

Land East Of Well End Road, Borehamwood

Conceptual Proposals

PL120402 April 2012

Contents

2
3
4
5
6-7
8
9
. 10
. 11
. 12

Introduction

About the Document

This Concept Document has been prepared on behalf of Gliston Investments Ltd to support the promotion of land east of Well End Road, Borehamwood, as a sustainable urban extension. This document demonstrates that the site is fully deliverable and should be identified for development within the Core Strategy following a review of the greenbelt boundary. This document has been informed by a robust evidence base and should be read in conjunction with the consultation response prepared by Woolf Bond Planning.

The indicated development is set within a proposed greenbelt release and is to be developed during the plan period to 2027 and beyond. This option will deliver the improvements to infrastructure and services needed to facilitate growth in the Borough and ensure the delivery of an appropriate number and type of housing during the plan period.

The only feasible option to provide the growth infrastructure, services improvements and larger family housing required in the Borough is to release suitably located sites from the greenbelt. The land east of Well End Road is well related to the existing development in Borehamwood and is in close proximity to a number of services as demonstrated in this report. It is therefore considered to be the most suitable greenbelt site for an allocation for residential development.

This Concept Plan Document provides full evidence to support the allocation of up to 460 dwellings, however Gliston Investments Ltd. is happy to work further with the Council will regard to the site area and overall number of dwellings to be provided.

What is Proposed?

The preliminary development proposals are set out within the indicative illustrative masterplan which has been prepared to define the broad parameters for the development. The plan indicates up to 460 residential units in line with the level of growth envisaged by the emerging Core Strategy, as well as open space provision and an indicative location for future mixed uses. Key elements include:

- type.
- facilities.
- countryside beyond and the A1 bypass.
- areas.

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• Up to 460 residential units of private and affordable housing of mixed

• Land for a mixed use centre, such a site could provide suitable accommodation for small scale neighbourhood retail and community

• Community woodland buffers to the south and east boundaries to provide habitat enhancement and visual buffers from the open

• Sustainable green infrastructure including dedicated; bus cycle and footpath links to the surrounding neighbourhoods and employment

• Informal open space, playing fields and children's play areas. • Up to 5.89 hectares of employment land for B1, B2 and B8 uses. The proposals are designed in order to help the district achieve a long term sustainable vision for the growth of Borehamwood. Indeed the proposals provide an opportunity to:

1. Promote the right development in the right place.

The proposals contribute towards the maintenance and enhancement of Borehamwood as a prosperous and vibrant town. Placing new homes within easy reach of jobs and services including education, training, healthcare and recreation should not only enhance the town as a major service centre but also promote self-containment within the town, enabling people to live, work and relax locally whilst enjoying a high standard of life.

The proposals should also relieve pressure on the more valuable and sensitive parts of the countryside. Indeed, unlike other locations there is no overriding landscape, ecological or hydrological constraints.

2. Enhance the existing advantages of connectivity and sustainable transport.

The site is located in a sustainable location. Development in this location provides the opportunity to significantly reduce the need for travel and make it safer and easier for new and existing communities to travel to jobs and key services by improving sustainable forms of transport such as public transport, walking and cycling.

3. Reflect local character and distinctiveness.

The proposals should reflect the built heritage and historic character of the town by ensuring that new development is appropriate in terms of scale, location and character to their local environment.

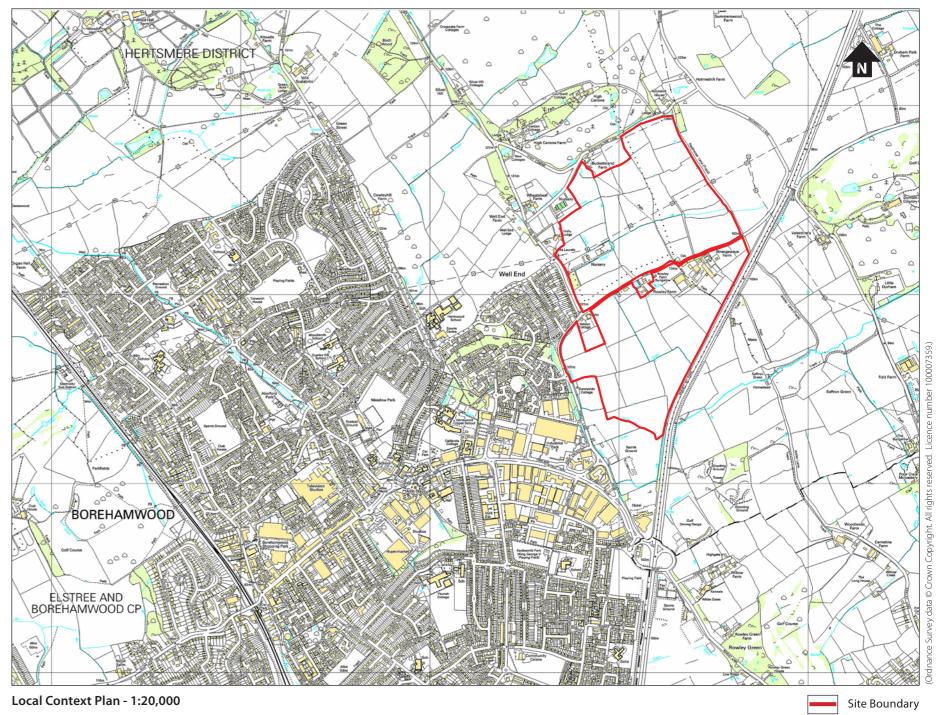
4. Environmentally Friendly Design.

The proposals should promote and secure high quality, environmentally friendly design in order to create sustainable, attractive, safe and healthy places in which to live and play. In doing so new development should seek to make the most of scarce natural resources in both construction and everyday life. The development should meet best practice criteria set out under the Code for Sustainable Homes to address the following issues:

- Energy
- Water
- Materials
- Surface Water Run Off
- Waste
- Pollution
- Health & Wellbeing
- Management
- Ecology

5. Provide homes matched to local needs and local services based on local requirements.

Importantly the development should contribute to meeting the housing needs of all sections of the community by providing an adequate amount, range and quality of accommodation, in particular affordable housing.



Site Location

The proposed development site consists of approximately 103ha of agricultural land north of Borehamwood. The site is bordered by Well End Road and Rowley Lane to the west, amenity land to the south, the A1 to the south east, and Buckettsland Lane to the north.

The site comprises arable fields bordered by mature hedgerows and drainage ditches. It also contains Strangeways Farm and its associated buildings, which are accessed via Rowley Lane that runs east to west across the site and along the southwest boundary with Borehamwood.

Site Townscape Context

Borehamwood, which is formed by the parishes of Elstree and Borehamwood, experienced significant growth during the post war periods. Following World War II, the town's population greatly increased, with large areas of council housing set up for displaced Londoners, many of which are now in private ownership. The town has evolved to provide varied employment opportunities, particularly those connected with the well-known Elstree Film studios.

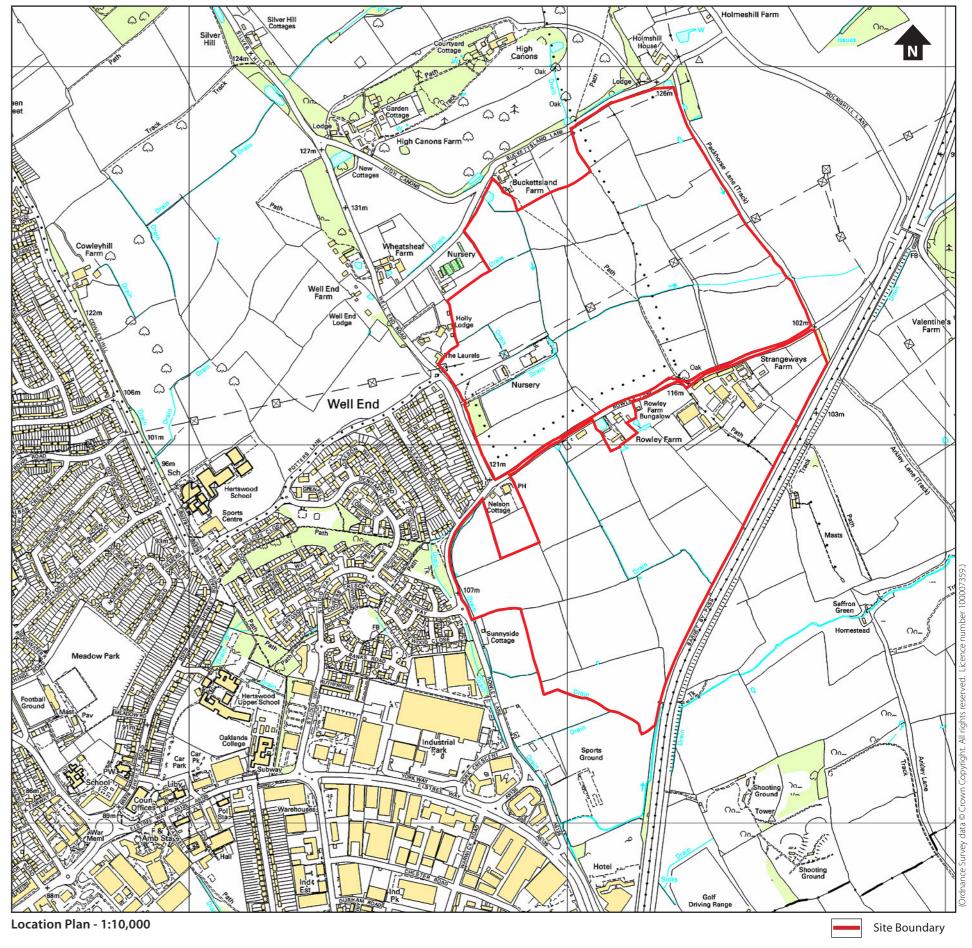
The townscape character of Borehamwood immediately to the south and west of the site is mixed. To the immediate west of the site along the southern end of Well End Road there is some early 20th century two storey housing and bungalows. Further north along Well End Road the character becomes more rural with the road being heavily wooded. There are glimpses of several farmsteads along the road comprising groupings of agricultural buildings and farm cottages, these include Well End Farm, Wheatsheaf Farm and Cannons Farm.

At the southern end of the site along Rowley Lane there is an estate of modern housing off Studio Way. The character is suburban with predominantly two storey brick built dwellings. Further south along Rowley Lane is the Elstree Way employment area dominated with the significant forms of the industrial sheds.

The south east boundary of the site is clearly defined by the alignment of the A1, Barnett Bypass, a busy road with a six lane carriageway which is elevated in part. While the Bypass has been landscaped with tree planting along its length it still gives an urban character to these parts of the site.

Buckettsland Lane and Rowley Lane both run east to west across the site and increasingly have a distinctly rural character moving eastwards. Both lanes are narrow and hedged lined. There are several farmsteads along the lanes comprising groupings of agricultural buildings and farm cottages; these include Bucketsland Farm and Rowley Farm and Strangeways Farm.

To the east of the site the landscape character changes from the pattern of smaller fields and paddocks divided and enclosed with hedgerows and hedge trees to larger agricultural fields adjacent to the boundary with Holmshead Lane and beyond.



Local Amenities & Facilities

Education

Hertswood School is a secondary school with a sports centre facility. It is located approximately one kilometre to the west of the site and can be accessed on foot or by cycling. The closest primary school to the site (Cowley Hill Primary School) is located approximately 1.7 kilometres from the site. Oaklands Further Education College is located on Elstree Way and is accessible by bus B3 or by cycle.

Employment

The Elstree Way strategic employment zone is located approximately one kilometre to the south of the site. This employment zone can be accessed by bus as well as by cycle. This is a major provider of jobs and also offers further recreational facilities such as a cinema. The Stirling Way employment zone to the south of Borehamwood is accessible by bus route 107 from Elstree Way and is within cycling distance of the site.

Community

The Hertswood Leisure Centre is located 650 metres from the site and is therefore accessible on foot. The leisure centre offers full gym facilities as well as a sports hall offering badminton and squash courts. The Venue Leisure Centre is located on Elstree Way approximately 1.2km from the site and is accessible by cycle or by bus. Adjacent to the leisure centre is Borehamwood Library.

The Allum Way Community Centre is located in Borehamwood Town Centre near the railway station and is therefore accessible by bus from the site.

Shenley Park is located approximately 2.5 kilometres to the north of the site and features a visitors centre and children's play area. The site is accessible by cycle and also by private vehicle.

A small park is located off Denham Way and is within walking distance of the site (approximately 560 metres).

Health

A doctor's surgery is located approximately 1.6 kilometres from the site on Fairway Avenue. Barnet and Chase Farms Hospitals (both in Barnet) are located approximately 4.5 kilometres from the site and are accessible by bus from Elstree Way. The closest dentist is located on Hartford Road, approximately one kilometre to the west of the site and accessible by cycling.

Retail

The site is located approximately two kilometres from the centre of Borehamwood. Within the town centre there are a range of shops as well as health facilities such as doctors and dentists. Furthermore there are schools and recreation grounds within the town centre.



5

Constraints & Opportunities

The following section sets out the assessment of the technical constraints and opportunities relating to the site. A considerable amount of background work has been undertaken to date by Scott Wilson, consulting engineers, including desk top and detailed technical studies which have informed the findings. The work undertaken provides a robust evidence base to demonstrate that the site is deliverable within the constraints.

Landscape

It is proposed to retain nearly all of the existing linear woodland plantations and hedgerows (and all the hedgerow trees) around the periphery of the site, as well as most of the existing hedgerow corridors which currently divide the existing fields.

The proposed residential development will clearly change the character of that part of the land which is currently undeveloped. However, positive landscape proposals with new open space areas and strategic landscape corridors could be designed to reinforce the local landscape character and result in an overall neutral effect on the local landscape character.

The Site is generally well related to the urban development to the east of Borehamwood, and new strategic boundary planting and on-going management of the existing structural landscape would ensure the Site remains integrated with both the local townscape and eastern edge of Borehamwood. It will be possible through additional planting proposals and management of existing vegetation to improve on the current situation by strengthening the eastern and northern boundaries with new community woodland planting which will better link the pockets of woodland along Rowley Lane, to provide enhanced opportunities for biodiversity and habitat corridors as well as natural screening of views from the countryside beyond.

New community woodland planting along the boundary with the A1 will allow visual screening of the road and traffic.

Ecology

Scott Wiilson, consulting engineers, have carried out an ecological desk based assessment for the site. The study indicates that there are no statutory sites designated for their nature conservation value are present within 2km of the site.

Records of great crested newt, a European protected species, exist in two ponds in Rowley Farm within the site boundary. Records also exist for eight other protected species, and 22 notable species, within 2km of the site.

There is one non-statutory designated site adjacent to the site which is designated for its habitat features which it is not anticipated would be directly impacted by any future development. Part of the site around the ponds of Rowley Farm is designated for its habitat and protected species (great crested newt), and therefore could be directly impacted by any development. A 50m exclusion zone will be required to protect the newt habitat.

While the site contains habitat that is potentially suitable for other protected species field surveys would be required to confirm the presence of these species. Should any of these species be present on site then future development could represent a direct impact to that species. However, there is currently no evidence to assume that the site cannot either avoid any impacts through the masterplanning stage, or meet the mitigation requirements associated with each species.

Species-rich or mature hedgerows within the site should be retained within any development to act as green corridors for protected species such as bats.

Transport

The site is located reasonably close to the centre of Borehamwood and is accessible from the existing pedestrian and cycle facilities. The site is also situated in close proximity to the Elstree employment zone and the A1, which connects to the M1 and M25.

Bus Services

There are two bus stops within a 400m walk of the site, and further bus stops just beyond this zone. The bus stops within 400m of the site are situated on Alexandra Road and are served by route B3, which allows access to Borehamwood town centre, Elstree and Borehamwood train station, and the Tesco supermarket.

Rail

Elstree and Borehamwood Rail Station is the closest main line rail station to the site and is located approximately 2km to the south, a walking time of 25 minutes or a cycle time of nine minutes.

Pedestrian Linkages

A 1.5 metre wide footway is provided along the western side of Well End Road. The footway links Rowley Lane and Potters Lane at its two extents. From Potters Lane south there is a comprehensive network of footways into the established areas/town centre areas of Borehamwood.

Cyclists

In the immediate vicinity of site there is no formal provision for cyclists. Cycle facilities are provided nearby on Cowley Hill. These allow access into the town centre as well as Borehamwood and Elstree rail station, the Venue Leisure Centre, Library, Tesco superstore and the Elstree Way employment zone. Cycle lanes exist on Elstree Way to the south of the site. These also provide cycle access to the Elstree Way employment zone and the town centre.

Noise

the site falls within noise category NEC B and is therefore suitable for residential development. Along the south east boundary of the site runs the A1, Barnett Bypass and this presents a significant traffic noise source, with areas within 250m of A1 falling into NEC categories C-D. These areas of the site would need to be mitigated with sound attenuation measures or used for alternative non-residential uses such as open space or employment.

Air Quality

The proposed development is unlikely to result in a significant increase in traffic related air pollution along the proposed routes. An initial assessment by Scott Wilson has determined that the annual mean NO2 and PM10 are below 40μ / and therefore acceptable for development.

Flood Risk

While the majority of the site lies within Flood Zone 1, the Environment Agency's Flood Map indicates that the watercourse that crosses the southern corner of the site will flood. As a precautionary measure, the watercourse that crosses the southern corner of the site should be considered to have a floodplain of currently unknown extent. As a consequence, future development should consider the flood risk associated with these watercourses in the development of site master plans.

There is an unnamed watercourse that runs along the southern edge of the site and passes below the A1 through a culvert. There are also two small unnamed watercourses that run through the centre of the southern portion of site and through the centre of the northern portion of site in a northerly and easterly direction, respectively.

Riparian Zone

For ordinary watercourses in the area, Hertsmere Borough Council is the responsible drainage authority, with permissive powers to maintain local watercourses. The Hertsmere Borough Council byelaws are more onerous than the Environment Agency requirements, as they stipulate that no development shall take place within nine metres of the landward toe of the watercourse bank where there is an embankment.

Drainage

Surface Water

Space will need to be set aside across the development to facilitate the management of storm water generated by the development. Any site run-off will be required to be attenuated to the Greenfield run-off rates. The Environment Agency maps indicate that whilst the site is located within a Catchment Abstraction Management Strategy (CAMS) area, it is not situated within a groundwater Source Protection Zone (SPZ). It is therefore likely to be feasible to use infiltration systems to discharge non contaminated surface water runoff from roof areas, providing that the infiltration systems are not situated in areas where clay or contaminated ground is present.

Foul Sewerage

The Drainage Strategy will determine surface water attenuation requirements and present an outline drainage system. The Drainage Strategy will follow the principles of PPS25 and best practice, seeking to employ SuDS across the site to meet the discharge requirements for the site. In addition the Drainage Strategy will also propose appropriate maintenance and adoption measures, to enable the storm water management system to be adopted and/or maintained.

Foul Sewerage (cont'd)

Thames Water have stated there is insufficient spare capacity for foul water drainage, and that they are planning increased works capacity to allow for some future growth in the catchment. It would need to be determined if the specific growth considered for Borehamwood has been included in this figure.

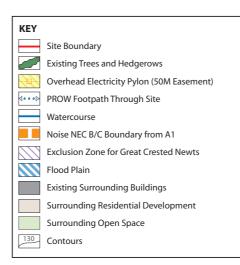
Archaeology

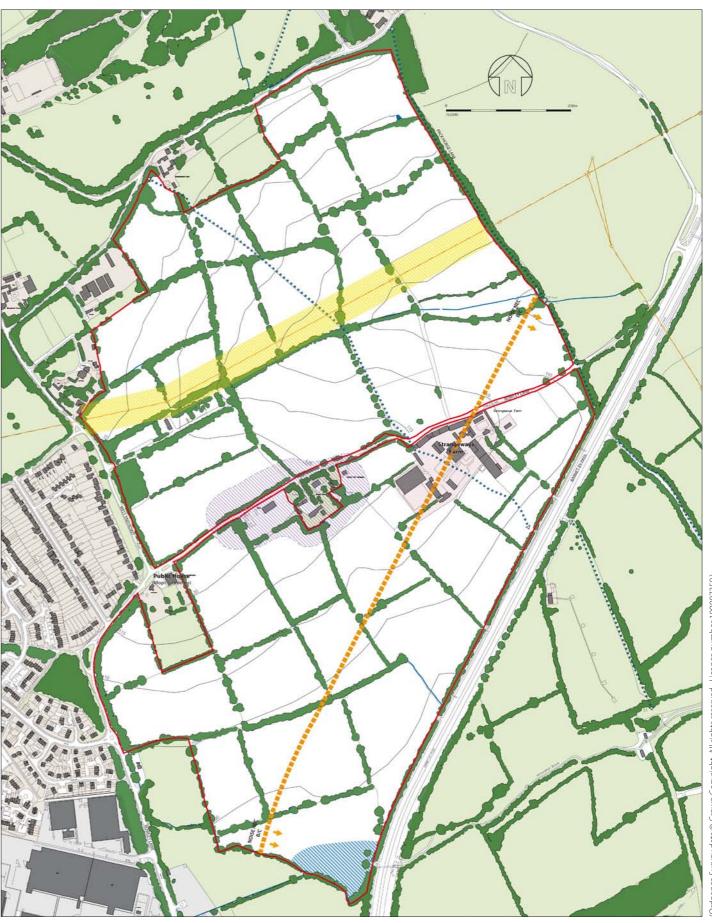
An archaeological desk based assessment will need to be undertaken as part of any development proposals, however, initial findings suggest that sites are generally of relatively low archaeological value. It is not considered that there are any archaeological features, which would affect the deliverability of the development.

Utilities

Investigations have been undertaken to ensure that there are no constraints in respect of the availability of services for the proposed development, principally gas, electricity and water. A summary of the findings is set out as follows:

- High voltage overhead transmission lines pass through the site, which will sterilise a portion of the site.
- There is a phone mast located within the site that will require relocating.
- Off-site improvements likely to be required to potable water and foul network.
- Off-site water pumping stations do not need reinforcement.
- 33kV substation located in vicinity that may be capable of supplying proposed development.
- Medium pressure gas main situated 750m from the proposed development that is likely to have sufficient capacity.
- Telephone Exchange located within 1.5 miles of site.





Constraints & Opportunities Plan (not to scale)

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7

Vision

The vision for the land east of Well End Road aims to create an aspirational and sustainable place for living and working which is locally distinctive and creates a positive sense of place. The vision will be achieved through addressing the following aims:

- The creation of a sustainable environment for living and working with proposed mixed uses and sustainable connections to the existing town centre and employment areas.
- A sustainable development which responds to best practice and the criteria of the Code for Sustainable Homes; to minimise energy use, sustainably manage water, responsible source materials and manage waste and ecology.
- A new neighbourhood with varied character that responds to the locally distinctive vernacular and built context to reinforce a distinct sense of place.
- Retention of the existing natural landscape structure which has shaped the morphology of the masterplan as a direct response to the site context.
- A development which preserves and enhances biodiversity by retaining natural features on the site and reinforcing them by creating opportunities for new habitat areas.
- To encourage and enhance the opportunities for sustainable movement, through the provision of new linkages to the neighbouring facilities; including the employment areas.
- Provision of a green infrastructure network linking through the site to promote sustainable movement by bus, cycling and walking.
- To create a sustainable mixed community providing a balance of housing tenures.







The development proposals set out on the following pages reflect current government guidance on creating high quality development and improving the design quality of the urban environment and in particular draw upon guidance within the following documents:

- NPPF: National Planning Policy Framework (2012)
- By Design (2000) CABE
- Manual for Streets (2007)
- Better Places to Live: A Companion Guide to PPG3 (2001)
- Urban Task Force Report Towards an Urban Renaissance (1999)
- Planning for Sustainable Development: Towards Better Practice (1998)
- Sustainable Settlements: A Guide for Planners, Designers & Developers (1995)
- Design & Access Statements; How to Write, Read and Use Them' CABE

The above set out objectives to create sustainable and well designed efficient developments, planned to respond positively to local context and promote environmentally friendly activity patterns. To this end an opportunity exists to produce a unique development proposal. The scheme should respect its setting and strive for quality in design of the built environment, townscape and landscape. Design of the public realm should be paramount; creating a sense of place that reinforces civic pride and promotes a community spirit.

The principal points to consider in meeting these objectives are:

- *Identity*: Creating an environment that has its own sense of identity whilst retaining positive characteristics of its local environment.
- *Legibility*: Making a place that people can understand and negotiate with ease.
- *Permeability*: Creating sustainable connections within the development and to the wider area.
- *Sustainable Transport*: Encouraging walking and cycling and making public transport widely available to reduce social exclusion.
- *Energy Conservation*: Settlement designed to reduce resource consumption and promote the use of environmentally friendly materials.
- Landscape Enhancement: Safeguarding and enhancing the existing landscape framework and mitigating the impact upon existing wildlife.
- *Sustainable Drainage*: Provision of SUDS designed to blend with the existing landscape features.

These principles have influenced the way in which the proposals for land east of Well End Road, Borehamwood have been evolved.



Publications referred to for guidance

9

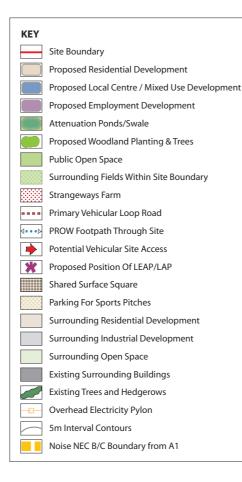
The masterplan framework has evolved from an understanding of the site constraints and opportunities and best practice design guidance, which have helped structure and form the layout.

The key development principles are:

- Provision of a mixed use community including; residential, a local centre and significant employment uses.
- To provide a visually strong frontage to the west fronting Rowley Lane and a positive approach into the development by the use of distinctive high quality architecture and landscape.
- Development will protect and front the significant existing hedgerows and trees which form wildlife corridors.
- Reinforced landscaping to the southern and eastern boundaries with planting of new hedgerows and community woodland.
- Area of the site affected by noise from the A1 to be used for open space and employment uses.
- Landscape woodland screening to be provided to A1.
- Site access from Rowley Lane.
- Green infrastructure led approach to form network of sustainable movement routes for pedestrian, cycle and bus movement, using the existing east / west hedgerow lines as a movement spine to link the proposed residential neighbourhoods and employment areas with movement routes to the town.
- Provisions of sports pitches and children's play facilities within secure and overlooked areas of public open space.
- A variety of perimeter block sizes are provided, which provide permeability for vehicles and pedestrians.
- Development with a series of key spaces that will aid legibility.
- The character of the north and eastern development parcels is low density development to limit visual impact from views from surrounding area. The development is grouped in low density neighbourhoods each focused around a village green.
- Sustainable drainage to be provided through a network of interconnecting swales which run through the landscape corridors.
- Where development fronts the countryside edge this is served by non-adopted private drives to avoid light pollution from adopted lighting.

Summary of the Key Points:

- Up to 460 Residential Units
- A mixed use local centre (0.46ha)
- Mixed use employment (5.68ha)
- Community woodland to south and east boundaries.
- Internal open space, childrens play areas, sports pitches and allotments





Masterplan (not to scale)

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Movement Framework

Vehicular Access

Two points of access are proposed off Rowley Lane linking to a primary loop road through the development. The primary access would be formed off the western boundary fronting Rowley Lane, and initial work by Scott Wilson consulting engineers indicates this could be in the form of a simple priority junction with ghost island right turn lane facility. This primary access would serve the employment area to the south of the site as well as the residential.

The northern access onto Rowley Lane could take the form of a staggered priority junction and this would require the widening of Rowley Lane from Well End Road up to the access.

Bus

The existing bus service is to be routed through the development to offer convenient access for all the proposed neighbourhoods. It is envisaged that the bus will enter the site off Rowley Lane and circulate around the primary loop road exiting back onto the same road.

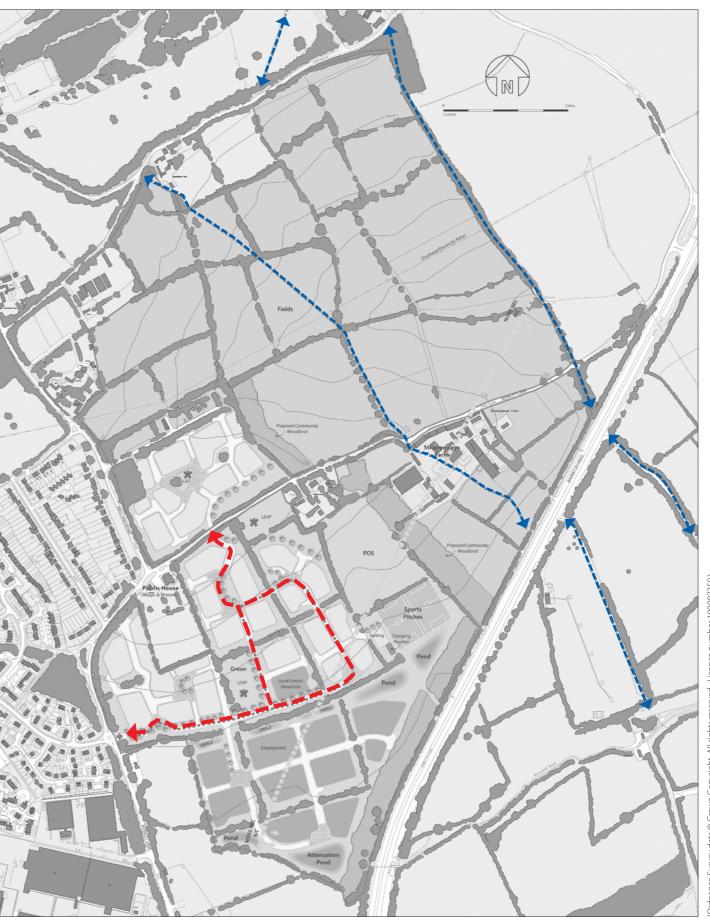
Pedestrian / Cycle Facilities

A green infrastructure approach to the masterplan has established a network of dedicated pedestrian and cycles routes linking the neighbourhoods. The main pedestrian and cycle links within the site are to be formed along the existing lines of retained field hedgerows which can form a spine for sustainable movement through the scheme running east to west. The green infrastructure offers the potential to link the open spaces, employment areas with the local centre and residential areas.

Internal Highway Layout

The internal highway layout has been designed to automatically promote low speeds of 20mph and below without uncomfortable traffic calming features or reliance on an oversupply of obtrusive traffic signs. The internal road arrangement and design will be designed to respond to the design criteria set out within best practice guide 'Manual for Streets'.

KEY	
	Primary Vehicular Loop
	Public Right of Way Footpath
	i done night of they i ootputh



Movement Framework Plan (not to scale)

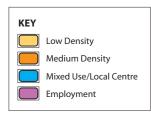
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Site Capacity

The assessment of the residential capacity of the site has been made based upon a range of densities to suit the varying character and locations of the land parcels. Based upon this initial assessment the site has the capacity for up to 460 dwellings (including much needed affordable housing), with densities ranging from 32 dph up to 42 dph.

As assessed by the council in preparation of their SHLAA (subject to improving bus service provision) and detailed in this concept brochure there are no overriding constraints that would otherwise preclude development in the plan period. Timescales for delivery of housing completions will be dictated in part by the timing of any greenbelt review and thereafter the granting of subsequent planning permissions. However, the site is developable and can contribute to meeting identified housing needs in a sustainable location during the plan period.





Parcel Density Plan (not to scale)

Parcel	m²		
1	2690.97		
2	4747.52		
3	5709.33		
4	2645.87		
5	3802.96		
6	4048.01		
7	5563.81		
8	2866.99		
9	1341.85		
10	4152.64		
11	5263		
12	4627.92		
13	3737.72		
14	4598.22		
15	4038.23		
16	4011.72		
17	3987.73		
18	3064.5		
19	3805.7		
20	3551.7		
21	3438.02		
22	3097.38		
23	4520.76		
24	2471.4		
25	5200.06		
26	4075.33		
27	8011.51		
28	4939.98		
29	4876.15		
A - Mixed Use/Local Centre	4601.04		
B - Employment	5173.18		
C - Employment	7748.92		
D - Employment	6599.75		
E - Employment	6835.46		
F - Employment	2137.93		
G - Employment	6162.09		
H - Employment	6497.56		
J - Employment	5015.45		
K - Employment	6933.29		
L - Employment	5843.59		
Total			
l and Parcel Schedule (not to scale)			

Land Parcel Schedule (not to scale)

ha	Density	Dph
0.27	42	11
0.47	42	20
0.57	32	18
0.26	32	8
0.38	32	12
0.40	32	13
0.56	42	23
0.29	42	12
0.13	42	6
0.42	42	17
0.53	42	22
0.46	42	19
0.37	42	16
0.46	42	19
0.40	42	17
0.40	32	13
0.40	32	13
0.31	32	10
0.38	32	12
0.36	32	11
0.34	32	11
0.31	32	10
0.45	42	19
0.25	42	10
0.52	42	22
0.41	42	17
0.80	42	34
0.49	42	21
0.49	42	20
0.46		
0.52		
0.77		
0.66		
0.68		
0.21		
0.62		
0.65		
0.50		
0.69		
0.58		
18.24		458



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