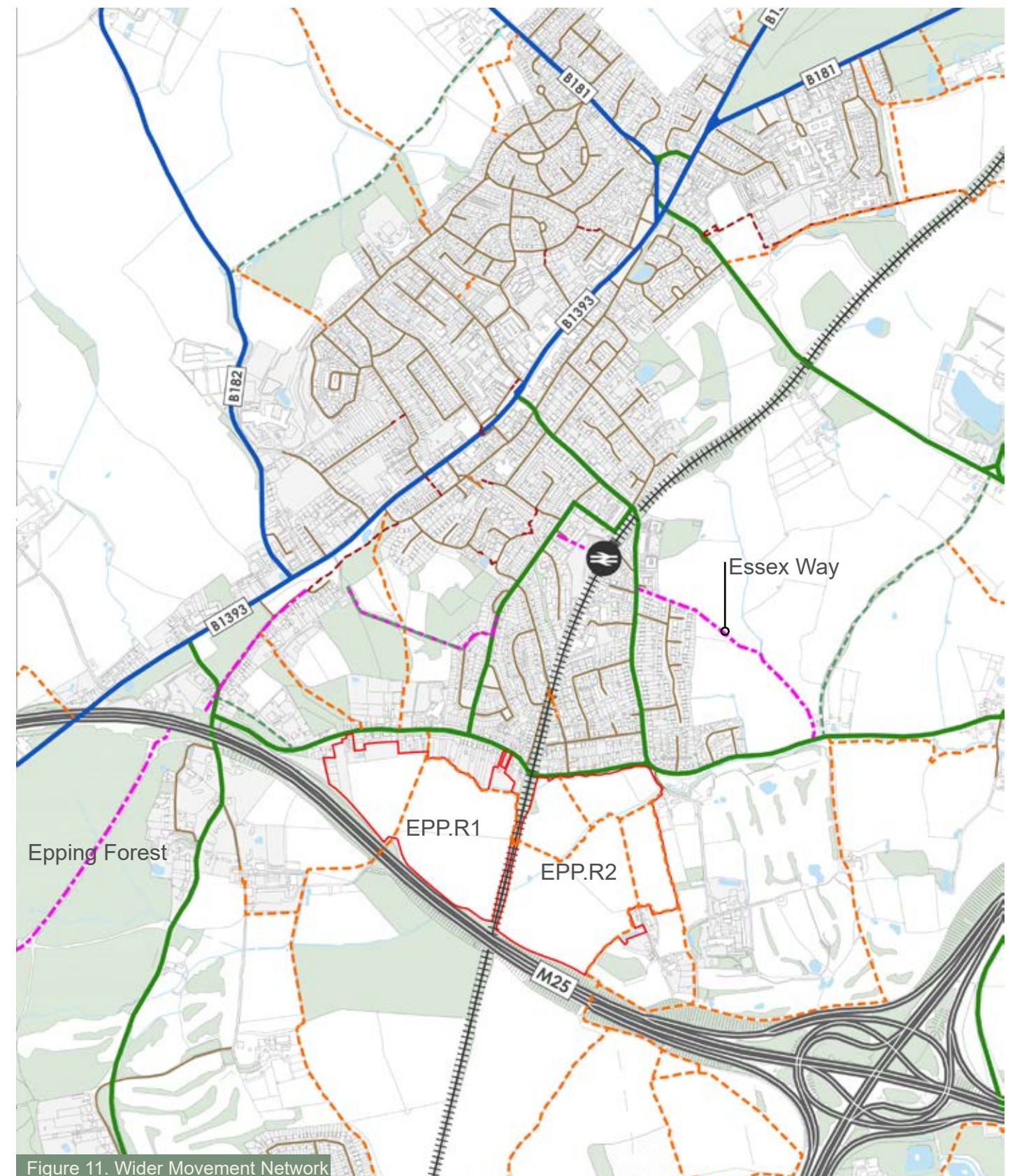


Figure 11. Wider Movement Network

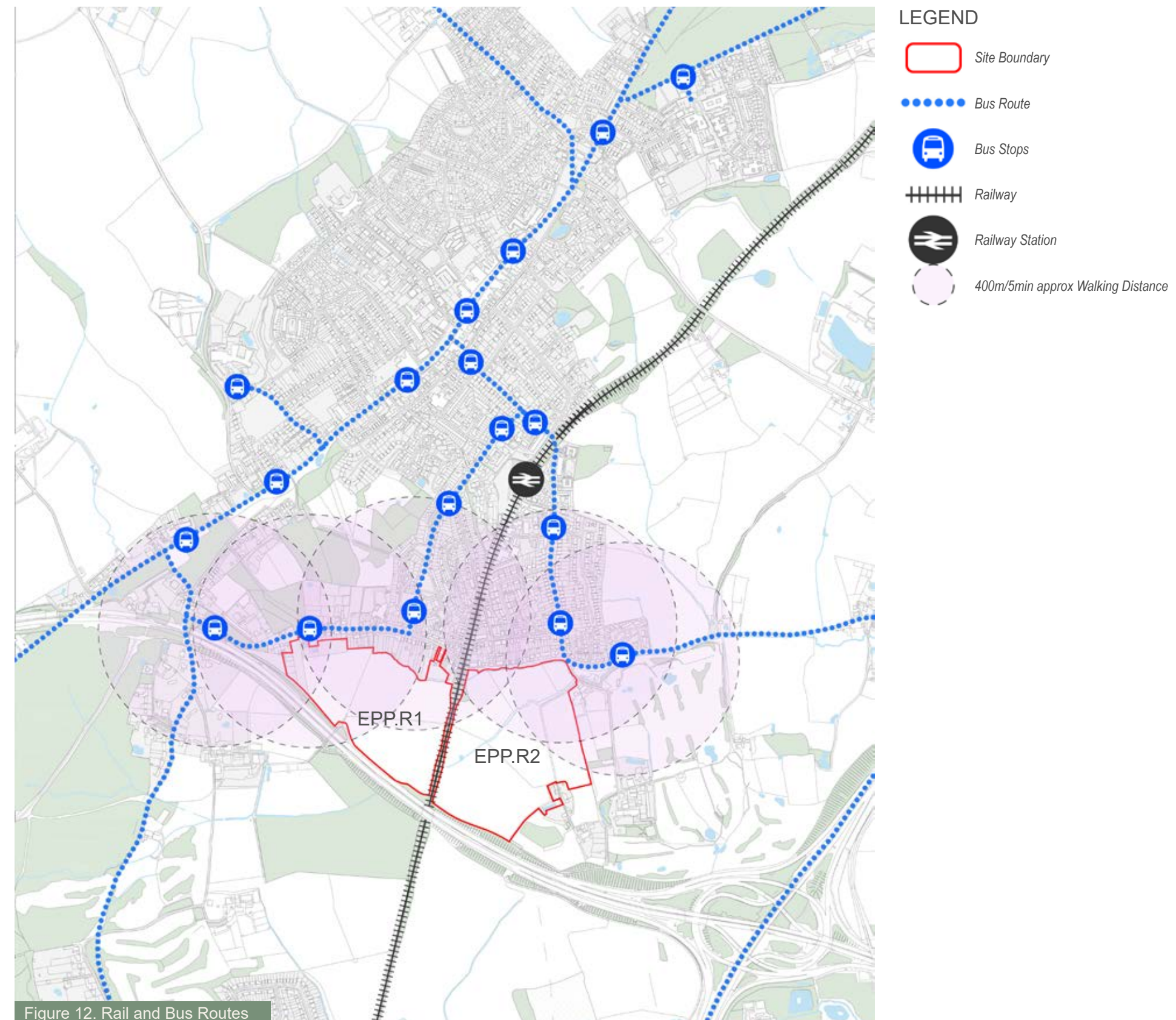
Rail and Bus network

Epping underground station is located approximately 850m (12 minutes) walking distance to the north of parcel EPP.R1 and 700m (14/15 minutes) walking distance to the north of EPP.R2.

Epping station provides London Underground Central Line services every 6-10 minutes (during the AM peak hour) into central London via Loughton, Woodford and Stratford.

Epping is well served by frequent buses with Epping Underground station benefiting from nine bus services. The 31, 418 and 418B services pass by both development parcels with the 31 operating between Harlow and Coopersale via Epping and the 418/418B offering a service from Loughton to Epping via Abridge and Theydon Bois.

The closest bus stop to EPP.R1, on Ivy Chimneys Road, features a flagpole and timetable and offers access to the 31, 418 and 418B bus services. The nearest bus stop to EPP.R2 is located on Bower Hill and also benefits from the provision of a flagpole and timetable and serves the 31 bus service. Bus stops on Centre Drive and Stewards Green Road, near to EPP.R1 and EPP.R2 respectively, benefit from the provision of shelter, seating, a flagpole, bin and timetable. The 31 bus is accessible from Stewards Green Road while Centre Drive also serves the 31 along with the 418/418B services.



Local Services & Facilities

The closest primary school is Ivy Chimneys Primary School, located immediately north of parcel EPP. R1 on Ivy Chimney Road. The closest secondary school is Epping St John's School, approximately 2km walking distance from the boundary of EPP. R1 and EPP. R2 on Bridge Hill / Brook Road.

The closest local convenience store is located on Allnuts Road, approximately 130m walking distances from the EPP.R2 boundary on Brook Road, and 300m walking distance from the EPP. R1 boundary on Bridge Hill.

Epping town centre offers a wide range of facilities including food and non-food retail, pubs, restaurants, and healthcare facilities, and is approximately 1.2km walking distance to the north of the site (EPP. R1 via Centre Drive, EPP. R2 via Bower Hill).

LEGEND

 Site Boundary	 Fire Station
 Education	 Cemetery
 Employment	 High Street
 Hotel	 Cricket Pitch
 Petrol Station	 Tennis Court
 Railway Station	 Bowling Green
 Pub	 Play Area
 Supermarket / Convenience Store	 Allotments
 Cafe	 Golf Course
 Library	 Urban Area
 Place of Worship	 Sports Centre
 Town Council	

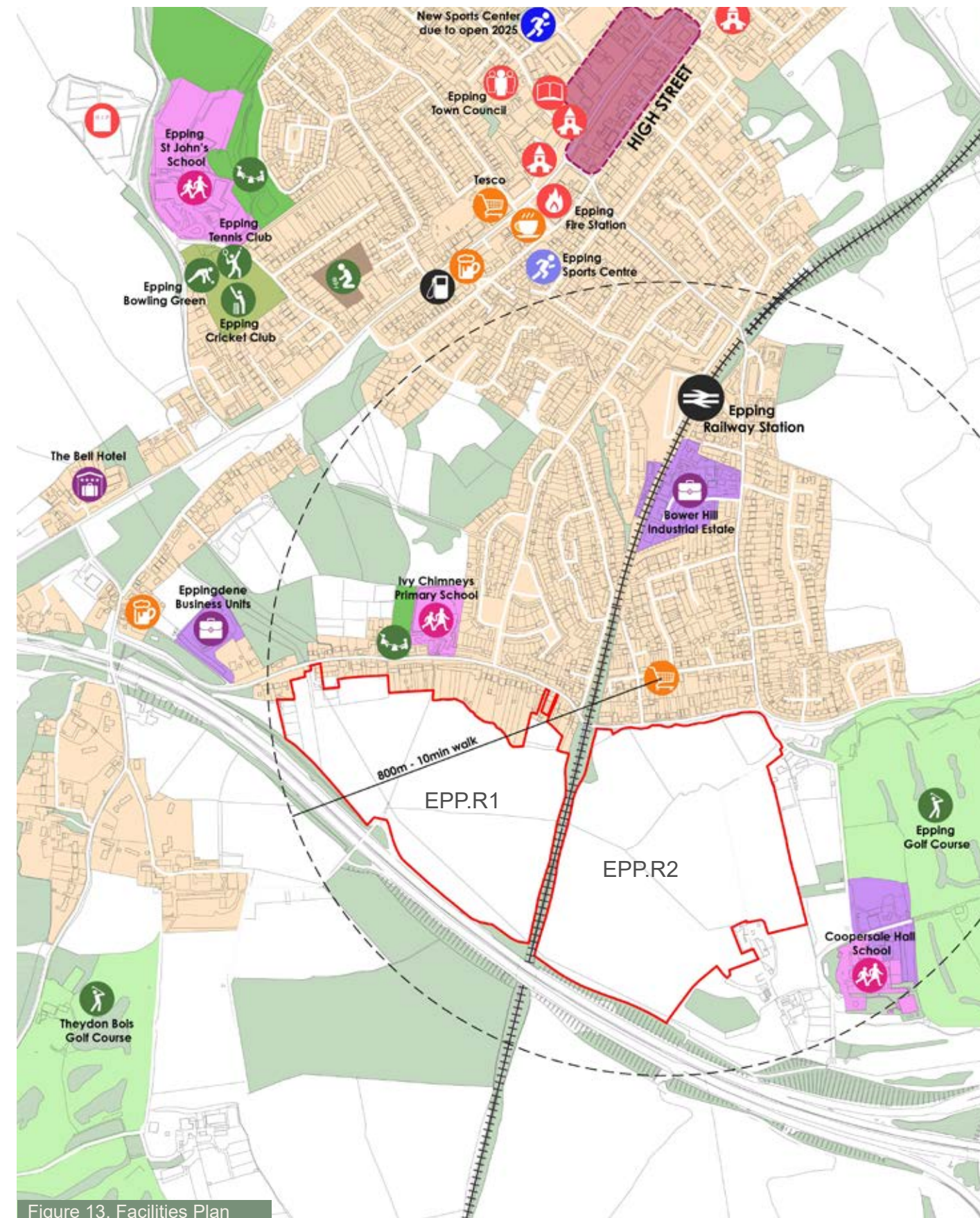


Figure 13. Facilities Plan



Ivy Chimneys School



Epping Golf Course



Convenience Store - Allnuts Road



Epping High Street

Built Heritage

There are no heritage assets located within the site boundary, however, there are three Grade II listed buildings proximate to the site; Gardners Farmhouse, Barn to the North of Gardners Farmhouse and Coopersale Hall.

Coopersale Hall is located to the south-east of the site. It is well screened from the site and there is no historic functional relationship between the two. As such, its significance is unlikely to be affected by the development of the site.

Gardners Farmhouse and its barn are located on the southern edge of the site and are accessed by Fluxs Lane, which runs through the site. There is a historic functional relationship between the site and the historic farm group. Therefore, the proposed development has the potential to result in less than substantial harm to the significance of the listed buildings. Care must be taken regarding the orientation of dwellings in relation to Fluxs Lane in order to preserve its historic interest.

Epping and Bell Common Conservation Areas are located approximately 1km north/north-west of the site. Due to the topography of the area and the substantial intervening built development, the development of the site would not affect the character and appearance of the conservation areas.



Grade II listed barn at Gardners Farm

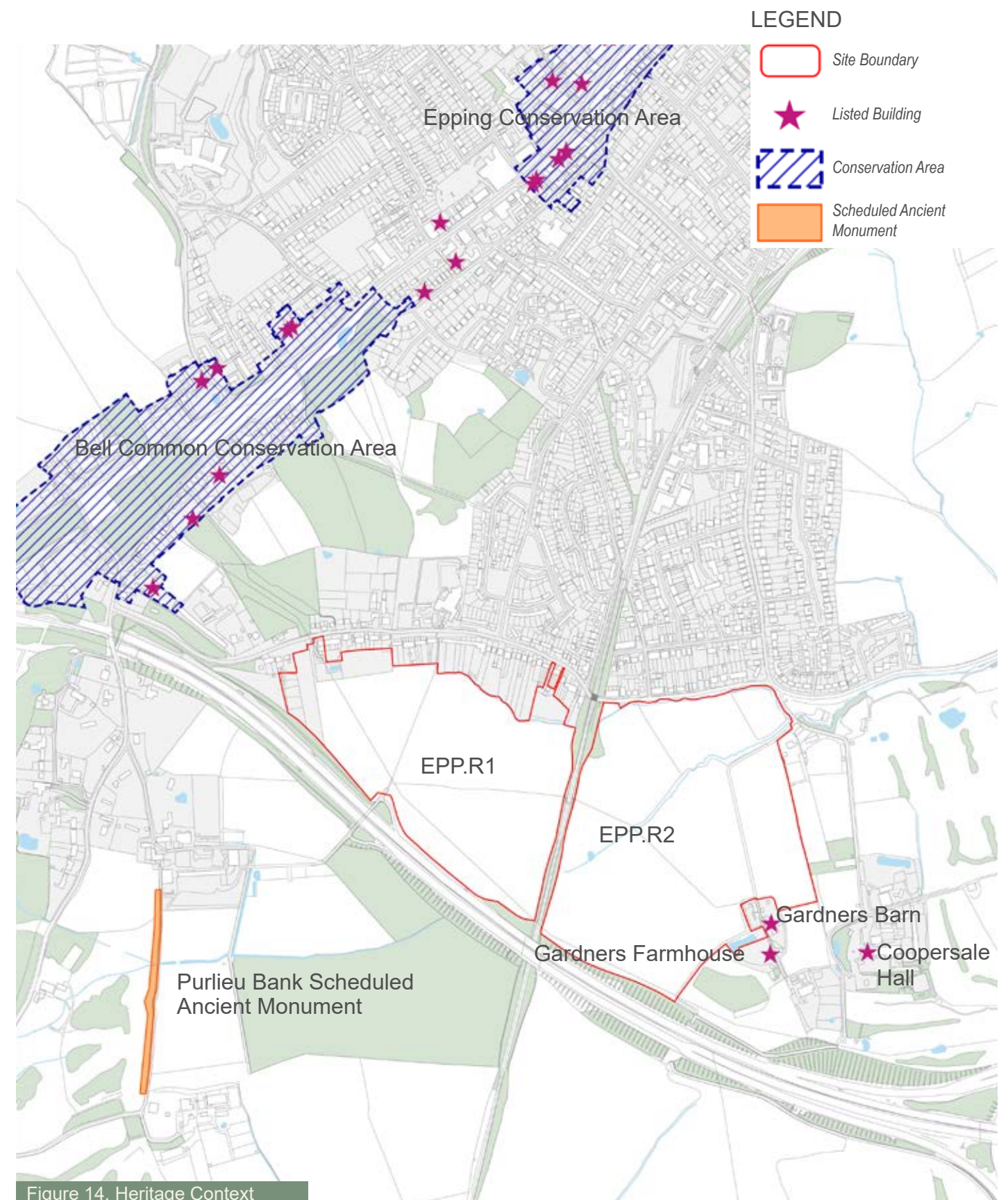
Archaeology

Land at Fluxs Lane South, Essex has been reviewed for its below ground archaeological potential in accordance with relevant government planning policy and guidance.

- No world heritage sites, scheduled monuments, historic battlefields, registered parks and gardens or historic wreck sites lie within 1.25km of the study site.
- Based on the available information it is considered that the study site has a high potential for evidence of historic cultivation dating from the medieval period onwards and a low potential for the presence of archaeological evidence relating to all other past periods of human activity.
- Any archaeological evidence present within the study site is likely to be of local significance only.
- There is a general absence of archaeological investigation within the study site and the vicinity, and therefore there is a degree of uncertainty when determining the site's overall archaeological potential. A number of archaeological investigations carried out within the historic core of Epping have recorded limited archaeological evidence of local significance only.



Purlieu Bank Scheduled Ancient Monument



Local Character Study

An appraisal of placemaking elements within the context of the site has been carried out with the intention that it informs the design of the proposals.

The study focuses on features of built form within the local area that could be used to create local distinctiveness within a new development. The overall structure of the development will be driven by making the necessary connections into the existing urban fabric, circulation routes, existing tree belts and the required drainage features. However at a finer grain scale there are typologies of streets and spaces that can be used to aid placemaking as well as having a social function.

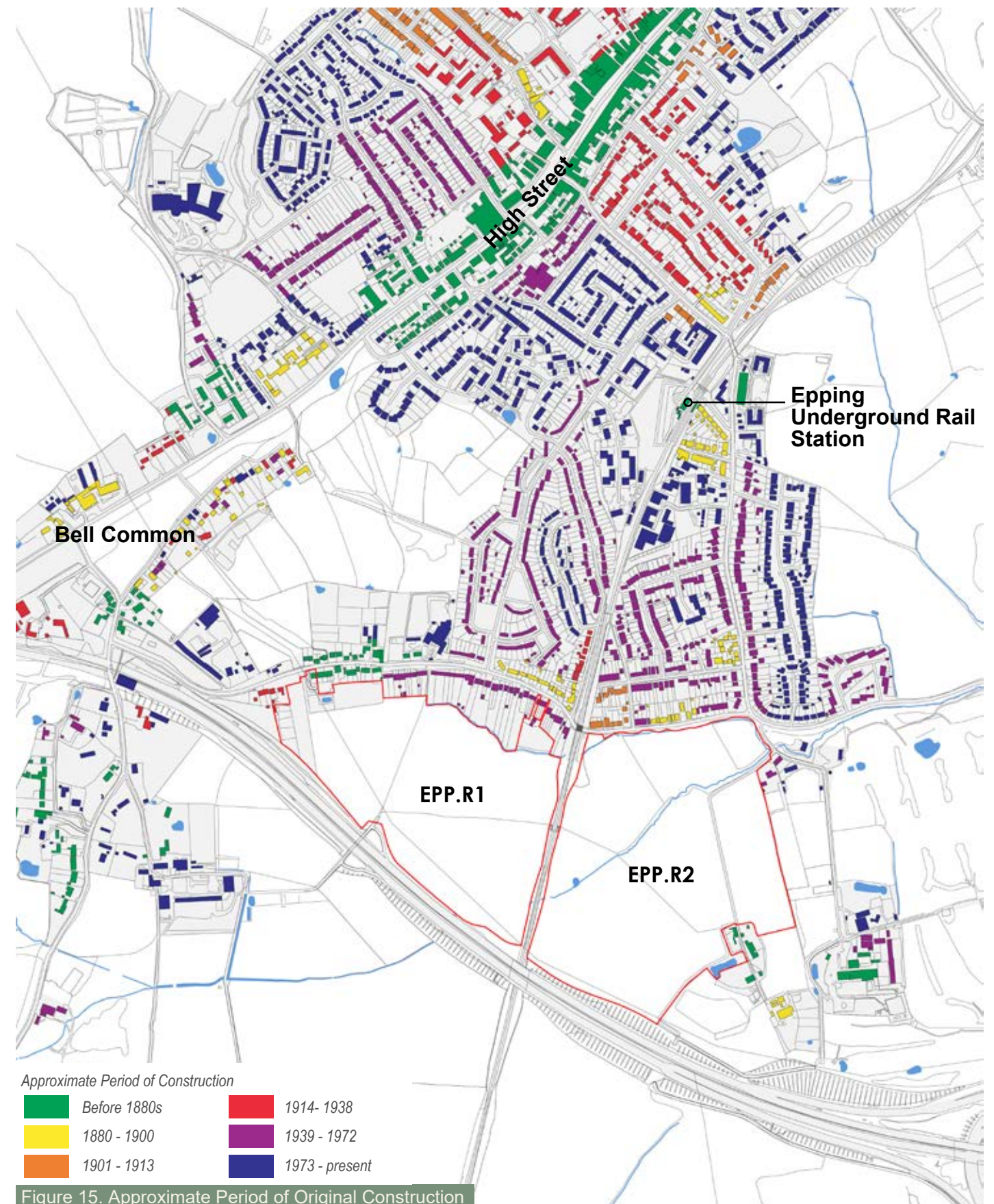
Building typologies and dwellings sizes must be suitable for the location within the site but will also be driven by the local housing need assessment of the local authority and by market demand. Modern living standards and the increased demand for home working will input into the types of dwellings selected. The distribution of house types can be aligned to character areas and so creating areas of distinct character across the scheme.

Factors such the requirement for surveillance of all public open spaces are determined by best practice urban design whereas in naturally evolving settlements there may be examples of alleyways running behind rear garden fences and dwellings backing onto open space.

Local vernacular architecture is presented not to place a requirement that exact replicas are used but that certain features may be picked out that can root the development in the locality. This approach gives developers the freedom to design dwellings with a more contemporary aesthetic which look to the future whilst using locally distinct cues that avoid creating a development that could be anywhere in the country.

Development within Epping

The plan opposite shows the approximate period of original development of the areas of Epping surrounding the site. Areas of the town developed during the 20th and 21st centuries have left areas of distinct building stock whose townscape character is aligned to these periods of development.



Methodology for Character Assessment

A number of study areas were selected on account of their distinctiveness in terms of architectural character or their spatial arrangement, with particular focus on the positive features which make these areas attractive places.

The areas were also selected to represent the transition from urban to rural, with the aim to capture any features that might be applicable to different areas of the proposed scheme.

The study areas are:

1. Town Centre - Epping High Street
2. Residential Street - Brook Road
3. Green Edge - Bell Common
4. Essex Rural Vernacular - Gardners Farm

Included within the appendix is a brief summary of the historic development of the Epping and Bell Common area in order to set the structural framework that has given rise to the urban form that can be seen today.



1. Epping High Street - Town Centre



2. Brook Road - Residential Street



3. Bell Common - Green Edge



4. Gardners Farm - Essex Rural Vernacular



Urban

Rural

Study Area One

Epping Town Centre

Epping High Street is largely lined by continuous frontage of between two and three storeys. There is a large amount of pedestrian activity and vehicular traffic along this street. The majority of the buildings are in commercial use with shops at ground level. There are a wide range of architectural styles fronting the High Street including local traditional styles, Georgian, Victorian, Edwardian, 1930s, 1960s and 70s 'modernist' styles as well as more recent 'postmodern' styles that echo the form of some of the historic buildings.

A number of listed buildings, most dating from the 18th century, line both sides of the High Street.

There are several short gaps between the buildings at intervals where alleys and lanes provide access to the areas behind the High Street. The High Street widens at the centre to form a market place, still used today.



Figure 17. Area Location

The historic buildings tend to have narrow plot widths while the more modern buildings have wider frontages. The varying roof heights and numerous gables, chimneys and dormer windows create an interesting roofscape along the street. Trees also line the street in several places adding greenery and interest to the townscape.



Figure 18. Epping High Street Aerial View

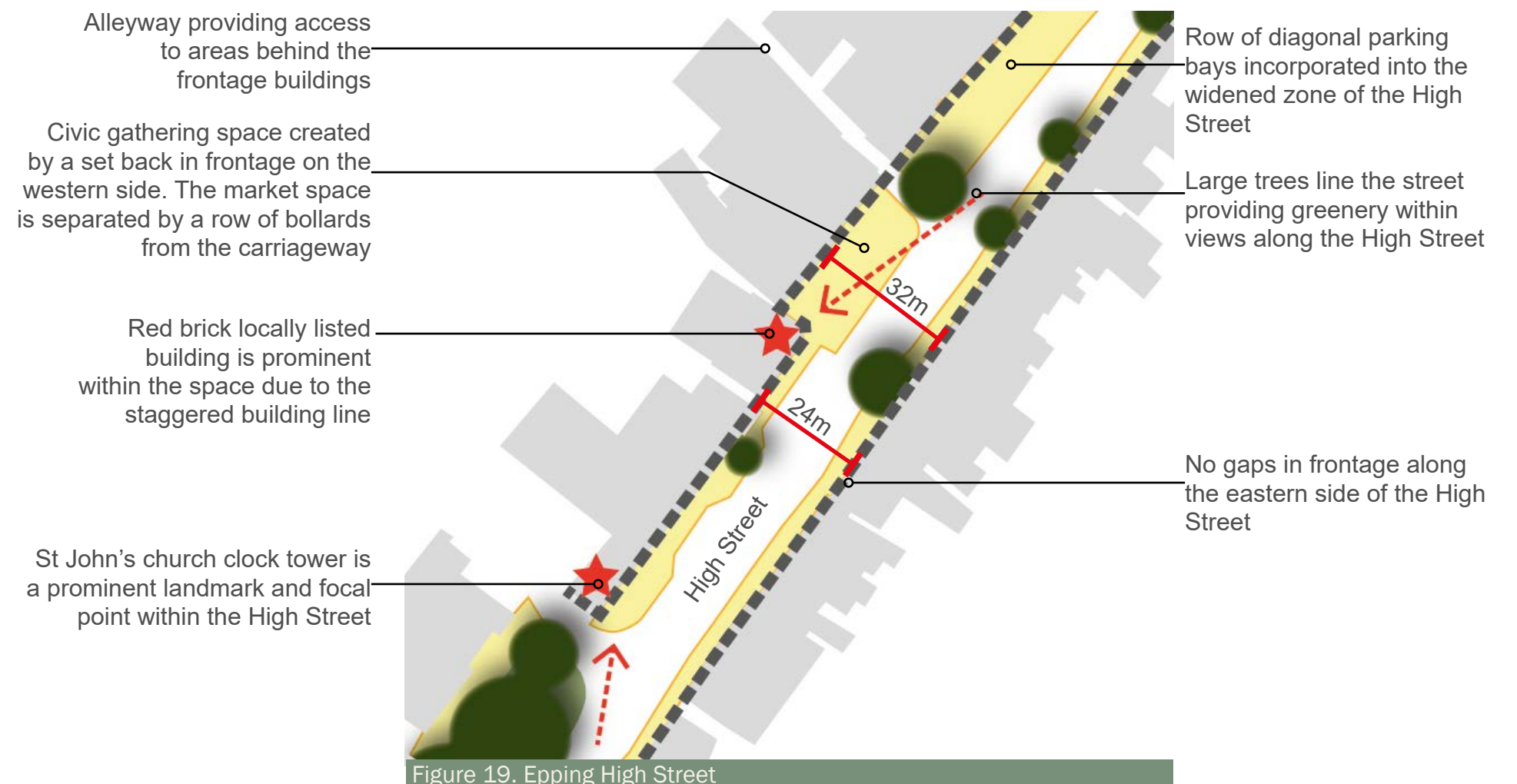
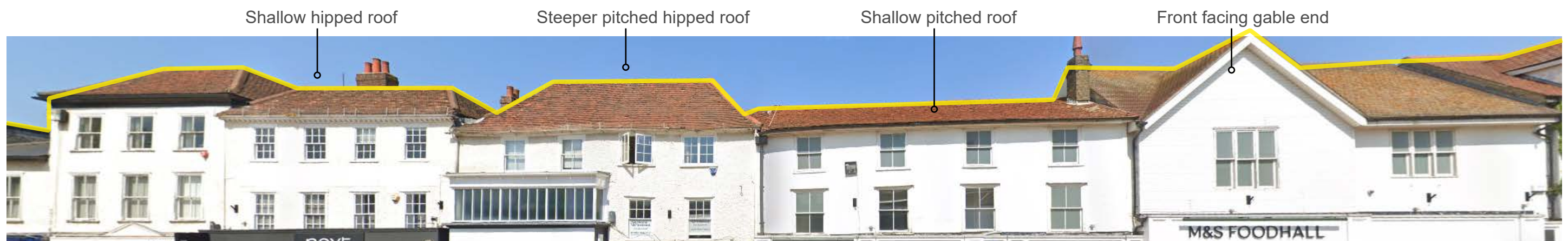


Figure 19. Epping High Street



These 18th Century Grade II listed buildings create an intricate roofscape with variation in ridge height, pitch and form



Formal symmetrical frontage with iron railing enclosure



The building frontage abuts the public realm in some places, while elsewhere a narrow privacy strip is enclosed with fencing



Paved public space, enclosed by continuous frontage



Change of facade material and roof form creates variety



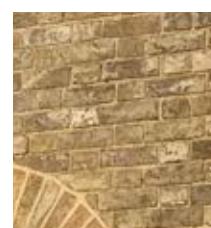
A mix of facade material and storey height within a continuous frontage

Materials

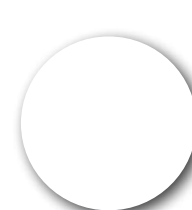
A mix of materials can be seen along the High Street including, red and buff coloured bricks, white and cream render and clay and slate roof tiles. Window frames are generally white.



Red multi-brick



Buff brick



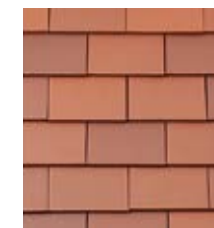
White render/
window surround



Cream render



Slate roof Tile



Red clay roof tile

Potential Design Cues

- Inspiration for areas enclosing key spaces.
- Enclosure created from continuous built form, adjoining roofs varying in height and form creating visual interest.
- Landmark buildings at key locations create a signpost to key spaces.
- Hard surfaced area alongside the main thoroughfare creates the opportunity for a community space.
- Opportunity to create a pared down interpretation of Georgian/Victorian forms such as the tall Georgian windows.

Study Area Two

Residential Street

The residential streets immediately to the north of the site contain dwellings dating from throughout the 19th and 20th centuries. Dwellings were built first along the main streets, then cul-de-sacs were developed at a later date, within the blocks and also backing onto the agricultural land to the east.

Streets tend toward a consistent set back, creating a uniform streetscape character despite the range of architectural detailing present on individual dwellings.

The junction of Brook Road and Bower Hill, developed during the 1930s was selected as an interesting junction example.



Figure 20. Area Location





Consistent set back



Gable fronting the street



Window arrangement on corner building



Typical 1930s semi-detached dwelling with pair of double height bay windows with forward facing gable roof

Materials

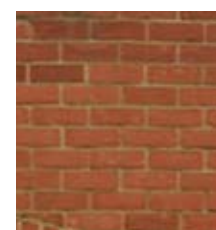
Varied palette of materials from different periods of construction including red and buff bricks, render of light colour to yellow, timber weatherboarding, and clay and slate roof tiles.



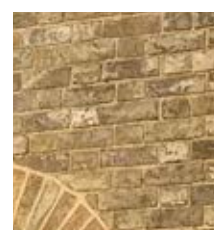
Hipped roof semi with recessed entrance doors and rounded brick archways



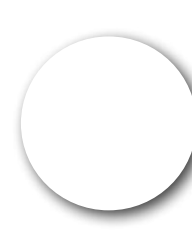
Symmetry of built form with brick to ground floor and mock Tudor facade treatment to first floor



Red multi-brick



Buff brick



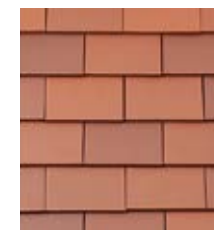
White render/
window surround



Cream render



Slate roof tile



Red clay roof tile



Linked frontage interspersed with forward facing gables



Common front boundary with low brick wall and iron railings

Potential Design Cues

- Inspiration for streets within the core of the proposed development.
- Corner buildings turned to front key vistas.
- Low brick walls in combination with railings and hedges for front boundary treatments.
- Mix of gable roof forms aligned with the street and forward facing gables.
- Predominantly two storeys.
- Double height box/canted bay windows.
- Horizontal change in facade materials between storeys.
- Allow space for trees and hedges within the streetscape.
- Interpretation of Georgian/Victorian forms found throughout Epping.

Study Area Three

Green Edge

Originally known as Beacon Common due to the beacon maintained here to warn of invasion, in the 19th century it became known as Bell Common because of the Bell Inn, a coaching inn which still survives today as a hotel.

This area of Epping provides an historic example of development fronting green space, with a major movement route running along its northern edge. Buildings fronting the common date from between 16th and early 20th Century and has been designated as a Conservation Area, including eight Grade II listed buildings.

There is a wide range of architectural styles surrounding Bell Common with local traditional weather boarded cottages, Georgian houses, Victorian and Edwardian cottages, as well as modern 1960s and 70s detached houses.

Buildings of different styles stand alongside one another. There is a high proportion of late 19th century Arts and Crafts buildings, particularly on the High Road. These Arts and Crafts houses all feature tall decorative brick chimneys, which

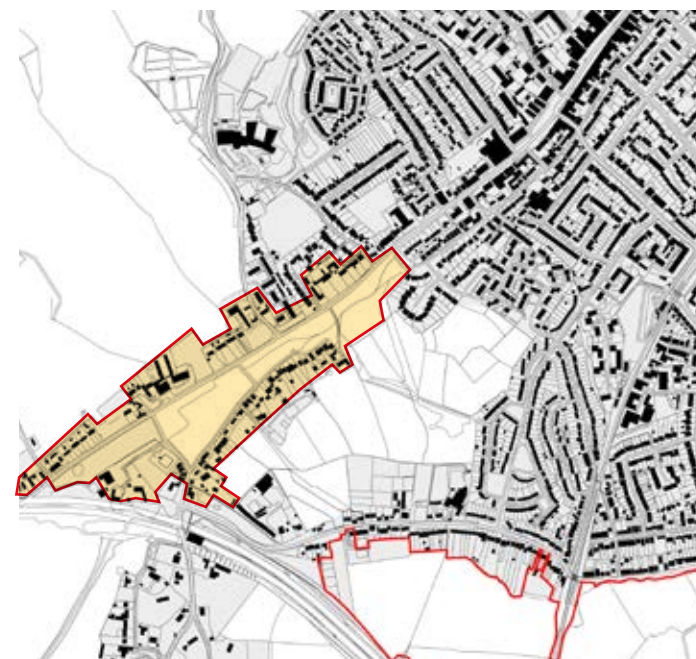


Figure 23. Bell Common Conservation Area Location

are a characteristic feature of the skyline of Bell Common Conservation Area.

On the northern side, two storey detached and semi-detached houses are nearly all set well back from the road and obscured from view. However some, including the Bell Inn, sit more prominently beside the road.

Dense stands of mature trees obscure views across the common however as they are well set back from the road the area retains an open character. Glimpses of tall chimneys are often the only sign of dwellings on the opposing side.

On the southern side, vehicular access is provided via an informal shared surface road. Due to the nature of this road and the enclosure created by the large trees within the common, this area has a more peaceful, secluded character.

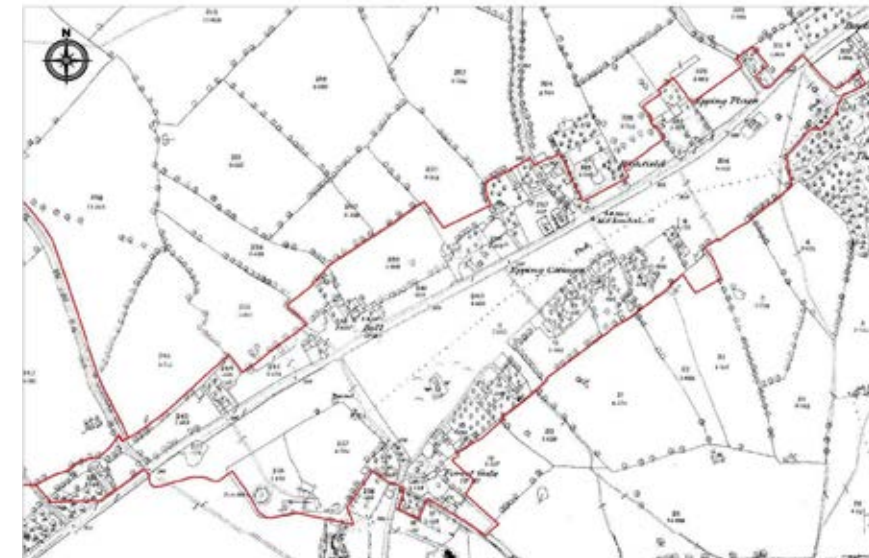


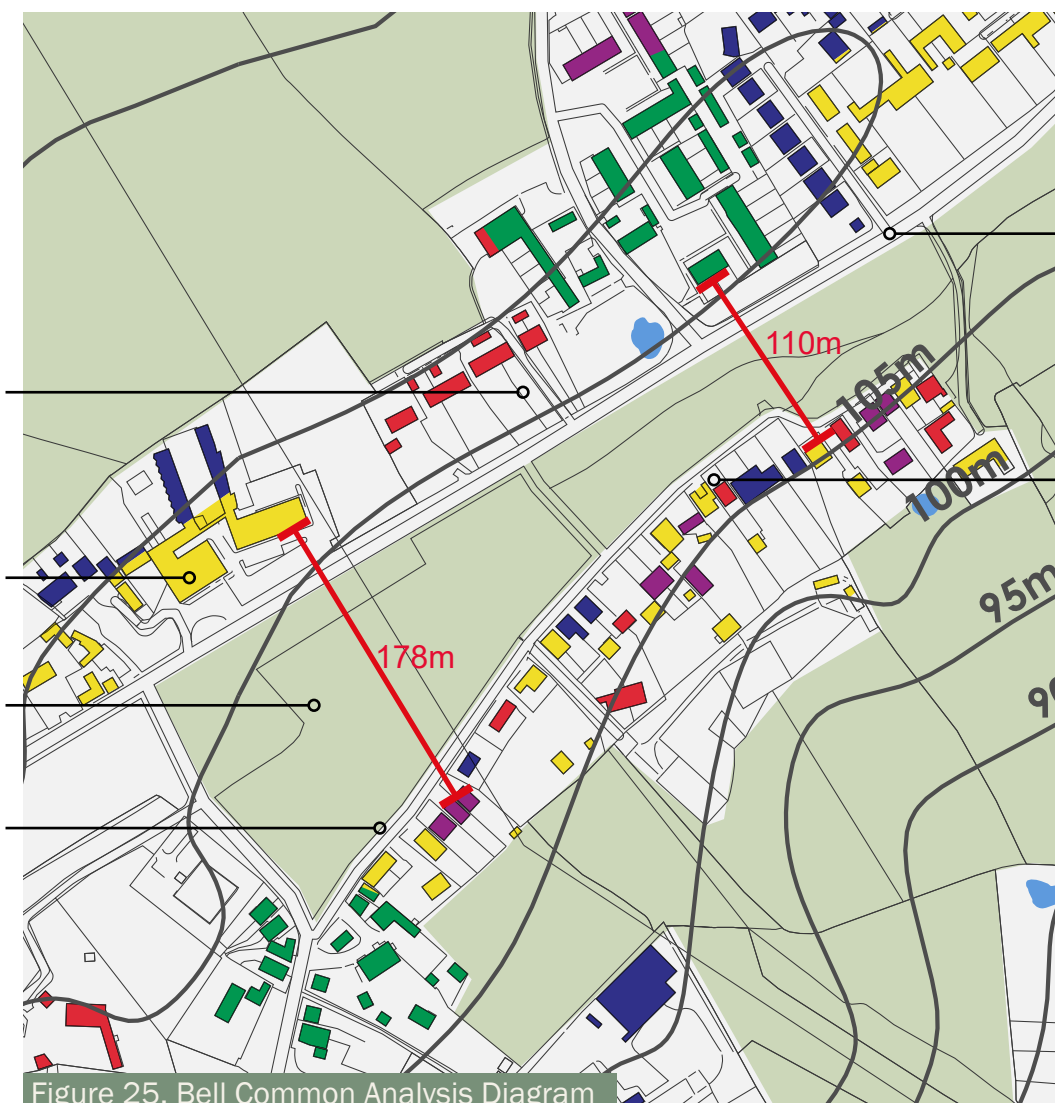
Figure 24. Bell Common Ordnance Survey Map 1873

Dwellings set back from the busy road by 40m

The Bell Hotel beside the road

Triangular form of the open space creates a large variation in distance between frontages

Shared surface, compacted gravel road runs along southern side



The High Road connecting to the centre of Epping developed along a ridge of high ground

Dwellings are closely placed despite being disparate in form and style

Approximate Period of Construction

- Before 1880s
- 1880 - 1900
- 1901 - 1913
- 1914 - 1938
- 1939 - 1972
- 1973 - present



Mature, dense tree blocks, obscure views across the common



Half-hip roof with dormers, central chimney and fenestration symmetry



Gravel driveway in front of lean-to garage- paired entrance doors



Mix of roof forms and materials along the frontage



Low level vegetation to front boundaries with higher hedges between properties

Materials

Red brick with white and cream render, are the main facade materials.

Roof materials are primarily grey slate with occasionally red clay tiles.

Carriageway and driveways are surfaced with gravel.



Red multi-brick



White render/
window surround



Cream render



Slate roof Tile



Red clay roof tile



Gravel

Potential Design Cues

- Inspiration for tertiary streets fronting open space.
- Low shrub planting to front boundary giving an informal character.
- Mix of gable roof forms aligned with the street and forward facing gables.
- Two storey and 2½ storey dwellings.
- Double height box bay windows.
- Secluded character created by enclosure provided by the mature trees and vegetation with the open space that obscures views across the space.
- White window surrounds contrasting with red brick facade.
- Tall chimneys visible across the open space.

Study Area Four

Essex Rural Vernacular

Situated adjacent to the site is the listed farmhouse and barn at Gardners Farm. The listed farmhouse dates from the 15th Century with later alterations and additions. The building is of two storeys with two eighteenth century dormers. The external red brick chimney stack dates from the sixteenth to seventeenth century and adjoins a contemporary red brick gable.

The barn, dating from the eighteenth century, has a double height, timber framed construction with a gabled central entrance. The barn is weatherboarded, with a steep red tile roof. Attached to the barn on either side are red brick cartlodes which feature pigeon holes at the gable apex. The barn is now in residential use and the originally narrow floor plan has been extensively extended to the rear.

Both demonstrate the typical Essex rural vernacular architectural character. The lane running through the centre of the cluster is defined alternately by building frontage, private courtyard spaces and vegetation. This creates an informal, rural enclosed character. Rear garden boundaries back onto the agricultural fields.



Figure 26. Area Location



Figure 27. Aerial View of Gardners Farm

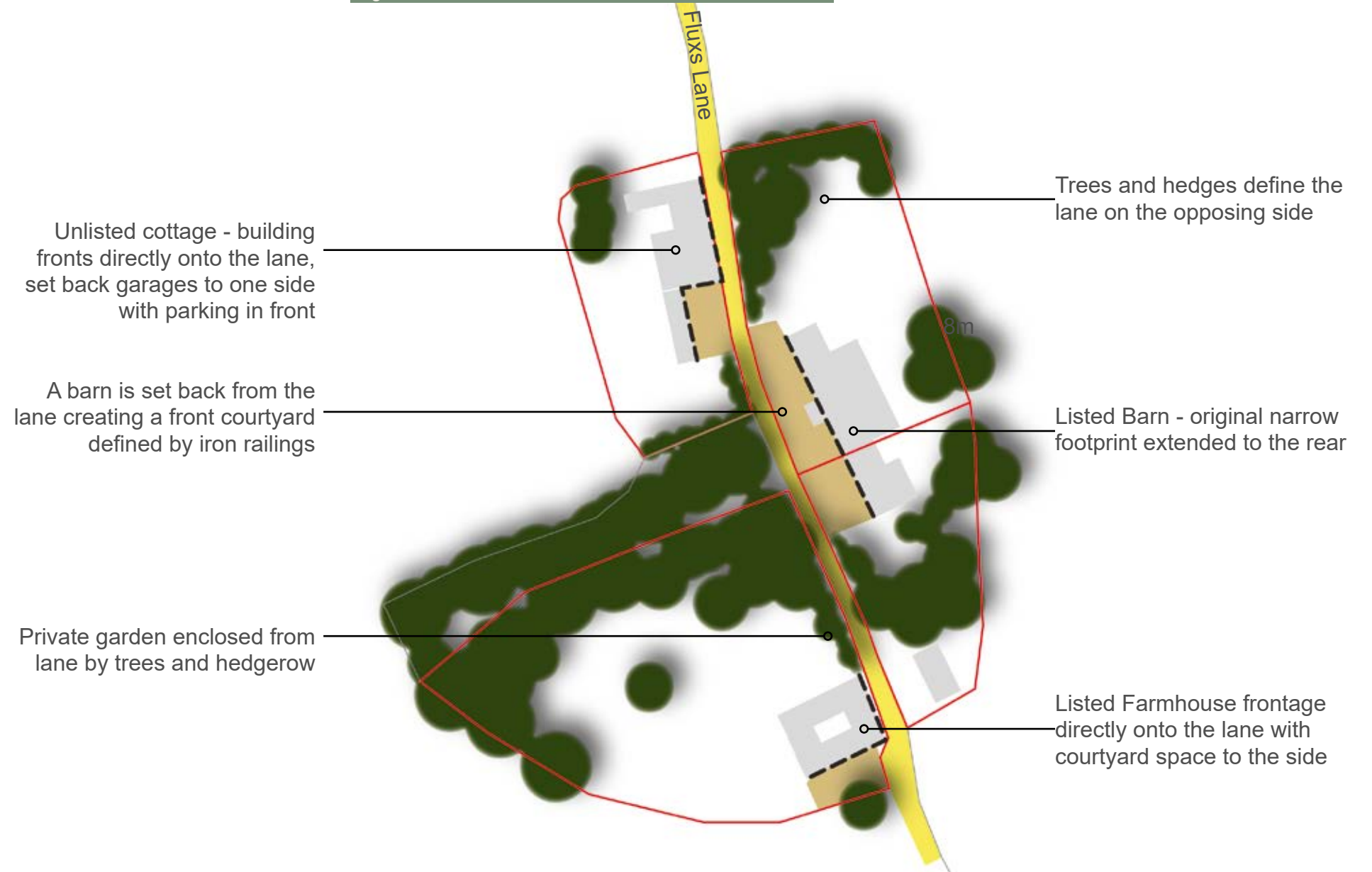


Figure 28. Gardners Farm



1½ storey element with dormers and black painted barge boards



Listed Farmhouse, prominent red brick chimney stacks



Complex roofscape created by numerous additions made over time



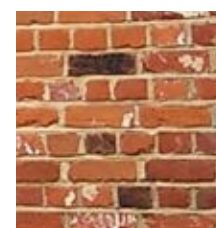
Listed barn with double height entrance



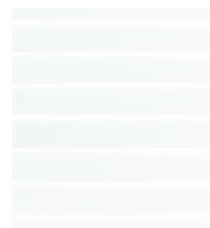
Listed barn with front parking court

Materials

Local vernacular materials predominantly consist of black timber weatherboard, light colour render, multi-tonal red bricks and red plain tiles for roof.



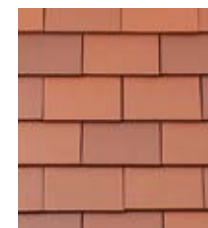
Red multi-brick



Black weatherboard



Cream render



Red clay roof tile



Multi-tonal setts

Potential Design Cues

- Inspiration for low density edge.
- Mix of gable roof forms aligned with the street and forward facing gables.
- 1½, 2 and 2½ storey elements
- Red multi-brick and black weatherboard with occasional render.
- Material changes should occur in a logical fashion, e.g. from one storey to another or to articulate a part of the structure such as a cross gable or window bay.
- Courtyard enclosed with railings and use of a textured surface material.

3.2 Site analysis

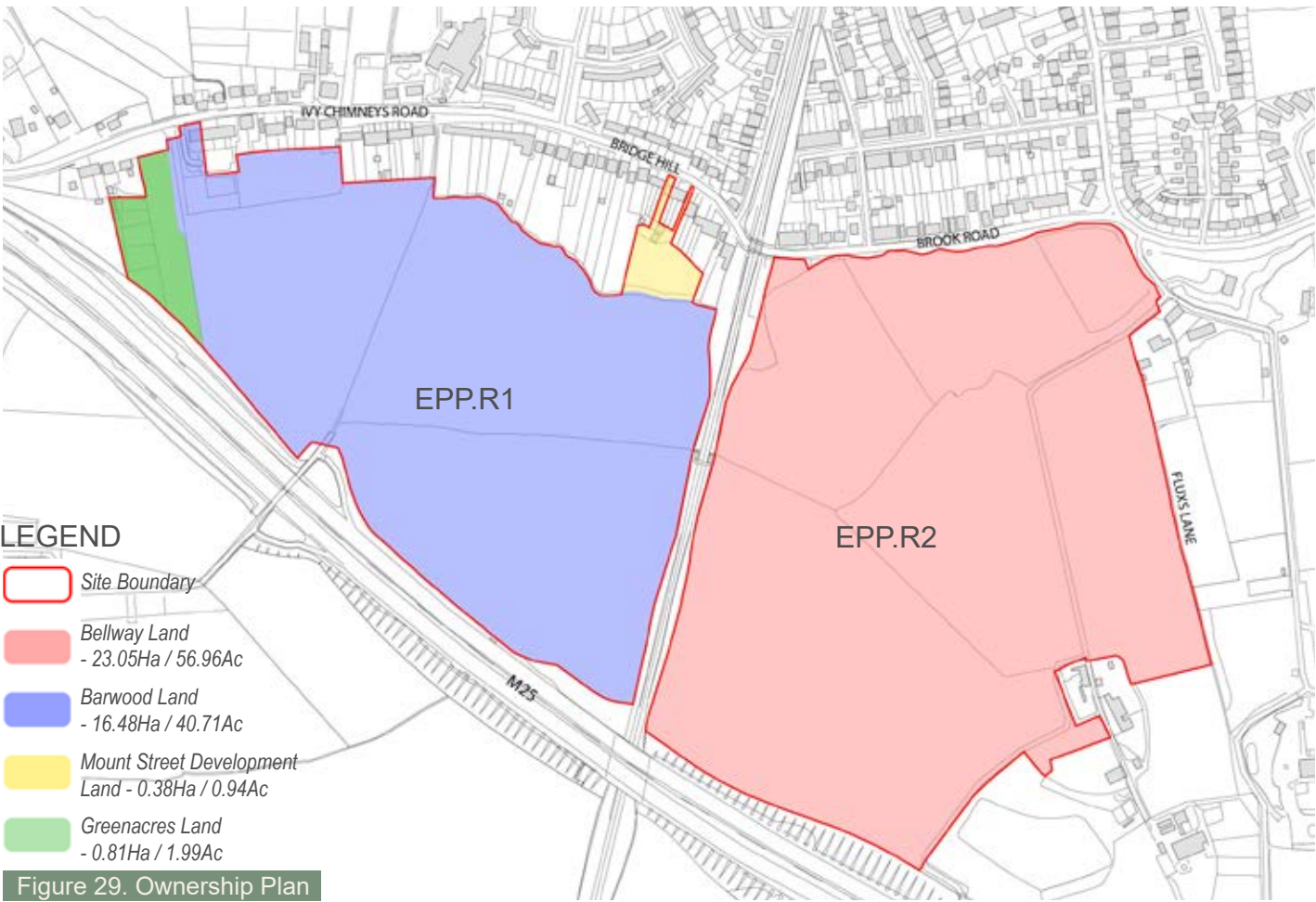
Ownership

Land comprising the residential site allocation of the Strategic Masterplan Area, is brought forward by a consortium of four landowners/housebuilders:

- Bellway Homes Limited (Essex);
- Barwood Land;
- Landvest on behalf of Greenacres; and
- Mount Street Development.

Site areas as follows:

	Hectares
EPP.R1	17.72
EPP.R2	23.05
SEMPA	40.77



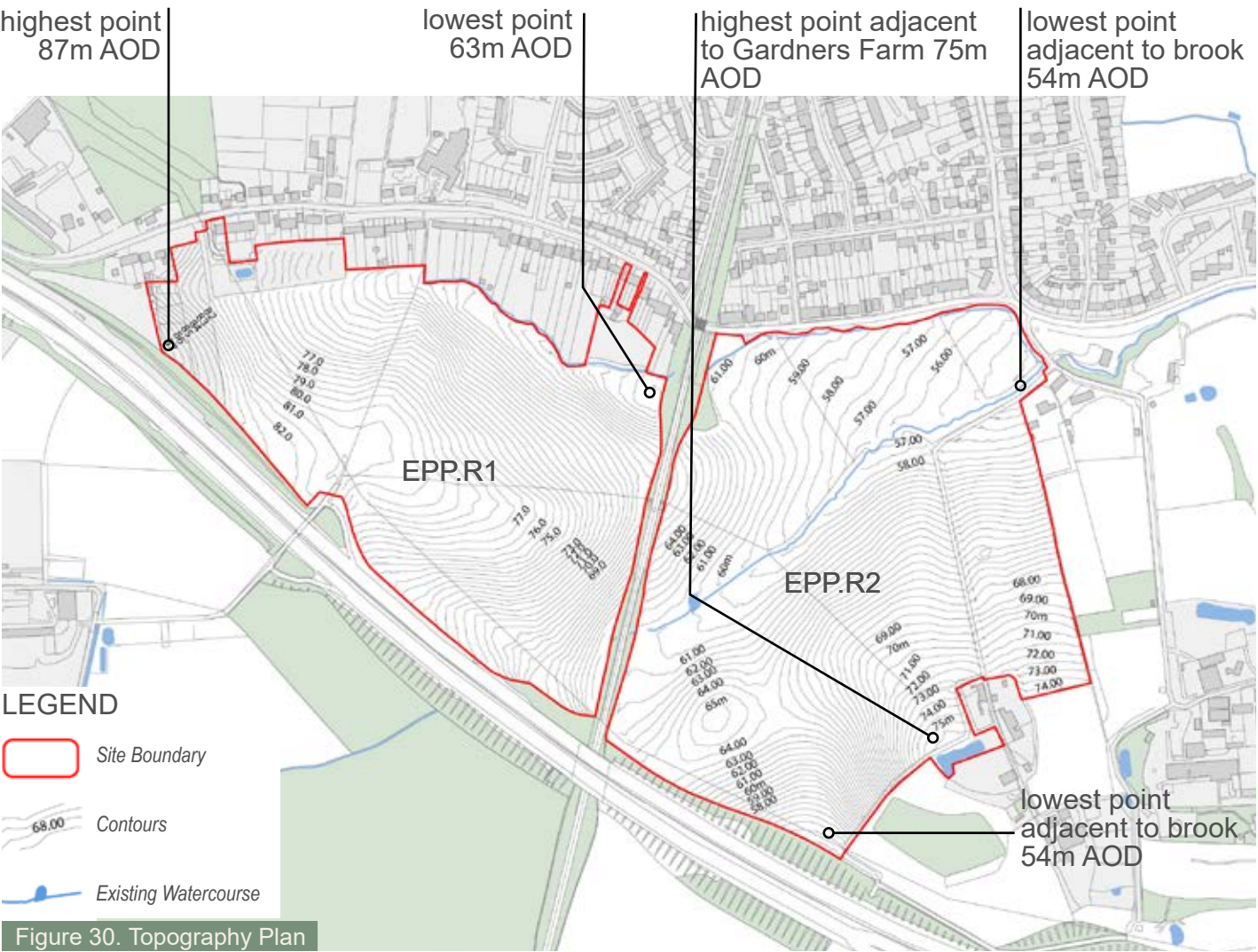
Topography

The landform broadly falls from west to east with the highest ground at the far western boundary at 87m AOD. The M25 sits lower than the site in this location. Where the watercourse flows from the site at the eastern boundary the ground level is 54m AOD.

The western side of the SEMPA comprises of a plateau at around 81m AOD in its centre which falls toward the northern treebelt and toward the rail line along the eastern edge.

The eastern side of the SEMPA comprises of a flatter zone to the north of the watercourse. The landform then rises up toward Gardners Farm.

The site drops down again in the far south, to 54m AOD adjacent to the M25, causing the motorway to be elevated from the site in this location.



Rail, Pedestrian & Cycle Access

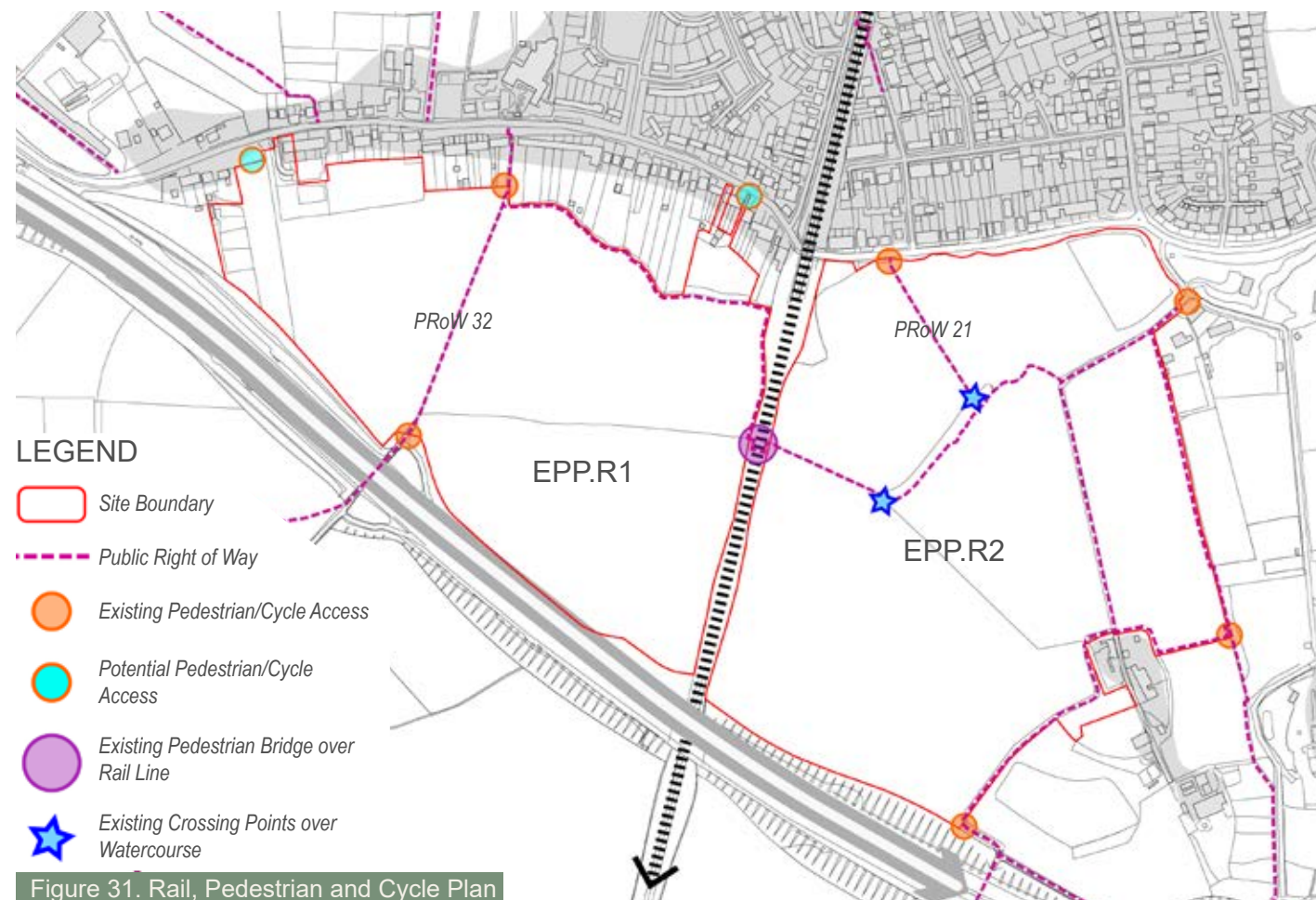
There are currently six public pedestrian access locations around the perimeter of the SEMPA. There is potential for a further two accesses as indicated below.

Pedestrian access can be gained via a small gate on Fluxs Lane which connects to a footway onto Stewards Green Road by means of a crossing featuring dropped kerbs and tactile paving.

Epping PRoW 32 connects EPP.R1 with Ivy Chimneys Road while Epping 21 PRoW connects EPP.R2 with Brook Road. Both of these roads feature good pedestrian provision with footways and street lighting present and allow for onward journeys on foot to be made from the site.

Rail access to the proposed development is provided by the London Underground Central Line to Epping Station. From here, a journey to both parcels can be made via the 418/418B bus service. Or, alternatively by walking (850m/12 minutes to EPP.R1 or 700m/11 minutes to EPP.R2) or cycling (900m/3 minutes to EPP.R1 or 1km/5 minutes to EPP.R2).

The watercourse in EPP.R2 is currently crossed by one pedestrian bridge and a ford as indicated. There is potential to upgrade these features in order to gain vehicular access to both sides.



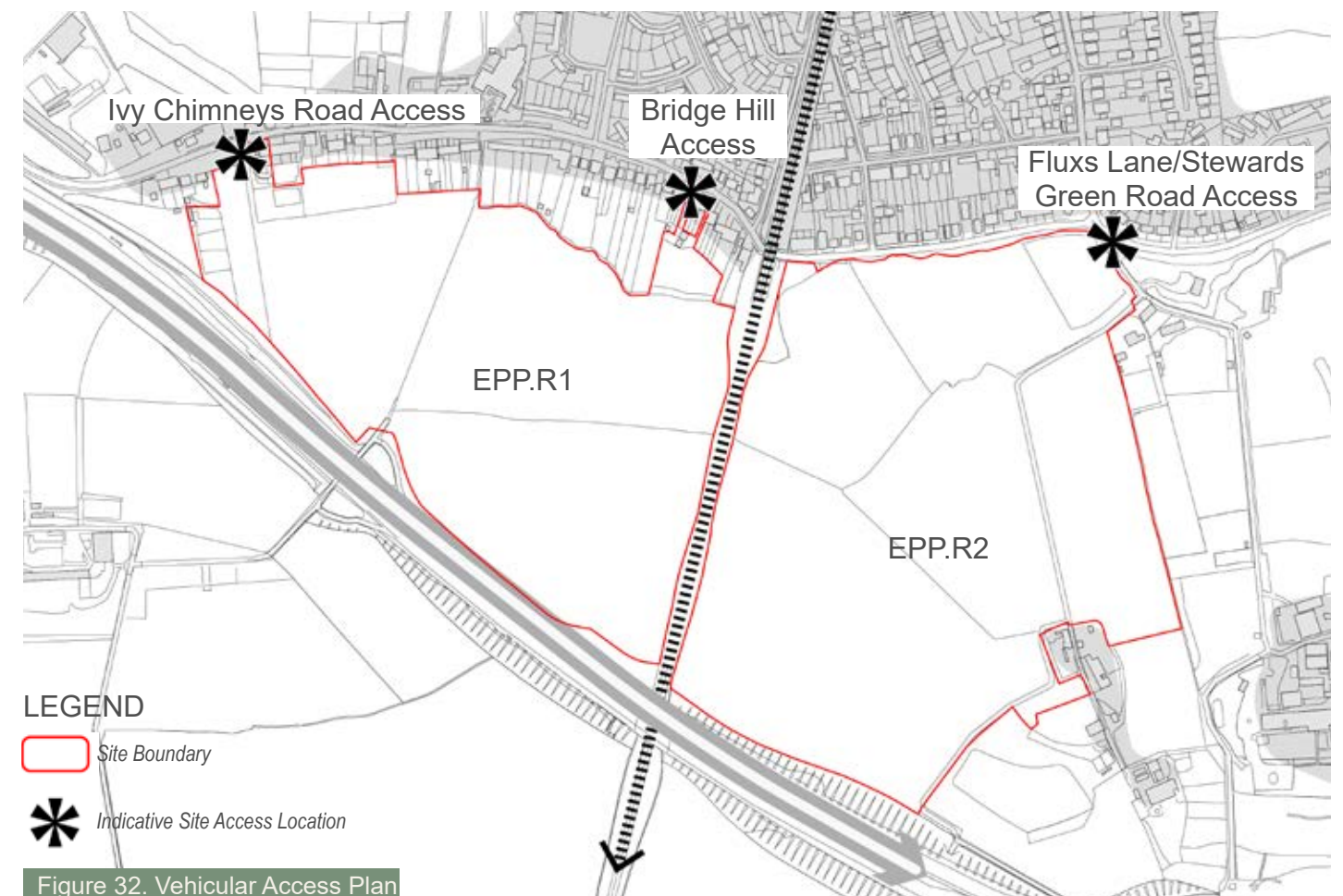
Vehicular Access

There is potential to gain vehicular access to the SEMPA parcel EPP.R1, from Ivy Chimneys Road. A farm track meets the road at a simple footway crossover. This section of Ivy Chimneys Road provides a footway on the southern side of the carriageway only.

There is potential for a vehicular access to the SEMPA parcel EPP.R2, to be gained from Fluxs Lane via a simple priority junction with Stewards Green Road. Fluxs Lane currently provides access to Coopersale School, a handful of residential dwellings and several small businesses. Both Fluxs Lane and Stewards Green Road presently experience a fairly modest level of traffic, and visibility from Fluxs Lane onto Stewards Green Road is commensurate to the posted speed limit.

On its northern edge, Stewards Green Road features a footway separated from the carriageway by a verge and on-street parking for resident permit holders only Monday to Friday between 10:00 and 14:30. Stewards Green Road is subject to a 30mph speed limit while Fluxs Lane is currently a national speed limit zone.

A small cluster of dwellings may be accessed directly from Bridge Hill. It is not proposed that this access provide a vehicular link to the wider site. Importantly the parcel also provides for the ability to include a pedestrian and cycle linkage through to the north to link with Bridge Hill and surrounding areas of Epping.



Ecology

The majority of the site comprises of arable fields which are generally considered to be of low ecological value. They have a wide margin of ephemeral/short perennial species growing on predominantly bare ground around the edges of the crop. The far western edge is formed of a narrow field of improved grassland which is subject to intensive horse grazing.

However other habitats (including woodland, hedgerows and ponds, as well as a small stream) are of higher biodiversity value and have the potential to support several protected and notable species.

A treebelt runs along the north of the SEMPA and alongside the M25. An active railway runs through the centre which is lined with trees and scattered scrub. A ditch has pooled at its southern end due to a blocked drainage culvert forming a small, likely ephemeral, pond; though a more permanent water body is present immediately to the north of the northern site boundary. A small stream also flows west to east along the northern boundary and small areas of scrub and tall ruderal are scattered across the site.

Designations

No part of the site is covered by any statutory designations though there are two internationally important designations present within 10km of the site boundary, namely Epping Forest Special Area of Conservation (SAC) – which is also designated as a nationally important Site of Special Scientific Interest (SSSI) – and Lee Valley RAMSAR and Special Protection Area (SPA).

No non-statutory designated sites are located within the site, however, 15 non-statutory Local Wildlife Sites (LWS) are located within 2km of the site boundary. The closest non-statutory designated site, Bell Common/Ivy Chimneys LWS, is situated on the northern side of Ivy Chimneys road, c.10m north of the site.

Protected and Notable Habitats and Species

A suite of ecological surveys have been undertaken in 2021 and 2023. The species surveys have confirmed the presence of the following protected/priority species within the site:

- A typical assemblage of breeding birds including skylark;
- Great crested newts;
- A typical assemblage of foraging and commuting bats with nothing of particular note recorded during the transect and automated detector surveys in spring, summer and autumn;
- A single badger sett along the site's northern boundary;
- Relatively widespread reptile species (slow-worm) within the field boundary habitats at the edges of the site; and
- Important hedgerows.

The site also has potential to support hedgehog and brown hare. Mitigation measures to protect the above species and habitats during construction and after completion of the development should be implemented to ensure existing site biodiversity is safeguarded.

LEGEND

- Site Boundary
- Existing Trees
- RPA's
- TPO's
- Japanese Knotweed Location
- Suitability of Trees for Roosting Bats - High
- Suitability of Trees for Roosting Bats - Moderate
- Pond with GCN Present
- 10m Habitat Buffer Zone to Watercourse

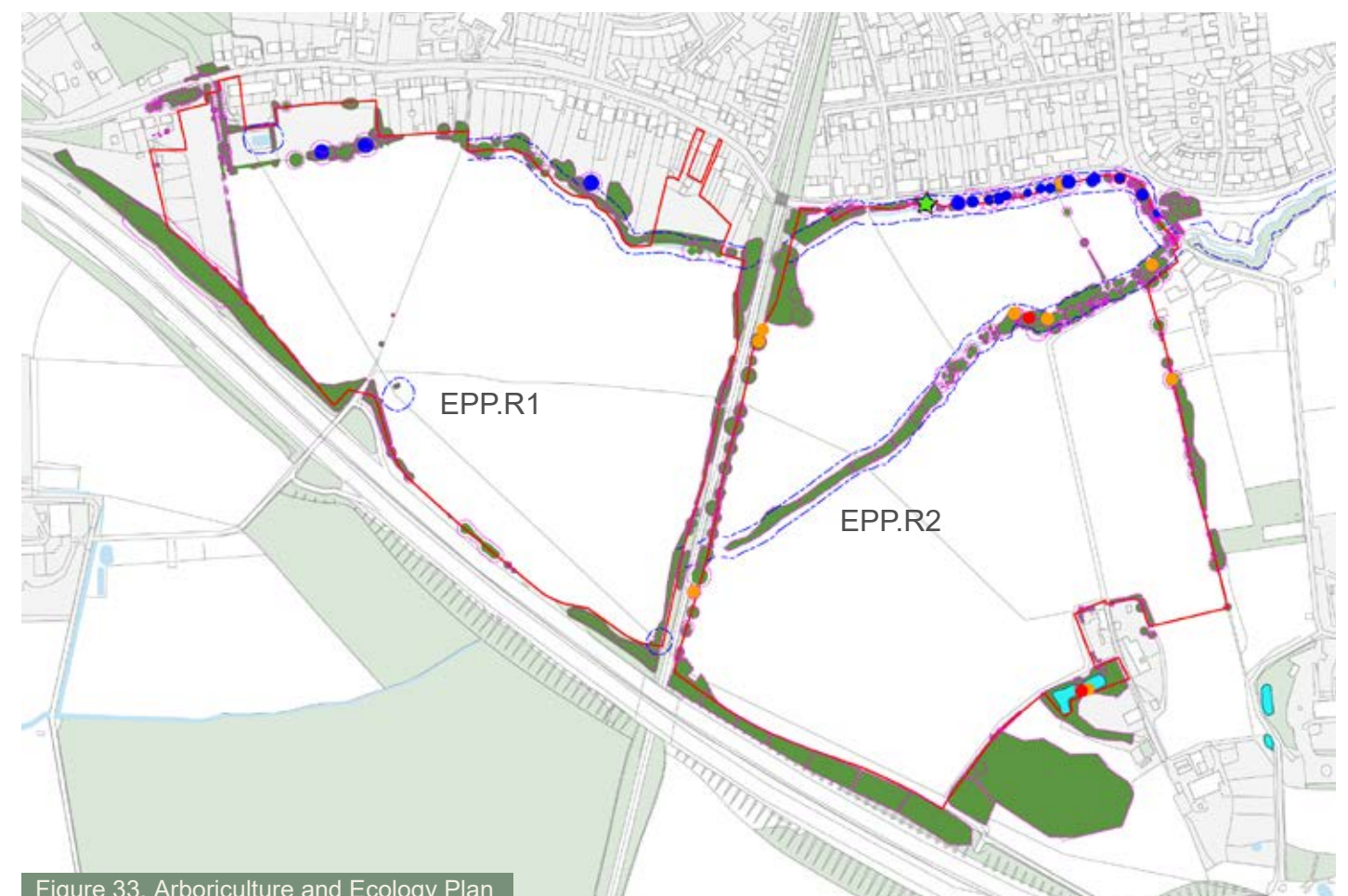


Figure 33. Arboriculture and Ecology Plan

Arboriculture

EPP.R1

The majority the trees surveyed lie around the site perimeter; there are no trees internal to the site. The perimeter trees, for the most part, lie just along or outside the legal boundary of the site, forming part of the rear boundaries to the residential gardens along Ivy Chimneys Road/Bridge Hill. The remaining trees are located along the network rail land to the east and bordering the M25 to the south.

Two individual trees located off site to the north of the application boundary are protected by Tree Preservation Orders. The arboricultural survey identified a total of 73 items, including 30 individual trees, 29 groups of trees, 13 hedgerows, and 1 woodland. Out of these 73 items, 3 have been categorized as A, indicating high quality; 25 have been categorized as B, indicating moderate quality; and 44 have been categorized as C, indicating low quality. Additionally, 1 item has been categorized as U and is considered unsuitable for long-term retention.

EPP.R2

The perimeter boundaries of the site are a mix of moderate quality category 'B' mature trees with occasional high-quality category 'A' trees in the form of shelter belts and field boundary vegetation. Infilled around the larger trees is lower-quality category 'C' scrub comprising of young, close grown, small, stemmed scrub at circa 4-6m. Some of the moderate quality category 'B' trees on the western boundary are off-site within land owned for the adjacent train line.

To the north and northeast along the Brook Road and Fluxs Lane boundaries are 20 mature Oak trees that are subject to a Tree Preservation Order (TPO). One of the Oaks near to the Brook Road to Stewards Green Junction has died and would benefit from being reduced in size to retain its habitat potential whilst removing any potential risk of future limb drop. The remaining trees are a mix of moderate quality category 'B' mature trees and lower-quality category 'C' trees.

There is a central belt of trees that runs from the east at Fluxs Lane westerly before turning southwest forming a corridor surrounding an existing water course stream. This is a mix of moderate category 'B' and low category 'C' category trees, with occasional poor-quality category 'U'. Many of the internal trees are tall and drawn with minimal stem taper compared to the more established site boundary trees. There are sections within the central tree belt where there are natural breaks in the canopies where some low-poor quality Ash trees are located. These breaks provide an ideal opportunity to create infrastructure links from the north to the south with minimal tree loss required.

To the south are off-site woodlands and a woodland belt that separate the site from the M25. Both the woodland and tree belts are comprised of a native mix of young to early mature trees. Individually the trees are low in quality category 'C' however, as a whole, they form a groupings of moderate quality category 'B' due to the continuation of canopy cover through these areas.







Flooding and Drainage

The site is principally drained by two watercourses to the north and south of the site. The northern watercourse is a tributary of the Brookhouse Brook and is classified as an Environment Agency Main River through the site. The southern watercourse forms the Brookhouse Brook, an ordinary watercourse as it enters the site south of the M25, which then becomes designated as a Main River as it becomes culverted under the rail line in the centre of the site.

The site lies wholly within Flood Zone 1 and outside the maximum fluvial flood extents identified on the publicly available Flood Map for Planning.

Surface water flow routes ranging from low to high risk are also identified on the publicly available Long Term Flood Risk Mapping throughout the site.

LEGEND

-  Site Boundary
-  Existing Watercourse
-  Flood Zone 2
-  Flood Zone 3
-  Main River
-  Surface Water Flooding

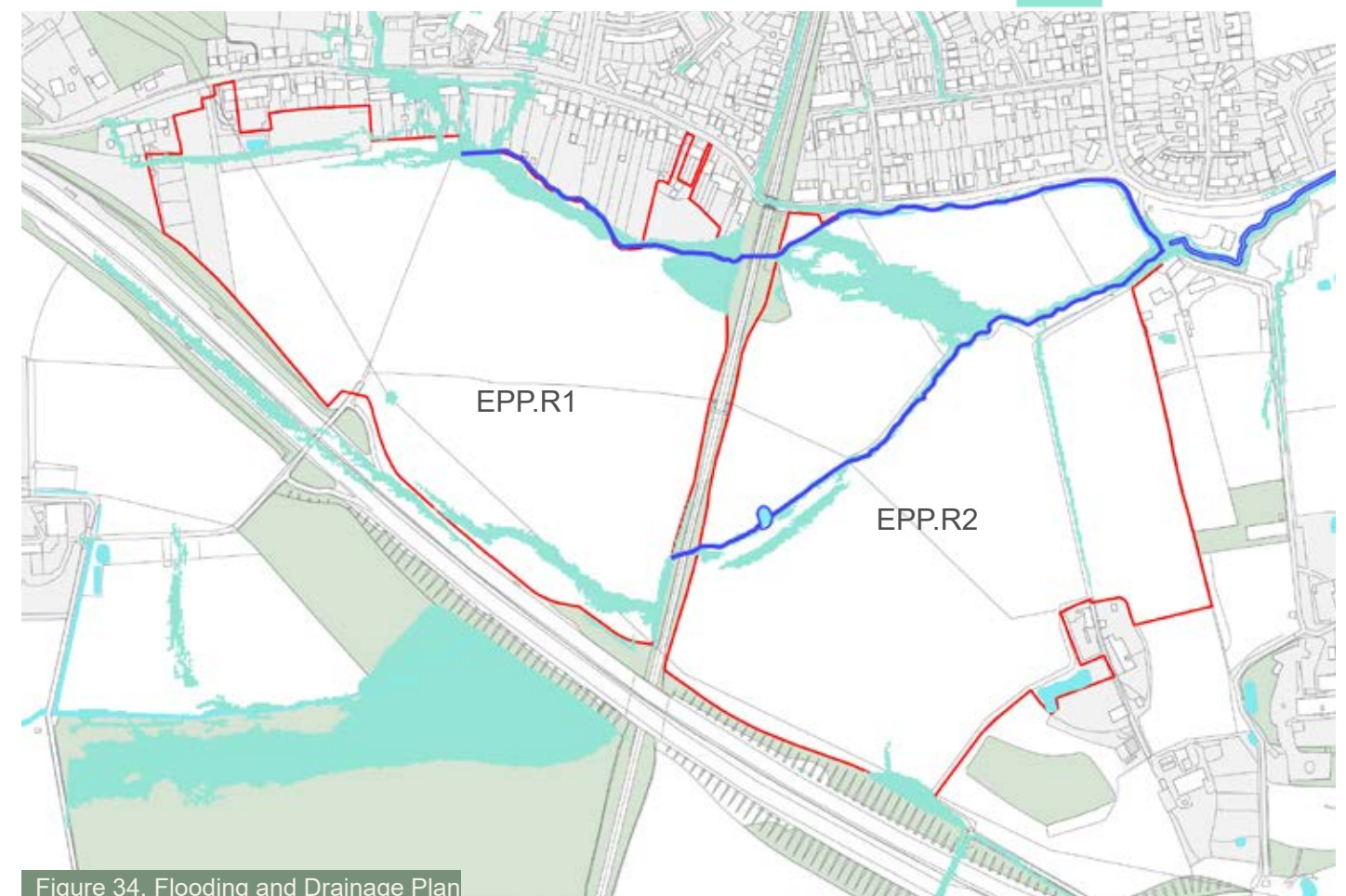


Figure 34. Flooding and Drainage Plan

Utilities and Infrastructure

Existing water supply (Affinity Water), gas (Cadent), electricity (UKPN) and telecoms (Openreach, Virgin Media and Gigaclear) distribution networks are located within the public highways on the boundaries of the site.

Existing local high pressure and medium pressure gas mains (Cadent), a high-pressure oil pipeline (British Pipeline Agency) and overhead 400kV HV cables (National Grid) are located within the site. Buffers required to observe the legal easements and safe working practices associated with these assets are indicated on the plan below.

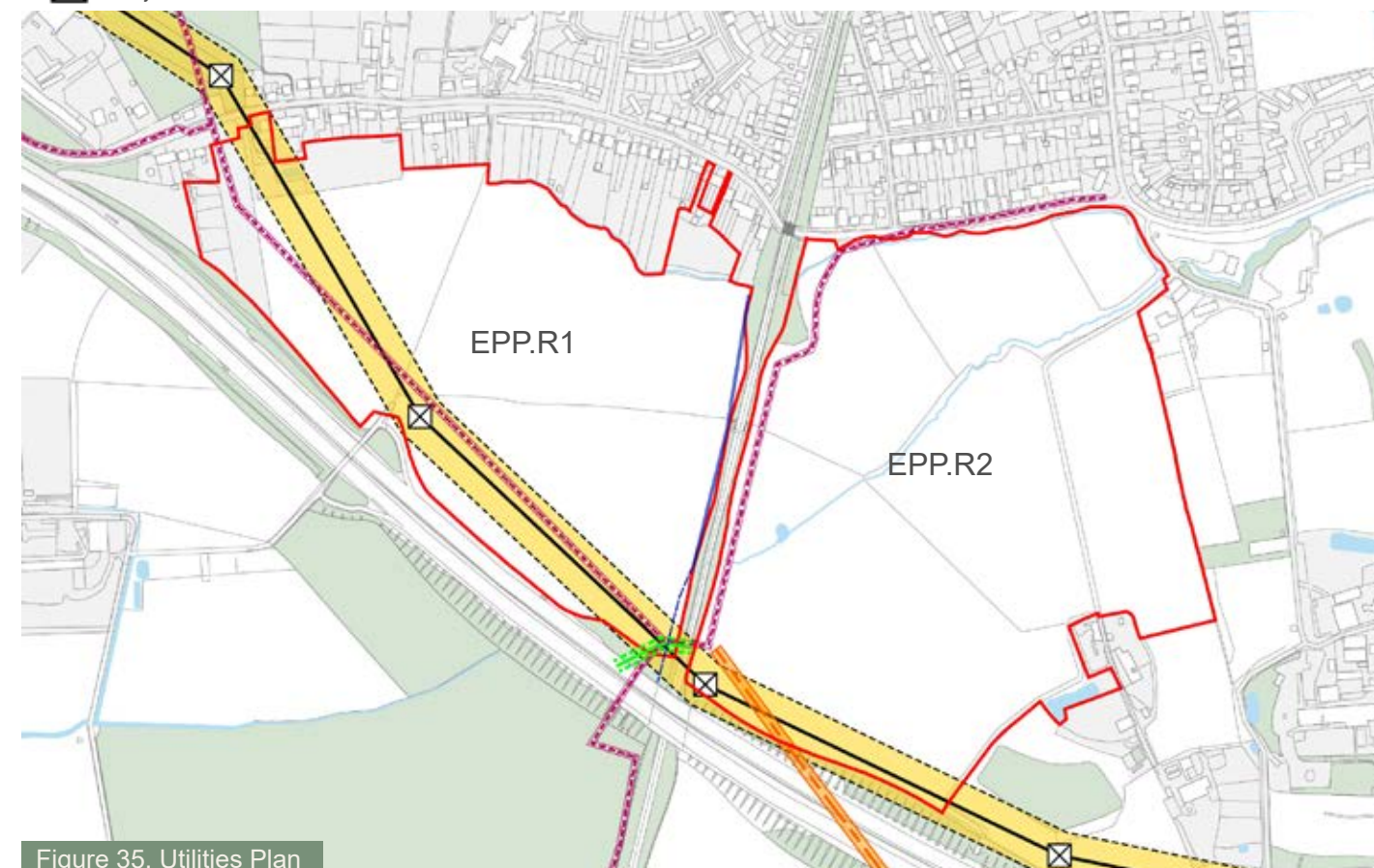
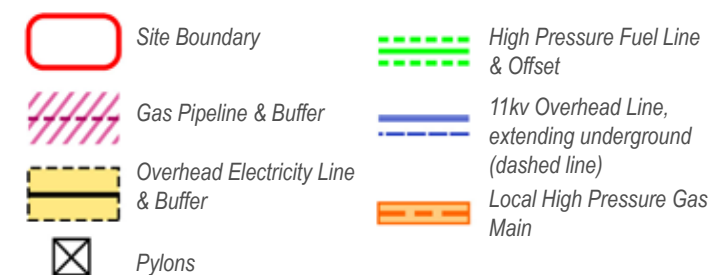


Figure 35. Utilities Plan



High voltage electricity lines and pylons running across southern edge



Low voltage electricity lines and pylons running alongside rail line (western side)

Ground Conditions

The site is underlain by superficial Head and Lowestoft deposits over bedrock comprising London Clay Formation. Extensive Made Ground up to 4.30m thick was encountered beneath the southern section of the western site area, believed to be related to the contraction of the adjacent M25. Made Ground to a lesser extent was also encountered beneath the eastern area. Anthropogenic material and localised evidence of contaminant impact was noted within the Made Ground along with perched groundwater in the western area. Groundwater was not encountered within the eastern area.

Based on the limited chemical laboratory testing undertaken, no exceedances with respect to human health or presence of asbestos were recorded. Due to the cohesive nature of the underlying soils, the site is considered unlikely to pose a significant risk to controlled waters. Ground gas monitoring undertaken across the western section has shown CS1 (protection not required).

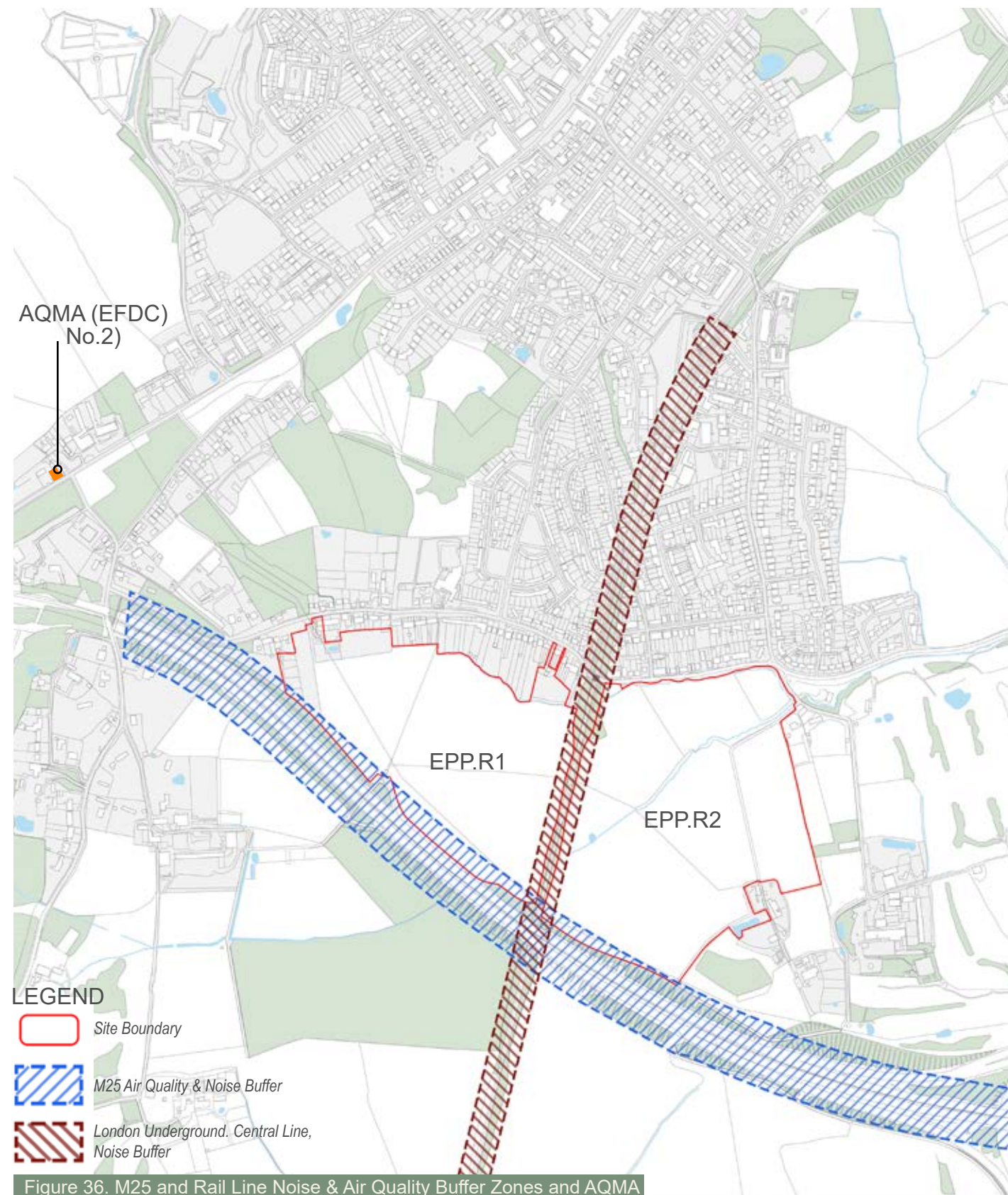
Variable ground conditions are likely to necessitate a range of foundation options depending on depth to appropriate founding strata and influence of trees.

Air Quality

Neither EPP.R1 and EPP.R2 are located within an Air Quality Management Area (AQMA), however AQMA NO.2 is located on High Road, Epping, which is a potential route for traffic travelling to and from both EPP.R1 and EPP.R2.

The main contributor to emissions that would have an impact on existing users surrounding the site, as a result of the proposed development, would be the increase in transport emissions due to additional traffic on the surrounding road network. The main contributor to emissions that would have an impact to future users of the SEMPA, is the M25, which bounds the south of both EPP.R1 and EPP.R2.

Existing air quality in the vicinity of the SEMPA has not exceeded the relevant long term pollutant Air Quality Objectives in recent years. Epping Forest Site of Special Scientific Interest, Special Area of Conservation and Ancient Woodland are located approximately 380m to the west of EPP.R1 and approximately 990m to the west of EPP.R2. The B1393 High Road that passes through Epping Forest is a potential route for traffic from both sites. This could lead to increased traffic through Epping Forest, which has the potential to lead to air quality impacts on sensitive ecological receptors through increased nitrogen and sulphur emissions. It should be noted that both EPP.R1 and EPP.R2 have been considered within the Habitat Regulations Assessment as part of the Epping Forest District Councils Local Plan evidence base, which identified development growth as the primary source of ammonia and NOx on Epping Forest and, as such, mitigation measures will be required for EPP.R1 and EPP.R2, in line with Epping Forest District Council air quality guidance.



Noise

Environmental sound surveys have been undertaken across the site. The site was found to be subject to relatively high levels of environmental sound, predominantly from road traffic noise along the M25 to the south of the site. There is additional noise from intermittent, but regular, train movements along the London Underground Central Line; which separates parcels EPP.R1 and EPP.R2.

Environmental surveys have been undertaken within both parcels of land to support the early design proposals. These surveys will be described further within acoustic reports submitted as part of the outline planning applications for both EPP.R1 and EPP.R2. Measurements comprised a mixture of long-term monitoring over a period of at least 7 days, supplemented with additional short-term spot

measurements, to quantify the typical ambient (LAeq), maximum (LAm_{ax}) and background (LA90) sound levels at multiple locations across the two development parcels.

Noise from the electric cables was not directly observed during the survey or detected within the measured data. The bunds will be developed mindful of the pylon easement zones.



3.3 Masterplan Constraints Summary

Planning Policy

- The proposals need to accord with the planning policy framework set out unless material considerations dictate otherwise.
- This includes various infrastructure requirements, levels of open space provision and housing tenure and mix.
- The development proposals need to demonstrate that they align with best practice design guidance.

Local Community Facilities & Services

- There is a requirement for a new primary school with early years provision within the site.
- There is a requirement to provide a SANG due to the proximity to Epping Forest SAC.

Access & Movement

- Each side of the rail lines requires a vehicular access. Potential locations are restricted by dwellings backing onto the site boundary or intervening landownership in many locations.
- Due to the bisection of the site by the rail line a replacement pedestrian/cycle bridge is required to connect the two halves.
- Access to Brook Road is constrained by a third party ownership of the watercourse between the road and site boundary.

Landscape & Visual

- Proposals should reinforce planting along the eastern boundary to limit intervisibility with the Green Belt.

Archaeology and Built Heritage

- Archaeology is not a constraint to the masterplan.
- Respect the setting of the listed buildings in the south east corner of the site, ensuring new buildings extend no higher than the 68m contour.
- Retain the alignment of the historic access, Fluxs Lane, and reinstate hedgerow within a green corridor.

Arboriculture & Ecology

- Development proposals need to respond to and retain the high-quality trees belts and woodland blocks, particularly those with TPO's and those with bat roost potential.
- The badger sett plus a zone of 30m must be retained as undeveloped, natural open space.

Flooding and Drainage

- The development needs to provide an appropriate capacity of surface water drainage attenuation at the lowest level parts of the site, to maintain surface water runoff rates in accordance with national and local policy.
- Streets within the development parcels need to incorporate appropriate drainage features to convey and attenuation surface water.

Noise

- Mitigation of noise from the M25 will require the construction of noise bunds combined with acoustic fencing. These features will require landscaping to achieve an attractive environment.
- Noise impact from the rail line upon new residents must be mitigated through simple measures such as glazing.

Utilities and Infrastructure

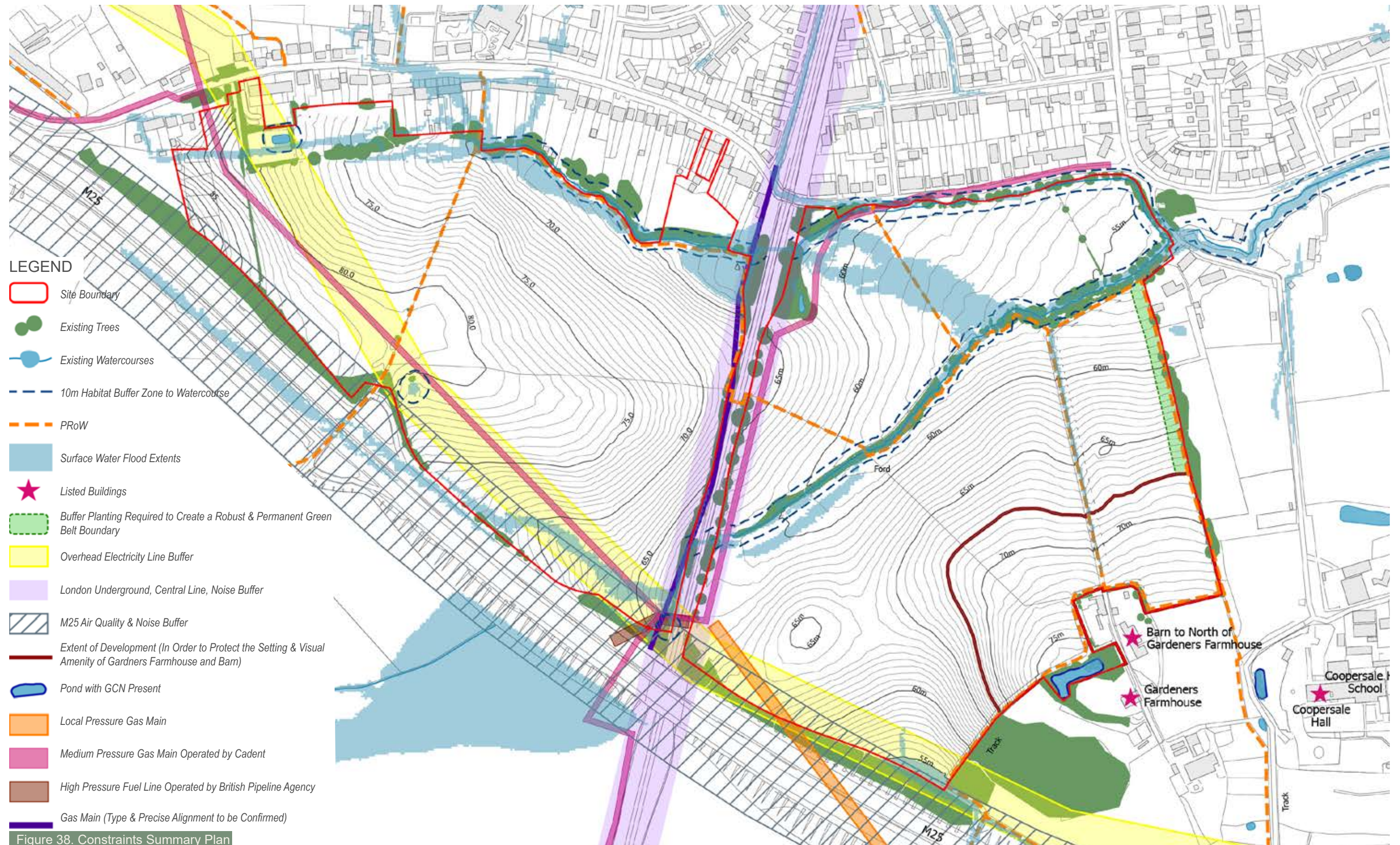
- The layout must take account of existing maintenance and easements associated with overhead electricity pylons and underground gas mains.
- The block layout must consider the position of the pylons to ensure that they do not align with vistas created by the street arrangement.

Air Quality

- The M25 is the largest pollution source however this coincides with the open space which will incorporate additional tree planting,.
- Impacts from development traffic on the local road network should be assessed and suitably mitigated as to not cause significant impacts to local air quality as sensitive human and ecological receptors or nearby AQMAs.

Ground Conditions

- Variable ground conditions are likely to necessitate a range of foundation options depending on depth to appropriate founding strata and influence of trees. This does not represent a constraint to the design of the masterplan.



3.4 Masterplan Opportunities Summary

Local Community Facilities & Services

- Opportunity to improve connections to existing facilities within Epping, which is only around 1.2km away, and easily accessible by bicycle or bus from the proposed development.
- Opportunity for community use of the school building and sports pitches outside of school hours.

Access & Movement

- The extensive network of existing Public Rights of Way provides the opportunity to create a block structure which retains these routes in situ. Routes can be aligned to allow convenient connections to existing pedestrian access points thus providing a connected network of pedestrian routes.
- The opportunity exists to provide three vehicular access junctions from Ivy Chimneys Road, Bridge Hill and Fluxs Lane/Stewards Green Road.
- The large area of SANG required provides the opportunity to create an attractive circular leisure walking route.

Landscape & Visual

- The masterplan can retain existing trees and hedgerows along the northern boundary thus minimising visual impact of the new dwellings on existing residents immediately to the north.
- Storey heights can be constrained on the high ground and a wooded ridgeline created through tree planting within the SANG, to enhance long distance views from Epping.

Archaeology and Built Heritage

- The architectural design can reflect the local architectural character of the neighbouring settlement.

Arboriculture & Ecology

- There is an opportunity to provide additional trees and vegetation across the site, improving its character and enhance biodiversity.
- The masterplan can retain existing trees and hedgerows around the periphery of the site and along the brook, as structuring elements for future development and providing large areas of natural/semi natural public amenity open space.
- Deliver Biodiversity Net Gain by retaining and enhancing existing trees and hedgerows, with additional landscape planting as part of extensive provision of public open space.
- There is an opportunity for new buildings to contribute to BNG, for example by incorporating bird and bat boxes and other biodiversity enhancements.

Flooding and Drainage

- The existing on-site watercourse offers the opportunity to create multi-functional ecological and amenity open space corridor through the development.

Utilities and Infrastructure

- Development is well positioned to connect into existing utilities delivering the latest in communications such as high-speed broadband providing residents a reliable fast internet connection.



Figure 39. Opportunities Summary Plan

4.1 Stakeholders

In line with the requirements of the Masterplanning briefing note, a stakeholder list has been prepared and will be agreed with the Council Officers prior to engagement. The list seeks to identify a diverse range of local stakeholders including those considered “seldom heard”. Where meetings are held in the early stages with elected Councillors, we will ask them to recall on their local knowledge as to any particular stakeholder groups they feel should be included if they do not feature already.

4.2 Identify Mechanisms of Engagement

The mechanisms of engagement will include the following:

- Member / Town Council Briefing Presentation;
- Website;
- Public Consultation;
- Newsletters to the Local Community; and
- Media Releases.

4.3 When We Will Engage

There are various stages of engagement that have been undertaken during the preparation of this SMF and Design Code:

- Early 2023: Initial baseline studies were carried out.
- Throughout 2023: A number of topic-based meetings to inform the Masterplan were held with the Council Officers.
- December 2023: The draft Masterplan was presented to the Quality Review Panel.
Spring 2023: Briefing of Councillors.
- May 2023: The Masterplan to be approved by Cabinet for consultation.
- Late May 2024: Formal 6-week public consultation period to commence.
- September 2024: Endorsement of the Masterplan by the Council.

B. STRATEGIC MASTERPLAN FRAMEWORK

Section B / FRAMEWORK

B5.The Vision

5.1 Vision Wheel

The vision for the design of the development within the South of Epping Masterplan Area is organised under four key themes:

- Community
- Sustainability
- Placemaking & Homes
- Landscape and Green Infrastructure

Each theme has four *specific and measurable* objectives. The SMF and future planning applications will reference back to these key objectives.



5.2 Design Drivers

The masterplan concept is the culmination of a logical sequence of design drivers, shown individually opposite. These diagrams are conceptual and further detail is presented in the following section.

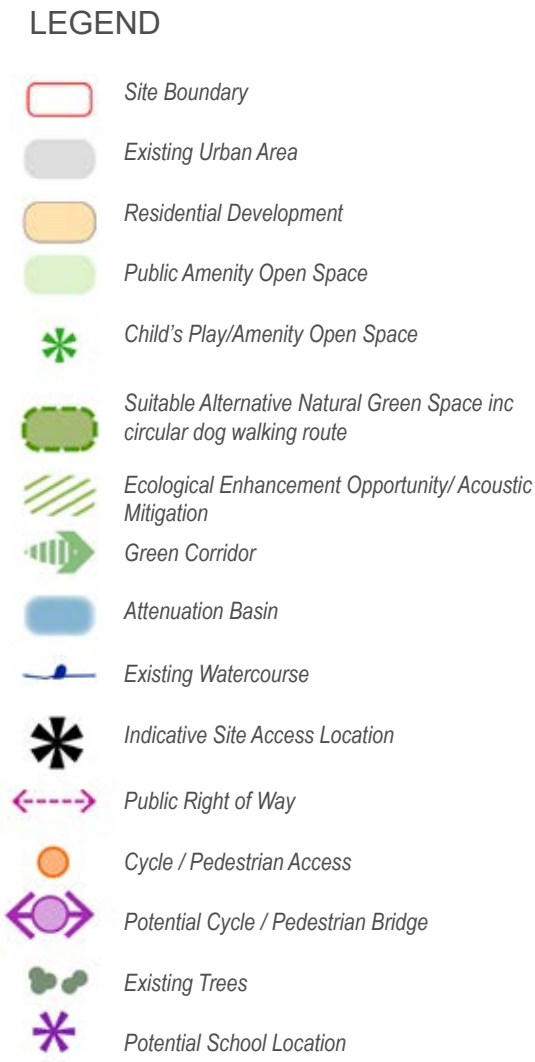
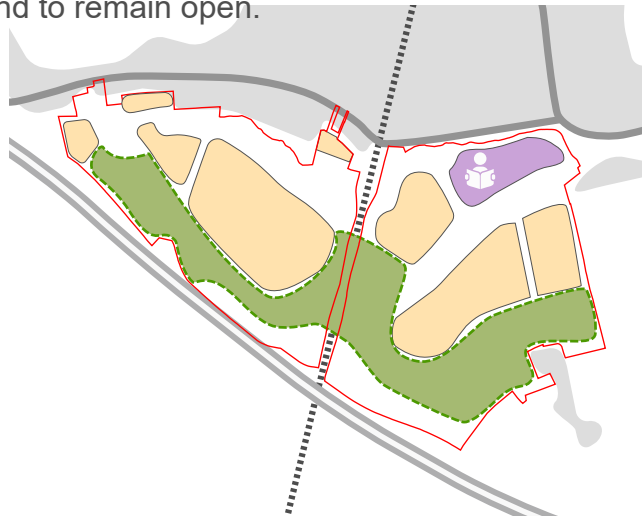


Figure 40. Concept Masterplan

Concept 1 - DISTRIBUTION OF USES

- Residential development and primary school located to the north to ensure accessibility to existing facilities for new residents and accessibility to the school to existing residents.
- SANG provision to the south to allow the visible high ground to remain open.



Concept 2 - ACCESSIBILITY

- Provide a comprehensive network of pedestrian/cycle paths linking to existing cycle and pedestrian routes to the town centre and train station to the north. Improvements to pedestrian routes to the south.
- Provide an upgraded rail bridge which caters for cycles.



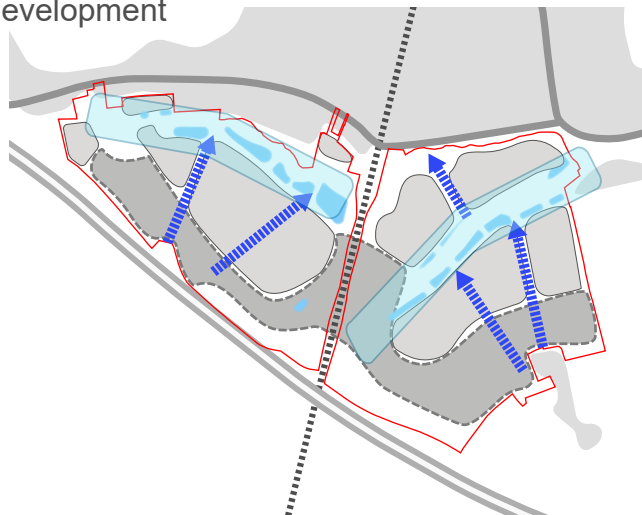
Concept 3 - RETAINED LANDSCAPE

- Existing tree belts along Ivy Chimneys Road/Brook Road, the rail line, the M25 and the brook to be retained.
- Create a network of green spaces linking the valleys with the SANG on the high ground to the south.



Concept 4 - WATER MANAGEMENT

- SuDs features in the form of attenuation basins to be incorporated within green corridors.
- Additional SuDs conveyance channels to be incorporated into the landscape and streets guiding the alignment of the block structure and creating attractive green routes through the development



Concept 5 - PLACEMAKING & WAYFINDING

- Create a sequence of key nodes and spaces along the ped/cycle circulation routes throughout the development.



Concept 6 - VEHICULAR ACCESS

- Provide vehicular access off Ivy Chimney Road in the west and Stewards Green Road/Fluxs Lane in the east.
- A minor vehicular access off Bridge Hill to serve a cluster of dwellings with pedestrian/cycle only link through to main site.



5.3 Future Trends

In order to ensure the development remains suitable for future generations, potential future trends in lifestyle and climate must be considered and strategies put in place to cater for these changes.

The primary anticipated changes are:

1. **Reduction in private car ownership;**
2. **Changing Live/Work Patterns;**
3. **Climate change;**
4. **Ageing population; and**
5. **Health & Wellbeing.**

1. Reduction in private car ownership

While the car will continue to have its place for the short term future, South Epping must allow for flexibility to accommodate a reduction in private car ownership and encourage a shift to other more sustainable means of transport by providing realistic choices.

Flexible dwelling types

Dwellings with undercroft parking which can be built out later once car ownership declines, offer the opportunity to reduce parking capacity and increase living/office space.

Supporting use of non-car means of transport

The site is well placed to accommodate the 'mobility hub' concept, which could be located either on both sites or at a single central location. A mobility hub is a recognisable place with an offer of different and connected transport modes supplemented with enhanced facilities and information features to both attract and benefit the traveller. In the context of the South Epping Masterplan Area, this could include:

- E-scooter and e-bike hire, potentially co-ordinated with a wider hire network with hubs at Epping Underground station and in the town centre;
- On-site package delivery lockers, to reduce short car journeys to local shops.

In addition there are a number of measures that do not require a physical presence within the masterplan for example:

- Electric vehicle car clubs, to provide residents with an option for ad-hoc journeys, which in particular would minimise second car ownership; and
- Travel information packs, bus/cycle vouchers, car share schemes and measures to encourage sustainable school travel.

2. Changing Live/Work Patterns

Since the recent Covid 19 pandemic many people in formally office based jobs are now able to work from home for at least part of the week. Dwellings at South Epping should therefore, include:

- Dwellings designed with flexible and adaptable ground floor plan whereby the resident can configure the ground floor to suit their needs.
- Dwellings with the potential to build over the garage or convert the loft into office space.
- Easily accessible open spaces to encourage exercise while working from home.
- High speed digital connectivity.

3. Climate Change

Climate Change is expected to lead to increasing temperatures, increasing winter rainfall and decreasing summer rainfall. These changes may lead to risks of overheating, flooding, drought and changing climate space for habitats and species. The effects of climate change are driven by the release of Greenhouse Gas (GHG) emissions.

Reducing GHG emissions and incorporating climate resilience measures is a key priority for the proposed development at South Epping.

In this context the development will reduce GHG emissions through consideration of construction stage emissions, and delivering an all-electric development meeting the requirements of the 2025 Future Homes Standard as a minimum, delivering Net Zero Ready homes.

The masterplan will provide space within streets and public spaces for street trees which provide shade during the increasingly hot summers. The street typologies also incorporate open drainage swales to drain surface water during extreme storm events. Block sizes and shapes allow for the orientation of buildings to support passive thermal design measures at more detailed design stages.

Further detail on how the masterplan responds to climate change is covered in sections:

- 6.7 Climate Change, Waste, Energy & Utilities; and
- 6.8 Environmental & Socio-Economic Sustainability.



4. Ageing Population

The UK's population is also getting older. Housing provision needs to change to meet this rapidly growing demand. All homes on the site will be both accessible and adaptable and will meet the standards as set out by Building Regulations.

A walkable neighbourhood which incorporates key spaces that facilitate social interactions, are beneficial to older people.

All on-street footways will be accessible to wheelchairs and buggies, well-connected, overlooked and well lit by street lighting. Footpaths within open spaces will be formed from self-binding gravel to provide a more natural effect whilst providing a firm, all weather surface.



5. Health & Wellbeing

An important element of any high quality development coming forward is health and wellbeing being incorporated and delivered as a key underpinning principle. Health and wellbeing are intrinsically linked to the environment in which people live. This has huge implications for people's health and healthy lifestyle choices.

Health inequalities are heavily influenced by a wide range of socio-economic factors including housing, education, jobs and worklessness. The developers and promoters of this site would like to provide every opportunity for development proposals to be able to sign up to the 'Livewell Developer Charter', which commits developers to support the health and wellbeing principles within an accreditation scheme.



5.4 Urban Design Influences

Walkable Neighbourhoods

'A new development model for Essex' is a study investigating the feasibility of new development models in Essex to encourage walking and cycling, and reduce reliance on cars. Although it does not constitute formal guidance, the principal objective of this study was to make recommendations that can be widely adopted across Essex.

Developments at a range of scales and contexts were analysed to ascertain whether they constitute efficient use of land, which is a prerequisite to promoting active travel. The analysis calculated residential density, dwellings typologies, parking ratios and the amount of hard and soft landscape there was within each scheme.

At the strategic stage, the SMF can incorporate the conclusions of this study within the SEMPA by:

- avoiding mono-cultural grassed verges replacing them with low shrub planting to significantly increase the overall quality of the landscape;
- providing car free green corridors running north- south through the development linking the SANG to the semi-natural SuDs areas;
- providing car free frontages at key locations particularly around key public spaces;
- providing a car free environment around the school entrance which promotes active travel amongst school children by ensuring that walking and cycling is the easiest way to get to school;
- incorporating a compact development form within the lower areas of the site in the form of apartments and terraced townhouses;
- predominantly orientating blocks in a east-westerly alignment to maximise solar power

generation potential: and

- providing for biodiversity uplift on-site with generous areas of natural and semi-natural open space created by the existing tree belts and SuDs areas.

At the reserved matters planning application stage, further discussions with EFDC could allow for:

- a relaxation of back to back distances as a trade off for more generous green corridors dimensions whereby a greater quantity of biodiversity sits within the public realm;
- using house types with integrated garages that could be converted to habitable space according to the resident's needs;
- further pedestrian routes within the block structure indicated by the SMF Framework Plan; and
- a greater proportion of shared, unallocated parking within the overall parking requirement to increase the land efficiency of providing parking spaces which could then be adapted over time.



Biodiversity uplift provided on-site within generous areas of natural and semi-natural open space.



Tertiary streets with very low car movement creating play spaces



Extensive planting within verges avoiding mono-cultural grassed verges



Greater permeability for pedestrians than for the car



Pedestrian only routes within the larger block structure



Pedestrian only routes within the larger block structure

The Avenue, Saffron Waldon

Key features with potential to influence design of development at South Epping.

- Integration of a car free pedestrian route within a green corridor running through the development. This feature creates a community space and a green, natural setting to the dwellings.
- A series of courtyards avoids lining the green corridor on both sides with carriageway. Low key drives crossing the corridor do not dilute the integrity of the space.
- Dwellings use simple architectural detailing yet using materials sympathetic to the historic core of the local settlement.



Segregated pedestrian route runs through the centre of the scheme



Mature lime trees create shade and a community space



Contemporary architectural detailing



Low key carriageway lined by dwellings arranged in a courtyard arrangement



6.1 Masterplan Framework
Principles

This section presents advisory principles and illustrative material in order to provide assurance that the mandatory principles set out within the SEMPA Parameter Plans, in the following section, have been tested and can achieve their stated aim.

This is consistent with the EFDC “Strategic Masterplanning Briefing Note” guidance which seeks the preparation of a “high level overarching framework” to ensure effective planning and delivery.

6.2 Land Uses
Uses and Amount

Residential

Housing is the primary land use. The development incorporates a mix of units in terms of size and tenure, ranging from one bedroom apartments to five bedroom detached houses and includes a proportion of affordable housing. The housing mix will be determined at a later stage. There will be an opportunity for self and custom build within the masterplan.

The Illustrative Masterplan uses a mix of block typologies which reflect the variations in the character areas as described in section B8. No block will be larger than 100m by 50m to ensure a walkable neighbourhood. Frontages are orientated to maximise security and natural surveillance whereby fronts of properties overlook streets and public spaces, and back gardens or rear parking are kept private within the block to maximise safety and security. This approach is consistent with the principles

established by ‘Secured by Design’ because it maximises ‘active frontages’ on the street, providing natural surveillance.

The location and amount of self and custom build to be determined at the application stage.

Primary School Site

The 2FE primary school is proposed at the entrance to the eastern part of the SEMPA. This is due to:

- the relative flatness of the land which is required for the delivery of suitable sports pitches;
- it being the furthest location from Ivy Chimneys Primary School;
- the potential for existing residents of South Epping to access the school on foot;
- the lack of utility and noise constraints in this location; and
- the location enabling the school playing fields to buffer properties along Brook Road.

Open Space / Green Infrastructure

The Illustrative Masterplan includes a significant amount of open space including:

- two neighbourhood equipped play areas (NEAPs) one either side of the rail line and a further local equipped play area (LEAP) within the Village Green;
- the re-provision of the existing Brook Road recreation ground;
- further amenity greenspace;
- natural or semi natural green space incorporating existing tree belts and watercourses;

- SuDs Basins;
- green corridors containing non-vehicular ped/cycle paths through the development; and
- SANG provision to the south of the built area.

Infrastructure

Development of the site requires the following infrastructure:

- a new bridge crossing the rail line that is suitable for cycles;
- two road bridge crossing of the watercourse;
- carriageway linking the access junctions to the development and between parcels;
- foul water pumping stations;and
- one car park either side of the rail line to serve the SANG.

Illustrative Masterplan

The Illustrative Masterplan (shown opposite) demonstrates an example of how the Mandatory Spatial Principles could be applied.

Whilst the Illustrative Masterplan shows how proposals can respond to key issues identified in the SMF, the details beyond the overarching Mandatory Spatial Principles will need to be tested and developed at further stages of design development through the planning application process.

	Ha per 1,000 population	Required for 550 dwellings in Ha	Masterplan provides in Ha
Residential @ 41dph average density	-		13.19
Primary School Site	-		2.13
Amenity Green Space	3.65	4.82	7.04
Reprovision of Brook Road Rec Ground	-	0.66 (existing)	0.33
SuDs Basins (within amenity open space)	-		1.56
SANG (Natural England Requirement)	8.00	10.56	11.34
Acoustic Bund (area not counted as SANG)	-		4.60
Infrastructure (Entrance Access/Pumping Stations)	-		0.57
Total	0.00	0.00	40.77



- | | | | |
|---|---|--|--|
| ① Site for a 2FE primary school site (2.1 hectare) | ⑥ Village Green (re-provided recreation ground) with equipped play area | ⑪ Green corridor through residential development | ⑯ Parking bays with facilities for mobile food and / or coffee van |
| ② Residential development | ⑦ Area required for acoustic mitigation bunds (no public access) | ⑫ Amenity open space | |
| ③ Natural/semi-natural open space with SuDs basins and existing PROWs | ⑧ SuD basin within SANG | ⑬ Streets incorporating drainage swales | |
| ④ SANG with leisure footpaths | ⑨ Pedestrian/cycle bridge over rail line | ⑭ Fluxs Lane to Gardners Farmhouse and Barn retained within green corridor | |
| ⑤ Vehicular access locations | ⑩ Retained tree belt | ⑮ Planted buffer to the Green Belt | |

Figure 41. Illustrative Masterplan

6.3 Green and Blue Infrastructure

The Green Infrastructure proposals for the site utilise and expand upon its natural assets (landform, watercourse, hedgerows and mature trees) to form a comprehensive green framework in which to locate the new neighbourhood.

Strategic Landscape Principles

The masterplan design approach adopts effective and well-considered urban and landscape design measures to ensure that the development is sympathetic to the surrounding built environment and its landscape setting. It delivers a range of benefits for landscape, biodiversity, hydrology and drainage, sports and recreation, health and well-being and climate change.

The Proposed Development will be set within a network of multi-functional green open spaces that will serve all age groups of the existing and new communities. The Local Plan sets out a policy requirement for a substantial area of Suitable Alternative Natural Greenspace (SANG) to prevent an increase in visitor pressure on the Epping Forest SAC. Open space provision will also have regard to the EFDC Green Infrastructure Strategy.

The strategic landscape proposals preserve and enhance the existing range of natural features found within the site, whilst also providing a mix of new formal and informal open spaces offering generous and usable green open space, ranging from gardens, green corridors, parkland, and new play areas.

Strategic Green Infrastructure

The site is relatively divorced from the wider countryside by the M25 corridor to the south, the existing settlement edge to Epping to the north, and Epping Golf Course to the east. The green Infrastructure illustrated on the illustrative

masterplan have been designed to provide a complimentary network of green open spaces tying together new and existing communities. In particular, the existing footpaths within the site will be retained to form the structure for a network of green corridors that will provide multi-functional open spaces offering walking and cycling links to neighbouring communities.

Key components of the strategic Green Infrastructure strategy include the new SANG that will provide a minimum of 10ha of new Green Infrastructure between the proposed residential development and the M25 motorway. Secure walking and cycling opportunities between the eastern and western parts of the site will be delivered through improvements to the accessibility of the existing footbridge link over the Central Line. The masterplan proposals also have regard to the setting of the Listed Gardners Farmhouse and Barn on elevated land to the south-east of the site, where the SANG will provide a physical and visual separation between the extent of the proposed residential development and the heritage asset.

The existing well-vegetated M25 corridor will be reinforced by an area dedicated to the provision of new habitats reaching along the majority of the southern boundary. This area will form part of the wider integrated Green Infrastructure provision, whilst also delivering visual enhancements to the SANG area, vital M25 noise mitigation measures, and a robust and defensible new Green Belt boundary (which will also extend along the eastern site boundary). The new area of habitat will be separated from the SANG via an acoustic bund and fencing.

The northern site boundaries will contribute to biodiversity gain and will introduce a visual buffer between adjacent existing properties at Ivy Chimneys and to the north of Brook Road. The trees and other vegetation associated with the brook that passes through the eastern part of the site will be retained to form a central landscape

feature within the masterplan.

The masterplan ensures that play for all ages is integrated within the proposed public open spaces as part of the overall Green Infrastructure strategy, and access to these play opportunities will be enhanced to provide clear walking and cycling routes to link surrounding communities with the masterplan area.

Key Views

There are no publicly accessible long-range views towards the site. The most significant views towards the site are from receptors directly adjacent to and in close proximity to its boundaries which will experience the greatest level of change. These receptors include residents, and users of nearby public rights of way and streets. To minimise and limit any harmful visual effects the boundary vegetation will be reinforced with new planting, and a large number of new street trees will be planted to break-up the perception of massing of the development as seen from the surrounding context.



Existing brook tree belt

The key green infrastructure design principles for South Epping are as follows:

- Protection of wooded ridgelines via the introduction of new tree planting within the SANG area.
- Delivery of multi-functional open space in compliance with EFDC requirements.
- Re-provision of Brook Road Recreation Ground together with other opportunities for community recreation.
- Introduction of a new recreational open space within the SANG to serve as a landscape buffer between the residential dwellings and the M25 corridor.
- Provision of green streets creating a network of green spaces and extensive tree planting to integrate the built development within the landscape.
- New commuter and recreational routes for pedestrians and cyclists throughout the green spaces.
- Increasing biodiversity net gain within the site, with a dedicated area of new habitat created to the south of the SANG.



View along existing brook corridor



LEGEND

- Retained tree belts along boundaries and watercourses
- Equipped play provision
- Play on the way / Incidental play
- Zone of semi-natural open space incorporating SuDs basins
- Suitable Alternative Natural Greenspace (SANG)
- Circular SANG walk
- Blocks of tree planting within the SANG
- Approximate location for SANG car park
- Formal amenity open space
- Potential locations for the re-provision of Brook Road recreation ground
- Zone within acoustic mitigation area (no public access)
- Tree planting along southern and eastern boundaries to provide a robust and defensible Green Belt boundary
- Landscaped gateway area to incorporate planting and built gateway feature
- North-south green fingers through development incorporating planted swales and street trees
- Key views within the site and from access locations

KEY VIEWS FROM EXISTING SETTLEMENT INTO THE SITE

- Channelled view along Bridge Hill toward higher ground
- Channelled view from Ivy Chimneys Road toward higher ground along
- Channelled view along Bower Hill toward higher ground along

Figure 42. Strategic Landscape Principles

Drainage Strategy

A holistic approach to surface water management will be taken, where development proposals will sequentially implement a variety of Sustainable Drainage Systems (SuDs) to sustainably manage surface water runoff, by mimicking the natural drainage characteristics of the site.

This approach will achieve a sustainable drainage solution that balances water quality, amenity, biodiversity and flood resilience. Above ground SuDs will enhance water quality before discharging into the existing on-site watercourses at a site-specific greenfield runoff rate for all events up to, and including, the 1 in 100-year plus climate change (40%) event.

Well-designed SuDs also provide opportunities for communities to enjoy the dynamic nature of the water environment and the different habitats that may be sustained by it. Furthermore it is proposed that the riparian corridors along both watercourses within the site are enhanced as part of the landscaping strategy to enrich the local habitat and amenity provision. The surface water drainage of the site has therefore been considered from the outset, with the water management strategy being an integral part of the overall masterplan for the development.

A foul water drainage strategy has been also developed to demonstrate how the foul water from the proposed development will be managed and connected to the existing Thames Water sewer network.

This will be reviewed in detail as part of a Flood Risk Assessment and Drainage Strategy, which will be submitted to support a future planning application.

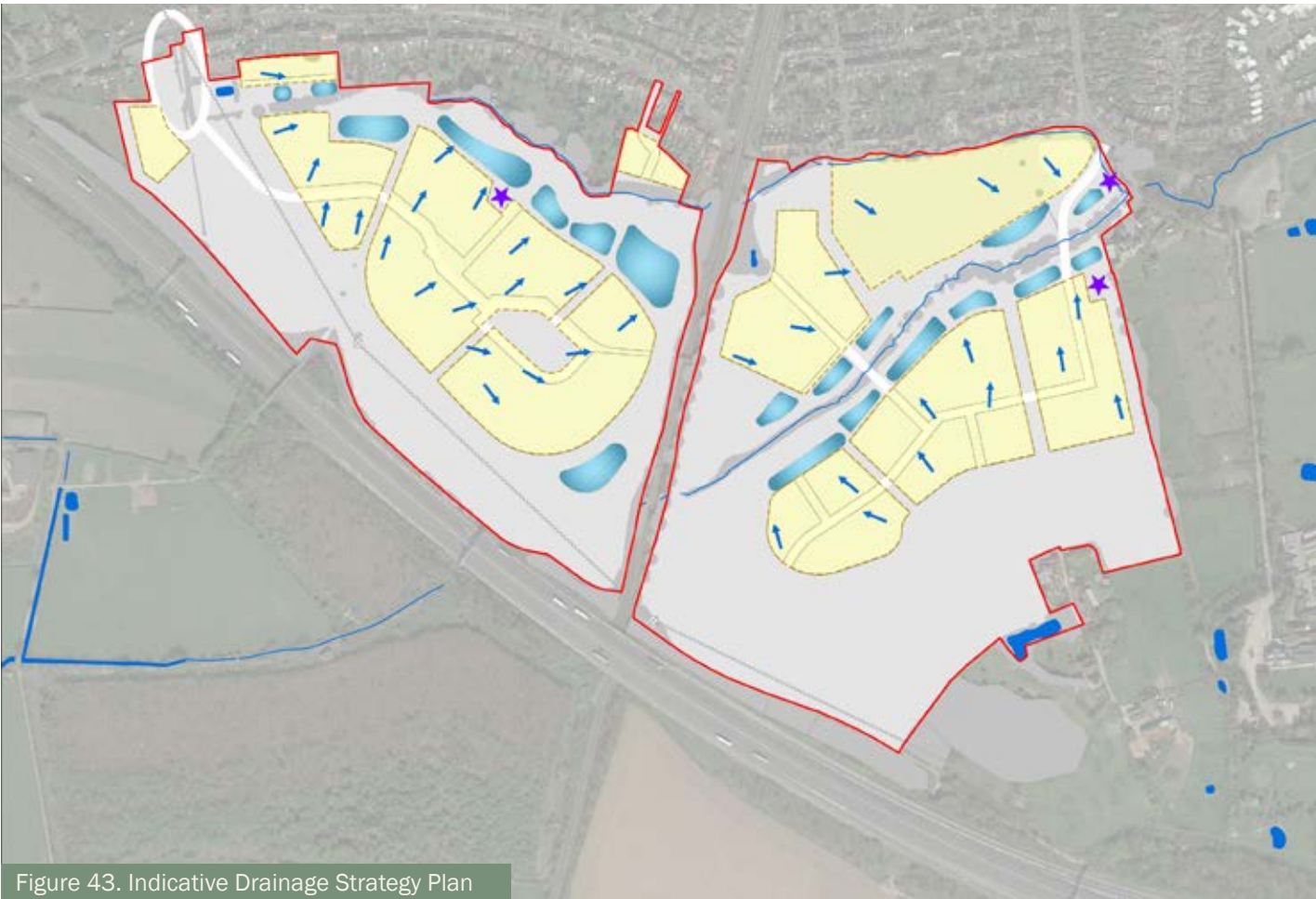


Figure 43. Indicative Drainage Strategy Plan



Attenuation basin with areas of standing water planted with wetland plant species



A micropool created within the attenuation basin in order to maintain water presence

Surface Water Drainage Strategy

The surface water drainage strategy for the site uses SuDs. This comprises a combination of swales and detention basins across the development, in order to control surface water run-off into the existing watercourse.

In accordance with ECC’s ‘SuDs Design Guide for Essex’, the SuDs Manual C753 and national government guidance the SuDs across the site have been designed in order to store storm water for the 1 in 100 year + 40% climate change storm event. The inclusion of SuDs throughout the site removes the risk of surface water flooding throughout the new development catchments. To complement the overarching site topography, the proposed development has been spilt into twenty catchments, with eighteen detention basins across the site. Surface water generated from the development footprint within these catchments will be collected and conveyed via a surface water pipe network under the adopted roads and/or within roadside and conveyance swales.

All undeveloped greenfield areas and open space in the south of the site will continue to flow naturally through the site. Surface water that is stored within the basins has been designed to discharge at QBAR (in accordance with the SuDs Manual and national and local government guidance) into the existing drainage network that operates across the site. This therefore reduces the risk of flooding further downstream.

The basins have been located in the lowest lying areas of each catchment in order for surface water to drain naturally via gravity and into the existing features at the most convenient locations. The site currently does not have a system in place that improves the quality of surface water before discharging into the watercourse. The use of SuDs across the site will provide two stages of treatment to surface water before it is discharged into the local drainage network.

Play & Recreation Strategy

The plan opposite illustrates the overarching strategy in relation to play and recreational provision across the SEMPA. Provision for play and recreation facilities for children and teenagers will be safe and enjoyable, whilst simultaneously creating opportunity for social interaction, helping to contribute to a sense of community.

The proposals comply with Open Space Standards (EFDC Local Plan Policy DM6 and the EFDC Infrastructure Delivery Plan) and follow guidance set out by Fields in Trust, Play England, and the EFDC Green Infrastructure Strategy. Two NEAPs will be provided along with one LEAP, incidental play and door-step play, with all being subject to passive surveillance.

Provisions should be appropriate for all age groups and offer opportunities for a wide range of movements/skills and encourage imaginative play through formal and informal provisions. Play will be placed along key routes, nodes of informal play will offer 'play on the way' and break up walking distances between formal play spaces.

The Brook Road Recreation Ground will be re-provided as indicated within the illustrative masterplan creating a Village Green character green space.

A green infrastructure, open space and play strategy will be developed further based upon these established principles at the outline application stage to set a 'design code' for standards, design and delivery of open space and play provision at the reserved matters stage.



Figure 44. Play & Recreation Strategy Plan



Naturalistic play structure at the Ivy Chimneys entrance to act as a focal point



Natural Play throughout the masterplan area



Incidental Play and 'Play on the Way' within the SANG

Green Corridors

The provision of Green / Blue corridors throughout the site has been integral to the development of the masterplan. These will not only provide attractive and safe routes for residents, they will provide important green infrastructure connectivity as part of the biodiversity strategy on site, as well as opportunities for the inclusion of sustainable drainage features.

Throughout the green corridors it is intended to incorporate Sustainable Drainage Systems (SuDs) features as part of an integrated drainage strategy through the site, in keeping with the four pillars of SuDs – Quantity, Quality, Amenity and Biodiversity. SuDs features within these corridors will form part of the surface water management train, potentially providing source control and interception for adjacent highway / footpath run-off as well as conveyance features, taking run-off from adjacent housing parcels to larger detention basins within the lower areas of the site, at the end of the management train.

There is potential for a range of features to be included within the blue / green corridors. The selection of the appropriate SuDs feature will depend upon the specific requirements following design development, these include:

- Requirement for conveyance of flows from adjacent parcels and inclusion of outfalls – invert levels of pipes will determine depths of features and therefore overall size requirements.
- Available space; and
- Landscape character of the location.

Keeping water at surface level is preferred wherever possible to maximise opportunities for interception and evapotranspiration from planting, as well as providing a visible route for water which contributes to place making. A broad range of options are available and can be adjusted along the length of the corridor to suit local conditions / required character whilst meeting technical requirements.

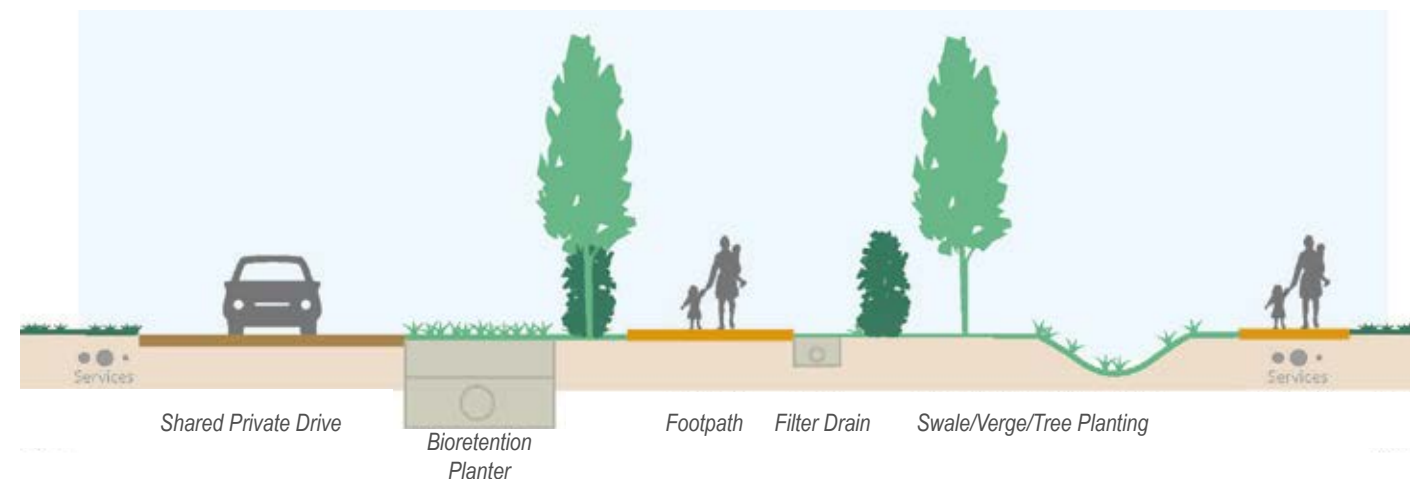


Figure 45. Indicative Green Corridor with Segregated Footpath

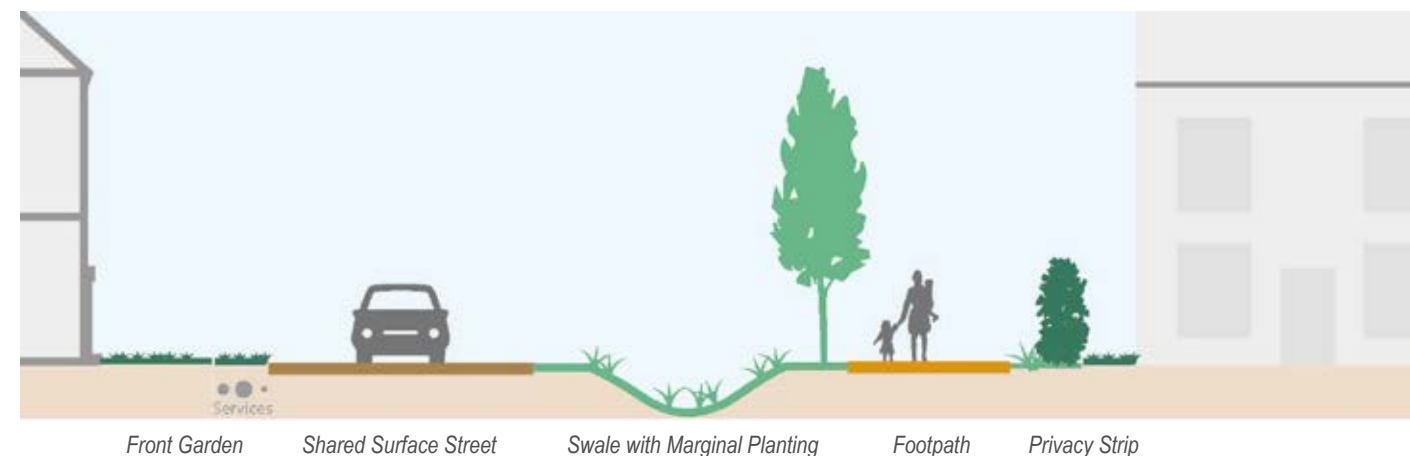


Figure 46. Indicative Shared Surface Tertiary Street with Roadside Swale

Swales:

Shallow, broad and vegetated channels designed to store and/or convey runoff and remove pollutants. Banks will be max 1:3 with min of 0.5m flat area to base of swale. Range of planting / seeding options are available depending upon the character that is intended to be created from wildflower to mown banks with marginal planting to base.

Filter Drains:

Shallow excavations filled with rubble or stone that create temporary subsurface storage of stormwater runoff. Filter drains deal with surface water flows from adjacent impermeable surface filtering and conveying flows to downstream SuDs components.

Bioretention Planters (rain gardens):

Landscape planting areas which are typically under drained and rely on engineered soils, enhanced vegetation and filtration to remove pollution and reduce runoff downstream. They will look like attractive planting beds, but generally sit slightly below kerb level / include shallow depression to accommodate storm events. These can be planted with a number of different species, tolerant of a range of conditions, to provide source control for run-off from adjacent surfaces, through flush kerbs / inlets.



Filter Drain



Bioretention Planter



Planted Roadside Swale

Pylons within Landscape

Specified distances between overhead power lines and obstructions such as trees have been nationally determined to ensure safety to the public. Where National Grid determines that woody vegetation infringes statutory safety clearances, then it must be cut and/or removed such that reasonable growth and safe access for future works can be achieved without returning every year to the same site.

To ensure that future safety problems will not occur and to reduce the need for significant ongoing tree management works, National Grid recommends that only low height and slow growing species are utilised in areas beneath overhead line conductors. Similarly, when planting is proposed very near pylons consideration should be given to the need to maintain access to the pylon base and allow overhead line maintenance activities to take place safely and without causing damage to existing habitats and landscapes

Design Guidelines for Development Near High Voltage Lines

The purpose of this document is to provide greater clarity about the design constraints posed by high voltage overhead lines, along with providing a greater awareness of the opportunities, through good design, to improve the environment and therefore the value of development.

Development proposals and landscape design will be aligned with the recommendations set out within this document.

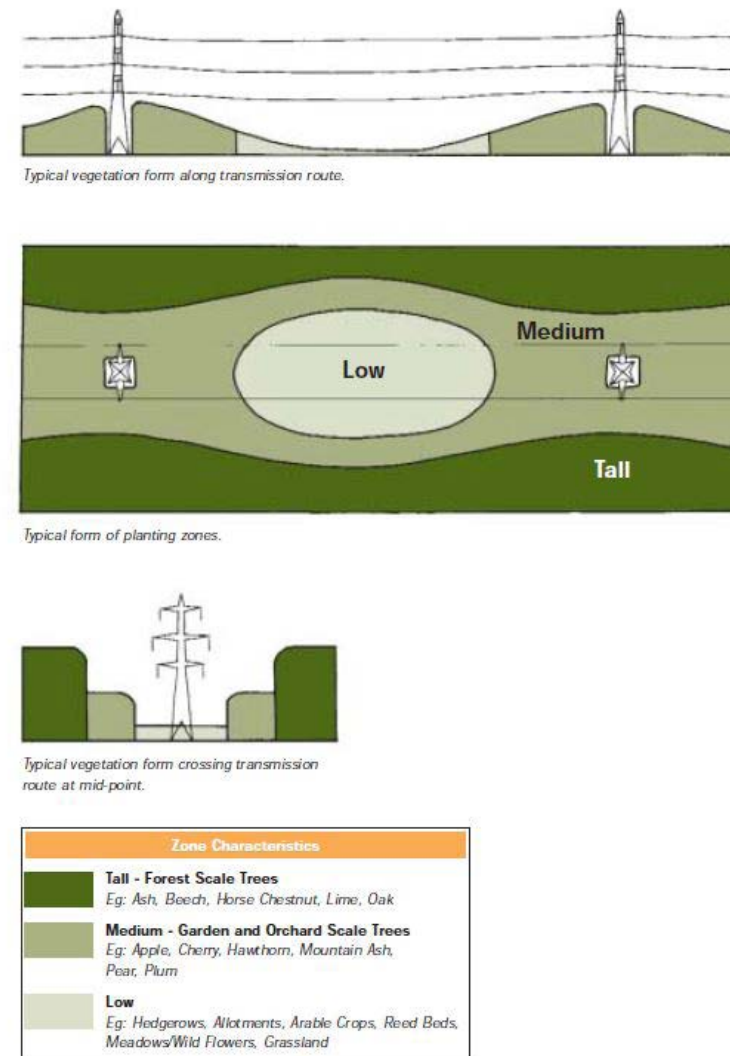


Figure 47. Extract page from Section 3



Pylon and Power Lines at South Epping

Ecology Strategy

The scheme will result in the provision of new natural green space, as well as enhancement of existing pockets of greenspace such as ponds, woodland and the existing brook. This, along with enhancement and creation of links to existing public rights of way across the site (providing Suitable Alternative Natural Greenspace – SANG), and in addition to the inclusion of appropriate mitigation in accordance with the Air Pollution and Recreational Strategies, will ensure that the integrity of nearby internationally and nationally designated sites will be protected. Strategies will also be developed through careful and considered consultation with stakeholders such as Natural England.

Biodiversity Net Gain (BNG)

The DEFRA BNG metric will be used to establish the BNG baseline units for the site, and to calculate the post-development units, recognising that the site will need to demonstrate delivery of a minimum 10% net gain in accordance with the Environment Act 2022 requirements.

Protected and Notable Habitats and Species

The site is dominated by arable land which is generally considered to be of low ecological value however other habitats (including woodland, hedgerows and ponds as well as a small stream) are of higher biodiversity value and have the potential to support several protected and notable species. A suite of ecological surveys have been undertaken commencing in 2021 and continuing to date. During these surveys, the following species have been recorded on or adjacent to the site:

- Badgers;
- Roosting, foraging and commuting bats;
- Notable species of bird, including skylark;
- Great crested newts;
- Relatively widespread reptile species (slow-worm);
- Important hedgerows.

The site also has potential to support hedgehog

and brown hare. Mitigation measures to protect the above species and habitats during construction and after completion of the development will be implemented to ensure existing site biodiversity is safeguarded.

As per the above, the masterplan will be shaped by a wealth of data collected from ecological surveys and assessments to enable the retention and enhancement of key ecological features, maximising the gains to biodiversity, in line with local and national planning policy.

BNG habitats will require 30 year management plan set out within a detailed Landscape and Ecology Management Plan. The SANG will require a legally binding agreement between the Consortium and the LPA to secure the management of the SANG in perpetuity.



Roosting, foraging and commuting bats



Great Crested Newts



Slow Worms



Areas of non-SANG habitat creation



LEGEND

-  Retention, protection and enhancement of higher value habitats such as woodland, mature trees, stream and hedgerows
-  Creation of semi-natural open space to provide additional resources for bats, badgers, great crested newts and reptiles
-  Retention of tree belt foraging routes for wildlife
-  Tree planting creating new foraging routes for wildlife
-  Creation / enhancement of habitats within acoustic buffer to provide net gains for biodiversity
-  Protection and enhancement of streams and associated tree belt
-  Opportunity for habitat creation/enhancement around existing pond
-  Creation of wildlife friendly surface water attenuation basins
-  Incorporation of integrated bat and bird boxes within development parcels

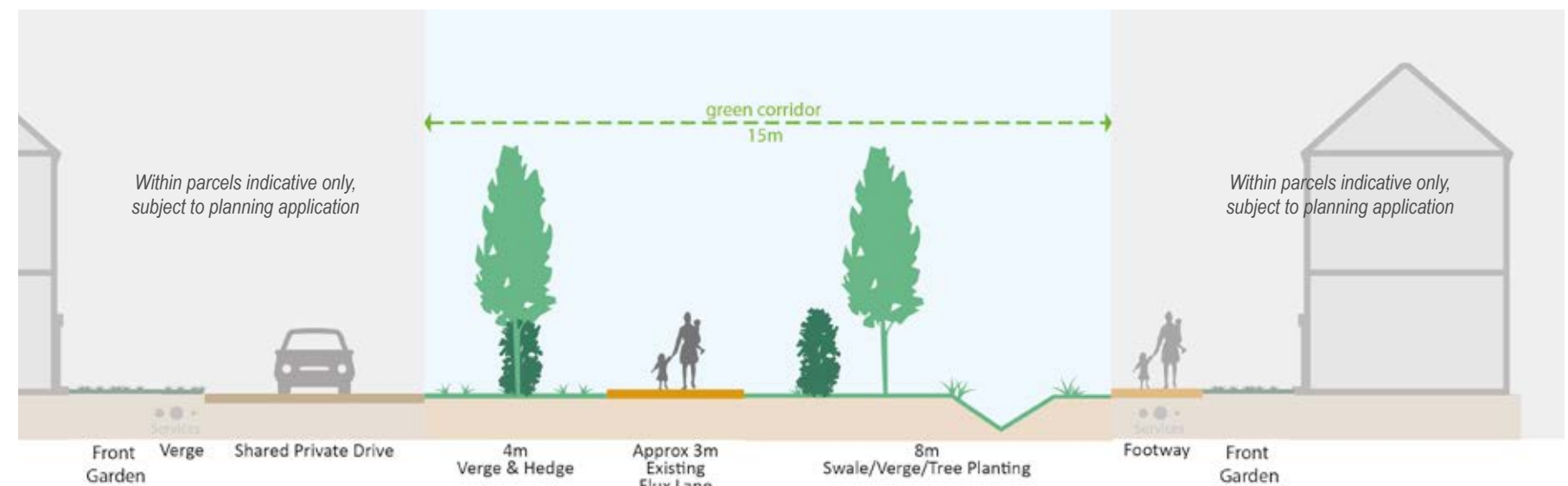
Figure 48. Indicative Ecology Strategy

Cultural Heritage Strategy

The illustrative masterplan has been designed to minimise impact on the listed Gardners Farmhouse and Barn to the North of Gardners Farmhouse.

Design considerations for the proposed development include:

- Only developing up to the 68m AOD contour line with SANG separating the listed buildings of Gardners Farm and its barn from the developable edge;
- Taller and more densely developed elements will be situated towards the north of the site on the lower ground;
- Maintaining the alignment of Fluxs Lane to preserve its historic significance. The landscape strategy will include lining the route with hedges and tree planting and the residential layout will ensure dwellings front onto it;
- Constraining storey heights in line with the established built form to the north, predominately two storeys;
- Taking design cues from the style, materials and detailing of buildings within the existing area, whilst not necessarily seek to directly copy them; and
- Maintaining and where possible, strengthening the planting buffers at the boundaries of the site.



6.4 Acoustic Mitigation Strategy

The site will be developed to achieve appropriate external sound levels within areas designated as Suitable Alternative Natural Greenspace (SANG), and within private external amenity spaces within the residential parts of the development. Guidance on suitable external sound levels will be taken from Natural England SANG guidance, with additional reference to British Standard 8233 for the residential spaces. This will be achieved through the introduction of an acoustic barrier between the southern boundary of both development parcels and the M25. The form of the barrier is to be confirmed, but it is likely to combine earth bunding with acoustic fences at strategic locations to control the spread of sound throughout the site.

It will also be necessary to control external noise to appropriate internal sound levels within new residential dwellings. Again, BS 8233 provides guidance on suitable sound levels to be achieved within habitable rooms. These internal sound levels will be achieved

through appropriate acoustic specification of the building envelopes, including the external wall, glazing, and any ventilation systems. The specification of these systems will be subject to further detailed design post planning. However, due to the inherent need to deliver external noise levels in line with Natural England SANG guidance, it is anticipated that achieving suitable internal sound levels will be possible with relatively conventional construction methods.

It will be necessary to ensure that any new development within the South Epping masterplan does not adversely affect existing noise sensitive receptors in the vicinity of the site. Noise assessments will be required to demonstrate that noise from new sources introduced as part of the masterplan can be controlled to suitable limiting levels, which will be derived relative to the background sound levels measured prior to development.



Precedent of a planted noise mitigation bund



Precedent of engineered noise mitigation bund with planting



Precedent of noise mitigation bund along the edge of a residential development

6.5 Access & Movement Strategy

The integration of development at South Epping with the rest of Epping and the Epping countryside is an important objective in terms of ensuring that new residents have good access to surrounding facilities and open space.

Key Principles

One of the key principles of the South Epping Masterplan is to achieve a development that seeks to promote social, economic and environmental sustainability and equality at each stage of the design and development. Central to achieving this objective will be the creation of ‘walkable neighbourhoods’. The benefits of this are many fold and include healthier communities, cleaner air, stronger local economies, and better resilience against climate change.

The access and movement principles set out over the following pages will guide the planning and design of South Epping. They are intended to create a sustainable approach to local and strategic movement and support a range of modal choices for those living, working and going to school within the local neighbourhood, promoting and encouraging active travel as the most attractive and convenient mode. The development will include measures to encourage a culture of sustainable travel, accessibility and inclusion based on a user hierarchy of walking, cycling and public transport and then private car use. This ethos will be promoted in a Community Travel Plan, which will identify mode share objectives in favour of sustainable and active travel.

Cycle and car parking for residents and visitors will be provided at a level that accords with the Essex Design Guide (EDG) and take into account the needs of disabled persons and the requirements for Electric Vehicle charging provision. Where possible, the development will embrace the principles in Collaborative Mobility UK’s (CoMoUk) guidance document ‘New developments and shared transport: cutting car dependency’.

Strategic Connections

The plan (opposite) shows how the strategy for connectivity within the South Epping development site has been considered as part of the wider network of routes and connections across the surrounding area.

The pedestrian and cycle network within the site is also linked to existing walking and cycle routes to the north of the site to provide new residents with access to Epping town centre and underground station and to the south to allow existing and new residents to have access through the site to the SANG and open countryside.

Residents will have access to existing bus services that pass near to the site to provide access to nearby towns such as Harlow and bus operators will benefit from improved revenue as a result of increased patronage. Epping Underground Station is on the Central Line providing new residents with a direct rail connection to Stratford and Central London.

Vehicle access is proposed to be provided via junctions with Stewards Green Road for the eastern site and Ivy Chimneys Road for the western site. These will provide access to the local road network and beyond this the strategic highway network for connections to Stansted Airport and Cambridge to the north via the M11 as well as the M25.

Potential Off-site Mitigation

The package of off-site mitigation to be implemented or contributed to by the proposed development will be determined as part of the planning application process. This may include improvements to pedestrian and cycle infrastructure between the site and the station. There is potential to enhance bus services in conjunction with local operators. These measures will seek to encourage a modal shift and minimise car dependency.



LEGEND

Site Boundary

Motorway

Railway

Railway Station

PRow

Proposed On-site Pedestrian Routes

● Bus Stops & Routes

— Proposed On-site Cycle Routes

Key Facilities

● School

● Employment

● Play Area

● Sports Pitches

● Allotments

● Golf Course

● Sports Centre

● Pub

● Cafe

● Convenience Store

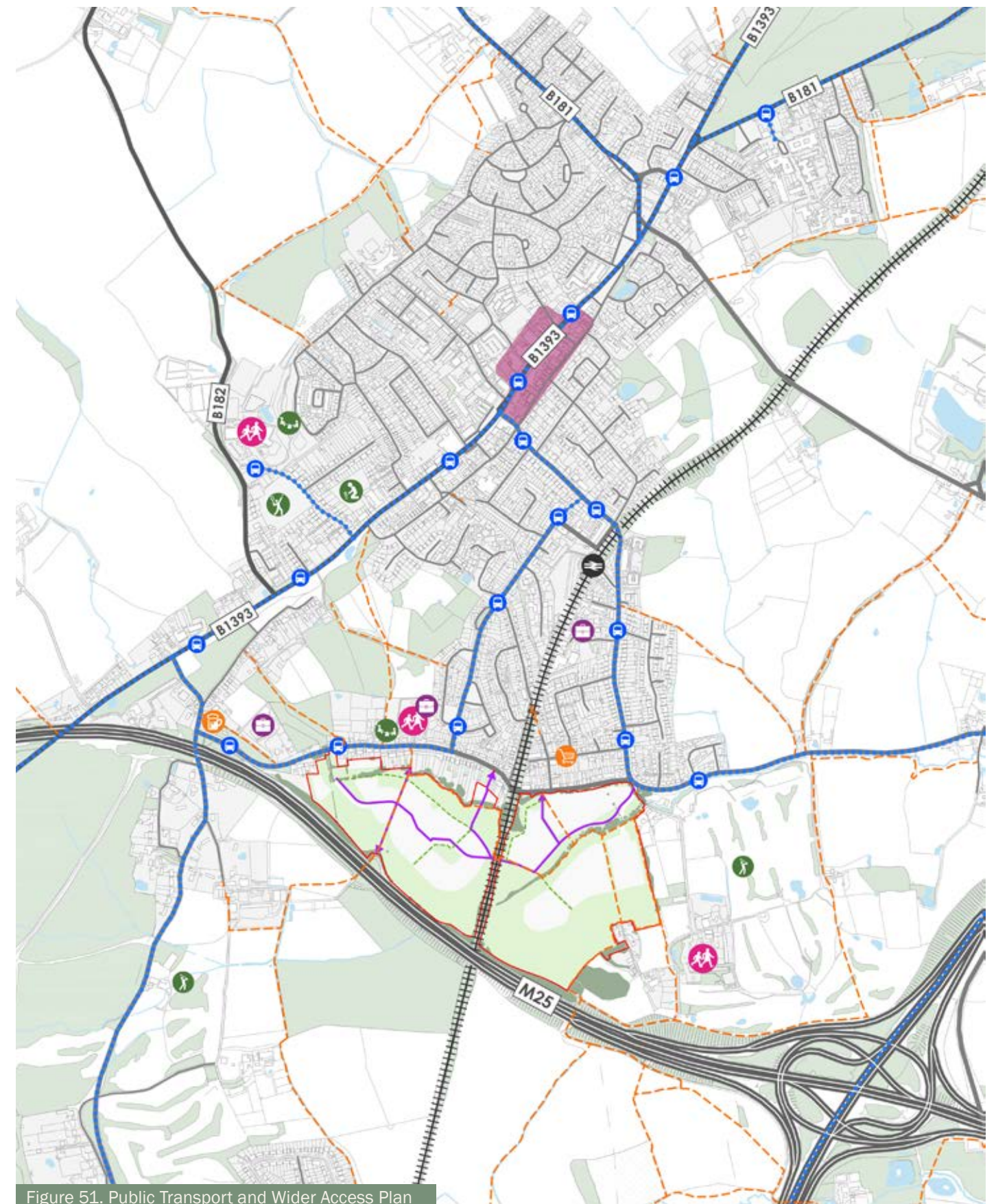


Figure 51. Public Transport and Wider Access Plan

Non-car Modes of Transport

Public Transport

The Epping South site benefits from existing bus services that stop on Stewards Green Road (31 service) and on Centre Drive (31, 418 and 418B) providing a public transport connection to Harlow, Loughton and other areas of Epping.

Further bus services are available from Epping Underground Station within walking distance of the site. These provide access to St Margaret's Hospital and nearby town of Waltham Abbey, Ongar, Theydon Bois, Shenfield and Ingatestone.

Epping Underground station provides Central Line services to Stratford and Central London and it provided with sheltered cycle parking facilities adjacent to the station building.

Discussions are due be held with ECC on bus infrastructure enhancements.

Pedestrian and Cycle

Walking and cycling have been given priority in the masterplan, with the structure providing legible and direct routes that follow desire lines. Key features of the strategy are:

- Walking and cycling routes are designed to be cohesive, direct, safe, comfortable and attractive, and consistent with LTN1/20 Cycle Infrastructure, where practicable;
- All existing Public Rights of Way (PROW) have been incorporated into the masterplan and new footpaths and cycle routes connected to them;
- Routes within the masterplan connect with the wider network of PROWs and other pedestrian/ cycle ways providing access to the wider Epping urban area and to the Epping countryside to the south;
- The creation of safe, overlooked, attractive routes is critical and will be a key design feature of the proposed green routes and streets. This is to ensure residents and

people living nearby are encouraged to utilise these routes and travel by sustainable modes;

- Movement for pedestrians and cyclists will be fully integrated into the masterplan with designated traffic-free routes permeating into the site, promoting active travel.

Cycle Parking

Cycle parking will be provided in accordance with the minimum standards identified in the Essex Parking Standards.

- To make cycling attractive the parking needs to be placed in locations where it is convenient, secure and easy to access and not necessarily shared with other household/ garden possessions.
- Where garages are provided, these will be of a size that facilitates the storage of cycles. For houses without garages, suitable facilities within each dwelling, such as garden sheds will be provided. Cycle parking for terraced houses can be provided in rear gardens or other easily accessible areas, or in secure cycle stores to the front of the properties
- For flats / apartments, storage areas will be provided that are secure (lockable) and covered to provide a high quality facility for residents.
- Visitor cycle parking will be provided at key areas within residential areas. Where appropriate, these will be linked to local centre facilities.
- The provision of inclusive and accessible cycle parking within the site will be a key element of the strategy that will seek to encourage cycling and ensure that it is a clear, preferred choice of travel mode.
- A cycle parking strategy will be developed at application stage.

Active Travel Bridge

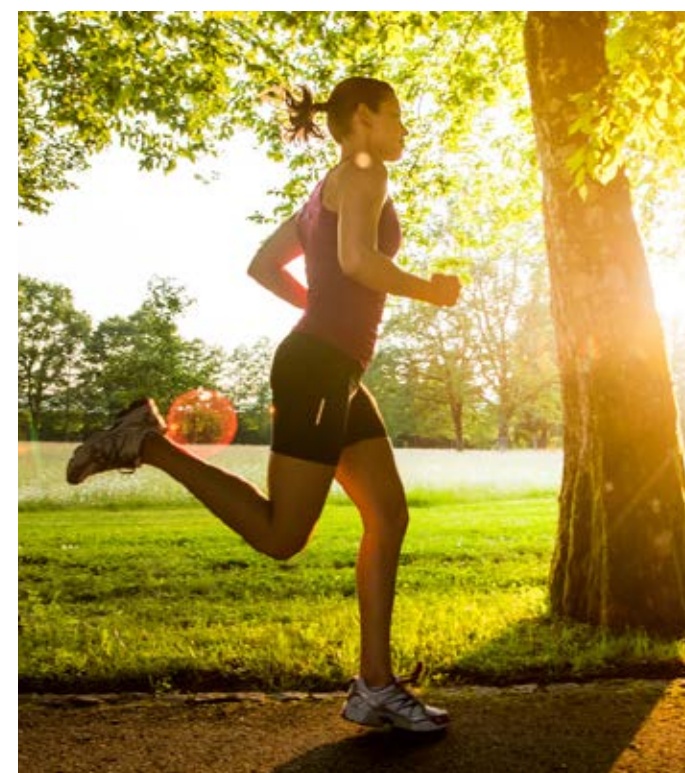
Aligned with the Local Plan, there is an aspiration for the Masterplan development to facilitate the provision of a new bridge over the railway line to accommodate a pedestrian and cycle connection between the adjoining Epping South sites, its funding, location and ownership will be determined as part of the planning application process.

Mobility Hub

Localised mobility hubs in Epping South are to be investigated. These might include locations for parking and collection of bicycles, e-bikes and e-scooters to allow the surrounding residents the ability to use such modes in accessing local destinations (e.g. the schools, local shops), as well as electric vehicle car clubs and package delivery lockers.

Recreational Routes and SANG

The proposed SANG will have a circular recreational route for pedestrians and cyclists of at least 2.3km in length, for the benefit of new and existing residents of Epping.



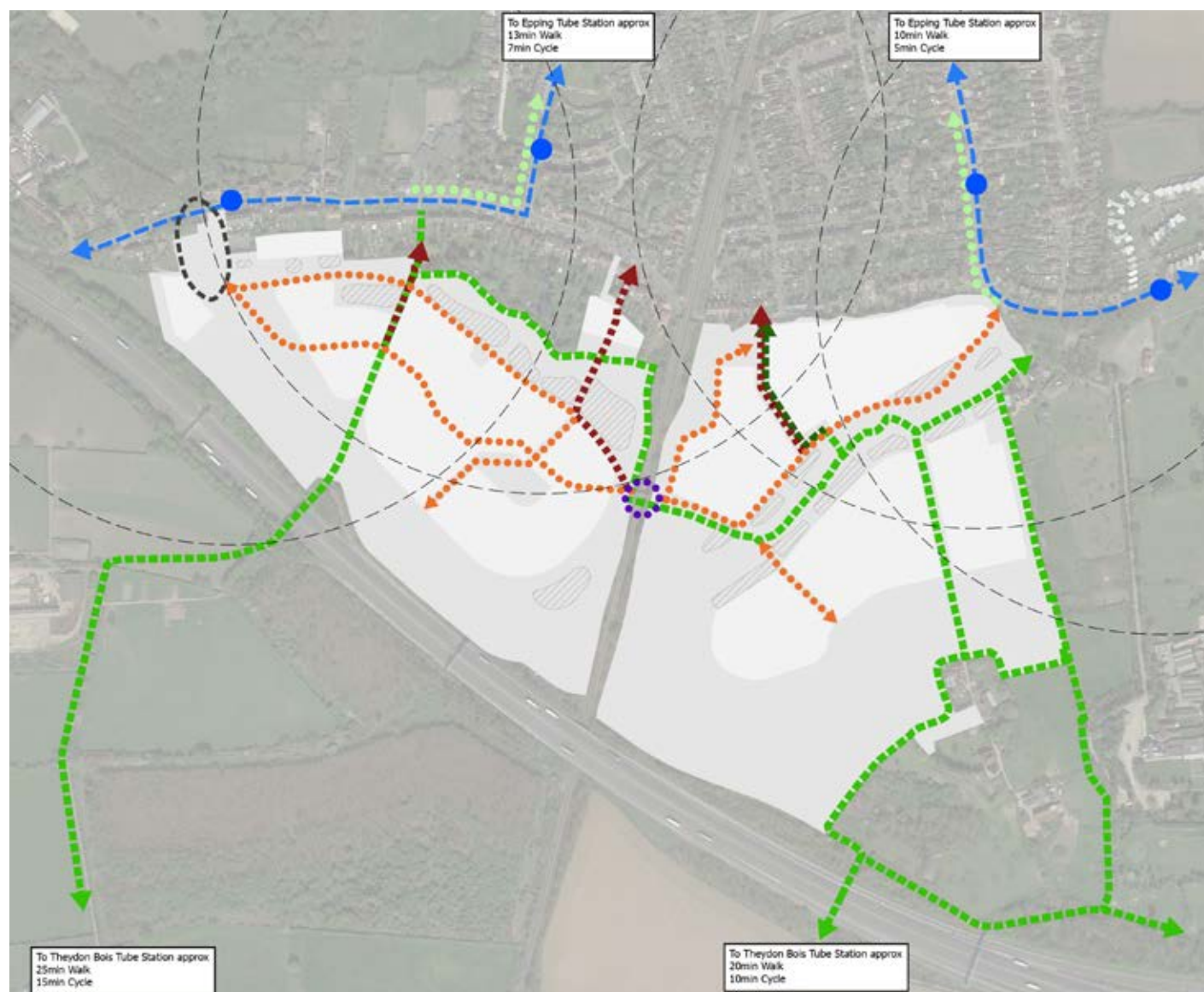


Figure 52. Pedestrian And Bus Connections

LEGEND

- Existing PROW
- Existing PROW diverted around school site
- Key existing pedestrian route (outside site)
- 3m Shared ped/cycle paths
- Key proposed pedestrian footpath routes
- Shared ped/cycle provision across active travel bridge
- Bus routes, bus routes and 400m accessibility distances

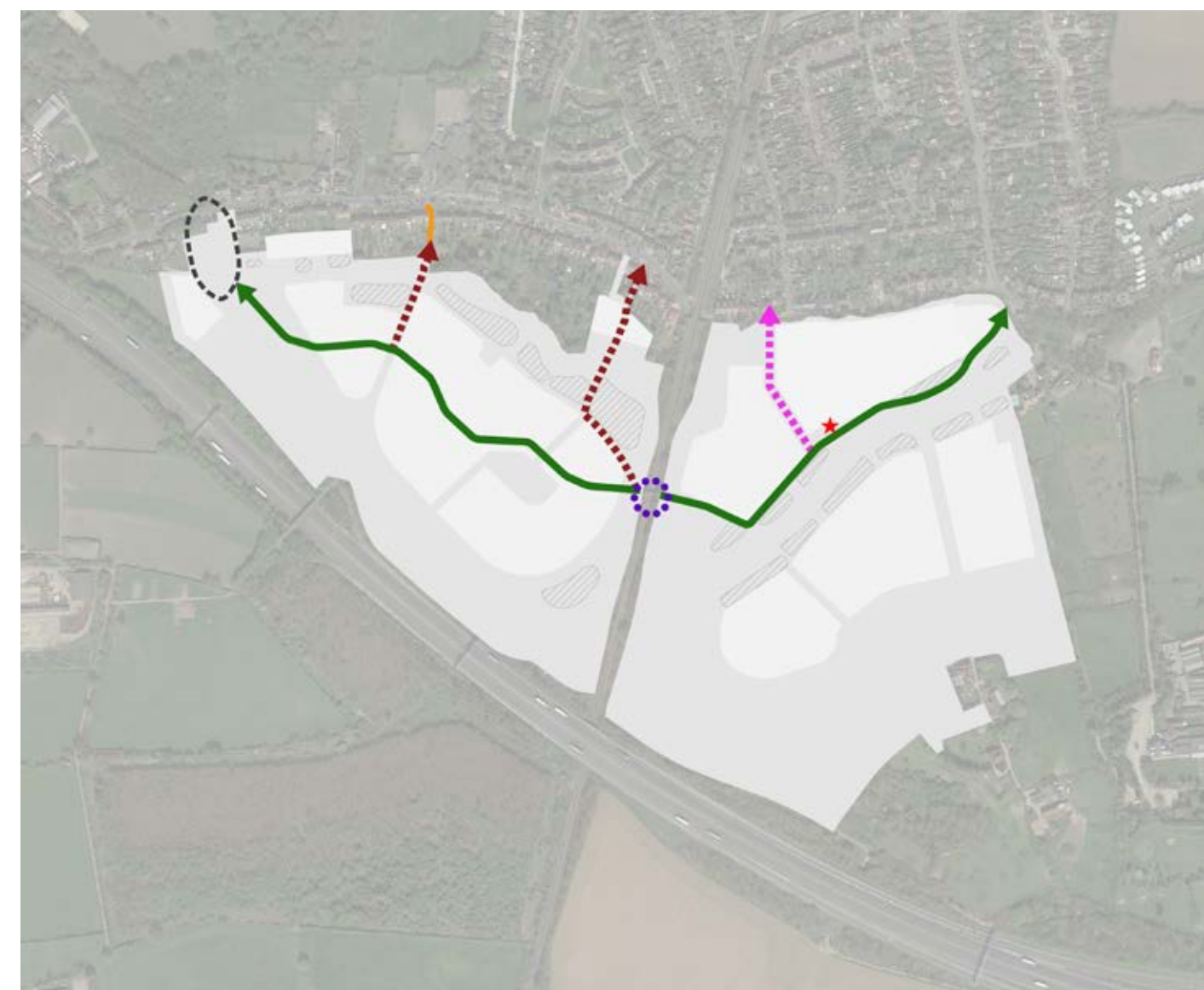


Figure 53. Cycle Connections

LEGEND

- 3m Segregated strategic cycle route
- 3m Shared ped/cycle paths
- Shared ped/cycle on diverted PROW alignment
- Improvements to PROW to enable cycle access
- Shared ped/cycle provision across active travel bridge
- Potential Mobility Hub

Vehicular Access Strategy

Vehicular Access

Access to EPP.R2 will be gained via an improvement to the existing Fluxs Lane junction with Stewards Green Road, which has been designed with reference to the EDG. The improved facility is a simple priority junction, the design of which has been issued to ECC for comment.

Access to EPP.R1 will be gained via a new priority junction with Ivy Chimneys Road, which has again been designed with reference to the EDG. A third minor access will serve circa nine units from Bridge Hill.

Each access junction has been subject to capacity testing, with any additional off-site modelling to be agreed with ECC, as Highway Authority in support future planning applications.

Street Hierarchy

An internal network of streets will provide a safe, legible and permeable layout for all modes within the site. The roads will be designed to an adoptable standard and allow best-practice transport and urban design principles to be brought forward. The geometry of the street alignment and the dimension of development blocks may be further developed at future stages of the planning process. There will be no vehicular connection across the rail line.

- The plan (opposite) shows the indicative alignment for the:
- **Primary Streets:** linking the access junctions at the site boundaries with the residential parcels.
 - **Secondary Streets:** providing access for all modes through the residential parcels.
 - **Tertiary Streets:** further access requirements will be provided via tertiary streets including shared surfaced streets and shared private drives through to the peripheries of the residential parcels. Further instruction regarding the design and alignment of these streets is provided within section C10.3 Movement: Design Code

Emergency Provision

ECC have said that a dedicated emergency access is not required for a development of this scale which is aligned with national and local transport policies which do not provide specific requirements for emergency access. However, a secondary point of access to the site for emergency vehicles can be achieved from Fluxs Lane via the development access, which has segregated pedestrian / cycleway provision of sufficient width to be able to accommodate emergency vehicle access into Fluxs Lane, if needed.

Illustrative Street Cross Sections:

Whilst the street network design will be developed in more detail at future stages through testing and incorporation of best-practice design principles, the illustrative street sections, shown on the following pages, set requirements for:

- The Primary Streets leading from the access junctions.
- The Secondary Streets, single and double sided.
- Secondary Streets incorporating drainage features.
- Circulation routes within green corridors.

Building heights shown in the illustrative sections may vary.



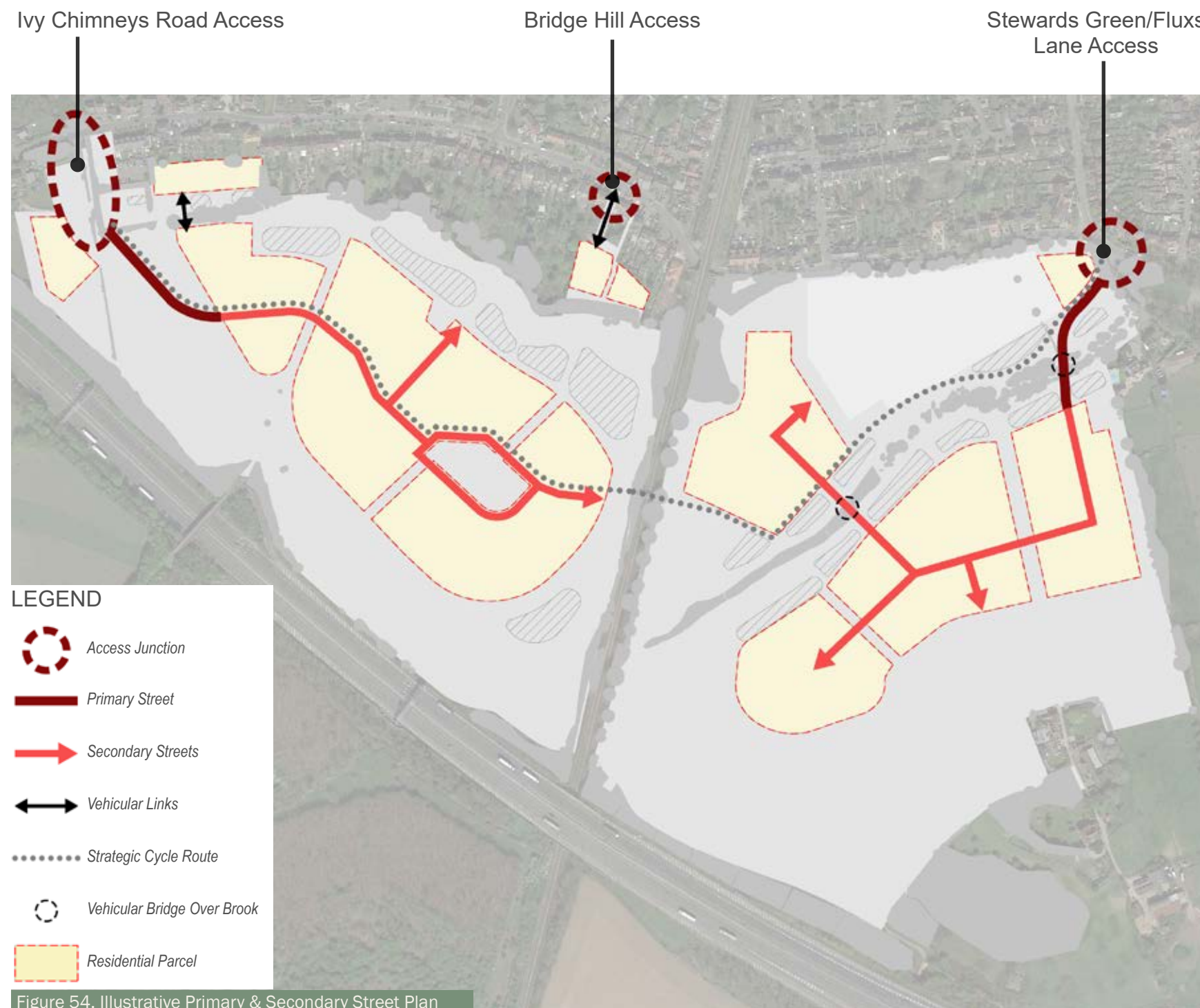


Figure 55. Primary Street from Ivy Chimneys Road Access

Due to utility constraints, the primary access from Ivy Chimneys Road passes through a landscaped open space before entering the residential parcel. Key features of this street will be:

- 2m footpath one side of the carriageway.
- Segregated 3m cycle and 2m footway on eastern side.
- A drainage feature (width to be determined) in between the carriageway and the cycleway.
- 6m carriageway.

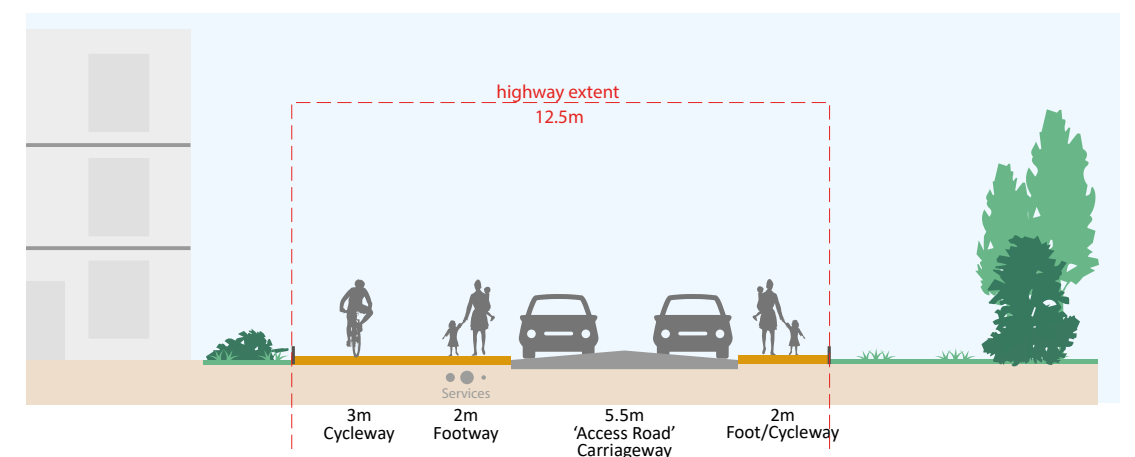


Figure 56. Primary Street from Stewards Green Road

The primary street enters the site to the north of the brook tree belt then diverts south crossing the brook over a new bridge. The cycle/pedestrian path diverges from the primary street immediately after the residential parcel and continues toward the school entrance. Key features of the street prior to the cycle/pedestrian path and carriageway divergence (as shown in the section) will be:

- Segregated 3m cycle and 2m footway on the northern side.
- 2m footpath way on the southern side
- 5.5m carriageway.

Secondary Streets

This street type links to the Primary Streets running from the access junctions and extends through the centre of each development parcel.

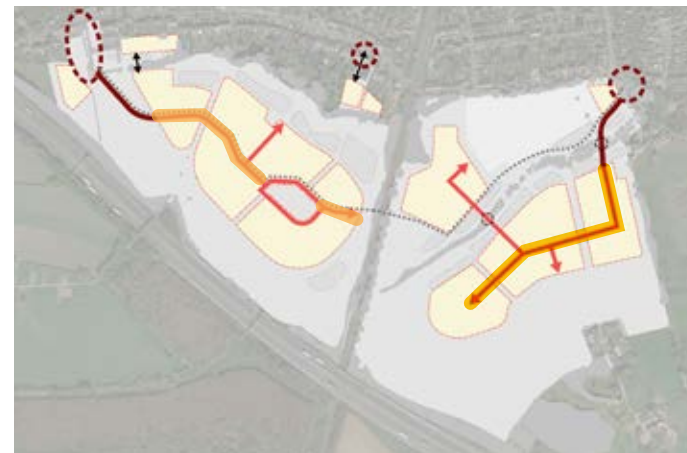
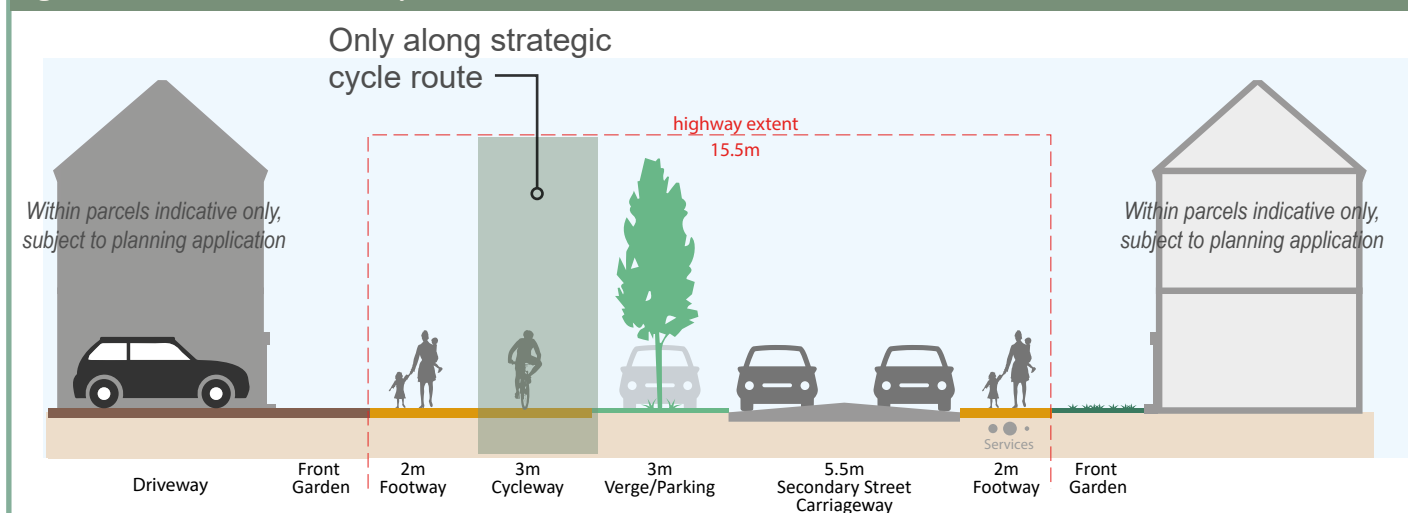


Figure 57. Double Sided Secondary Streets



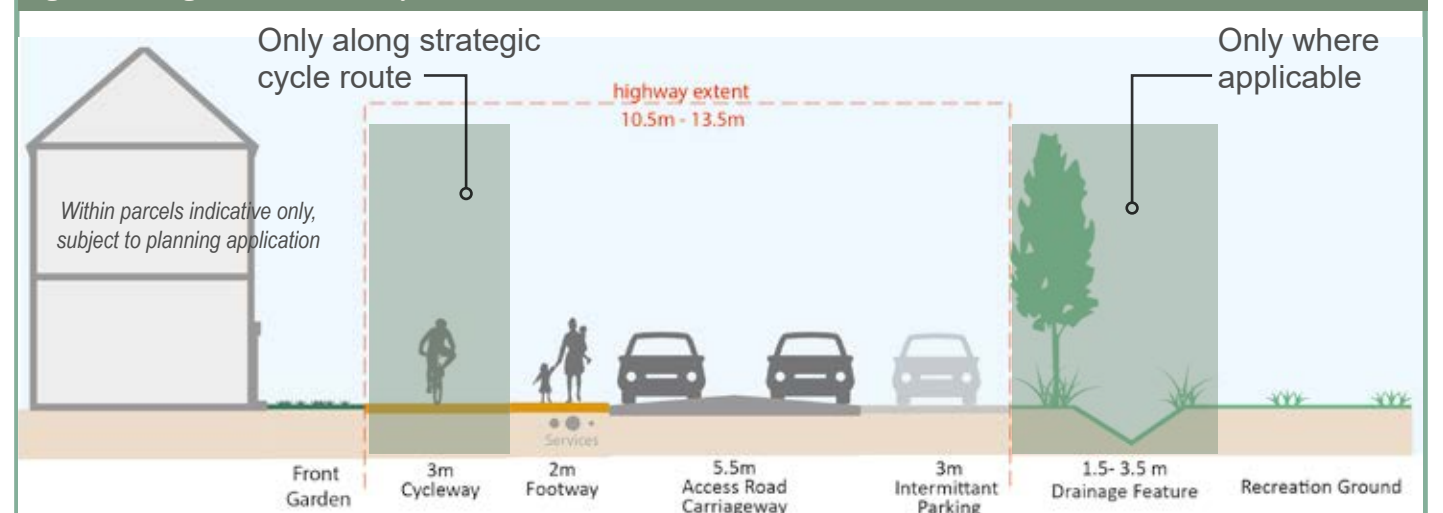
- This street is classed in the Essex Design Guide as a 5.5m wide 'Access Street'.
- Running through the heart of the development both east and west.
- Direct access will be possible on both sides of the street.
- Potential for the provision of unallocated visitor parking bays within the verge.
- Footpaths provided on both sides of the road with a segregated cyclepath on one side where indicated on Cycle Connections Plan.
- Strong frontage and consistent building line is maintained to create a sense of enclosure.
- Street trees are provided within the green verge. Where space permits, species will be selected that reach a mature height of between 12-17m.
- Further technical hydraulic modelling undertaken in support of planning applications will determine whether this street type will incorporate SuDs features.

Secondary Streets - Single Sided

This street runs around the centrally located Village Green.



Figure 58. Single Sided Secondary Streets



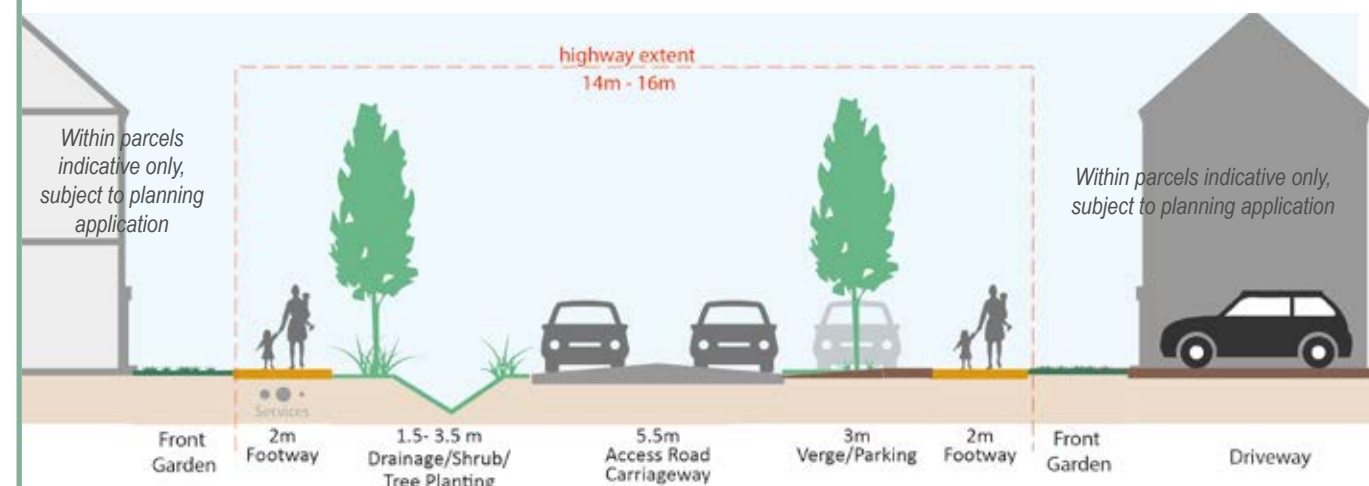
- This street is classed in the Essex Design Guide as an 5.5m wide 'Access Street'.
- Direct access will be possible.
- Potential for blocks to provide rear courtyard parking thus removing cars from alongside the open space.
- Potential for the provision of small clusters of unallocated visitor parking bays on the open space side.
- Footpath and segregated cycle path (where provided) on the development side.

Secondary Streets with drainage

The plan shows indicative location of streets requiring open drainage features which run downhill toward the attenuation basins. However the precise location of drainage features is subject to detailed design.



Figure 59. Secondary Streets incorporating drainage features



- This street is classed in the Essex Design Guide as a 5.5m wide 'Access Street'.
- Further technical hydraulic modelling undertaken in support of planning applications will determine the type and size of SuDs feature that are required. Potential SuDs features range from swales, rills, rain gardens and filter drains which range in width from 1.5m to 3.5m. It is anticipated that larger drainage features will be required nearer the attenuation basins.
- Direct access will be possible on the side opposite the swale, this side can accommodate unallocated parking bays.
- On the side of the drainage feature vehicular access will be provided from the rear or grouped driveways used to minimise crossings of the swale.
- The planting strategy within the swale is covered within section 6.3 Green and Blue Infrastructure Strategy.

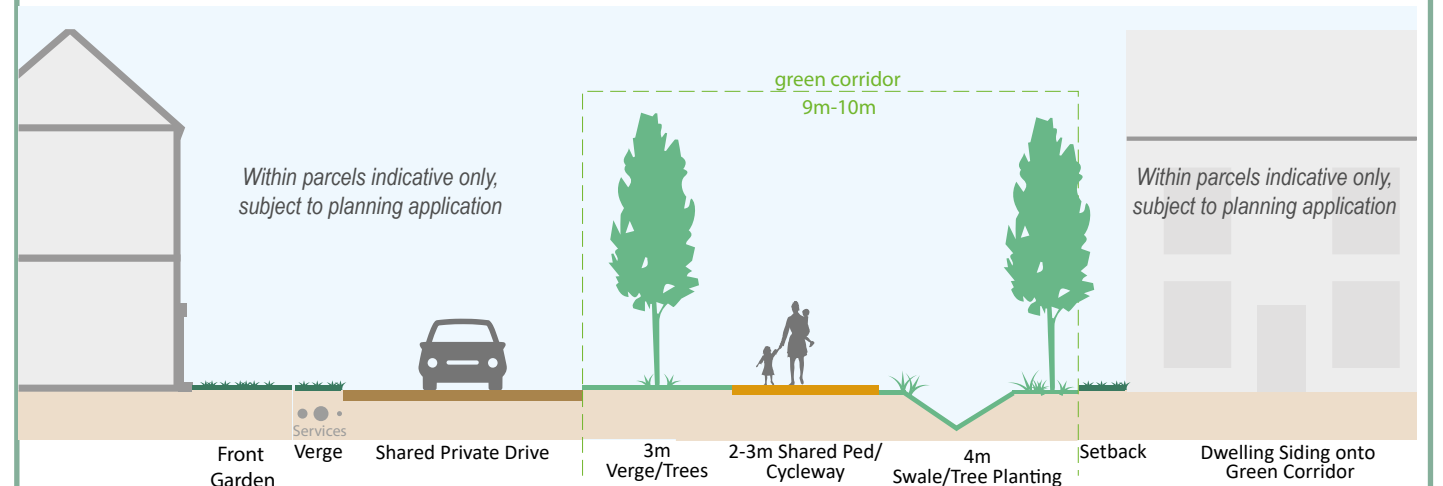
Green Corridors

The plan shows the indicative location for movement routes which should be retained as green corridors with segregated pedestrian footpaths.

Fluxs Lane (street section page 66)



Figure 60. Streets Alongside Green Corridors



- Off-road pedestrian/ cyclepaths will be circa 2m wide. Fluxs Lane retains its existing width.
- Verges planted with shrubs and street trees should line both sides.
- In order to minimise the impact of vehicle movements within the green corridors, dwellings can either 'side on' or rear parking courts utilised. Where front vehicle access is required, tertiary streets which have low vehicular movements should be used on one side only.
- Further technical hydraulic modelling undertaken in support of planning application will determine whether this street will incorporate SuDs features and their type and width.

6.6 Urban Form Strategy

Density

There will be a range of housing densities and typologies across the development in order to:

- Respond to topography whereby some areas of the site are more visually prominent than others;
- Support placemaking by creating distinct character variations across the development; and
- Provide the right mix of dwelling types for people at all stages of life and for all budgets, including affordable homes.

Analysis of density in the surrounding residential area of Epping immediately to the north show densities typically in the region of 20dph. In contrast, some of the more recent developments in Newhall, Harlow reach densities of between 50-60 dph. The Local Plan SEMPA allocation allows for densities of 'up to 50 dph'. This supports sustainable development and maximises the efficient use of scarce development land.

The proposed densities set out on the plan (opposite) show density ranges as follows:

- Lower densities of between 30-35 dph are located on the high ground adjacent to the listed buildings are where areas more visually exposed to views from the Green Belt.
- Medium densities of between 35-40 dph are largely located on the mid-ground and fronting the attenuation and brook landscape corridors.
- Higher densities of between 40-50 dph are located on the lowest parts of the site where building height parameters allow for three storey apartments. Located closest to the existing urban edge of Epping, these areas are most closely connected to local services and public transport connections.



Low density development edge precedent



Medium density precedent



High density precedent

30-35 DPH



This density band will typically comprise of:

- Approximately 50% large detached family homes with private rear garden and private detached or integral garage and driveway/courtyard parking; and
- Approximately 50% semi-detached and terraced dwellings with private rear garden, private garage and/or driveway/courtyard parking.

35-40 DPH



This density band will typically comprise of:

- Approximately 50% terraces with private rear gardens and perpendicular parking to the front or within parking courts; and
- Approximately 50% semi-detached/terraced dwellings with private rear garden, private garage and/or driveway/courtyard parking.





40-50 DPH

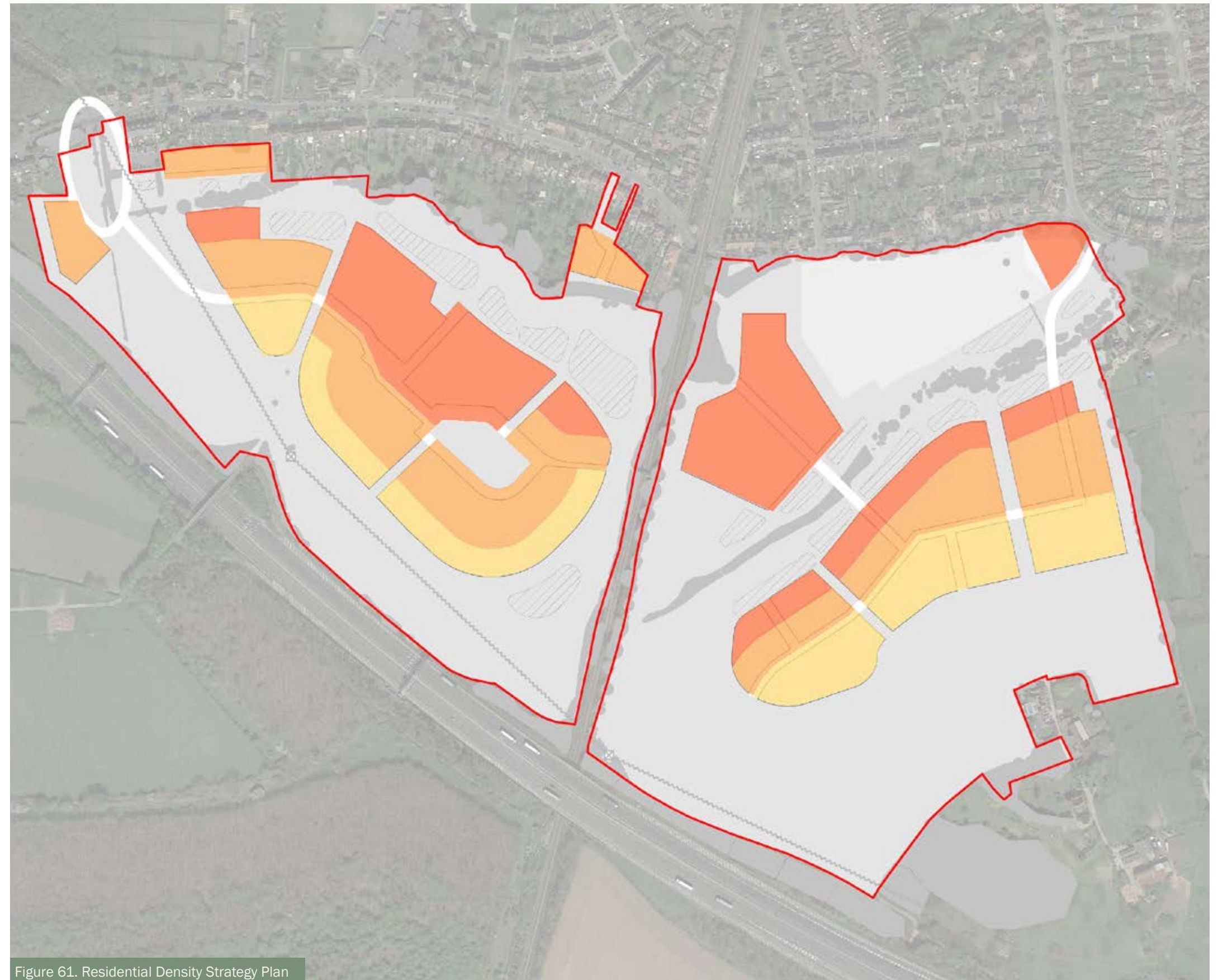


This density band will typically comprise of:

- Approximately 50% terraces and semi-detached dwellings with private rear gardens and allocated parking within rear courtyards or perpendicular parking to the front; and
- Approximately 50% apartments with balconies/communal gardens and rear courtyard parking.

LEGEND

-  Land South of Epping, East & West (EPP.R1 and EPP.R2)
-  Residential - 30-35dph
-  Residential - 35-40dph
-  Residential - 40-50dph



Building Heights & Views





The Building Heights Parameter Plan sets the maximum storey heights for development within the residential development zone. The distribution of building heights across the site has been determined by a combination of factors including:

- appropriate heights to achieve good placemaking;
- to reflect the character of nearby residential areas;
- the potential for visual impact within near and long distance views; and
- the residential densities set out previously.

A variation in storey heights within each zone will allow for key buildings to be accentuated which will create a more visually interesting streetscape. Areas considered most suitable to accommodate three storey development are those on lower areas of the site.

In order to be more sensitive to the setting of the listed buildings and to prevent visibility from the Green Belt, dwellings on the upper slopes, will need to be no more than two storeys in height.

LEGEND

-  Land South of Epping, East & West (EPP.R1 and EPP.R2)
-  Max 2 Storey (+10.5m)
-  Max 2.5 Storey (+13m)
-  Max 3 Storey (+14m)

Note: Building height parameter subject to +/-2m tolerance.

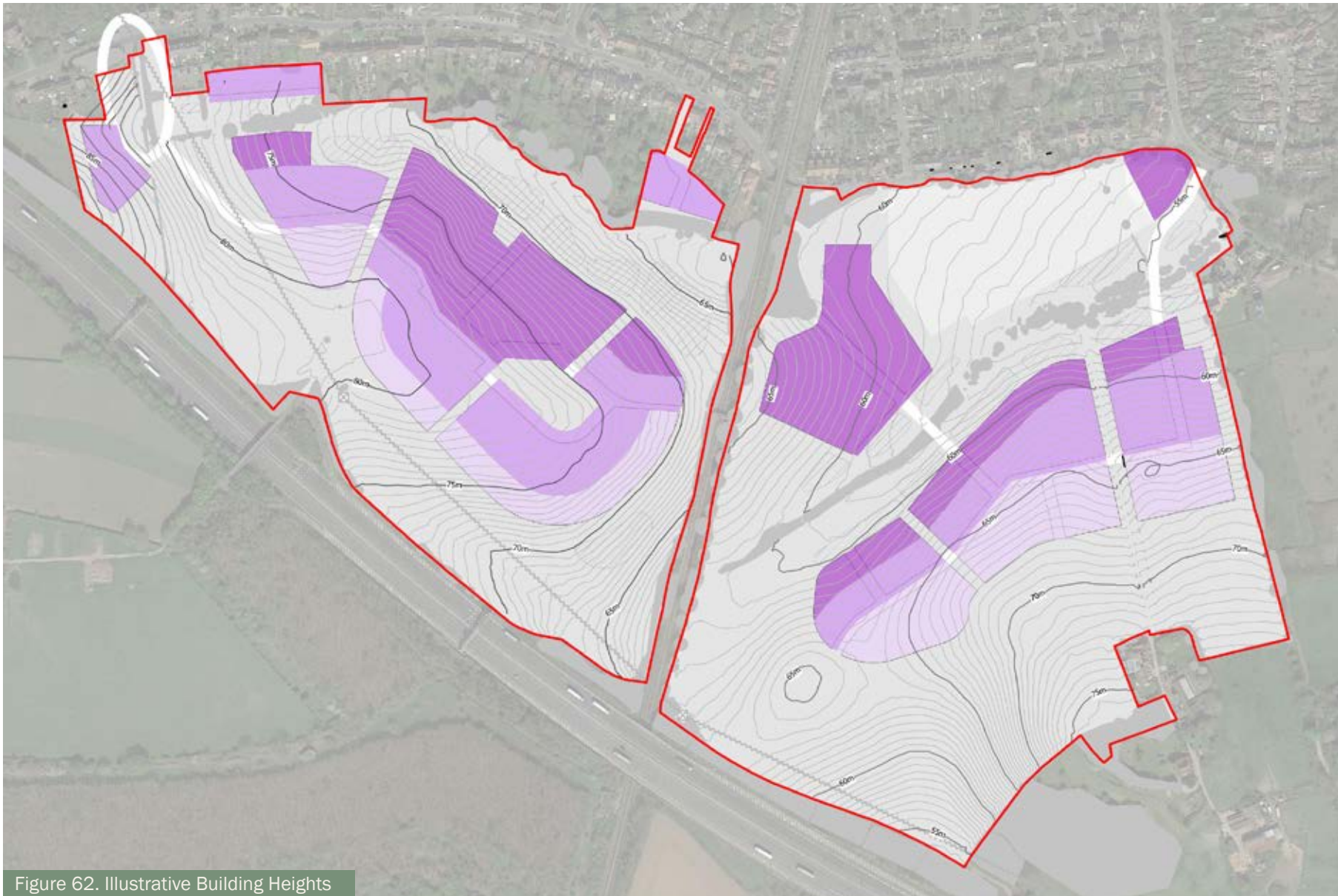
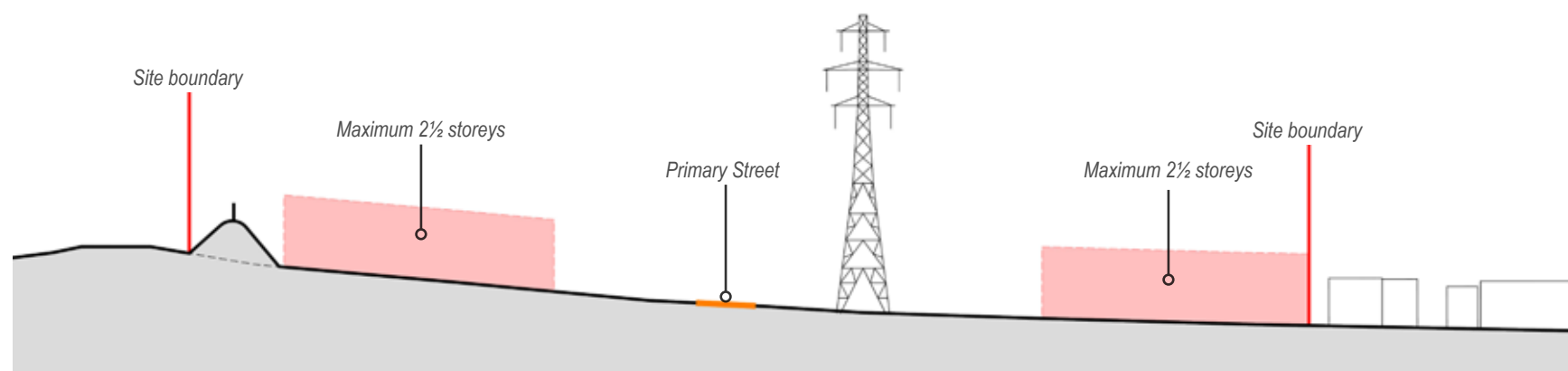
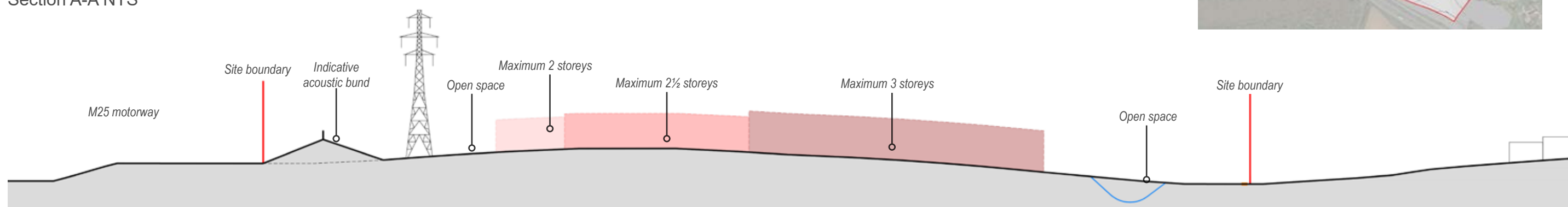


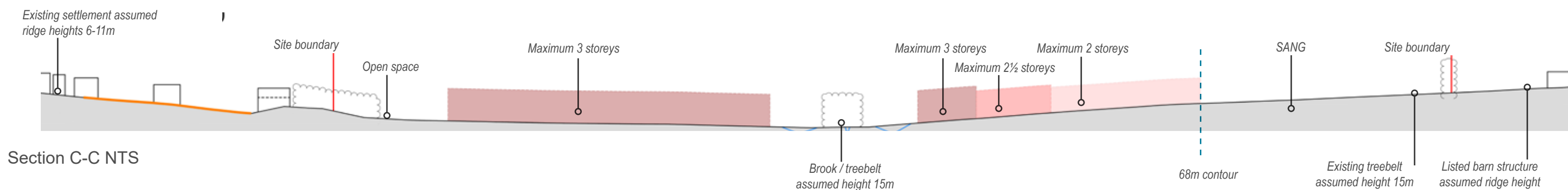
Figure 62. Illustrative Building Heights



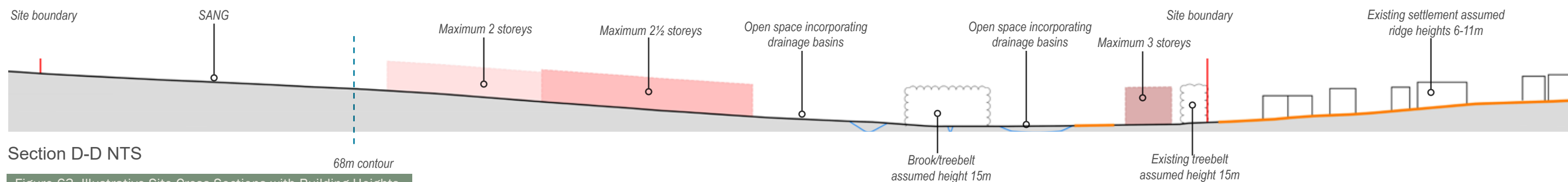
Section A-A NTS



Section B-B NTS



Section C-C NTS



Section D-D NTS

Figure 63. Illustrative Site Cross Sections with Building Heights

Placemaking & Wayfinding

The plan (right) shows the key legibility principles for the SEMPA. These are the key features that will make the place memorable, legible for way-finding purposes and give it a sense of place.

Character Areas

The character area guidance, Section 8.1, sets out the character areas and describes distinct features which will distinguish urban form within each character area. The plan opposite identifies frontages which frame the public spaces of the development.

Key Views and Focal Buildings & Structures

Wherever there is an important view from an entrance or along a street, the vista should be terminated by a landmark building or feature. There are a number of such locations identified on the plan opposite that should be given prominence by virtue of increased storey height, contrasting facade material and/or architectural detailing. Buildings on key corners must have apertures and detailing on all public facing frontages. The block structure should avoid creating vistas along streets which align with electricity pylons.

Key Spaces

A sequence of key spaces are located along a 'Placemaking Spine' which follows the strategic east-west pedestrian/cycle route. Each key space is located at one of the following features:

- A gateway;
- A junction between key routes;
- A key area of open space;
- Outside a community building, in this case the Primary School;

The following pages provide schematic diagrams showing the principle arrangements within each of these spaces. Design Codes accompanying outline planning applications will provide further detail on how to achieve these principles and on the precise location, design and size of each space/node.

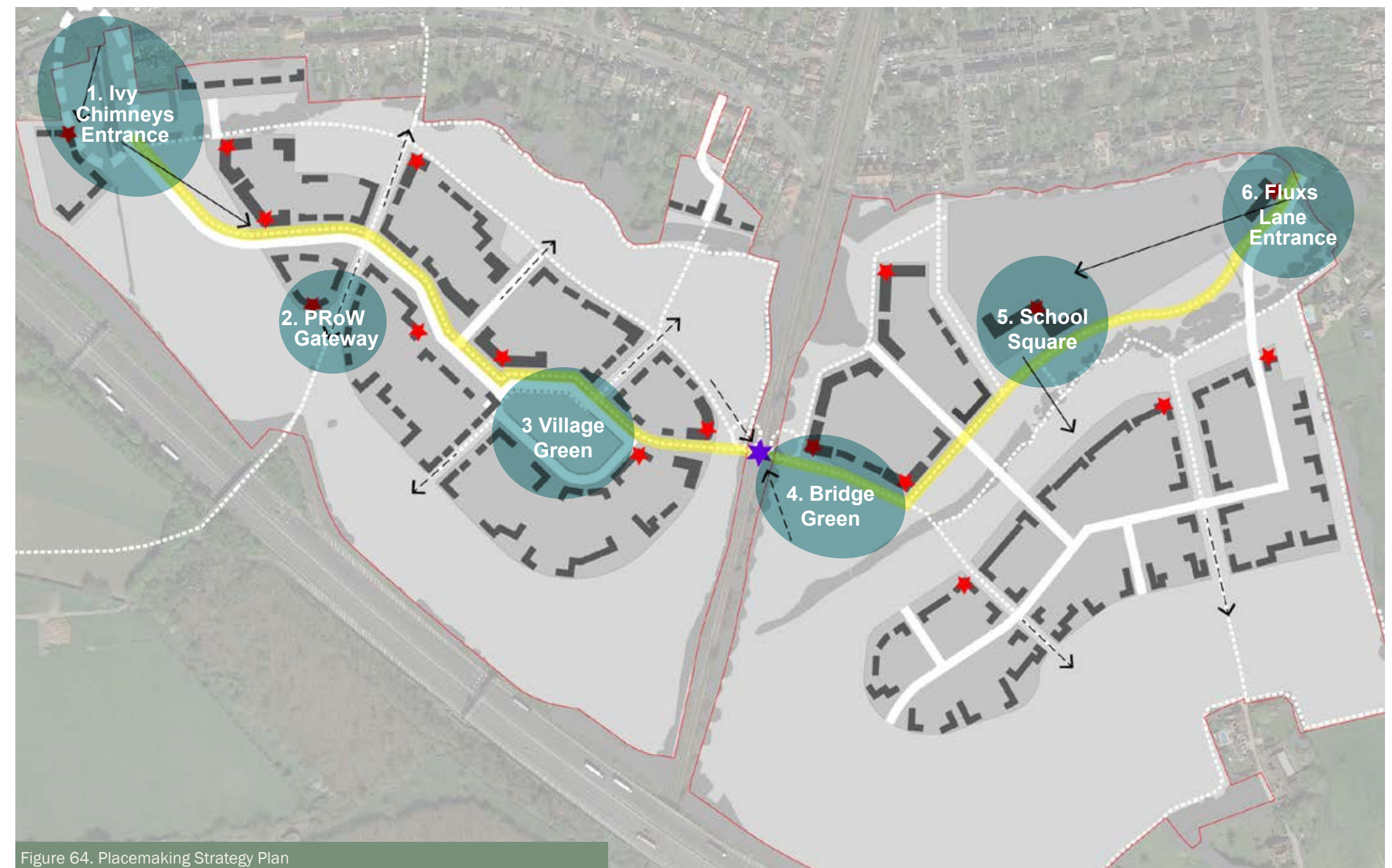


Figure 64. Placemaking Strategy Plan

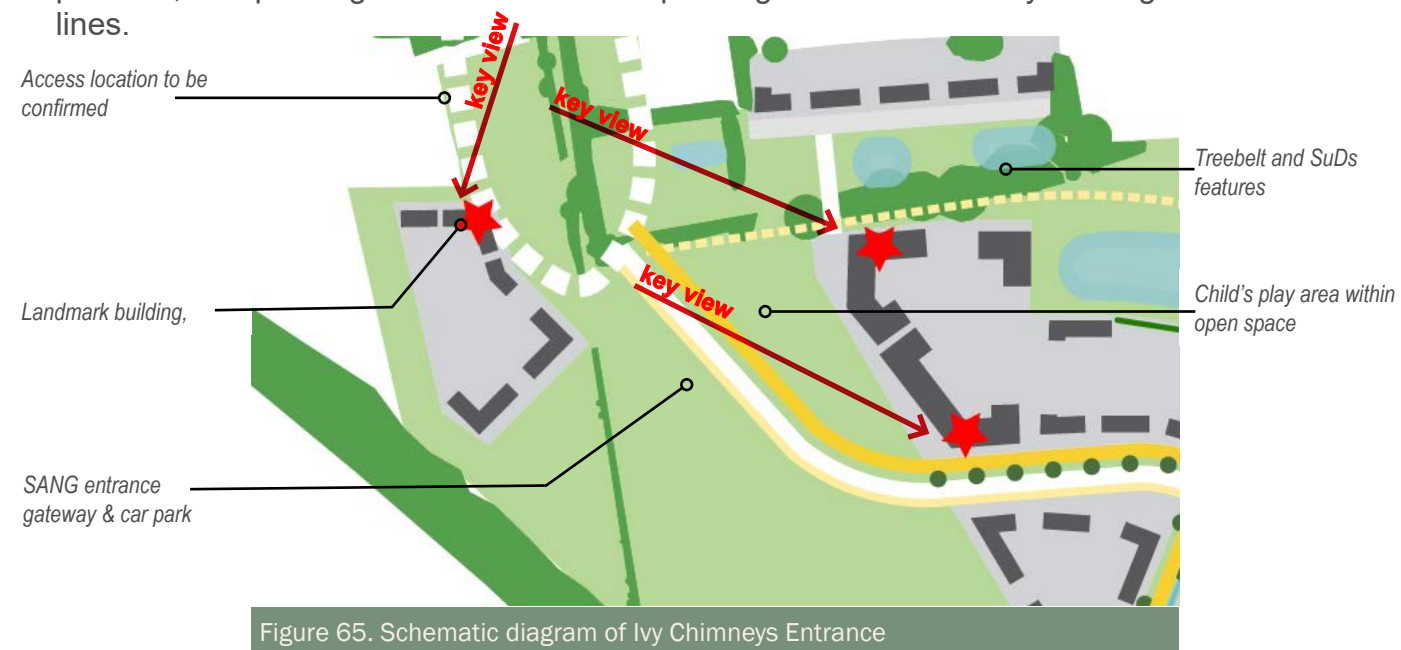
LEGEND

- | | | |
|---|-----------------|------------------------------|
| Land South of Epping, East & West (EPP.R1 and EPP.R2) | Focal Structure | Key Views within Development |
| Principle frontages onto open space/key routes | Focal Building | Key Views out to Landscape |
| Key Space | | Placemaking Spine |

Key Space 1 - Ivy Chimneys Entrance

The access from Ivy Chimneys Road runs through a area of landscaped open space. Landmark buildings are located on the prominent corners on either side of the Primary Street.

- There is potential for a low brick structure incorporating shrub/hedge planting to create a gateway feature.
- Dwellings at key corners must provide architectural detailing and active frontages onto the open space.
- To enhance views towards focal buildings and the wider development, where possible, tree planting and low-level shrub planting used to define key viewing lines.



An example of a low brick structure with clipped hedge and development name creates an entrance feature

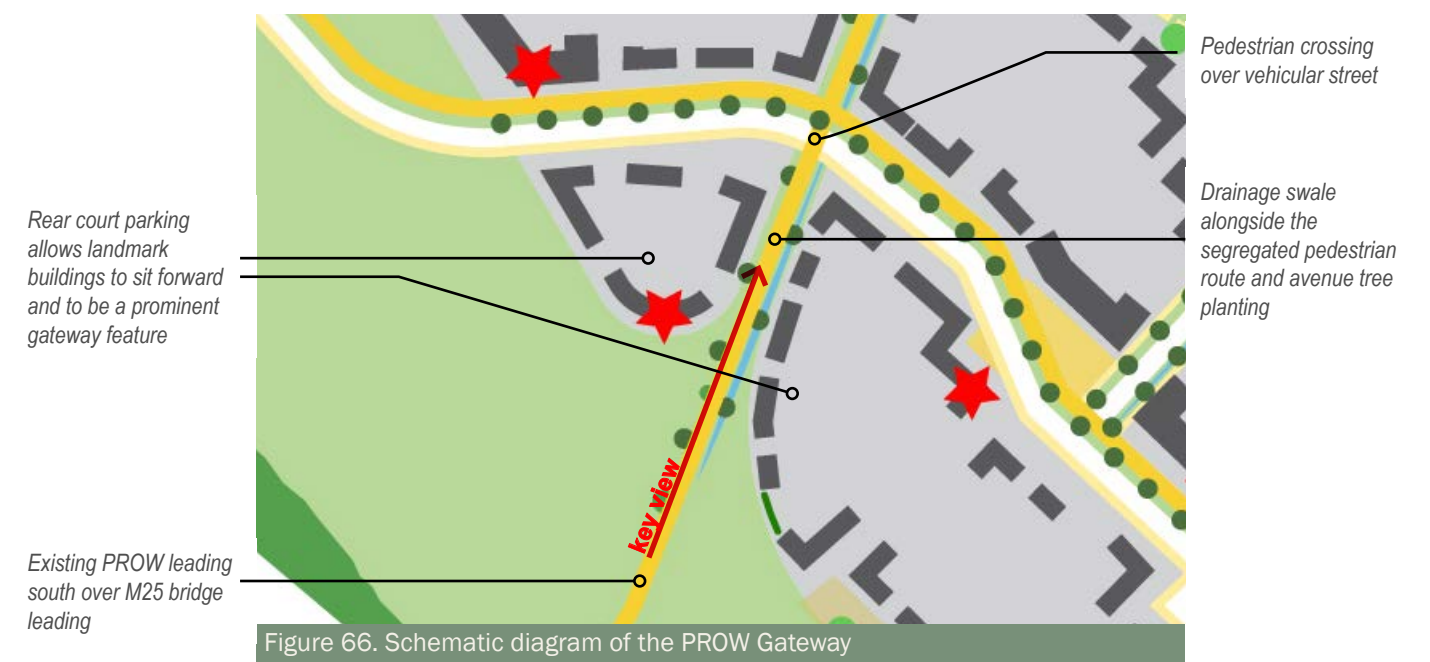


A precedent for the entrance area in which urban form is set within landscape

Key Space 2 - PRow Gateway

The existing PRow from Theydon Bois to the south, which crosses the M25 bridge, is retained within a green corridor through the development. Key features of this space are:

- Built frontage that splays outward to create a gateway entrance space.
- The use of rear courtyard parking which allows landmark buildings to sit close to the development edge and so define the space.
- A landscape dominant and car free space.

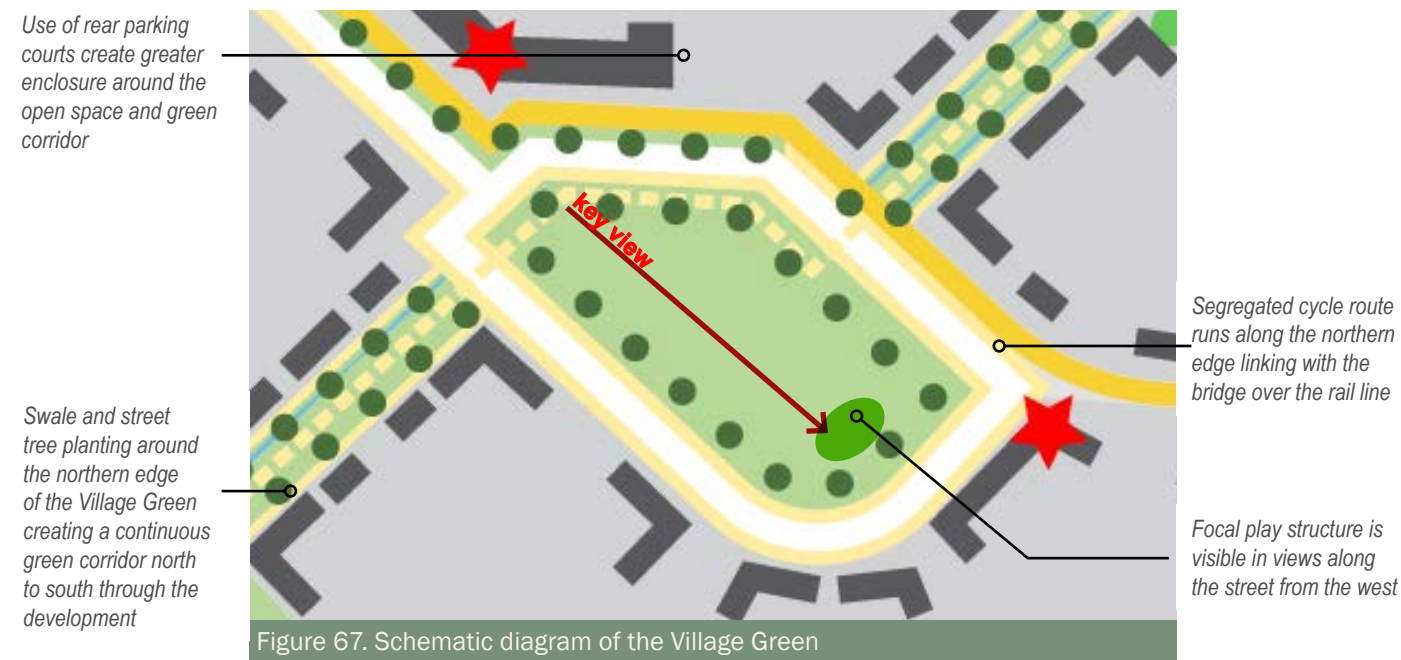


Precedent image showing diverging frontage with ped/cycle route running through

Key Space 3 - Village Green

The re-provision of the Brook Road recreation ground creates a focal community space within the western parcel. The segregated cycle route running east/west across the SEMPA runs along the northern edge. Key features of this space are:

- Tree planting and drainage swale as part of a north/south green corridor running around the northern edge of the open space.
- A play area incorporating a feature structure located within the rec ground to be visible at the end of vistas from the west.

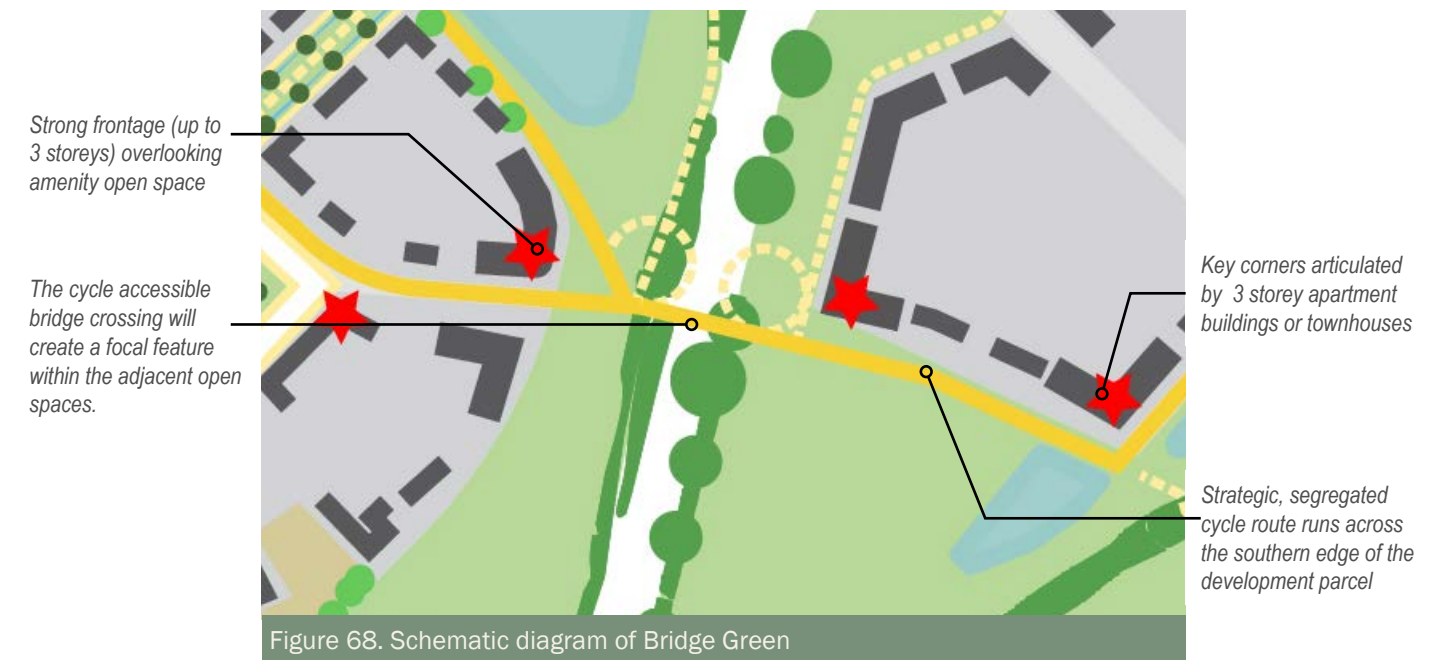


A precedent of a grassed area surrounded by dwellings with shrub planting, swales and trees around the periphery.

Key Space 4 - Bridge Green

New shared pedestrian and cycle bridge to be a feature within the landscape. Key features of this space are:

- The highest density area of built form overlook this area of open space. Key corners should be accentuated by an increase in height of roofscape feature.
- Rear courtyard parking to apartments bring the forward frontage at the corners of the parcel.



A precedent of a bridge structure which caters for cycles

Key Space 5 - School Square

A school building located at the south western corner of the school site will create enclosure to a hard landscaped community space, doubling as a gathering space for children and parents. Key features of this space are:

- The enclosure and definition created by built form on three sides and the fourth side defined by the brook tree belt.
- A hard landscaped space sitting outside the secure school site creating the opportunity for dual use as a community hub.

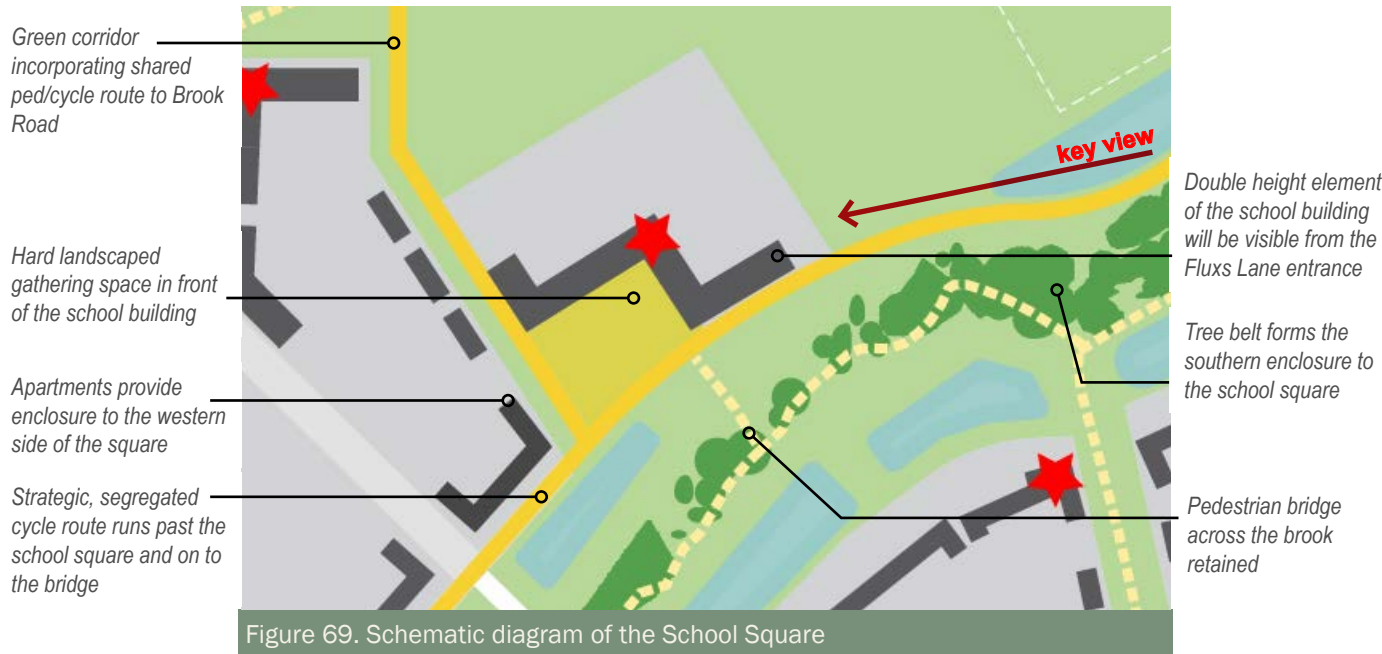


Figure 69. Schematic diagram of the School Square



A precedent of a Primary School building defining a hard landscaped gathering space

Key Space 6 - Fluxs Lane Entrance

Three storey development located at the Fluxs Lane entrance will provide a gateway feature and frontage onto the Brook landscape corridor on the northern side. Key features of this space are:

- The apartments or townhouses that provide frontage onto the Primary Street. with potential for balconies overlooking the brook corridor landscape.
- Parking to the rear allows for the existing boundary trees and watercourse to be retained within an accessible semi-private amenity space.

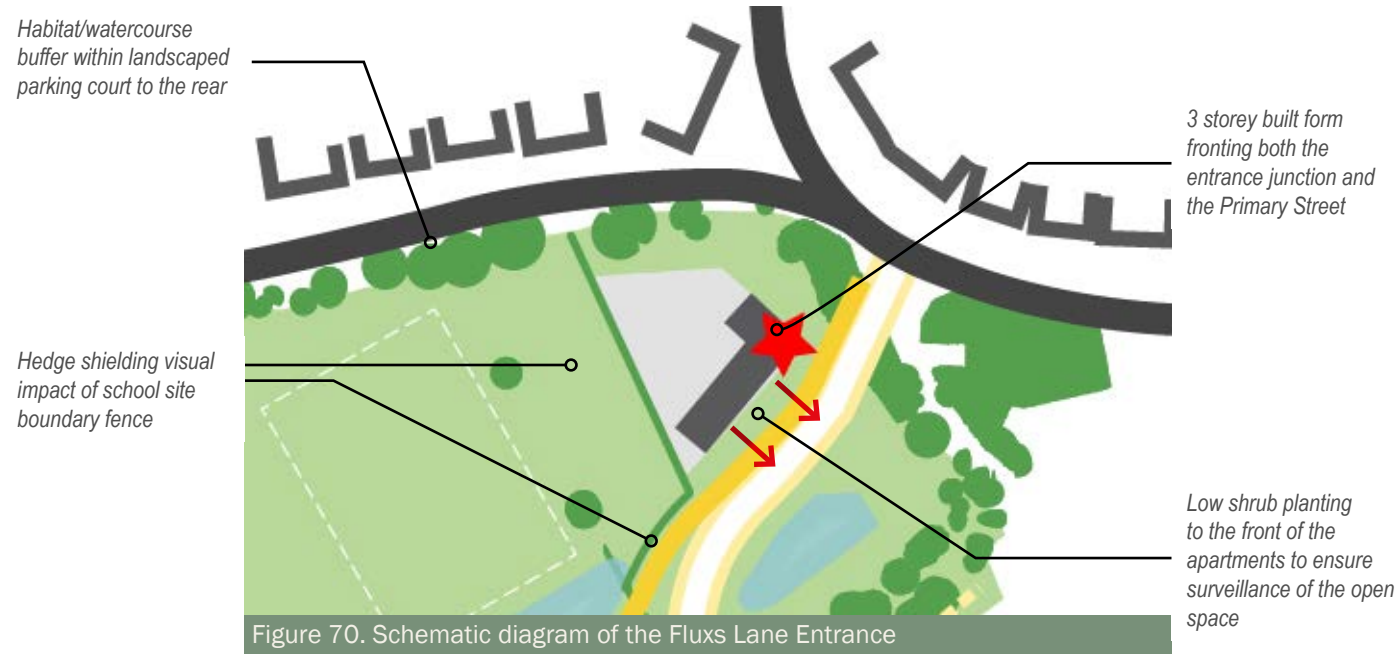


Figure 70. Schematic diagram of the Fluxs Lane Entrance



Precedent image demonstrating a prominent building fronting open space

6.7 Environmental & Socio-Economic Sustainability

Sustainable Design at South Epping

Sustainable design and incorporating measures which mitigate and adapt to climate change are core to the design of the SEMPA. Through the masterplanning process consideration has been given to a wide range of sustainable design measures which align with the objectives of the Local Plan and the Council’s Sustainable Guidance and Checklist (Sustainable Guidance Document).

The sustainable design of individual phases of the development will be guided by the measures and considerations set out in this section. The headings reflect those set out in the Sustainable Guidance Document and as a minimum the development will meet the minimum requirements set out.

The sections here describe relevant measures incorporated at the initial masterplanning stage and those measures to be considered as part of the detailed design of future phases of development. Future applications will be supported by a Sustainability Statement setting out how each stage of development will incorporate sustainable design measures. Future Statements will be proportionate to the scale of development coming forward, noting some areas of the development are likely to be significantly smaller than others.

Masterplan Design Considerations

As part of the master planning process a number of sustainable design measures have been considered and will be part of the SMF and detailed design considerations, these include:

- Solar Orientation– Where possible ensuring development plots are organised to facilitate south facing buildings for the provision of Solar PV.
- Passive solar gain – Optimising passive solar gain through orientation, considering potential implications of overheating and use of landscape features and trees to provide shading.
- Balancing the orientation of homes to maximise the benefits of solar gain against good urban design to create access through the development.
- Designing development blocks to allow for flexibility – Creating development blocks which allow for flexible uses, while maintaining opportunities for solar gain, renewable energy etc as far as practicable.
- Incorporating green infrastructure and biodiversity net gain– Providing a network of green infrastructure which supports enhancing site biodiversity helping climate resilience.
- Climate change adaptation – Ensuring the masterplan includes allowance for climate change adaptation, i.e. climate change allowances are incorporated into Sustainable Drainage (SuDs) areas.

Green Infrastructure

The masterplan has been designed to be landscape led and green infrastructure is integral to the development, for example the masterplan includes:

- Consideration of the existing site topography, trees, hedgerows etc to ensure key elements are incorporated into the development where possible;
- Areas of open space;
- Recreational ground;
- SANG;
- Ecological enhancement areas;
- Green corridors linking green and blue infrastructure; and
- Attenuation basins.

In line with the Sustainable Guidance Checklist, the detailed design of future phases of development will include consideration of measures to support green infrastructure provision, including:

- A net gain in biodiversity, aiming for a 10% improvement as a minimum;
- Provision of a stewardship and maintenance strategy;
- Provision of play, community amenity and food production within walking distances;
- Integration of SANG;
- Overheating assessment; and
- Provision of suitable multi-functional green spaces.

Details will be set out as part of a Sustainability Statement prepared to support future applications.

Sustainable Movement

Sustainable access and movement has been prioritised by the masterplan, with consideration to the following measures which align with the Council’s Sustainable Guidance Checklist, measures considered so far include:

- Sustainable transport corridors and access to the wider transport network;
- Prioritisation of walking, cycling and public transport;
- Access to key transport links including the Town Centre, train station within a 5 min cycle and 15-20 minute walk;
- On and off-road cycle links;
- Pedestrian links;
- Walking distance of existing bus services; and
- EV charging in line with the Building Regulations

The detailed design of future phases of development will also give consideration to further measures to support sustainable movement, including provision of secure cycle parking. Details of sustainable movement will be set out as part of Transport Assessments and Travel Plans prepared to support future applications.

Water Management

The detailed design of future phases of development will include measures to support sustainable water management, including:

- Provision of water butts for all homes;
- Provision of permeable surfaces where feasible; and
- Homes to achieve the Part G higher water efficiency standard of 110 litres per person per day, making using of efficient fittings such as low flow taps, low volume toilets and baths.

The initial site masterplan includes provisional details on surface water drainage systems, including the provision of sustainable drainage systems (SuDs). Details of the water management proposals and how these align with the Council's Sustainable Guidance Checklist will be set out as part of Flood Risk Assessments and Sustainability Statement prepared to support future applications.

Circular Economy

The detailed design of future phases of development will include measures to support the principles of the circular economy, including:

- Ensuring at least 80% of materials are sourced from ethical and responsible supply chains, for example ensuring all timber is FCS certified;
- Designing homes to be circular-by-design and so that materials can be easily recycled;
- Maximising waste diverted from landfill.

Consideration will also be given to how much of the materials used can be reused, recycled, or are themselves recycled. A section on circular economy will be included in the Sustainability Statement setting out measures incorporated into the development.

Air Quality

The detailed design of future phases of development will include measures to minimise air quality impacts noting the District's Air Pollution Mitigation Strategy, assessing potential impacts on air quality and measures to ensure occupants are not exposed to unacceptable levels of air pollution.

A summary potential air quality effects and measures to minimise air quality will be included as part of the Sustainability Statements prepared to support future applications.

Non-Domestic

Where applicable, the detailed design of future phases of development will include measures to deliver sustainable non-domestic buildings. This includes ensuring buildings over 1,000m² achieve a BREEAM Very Good rating as a minimum, as well as targeting a reduction in operational energy, embodied carbon and potable water use.

Future applications will include information on non-residential building sustainable design as part of a Sustainability Statement. Where appropriate this will include a BREEAM pre-assessment demonstrating are route to achieving a BREEAM Very Good rating.

Health and Wellbeing / Economic Growth and Job Creation

The masterplan aims to incorporate measures to support health and wellbeing, and has included consideration of:

- Creating safe environments;
- Reducing noise pollution;
- Access to sustainable transport links within and outside of the development;
- Areas of play – formal and natural play areas;



- Recreational paths; and
- Edible landscape.

The masterplan also aims to include measures which support economic growth and job creation, including:

- Homes designed for flexible working;
- Provision of a space for a new school which could provide local economic benefits; and
- SANG serving kiosk.

The Sustainability Statement will include details of health and wellbeing measures incorporated in future applications in addition to those set out through the masterplan process, for example the provision of flexible workspaces in homes. The Statement will also include details of how economic growth and job creation will be supported by the development.



Community Strength and Social Infrastructure

The masterplan aims to connect to the existing settlement and make on-site provision for social infrastructure through consideration of:

- Connection to the existing settlement through a number of sustainable access routes;
- Provision of a new school and open space accessible to existing residents;
- Walking and cycling provision throughout the development;
- Community facility opportunities within the school; and
- Provision of extensive areas of SANG incorporating leisure walking routes with 'play on the way' facilities.

The Sustainability Statement prepared to support future applications will include details of measures incorporated in addition to those set out through the masterplan process which enhance community strength and social infrastructure, for example giving further detail on social infrastructure such as recreational facilities.



6.8 Waste, Energy and Utilities

Energy Efficiency and Carbon and Renewable Energy

Given the Council’s ambition for low carbon development early-stage consideration has also been given to the Energy Efficiency and Carbon and Renewable Energy strategy for the development. This includes measures being considered as part of the masterplanning process, as well as initial energy and carbon strategy considerations

Delivering Efficient Low Carbon Homes

The initial energy and carbon strategy aims to consider the current local and national planning requirements, and objectives of the Council’s Sustainable Guidance Document. The Government’s FHS aims to ensure that from 2025 homes are Net Zero Ready, which through an all-electric strategy allows residents to live Net Zero through the purchase of certified renewable electricity.

It is noted that the Council’s Sustainable Guidance Document provides a set of standards for development, with minimum requirements and enhanced net zero targets. This includes overarching targets for operational energy, embodied carbon and space heating.

As a minimum homes will be designed to meet the requirements of the 2025, FHS as currently set out, achieving a 75% carbon reduction beyond Part L 2013 through a fabric first approach to design, incorporating low carbon heating such as Heat Pumps and Solar PV to provide on-site energy generation.

As part of the detailed design of homes improvement in energy performance and space heating will be targeted. As a minimum, homes will meet the operational energy intensity and space heating target set in the Council’s Sustainable Guidance document, where possible aiming to achieve the Net Zero 2050 target.

The development will also target the 2025 embodied carbon targets of the RIBA 2030 Climate Challenge. These targets support the delivery of Net Zero development and the UK Net Zero trajectory.

There are significant potential challenges in delivering development which sets targets in advance of the 2025 FHS. The 2025 FHS is a significant step change in development requirements, switching from gas to all-electric buildings, use of heat pumps and mechanical ventilation. There are challenges in supply chain management, technical expertise and ensuring new systems work as intended.

This approach is intended as a baseline for consideration against which future planning applications will be assessed, cognisant that technology and solutions to the net zero challenge are evolving over time. As part of detailed or Reserved Matters applications these targets, and those set out in the Sustainable Guidance Checklist need to be tested based on deliverability and viability considerations.

In line with the Sustainable Guidance Checklist the detailed design of future phases of development will include consideration measures to support Energy Efficiency and Carbon and Renewable Energy, including measures to reduce energy demand and carbon emissions such as low u-values, and provision of on-site renewable energy generation to provide a percentage of the sites energy demand.

Waste Management

The detailed design of future phases of development will include measures to support the principles of sustainable waste management, including:

- Measures to support reuse and recycling of waste from construction;

- Setting targets for diverting construction waste from landfill; and
- Designing homes to facilitate waste recycling.

As part of future applications the Sustainability Statement will include construction and operational waste management frameworks including information on key waste targets to be implemented.

Foul Drainage

A foul water drainage strategy has been also developed to demonstrate how the foul water from the proposed development will be managed and connected to the existing Thames Water sewer network.

Utilities

Enquiries made in 2022 to determine the capacity of the existing utility networks to service the proposed development of the land parcel on the eastern side of the railway, comprising approximately 263 residential units and a primary school, yielded the following responses.

- **Water:** Affinity Water confirmed that its existing network has capacity to supply the new development without any need for network reinforcement.
- **Electricity:** The Distribution Network Operator for the area, UKPN, identified a point of connection for the new electricity infrastructure as being at its Lindsey Street Primary Substation, approximately 2.4km from the site. UKPN further identified the need for upgrade works to the Lindsey Street Primary Substation which it confirmed would be completed, subject to the acceptance of its offer which at this time has not been confirmed, by or before a period of just over 12 months. It is noted that the loadings provided to UKPN were derived from a conservative (worst case)

assessment of the likely electrical load from the development which, subject to refinement during the detailed design of the development, may possibly yield a point of connection closer to the site and less extensive reinforcement works.

- **Telecoms:** Openreach do not make assessments of the capacity but will provide new infrastructure to new developments in excess of 19 units at nil cost to the developer.
- **Gas:** No capacity enquiry was made with the incumbent gas transporter for the area, Cadent, as the developer is proposing that all units are to have electrical heating, in anticipation of the requirements of the Future Homes Standard coming into effect in 2025.

8. Energy Storage

Energy storage in hot water tanks, EVs and possibly batteries to reduce bills and CO₂ emissions

4. Daylighting / Overheating

Glazing optimised for good daylight but minimising risk of overheating

5. All Electric Energy

No gas on-site with zero air pollution

9. EV Charging

Electric charging points alongside cycle storage provided

6. Air Source Heat Pump

Very low carbon heating

7. Solar Power

Provision of photovoltaic panels to generate energy

1. Good Fabric

Designed in accordance with future home standards for low energy demand

3. Smart Controls

Advanced controls for managing energy smartly

2. Efficient

Low energy fixtures and fittings, where provided, alongside water efficiency measures

Figure 71. Delivering Efficient Low Carbon Homes

6.9 Strategic Masterplan Framework Plan

All the structural elements are added together to create an indicative overall framework plan, shown opposite.

LEGEND

	Site Boundary		
Built Form		Access & Movement Parameter	
	Max 2 Storey (+11m)		Site Access
	Max 2.5 Storey (+12m)		Vehicular Links
	Max 3 Storey (+14m)		Existing PRow
	Indicative Location of School Building		Key Pedestrian Route
	School Site 2.1Ha		Zone for New Shared Pedestrian/ Cycle Bridge over Rail Line
			New Bridge Crossing over Watercourse
			Primary Street
			Secondary Street
			Pedestrian / Cycle Access
			Off Road Segregated Pedestrian/ Cycleway
			Off Road Shared Pedestrian/Cycleway
			Shared Ped/Cycle Route on diverted PRow alignment
			SANG carpark
		Green and Blue Infrastructure	
			Amenity Open Space
			Village Green (Reprovision of Brook Road Recreation Ground)
			Equipped Play Provision
			Natural & Semi-Natural Open Space
			SANG Provision
			Green Corridors / Streets with Swale
			Indicative Zone for Acoustic Bund to Incorporate Landscape Planting
			Retained Trees
			Hard Landscaped Community Square
			Indicative Zone for Surface Water Attenuation Basins
			Indicative Location of Pumping Station



Figure 72. Strategic Masterplan Framework

The principles and illustrative material covered within section six give rise to the following five Parameter Plans. These plans provide mandatory spatial requirements however allow for a degree of flexibility with the understanding that more precise and detailed Parameter Plans with less flexible parameters will come forward through subsequent planning applications. Planning applications must be in broad accordance with these parameters. Parameter Plans are provided at a larger scale within the appendix.

Density Parameter Plan

The Density Parameter Plan sets the dwellings per hectare range for the residential development parcels.

LEGEND

- Land South of Epping, East & West (EPP.R1 and EPP.R2)
- Residential - 30-35dph
- Residential - 35-40dph
- Residential - 40-50dph



Figure 73. SEMPA Density Parameter Plan

Building Heights Parameter Plan

The Building Heights Parameter Plan sets the maximum storey heights for development within the residential development parcels. The design of the school building will be determined by ECC.

LEGEND

- Land South of Epping, East & West (EPP.R1 and EPP.R2)
- Max 2 Storey (+10.5m)
- Max 2½ Storey (+13m)
- Max 3 Storey (+14m)

Note: Building height parameter subject to +/-2m tolerance.



Figure 74. SEMPA Building Heights Parameter Plan

Land Use Parameter Plan

The Land Use Parameter Plan sets the location of land uses throughout the development.

LEGEND

- Land South of Epping, East & West (EPP.R1 and EPP.R2)
- Infrastructure
- Zone for Residential Development (including drainage swales and internal movement routes)
- 2.1Ha Site for Provision of Primary School by ECC
- Indicative Location for Pumping Station
- Indicative Location for Equipped Play Area
- Indicative Location of Active Travel Bridge
- Indicative Location of SANG Car Park
- Publicly Accessible Open Space
- Indicative Zone for Surface Water Attenuation Basins
- Existing Trees and Hedgerows
- Existing Watercourses
- Indicative Zone for Acoustic Bund to Incorporate Landscape Planting (No Public Access)



Figure 75. SEMPA Land Use Parameter Plan

Access and Movement Parameter Plan

The Access and Movement Parameter Plan sets the location for vehicular, cycle and pedestrian access into the site, the indicative routes of the primary and secondary access streets, connections between parcels, the location of the new bridge over the rail line and SANG car parks.

LEGEND

- Land South of Epping, East & West (EPP.R1 and EPP.R2)

Existing PRow

Entrance Roads

Entrance Junction Location

Secondary Streets

Vehicular Link

Residential Parcel

School Site

Key Pedestrian Route
- Segregated Cycleway
- Zone for New Shared Pedestrian/Cycle Bridge Over Rail Line
- New Vehicular Bridge Crossing over Watercourse
- Indicative Location for SANG Car Park
- Pedestrian Site Access
- Pedestrian/Cycle Site Access
- Shared Foot/cycle Route Along Diverted PRow Alignment
- Shared Foot/cycle Route



Figure 76. SEMPA Access & Movement Parameter Plan

Green & Blue Infrastructure Parameter Plan

The Green and Blue Parameter Plan sets the location for all categories of amenity open space and play areas as determined by EFDC, the SANG provision, zones for SuDs features and the green corridors running through development parcels.

LEGEND

- Land South of Epping, East & West (EPP.R1 and EPP.R2)

EFDC Amenity Open Space Categories

 - Amenity Greenspace
 - Parks & Gardens
 - Allotments
 - Natural & Semi-Natural Open Space (including SuDs basins and existing trees)

SANG Provision (including SuDs basins)

Green Corridors / Street with Swale

Village Green (Re-provision of Brook Road Recreation Ground)

Indicative Location for Equipped Play Area
- Indicative Zone for Acoustic Bund to Incorporate Landscape Planting (No Public Access)
- Indicative Zone for Surface Water Attenuation Basins
- Retained Trees
- Existing Watercourse / Pond



Figure 77. SEMPA Green & Blue Infrastructure Parameter Plan

8.1 Creating Distinctive Character

The guidance set out over the following pages provides an initial framework for the development of character within the site.

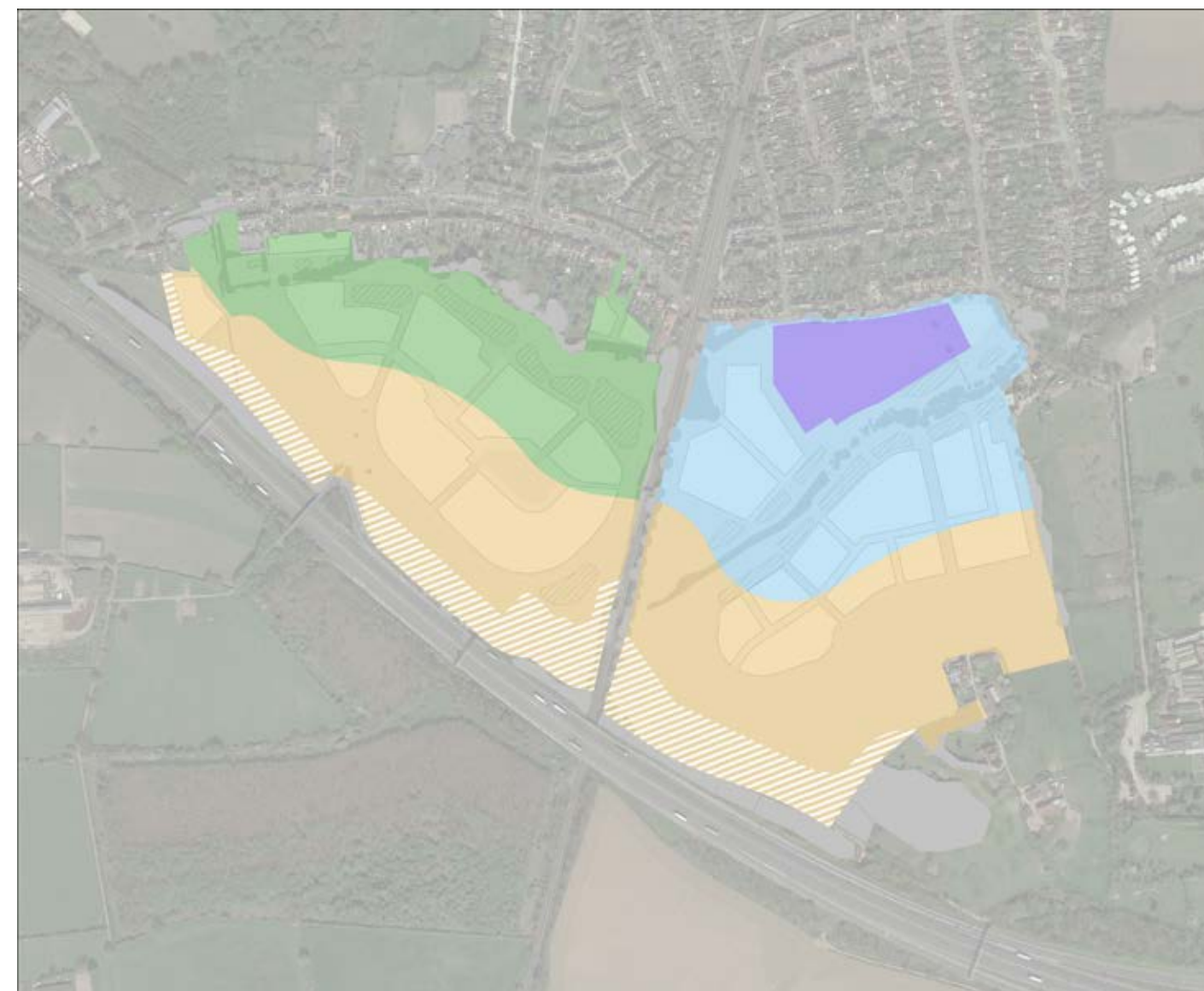
A series of character areas will be created to create a neighbourhood that is varied, attractive and responsive to its unique context. This section will form the basis of a strategic design code for South Epping.

Character Generators

Character can be defined by things like the typology and density of development, relationship with surrounding landscape features, architectural approach and material selection.

The key drivers for the character areas within the SEMPA are as follows:

- Topography - valley areas where SuDs will be located and high ground which is open to views from beyond the site;
- Relationship to the existing watercourse valley and associated tree belt;
- Urban context in terms of materials, density, storey height and typical built form; and
- Block structure - driven by the proportions of the development area dictated by the constraints and the requirement to create an efficient block structure that is suitable for solar generation.



LEGEND

- Brook Landscape Character Area
- Waterside Edge Character Area
- Hillside Character Area
- Ivy Chimneys Road Character Area
- School Site

Figure 78. Character Areas Plan

8.2 Primary School Site

Located to the north of the tree belt following the brook, the primary school building will be a key feature creating a community hub within the east of the SEMPA.

Site

- A site area of 2.1 Hectares is provided for the delivery of a two form entry (420 Places) primary school, with early years provision.
- The topography of the site falls from 60m AOD in the west, to 55m AOD at the eastern boundary. This gives an average gradient of 1 in 48. This is well within DDA compliance criteria and a school layout could be delivered across this average gradient.
- The proportions of the site can accommodate sports pitches of 59m by 92m which is the preferred size for primary schools. Some limited ground re-modelling may be desirable to achieve a gradient of 1 in 70 across the pitch.
- The school boundary will have a clearly marked and defensible boundary, gated at all access points. Hedge planting alongside the boundary fence on the western side fronting the amenity open space will shield the visual impact of the fence.
- The northern school boundary will exclude the tree belt and drainage ditch running along the northern site boundary.
- The area of the school site along the northern boundary sitting within the 10m ecological buffer zone associated with the drainage ditch will form a no-build zone, maintained as grassland which forms part of the informal play portion of the site.

Site Layout

- The internal layout of the site and design of the school building is subject to future design proposals by ECC, however a schematic diagram of the position of the school building in relation to a hard landscaped community space is provided within the 6.7 Urban Form Strategy, section.
- The school building is located to the south-western corner of the site with playground behind and sports pitches to the east.
- Parking for staff will be located at the eastern end of the site adjacent to the Primary Street.

Access

- The school will be accessed via the junction on Fluxs Lane/Stewards Green Road. The Primary Street serves the residential parcel at the entrance then turns south across the

brook. A segregated pedestrian and cycle path continues west along the southern edge of the school site linking to the active travel bridge and across to the western half of the SEMPA. This arrangement will provide a safe, car-free environment around the school entrance.

- A shared pedestrian/cycle route runs up to the northern boundary on western side of the site, following a slightly deviated alignment of the existing PROW.

Residential

- In the event that the school does not come forward on this site, an access street can be taken from the Primary Street to serve this parcel.



Figure 79. Key Design Principles for the School Site

8.3 Waterside Character Area

Landscape Character Guidance

Proposed Character

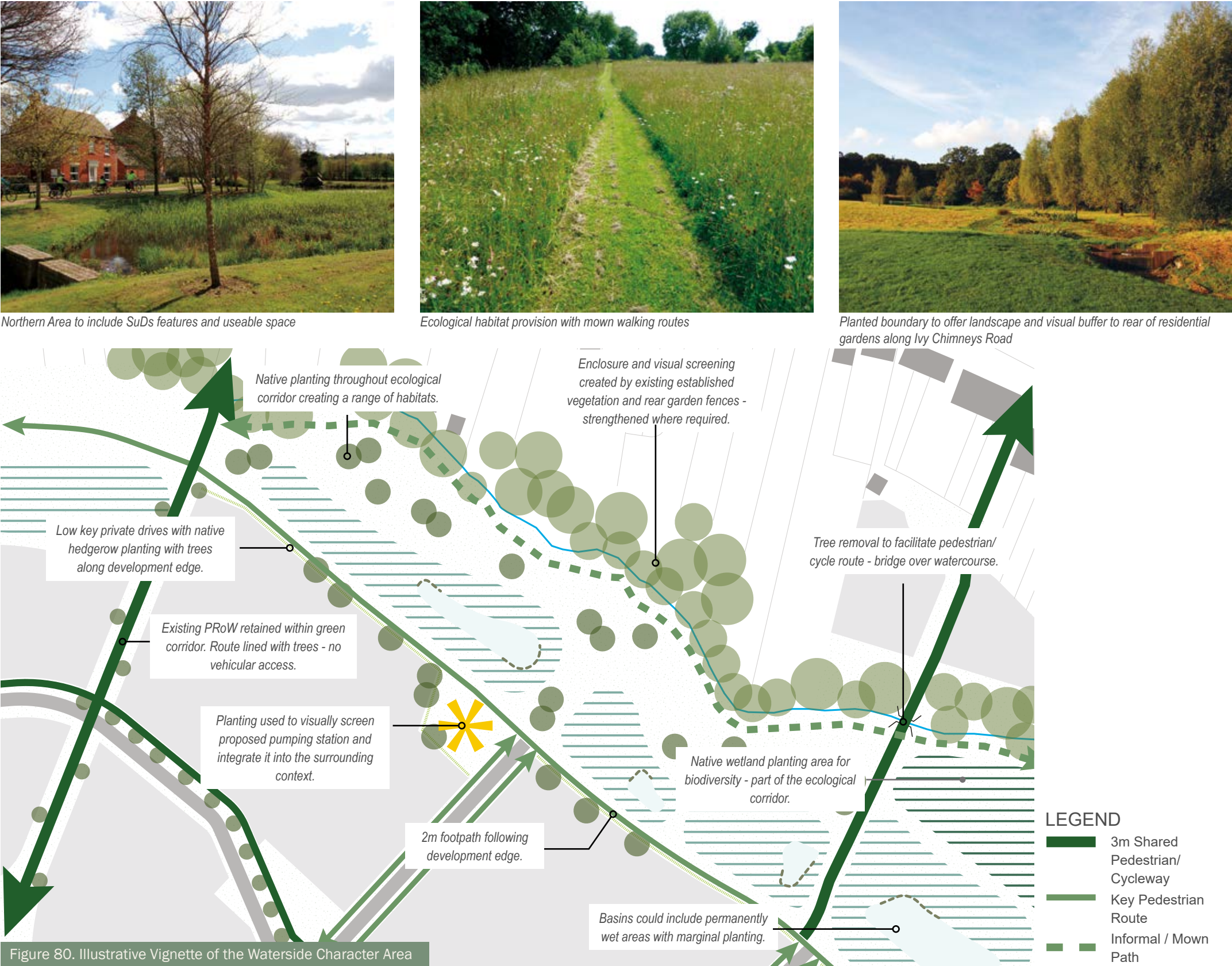
Located along the northern boundary of the development, the Waterside Character Area is a key strategic ecological and water management corridor, building upon the existing watercourse and ecological offerings, as well as acting as a buffer to the rear boundaries of existing residential dwellings.

A network of paths will provide connectivity east-west, as well as north-south via the Green Infrastructure routes that run through the Urban Core and travel north, linking to the surrounding context.

To the northwest of the Character Area, a provision of open space forms a distinct gateway entrance to the SANG provision on site. The use of varying topography, planting and materials creates an area of interest, enticing to users.

Key Landscape Objectives

- This character area plays key role serving as a landscape and visual buffer between the proposed residential development and existing properties at Ivy Chimneys Road and Bridge Hill;
- The Waterside Character Area will include SuDs attenuation basins and other habitat enhancements, through which footpath connections to north can permeate; and



Urban Form Character Guidance

A north facing frontage on the lowest part of the site where the attenuation basins are located. This character frontage plays an important role facing towards Epping, existing Public Rights of Way and cycle route running through the open space.

Reference should be made to local character study area 2 - Residential Street and study area 3 - Green Edge.



Urban Form

- Dwellings along the development edge should utilise forwarding facing gables predominantly orientated perpendicular to the street, echoing roof form seen in the local area.
- A mix of semi-detached, terraced, and some apartments are possible, within the 40-50 dph density parameter.
- Potential for blocks to provide rear courtyard parking thus removing cars from alongside the open space.
- Maximum of three storeys.
- Formal build line that may be slightly staggering to add visual interest.

Architectural Character

- A contemporary architectural style.
- Potential for dwellings with a larger proportion of glazing due to the north facing aspect.
- Opportunity for townhouses and apartments with first or second floor balconies benefiting from views across the wide green corridor.
- Simply detailed window and door openings.

Streetscape

- This frontage is punctuated by the swale streets running north to south through the development.
- This frontage is served by tertiary edge lanes or a pedestrian route only.
- Low shrub planting to front garden or service strip if shared surface.
- Where parking is provided on plot within private driveways, garages should be set back from the building frontage.



Precedent image of 2.5 storey dwellings with 3 storey corners



Precedent image of 2 storey dwellings coordinating with the development edge frontage



Precedent image of 3 storey dwellings with integral garages

8.4 Brook Valley Character Area

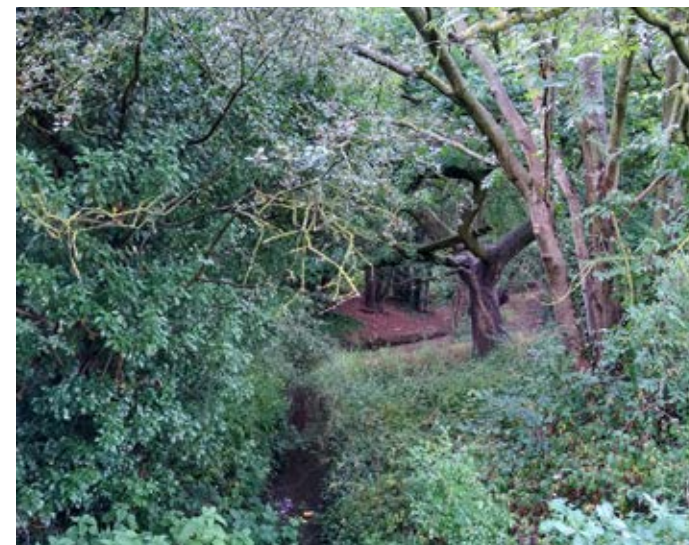
Landscape Character Guidance

Proposed Character

The Brook Valley Character Area is defined by the brook itself and the associated woodland belt vegetation, both of which form an important ecological corridor. The corridor is to be enhanced through habitat enrichment and utilisation as part of the water management system in order to maximise biodiversity.

Key Landscape Objectives

- The retention of the existing woodland belt, that follows the course of the brook valley diagonally through the eastern part of the site, to accommodate SuDs attenuation basins and other habitat enhancements to provide biodiversity improvements;
- The SuDs basins will include aquatic and marginal planting to ensure a naturalistic appearance;
- The basins will include platforms and dipping stations to allow residents to interact with the natural world;
- The main east-west spine road is directed to the south of the brook, crossing at points of low arboricultural importance, and passing through the development parcels to minimise vehicular movements within the brook valley;
- Fluxs Lane will extend southwards from the brook area, climbing gently towards the SANG with an open and tree-lined character;
- Tree removals will be kept to a minimum to preserve the existing character of the brook, and new tree planting will be introduced to reinforce the landscape structure;
- The 'Gateway' to the main SANG area will be located to the north of the brook valley, with car parking facilities for visitors. The circular walk will start and finish at this point; and
- Potential for mobile drinks / food offer at the gateway.



View along existing brook corridor



The existing treelined character of the brook



Proposed residential dwellings will overlook the brook and SuDs basins

Green corridor with shared cycle and pedestrian route following the alignment of the existing PRow

Proposed primary school with new plaza facing southwards towards the brook to create a gathering point

Segregated cycle and pedestrian route along the northern side of the brook and aligned with the new school plaza

New active travel bridge for pedestrians and cyclists will create a focal feature to connect the SANG and SANG Extension

Gateway to the SANG with visitor car parking with potential for mobile drinks / food offer

Tree removals minimised to retain the existing character of the brook with new crossings at points of low arboricultural importance



Figure 81. Illustrative Vignette of the Brook Valley Character Area

The character area is defined by the brook and the retained woodland belt, which together form an important ecological corridor

The primary vehicular route will be direct south over the brook and away from the school

The alignment of Fluxs Lane is retained to provide a treelined access route to Gardners Farmhouse

Proposed dwellings oriented to overlook the brook with the new settlement edge sensitively articulated to create interest and variety

SuDs attenuation basins with standing water and marginal and aquatic planting to create a naturalistic effect

Treelined streets create green fingers reaching into the development parcels

Urban Form Character Guidance

Bordering the brook landscape corridor which incorporates the watercourse and associated tree belt, this character area provides a backdrop to the landscape while ensuring a high level of natural surveillance is achieved.

Reference should be made to local character study area 1 - Town Centre, area 2 - Residential Street and area 3 - Green Edge.

Built Character Guidance

Urban Form

- Opportunity for linked frontage dwelling types such as terraces optimising use of level ground following the contours either side of the brook landscape corridor.
- Potential for apartment blocks with rear courtyard parking to provide landmarks at key corners. These should be well integrated into the street scene.
- Potential for up to 3 storeys and 40-50dph within the block opposite the school due to its location on the lowest ground.

Architectural Character

- Terraces fronting the open space could use forward facing gables to accentuate corners.
- Dormer windows within the lower portion of the mid terrace roof.
- Varied pitched roof forms as seen in local character study area one, with potential for linked frontage within the higher density block.

Streetscape

- The streetscape will be strongly influenced by the proximity to the tree belt and the intervening attenuation basins. No walls or fences along the development edge.
- Opportunity for rear or side court parking to remove vehicles from sections of the brook landscape corridor frontage. Perpendicular parking should be limited and landscape screening / street tree planting used between blocks of six parking spaces.



Precedent image showing high level of continuity across the frontage



Precedent image of symmetrical arrangements of dwelling forms



Precedent image for apartment building overlooking open space with second floor recessed balconies

8.5 Hillside Edge Character Area

Landscape Character Guidance

Proposed Character

This character area provides the transition area from the residential development to the SANG provision within the southern part of the site. New buffer planting at the eastern boundary of the residential development will create a robust and durable Green Belt boundary.

The SANG will replicate the feeling of being in a natural landscape of similar character to the Epping Forest SAC. The intention is to provide the experience of being in a forest or natural landscape, with the circular walking route passing through woodland glades that will be created following the maturation of the proposed woodland planting.

Key Landscape Objectives

The SANG will include a variety of habitat types but will predominantly seek to protect and enhance the wooded ridgeline character that is prevailing in the local area:

- The SANG will provide a variety of routes ranging in distance and interest, incorporating existing public footpaths;
- Legibility will be a key factor with wayfinding signage and information boards along the 2.3km circular walking route;
- Panoramic views will be available from the elevated south-eastern corner of the SANG, looking northwards towards the wooded ridgeline of Epping;
- The acoustic treatment will ensure that the SANG area delivers the required noise levels, and the peace and tranquillity to replicate the feeling of being in a natural landscape; and
- The detailed design will be informed by EFDC's adopted Green Infrastructure Strategy and the ongoing consultation with Natural England.



New naturalistic landscape introduced through SANG provision



Circular walking routes to be provided within the SANG



Habitat / biodiversity enhancement along southern edge of the SANG

New railway bridge for pedestrians and cyclists will create a focal feature to connect the SANG and SANG Extension

Existing PRoW maintained and integrated with the circular walk

Pedestrian bridge over the brook retained

Naturalistic play areas located along the circular walk

2.3km circular walk through the SANG

Opportunities for woodland glades that will provide the setting for the walking route

Bund with acoustic fence to provide noise mitigation within SANG

Area for habitat creation along southern boundary with M25

New buffer planting at the eastern boundary of the residential development will create a robust and durable Green Belt boundary

Dwellings will face southwards towards the SANG, with gardens and residential access adjoining the SANG

New settlement edge will be articulated by pushing some dwellings forward and pulling others back to create a more responsive interface with SANG

The interface between the SANG and the residential dwellings will be characterised by organically shaped areas of woodland planting that will be designed to limit intervisibility between the circular walking route and dwellings

Figure 82. Hillside Edge Character Area

Urban Form Character Guidance

Located on the upper slopes causing the area to be visible in views from the southern neighbourhoods of Epping. To reduce the impact of development, this character area will be generally limited to two storeys and with a density which is likely to translate into detached and semi-detached housing typologies.

Reference should be made to local character study area 4 - Essex Rural Vernacular.

Built Character Guidance

Urban Form

- Frontage onto the SANG and green corridors will comprise a combination car free streets and shared private drives.
- Variable setbacks to achieve an organic grain to the development edge through the use of courtyard arrangements to break up the development edge.
- Mix of semi-detached and detached dwellings (potential for bungalows) consistent with the low density 30-35dph parameter.
- Two storey maximum.

Architectural Character

- A simplified interpretation of classic residential forms found within the Essex rural vernacular.
- Pitched roof forms, pitched dormer windows
- 1½ storey elements adjoining the main dwelling.

Streetscape

- Hedges & tree planting along the development edge and within front courtyards to help soften the appearance of the buildings.
- Parking is predominantly on driveways or within shared courtyards.
- Where used, private garages will be set behind the building line.
- Texture created through the use of block paving on the carriageway surface.
- Rural aesthetic created through materials.



Precedent image demonstrating a contemporary interpretation of a farmstead



Precedent image demonstrating use of black weatherboarding the brick to lower storey on a contemporary dwelling



Precedent image demonstrating a courtyard arrangement

C. IMPLEMENTATION

Section C / IMPLEMENTATION

C.9 Phasing and Delivery

9.1 Stewardship

The SMF and Design Code have been prepared to demonstrate how the EPP.R1 and EPP.R2 Strategic Masterplan area can be developed so as to meet the requirements of the EFDC Local Plan. The SMF and Design Code do not deal with the commercial arrangements between the respective landowners of EPP.R1 and EPP.R2. A plan indicating who is responsible for each of the following elements will be included.

Roads

It is anticipated that the majority of roads and streets will be adopted by ECC, although it is noted that roads constructed adjacent to SuDS are not usually adopted by the local authority. All primary and secondary roads will be designed to adoptable standards, as per the Essex Design Guide Street Types, whilst it is envisaged that private drives of no more than six dwellings will be privately owned by the residents.

Public Open Space / SANG

A Management Company will be appointed by the developer of each parcel to manage the Public Open Space including the public square adjacent to the school site. This management company may be a single company to manage all public open space and SuDS, including the SANG, by preparing and implementing appropriate long term Management Plans for the delivery of these specific areas. Where possible and practical, the developers / promoters will seek to align appointments of the Management Companies across the SEMPA, or at least the standards of maintenance and frequency of management contained within the Management Plans.

BNG

A Management Company will be appointed by the developer of each parcel to manage the BNG land for a period of 30 years in accordance with the Environment Act 2023.

Recreation Ground (Village Green)

The relocated recreation ground (now in the form of a Village Green) is envisaged to be managed as public open space by a Management Company (the same as the management company for the Public Open Space on the relevant parcel of land).



9.2 Phasing and Sequencing

EPP.R1 and EPP.R2 will be delivered separately; however, given the scale of the development, it is envisaged that both sites, could be delivered concurrently and as a single phase.

Bellway is proposing to submit a detailed planning application on the land within allocation EPP.R2. Barwood Land will be pursuing an outline planning application on the land it controls within EPP.R1 (approximately 95% of the allocation EPP.R1). It is further expected that the two smaller sites within EPP.R1 controlled by Landvest (Greenacres) and Mount Street Developments will be subject to detailed planning applications.

Each developer / promoter will have different land and technical elements to resolve before starting on site, and each parcel will be setting a separate start on site date with similar build out rates per annum.

Each development parcel comprises at least one phase. Both the Bellway and Barwood Land sites will be delivered in two housing and two landscape phases each. An indicative start of each phase is provided as follows - which does not restrict a subsequent phase from commencing prior to completion of the preceding phase, rather indicates a potential phasing of commencement on site.

- Bellway - Phase 1 (EPP.R2)
- Mount Street Developments – Phase 1 (EPP.R1)
- Barwood Land – Phase 2 (EPP.R1)
- Landvest (Greenacres) – Phase 2 (EPP.R1)

The Phasing Plan includes a Phase 0 for Strategic Infrastructure and Earthworks including delivery of the acoustic bund, drainage infrastructure and SANG (whilst landscaping will not be complete and established prior to occupation, the SANG area and footpaths will be available).

On site EPP.R2 a serviced parcel of land will be transferred to ECC at an appropriate agreed trigger point within the development sequencing for the purposes of providing a new primary school.

The timing of the bridge implementation and related financial contributions will be dependant on the viable delivery mechanism selected, which is still under discussion at the current time.



Infrastructure

A serviced parcel of land for a school and community space will be transferred to ECC at an appropriate agreed trigger point in the delivery of the SEMPA. ECC will assess the requirement for the school on an ongoing basis prior to indicating when construction will commence.

The Council’s Infrastructure Delivery Plan that supported the Local Plan site allocation, provides a guide to the requirements for offsite infrastructure improvement. Improvements will be defined in detail however by precise data and modelling contained in Transport Assessments that will accompany the upcoming planning applications. Data and modelling used in the Transport Assessments must be agreed with Essex County Council Highways.

Discussions are ongoing with Herts and Essex Integrated Care Board to define whether medical provision should be provided on site or that developer contributions will be made towards existing local medical provision. medical provision should be provided on site or that developer contributions will be made towards existing local medical provision.

Construction

A Construction Management/Traffic Plan will be provided as part of the planning applications to explain how the construction traffic will access the site to ensure the existing highway network is not unduly impacted.