2.2.4 Tree Report follows at the end of this section

JAMES BLAKE ASSOCIATES

LANDSCAPE AND ECOLOGICAL MANAGEMENT AND MAINTENANCE PLAN

Guide to the Management of Landscape and Ecological Areas at Plot 4000 - Gateway 14, Land between the A1120 and the A14, Creeting St Peter, Stowmarket, Suffolk

REF JBA 20/104
LMP2

ON BEHALF OF
Jaynic

July 2022
– Rev A
22.07.22

Over 30 Years of Service, Value and Innovation

34-52 Out Westgate, Bury St. Edmunds, Suffolk IP33 3PA
tel: **01284 335797** email: **jamesblake@jba-landmarc.com**
www.jba-landmarc.com

Contents

1.0 INTRODUCTION

1.1 PURPOSE AND SCOPE OF DOCUMENT

1.1.1 The Management Plan shall be taken to include this document and any supporting plans, reports and specifications approved as part of the planning application for the residential redevelopment of land at Gateway 14, Stowmarket for Plot 4000. This includes any documentation containing quantitative and qualitative information about the external areas of the site that will be useful to those responsible for managing and maintaining them.

1.1.2 The purpose of this document is to provide information for satisfaction of reserved matters approval set during the planning application**.** The document includes a schedule for all required maintenance regimes, operations and works necessary for the satisfactory management of the landscape in perpetuity. The Management Plan sets out the management aims and objectives for the site along with the specific management objectives for each landscape component, and the associated maintenance works required on an Annual and Occasional basis. The Annual Works are those works that will be required every year, such as watering, weeding and cleaning. The Occasional Works are those that will be required on an irregular or cyclical basis, such as repairs and renewals.

1.2 THE GROUNDS

1.2.1 **Location**

1.2.2 The overall Site is located on land south of the A14, east of the A1120 and north of the B1113 at Creeting St Peter near Stowmarket, Suffolk. The site is currently in agricultural use and comprises four large fields with an area of a further field in the south east of the Site. The fields are separated by hedgerows, fences, a farm track and public highway (Mill Lane). The Site is currently divided into two parts by Mill Lane which runs east to west through the northern half of the site and access to the Site is currently afforded from Mill Lane.

Site Description and Development Proposals

1.2.3 Gateway 14 Ltd (the 'Applicant') is seeking reserved matters planning permission for an industrial and commercial development on land at Creeting St Peter, Stowmarket (the Site). The overall Site covers an area of approximately 67.4 hectares (ha) and is located within the administrative area of Mid Suffolk District Councils (MSDC). This document refers only to Plot 4000 within the site. The site is shown on the plan in Appendix 1. See Fig's 1 and 2.

1.2.4 The boundaries of the overall site are defined by road infrastructure including the A14, A1120, railway line, fenced boundary or significant existing mature vegetation and trees. Plot 4000 is on the southwest boundary and is bordered by the strategic vegetation of the wider scheme and the spine road running from the entrance and through the site. The Vegetation to be removed (refer

to drawings JBA 20/104 TR01) and replaced as part of a comprehensive detailed landscape scheme (refer to drawings JBA 20/104 21-26).

1.2.5 To remain compliant with environmental legislation, habitat management has taken into consideration the presence of protected species. Ecological surveys of the site were undertaken by Penny Anderson Associates and JBA between 2018-2022.

The following habitats were identified on the site:

- Trees with potential roosting features for bats and birds.
- Foraging and commuting bats.
- Breeding Birds (including Skylark).
- Shepherd's Needle (north west boundary).
- Badger sett/activity.
- Potential for GCN.
- Potential for Brown Hares
- Potential for Reptiles.
- Potential for invertebrates.
- Presence of the above fauna was mainly found to be present in boundary habitats adjacent to the site as the current usage/previous is agricultural.

Fig 1. Location plan: Road Map: Not to scale

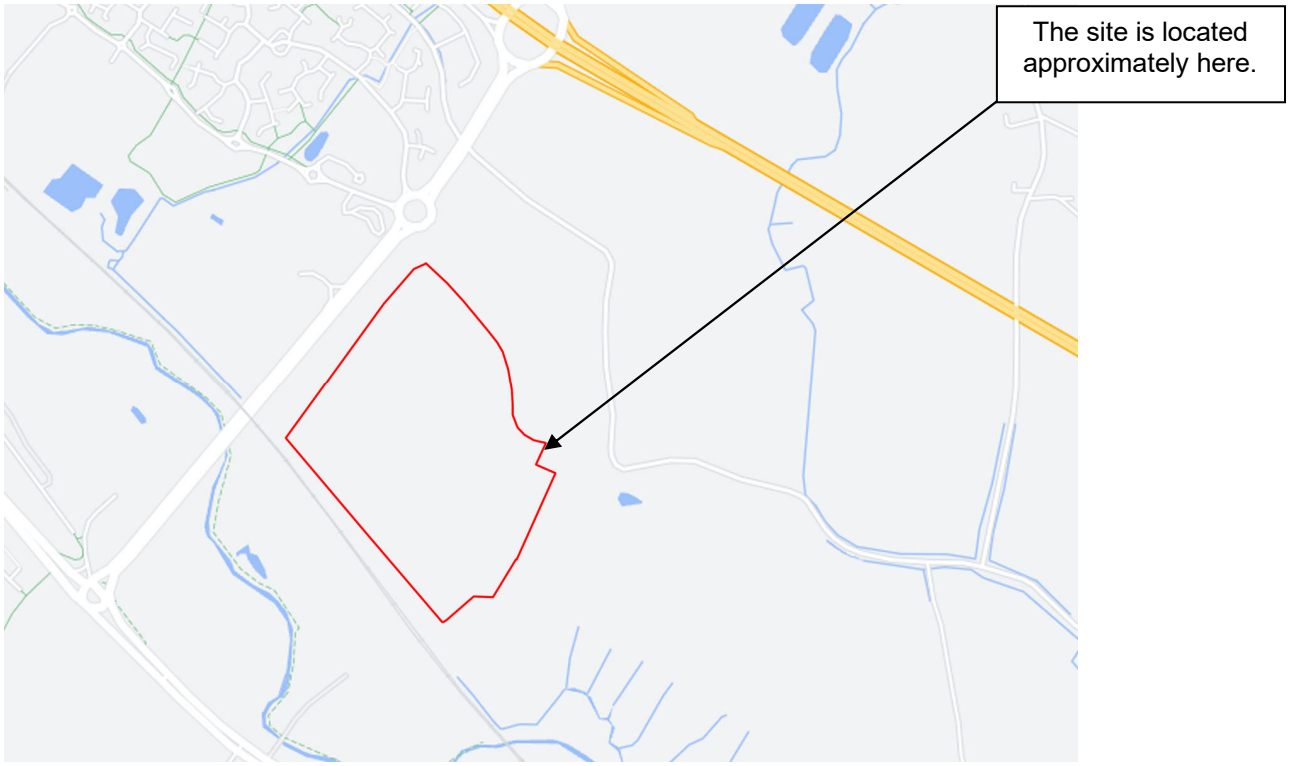


Fig 2. Satellite Location plan: Site Boundary: Not to scale

1.2.6 **Management Plan Areas**

The purpose of this management plan document is to ensure the appropriate management of the retained and proposed landscape areas on the site following the construction and completion of the development. The landscape areas include existing boundary vegetation along with all new planting (trees, hedges, shrubs and grass) and other hard or soft landscape components outside of private ownership.

1.2.7 All of the landscape and ecological areas of the site, except for private ownership, will be the subject of the Landscape and Ecological Management Plan. The landscape areas subject to this Management Plan are set out in Appendix 6.1.

1.3 RECITALS

1.3.1 **Parties Involved**

- **The Developer**: Jaynic is responsible for the construction of this development. The developer will be responsible for the protection and management of existing landscape components through the construction phase and the implementation of the hard and soft landscape works in accordance with the planning drawings, including any contractual maintenance period associated with these works.
- **The Local Planning Authority**: This term (abbreviated to LPA) shall refer Mid Suffolk District Council and its Planning and Landscape Officers who are involved in the process of the approval of landscape and other documentation.

- **The Adopting Organisation**: This is the organisation that will adopt ownership of the landscape areas and is therefore responsible for their management and maintenance including all landscape components and features within them. The majority of the site will be managed by an Adopting Organisation which will be a Private Management Company to be appointed by the Developer. The Adopting Organisation shall also be taken to mean any employee or representative of the organisation in ownership of the grounds. Remaining areas of the site will be adopted by highways or privately conveyed.
- **The Landscape Management Contractor**: the company who may be appointed by the Adopting Organisation to carry out the landscape maintenance works.

1.3.2 **Status of the Landscape and Ecological Management Plan**

Prior to the commencement of development (or such other date or stage in development as may be agreed in writing with the LPA) a detailed long-term Landscape and Ecological Management and Maintenance Plan for all landscape areas shall be submitted to and approved by the LPA in writing. The plan shall include:

- Aims and Objectives;
- A description of Landscape Components;
- Management Prescriptions;
- Details of maintenance operations and their timing; and
- Details of the parties/organisations who will be maintain and manage the site, to include a plan delineating the areas that they will be responsible for.

The plan shall demonstrate full integration of landscape, biodiversity and arboricultural considerations. The areas of planting shall thereafter be retained and maintained in perpetuity in accordance with the approved Landscape and Ecological Management and Maintenance Plan, unless any variation is approved in writing by the Local Planning Authority.

1.3.3 The LPA will approve this document as part of the planning process and this document therefore forms part of the approved planning documents. Management shall therefore be carried out in accordance with this document following completion of the implementation management plan (and any contractual maintenance periods associated with these works). This document will outline the minimum standard of maintenance to ensure a safe, comfortable, attractive, biodiverse and sustainable landscape is achieved in perpetuity.

1.3.4 **Supportive Information**

This Management Plan is submitted together with the Detailed Soft Landscape Proposals (drawing number JBA 20/104 21-26), the Management Areas and Responsibilities Plan and the Schedule of Maintenance Operations, attached as Appendices (6.1-6.3) to this document.

1.3.5 The document should be read in conjunction with the following planning documents:

- Eurasian Skylark Habitat Management Plan – October 2021 – Penny Anderson Associates
- Shepherd's Needle Translocation and Working Method Statement – October 2021 – Penny Anderson Associated
- Extended Phase 1 Habitat Survey – July 2019-Revised October 2020 – Penny Anderson
- Arboricultural Impact Assessment AR01 Issue A – January 2021 – James Blake Associates
- Biodiversity Net Gain Assessment – July 2022 – James Blake Associates

2.0 AIMS AND OBJECTIVES OF THE LANDSCAPE AND ECOLOGICAL MANAGEMENT PLAN

2.1 AIMS

2.1.1 The principal aims of this Landscape and Ecological Management Plan are to secure a coordinated and high standard of landscape management for the landscape areas within the site, to ensure the successful integration of the industrial development with the surrounding landscape and to protect and enhance nature conservation interests in accordance with the design objectives in the approved planning documents. This will include the appropriate maintenance of existing retained, and proposed landscape components.

2.2 OBJECTIVES

2.2.1 The main objectives of the Landscape and Ecological Management Plan are as follows:

- **To maintain landscape character**: To protect and conserve the existing landscape character and screening function of the existing trees on the boundaries, and to incorporate locally indigenous species within screening/structural landscape areas, to provide an attractive and robust landscape setting for the buildings on the site and reinforce local distinctiveness;
- **The sustainable management of existing vegetation**: To retain existing trees, hedgerows and other vegetation that are worthy of retention, and to enhance their character, composition and age structure through positive management with consideration to long-term viability and health and safety;
- **To achieve a high standard of maintenance:** To take measures to ensure the successful establishment and growth of new structural and incidental planting and to take appropriate long-term management measures to ensure the satisfactory appearance and sustainability of vegetation. To ensure that landscape components are replaced, augmented and/or improved over time as appropriate;
- **To maintain and enhance biodiversity:** To protect and enhance the nature conservation interest of both existing and new habitats and to ensure the adoption of management practices that enhance the biodiversity value of the site. To fulfil all legal requirements in relation to the protection and management of ecological features and the protection and management of target species including, birds, bats and reptiles;
- **To protect and enhance existing Woodland:** Woodland areas are proposed and will require enhancing with a buffer and maintained with regimes that favour biodiversity, high quality native habitat is maintained and protected. Native habitat creation with high quality amenity resource.

- **To ensure health and safety:** To uphold the duty of care that all landscape components are safe and that all reasonable steps are taken to minimise risk of injury and damage to people and property; and
- **To provide a mechanism or monitoring and review:** To ensure that management practices are monitored and where necessary reviewed on an annual basis in accordance with changing site circumstances and the views of key stakeholders (Adopting Authority, vendors representatives and LPA).
- **To maintain a presentable site and development throughout the construction process:** To ensure that parcels of land outside of that in the red line application of each parcel is well kept and does not become overgrown will self-set vegetation prior to their development. Parcels on site awaiting development approval and commencement of construction are to be maintained via ploughing and spraying regimes as appropriate. This would usually be carried out annually and in accordance with ecological and seasonal tolerances. This is to be carried out by the landowner for each parcel at the time of the maintenance to be required. This would not be a requirement of landowners outside of each parcel.

3.0 GENERAL ECOLOGICAL ADVICE

3.1 INTRODUCTION

3.1.1 The development proposals for the site have been driven by the desire to create a form of development that respects the particular characteristics of the site and complements the character of the surrounding area. To that end the development includes considerable 'green space' which provides a function both for public recreation and for the protection of local biodiversity interests.

3.1.2 The updated Phase 1 survey carried out by Penny Anderson Associates identified potential habitat suitable for roosting bats, badger, brown hare, GCN and nesting birds.

3.1.3 An important aim of this Management Plan is to prescribe works which will maintain and enhance habitats and features of benefit to protected species known to be present within the local area, as well as provide general enhancements for the wider benefit of local flora and fauna.

3.1.4 A tree survey and associated documents has been carried out by James Blake Associates Ltd which provides an assessment of the condition and quality of the existing trees on site (details on drawing numbers TS01, AIA01, TC01, TP01, TR01).

3.2 GENERAL ARBORICULTURAL MANAGEMENT ADVICE (APPLYING TO ALL PHASES OF DEVELOPMENT)

3.2.1 A Tree Constraints Plan, Tree Protection Plan and Arboricultural Impact Assessment has been produced for the site by James Blake Associates Ltd, which provides information on the locations of all important (Category A/B) trees as well as the dimensions of the required 'root protection areas' for these trees (to meet the requirements of BS 5837:2012, 'Trees in relation to design, demolition and construction').

3.2.2 No Category A or B trees are to be removed unless otherwise agreed in writing by Mid Suffolk District Council.

3.2.3 Any tree surgery works should be undertaken by a suitably qualified arboricultural contractor, registered with the Arboricultural Association.

3.2.4 All tree surgery works shall be undertaken in accordance with the requirements of BS 3998:2010 'Tree Work - Recommendations' and BS 5837:2012 'Trees in Relation to design, demolition and construction'.

3.2.5 All pruning/removal works to trees should ideally be undertaken outside the nesting season to ensure breeding birds are not disturbed; the bird nesting season is generally accepted to be from the 1st March to 31st August inclusive (though may extend into February and August for some species). Work during the nesting season could take place but only if an inspection by a suitably qualified ecologist/arboriculturalist confirms no nesting birds are present.

3.2.6 Where tree surgery is planned as part of this management plan or in the situation where an approved tree surgeon has recommended remedial work for health and safety reasons, the potential for bats to be present must be assessed before work is carried out. It is recommended that this assessment be carried out by a suitably experienced and licensed bat worker to avoid unlawful harm to these protected species.

3.2.7 If at this time any bats are found further advice should be obtained by the ecologist from Natural England.

4.0 SPECIFIC ELEMENTS REQUIRING MANAGEMENT AND MAINTENANCE

4.1 LANDSCAPE AREAS AND LANDSCAPE COMPONENTS

4.1.1 The landscape areas subject to this Landscape Management Plan include the following components:

- Existing trees;
- Existing hedgerows;
- Existing brooks or ditches;
- Proposed tree planting;
- Proposed Orchard;
- Proposed native hedgerows;
- Proposed native whip, shrub and buffer planting
- Proposed amenity grass/lawns with bulbs;
- Proposed wildflower meadow;
- Proposed wet meadow;
- Proposed wetland marginal and aquatic planting;
- Proposed Damp Basin Meadows;
- Proposed grass Reinforcement;
- Bird boxes;
- Bat boxes;
- Playable features;
- Street furniture;
- Structures, walls, railings, fencing and gates; and
- Hard landscape areas.

4.1.2 The information includes a description and specific management objectives for each component along with the annual and occasional management regimes required.

4.1.3 The extent and location of areas to be managed is shown on the Landscape Management Areas Plan in Appendix 6.1.

4.2 EXISTING / MATURE TREES

4.2.1 Description

- Existing trees around the boundary of the site will be retained as part of the landscape strategy for the development.
- Where trees have been identified as being in need of removal – refer to the arboricultural report.
- The existing trees on and adjacent to the site are set out in the Arboricultural Report. The Tree Survey Schedule and Tree Protection Plan (TPP) identify the location, species, size and condition of the existing trees to be retained by the proposed development and identify any initial works to be completed by the Developer during the construction phase as well as any on-going monitoring which may be required.

4.2.2 Management Objectives

The management objectives for retained trees are to:

- Maintain the trees in as healthy and attractive condition for as long as possible, to ensure continuity in tree cover and their contribution to the landscape structure, biodiversity, and screening/amenity value of the site; and
- Ensure that trees are healthy and safe, particularly in places in proximity to residential properties and with public access.

4.2.3 Annual Works

i) **Visual Inspection:** Trees should be regularly visually checked for the presence of any diseased or rotten wood; fungal or other infections/disease; and stability. If any such issues are identified, then the advice of a qualified Arboriculturist should be sought immediately.

ii) **Annual Arboricultural Assessment:** In any event, an Arboricultural Assessment should be undertaken once annually by a qualified Arboriculturist inspecting the condition of existing trees including any cause of increased risk to people or property. Furthermore, during the Arboricultural Assessment, the health of the trees shall be monitored and any works required for health and safety or to promote the health and sustainability of existing trees shall be identified, scheduled and actioned at a suitable time of year following application and granting of appropriate consents by the LPA (where required), refer to Occasional Works in paragraph 4.2.4 below.

4.2.4 Occasional Works

i) **Tree Work Consents:** Any works recommended for each tree (such as crown raising, crown reduction, substantial pruning, removal of limbs, pollarding or felling) should be documented and a formal application made to the LPA for approval (with the exception of the removal of dead wood) in advance of the works being undertaken wherever necessary. This includes trees protected by a Tree Preservation Order (TPO) or a condition of the planning consent (within 5 years).

ii) **Timeframes & Specialist Advice:** All works should be completed at an appropriate time of year and in accordance with relevant EU and UK wildlife legislation. Where possible this should be outside of the bird nesting season (i.e. between October through to March inclusive). In any event according to the nature of the works, there may be an additional requirement for monitoring or a watching brief by a qualified ecologist to ensure there are no nesting birds or bats present.

iii) **Tree Works:** All works shall be carried out by a skilled, qualified and approved Arboricultural Contractor in accordance with BS3998: 2010 'Tree Work - Recommendations'. All brushwood and logs that result from surgery and felling of trees on site shall be removed off site, unless needed to enlarge or renew hibernacula or eco piles. Brushwood may be chipped on site, but all wood chippings resulting from these operations shall be raked up, bagged and removed. Where surgery works affect a highway, the Arboricultural Contractor shall ensure the relevant permissions and road control permits are obtained, and all necessary health and safety parameters are met.

Tree replacement and enhancement of tree cover: Any tree that dies or is necessarily felled, but which is not removed as part of a programme of thinning or coppicing, shall be replaced with a tree of appropriate species and stock size. Such replacement shall be with a tree of either the same or similar species as those existing. The option for replacing with a different species is to allow some flexibility avoiding problems encountered with 'Same Species Disease' and to ensure sustainable tree cover in the interests of visual amenity. Possible damage to drainage/services and adjoining building foundations must be considered before choosing a replacement tree species and location. Where alternative species are being considered, then the species should be suitable to the character of the location, either native (in the case of structural planting on the boundary of the site) of a source of local provenance where possible or if ornamental, then appropriate to the type of trees adjacent to them. Once annually the site shall be considered for the need for any strategic replacement or enhancement planting, to broaden the age class of trees and tree groups, in the interests of the long-term sustainability of strategically important vegetation. All trees should be a minimum stock size of standard (10-12cm girth), and implemented and maintained in accordance with good horticultural practice. Replacement and enhancement planting is best undertaken during the planting season (November through to March inclusive).

4.3 PROPOSED TREE PLANTING

4.3.1 Description

- New tree planting is incorporated into the proposed development within amenity space along the entrance road and open space around the site, parking areas and public open space to provide landscape structure and amenity value. Such tree planting will define focal points, enclose streets and spaces and soften the potential future proposed built form.

4.3.2 Management Objectives

The management objectives for new tree planting is to:

- Ensure the satisfactory establishment and growth of new tree planting typical of the respective species;
- Promote conditions so that trees are healthy and safe; and
- Ensure continuity of the design approach and amenity value of tree planting.

4.3.3 Annual Works

i) **General tree maintenance during establishment:** Check all trees for firmness and stability in the ground. Check and adjust tree ties, replacing if necessary. Top up bark mulch levels where necessary around the base of new trees, using the same or similar product to that previously supplied to maintain an approximate depth of 50mm to reduce competition from weeds and retain soil moisture. Where trees are in grass areas, remove weed growth by hand and retain a circle of bark mulch (approximate radius of 500mm) to aid mowing and prevent damage to the main stem. All trees shall be fertilised using a suitable and approved liquid feed (N10:P15:K10) at a rate of 60g/m² during early May and again in late September. Prune back any diseased or rotten wood (including the removal of main stems and limbs) back to sound wood as required. Remove all cut material from site.

ii) **Watering trees:** Water trees during dry periods (being any period without substantial rainfall for 14 days or more), until trees are successfully established. Water at a rate of 25 litres per tree position into watering tubes. Apply water at a frequency of once per fortnight from April to the end of September (to a maximum of 15 visits). Increase watering frequency during any continuous hot weather lasting more than 7 days. The Landscape Management Contractor shall be entirely responsible for varying the frequency of these visits according to climatic conditions and for contacting the Adopting Organisation and agreeing the timing of any additional watering visits if required and where restrictions are placed on the use of water, sources and costs of obtaining second class water. The Landscape Management Contractor shall be responsible for any tree failures or excessive die back from drought stress during the management contract.

4.3.4 Occasional Works

i) **Checking and removal of tree stakes and ties:** Review the need for tree stakes and ties annually for up to 6 years. Remove stakes and ties between 4 to 6 years after planting, but be sure trees are firm and stable. Stakes and ties removed shall be cut at ground level, below lowest grass height (to prevent snagging mower blades) or pulled from the ground and the post holes filled with suitable topsoil. If the tree is found to be weak or unstable after the stakes have been removed, then check the base of the tree for signs of rot. If rotten or unlikely to stabilise, remove the tree and replace. If the tree is free from rot or other cause of its instability, then re-instate a tree support, using 100mm diameter chestnut stake and single tie. The stake should be pushed into the ground with a post rammer, to a depth of 600mm and cut to one third the height of the tree. Fix the tree stem with a rubber tie and spacing device attached to at a point no more than 25-35mm below the top of the post, in order to prevent chaffing against the post in high winds. Remove old posts and ties and arisings and dispose off site.

ii) **Long-term tree surgery works:** After 10-20 years of maintenance as above (or earlier if required), newly planted trees will reach semi-maturity and at this time may be in need of corrective surgery. Trees should become subject to the annual Arboricultural Assessment and any works recommended shall be carried out in accordance with paragraphs 4.2.3 and 4.2.4.

iii) **Tree replacement and enhancement of tree cover:** Any tree that dies or is necessarily felled, but which is not removed as part of a programme of tree removals, shall be replaced with a tree of appropriate species and stock size. Such replacement shall be with a tree of either the same or similar species as those existing. The option for replacing with a different species is to allow some flexibility avoiding problems encountered with 'Same Species Disease' and to ensure sustainable tree cover in the interests of visual amenity. Possible damage to drainage/services and adjoining building foundations must be considered before choosing a replacement tree species and location. Where alternative species are being considered, then the species should be suitable to the character of the location and adjoining trees. Once annually the site shall be considered for the need for any strategic replacement or enhancement planting, to broaden the age class of trees and tree groups, in the interests of the long-term sustainability of strategically important vegetation. Trees should be a minimum stock size of standards (10-12cm girth), and implemented and maintained in accordance with good horticultural practice. Replacement and enhancement planting is best undertaken during the planting season (November through to March inclusive).

4.4 PROPOSED ORCHARD

4.4.1 Description

- Informal orchard tree planting is incorporated into the proposed development within public open space to provide a wider biodiversity of tree planting, landscape structure and amenity value. Such tree planting will provide an enhanced wildlife habitat. Orchard is identified as a high

distinctiveness habitat. Within this area a variety of fruit trees will be planted including apple Malus sp., pear Pyrus sp., cherry Prunus sp.

4.4.2 Management Objectives

The management objectives for new tree planting is to:

- Ensure the satisfactory establishment and growth of new tree planting typical of the respective species;
- Promote conditions so that trees are healthy and safe; and
- Ensure continuity of the design approach and amenity value of tree planting.

4.4.3 Annual Works

i) **General tree maintenance during establishment:** Check all trees for firmness and stability in the ground. Check and adjust tree ties, replacing if necessary. Top up bark mulch levels where necessary around the base of new trees, using the same or similar product to that previously supplied to maintain an approximate depth of 50mm to reduce competition from weeds and retain soil moisture. Where trees are in grass areas, remove weed growth by hand and retain a circle of bark mulch (approximate radius of 500mm) to aid mowing and prevent damage to the main stem. Organic matter should not be added as this can damage soil structure and create drainage sumps. Slow-release fertiliser should only be added to the topsoil on very poor soils as overfertilising discourages the roots from spreading beyond the planting pit into the surrounding soil. It may also prevent the young trees establishing a relationship with beneficial mycorrhizal fungi in the soil. If the site is on recently cultivated or fertilised ground some leaf mould or soil from land unaffected by agri-chemicals should be added to the planting pit to ensure the tree is inoculated with mycorrhizal fungi. Mycorrhizal powder can also be used, which should be sprinkled on and immediately around the roots. Prune back any diseased or rotten wood (including the removal of main stems and limbs) back to sound wood as required. All dead wood provides a great food source for foraging animals like shrews, voles and birds looking for larvae to eat. Small rodents in turn attract owls and other predators to your orchard. Log piles also provide overwintering sites and shelter for frogs, toads, beetles, hedgehogs and more. Prop or brace hollowing limbs to keep standing deadwood in the tree for as long as possible. Where unsafe decaying wood must be pruned out, consider stacking it nearby for the benefit of fungi and insects. If you also have space to accommodate a log pile, a brushwood pile or any other variation on the theme, then this will contribute to the range of habitats.

ii) **Watering trees:** Water trees during dry periods (being any period without substantial rainfall for 14 days or more), until trees are successfully established. Water at a rate of 25 litres per tree position into watering tubes. Apply water at a frequency of once per fortnight from April to the end of September (to a maximum of 15 visits). Increase watering frequency during any continuous hot weather lasting more than 7 days. The Landscape Management Contractor shall be entirely responsible for varying the frequency of these visits according to climatic conditions and

for contacting the Adopting Organisation and agreeing the timing of any additional watering visits if required and where restrictions are placed on the use of water, sources and costs of obtaining second class water. The Landscape Management Contractor shall be responsible for any tree failures or excessive die back from drought stress during the management contract.

4.4.4 Occasional Works

i) **Checking and removal of tree stakes and ties:** Review the need for tree stakes and ties annually for up to 6 years. Remove stakes and ties between 4 to 6 years after planting, but be sure trees are firm and stable. Stakes and ties removed shall be cut at ground level, below lowest grass height (to prevent snagging mower blades) or pulled from the ground and the post holes filled with suitable topsoil. If the tree is found to be weak or unstable after the stakes have been removed, then check the base of the tree for signs of rot. If rotten or unlikely to stabilise, remove the tree and replace. If the tree is free from rot or other cause of its instability, then re-instate a tree support, using 100mm diameter chestnut stake and single tie. The stake should be pushed into the ground with a post rammer, to a depth of 600mm and cut to one third the height of the tree. Fix the tree stem with a rubber tie and spacing device attached to at a point no more than 25-35mm below the top of the post, in order to prevent chaffing against the post in high winds. Remove old posts and ties and arisings and dispose off site.

ii) **Pruning:** Fruit trees, as with any other tree, will grow quite happily and produce fruit without any pruning. However, there are a number of good reasons for pruning fruit trees. Formative pruning is necessary to develop a strong framework of branches capable of bearing the weight of future crops. Unpruned trees can develop large overcrowded crowns of criss-crossing branches and twigs. These trees are susceptible to damage and to being blown over in winter storms. Large crowns can also lead to the tree being rocked, which damages its roots. Removing branches that are damaged, crossing and badly placed The wind can cause close or touching branches to rub against each other, so damaging the bark and exposing the cambium layer leaving it vulnerable to disease. Touching branches may even graft together. Removing crossing branches and damaged wood reduces the risk of disease and encourages the development of stronger, better positioned branches. Increasing air-flow through the branches encourages healthy leaf growth and minimises the effect of fungal infections and air-borne diseases. Pruning notes should be in line with Arboricultual advice and/or in line with for example Natural England Technical Information Note TIN015-TIN021.

iii) **Long-term tree surgery works:** After 10-20 years of maintenance as above (or earlier if required), newly planted trees will reach semi-maturity and at this time may be in need of corrective surgery. Trees should become subject to the annual Arboricultural Assessment and any works recommended shall be carried out in accordance with paragraphs 4.2.3 and 4.2.4.

iv) **Tree replacement and enhancement of tree cover:** Any tree that dies or is necessarily felled, but which is not removed as part of a programme of tree removals, shall be replaced with a tree of appropriate species and stock size. Such replacement shall be with a tree of either the same or similar species as those existing. The option for replacing with a different species is to allow some flexibility avoiding problems encountered with 'Same Species Disease' and to ensure sustainable tree cover in the interests of visual amenity. Possible damage to drainage/services and adjoining building foundations must be considered before choosing a replacement tree species and location. Where alternative species are being considered, then the species should be suitable to the character of the location and adjoining trees. Once annually the site shall be considered for the need for any strategic replacement or enhancement planting, to broaden the age class of trees and tree groups, in the interests of the long-term sustainability of strategically important vegetation. Trees should be a minimum stock size as specified on the approved plans, implemented and maintained in accordance with good horticultural practice. Replacement and enhancement planting is best undertaken during the planting season (November through to March inclusive).

4.5 PROPOSED NATIVE HEDGEROWS

4.5.1 Description

- Native hedgerows are proposed strategically along the entrance and access roads and around the site boundaries of where land use changes. This provides screening for light emitting areas and to enhance the rural character and provide a soft landscape edge.

4.5.2 Management Objectives

- To maintain existing and new native hedgerows to a naturalistic appearance and to a given predetermined ultimate height, shape and width.
- To ensure continuity of form and density through under or inter-plant any gaps or sparse areas using species mixes to match as required.
- To ensure that leggy and unkempt growth is pruned back and maintained at a functional size so that the hedge does not hold litter or present Health and Safety problems.
- To ensure a suitable number of native hedges are managed on rotation to support sufficient foraging opportunities for local fauna. Support habitat creation nesting opportunities for birds and mammals.

4.5.3 Annual Works

4.5.4 General native hedge maintenance: Top up mulch levels for new hedges where necessary, using the same or similar product to that previously supplied. Prune new native hedges once or twice annually; once in June and, if required, again in November. Single cuts will provide a more natural appearance and a second cut will ensure a neater profile – more suitable to urban areas. Native hedges associated with the urban/semi-urban Public

Open Space areas will be maintained to an eventual height of 1.8m. Those on the periphery of the site may be allowed to grow to 3m high and cut on a rotational basis. This should be in accordance with DEFRA guidelines. DEFRA (unpublished), Hedgerow Management and Wildlife. A review of research on the effects of hedgerow management and adjacent land on biodiversity.

i) **Pruning native hedges:** Prune any diseased or rotten wood (including the removal of main stems and limbs) back to sound wood. Remove all stems and limbs which are unsafe or are in danger of falling or breaking up during gales. Remove all cut material from site and cart away to tip. Do not site burn. Top out native hedgerows to the above intended eventual height, and face up the sides, using an electric hedge cutting device, to form an even and tidy hedge alignment. Cut larger stems with a shrub pruning tool. Long rural native hedges can be flailed once annually if there is suitable access.

4.5.5 Occasional Works

i) **Gapping up native hedges:** Remove failed plants for new native hedges and replace with a plant of the same species, to a minimum size of an open ground whip, 0.9-1.2m high, planted between the months of December and mid-March inclusively, unless the plant is either Ilex, Ligustrum or other native evergreen species, when the height can be 500mm minimum and be supplied in a 3L pot. Gap up areas of less dense growth with additional plants as required to achieve a continuous hedge alignment, taking due allowance for natural growth and

ii) **Occasional surgery to larger native hedges:** Native hedges which have grown out into tree lines, should be faced up only, retaining taller trees, unless there are weaknesses in the root stock and stumps from rot. Such trees shall be pollarded to the given hedge height above. Retain any sound stems.

iii) Once established following 10-15 years of growth, it may be good practice to lay the new hedgerows to form a dense vegetation barrier of high ecological and amenity value.

iv) **Checking shrub protection measures:** Where proposed and implemented, straighten canes, ensure protective spiral guards or Jute mats are in place and fit for purpose for the protection of the stem from rodents and rabbits. Once the plant is established with a woody stem, ensure the protective measures are removed and recycled as appropriate.

4.6 PROPOSED NATIVE WHIP/SHRUB AND BUFFER PLANTING

4.6.1 Description

- Native whip and shrub planting has been proposed strategically around the public open space and on boundaries to provide mitigating screening for views into the site.
- Native species will be selected to provide general habitats and foraging for wildlife including flowering and fruiting varieties.

- Specific varieties chosen for their flowers and berries to provide foraging opportunities for mammals such as and bats.

4.6.2 Management Objectives

The management objectives for native whip and shrub planting are to:

- Ensure the satisfactory establishment and growth of new planting;
- Maintain planting in a healthy and attractive condition and enhance the value of planting as a food source to wildlife; and
- Ensure continuity of the design approach and amenity value of planting.
- To create a mosaic of habitats in a variety of growths stages. Management to be on a rotation of 1/3 cut each year.
- Management to ensure the specimens grow to establish a dense coverage of vegetation to the expected mature heights subject to each species of tree/shrub.

4.6.3 Annual Works

i) **Weeding:** Remove all weed growth by hand as necessary to ensure weed free and tidy planting areas. Six to eight visits are required per growing season. Visits should occur approximately monthly in the growing season, subject to weather conditions from April to October, with an extra visit outside of the growing season in December or January to inspect the condition of the beds. Take great care not to disturb sheet or bark mulch; top up bark mulch levels where necessary for the first 3 years, using the same or similar product to that previously supplied. Note: For planting using a non-biodegradable weed suppressant membrane, reduce visits to 4 times per year in the growing season. Where a biodegradable weed suppressant fabric has been used, this will have disappeared within the establishment phase. Weeding frequency should therefore be varied according to the site and density of vegetation cover and in any event should be between 4 and 8 i.e. whatever is required to achieve a weed free scheme. All weeds shall be removed from the site.

ii) **Spot Herbiciding:** Where required, persistent perennial weeds can be controlled using herbicide. For planting beds containing herbaceous plants and shrubs, apply a suitable folia-acting systemic translocated herbicide using a weed wiper device to avoid killing wanted plants. The use of herbicides should only be made following a risk assessment to consider potential effects on the environment and on human health, but also spray drift killing the wrong plants. The purchase, transport and storage of herbicides are regulated by Part III of the Food and Environment Protection Act 1985, Control of Pesticides (Amendment) Regulations 1997; the Health and Safety at Work Act 1974; the COSHH Regulations, the product COSHH sheet and EC Directive 91/414/EEC (the “Authorization Directive”) and the Plant Protection Products Regulations 1995 as amended by the Plant Protection Products (Basic Conditions) Regulations 1997. All herbicides must have an appropriate full or “off-label” approval for use in a relevant situation. Refer to the Pesticide Safety Directive, for which the website is given here for your assistance: www.pesticides.gov.uk.

All pesticides shall be applied in suitable calm weather conditions; allow for repeat spraying as required to achieve a complete kill. **DO NOT HERBICIDE WITHIN CLOSE PROXIMITY OF WATER FEATURES.** Apply herbicide as required and at intervals to ensure no regeneration of weed, usually equating to four sprays per year during the growing season at 6 week intervals, from late April onwards. The timing of visits may vary according to weather conditions. Extreme care must be taken to avoid damage to surrounding plants and grass, and to avoid spray drift. Any damage resulting from incorrect usage, spillage, and spray drift, to be rectified at the Landscape Management Contractor's expense.

iii) **General planting maintenance:** At each visit firm in and straighten any loose plants. Top up bark mulch levels where necessary for the first 3 years, using the same or similar product to that previously supplied to maintain an approximate depth of 50mm to reduce competition from weeds and retain soil moisture.

iv) **Pruning of planting:** Prune back shrubs in the period between October to March in accordance with sound horticultural practices, pruning back to a node, shoot or bud; prune out dead, leggy and broken branches, without damage to the natural habit or appearance of plant without box clipping or rounding off plants. Prune out crossover branches, invasive suckers, dead wood, damaged stems, any spindly growths and any epicormic growth that will weaken the plant. Prune back Rosaceous and quick and leggy growing plants much harder than other species, but prune back by no more than 30% in any one-year. Prune Cornus varieties back to 200mm above ground every 3rd year, but retaining any young growths.

i) The cutting back of trees over 30cm above ground level will take place between November and February to avoid nesting birds, and to allow flowering and fruiting.

ii) **Watering:** For the first year after planting water both shrubs and whips during dry periods (being any period without substantial rainfall for 14 days or more). Water all shrubs to field capacity (minimum 10 litres per m²) and water all large specimens at 10 litres each. Apply water at a frequency of up to 2 times per week from April to the end of September (to a maximum of 15 visits in any one calendar year) as required during any continuous hot weather lasting more than 7 days. The Landscape Management Contractor shall be entirely responsible for varying the frequency of these visits according to climatic conditions and for contacting the Adopting Organisation and agreeing the timing of any additional watering visits if required and where restrictions are placed on the use of water, sources and costs of obtaining second class water. The Landscape Management Contractor shall be responsible for any tree failures or excessive die back from drought stress during the management contract. Following the first year after planting watering should be unnecessary as all of the species are native and should be tolerant of drought conditions.

4.6.4 Occasional Works

i) **Replacement and enhancement planting:** Cut back any shrubs and herbaceous plants where they have become old, misshapen, leggy or they have lost their vigour. Specimens, shrubs or herbaceous plants that fail to show growth or develop full foliage (including plants damaged during management operations), where such plant failure leaves a gap in the foliage not filled by adjacent plants, shall be replaced with stock of the size, species and quality originally specified. Include any plants that are destroyed by vandalism, theft or similar cause through no fault of the Landscape Management Contractor, up to and not exceeding 5% of the plant stock. Specimens, shrubs or herbaceous plants so replaced shall be the same as those specified, previously supplied and approved. Nursery stock shall be open grown whips (60-90 cm high) or where evergreen species a minimum stock size of a 3L pot. Planting should be implemented and maintained in accordance with good horticultural practice. Include any works necessary to enable planting to be properly carried out i.e. removal and disposal of dead material off site and for topping up/replacement of bark mulch. Once annually the site shall be considered for the need for any strategic replacement or enhancement planting, to broaden the age class of vegetation in the interests of the long-term sustainability of strategically important vegetation.

ii) **Thinning and Coppicing:** Thinning and coppicing will allow trees and shrubs to develop diversity of form and different types of nesting, feeding and foraging habitat and extend the potential life of individual plants. Additional thinning of the buffer planting areas may be required at intervals following an initial selective thin. The timing of thinning should be informed by the arboricultural survey, which should include a visual inspection, checking if crowns are overlapping and thinning is needed. Any trees, apart from understorey species, which have failed to reach the canopy and have been suppressed, will need removal. Thin on a phased basis in blocks. The aims should be to create a 'ring of sky' around each tree that is retained, into which it can spread. Protect coppice stools from deer/rabbit browsing by piling brash over them. Monitor coppice periodically, noting any stools that fail to regrow and replant the following autumn. Remove weeds and invasive species as required. A competent person, such as a qualified Arboriculturist should plan thinning and coppicing operations in advance by identifying and marking all trees for removal and coppicing in winter. All thinning operations should be undertaken between October and February.

iii) **Checking shrub protection measures:** Where proposed and implemented, straighten canes, ensure protective spiral guards or Jute mats are in place and fit for purpose for the protection of the stem from rodents and rabbits. Once the plant is established with a woody stem, ensure the protective measures are removed and recycled as appropriate.

4.7 PROPOSED AMENITY GRASS AND BULBS

4.7.1 Description

- Areas of cultivated amenity grass are located across the open space and amenity areas, with incidental drifts of bulbs.
- The mowing frequency will be related to the grass mix and function of the area. Where bulbs are present these grass areas will generally be subject to a lower frequency cutting regime for aesthetic reasons. The height of the sward can be varied according to amenity and to ensure nature conservation benefits.

4.7.2 Management Objectives

The management objectives for amenity grass areas will be to:

- To ensure the satisfactory establishment of the grass sward and bulbs.
- To maintain healthy and suitable grass areas appropriate to function and use.

4.7.3 Annual Works

i) **Mowing and edging:** Amenity grass areas shall be mown in order to maintain the visual amenity of the area. Mowing frequency and height shall be adjusted the function and use of each area. All grass shall be mown initially with a rotary mower once during the spring (mid-March), to a height of 50mm and thereafter using a cylinder mower, collecting the arisings each time, and removing off site. Delay cutting of grass areas containing bulbs (including a 150mm margin) until late June once bulbs have finished flowering and the leaves have wilted after deadheading bulbs in May. Soft edges between grass areas and planting beds shall be kept free from grass by cutting the grass with a 'half moon' edging tool to ensure a neat, clean-cut finish once per year at the start of the growing season. The edge of paving and shrub beds shall be kept free of grass using strimmers or edge clippers once per month during the growing season.

ii) **General lawn care:** Apply an approved turf fertilizer, selective weed killer and moss retardant in May and September, applying strictly in accordance with the manufacturer's instructions, Control of Pesticide Regulations, COSHH Regulations and product COSHH sheet in suitable weather conditions. Otherwise amenity grass areas shall be weeded either by hand or (especially persistent weeds) herbicide treated in order to maintain the visual amenity of the area (refer to paragraph 4.6.3).

iii) **Watering amenity grass areas:** During the first 3 years following initial seeding or following re-seeding operations, water amenity grass areas during periods of extreme drought (2 or more weeks without substantial rainfall) to a maximum of 15 occasions. After establishment continue to water only if deemed to be required. To aid the natural establishment of grass areas, only water where unavoidable, where the grass is going brown and appears to be suffering from severe drought stress. When watering, water to field capacity (minimum 20L/m^2) in the morning or in the evening to reduce water evaporation, when the water is more likely to

reach the roots. The Landscape Management Contractor shall be entirely responsible for varying the frequency of these visits according to climatic conditions and for contacting the Adopting Organisation and agreeing the timing of any additional watering visits if required and where restrictions are placed on the use of water, sources and costs of obtaining second class water.

4.7.4 Occasional Works

i) **Replacement of failed turf:** Small areas of dead, dying or failing grass and bulbs shall initially be made good through changes to the mowing regime or through temporary protection of high wear areas using temporary fencing or similar. Larger areas of degradation may require re-cultivating and reseeding. Cut out sections of distressed and failing or dead areas of turf using a suitable turf-stripping machine or for small areas by hand. Supply and lay new turf of a suitable standard and lay flush with existing sward, filling any cracks and top dressing with a 70:30 ratio mix of sand and screened topsoil. This sand/soil mix shall also contain grass seed of the same or similar species to the turf. For more wholesale degradation of the turf sward, the entire area will require to be re-seeded. Cultivate or power-harrow the affected area until a fine tilth is achieved (removing stones greater than 20mm) and grade until level with adjoining areas. Apply a pre-seeding fertilizer at a rate of 70g/m² and seed with a general amenity seed mix such as R450 Road & Rail - Rigby Tayloror other equal and approved, raking until the seed is a few millimetres below the surface. Water thoroughly and maintain the soil in a moist condition, removing stones, weeding and mowing until the grass is established.

4.8 PROPOSED AMENITY GRASS AND MOWN PATHS

4.8.1 Management Objectives

- General turf maintenance: To maintain healthy, suitably hard-wearing grass for the function intended, with a consistent colouring and species mix. To ensure freedom from pests and diseases, water logging, drought and excessive wear that might cause degradation and failure.
- Function and utility: To ensure safe and useful amenity spaces for their intended purposes, whether passive or active.
- A selected type of grass has been specified to low the frequency and cut carbon emissions where possible.

4.8.2 Annual Works

i) **General amenity turf maintenance:** Amenity grass areas shall be regularly mown, weeded either by hand or (especially persistent weeds) herbicide treated in order to maintain the visual amenity of the area. Mowing shall be as required according to function. Close mown lawns for play areas and greens, shall be cut weekly at peak growing times – mid March – Mid June, once a fortnight in hot and dry summer weather, usually between mid-June and Late August and weekly again from September to October 30th: Cut to a height of 25mm. Increase height by 20mm in hot dry weather. One further cut may be needed in November in mild autumns.

Cease cutting until Mid-March. For kick about areas and verges to paths or general amenity areas, all cutting shall be fortnightly – from Mid-March until the end of October, cutting to a height of 35mm. Increase height to 50mm and reduce frequency to every 21 days in hot and dry weather. Mow grass with a rotary mower once during the spring (late March), to a height of 50mm, and thereafter use a cylinder mower, collecting the arisings each time, and carting away to tip or to an agreed composting facility. Allow for a maximum of 20 cuts per year for fine lawn areas and 12 – 14 for all other amenity areas. Soft edges between grass area and planting beds shall be kept free from grass by cutting the grass with a 'half-moon' edging tool to ensure a neat, clean-cut finish. Paved edges shall be kept free of grass, using strimmers and edge clippers.

ii) **Watering amenity grass areas**: During the first 3 years following initial seeding or re-seeding operations, water amenity grass areas during periods of extreme drought (2 or more weeks without substantial rainfall). After establishment continue to water only if deemed to be required. To aid the natural reestablishment of grass areas, only water where unavoidable, where the grass is going brown and appears to be suffering from severe drought stress. When watering, water to field capacity (minimum 20L/m2). Water grass areas in the morning or in the evening to reduce water evaporation, because at this time the water is more likely to reach the roots of the grass plants, instead of evaporating off or getting locked up in the top 25mm of soil.

4.8.3 Occasional Works

i) **Replacement of failed turf:** Dead, dying or failing turf shall be made good as appropriate through re-cultivating and re-seeding. Areas of high wear will need to be protected with suitable temporary chestnut paling or similar method. With kick about areas, this can be achieved by altering the orientation of the finer cut surfacing, through changes to the mowing regime. For amenity grassland areas, cut out sections of distressed and failing or dead areas of turf using a suitable turf-stripping machine or for small areas by hand. Supply and lay new turf of a suitable standard and lay flush with existing sward, filling any cracks and top dressing with a 70:30 ratio mix of sand and screened topsoil. This sand/soil mix shall also contain grass seed of the same or similar species to the turf. For more wholesale degradation of the turf sward, the entire area will require to be re-seeded. Cultivate or power-harrow the affected area until a fine tilth is achieved. Apply a pre-seeding fertilizer at a rate of 70g/m² and seed with a hard-wearing general amenity seed mix such as R450 Road & Rail - Rigby Taylor or other equal and approved.

4.9 PROPOSED WILDFLOWER MEADOW

4.9.1 Description

- The grassland will incorporate a diversity of wildflower and grass species (appropriate to the microclimate and soil type) to benefit a variety of species including birds, bats and invertebrates.
- To maximise biodiversity, the area will cut once annually.
- Care to be taken when working close to the Shepherd's Needle translocation area and should be managed in accordance with

4.9.2 Management Objectives

The management objectives for wildflower grassland areas will be to:

- To ensure the satisfactory establishment of the grass sward; and
- To maintain a healthy and biodiverse sward suitable for a range of wildlife.
- Where specified, a 1m margin of natural landscape adjacent to Native Hedgerows be maintained with a hay cut above 15cm.

4.9.3 Annual Works

i) **Cutting of wildflower areas:** Meadow grass and wildflower areas shall be strimmed only once a year to a height of 100mm in late August. To ensure that soil fertility is reduced, rake up the arisings immediately, or in hot dry weather, they can be left in situ for a maximum of 2 days to set seed before raking. In a warm and wet year, a second cut may be required and if so this should be carried out either in October or March as appropriate. The timing of all cutting operations should take into consideration any protected species (such as reptiles) that may be present. There may be an additional requirement for monitoring or a watching brief by a qualified ecologist to ensure that no protected species are present. Once cut and raked up, all arisings shall be collected and removed off site as agreed.

ii) **General care:** Hand weed pernicious, ruderal and aggressive or invasive weeds in in order to maintain the visual amenity of the area. Do not herbicide or fertilise. Hibernacula should be left undisturbed. Arising's from tree surgery work can be retained on site and used to create new hibernacula as required.

4.9.4 Occasional Works

i) **Replacement of failed wildflower grassland areas:** Meadow grass and wildflower sward that is species poor shall be enhanced. In areas of low fertility, closely strimming or mow the existing sward and remove all cuttings in August. Rake or scarify to disturb the ground and overseed with a suitable mix of wildflowers selected to the microclimatic and soil conditions and repeatedly tread over the area. After sowing, mow the grass to a height of 60mm in height to allow light and air to the emerging seedlings for a full growing season. In areas where soil fertility is too high, or the sward has failed the area will require re-cultivating and re-seeding. Remove dead material and re-cultivate the topsoil to a depth of 100mm. Small areas may be reseeded following the autumn cut by spreading the

cut arisings onto the bare soil to set seed. For more wholesale degradation, cultivate the affected area until a fine, level tilth is achieved, removing stones greater than 20mm diameter. **Do not fertilise or herbicide.** Evenly seed with an appropriate seed mix (80% grasses: 20% wildflowers) selected to the microclimatic and soil conditions at the specified rate. Carefully rake in thoroughly to ensure that the seed is a few millimetres below the surface and roll using a very light roller or a cylinder mower, ensuring the surface is even and level. Water thoroughly and maintain the soil in a moist condition, removing stones, weeding and mowing until the grass is established.

4.10 PROPOSED WET MEADOW

4.10.1 Description

- The wet meadow grassland will incorporate a diversity of wildflower and grass species suitable for seasonally wet soils of species traditional found in water meadows (appropriate to the microclimate and soil type).
- Accommodate short periods of flooding in winter months, and well drained in summer months.

4.10.2 Management Objectives

The management objectives for wet wildflower meadow grassland areas will be to:

- To ensure the satisfactory establishment of the grass sward; and
- To maintain a healthy and biodiverse sward suitable for winter flooding and to be drained in summer months.

4.10.3 Annual Works

i) **Cutting of wet wildflower meadow areas:** Meadow grass and wildflower areas shall be strimmed 'hay cut' to a height of 50mm in late August. To ensure the seed is shed fully, leave arisings for 1-7 days then remove from site. During late autumn / winter strim again to 50mm and again in spring if required, leaving the wet meadow grassland uncut between spring and late July / August. The timing of all cutting operations should take into consideration any protected species (such as reptiles) that may be present. There may be an additional requirement for monitoring or a watching brief by a qualified ecologist to ensure that no protected species are present. Once cut and raked up, all arisings shall be collected and removed off site as agreed.

ii) **General care:** Hand weed pernicious, ruderal and aggressive or invasive weeds in in order to maintain the visual amenity of the area. Do not herbicide or fertilise.

4.10.4 Occasional Works

i) **Replacement of failed wet wildflower meadow grassland areas: wet** meadow grass and wildflower sward that is species poor shall be enhanced. In areas of low fertility, closely strimming or mow the existing sward and remove all cuttings in August. Rake or scarify to disturb the

ground and overseed with a suitable mix of wildflowers selected to the microclimatic and soil conditions and repeatedly tread over the area. After sowing mow the grass to a height of 60mm in height to allow light and air to the emerging seedlings for a full growing season. In areas where soil fertility is too high or the sward has failed the area will require re-cultivating and re-seeding. Remove dead material and re-cultivate the topsoil to a depth of 100mm. Small areas may be reseeded following the autumn cut by spreading the cut arisings onto the bare soil to set seed. For more wholesale degradation, cultivate the affected area until a fine, level tilth is achieved, removing stones greater than 20mm diameter. **Do not fertilise or herbicide.** Evenly seed with an appropriate seed mix (80% grasses: 20% wildflowers) selected to the microclimatic and soil conditions at the specified rate. Carefully rake in thoroughly to ensure that the seed is a few millimetres below the surface and roll using a very light roller or a cylinder mower, ensuring the surface is even and level. Water thoroughly and maintain the soil in a moist condition, removing stones, weeding and mowing until the grass is established.

4.11 PROPOSED WETLAND MARGINAL AND AQUATIC PLANTING

4.11.1 Description

- The wet marginal and aquatic planting will incorporate suitable wetland species traditionally found towards the edge of water bodies (appropriate to the microclimate and soil type).

4.11.2 Management Objectives

The management objectives for water marginal and aquatic planting areas will be to ensure the satisfactory establishment of the planting towards the edge of the waterbody.

4.11.3 Annual Works

i) **Cutting of aquatic planting:** Callitriche stagnalis, Myriophyllm alterniflorum and Potomogeton natans to be cut back by a third in the autumn to enable light to enter the water body. All arisings to remain on the bank of the water body for 1 day to allow natural migration of species back into the waterbody, then all arisings to be removed from site. The timing of all cutting operations should take into consideration any protected species (such as reptiles) that may be present. There may be an additional requirement for monitoring or a watching brief by a qualified ecologist to ensure that no protected species are present.

ii) **Marginal planting:** 50% of Typha angustifolia to be cut down in winter or pulled (as required) to restrict spread into water body. Leaf litter to also be removed. All arising's to be removed from site. Other marginal species to be strimmed as required to reduce growth. All arising's to be removed from site.

4.12 PROPOSED DAMP BASIN MEADOWS

4.12.1 **Description**

- The wet meadow grassland will incorporate a diversity of wildflower and grass species suitable for seasonally wet soils of species traditional found in water meadows (appropriate to the microclimate and soil type).
- Accommodate short periods of flooding in winter months, and well drained in summer months.

4.12.2 **Management Objectives**

The management objectives for wet wildflower meadow grassland areas will be:

- To ensure the satisfactory establishment of the grass sward; and
- To maintain a healthy and biodiverse sward suitable for winter flooding and to be drained in summer months.

4.12.3 **Annual Works**

iii) **Cutting of wet wildflower meadow areas:** Meadow grass and wildflower areas shall be strimmed 'hay cut' to a height of 50mm in late August. To ensure the seed is shed fully, leave arisings for 1-7 days then remove from site. During late autumn / winter strim again to 50mm and again in spring if required, leaving the wet meadow grassland uncut between spring and late July / August. The timing of all cutting operations should take into consideration any protected species (such as reptiles) that may be present. There may be an additional requirement for monitoring or a watching brief by a qualified ecologist to ensure that no protected species are present. The timing of grass cutting particularly where additional cuts are required should only occur after seeking the advice of the Ecologist to ensure there is no risk or harm to protected species or breeding/nesting birds. Once cut and raked up, all arisings shall be collected and removed off site as agreed.

iv) **General care:** Hand weed pernicious, ruderal and aggressive or invasive weeds in in order to maintain the visual amenity of the area. Do not herbicide or fertilise.

4.12.4 **Occasional Works**

ii) **Replacement of failed wet wildflower meadow grassland areas: wet** meadow grass and wildflower sward that is species poor shall be enhanced. In areas of low fertility, closely strimming or mow the existing sward and remove all cuttings in August. Rake or scarify to disturb the ground and overseed with a suitable mix of wildflowers selected to the microclimatic and soil conditions and repeatedly tread over the area. After sowing mow the grass to a height of 60mm in height to allow light and air to the emerging seedlings for a full growing season. In areas where soil fertility is too high or the sward has failed the area will require re-cultivating and re-seeding. Remove dead material and re-cultivate the topsoil to a depth of 100mm. Small areas may be reseeded following the autumn cut by spreading the cut arisings onto the bare soil to set seed. For more

wholesale degradation, cultivate the affected area until a fine, level tilth is achieved, removing stones greater than 20mm diameter. **Do not fertilise or herbicide.** Evenly seed with an appropriate seed mix (80% grasses: 20% wildflowers) selected to the microclimatic and soil conditions at the specified rate. Carefully rake in thoroughly to ensure that the seed is a few millimetres below the surface and roll using a very light roller or a cylinder mower, ensuring the surface is even and level. Water thoroughly and maintain the soil in a moist condition, removing stones, weeding and mowing until the grass is established.

4.13 PROPOSED GRASS REINFORCEMENT

4.13.1 Description

- (If required) Soil reinforced with Netlon Turfguard to allow for maintenance vehicle traffic between the highway and attenuation pond area.

4.13.2 Management Objectives

- General turf maintenance: To maintain healthy, suitably hard wearing grass sword or meadow grass area. usable for the function intended, with a consistent colouring and species mix. To ensure freedom from pests and diseases, water logging, drought and excessive wear that might cause degradation and failure.
- Function and utility: To ensure safe and useful amenity spaces for their intended purposes, passive or active and maintenance of structural integrity to allow vehicular access.

4.13.3 Annual Works

i) **General grass maintenance**: Amenity grass areas shall be regularly mown, weeded either by hand or (especially persistent weeds) herbicide treated in order to maintain the visual amenity of the area. Mowing shall be as required according to function. Areas of reinforcement and verges to paths, all cutting shall be fortnightly – from Mid-March until the end of October, cutting to a height of 35mm. Increase height to 50mm and reduce frequency to every 21 days in hot and dry weather. Mow grass with a rotary mower once during the spring (late March), to a height of 50mm, and thereafter use a cylinder mower, collecting the arisings each time, and carting away to tip or to an agreed composting facility. Allow for a maximum of 20 cuts per year for fine lawn areas and 12 – 14 for all other amenity areas. Soft edges between grass area and planting beds shall be kept free from grass by cutting the grass with a 'half-moon' edging tool to ensure a neat, clean-cut finish. Paved edges shall be kept free of grass, using strimmers and edge clippers.

ii) **Watering amenity grass areas**: During the first 3 years following initial seeding or re-seeding operations, water amenity grass areas during periods of extreme drought (2 or more weeks without substantial rainfall). After establishment continue to water only if deemed to be required. To aid the natural reestablishment of grass areas, only water where unavoidable, where the grass is going brown and appears to be suffering from severe drought stress. When watering, water to field capacity (minimum 20L/m2).

Water grass areas in the morning or in the evening to reduce water evaporation, because at this time the water is more likely to reach the roots of the grass plants, instead of evaporating off or getting locked up in the top 25mm of soil.

iii) **Replacement of failed grass:** Small areas of dead, dying or failing grass shall initially be made good through changes to the mowing regime or through temporary protection of high wear areas using temporary fencing or similar. Larger areas of degradation may require re-cultivating and reseeding. Cut out sections of distressed and failing or dead areas of turf in small areas by hand. Supply and fill any cracks and top dressing with a 70:30 ratio mix of sand and screened topsoil. This sand/soil mix shall also contain grass seed of the same or similar species to the turf. For more wholesale degradation of the turf sward, the entire area will require to be re-seeded. Apply a pre-seeding fertilizer at a rate of 70g/m² and seed with a general amenity seed mix such as EG22 or other equal and approved, raking until the seed is a few millimetres below the surface. Water thoroughly and maintain the soil in a moist condition, removing stones, weeding and mowing until the grass is established.

4.14 BIRD BOXES

4.14.1 Description

- Bird boxes will be provided for a variety of locally occurring bird species. Boxes will be positioned so they are sheltered from prevailing wind, rain and strong sunlight, normally facing north through to south-east on suitable mature trees and buildings, at a height of between 2m and 5m depending on the bird species, ensuring a clear flight path to the entrance.
- Different types of boxes (hole-entrance and open-fronted) will attract a variety of different birds. The type of bird boxes, density and location, should be agreed on site with the consultant ecologist. All boxes should be Schwegler or Cedar Plus as these are known to be durable, long-lasting and to regularly attract birds to nest.
- When positioning boxes on trees, nails should be long and only be hammered in half way to allow for tree growth and minimise the risk of boxes being pushed off. Ideally nails should be aluminium alloys which would be unlikely to significantly damage chainsaws or chippers. Boxes can be purchased through on-line suppliers such as NHBS or similar and approved.

4.14.2 Specific Objectives

The management objectives for bird boxes are to:

- Provide sheltering and nesting opportunities for a variety of bird species
- Ensure nest boxes are maintained for the functionality for birds and for safety to the public

4.14.3 Annual Work

- All boxes should be annually inspected for presence, damage, obstruction and if necessary should be cleaned. Inspection and cleaning should be conducted during winter months to avoid impact on nesting birds.

4.14.4 Occasional Work

If replacement through loss or damaged is required, it should be for an identical product positioned in a similar location

4.15 BAT BOXES

4.15.1 Description

- Bat boxes and bat bricks are proposed to be erected around the site in groups of three (particularly for bat boxes), to include a range of different aspects (mainly to the south or west, but providing a variety of different positions to offer a range of climatic conditions). Boxes should be placed as high as possible, (4m and above), ensuring the entrance is free from obstruction. Favoured sites are close to linear features along the hedge line or incorporated into the building. All boxes should be Schwegler as these are known to be durable, long-lasting and to regularly attract bats to roost.
- When positioning boxes on trees, nails should be long and only be hammered in halfway to allow for tree growth and minimise the risk of boxes being pushed off. Ideally nails should be aluminium alloys which would be unlikely to significantly damage chainsaws or chippers.

4.15.2 Management Objectives

The management objectives of the bat boxes are to:

- Provide sheltering and nesting opportunities for a variety of bat species
- Ensure nest boxes are maintained for the functionality for bats and for safety to the public

4.15.3 Annual Work

- All boxes should be annually inspected for presence, damage, obstruction and if necessary should be replaced for an identical product in a similar location.

4.15.4 Occasional Work

- The boxes should be cleaned once every three years by a suitably licensed bat ecologist. Unlicensed individuals should not interfere with bat boxes or bricks once installed.

4.16 AREAS OF PARKLAND FEATURES AND STREET FURNITURE

4.16.1 Description

- Areas of communal open space are proposed on the development with an area of communal open space close to the building for staff and personel.

4.16.2 Management Objectives

The management objectives for landscape features are:

- To ensure the soundness and safety of all features,
- To minimise the risk of injury to users of all ages and,
- To ensure that playable features are regularly monitored, and decommissioned if unsafe and repaired as soon as possible to a sound and satisfactory condition.

4.16.3 Annual Works

i) **Inspections:** Complete inspections of features as follows:

i) Routine Visual Inspection: To assess the basic condition of areas, features and surrounds including safety surfaces and surrounds, highlighting issues arising from vandalism, breakages and cleanliness.

ii) Operational Inspection: A more detailed inspection of features for quality control and to identify minor wear and tear. This shall include the inspection of posts, footings, fixings, joints, and wood work for damage or any other defect.

All inspections should be carried out by a suitably experienced representative of either the Adopting Organisation or Landscape Management Contractor and recorded on a site checklist. The frequency of each operational inspection will vary according to the usage of the site and its risk, but should take place at least monthly with routine visual inspections taking place at fortnightly intervals.

ii) **General:** All features shall be cleaned, removing dirt and any graffiti monthly at each visit as required. Safety surfaces in particular shall be inspected carefully at each visit for the presence of any sharp objects, litter and debris as well as general wear, tear or other defect. Any such items shall be removed off site immediately. Check that posts are upright and firm, that footings are intact and fixings are secure and in good repair. Ensure that wood work is complete and that there is no sign of damage.

iii) **Defects and Repairs:** Any defect shall be carefully recorded and arrangements for repair made within seven days with the item supplier or other suitable and approved contractor. Make good wood work with a matching treatment and colour applied strictly in accordance with the manufacturer's instructions, product COSHH sheet and COSHH Regulations. All repairs must be carried out strictly in accordance with the supplier's instructions. If the defect to either play features or surrounds is anything more than superficial (e.g. damage to decoration), then temporary chestnut pale fencing shall be erected and fixed firmly in place around the area and a temporary sign erected warning that the area is unsafe to use.

The area must be decommissioned at once, ensuring that items cannot be used in a dangerous state. Temporary protection measures shall be removed as soon as the item is made good.

iv) **Contact Information:** The Adopting Organisation shall ensure that a representative is available for emergency call out 7 days per week to deal with dangerous items ensuring a response time of no more than 2 hours. A sign shall be erected on site stating the name and telephone number(s) of the representative so that emergencies and defects can be quickly and easily reported to minimise risk to users.

4.16.4 **Occasional Works**

- **Changes and renewals for features:** areas and features should be subject to an Annual Inspection. Such inspections shall identify issues relating to vandalism, minor and major wear, long-term structural problems, changes relating to health and safety and other Standards and design practices, and risk. The annual inspection shall be completed by a specialist contractor not employed by the Adopting Organisation, such as those approved by the Register of Play Inspectors (www.playinspectors.com) or ROSPA equivalent. Following the inspection, the specialist contractor shall prepare and issue an independent written report for review. Any issues identified by the annual inspection shall be prioritised, with those deemed as urgent to be rectified as soon as possible. This shall include the replacement of play features and associated safety surfaces as required, where such items are found to be beyond repairable condition or where they do not meet current standards. Remove all arisings off site and make good any surfaces disturbed.

4.17 STRUCTURES, WALLS, RAILINGS, FENCING AND GATES

4.17.1 **Description**

- Throughout the site a combination of elements, such as walls, railings and fencing have been used to define and enclose spaces associated with the commercial and enterprise premises, such as amenity space, car parks and service yards.
- Boundary treatments such as bollards and knee rail are proposed to informally enclose open space to contain activities such as the open spaces close to highways or attenuation features.

4.17.2 **Management Objectives**

The management objectives for these areas will be to:

- To ensure structures, walls and fencing are safe, functional, sound, clean and free from dilapidations, hazards, rot, vandalism or damage, graffiti and grime.

4.17.3 **Annual Works**

i) **General maintenance for structures and walls:** Inspect structures, walls monthly taking great care to inspect piers, masonry, pointing and jointing, copings, damp proof courses etc. Look for and record any cracking, loose

elements, damage, graffiti, spalling cement, efflorescence or dampness issues, sapping, flaking or crumbling of masonry or units. All defect shall be carefully recorded and arrangements for repair made within seven days with an approved masonry contractor as appropriate.

ii) **General maintenance for timber fences:** Inspect posts, footings, rails, styles, braces, fixings, latches, bolts, fasteners and paint or stain work. Check that posts are upright and firm and that footings are intact. Ensure that fixings show no signs of rust. Record all defects carefully and making arrangements for making good, repair adjusting, tightening or re-painting/ staining as required within seven days with an approved fencing, decorating or cleansing contractor as appropriate.

iii) **General maintenance for railings:** Inspect posts, footings, rails, rods, braces, fixings, latches, bolts, fasteners, galvanising and paint work. Check that posts are upright and firm and that footings are intact. Ensure that fixings, metalwork and paint work show no signs of rust, chipping, flaking, abrasion or any other defect. Record all defects carefully and making arrangements for making good, repair adjusting, tightening or re-painting/ staining as required within seven days with an approved fencing, decorating or cleansing contractor as appropriate. Railings that have defective paintwork shall be painted with paint to match existing – apply with a suitable brush for the paint type (e.g. some metal work paints need a Turks-head brush, and ensure 100 Microns per coat, and a total of 3 coats, applied in dry open weather, above the dew point and following suitable preparation work, cleansing the surfaces with soap and water and then allowing adequate drying time. Re-painting shall take place at 5-10 year intervals or as required to keep paintwork in good condition.

4.17.4 Occasional Works

i) **Changes and renewals for structures, walls, railings, fencing and gates:** Where scheduled inspections report defects to structures and other enclosing elements, that are in need of wholesale replacement, extension or alteration in order to function satisfactorily and to minimise risk of injury or harm, and where such items are found to be beyond repairable condition, then these changes or renewals should be effected immediately. Demolish and remove defective elements and replace or add masonry, panels, posts, timber work, or metalwork, as appropriate - including carting away the failed and excavated or broken out materials to skip, ensuring all new elements match those existing in all respects, both the material type and gauge/ dimensions and the decorative finish and colour.

4.18 HARD LANDSCAPE AREAS

4.18.1 Description

- A range of hard landscape areas will be incorporated into the development layout including footpaths and car parking areas.

4.18.2 Management Objectives

- To ensure that hard landscape surfaces are safe and comfortable to use and are clean from litter and other debris.

4.18.3 **Annual Works**

i) **General cleanliness:** All paved surfaces shall be swept monthly to ensure that they are clean, tidy and free from dust, litter and debris (removing all arisings off site). Increase sweeping to fortnightly in autumn when leaves are falling.

ii) **Condition of paved surfaces:** All hard landscape surfaces and edgings shall be inspected monthly checking for mechanical damage, vandalism, settlement, frost heave, staining, litter and debris or any other defect. Any such defects shall be documented and a corrective methodology agreed with the Adopting Authority and implemented as appropriate by the Landscape Management Contractor.

4.18.4 **Occasional Works**

i) **Repairs and renewals:** Where scheduled inspection detects paved areas are in need of replacement, extension or alteration to their original intended function or to minimise risk of injury, then such repair and/or renewals should be effected immediately. Remove defective paving, through excavation and make good base and sub-base materials as required, re-use salvageable paving units, and relay paving, buying in new products to replace any that are damaged or defective. Where there is differential settlement or the units wobble, or are not firmly bedded, jointed or pointed, ensure that the units are relayed firmly, re-bedding, jointing and where appropriate pointing, all to match the bonding pattern existing on site.

5.0 IMPLEMENTATION, MONITORING AND REVIEW

5.1 IMPLEMENTATION

5.1.1 A Private Management Company will be established for the site to undertake all management aspects relating to the external landscape areas that lie outside of private occupation.

5.1.2 The Private Management Company will coordinate all management of the site in perpetuity in accordance with this Landscape Management Plan and the accompanying maintenance schedules. A representative of the Private Management Company will be appointed as the main point of contact for occupiers, relating to the management of the site.

5.1.3 The Private Management Company may employ a Landscape Management Contractor to carry out general maintenance operations. Specialist Contractors may be used on an as needs basis to complete specialist operations and/or occasional works.

5.1.4 The Private Management Company may also appoint from time to time consultants to provide specialist advice, monitoring or to undertake a watching brief in relation to particular aspects of this site or specific maintenance operations. This may include suitably qualified ecologists, arboriculturists, landscape architects, engineers and/or health and safety executives.

5.1.5 All works, materials and operations will be in accordance with relevant legislation, British Standards, Regulations (including the CDM Regulations) and Codes of Practice.

5.2 PROCESS FOR MONITORING AND REVIEW

5.2.1 The Landscape and Ecological Management Plan and maintenance schedules will be monitored and assessed for their effectiveness on an annual basis for the first five years following the completion of the development.

5.2.2 Each annual review will be coordinated and completed by a suitably qualified representative of the Adopting Authority. The review will include advice from specialist consultants as required (such as a qualified Arboriculturist and ecologist), the Landscape Management Contractor and other stakeholders including representative(s) from the LPA.

5.2.3 **To this end the review may include (as appropriate):**

- Specialist reports - advising on particular aspects such as protected species, general silvicultural husbandry and health and safety issues;
- Records or attendance sheets demonstrating the maintenance work undertaken; and
- A walk over assessment of the landscape areas to assess landscape components and their condition, and the need for enhancement including minutes.

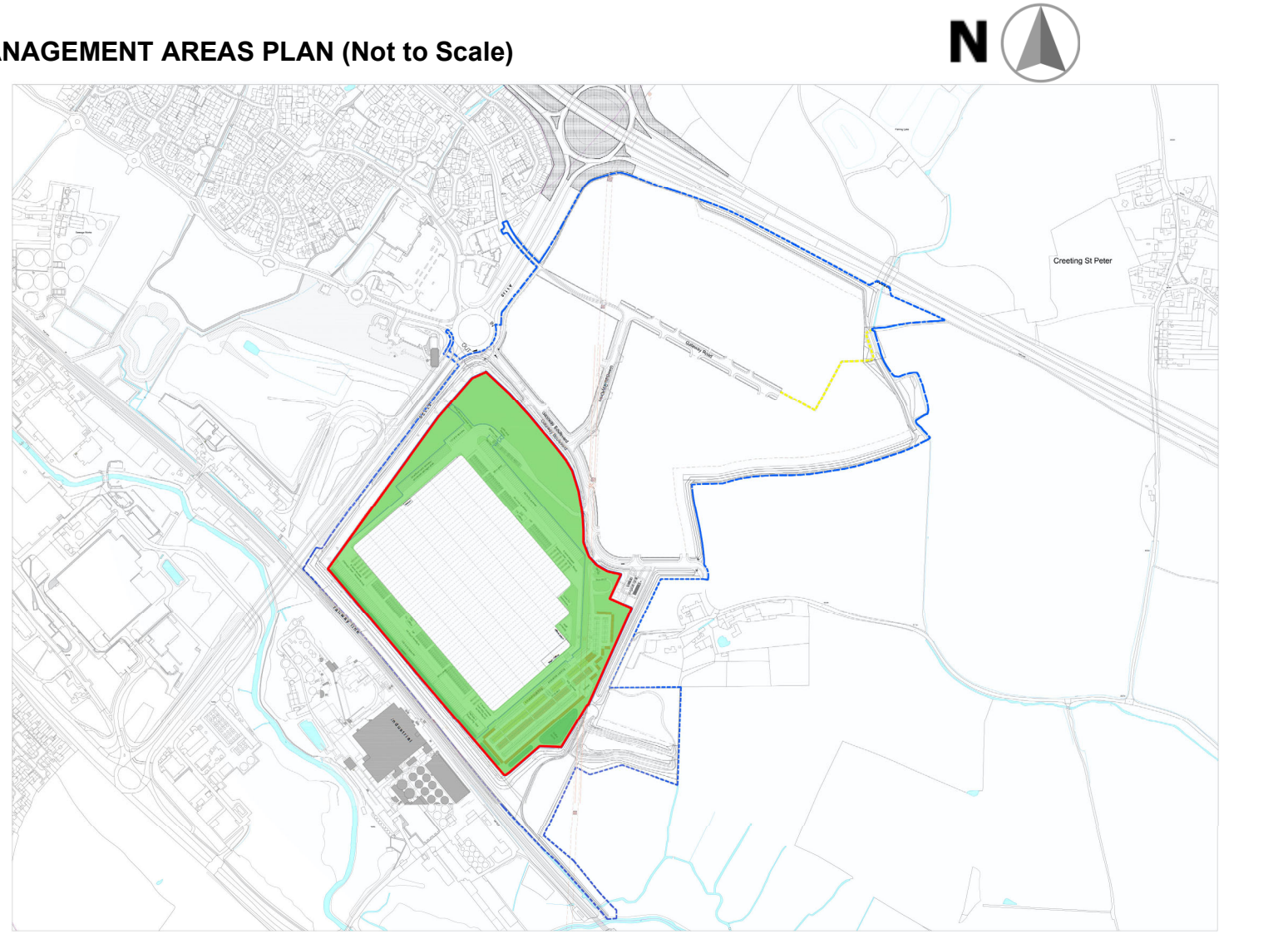
5.2.4 The review should identify any changes to site conditions and circumstances, whether the aims and objectives of the Landscape and Ecological Management Plan are being met, and where identified changes are need to existing management practices and timeframes. Furthermore, any strategic enhancements, including new planting should be identified and priorities established for undertaking these works.

5.2.5 Within 1 calendar month of the review, a revised Landscape and Ecological Management Plan shall be produced (if appropriate), and circulated to stakeholders. Within 5 years of the completion of the site, then the revised document shall be submitted to the LPA as a non-material amendment to the previously approved Landscape Management Plan.

5.2.6 After the first five years the Landscape and Ecological Management Plan will be reviewed every five years, or as required to ensure the satisfactory management of the landscape in perpetuity.

6.0 APPENDICES

6.1 MANAGEMENT AREAS PLAN (Not to Scale)



6.2 SCHEDULE OF MAINTENANCE OPERATIONS

Maintenance Operation	**Number of Visits** (to be dependent on season – where not dependent on season, if appropriate, the timing shall be agreed between the Adopting Organisation and the Contractor. Indicative timings are shown with a *)					**Total number of visits per year**	**Additional Comments**
	Jan – March (13 weeks)	April – June (13 weeks)	July – Aug (9 weeks)	Sept – Oct (9 weeks)	Nov –Dec (8 weeks)		
GENERAL							
Collection and removal of litter and other debris	Once per month	Once per month	Once per month	Once per month	Once per month	12	All hard and soft areas. Cart away litter/debris and remove off site to licensed tip.
PAVING							
Inspection and sweeping	Once per month	Once per month	Once per month	Once per month	Once per fortnight while leaves dropping	14	Document any defects, recommend methodology and carry out remedial works as required.
SOFT WORKS							
Visual inspection of mature trees	Once per month	Once per month	Once per month	Once per month	Once per month	12	On each visit or as required.
Annual Arboricultural Assessment of mature trees and hedgerows		*	*	*		1 (plus additional visits as required)	To be completed by a qualified Arboriculturist annually when trees are in leaf or as required when visual inspections identify a health and safety risk.
Tree Surgery and significant works to boundary vegetation/hedgerows	*				*	1	As identified by arboricultural assessment following approvals from LPA. To be carried out outside of the bird nesting season and following advice from an ecologist.

Maintenance Operation	**Number of Visits** (to be dependent on season – where not dependent on season, if appropriate, the timing shall be agreed between the Adopting Organisation and the Contractor. Indicative timings are shown with a *)					**Total number of visits per year**	**Additional Comments**
	Jan – March (13 weeks)	April – June (13 weeks)	July – Aug (9 weeks)	Sept – Oct (9 weeks)	Nov –Dec (8 weeks)		
Cutting/trimming of native hedgerows	*				*	1	To be carried out outside of the bird nesting season. Cut on 2-3 yearly rotation to retain foraging opportunities where possible away from footpaths.
Hand weeding		Once per month	Once a month	Once per month	*	4-8	Weed by hand taking care not to disturb sheet or bark mulch. Remove arisings off site.
Spot herbiciding	Once in late March		Once in late June, once in mid-August	Once in mid-October		4	To occur at approximately 6 week intervals only if required.
Watering		Once per fortnight	Once per fortnight	Once per fortnight		15	Water once per fortnight from April to September until trees/plants/grass areas are established. Watering frequency should be adjusted by the Landscape Management Contractor depending on climatic conditions. Increase watering during hot and dry weather until plants have established.
General maintenance of planted areas	*	Optimum time for application of bark mulch	*	*	*	12	Check at each visit. Apply bark mulch as and when required within the first 3 years.
Fertilising trees and shrubs		Once in early May		Once in mid-September		2	Fertilize new trees and planting, once in early May and once in late September. Use a slow release product, ideally granular.

Maintenance Operation	**Number of Visits** (to be dependent on season – where not dependent on season, if appropriate, the timing shall be agreed between the Adopting Organisation and the Contractor. Indicative timings are shown with a *)					**Total number of visits per year**	**Additional Comments**
	Jan – March (13 weeks)	April – June (13 weeks)	July – Aug (9 weeks)	Sept – Oct (9 weeks)	Nov –Dec (8 weeks)		
Checking, adjusting, replacing or removing tree stakes and ties	*	*	*	*	*	12	At each visit as required
Pruning trees and shrubs	Optimum time for Buddleia & Cornus				Optimum time for most species	1	As required to sound horticultural practice between October and March. Cut back grasses in spring.
Cutting amenity grass areas	Only if required from start of growing season	Once every fortnight	Once every 3 weeks	Once every fortnight	As required to finish of growing season	12-15 times per year	Mowing frequency to be adjusted according to climatic conditions and use. Reduce frequency to every 21 days in hot and dry weather.
Edging lawns and amenity grass areas		Once per month	Once per month	Once per month		7	Re-profile and edge shrub beds at start of growing season with half moon tool, then strim or cut margins with edging shears throughout growing season.
General lawn care		Once		Once		2	Apply a fertiliser, selective weed killer and moss retardant in May and September.
Cutting wildflower grassland	*		Once in late August	*		1	In hot dry weather leave cuttings to set seed for 2 days before collecting and removing off site. Cut again in October or in March if required due to weather conditions. Cutting may be varied by ecologist if reptiles are present.

Maintenance Operation	**Number of Visits** (to be dependent on season – where not dependent on season, if appropriate, the timing shall be agreed between the Adopting Organisation and the Contractor. Indicative timings are shown with a *)					**Total number of visits per year**	**Additional Comments**
	Jan – March (13 weeks)	April – June (13 weeks)	July – Aug (9 weeks)	Sept – Oct (9 weeks)	Nov –Dec (8 weeks)		
Replacement of tree, hedgerow and shrub planting	*				Optimum time for most species	1	As required. To include enhancement planting.
Replacement of amenity grass and wildflower areas				Optimum time		1	As required.
Swales and Ponds – remove leaves and debris & clear up to 1/3 of marginal/aquatic vegetation.				Once		1	Clearance on a rotational basis to maintain 50% open water.
Scrub clearance						1	As required and informed by the ecologist and Arboriculturist
Thinning & coppicing							To be informed by the annual arboricultural survey
CONSERVATION:							
Visual inspection of bat and bird boxes for presence, damage and obstruction.	* Outside nesting season					1	If required, replace with an identical product in similar location
FEATURES/AREAS:							
Visual/Operational Inspection of features & surfacing	Once every 2 weeks	Once every 2 weeks	Once every 2 weeks	Once every 2 weeks	Once every 2 weeks	24	To be adjusted as required. Any defect recorded and arrangements for repair made within seven days.

6.3 INDICATIVE PRUNING SCHEDULE FOR PLANTS

Plant Species	Pruning dates	Pruning amount	Crown raising	Additional Comments
Betula pendula	Dec/Jan	n/a	every 5 years	Thin by 50% in year 15
Buxus sempervirens	Dec/Jan	Reduce by 5%	Never	Prune leggy growth only
Cornus sanguinea	Feb/March	Reduce by 20%	Never	Coppice - 4 years
Corylus avellana	Dec/Jan	Reduce by 10%	If required	Coppice - 8 years
Crataegus monogyna	Dec/Jan	Reduce by 5%	Every 5 years	Thin at 15 yeas (30%). Coppice 8 years
Cytisus praecox	Dec/Jan	Reduce by 10%	Never	Prune leggy growth only
Frangula alnus	Dec/Jan	Reduce by 5%	If required	Coppice - 8 years
Fraxinus excelsior	Dec/Jan	n/a	Every 5 years	Thin at 15 years
Ligustrum vulgare	Dec/Jan	Reduce by 10%	Never	Prune leggy growth only
Prunus spinosa	Dec/Jan	Reduce by 5%	If required	Coppice - 8 years
Prunus avium	Dec/Jan	n/a	Every 5 years	Thin at 15 years
Quercus robur	Dec/Jan	n/a	Every 5 years	Thin at 15 years
Rhamnus cathartica	Dec/Jan	Reduce by 10%	Never	Coppice - 8 years
Rhamnus frangula	Dec/Jan	Reduce by 10%	Never	Coppice - 8 years
Rosa canina	Dec/Jan	Reduce by 10%	Never	Coppice - 4 years
Rubus tricolor	Dec/Jan	Reduce by 10%	Never	Prune leggy growth only
Sorbus aucuparia	Dec/Jan	n/a	Every 5 years	Thin at 15 years
Salix viminalis	Dec/Jan	Reduce by 10%	Never	Coppice - 8 years
Ulex europeus	Dec/Jan	Reduce by 10%	Never	Coppice - 8 years
Viburnum lantana	Dec/Jan	Reduce by 5%	Never	Coppice - 8 years
Viburnum opulus	Dec/Jan	Reduce by 5%	Never	Coppice - 8 years