GREAT WILSEY PARK

INFRASTRUCTURE RESERVED MATTERS APPLICATION

LANDSCAPE STATEMENT - CONDITIONS 1 & 15

AUGUST 2019

REDROW

EXTERIOR ARCHITECTURE BIDWELLS

Royal HaskoningDHV
Enhancing Society Together

Pegasus Group

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EXTERIOR ARCHITECTURE

GREAT WILSEY PARK

INFRASTRUCTURE RMA LANDSCAPE STATEMENT

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Written	Exterior Architecture
Checked	Rob Park
Approved	Leighton Pace
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REVISION	DESCRIPTION	DATE
A	Pre-app 3 draft submission	08/02/2019
B	Draft for comment	01/03/2019
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F	Final Planning Issue	26/03/2019
G	Update for Planning Issue	01/04/2019
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I	Planning Comments	09.07.2019
J	Client Comments	11.07.2019
K	Landowner comments	02.08.2019

EXTERIOR
ARCHITECTURE

CONTENTS

INTRODUCTION

1.1 INTRODUCTION

Exterior Architecture Ltd (ExA) is appointed by Redrow Homes Ltd (Redrow) as part of a wider multi-disciplinary team to develop and agree landscape approaches to the progression of new areas of residential based development on land at Great Wilsey Farm, Haverhill, known as Great Wilsey Park (GWP).

The progression of the Landscape Strategy for the Infrastructure Reserved Matters Application (Infra RMA) builds upon the work previously undertaken on the site and documented in the consented Outline Planning Application No: DC/15/2151/OUT dated 15 August 2018.

This submission is to be read in conjunction with additional information on overall landscape strategy and phasing as illustrated in ExA's documents Landscape Strategy Doc (ExA_1868_900) and Site Wide Phasing Doc (ExA_1868_901) which have been submitted as supporting information to discharge other outline planning conditions. This document is to be read in conjunction with the drawing which forms Appendix C of this submission.

PURPOSE OF THIS DOCUMENT

This document addresses the landscape and public open spaces associated with Phase 1 of Redrow's land acquisition at Great Wilsey Farm. Areas of land to be brought forward within the initial stage of Phase 1 includes parcels A1, AZ, A8 and the infrastructure to deliver these parcels. This submission deals with the provision of new public open space (Infra RMA). Separate RMA's will be submitted for the housing parcels. Figure 1 illustrates the extent of Phase 1 and the extent of the Infra RMA.

MASTERPLAN AT OUTLINE PLANNING

The landscape strategies across the scheme are set out in ExA's document ExA_1868_900 and are based on the consented Alternative Illustrative Masterplan, Approved Alternative Parameter Plans, the supporting Design and Access Statement (DAS) and certain chapters from the Environmental Statements (ES). The Landscape Strategy Document has guided the design of the landscape areas within the Infra RMA.

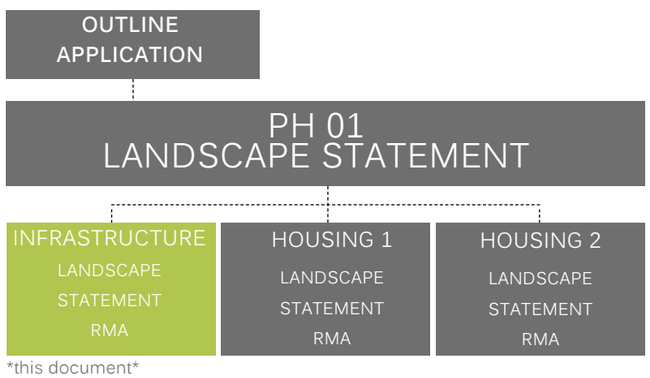
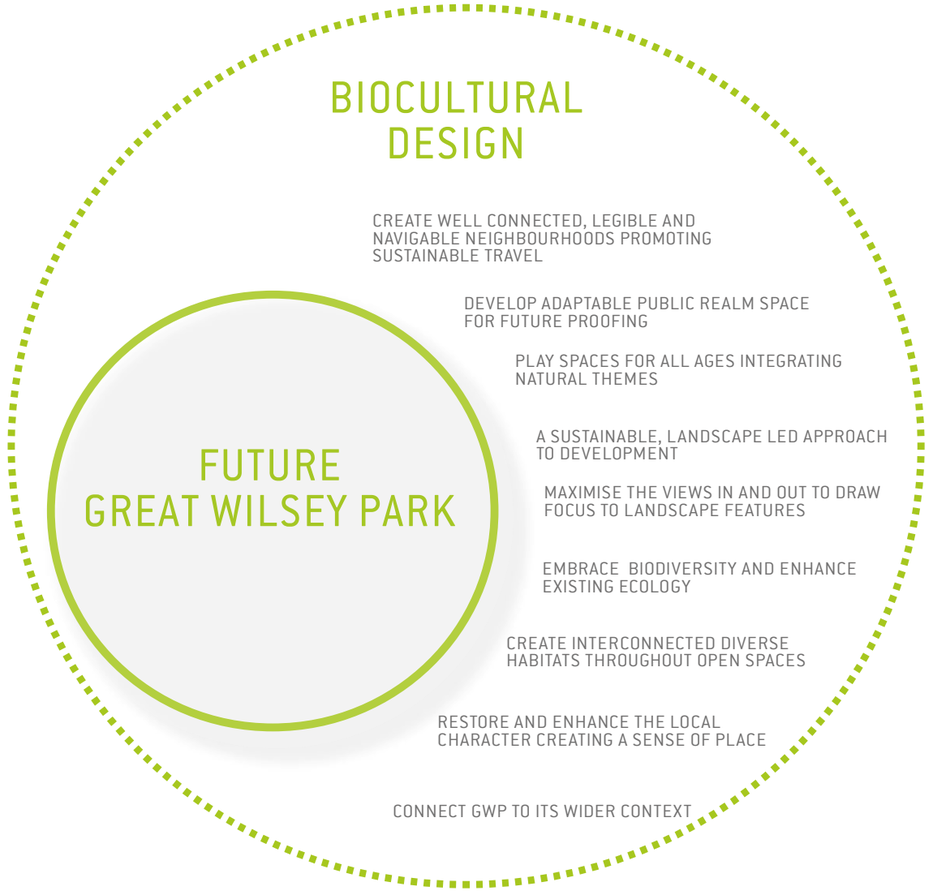


Figure 1. Phase 1 Strategic Landscape Plan Showing the Area Covered by the Infra RMA

VISION

‘Create opportunities to strengthen biocultural relationships for the benefit of both people and nature’



VISION OVERVIEW

Biocultural landscape design is an approach which integrates ecological enhancements and place making to create a landscape, which improves the well being of both parties.

The diagrams on this page illustrate the relevance of bioculture in the design of the landscape at GWP.

MASTERPLAN

3.1 ILLUSTRATED MASTERPLAN

GENERAL

The masterplan opposite illustrates the key landscape area within the Infra RMA and its interrelation between adjacent housing parcels. The masterplan is characterised by a strong series of green links that transect the site from the north to south and link to later phases of the masterplan to the east of the site.

The strategy of prioritising surface water conveyance over underground culverts brings a verdant, highly ecological focus to all public spaces.

Movement follows logical and easily navigable routes and has been integrated with ecological consideration in mind.

KEY AREAS OF GREEN INFRASTRUCTURE INCLUDE:

- Retention of significant areas of existing woodland plantations;
- Retention and adaptation of existing hedges and biodiverse field margins into the scheme;
- Creation of a northern parkland gateway from Haverhill Road;
- Inclusion of junior play spaces alongside the local centre;
- New orchard planting and focus on edible landscape elements in the central spine;
- Green verges to primary and secondary roads;
- A comprehensive cycle route and footpath network;
- New swale and pond features with enhanced existing ditches;
- Surface water attenuation basins with wet ponds; and
- Creation of a combined junior and youth play area.

Figure 2. RMA Application Illustrative Masterplan

ILLUSTRATIVE MASTERPLAN KEY

1. Haverhill Road Junction (approved Outline Application DC/15/2151/OUT)
2. Northern Gateway Park
3. Junior play area
4. Edible landscape zone
5. Local Centre development (Future RMA)
6. Allotments (Future RMA)
7. Great Field Plantation
8. Southern Plantation Woodland
9. Meadows and retention ponds
10. Community play area
11. Cycle link & Spine road to future development
12. Spine Road link
13. Secondary roads
14. Indicative pedestrian and cycle link across A7
15. Chalkstone Way Junction (approved Outline Application DC/15/2151/OUT)

DETAILED AREAS

4.1 NORTHERN GATEWAY PARK

The Northern Gateway Park is a wide open parkland space which creates the setting for one of the main entrances into the site and provides interconnectivity to the wider context.

Key parts of the Northern Gateway Park include:

- A new access off Haverhill Road (approved under Outline Application) is to form a gateway into the site;
- Removal of an existing hedge is mitigated by the planting of a new hedge to screen development from the adjacent road;
- A new shared cycle and pedestrian route creates a new link from Haverhill Road south into the site;
- Tree planting is proposed to enhance the sense of arrival into the site and helps frame views into the adjacent parkland;
- A new park space with a central area of amenity flowering turf for informal play and a variety of trees copse, specimen trees and woodland planting;
- A network of pedestrian footpaths offers an alternative route through the space linking Haverhill Road, Development Parcels nearby and the spine road to the south;
- An existing ditch is retained in the north and enhanced with swale planting, the southern section is rerouted;
- A bat hop over and foraging corridor; and
- A water retention basin holds storm water with the anticipation that part of it will form a wet meadow from the retention of water in the basin.

Precedent Images of the Detailed Area

Figure 3. Detail Area: Northern Gateway

4.2 CENTRAL PLAY SPINE

Located next to the Local Centre the Central Play Spine will offer a range of environmental improvements whilst including a junior play area.

Key parts of the Central Play Spine include:

- A new shared cycle and pedestrian route, which connects through this space, linking into the play area and adjacent local centre (local centre connection to be determined when plans come forward from others);
- A pedestrian route that circumnavigates the play area with bridges to cross swales and ditches offers a alternative route north to south;
- A new conveyance swale separates the shared cycle / pedestrian route from the play space;
- Bookended bat hop over planting and bat foraging corridor;
- Retention of existing trees which are centrally located along the existing ditch;
- An enhanced existing ditch with open pond feature located at the northern end of the space, acts as a focal point which is visible from the Spine Road. This is supported by tree and marginal planting;
- Areas of meadow and flowering amenity turf; and
- A comprehensive junior play area for ages 0-12 with a full range of prescriptive and imaginative play elements.

Precedent Images of the Detailed Area

Figure 4. Detail Area: Central Play Spine

4.3 EDIBLE SPINE ROUTE

The edible spine route is located between a development plot A4 to the east, a new primary school site to the west and the allotments to the south. This part of the spine route includes a range of orchard plants and additional planting which will focus on edible and foraging plants.

Key parts of the Edible spine route include:

- Informal continuation of the shared cycle and pedestrian route to the south with small bridges to cross the meandering swale;
- A secondary mown grass path route;
- A new conveyance swale that widens in places to develop a wider range of water edge habitats and planting communities;
- Retention and improvement of the existing ditch;
- Significant new tree planting including orchard species and buffer planting to both school and development plot edges; and
- Extensive areas of meadow planting.

Precedent Images of the Detailed Area

Figure 5. Detail Area: Edible Spine Route

4.4 THE MEADOWS

The Meadows is divided into two parts being Meadows West and Meadows East.

MEADOWS WEST

Meadow West is located adjacent to the Great Field Plantation and development plot A7. It is a significant area of open space within the scheme and has a number of excellent Oak trees along its southern boundary.

Key parts of the Meadows West include:

- Continuation of the shared cycle and pedestrian route to the east and west. The cycle route connects through development plot A7 towards Chalkstone Way;
- Retention of all the significant trees along the southern boundary and the hedge that defines this edge;
- Introduction of a series of storm water detention ponds that work in sequence to retain water in 1:100 year flood events. It is anticipated that the basins on the western and eastern extremity of this illustration will be capable to retaining a 'wet meadow' habitat at the deepest part of the basins; and
- Introduction of a mosaic of flowering amenity grassland, meadow, tussock grasses and wet meadow habitat. This is both botanical diversity and provides a wide variety of habitat and food sources for local fauna.

Precedent Images of the Detailed Area

Figure 6. Detail Area: The Meadows West

MEADOWS EAST

Meadows East is located at the eastern periphery of Redrow's land boundary and is the link to future development in the southern part of the site. It sits adjacent to development parcels A7 and A9 to the south and a wooded edge featuring an existing waterway. It is the location for the combined junior and youth play space and uses adjacent open space as a natural extension of this play potential.

Key parts of the Meadows East include:

- Continuation of the shared cycle and pedestrian route. The route splits at the eastern edge of Plot A7 with a link south to the Spine Road and a link east continuing to connect to future development sites;
- Two new drainage ponds are planned in this area and are illustrated adjacent. One is more wet with the diversity noted in Meadows West description. An additional drainage pond is located to the east and forms part of the open play space adjacent to the combined Junior and Youth Playspace;
- An area of open meadow will form a natural extension to the play area and is linked through the existing hedge by two green gateways;
- A new combined junior youth play area will feature a full range of play potential for all ages will be the focus of Meadows East;
- New tree planting at key points and along key routes will enhance the degree of natural orientation and navigation though the space; and
- Areas of flowering amenity grassland, meadow, tussock grasses and wet meadow continue the diversity of habitat and botanical assemblages of adjacent areas.

Precedent Images of the Detailed Area

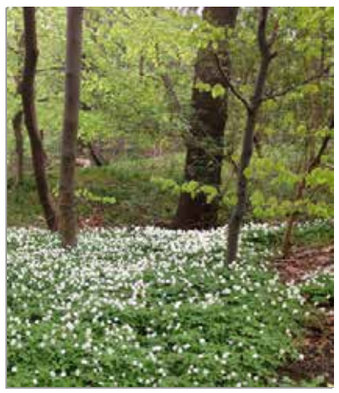
Figure 7. Detail Area: The Meadows East

4.5 GREAT FIELD PLANTATION

The Plantation is located within the centre of Redrow's Phase 1 development area and adjoins the Meadows on its southern edge. A significant and substantial mixed woodland plantation it represents a key component of the site ecology; with a wide variety of ecological potentials (Please see the Landscape and Ecological Management Plan (LEMP) for more information).

Key parts of the Great Field Plantation include:

- Opportunities for the use as a forest school location for local school children;
- The approach is not to create a new path network within the Plantation but to let the circulation routes form organically by people;
- Sequential removal of the coniferous tree species and creation of three glades within the plantation has been recommended to shift the plantation from an even to an uneven age plantation system; and
- [redacted]



Precedent Images of the Detailed Area

Figure 8. Detail Area: The Great Field Plantation

4.6 THE SOUTHERN PLANTATION

The Southern Plantation is a young plantation which sits between development plots A7 and A8. The plantation is to be crossed by two roads to access A7 from A8, the spine road in the west and the secondary road in the east. The area is to remain largely intact with access and new paths deterred.

Key parts of the Southern Plantation include:

- A range of ecological initiative to improve the quality and long term sustainability of the woodland (please refer to the LEMP for more detail).
- The new swale in the centre to increase woodland edge/light penetration to encourage bat foraging;
- The existing drainage ditch to the south is widened to increase surface water attenuation.
- New road and verges seeded with flowering lawn mix; and
- Where the proposed roads intersects the woodland Bat Hop Overs are planned. The location of these have been restricted along the southern edge by the widening of the existing drainage channel. The Bat Hop Overs are integrated further into the existing woodland.

Precedent Images of the Detailed Area

Figure 9. Detail Area: The Southern Plantation

4.7 ROAD VERGES

Road verges are included along the entirety of the Spine Road link and will be seeded with flowering lawn mix.

ROAD VERGES AND SITE BOUNDARIES

There are significant areas of Green Infrastructure (GI) that exist along the boundary of the site. The approach has been to retain these important linkages and protect were possible trees, hedges and the existing biodiverse field margins that are important to current and future ecological considerations. Although not all of these are part of this application they have been considered when developing landscape solution and will be brought forward with the Housing RMA applications.

Key areas include:

- Areas of existing woodland and field margins to the north and west of development plot A1. These are retained in their entirety and will be managed to proliferate their long term sustainability (part of a later Housing RMA application); and
- The western margin of the site includes a veteran tree opposite the Primary School and Allotment Site. The proposed spine route has been diverted to ensure that we can retain this tree without significantly impinging on its root protection zone;

Precedent Images of the Detailed Area

Figure 10. Detail area: Road Verges and Site Boundaries

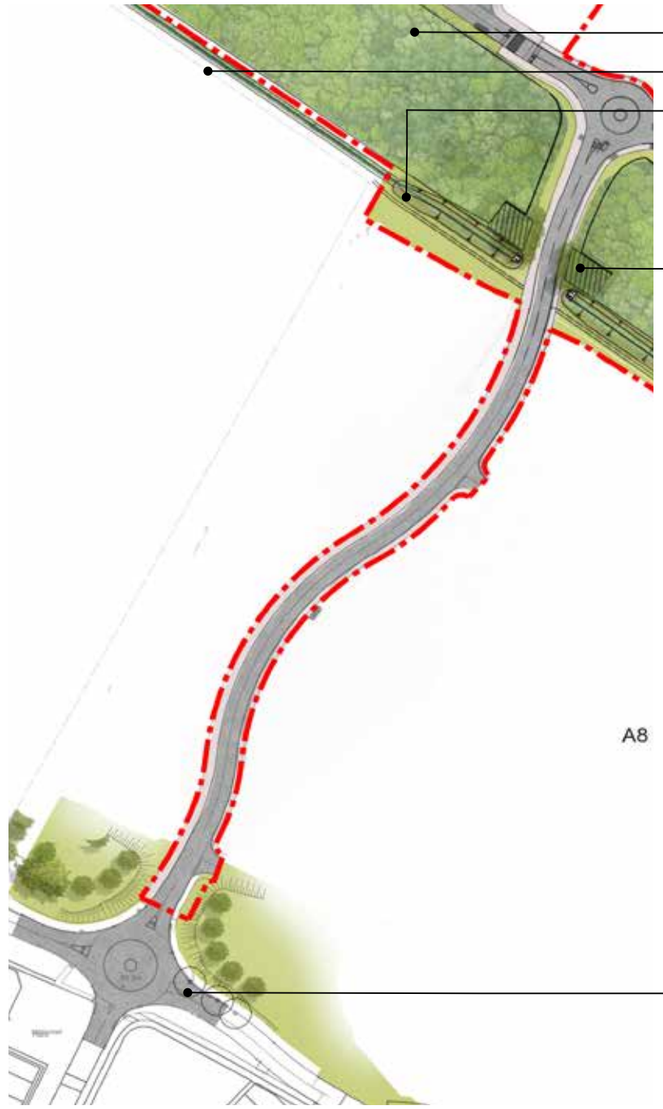


Figure 11. Detail Area: Southern Road Verges

STRATEGIES

5.1 GREEN INFRASTRUCTURE STRATEGY

The approach to Green Infrastructure (GI) builds upon the existing network of green spaces and linkages and supplements these with the creation new GI assets for the site.

The site has significant areas of GI, including the Great Field Plantation, Southern Plantation, existing hedgerows, existing ditches and ponds, existing waterways and biodiverse field margins. These are to be retained and strengthened through additional planting and future management.

New GI assets for the site are based around a new GI spine which runs through the Phase 1. site. Within the GI spine a continuous green connection is made from the south, along the southern boundary of the Great Field Plantation, to the Northern Gateway Park. A diversity of new, mainly native trees, will enhance canopy connectivity while a range of meadow planting will improve ground connectivity.

New surface water drainage features, with a diversity of marginal planting, will improve biodiversity and culture local flora and fauna associated with marginal ecologies.

The GI approach includes:

- The creation of a variety of grassland and meadow types associated with the variable hydrological gradients found over the site;
- New woodland copse planting within new public green spaces;
- Planting of feature parkland trees in locations where they will be able to grow to full maturity;
- Inclusion of edible landscape elements;
- Retention and management of existing and new hedgerows;
- Planting of scrub and understory planting to increase biodiversity and diversify the age composition of existing woodland;
- Formation of a diversity of wetland areas associate with storm water runoff; and
- Creation of a series of pond areas.

Figure 12. Green Infrastructure (GI) Diagram

5.2 BLUE INFRASTRUCTURE STRATEGY

The Blue Infrastructure (BI) Strategy prioritises the use of surface water movement and detention systems as a means of both moving and treating surface water runoff.

The BI Strategy breaks up the site into a number of different catchments illustrated in Figure 13. It uses new drainage swales to move water to a series of water retention/detention basins throughout the green spine. Water is then discharged at a controlled rate into the existing ditches and waterways. All water movements follow the existing gradients and flow into the existing ravine at the centre of the site.

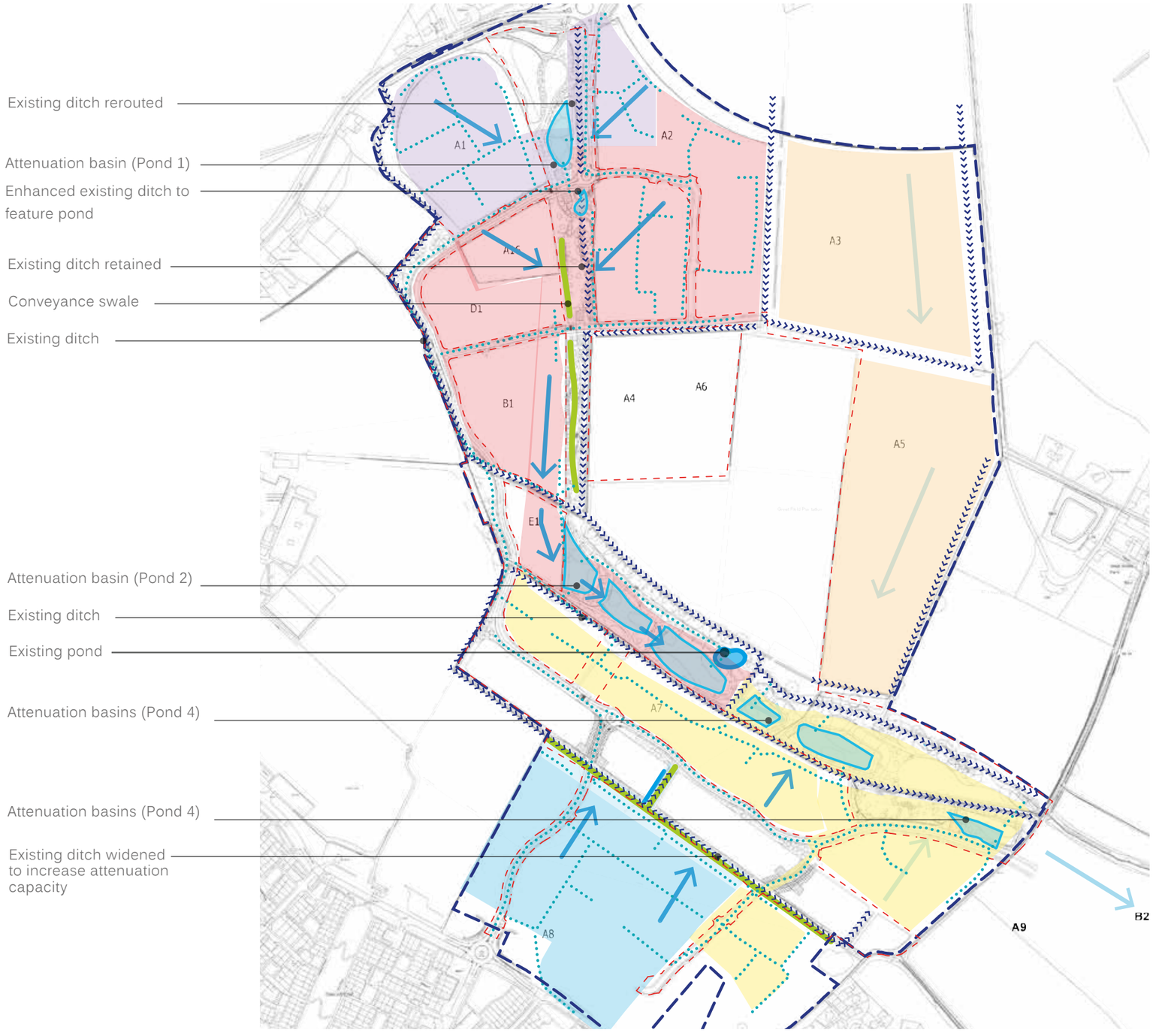


Figure 13. Blue Infrastructure Diagram Showing Catchment Areas and Conveyance Routes

LANDSCAPE INTEGRATION AND SWALE NETWORK TREATMENT (SUDS)

The integration of a surface water drainage network into the scheme will greatly enrich the landscape setting of the development. This will provide important ecological corridors and a memorable and enjoyable natural landscape that will be a key part of the developments overall character.

The scheme involves integrating a number of existing field drains and new swales into the landscape. These have been considered not just as linear elements but as features that, at key points, open out to form areas to celebrate water movement. These points occur at key places throughout the Green Spine and lend their character to the development.

Swales are integrated within movement corridors and the use of small bridge crossings to bring people into direct visual and physical contact with these elements.

Swale banks have been designed to culture a greater diversity of ecological planting zones in relation to the intended hydrological gradient. These will allow a greater diversity of plant and habitat to be developed as part of the scheme.

Existing ditches, where possible are to have their banks regraded and planted with a greater diversity of marginal species.

Precedent Images

Figure 15. Typical Swale Cross Section

Figure 14. Typical Section Through Existing Drainage Ditch

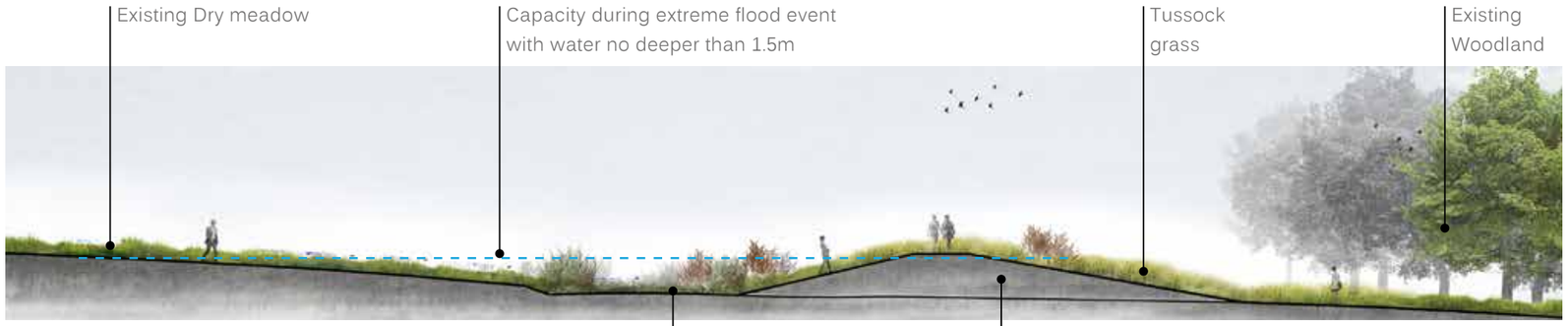
Figure 16. Typical Section Through Wet Pond (Proposed). Refer to Drainage Engineer's sections for more detail.

LANDSCAPE INTEGRATION AND BASIN DESIGN TREATMENT

Retention of surface water through the use of swales and drainage basins is key to achieving the correct run-off rates. The development is proposing a number of water retention basins that are either short term storage or for larger flood events.

This varying use will result in a variety of landscape types that meet the different hydrological conditions prevalent within the basins. This will give planting conditions that extend from permanently wet to infrequently inundated.

Each basin is designed to be no deeper than 1.5m when full therefore negating the need for safety railings. Where possible, wet areas will be integrated to provide wet meadow habitat.



Typical attenuation basin profile. Not to Scale.

(Refer to Engineer's drainage report for flooding frequency.)

Precedent Images of Basin Design

Figure 17. Stormwater Basins Extract from General Arrangement Plan

5.3 ACCESS AND MOVEMENT

ROAD CHARACTER STRATEGY

As the main means of movement through the site it is important that the road corridors play a significant role in defining the character of the development. The approach has been to define the character of the key routes though the site and integrate the road network into the adjacent open space.

Figure 18 shows the character types and key focal points along the road network. These include:

- Parkland Edge – This uses borrowed landscape and adjacent trees and open space to make a green and leafy character to the road. At key gateways, street trees are used to mark the transition into and through the site. At points where the road intersects the Green Spine the surface treatment of the carriageway is changed to suggest that the Green Spine has a degree of priority over the road.
- Woodland Edge – This uses the presence of adjacent woodland, tree copse and feature trees to give a wooded character to the road network. Where the road abuts a woodland there is often only a single side of pavement on the non-wooded side to bring this character closer to the road.
- Urban Centre – The urban centre (adjacent) features a urban hardscape character to the road with adjacent trees (in later phases by others) to be delivered in more formal street tree configurations.
- Urban Thresholds – The road network is defined by the adjacent residential character. A two metre verge in flowering lawn mix will give a high quality green edge to these roads.
- Focal Points – These have been included within the landscape at key points, such as intersections, to create a memorable focus as seen from the road. Long views, ponds and feature tree assemblages have been designed in at key points to add interest to the road network.

Road sections are illustrated in Figure 19-22 on the following page. These show the relationship between the road, the cycle way and footpaths as the road progresses though different character areas

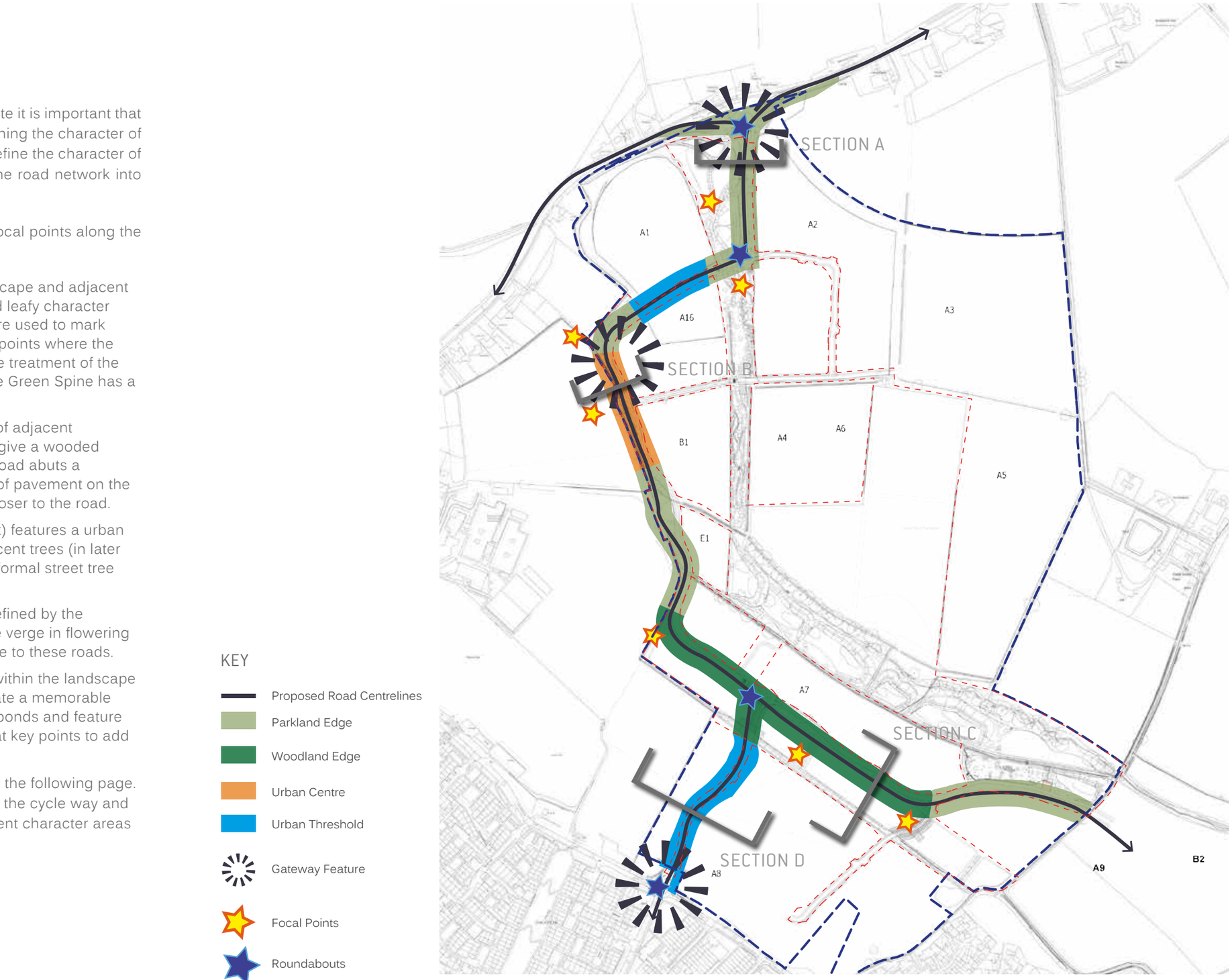


Figure 18. Spine Road Character Plan

ROAD CHARACTER SECTIONS

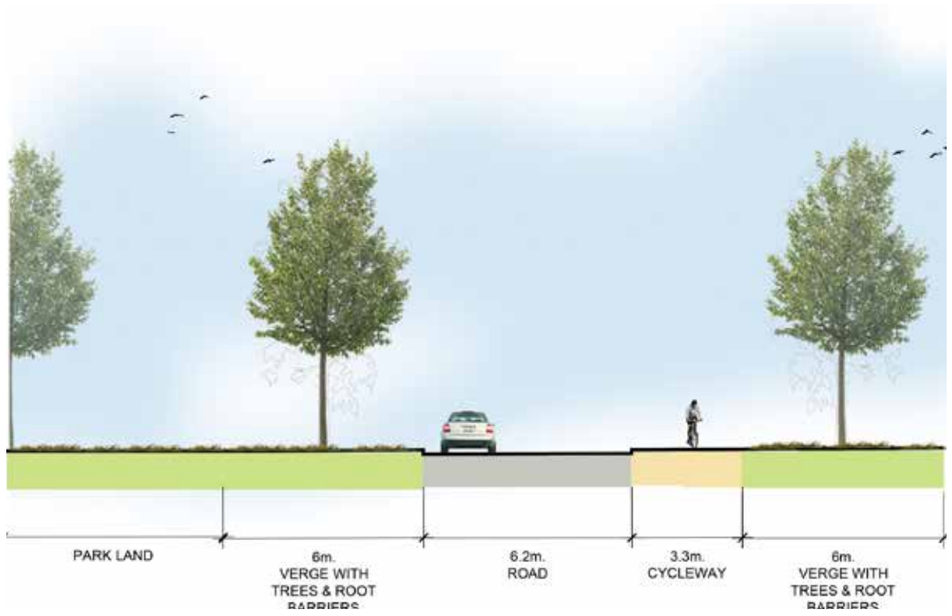


Figure 19. Section A - Northern End of the Spine Road Showing Wide Verges (Parkland Edge)

(indicative only)

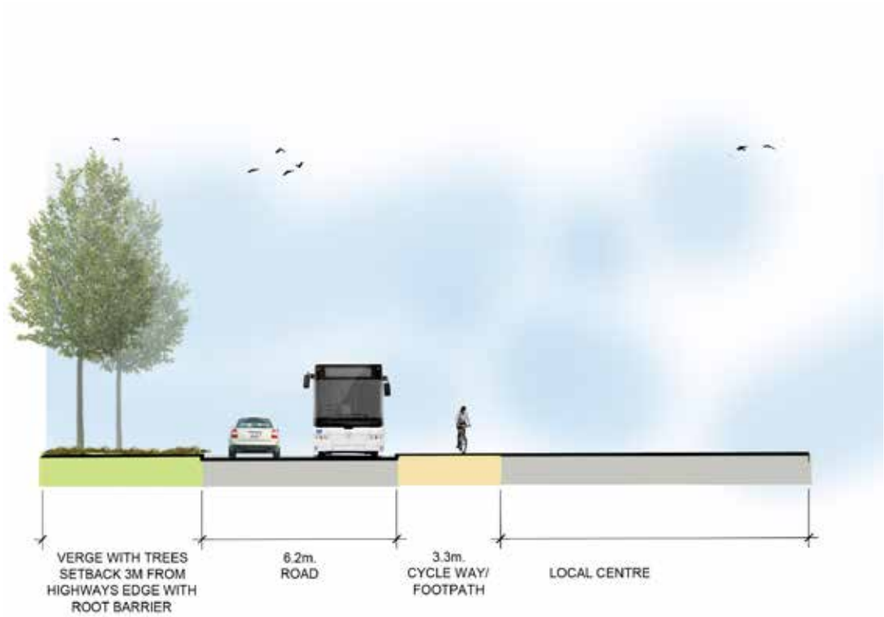


Figure 20. Section B - Through Northern Urban Centre (See Section 6.1 for Details on Bat Hop Over)

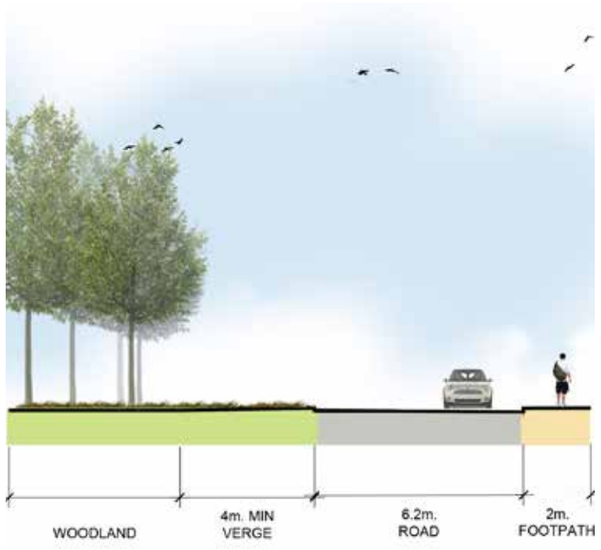


Figure 21. Section C - Spine Road Alongside the Northern Edge of the Southern Plantation Woodland (Woodland Edge)

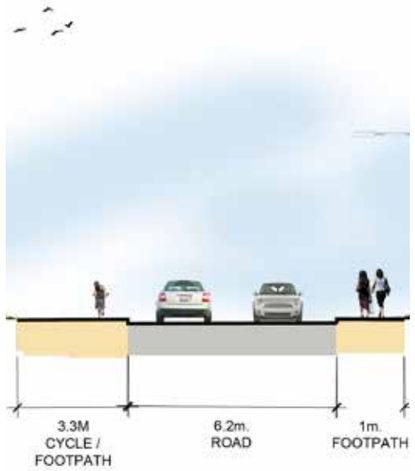


Figure 22. Section D - Southern End of the Spine Road within Residential Parcel A8 (Urban Threshold)

5.4 PROPOSED PUBLIC RIGHT OF WAYS (PROW)

CYCLE PROVISION

Based on the Alternative Parameter Plans the proposed cycleway network provides a primary connection through the site from the north to the south and into the future development areas to the east. Its route has been adjusted to minimise the encroachment of a lit route into dark corridors intended for bats. This has been achieved by keeping the route close to the lit spine road wherever possible. The setting of the cycleway has also been considered with the route located within a Green Spine. Unlit routes provide addition connectivity through the Green Spine creating a number of options for cyclist to choose between.

PEDESTRIAN CIRCULATION

Pedestrians have a number of choices from pavement on road verges, to routes though green spaces and existing PROW in navigating the site. Pedestrian routes in green spaces are integrated with swales and planting to make pleasant and interesting ways to travel across the site.

Footpaths within the landscape are designed to be a minimum of 2m wide and provide a level, firm surface for ease of movement. Where these are combined with cycle routes the path widens to 3.3m. The combined footpaths and cycleways create a shared informal space. This means that users have equal rights of way and prevents dominance for either user.

Figure 23. Diagram Indicating Lit Roads and Pathways

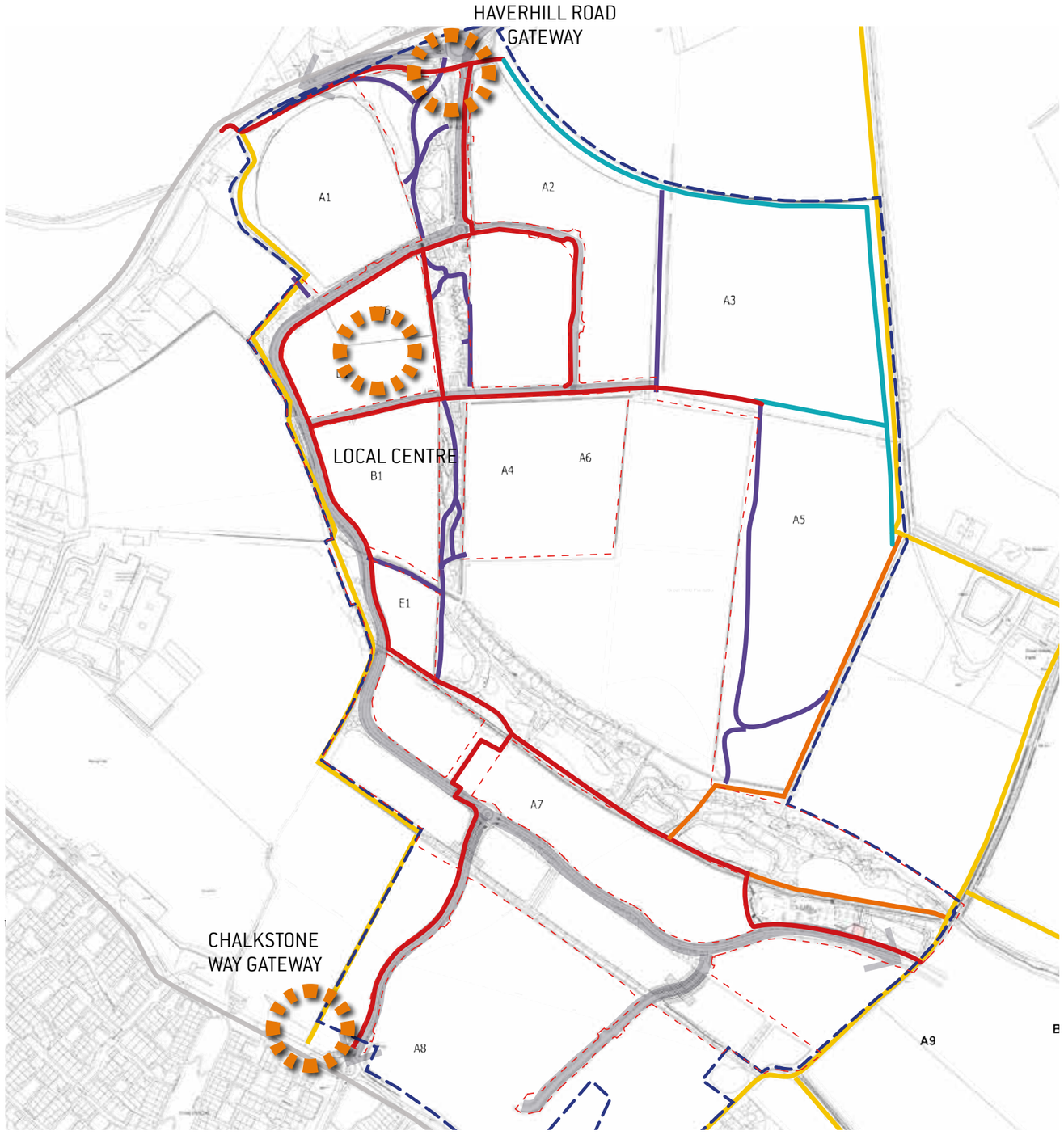


Figure 24. Proposed PROW Diagram

5.5 PLAYSPACES

GENERAL

The strategy for play, illustrated in ExA's Landscape Strategy Document (ExA_1868_900), identifies two areas for play. These are the Northern Ribbon Playspace and the Southern Ribbon Playspace both of which are located in figure 25.

The categories of these two play areas are based on St Edmundsbury Borough Council's SPD for Open Space, Sport and Recreation Facilities (December 2012) which uses the NPFA Six Acre Standard (now known as Fields in Trust FIT). The Northern Ribbon Playspace is categorised as a Local Equipped Area for Play (LEAP) with the Southern Ribbon Playspace being a combined Neighbourhood Equipped Area For Play (NEAP) and (LEAP)

The SPD standard provision for Children and Young People requires the following quantity of play provision and is based on the number of proposed properties:

Total number of properties within Phase 1 :	899
Standard number of people per property* :	2.4
Total number of people within Phase 1 :	2158
Total play provision based on 2.5 sqm per person*:	5395 sqm
Total Provision within Infra RMA:	5428 sqm

* based on SEDC Open Space Standard

KEY

Northern Ribbon Park Playspace
Junior Play Space
- 0-12 Years
- 1 No. (total area: 1655 sqm)
- LEAP

Southern Ribbon Park Playspace
Combination Youth and Junior Play Space
- 0-18 years
- 1 No. (total area: 3773 sqm)
- NEAP and LEAP

Provision for Children and Young People (F)	0.25 ha/1000 2.5 sqm per person	Junior Provision – 400m (just under 10 minutes straight line walk time). Youth Provision – 1000 m (15 minutes straight line walk time)

Figure 26. Extract from SEDC Open Space Standard

Figure 25. Illustrative Masterplan Showing Play Locations

Location Plan

NORTHERN RIBBON PLAYSPACE

This playspace is located in the northern part of the Green Spine. It is designed as a LEAP and aims to provide different experiences/ types of play for children aged 0-12 years' by using natural play elements such as timber, stone, rope and planting. This creates interaction with the natural environment in a way which is subtle, educational, imaginative and full of adventure.

Nature Trail Precedent Images

Figure 27. Illustrative Masterplan Showing Play Locations

NORTHERN PLAYSPACE PRODUCTS

Play features within the northern playspace include the below features;

Please refer to the Northern Playspace General Arrangement Plan (ExA_P_110) for full list/locations of products and appendix A for exact quantities.

1 IN GROUND TRAMPOLINES

Russell Play

Size : 0-1500mm (D)

Colour : Colourful

2 WOBBLE DISCS

Richter Spielgerate GmBH

Size : 1000mm (D), x .350mm (H)

Colour : Natural

3 GRASS MOUNDS

Natural grass mounding

Size : 0-500mm (H)

4 BALANCE TRAIL LOGS

Playcubed

Size : 0-400mm (H)

Colour : Natural

5 TOWER COMBINATION

Richter Speilgerate GmBH

Size : TBC with supplier

Colour : Natural

6 STEEPING STILTS

Playcubed

Size : 0-1500mm (H) x 0-650 (W)

Colour : Natural

7 FEATURE SLIDE

Richter Spielgerate GmBH

Size : 0-2500mm (H), x 0-1000 (W)

Colour : Natural

8 TRACTOR TYRE SWING

Richter Spielgerate GmBH

Size : 0-8600mm (L), x 0-5000 (W), x 0-2800 (H)

Colour : Natural

9 INCLUSIVE ROUNDABOUT

Sutcliffe Play

Size : 0-2075mm (W) x 29700mm (A)

Colour : Colourful

10 CLIMBING WALL WITH 4 ELEMENTS

Richter Spielgerate GmBH

Size : 0-1900mm (H) x 0-2500mm (W) x 0-3000mm (L)

Colour : Natural

11 TOTTER BEAM

Richter Spielgerate GmBH

Size : 0-300mm (H), x 0-450mm (W) x 0-3000mm (L)

Colour : Natural

12 TODDLERS TWIN SWING

Richter Spielgerate GmBH

Size : 0-7000mm (L), x 0-4400 (W), x 0-2000 (H)

Colour : Natural

13 HUT COMBINATION

Richter Spielgerate GmBH

Size : 0-12600mm (L) x 0-6650mm (W)

Colour : Natural

Location Plan

SOUTHERN RIBBON PLAYSPACE

The Southern Ribbon Playspace is located in the South of the site and is designed as a combined LEAP and NEAP for children from 0 -18 years' of age. It provides a diverse range of play opportunities and aims to create an environment where nature and play are seen as a unified element. Play experiences are designed with natural play elements using existing features and new planting to create a fun and exploitative natural play environment.

Figure 28. Illustrative Masterplan Showing Play Locations

SOUTHERN PLAYSPACE PRODUCTS

Play features within the southern playspace include the below features;

Please refer to the Southern Playspace General Arrangement Plan (ExA_P_111) for full list/locations of products and appendix B for exact quantities.

1 PLATFORM HOUSE

Richter Spielgerate GmBH

Size : 0-3850 (L) x 0-5250mm (W) x 0-2400 (H)

Colour : Natural

2 MUGA COURT

Play cubed

Size : 0-2650mm (L) x 0-1125mm (W) x 0-1400mm (H)

Colour : Colourful

3 BESPOKE TOWER COMBINATION

Richter Spielgerate GmBH

Size : TBC

Colour : Natural

4 TODDLERS TWIN SWING

Richter Spielgerate GmBH

Size : 0-7000mm (L), x 0-4400 (W), x 0-2000 (H)

Colour : Natural

5 CABLEWAY/FLYING FOX

Richter Spielgerate GmBH

Size : 0-5400mm (W), x 0-560mm (W), x 0-4900mm

Colour : Natural

6 CLIMBING STRUCTURE

Richter Spielgerate GmBH

Size : 0-11700mm (L), x 0-8350mm (W), x 0-3000mm (H)

Colour : Natural

7 LARGE UPRIGHT CLIMBING LOGS

Playequip or Lockwood Landscapes (TBC)

Size : TBC

Colour : Natural

8 CRADLE NEST SWING

Richter Spielgerate GmBH

Size : 4300mm (L), x 2800mm (H), x 2150mm (W)

Colour : Natural

9 IN GROUND TRAMPOLINES

Russell Play

Size : 0-1500mm (D)

Colour : Colourful

10 WOBBLE DISCS

Richter Spielgerate GmBH

Size : 0-5400mm (W), x 0-560mm (W), x 0-4900mm

Colour : Natural

11 BALANCING BLOCKS

Richter Spielgerate GmBH

Size : 0-3850mm (L), x 0-450mm (W)

Colour : Natural

12 HIGH TWIN SWING

Richter Spielgerate GmBH

Size : 2200mm (W) x 4500mm (L)

Colour : Natural

13 MIXED ROPE COURSE

Richter Spielgerate GmBH

Size : 0-14700mm (L) x 0-12200mm (W) x 0-2500mm (H)

Colour : Natural

SOUTHERN PLAYSPACE ACCESS TO GRASS MEADOW

To the north of the southern playspace an area of open grass that has been provided for informal play and intended as a kickabout area.

Access between these two spaces is currently limited by an existing hedgerow. To provide a pedestrian connection between the southern playspace and the kickabout space, a short section of the hedgerow is removed and a new topiary archway is proposed to retain a continued green link across the access point.

Topiary archway specification:

- Species: Carpinus betulus (Hornbeam)
- Height: 3.0- 3.5m
- Width: 3.5 -4.0m

Figure 29. Sketch view of archway

Figure 30. Example of topiary archway proposed

SUSTAINABILITY, ECOLOGY AND BIODIVERSITY

6.1 SUSTAINABILITY

GENERAL

The landscape approach has aimed to:

- Enhance the long-term environmental sustainability of the site by focusing on ecological initiatives and promotion of biodiversity;
- Build a vegetative character for the site which is firmly embedded in the local context and draws heavily on the use of native species and other naturalised planting palettes that support a range of habitats and food sources for fauna;
- Select materials that have a lesser impact on the environment though promoting natural and permeable products; and
- Seek management techniques, such as composting, shredding and reuse of organic matter on the site.

6.2 ECOLOGICAL INITIATIVES

The proposal seeks to implement a number of key initiatives to promote ecological diversity and build a strong, sustainable ecological basis for the site. The main components of this include:

NEW TREE PLANTING

TREE COPSE

The planting of new tree copses will, over time, greatly increase the quantum of biomass on the site. This also includes the planting of the Small Leaved Lime (Tilia cordata), a tree once dominant in this location and now noted as needing promotion to retain is presence.

Small Leaved Limes are often coppiced and have great value to ecosystems as the leaves are eaten by the caterpillars of many moth species, including the lime hawk, peppered, vapourer, triangle and scarce hook-tip moths. They are very attractive to aphids, providing a source of food for their predators, including hoverflies, ladybirds and many species of bird (bees also drink the aphid honeydew deposited on the leaves). The flowers provide nectar and pollen for insects, particularly bees.

Long-lived trees provide dead wood for wood-boring beetles, and nesting holes for birds.

PARKLAND TREES

A variety of trees are proposed for planting in open grass areas for the creation of a county park setting for the development. The intended species list is mainly native though the use of species with colour, in both summer and spring, has helped shape the palette. This palette also incudes a selection of Orchard trees.

It is intended that trees in planted in more open areas will have the room to grow to full maturity and thus become significant trees within the site over the course of their lifetime.

HEDGES

The inclusion of mixed species native hedges can protect, enhance and increase the quantum of this habitat type over the site. Hedges can provide shelter and roosting sites for birds, hedgehogs etc and can provide a source of food for local fauna.

WILD FLOWER MEADOWS

Wildflower meadows have become increasingly rare in our countryside, with 97% of them lost since the 1940s. The proposal includes two extensive areas of wild flower meadow located though the central spine and in the Meadows to the south. The meadow types are diverse and can support a rich diversity of native meadow species that provide a visual interest throughout the year also make a significant contribution to the site's ecology.

Wild flowering meadows can be a rich source of pollen and nectar for bees while the seeds can be a source of food for various fauna. They provide habitat and shelter as well as proposing a low maintenance regime.

MARGINAL ENVIRONMENTS

The retention and creation of water bodies, swales and areas of standing water or wet soils on site has allowed the creation of ecology throughout the site. Swales are to have a marginal planted edge, and where water is more permeant the use of submerged planting as well as upper bank planting along the hydrological gradient will create a greater diversity of riparian botany.

These environments in turn can support a wide range of habitat types from insects to waterfowl and will contribute positively to the natural character of the southern part of the site.

6.3 ECOLOGICAL ZONING

INTRODUCTION

To understand the extent of ecological development of the site the following three diagrams set out the different zones, which contribute to a robust and sustainable ecology for the site.

ECOLOGY ZONE 1 - PARKLAND ZONE

Figure 31. Diagram Showing the Parkland Zone

KEY

- Parkland Zone
- Existing Hedgerows
- Proposed Hedgerows
- Existing Biodiverse Margins
- Structural Planting

ECOLOGY ZONE 2 - SUDS

Figure 32. Diagram Showing SUDS

KEY

- Pond Ecology
- Ravine Ecology
- Swale ecology

ECOLOGY ZONE 3 - WOODLAND ZONE

Figure 33. Diagram Showing the Woodland Zone

KEY

- Existing Woodland Zone
- Proposed Woodland
- Structural Planting
- Existing Trees Retained
- Proposed Trees

6.4 ECOLOGICAL INTERVENTION STRATEGIES

BAT TRACKS AND FOOD SOURCES

Initial surveys in the ES showed the presence at least 9 native Bat species may be found within the site. The retention and proliferation of this Bat community is an important part of the overall landscape strategy and a number of key initiatives have been included within the landscape scheme to ensure their long term sustainability on this site.

The landscape scheme includes for general increase in the diversity of habitats available to Bat communities. These include:

- New and improved waterways and water environments;
- A diversity of grass and meadowland environments; and
- Retained and new woodland, copse and specimen tree planting.

The proposal will preserve and enhance these environments with the following habitat features:

- Retain and create additional commuting routes within dark corridors;
- Increase possible food sources for bats at different times of the year;
- The installation of Bat boxes in key locations across the site; and
- An enhancement and diversification of possible foraging habitat within the site

Figure 34 opposite shows the intended Bat foraging routes planned for the site. This extends the current routes that exist around the key areas of woodlands and existing hedged north to Haverhill Road, through the Central Spine and western boundary planting. A new link from the Southern Plantation Woodland along the southern boundary to Chalkstone Way is also proposed.

BAT HABITAT AREAS

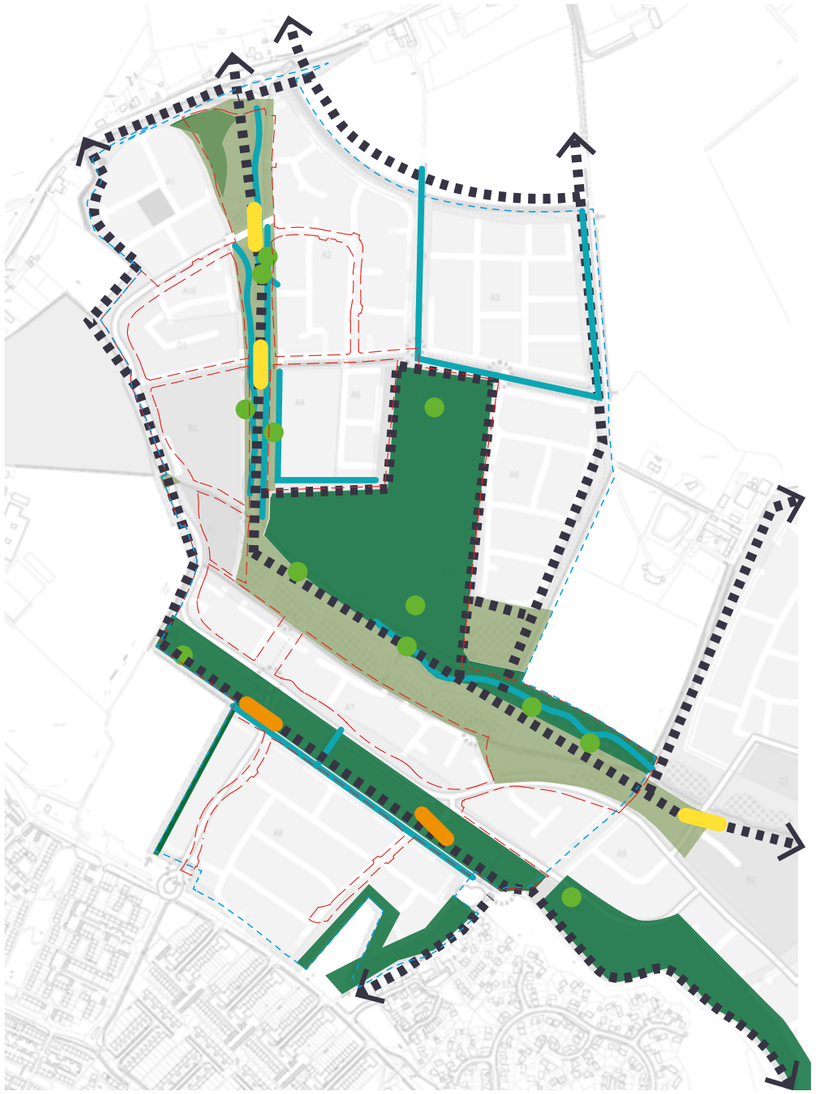


Figure 34. Ecological Intervention Diagram

6.5 BAT HOP OVER DESIGN STRATEGY

To encourage and retain Bat foraging corridors, safe Bat flying routes have been designed into the scheme where new roads have been introduced as part of this development. The concept of a Bat Hop Over was proposed in the ES and Figure 35 explains how this can be delivered. The aspiration is to have a minimum distance of 10 metres between edges of canopy trees to allow Bats to cross roads. Lighting is retained at a distance of 10metres from the edge of the Bat hop to retain a dark corridor (Note: final lighting levels are to be confirmed for the carriage way). To be able to develop a functional bat hop over it has been necessary to:

- Narrow the width of the pedestrian path to 1.8m and the shared cycle and pedestrian route to 2.5m to create the narrowest crossing distance;
- Follow Local Authority Transport Department guidance which suggests that trees will need to be planted a minimum of 3 metres from the edge of the adopted highway if a suitable root barrier and tree pit detail can be agreed;
- Create a dark corridor across the road by locating the street lighting 10m away from the edge of the Bat hop over;
- Plant the edge of the bat hop over with a diversity of tree species to give both large and small species at this edge;
- It is anticipated that the growth of the canopy will, over time, reduce the hop distance from 11m to 4m over a 20 year period although careful highways maintenance will be required to re these important links.

Indicative Species List

- Acer campestre (Field Maple)
- Betula pendula (Silver Birch)
- Crataegus monogyna (Hawthorn)
- Fagus sylvatica (Beech)
- Prunus padus (Bird Cherry)
- Quercus robur (English Oak)
- Sorbus aucuparia (Rowan)

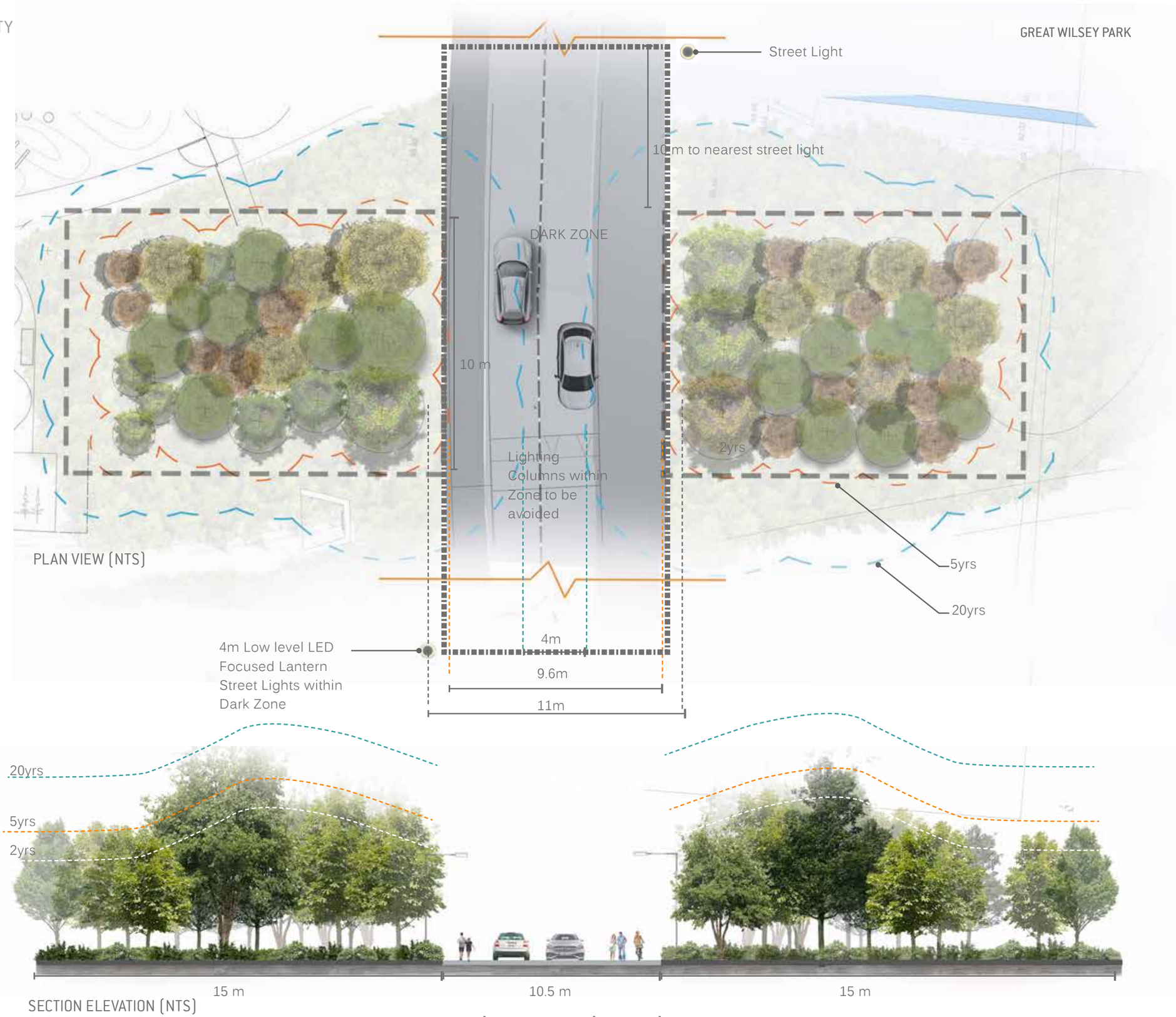


Figure 35. Northern Bat Hop Over Strategy

SOUTHERN BAT HOP OVER DESIGN

There are two Bat Hop Overs required along the southern edge of the Southern Plantation where it is bisected by new roads. These were originally proposed further south, but due to the widening of an existing ditch for storm water attenuation, the bat hop over location has moved further into the plantation.

Within the plantation, the Bat Hop Overs are designed to enhance the retained existing vegetation through additional planting which will increase the hight close to the roads and close up the gaps created in the construction of the road.

As with the other Bat Hop Over locations the 3.5m wide combined Cycle footpath is narrowed to 2.5m reducing the overall gap across the road and new trees are proposed no closer than 3m from the edge of the adopted highway if a suitable root barrier is agreed.

The approach is to:

Selectively thin trees to allow larger species in the plantation to grow. These are to be supplemented with additional planting to the footpath where space allows.

Indicative Species List

- Carpinus betulus (Common Hornbeam)
- Crataegus monogyna (Hawthorn)
- Fagus sylvatica (Beech)
- Acer campestre (Field Maple)
- Malus domestica (Apple)
- Tilia cordata (Small Leafed Lime)
- Alnus glutinosa (Black Alder)
- Prunus avium

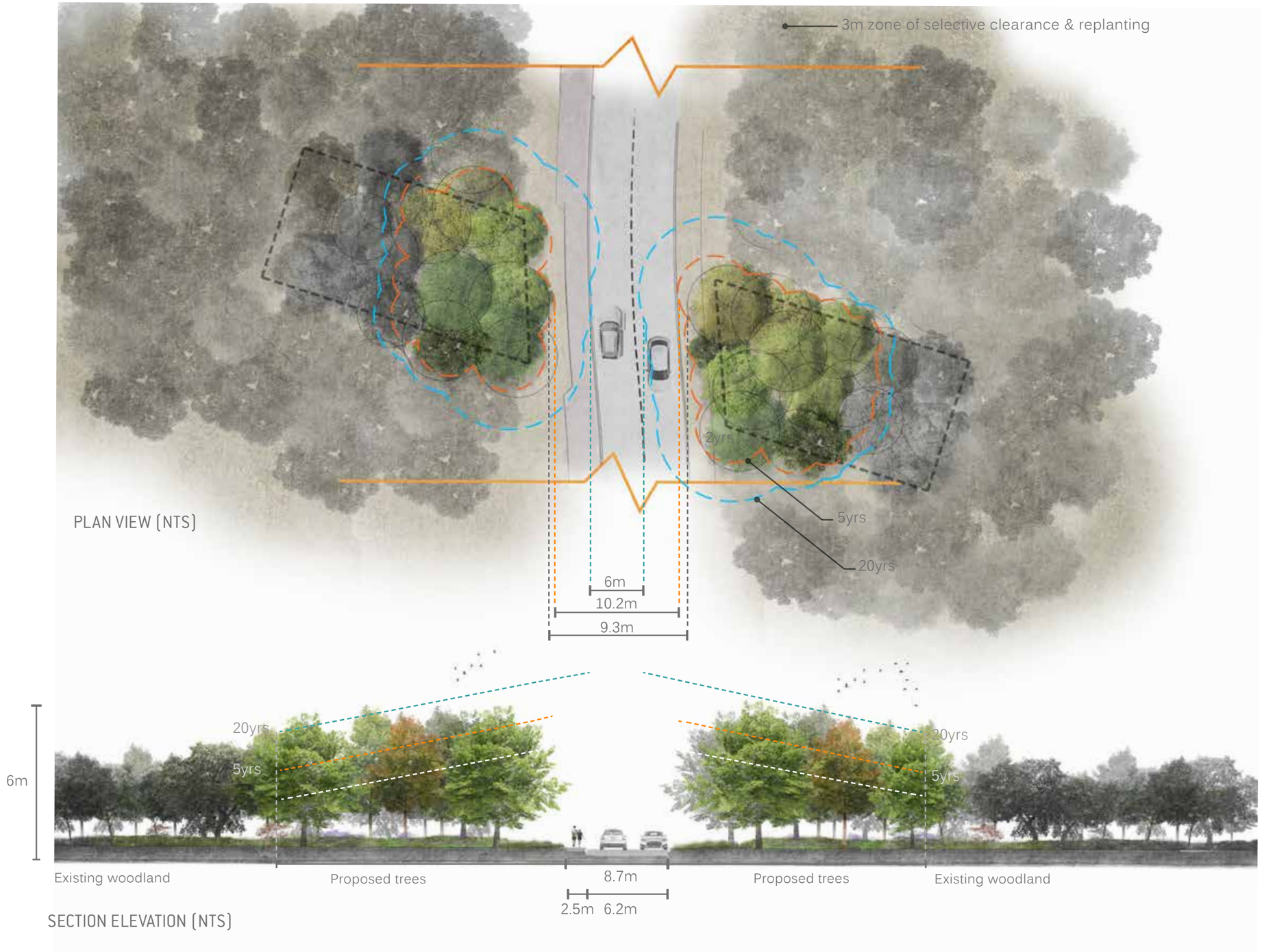


Figure 36. Southern Bat Hop Over Strategy

HAZEL DORMOUSE

The Hazel Dormouse (Muscardinus avellanarius) is protected under the Wildlife and Countryside Act 1981 and Conservation of Habitats and Species Regulations 2017.

Some evidence of Dormice in the wider area (though not within the Redrow site) was recorded during surveys to inform the outline application. The approach for the landscape has been to provide a suitable environment on site to encourage local Dormice populations.

- The approach includes:
- Retention of existing habitat such as existing hedgerow, broadleaved woodland (with the sequential removal of coniferous trees), small tree copse and tree lines along field boundaries;
- In general, limit any breaks in hedgerows to a maximum of 12 metres in width which is noted in the ES as the maximum distance Dormice will travel to cross a road;
- Introduce a range of new planting (hedges, tree copse, understory planting etc.) with a species mix weighted towards providing food sources and habitat for Dormice such as Oak - Quercus robur, Bramble - Rubus fruticosus, Ash - Fraxinus excelsior, Hawthorn - Crataegus monogyna and Blackthorn - Prunus spinosa.

HAZEL DORMOUSE HABITAT AREAS

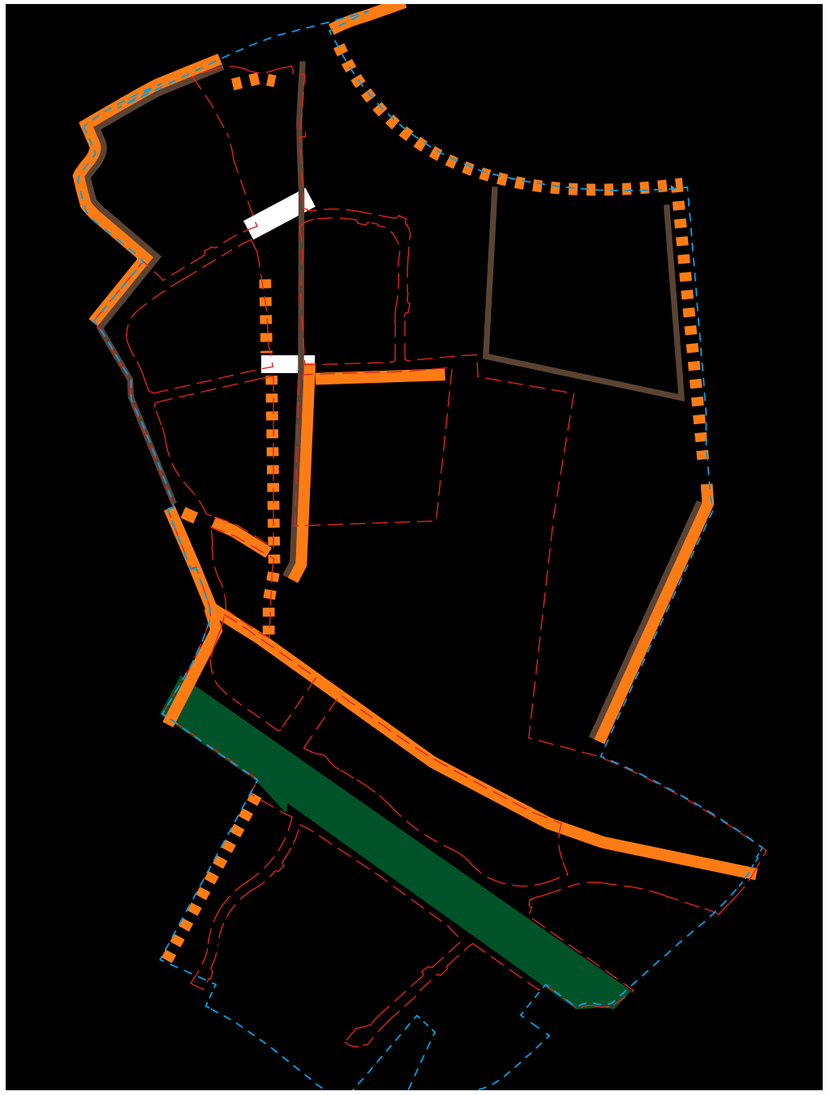
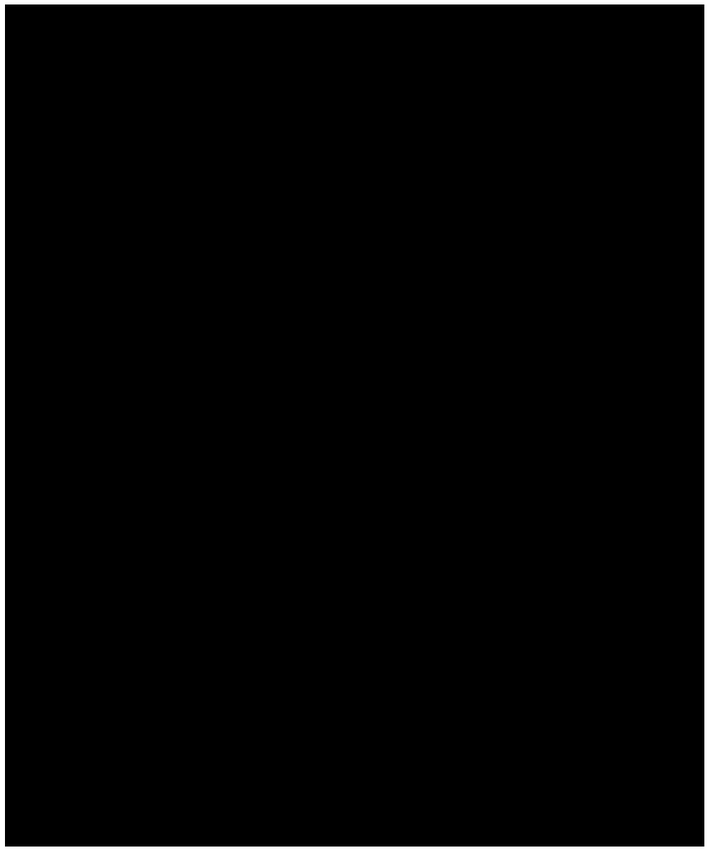


Figure 37. Hazel Dormouse Diagram



BEE LINES

There are 24 key Bee species in the U.K. some of which may be found in the following habitats:

- Pollen and nectar producing gardens;
- Planted buffer strips;
- Wildflower biodiverse field margins;
- Managed hay meadows; and
- Semi-natural grasslands.

Protecting and enhancing the British Bee population is important not just for biodiversity but also bees play a critical role in the pollination and fertilization of all flowering and food producing plants.

The approach to considering Bees at GWP will preserve and enhance the existing Bee environments and supplement these with the following habitat features:

- New hedgerows to be planted with a selection of nectar giving species;
- Proposed diversity of wildflower meadow planting across the site. Meadow is the dominant treatment for open space and will provide a continuously linked food source;
- New orchard and flowering tree species to provide food sources; and
- Proposed Bee banks, constructed from builders sand and with cuts to form habitat spaces and self-vegetated for bank stability.

BEE HABITAT AREAS


ORCHARD/WOODLAND


WILD FLOWER MEADOW


BEE BANKS

Figure 39. Bee Habitat Diagram

REPTILE HABITAT

The Common Lizard *(Zootoca vivipara)*, Grass Snake *(Natrix helvetica)* and Slow-worm *(Anguis fragilis)* are species of principal importance under S41 of the Natural Environment & Rural Communities Act 2006 and protected under the Wildlife and Countryside Act 1981. These are also Priority species identified in the Suffolk BAP. Both the Common Lizard and Grass Snake have be sighted on site with Slow-worms recorded in the wider context.

Reptiles may be found in the following habitats on site:

- Structurally diverse 'edge' habitat with areas of bare ground/short vegetation;
- South facing woodland edges; and
- South facing hedgerows with associated margins.

The proposal will preserve and enhance these environments with the following habitat features:

- Proposed Green Infrastructure (approx. 80.19ha) will increase suitable reptile habitat with additional woodland planting near hedgerows;
- Proposed Green Infrastructure will include hibernaculums;
- Where appropriate stumps of removed trees will be retained and reintegrated into habitat to create basking opportunities; and
- Sensitive areas will be fenced off during construction.

In addition to the proposed habitat features the project will also make the following considerations:

- Hedgerow removal that may impact existing reptile populations will be mitigated through passive displacement;
- The management of grassland will be required with appropriate cutting regimes to follow the guidance of the project Ecologist (between Mid-March and October, when reptile species are active and able to relocate); and
- Planting mix to be weighted towards providing food sources and habitat for reptiles (e.g. Crested dogtail - *Cynosurus cristatus*, Cocksfoot - *Dactylis glomerata*, Red fescue - *Festuca rubra)*.

REPTILE HIBERNACULUM

Figure 40. Reptile Hibernaculum Diagram


HIBERNACULUM


WATERWAYS


GRASSLANDS

HEDGEHOG HIGHWAYS

Hedgehogs (Erinaceinae europaeus) may be found in the following habitats across the site:

- Hedgerows;
- Meadows; and
- Woodlands.

The proposal will preserve and enhance these environments with the following habitat features:

- Introduction of Hedgehog Highways through the residential areas. This will include small gaps in boundary fencing to encourage movement through residential areas;
- Planting of new native hedgerows and enhancement of existing hedgerows to give better connectivity across the site;
- Creation of a more interconnected approach to greenspace. Within these green spaces will be a mosaic of habitat types that can provide food sources and habitat for Hedgehogs;
- Increased native planting;
- Enhancement within the GI corridors to encourage greater invertebrate habitats and provide food sources; and
- Introduction of Hedgehog Hotels (Hibernaculum) to encourage greater habitation and a natural colonization of the site.

HEDGEHOG HABITAT AREAS


HEDGEHOG LOG PILE


MEADOW


HEDGEROW


WOODLAND

Figure 41. Hedgehog Habitat Diagram

6.6 PLANTING SELECTION

GENERAL

The development of a soft landscape palette has been conducted in a manner that seeks to add a strong vegetative character to the site an integrate it within the adjacent rural character.

Retained trees and hedgerows will be supplemented with new planting within the site, including new tree copse, new specimen tree planting, shrub and wild flower meadow planting. This will help to create a strong landscape structure, diversity of rural park-like spaces, to define functions, and enhance the character of the site. Species have been chosen from an appropriate palette and seek to define spaces, soften the appearance of the development, help create variation in character, enhance ecological diversity, and provide colour throughout the seasons.

The following principles have been applied to the soft landscape design:

- The selection of plants has taken into consideration the local context and it reflects species found locally;
- Plant species has considered the form and eventual scale of the species in relation to the function and use of the spaces and buildings within the site. Future maintenance requirements of roads, footpaths, shared routes and vegetation have also be taken into account;
- The selection of tree and shrub planting will enhance the design of the landscape by using planting which has responded to the articulation of the spaces by framing views, celebrating entrances and thresholds and defining pedestrian routes, connections and vehicle movements;
- The selection of plant species is appropriate to their location in terms of soil type, microclimate, their setting and future maintenance/management requirements; and
- Plant species selected will increase biodiversity potential of the site through the use of locally indigenous species and planted to diversify the age range of species for enjoyment for this generation and the next.

SPECIES LIST

Parkland tree species

- Acer campestre
- Acer platanoides
- Aesculus indica
- Alnus glutinosa
- Betula pendula
- Betula pubescens
- Carpinus betulus
- Carpinus betulis ‘Fastigiata’
- Crataegus monogyna
- Fagus sylvatica
- Fagus sylvatica ‘ Purpurea’
- Malus ‘Evereste’
- Malus sylvestris
- Populus x canadensis
- Prunus padus
- Prunus spinosa
- Quercus palustris
- Quercus robur
- Sorbus aria ‘Majestica’
- Sorbus aucuparia
- Sorbus torminalis
- Taxodium distichum
- Tilia cordata
- Tilia x europaea

Bat Hop Over trees

- Acer campestre
- Alnus glutinosa
- Carpinus betulus
- Fagus sylvatica
- Prunus padus
- Prunus spinosa
- Quercus robur
- Sorbus torminalis
- Tilia cordata

Wild Orchard trees

- Malus domestica ‘Annie Elizabeth’
- Malus domestica ‘Red Falstaff’
- Prunus avium ‘Amber Heart’
- Prunus avium ‘Knight Early Black’
- Prunus avium ‘Penny’
- Prunus domestica ‘Avalon’
- Prunus domestica ‘Cambridge Gage’
- Prunus domestica ‘Denniston’s Superb’
- Prunus padus

Avenue trees

- Acer campestre ‘Elsrijk’
- Acer platanoides ‘Crimson King’
- Carpinus betulis ‘Fastigiata’
- Prunus ‘Accolade’

Woodland Meadow Edge

- Acer campestre
- Alnus glutinosa
- Betula pendula
- Corylus avellana
- Prunus padus
- Salix alba
- Salix fragilis
- Taxus baccata

6.7 TREE STRATEGY

GENERAL

The approach to tree planting is to provide a robust and diverse range of tree species for enhanced biodiversity, visual amenity and green infrastructure links. Existing planting is retained where possible and enhanced by native planting.

NATIVE TREES AND HEDGES

New native trees and hedge planting will be used to help define boundaries, to create spaces and to give all year round colour. They are divided into four types based on the character of each area. Tree species selection has been based on existing site species with indicative palettes shown on the following pages.

TREE SELECTION CRITERIA

We have selected a tree palette with a strong amenity value created through using a mixture of mainly native species with some additional exotic and naturalized species. The tree strategy is underpinned by the planting of feature trees and tree groups in key locations to aid with navigation, creations of thresholds both externally and internally, framing of views within the site and the provision of a more diverse visual amenity through tree planting and the diversification of tree species.

Tree selection has also considered a range of seasonal variation in leaf colour, stem and additional benefits to wildlife and site biodiversity. The site benefits from having a range of existing trees of various species and age ranges. The tree strategy aims to increase the diversity of tree species and age ranges so to provide visual and ecological benefits thus ensuring an improved treescape for the benefit of this and future generation.

Tree selection and distribution over the site plays an important part in visually containing the development on it's periphery and embedding the site within the wider green context. Within the site the placement of trees within open green space gives valuable green visual amenity.

The tree selections below have been divided into groups to reflect their intended use.

These are:

- Parkland tree species;
- Bat Hop Over trees
- Wild tree orchard;
- Avenue & feature trees;
- Woodland Meadow Edge; and
- Woodland mix.

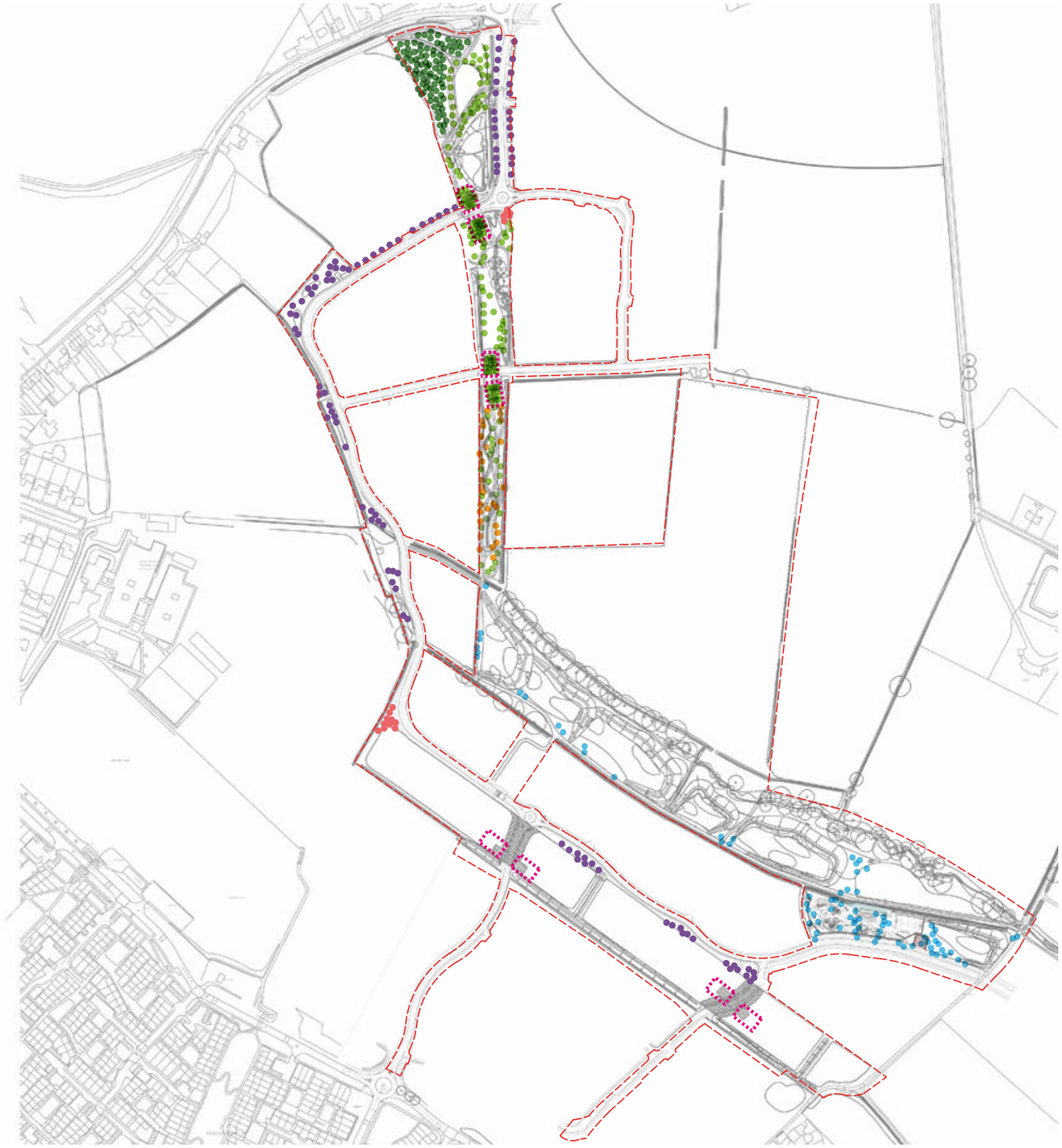


Figure 42. Tree Strategy Diagram

TREE STRATEGY SPECIES

PARKLAND TREE SPECIES

Quercus robur

Prunus padus

Malus sylvestris

Acer campestre

Prunus spinosa

Tilia cordata

Quercus palustris

Taxodium distichum

Ilex aquifolium

Fagus sylvatica ‘Purpurea’

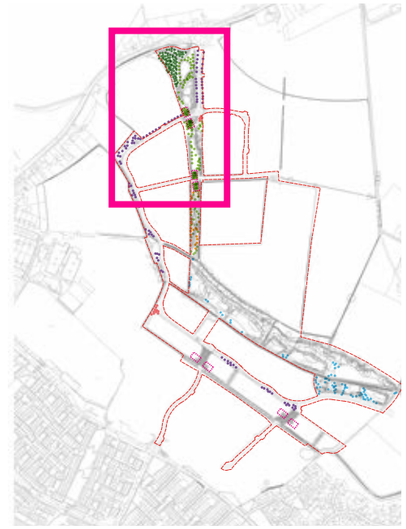
AVENUE AND FEATURE TREES

Carpinus betulus ‘Fastigiata’

Prunus ‘Accolade’

Acer campestre ‘Elsrijk’

Sorbus aria



LOCATION PLAN

KEY

RMA

Proposed Woodland (Refer to Planting Plan)

Parkland tree species

Avenue & Feature trees

Birch Groves

Hop Over Locations

Figure 43. Tree Location Diagram

WILD TREE ORCHARD

Prunus avium 'Amber Heart'

Prunus avium 'Knight's *Early Black*'

Prunus avium 'Penny'

Malus domestica 'Annie Elizabeth'

Malus domestica 'Red Falstaff'

Prunus domestica 'Avalon'

Prunus domestica 'Cambridge Gage'

Prunus domestica 'Denniston's *Superb*'

PARKLAND TREE SPECIES

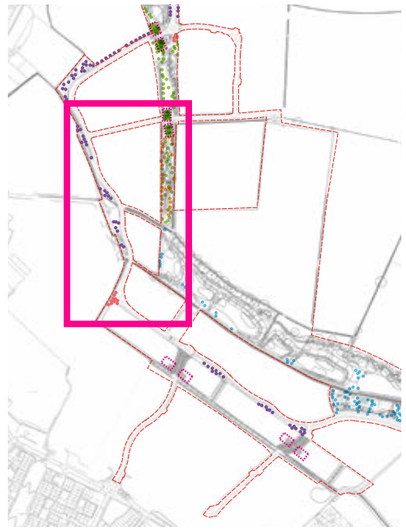
Prunus padus

Ilex aquifolium

Tilia cordata

Acer platanoides

Corylus avellana



LOCATION PLAN

KEY

RMA

Proposed Woodland (Refer to Planting Plan)

Parkland tree species

Wild Orchard trees

Woodland Meadow Edge

Avenue & Feature trees

Birch Groves

Figure 44. Tree Location Diagram

WOODLAND MEADOW EDGE

Salix alba

Salix fragilis

Alnus glutinosa

Betula pendula

Acer campestre

Tilia cordata

Corylus avellana

Prunus padus

AVENUE & FEATURE TREES

Carpinus betulus 'Fastigiata'

Prunus 'Accolade'

Acer campestre 'Elsrijk'

Sorbus aria

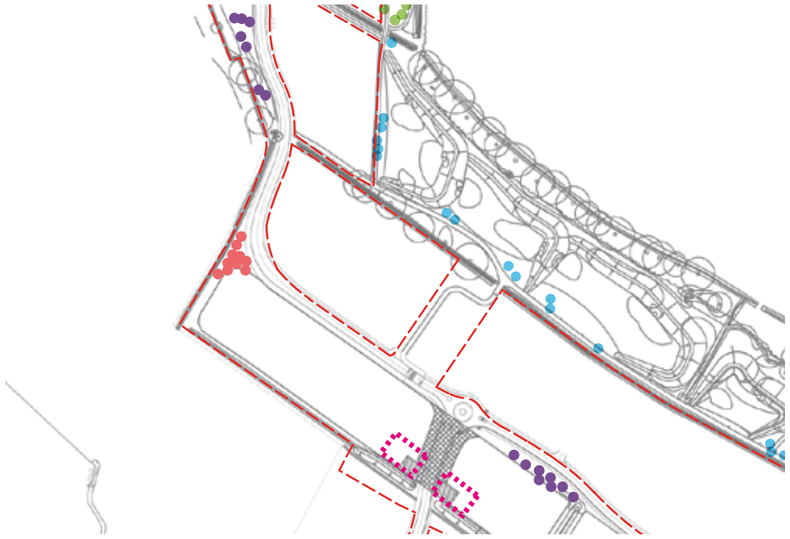
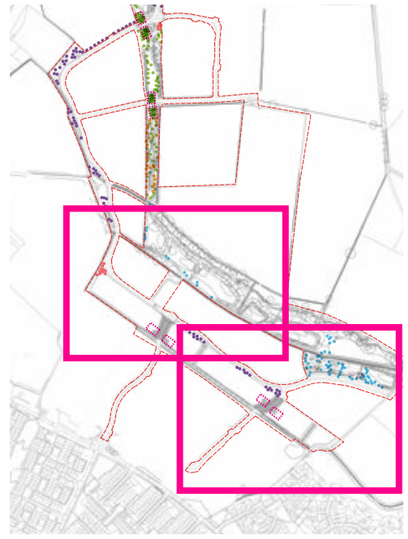


Figure 45. Tree Location Diagram



LOCATION PLAN

Figure 46. Tree Location Diagram

KEY

RMA

Woodland Meadow Edge

Avenue & Feature trees

Birch Groves

Hop Over Locations

6.8 PLANTING MIXES

NATIVE HEDGES AND SHRUBS

New and replenished hedges will be used to help define boundaries, to create spaces and to give all year round colour and strength of form. They will be managed to ensure that they are visually interesting, valuable for wildlife and physically robust. Plant species selection will reflect the location of the hedges and use a blend species that will support local wildlife. Typical hedge and shrub species will include:

- Acer campestre
- Cornus sanguinea
- Corylus avellana
- Crataegus monogyna
- Euonymus europaeus
- Malus sylvestris
- Prunus avium
- Prunus spinosa
- Rosa canina
- Sambucus nigra
- Viburnum opulus

MARGINAL PLANTING

Marginal planting will ensure all existing ditches meadow swales and retention ponds have a biodiverse and sustainable botanical base from which to thrive. Species include:

- Caltha palustris
- Carex acutiformis
- Eleocharis palustris
- Geum rivale
- Iris pseudacorus
- Juncus articulatus
- Lythrum salicaria
- Mentha aquatica
- Myosotis scorpiodes
- Phalaris arundinacea

Native Hedges

Prunus spinosa

Malus sylvestris

Crataegus monogyna

Cornus sanguinea

Acer campestre

Viburnum opulus

Sambucus nigra

Rosa canina

Native Marginal Planting

Iris pseudacorus

Geum rivale

Lythrum salicaria

Carex acutiformis

Caltha palustris

Mentha aquatica

Phalaris arundinacea

Eleocharis palustris

PLANTING MIXES

EDIBLE PLANTING

The focus on edible planting involves the integration of plant species with food and foraging potential into public realm spaces. This is to be centred in the Wild Orchard and set within a strongly plants native context.

The inclusion of an edible planting theme aims to connect local residents to the food potential that exist in the natural landscape and to be a focus and resource for local schools for education and teaching. The planting pallet has been carefully selected to provide seasonal interest through a flowering tree orchard, a variety of shrubs and undergrowth. These plants will produce hips, nuts, edible flowers and leaves, fruit and spices. Species selected are tolerant of the underlying alkaline soils and will provide the ideal habitat for wildlife and a variety of British birds and small animals. The following species are in addition to those illustrated opposite:

- Prunus spinosa
- Sambucus nigra

MEADOW PLANTING

The transition of the site from an agrarian dominated landscape to a natural ecosystem will involve the extensive use of wildflower meadows. These will provide a variety of habitats, retain soils and will be the most extensive planting type over the site.

The proposal identifies 6 key meadow types which are matched to the underlying substrate, the anticipated degree of soil moisture and the quantum of shade and overshadowing. The proposal includes the use of a Tussock Grass Mixture which creates an excellent habitat for reptiles and insects, with the other mixes providing cover and a food source for the surrounding wildlife.

Edible planting

Corylus avellana

Sorbus aucuparia

Malus sylvestris

Allium ursinum

Rosa canina

Origanum vulgare

Mentha aquatica

Fragaria vesca

Meadow Mixes

EG10 - Tussock Grass Mixture

EP1F - Wild Flowers for Pond Edges

EL1 - Flowering Lawn Mixture

EM8 - Meadow Mixture for Wetlands

EW1 - Woodland Mixture

EM6 – Meadow Mixture for Chalk & Limestone Soils

MATERIALS

7.1 FURNITURE STRATEGY AND PALETTE

GENERAL

The approach to furniture selection and use is to provide a complementary street and parkland furniture family that fits into the Haverhill countryside context. Benches, picnic tables, bollards and litter bins have been selected that are made from sustainable and robust materials, require minimal maintenance and are aesthetically pleasing.

The following principles have been applied to the furniture strategy:

- A family of street furniture, made from steel and FSC certified timber, is used throughout the scheme. The elements include benches, picnic tables, and litter bins. The shape of these elements is contemporary, whilst the wooden treatment soften the overall appearance;
- All furniture elements will provide a sufficient level of comfort and amenity but should also minimise clutter and visual confusion within the scheme;
- Arrangement of site elements is to be in a logical manner that assists in site orientation and navigation and the use of variation in furniture to assist in navigation of the site is encouraged;
- The designation of resting points is to be at locations and intervals that will allow the easy and safe use of the site by the elderly, mobility and sight impaired;
- Informal resting points, such as timber logs, stone boulders, earth mounds and walls, especially in the more natural parts of the site; will be used to offer additional resting places;
- Static and collapsible timber bollards are used, sourced from European timber and provided with a painted or reflective strip and pyramid top, to reduce vehicle access into the site while collapsible elements can be used to allow service vehicle into green spaces;
- Timber knee rails, made form FSC certified timber, will be used to create a barrier between open space and pedestrian/trafficked areas and to guide people to entrances and protect planted areas from egress;
- Timber post and rail fences will be used where a high degree of separation between pedestrian and road traffic/deep swales is required;
- Timber bridges provide crossing points over the swales and provide viewing points for visitors to interact with the biodiverse wetland areas;
- All lighting columns to the adoptable highway and the shared cycle and pedestrian routes will be to West Suffolk District Council's adoptable standards, including height of columns and luminaire types.
- Signage, including finger signs and interpretative information, will be made from robust FSC certified timber with clearly visible and readable information. The will be located at key junctions and intersections along key routes and in places where an educational or historic narrative is an important part of the site's narrative.

FURNITURE PALETTE

BENCH 01 TYPE 1 BACKREST SEAT WOODSCAPE OR SIMILAR APPROVED

BENCH 02 TYPE 2 BACKLESS BENCH WOODSCAPE OR SIMILAR APPROVED

BENCH 03 STANDARD PICNIC SET WOODSCAPE OR SIMILAR APPROVED

FIXED REMOVABLE HARDWOOD TIMBER BOLLARDS WOODSCAPE OR SIMILAR APPROVED

CYCLE STANDS
SHEFFIELD CYCLE STAND

LITTER BINS

TIMBER BRIDGES

BOULDERS / LANDSCAPE FEATURES

BOUNDARY TREATMENTS

KNEE RAIL

TIMBER POST AND RAIL

BOW TOP FENCING TO PLAY

TIMBER FINGER POST SIGN

7.2 SURFACES STRATEGY & PALETTE

GENERAL

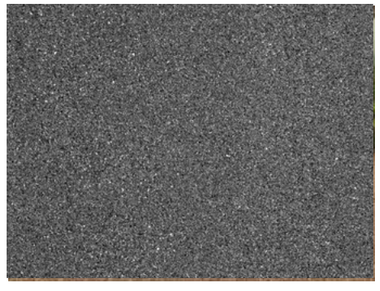
A variety of surface materials have been selected to define the various functions of the landscape spaces, reinforce the hierarchy of road and pedestrian pathways, and define areas of shared vehicular/pedestrian use from areas restricted to pedestrian use only.

The material palette shown in opposite forms a structured palette of materials that are coordinated to create visual unity and integrity within the landscape and with the adjoining architecture. This palette has variations in surface texture and colour that can be used to define the different functions of the paved areas. Hard landscape areas will be designed to be physically robust and of a quality appropriate to the site. The materials selected for the palette will convey a unifying character to the development and will visually integrate the local context. Consideration has be given to the appropriateness of the materials with regard to place making and their long-term performance and sustainability.

Key features of the surface material palette are:

- Use of a Stone Mastic Asphalt (SMA) to adoptable standards for all the primary roads across the development;
- The use of a light exposed washed stone wearing course in the SMA at the junctions of the Green Spine where it meets the Spine Route;
- Use of a permeable buff/red coloured tarmac for all shared cycleway routes and pedestrian footpaths though the site;
- A natural self-binding gravel path network that is secondary to the shared cycleway routes and connects the site;
- A tertiary network of mown grass paths retained in the flowering lawn mix;
- Safety fall surfaces in play areas consisting of either recycled grass mats or rubber crumb in more high wearing areas of use.

ROAD SURFACES



STONE MASTIC ASPHALT (SMA)

EXPOSED WEARING COURSE

COLOURED CYCLE ASPHALT FOOTPATH/CYCLING

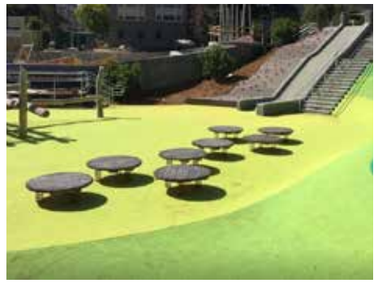
COLOURED ASPHALT PAVEMENT

PARK + PLAY SURFACES

GRAVEL FOOTPATH

GRASS MATS

MOWED PATHS



RUBBER CRUMB

MAINTENANCE & MANAGEMENT

8.1 MAINTENANCE & MANAGEMENT PLAN

INTRODUCTION

Exterior Architecture (EA) has been commissioned by Redrow Homes (RR) to prepare a Landscape Management Plan (LMP) that covers the non-adoptable landscaped areas (excluding privately owned domestic gardens) within the Masterplan of the proposed development referenced here as Great Wilsey Park.

GENERAL

This LMP has been developed to ensure the long term management of the landscaped setting while enabling it to contribute positively to the visual amenities of the area and create usable and valued spaces for the residents to enjoy.

This plan sets out the long term maintenance principles required for the external hard landscape treatments (surface finishes) and soft landscape throughout the site (ref to ExA_1868_101_Genreal Arrangement Plan).

The principle management strategy for Great Wilsey Park is for an easy to maintain landscape that uses durable and robust products and materials for enhanced longevity. The hard landscape materials will conform to British Standards (BS) and European Standards (ES) as well as being easy to clean, maintain or replace if required.

Redrow and the landowner are setting up a joint Management company to manage and maintain the public landscape areas across Phase 1 of Great Wilsley Park. The Management Company will be responsible for the ongoing maintenance of area of hard and soft landscaping with public open spaces, attenuation basins, children's play areas, The Great Field Plantation, paths, cycle paths and allotments.

OBJECTIVES

The general objectives for this LMP are to:

- Create an attractive and well cared-for setting for the development;
- Ensure the successful implementation, establishment and longevity of the planting scheme and external treatments;
- Ensure the landscape contributes positively to the users;
- Ensure the landscape contributes positively to the site context;
- Enhance and protect the native flora and fauna (both existing and proposed); and
- Enhance biodiversity and ecology wherever possible.

SOFT LANDSCAPE

The soft landscape strategy is designed to create a strong green framework for the development using a range of new native tree and shrub planting. The new planting will use a range of robust evergreen and deciduous species to give year-round seasonal interest.

All soft landscaping proposals within the non-adoptable areas are to be managed and maintained by the Clients Management Contractor (CMC) including all meadow, woodland, hedges and other public realm and ecological planting.

HARD LANDSCAPE

Surface treatments are designed to be robust and provide safe and attractive routes throughout the development.

Only key pedestrian spaces and routes will be lit with low level path lighting to minimise any light pollution. Lighting of the vehicular routes will also have carefully considered lighting to reduce any adverse effects.

Bollards, bench seating and litter bins will be selected to ensure they are of durable and low maintenance materials. These will be located at key pedestrian junctions and congregation points.

Boundary treatments include knee rails and timber fencing.

MANAGEMENT RESPONSIBILITIES

The legal property owner (Redrow Homes) will have overall responsibility for the implementation of this LMP. Individual responsibility for this will lie with the CMC.

There will be a CMC employed to manage the day-to-day responsibility for the delivery of maintenance operations. This will be the responsibility of Redrow Homes (and subsequent legal property owners) to appoint the CMC.

Maintenance operations should also be refined to suit:

- The needs of users;
- The conservation of ecological interests;
- Improvements in equipment and horticultural aids;
- Changing legislation and sustainability requirements;
- The completed scheme when soft landscaping including species have been confirmed; and
- The detailed management recommendations for the existing trees/ planting to be retained.

YEAR 1

It is intended that the implementation of this management plan will help to fulfil the design objectives over the first year. This period is set to cover the 1st year of the defects liability period of the appointed landscape contractor. Management objectives should be reviewed on a regular basis to ensure that they are being achieved. From the point of final completion (end of the defects liability period) the CMC will be responsible for the maintenance of the site.

YEARS 2- 5

The CMC is responsible for the site in the long term and should keep to the original design objectives/intent whilst responding in a sensitive and practical way to issues which may arise in future years.

The LMP should be reviewed and adjusted accordingly to ensure the design objectives are maintained in the longer term. Annual monitoring of the establishment and condition of the Landscape Scheme will be undertaken by a suitably qualified Landscape Management Advisor.

YEARS 5+

Subject to the outcome of the regular monitoring review from years 1-5 the frequency of monitoring will then be reduced to once every two years. As required, further reinstatement or remedial action may be undertaken and/or changes made to the maintenance schedule in light of this monitoring.

PLAN REVIEW

The LMP will be reviewed during the life of the plan with a final review undertaken before the end of the ten year period. A revised LMP should be submitted for the agreement of West Suffolk District Council before the ten years has expired. The revised plan will include similar provision for the long-term management of the Landscape Scheme and for future revision and updating.

The plan review must be undertaken by a suitably qualified Landscape Architect.

MANAGEMENT PROPOSALS

This section sets out management objectives and prescriptions for each of the different elements of the Landscape Scheme.

HARD SURFACES

Regular monthly maintenance inspections are to be undertaken of surface treatments for litter, debris and leaf removal (or snow clearance and de-icing in winter months).

Objective 1 – To maintain the condition of all surfaces in a clean and safe condition

Cleaning is to be either mechanically swept or jet washed as required to remove surface build-up of atmospheric dust. Removal of chewing gum or other significant marking may be done locally by the use of an approved chemical agent. Frequency – monthly.

In the event of weeds or moss growth in paving joints these are to be treated with an appropriate water based herbicide. Weeds are not to be pulled out by hand to preserve the bedding course. Frequency – monthly.

Damages to paving surfaces - In the event of any cracking, disturbance, breakages or damaging of paving surfaces these are to be replaced to match.

FURNITURE

Objective 1 - To maintain all seating, bollards, litter bins and lighting elements in a clean, safe and operational condition.

Damage to the seating, bollards, litter bins and lighting elements – In the event that these elements are damage, the CMC will be required to source replacement timbers and replace any broken or damaged units that are deemed to pose a risk to public safety or are aesthetically not in keeping with the design intent.

Frequency – Inspections to be undertaken on a bi-monthly basis by the CMC and works undertaken immediately in identification of any fault.

Maintenance of the bespoke seating elements on rails will be the ongoing responsibility of the legal property owner as an item covered within the non-adopted works and therefore to be managed and maintained by the appointed CMC.

These particular seating elements are to be inspected bi-monthly with the identification of any issues to be addressed immediately.

Emptying of the litter bins located within non-adoptable areas will be the responsibility of the appointed CMC. All litter bins to be inspected and emptied weekly.

Removal of chewing gum or any other significant marks – chewing gum may be removed using an approved chemical agent. Other significant marks such as permanent markers and spray paint are to be removed using an approved chemical agent to manufacturer's recommendations. Any surface coatings or finishes that are compromised by the marks are to be repaired. Frequency – Inspections to be undertaken on a weekly basis by the CMC and works undertaken immediately in identification of any issues.

Damage to lighting units that are deemed to pose a risk to public safety, are not functioning, or are aesthetically not in keeping with the original design intent are to be repaired or replaced by a suitable qualified contractor. Any replacement units must be of the same specification as the original unit to maintain consistency throughout the design. Inspection to be carried out monthly on site and any due work is to be undertaken immediately in identification of any fault.

Objective 2 - To maintain all boundary treatments & edges in a clean, safe and operational condition.

Damage to boundary treatments – In the event that these boundaries are damaged or vandalised, the CMC as appointed by the legal property owner will be required to source and replace any broken or damaged units that are deemed to pose a risk to public safety or are aesthetically not in keeping with the design intent. Frequency – Inspections to be undertaken on a bi- monthly basis and works undertaken immediately after the identification of any fault.

PLAY EQUIPMENT

Objective 1 - To maintain all play equipment elements in a clean, safe and operational condition.

All proposed play spaces and equipment are located within non-adoptable areas and are therefore to be managed and maintained by the CMC as appointed by the legal property owner.

Inspection of play equipment is to be carried out by the CMC fortnightly. In the event that any of the play equipment is found to be vandalised, broken, damaged or in a condition that poses a risk to public safety these are to be repaired immediately by a qualified contractor or closed off until such remedial actions can be taken place.

Objective 2 - To maintain all safety fall surfaces in a clean, safe and operational condition.

All proposed play surfaces located within non-adoptable areas and are therefore to be managed and maintained by the CMC as appointed by the legal property owner.

Inspection of the bark surfacing is to be carried out by the CMC fortnightly to ensure the surface is clean, tidy and free of any foreign objects – glass, needles, general litter etc. In the event that any of the play surfacing is found in a condition that poses a risk to public safety these are to be rectified immediately or closed off until such remedial actions can be taken place.

Inspection and grading of the bark safety surface is to be carried out by the CMC monthly to ensure the nominal depth is maintained at a minimum of 300mm. If the depth is found to be less than 300mm additional bark to the original specification must be applied to the effected zones immediately by a qualified contractor.

PLANTING

Objective 1 - Ensuring sustained tree and shrub growth during the life of the LMP.

Watering of trees and shrubs - Water as required during periods of drought to ensure satisfactory establishment, and for a period of not less than three years after planting. Frequency – as required to maintain healthy plant growth.

Inspection of trees and remedial actions – Trees within non-adoptable areas are to be inspected every 6 months for the first two years of the LMP to ensure that trees are healthy, not diseased or damaged, or dead. Inspections after the first 2 years can be reduced to yearly if they are establishing well. Inspections should be carried out by a qualified arboriculturalist to identify any dead limbs or other parts of a tree that may cause harm to the tree or member of the public and advise remedial actions.

Any failed trees during the first 5 years after planting will be replaced and maintained for a subsequent 5 years.

Frequency of remedial pruning – yearly pruning to be conducted between January and March based on findings of inspections. Emergency pruning to be conducted immediately when a critical fault is noticed.

Frequency of tree replacement – To be undertaken in optimum tree planting in early spring or late autumn.

Height, width and overall form of the shrub and hedge planting is to be maintained so as not to cause damage or to interfere with visibility. Any pruning or shaping of planting to be carried out in accordance with good horticultural and arboricultural practice in order to ensure the overall health of the plant. Thin, trim and shape each specimen appropriately to species, location, season, and stage of growth, leaving a well-balanced natural appearance.

Inspection and remedial actions of native shrub planting, rain gardens and hedge planting within the non-adoptable areas is to be inspected by the CMC every 3 months to ensure that the planting is healthy, not diseased, damaged, or dead. Dead or unhealthy shrubs are to be removed on inspection and replaced with the same species and size as required to achieve the desired visual effect.

Frequency of inspections – 3 monthly

Frequency of remedial work – immediately as required.

Frequency of seasonal remedial pruning works – Pruning, dead heading at the end of plant flowering seasons (spring to autumn) as required

Removal of harmful materials that may affect tree growth – weeds on the top of tree pits are to be removed by hand. Herbicides and weed strimmer's are not to be used to control weeds in plant beds. Other material such as litter, debris and other harmful material is to be removed. Mulch is to be topped up to desired depths and levels as specified.

- Frequency of Weed removal – fortnightly from spring to autumn and then monthly during the winter months;
- Frequency of debris removal – bimonthly
- Frequency of mulch replenishing – 6 months

OBJECTIVE 2 - RETAIN A HEALTHY GROWING MEDIUM FOR ALL TREES AND AMENITY PLANTING AREAS

1.16.1. Fertilisation of soils to replenish nutrients – All shrub beds are to be fertilised using an approved slow release fertiliser as per the manufacturer's recommendations. Trees are to be fertilised in the first two years of establishment using a liquid based organic fertiliser as per the manufacturer's recommendations. An approved organic soil conditioning agent is to be applied to all garden beds as per the manufacturer's recommendations and worked into the top 150mm of the soil profile without damaging the existing planting. Mulch is to be removed prior to application and reinstalled after soil conditioner has been added.

- Frequency – Shrub fertiliser - annually
- Frequency – Tree fertiliser – annually for the first two years
- Frequency – Soil conditioner for amenity planting beds – annually in early spring.

MAINTENANCE SPECIFICATION & STANDARD OF WORK

The LMP is to be carried out to a high standard. Planted areas must be kept neat and clean in appearance at all times, weed and litter free, with all planting in a healthy state. The CMC shall ensure that the works themselves do not cause inconvenience or danger to users of the site and that any potential Health and Safety issues are raised and all necessary measures are taken accordingly.

All staff will be trained in landscape maintenance operations and have suitable experience/qualifications to undertake the specified work.

BRITISH STANDARDS

All materials, workmanship and horticultural terms shall comply with the current, appropriate British Standards or European Standards unless specifically stated.

The CMC shall prevent damage to and protect as necessary, existing paving, buildings, fitments, utilities and all existing plants. Any damage caused should be repaired by the CMC at their own expense.

USE OF CHEMICALS

The CMC must ensure that all approvals and measures are in place for the use of any chemicals e.g. herbicides or pesticides on the site.

The CMC shall ensure that any chemical application is undertaken by a trained operative with the appropriate qualification. They shall ensure at all times that the public, store employees and own staff are not subject to any hazard from the use of chemicals, and that all equipment, containers and materials are kept in a secure place when on site and not in use, and that all empty containers, etc are removed from site at the end of each day.

CLEANLINESS

At the end of each day of each maintenance operation, The CMC shall remove from site all rubbish, trimmings, and superfluous materials, leaving the works in a clean and tidy condition. Particular attention shall be paid to ensuring areas of hard surfacing are left in a clean condition, free from any soil, mud, leaves, cuttings and plant pruning.

PESTS & DISEASES

The CMC shall implement appropriate treatment to any pest or diseases occurring on-site that are found to be affecting the vegetation as agreed to coincide with normal maintenance visits, where possible. All operations shall comply with statutory safety requirements. All diseased wood, pruning etc shall be removed from site.

MULCHING

All areas of shrubs are to be mulched to a depth of 75mm. Mulched areas are to be topped up as necessary using the same material as was originally specified.

WEED CONTROL

In the course of the routine maintenance visits, the CMC shall undertake the weed control necessary to keep the site in a neat and tidy, weed free condition and to allow specified species to develop free from unnecessary competition. Weeding may be carried out by hand, machine, and herbicide or by a combination of all three consistent with the other requirements of this maintenance specification.

Where herbicide is to be used, it is the CMC's responsibility to ensure that the herbicide they propose to use is appropriate for the purpose and location.

Weeds and other debris will be removed from site at the end of each visit.

LITTER

At every maintenance visit the CMC shall remove all litter from planted areas. During autumn all fallen leaves should be collected and removed from grass and hard surfaces.

WATERING

Watering to be full depth of the topsoil. To be carried out as necessary for the continued thriving of all plantings. Do not loosen or damage plants.

If water supply is, or is likely to be, restricted by emergency legislation, submit proposals for an alternative suitable source of water. Obtain instructions before proceeding.

8.2 OUTLINE LANDSCAPE MAINTENANCE SCHEDULE

Tasks	J	F	M	A	M	J	J	A	S	O	N	D
General												
Weed Control				■		■		■		■		
Watering					■	■	■	■	■			
Pest & Disease Control	■	■	■	■	■	■	■	■	■	■	■	■
Replacement Planting	■	■	■								■	■
Removal of Litter & Debris			■						■			
Check Ties & Supports			■						■			
Fertilizer & Mulch application			■						■			
Grass/Meadow												
Amentity Grass Cutting				■	■	■	■	■	■	■	■	■
Wildflower Grass Cutting								■				
Edge Trimming				■	■	■	■	■	■			
Herbicide				■	■	■						
Shrubs/Hedges												
Inspection	■			■			■			■		
Pruning (species dependant)	■	■	■	■	■	■	■	■	■	■	■	
Mulching			■						■			
Trees												
Inspection	■			■			■			■		
Pruning and remedial work	■	■	■	■	■	■	■	■	■	■	■	■
Hard Surfaces												
Clear snow & Ice	■	■										■
Clear Gullies & Flush Clean		■		■		■		■		■		■
Remove litter, leaves & debris		■		■		■		■		■		■
Treat weeds				■		■		■		■		

Figure 47. Outline Landscape Maintenance Schedule

APPENDIX

9.1 APPENDIX A - NORTHERN PLAYSPACE EQUIPMENT

Northern Ribbon Playspace			
CAD Key:	**Number:**	**Product Name:**	**Supplier:**
PT05	202m	1.2m high galvanised flat top fencing	Steelway Fencing
BT03	1	Yellow 'Prosafe' combined pedestrian/maintenance gate (1.5m wide)	Steelway Fencing
BT02	4	Yellow 'Prosafe' pedestrian entrance gates	Steelway Fencing
FT11	7	Bench 01, Type 1, Backrest seat	Woodscape
FT12	1	Bench 02, Type 2, Backless bench	Woodscape
ST13	2	Timber platform for slide	Supplier TBC
FT16	TBC	Assortment of rocks	Playdale or CED stone group
FT36	1	Hut Combination 185	Richter Spielgerate GmbH
FT47	1	Running Boards for Suspension Bridge 5m platforms	Richter Spielgerate GmbH
FT48	1	Hut Combination 213	Richter Spielgerate GmbH
FT15	1	Sinus bicycle rack	Vestre
FT18	39	Timber stepping logs	Play cubed
FT27	1	Rutsche slide 1.5m	Richter Spielgerate GmbH
FT29	1	Rutsche slide 2.4m	Richter Spielgerate GmbH
FT30	2	97010 Eurotramp 1.5m	Russell Play or eurotramp
FT31	4	6.06000 Jumping discs	Richter Spielgerate GmbH
FT19	9	Large treated timber logs	Infinite playgrounds or playequip
FT21	2	Balance walk	Play cubed
FT28	10	Tractor tyres 13mm height or similar	The playground company or similar approved
FT17	1	2.14700 Toddler Hut combination 47	Richter Spielgerate GmbH
FT26	1	6.12700 Toddlers twin swing	Richter Spielgerate GmbH
FT25	1	6.14000 High twin swing	Richter Spielgerate GmbH
FT21	1	6.05000 Totter beam	Richter Spielgerate GmbH
FT22	4	Stepping stilts	Playcubed
FT24	1	6.18460 Car Tyre Swing	Richter Spielgerate GmbH
FT23	1	7.77060 Climbing wall with 4 elements	Richter Spielgerate GmbH
FT34	4	Bespoke Swift boxes	Supplier TBC
FT35	1	Bespoke bug hotels	Supplier TBC
FT33	1	SWD030 Inclusive roundabout	Sutcliffe play
FT51	1	Bespoke Triple Tower Feature	Richter Spielgerate GmbH
FT32	1	Grass mounding	Landscaper TBC

9.2 APPENDIX B - SOUTHERN PLAYSPACE EQUIPMENT

Southern Ribbon Playspace			
CAD Key:	**Number:**	**Product Name:**	**Supplier:**
FT13	2	Bench 01, Type 1, Backrest seat	Woodscape
FT12	2	Bench 02, Type 2, Backless bench	Woodscape
FT58	2	Mug bleacher spectator seating	Sports facilities group or Richter
FT08	4	Round lockable litter bin, fixed top: LBR 90	Woodscape
ST13	2	Timber platform for slide	Supplier (TBC)
BT03	1	Maintenance gate (3m wide)	Steelway Fencing
BT02	3	Entrance gates with soft close mechanism	Steelway Fencing
BT01	99m	Outside fencing	Steelway Fencing
FT39	10	Timber steps	Supplier (TBC)
FT45	1	JC/BOR/S Borneo (mixed timber/rope play)	Playdale
FT16	TBC	Assortment of rocks	Playdale or CED stone group
FT45	6	Treated timber stump seating	Supplier (TBC)
FT30	2	97010 Eurotramp 1.5m	Russell Play or eurotramp
FT33	1	SIR000 Inclusive Roundabout (Seat & Scooter)	Sutcliffe Play
FT31	4	6.06000 Jumping disc	Richter Spielgerate GmbH
FT44	1	3.63020 Slide with ground anchor (.45m wide)	Richter Spielgerate GmbH
FT43	1	3.63320 Slide (1m wide)	Richter Spielgerate GmbH
FT52	1	6.51700 Balancing blocks	Richter Spielgerate GmbH
FT37	TBC	Climbing wall grips	Beacon or Core Climbing
FT38	1	High Twin Swing	Richter Spielgerate GmbH
FT42	1	6.01100 Large gated cableway `	Richter Spielgerate GmbH
FT37	1	6.12700 Toddlers twin swing	Russell Play
FT54	3	Large upright climbing logs	Lockwood landscapes or Playequip
FT22	5	Stepping stilts	Play cubed
FT20	2	Balance walk	Play cubed
FT18	26	Timber stepping logs	Play cubed
FT21	1	6.05000 Totter beam	Richter Spielgerate GmbH
FT53	1	Muga court	Playcubed
FT50	1	6.49020 Rope course type 02	Richter Spielgerate GmbH
FT19	7	Large treated timber logs	Infinite playgrounds or playequip
FT46	3	Climbing structure	Richter Spielgerate GmbH
FT15	3	Sinus bicycle rack	Vestre
FT51	3	Bespoke Tower Combination	Richter Spielgerate GmbH
FT55	1	Platform House	Richter Spielgerate GmbH

9.3 APPENDIX C - LIST OF PLANNING DRAWINGS

DESCRIPTION/TITLE	DWG NO	SIZE	SCALE
LANDSCAPE DRAWINGS			
100 SERIES - GENERAL ARRANGEMENT PLANS			
ILLUSTRATIVE LANDSCAPE MASTERPLAN	ExA_1868_113	A1	1:2000
LANDSCAPE GENERAL ARRANGEMENT PLAN	ExA_1868_101	A1	1:2000
LANDSCAPE GENERAL ARRANGEMENT PLAN & KEY LEGEND	ExA_1868_102	A1	N/A
LANDSCAPE GENERAL ARRANGEMENT PLAN 1 OF 7	ExA_1868_103	A1	1:500
LANDSCAPE GENERAL ARRANGEMENT PLAN 2 OF 7	ExA_1868_104	A1	1:500
LANDSCAPE GENERAL ARRANGEMENT PLAN 3 OF 7	ExA_1868_105	A1	1:500
LANDSCAPE GENERAL ARRANGEMENT PLAN 4 OF 7	ExA_1868_106	A1	1:500
LANDSCAPE GENERAL ARRANGEMENT PLAN 5 OF 7	ExA_1868_107	A1	1:500
LANDSCAPE GENERAL ARRANGEMENT PLAN 6 OF 7	ExA_1868_108	A1	1:500
LANDSCAPE GENERAL ARRANGEMENT PLAN 7 OF 7	ExA_1868_109	A1	1:500
NORTHERN PLAYSPACE GENERAL ARRANGEMENT PLAN	ExA_1868_110	A1	1:200
SOUTHERN PLAYSPACE GENERAL ARRANGEMENT PLAN	ExA_1868_111	A1	1:200
200 SERIES - PLANTING GENERAL ARRANGEMENT PLANS			
PLANTING PLAN TILES & SCHEDULE	ExA_1868_201	A1	N/A
PLANTING PLAN 1 OF 25	ExA_1868_202	A1	1:200
PLANTING PLAN 2 OF 25	ExA_1868_203	A1	1:200
PLANTING PLAN 3 OF 25	ExA_1868_204	A1	1:200
PLANTING PLAN 4 OF 25	ExA_1868_205	A1	1:200
PLANTING PLAN 5 OF 25	ExA_1868_206	A1	1:200
PLANTING PLAN 6 OF 25	ExA_1868_207	A1	1:200
PLANTING PLAN 7 OF 25	ExA_1868_208	A1	1:200
PLANTING PLAN 8 OF 25	ExA_1868_209	A1	1:200
PLANTING PLAN 9 OF 25	ExA_1868_210	A1	1:200
PLANTING PLAN 10 OF 25	ExA_1868_211	A1	1:200
PLANTING PLAN 11 OF 25	ExA_1868_212	A1	1:200
PLANTING PLAN 12 OF 25	ExA_1868_213	A1	1:200
PLANTING PLAN 13 OF 25	ExA_1868_214	A1	1:200
PLANTING PLAN 14 OF 25	ExA_1868_215	A1	1:200
PLANTING PLAN 15 OF 25	ExA_1868_216	A1	1:200
PLANTING PLAN 16 OF 25	ExA_1868_217	A1	1:200
PLANTING PLAN 17 OF 25	ExA_1868_218	A1	1:200
PLANTING PLAN 18 OF 25	ExA_1868_219	A1	1:200
PLANTING PLAN 19 OF 25	ExA_1868_220	A1	1:200
PLANTING PLAN 20 OF 25	ExA_1868_221	A1	1:200
PLANTING PLAN 21 OF 25	ExA_1868_222	A1	1:200
PLANTING PLAN 22 OF 25	ExA_1868_223	A1	1:200
PLANTING PLAN 23 OF 25	ExA_1868_224	A1	1:200
PLANTING PLAN 24 OF 25	ExA_1868_225	A1	1:200
PLANTING PLAN 25 OF 25	ExA_1868_226	A1	1:200

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