PHASE 2B OF THE SOUTH WOKINGHAM SDL
PHASE 2B SANG, SOUTH WOKINGHAM

Landscape and Ecological Management Plan

October 2025 | P19-0052_06D

PEGASUS GROUP




PEGASUS GROUP

Pegasus Landscape Design, Pegasus House, Querns Business Centre, Whitworth Road
Cirencester, Gloucestershire, GL7 1RT
www.pegasusgroup.co.uk I T 01285 641717 I F 01285 642348

Prepared by Pegasus Landscape Design. Pegasus Landscape Design is part of Pegasus Planning Group Ltd
Prepared in conjunction with Ecose on behalf of Kier Ventures Ltd, Kingacre Estates Ltd and Miller Homes Limited.
Date: October 2025
Project code: P19-0052_06
Contact: Pegasus Landscape Design – Alice Skinner

First Issue	28/03/2019	ASK/TH
A	08/04/2019	ASK/TH - Amended to arboricultural comments
B	12/06/2020	NHA/TH - Plans updated
C	26/08/2020	NHA - Plans updated
D	16/10/2025	ASK

CONTENTS

1.0 INTRODUCTION

INTRODUCTION

1.1 Pegasus Planning Group were commissioned in 2020 by Kier Ventures Ltd and Miller Homes to produce a Landscape and Ecological Management Plan (LEMP) for the proposed Phase 2b Suitable Alternative Natural Greenspace (SANG) at Phase 2 of the South Wokingham Strategic Development Location.

1.2 The document reference P19-0052_06C was approved as part of the Hybrid Planning application 191068 in July 2024.

1.3 As part of the discharge of conditions for the Hybrid planning application condition 16 states:

> *"Prior to the commencement of each Phase of the development a Landscape and Ecological Management Plan (LEMP), including long term design objectives, management responsibilities, timescales and maintenance schedules for all landscape areas, other than privately owned, domestic gardens, shall be submitted to and approved in writing by the local planning authority. The Landscape and Ecological Management Plan shall be carried out as approved.*
>
> *Reason: In order to ensure that provision is made for satisfactory maintenance of the landscaping hereby approved in accordance with Core Strategy policies CP1, CP3, CP7 & CP21; Managing Development Delivery Local Plan policies CC03, TB21 & TB23; and the South Wokingham SDL SPD. Details are required before commencement because then need to be assessed in conjunction with the landscaping proposals."*

Condition 15 also states

> *"iii) No development shall take place in each phase of the development until details of quality control measures, including supervision of landscape contract(s) by a suitably qualified landscape specialist and annual landscape audits for the five-year period from completion of the landscaping for the Landscape Phase or until adoption (whichever is longer) have been submitted to and approved in writing by the Local Planning Authority. The annual Landscape Audit shall be submitted to the Local Planning Authority for information prior to the next planting season and replacement planting undertaken in accordance with the landscape audit and iv) below.*
>
> *iv) Any trees or plants which, within a period of five years after planting, are removed, die or become seriously damaged or defective, shall be replaced in the next planting season with others of species, size and number as originally approved and permanently retained."*

1.4 The original LEMP has therefore been updated to include the necessary points required within the conditions and any design evolution that has occurred in the time that has lapsed since the LEMP was written.

1.5 An overview of the SANG proposals are shown on page 8. The proposals have been designed in accordance with the objectives set out within this LEMP. Full details of the landscape proposals can be seen in Appendix 1.

1.6 A detailed soft landscaping specification has been produced and includes ground preparation, planting, seeding and 12-month after care. Refer to P19-0052_EN_063.

APPROACH

1.7 The aim of this LEMP is to:

- Outline the design of the proposed SANG and demonstrate it meets Natural England's SANG criteria;
- Provide management objectives to demonstrate that the SANG can be sustainably managed in perpetuity;
- Provide details on the status of current woodland and provide detailed management recommendations to ensure the woodland area continues to function as part of the SANG;
- Provide details on the status of the Emm Brook and provide detailed management recommendations to ensure the watercourse continues to function as part of the SANG;
- Provide details of the management recommendations to ensure successful establishment and continued function of proposed habitats including woodland, wetland, hedgerows and grassland; and
- To inform capital and revenue costs associated with the SANG.

1.8 Landscape and ecological objectives and their related management prescription are discussed within Section 2.0. These objectives have been derived from landscape surveys and an ecological surveys of the site (Carried out by ECOSA Ltd between 2013 and 2017).

1.9 Key features of existing and proposed value are;

- A proposed 2.68km circular walking route around the SANG with connections into the existing Public Right of Way (PRoW) network.
- The Emm Brook, which runs broadly from south-east to north-west across the site and provides an ecological corridor. The stream is a Habitat of Principal Importance in England (Priority Habitat) and a Wokingham Biodiversity Action Plan (BAP) Habitat;
- Existing Ancient Woodland, a Local Wildlife Side, close to Ludgrove School with further proposed woodland planting along the boundaries of the site and along the wetland corridor to provide a buffer and habitat enhancement. This is a Priority Habitat and Wokingham BAP Habitat;
- These existing landscape features, together with the proposed tree, shrub and grassland planting create a diverse environment that has visual amenity value for visitors and ecological benefits.
- Existing and proposed hedgerow planting which will provide an ecological network that provides connection within the site and beyond to the existing landscape framework. These features are a Priority Habitat;
- A series of meadows created by a variety of grassland types including wetland meadow grass, flowering lawns and wildflower meadow, which is a Priority Habitat and Wokingham BAP Habitat;
- The proposed wetland corridor creates a focal point within the southern half of the site whilst the Local Landscape Area for Play (LLAP) creates a focal point within the northern half of the site;
- The LLAP provides play and informal recreation opportunities for children visiting the site;
- Dog proof fencing and dog beaches encourages owners to exercise their dogs within the SANG, reducing pressure on the Thames Basin Heaths SPA.

1.10 This LEMP provides management actions for the pre-creation and creation phase of the GI within the Phase 2b SANG development and for a five-year period following completion of construction. After the initial five year period the LEMP would be reviewed and updated in agreement with Wokingham Borough Council.

1.11 A monitoring scheme would also be carried out during the pre-creation, creation and post-creation of the proposed green infrastructure development. This monitoring scheme would inform the on-going informal review of this LEMP.

1.12 Responsibilities for the delivery of management actions has also been discussed within Section 7.0.

OBJECTIVE FOR THE SANG

The broad objective for the SANG is to provide mitigation for the potential impact of residential development within the Thames Basin Heaths planning zones on the Thames Basin Heaths Special Protection Area (SPA). The provision of a suitable alternative natural greenspace is intended to prevent an increase in visitor pressure on the SPA from the additional households provided within the Phase 2 of the South Wokingham SDL.

ECOLOGICAL TRENDS AND CONSTRAINTS

1.13 This LEMP is to be seen as an operational guide subject to review to incorporate landscape and ecological trends that may impact on the landscape management aims, objectives and maintenance regime. The review process would also allow future constraints such as Natural England licenses, working method and conservation targets to be included as the LEMP evolves. Changes to management practice for ecological trends for habitat and species which may be updated to local policy and biodiversity targets would be incorporated as necessary. This would help to ensure that the LEMP remains fit for purpose in the evolving dynamic of landscape and help to ensure resilience to the effects of climate change and social pressure.

MANAGING RISK AND COMPETENCIES

1.14 It is assumed that a competent contractor shall have the necessary PPE, training and skills to undertake the management and maintenance tasks as set out within this LEMP.

1.15 The landscape management company shall be responsible to undertake a written risk assessment in relation to the landscape, arboricultural and ecological management and maintenance prescriptions detailed within this LEMP (in additional to any other site risks). This shall be provided to the clients prior to the start of works.

LANDSCAPE AUDITING

1.16 For the first years following completing or until adoption (whichever is longer) a landscaping audit shall be carried out annually by a suitably qualified Landscape Architect and will include details of the condition of landscaping features within the scheme. The audit will also note any works required to rectify defaults or known issues that require on-going monitoring prior to the next annual report. The report will be made available to the Local Planning Authority

REPLACEMENT PLANTING

1.17 Any trees or plants which, within a period of five years after planting, are removed, die or become seriously damaged or defective, shall be replaced in the next planting season with others of species, size and number as originally approved and permanently retained.

1.18 If a particular species develops a disease or known issue and requires replacement, a suitable alternative will be selected and approved with the local planning authority.

FIGURE 1: Site Location Plan/Features Plan

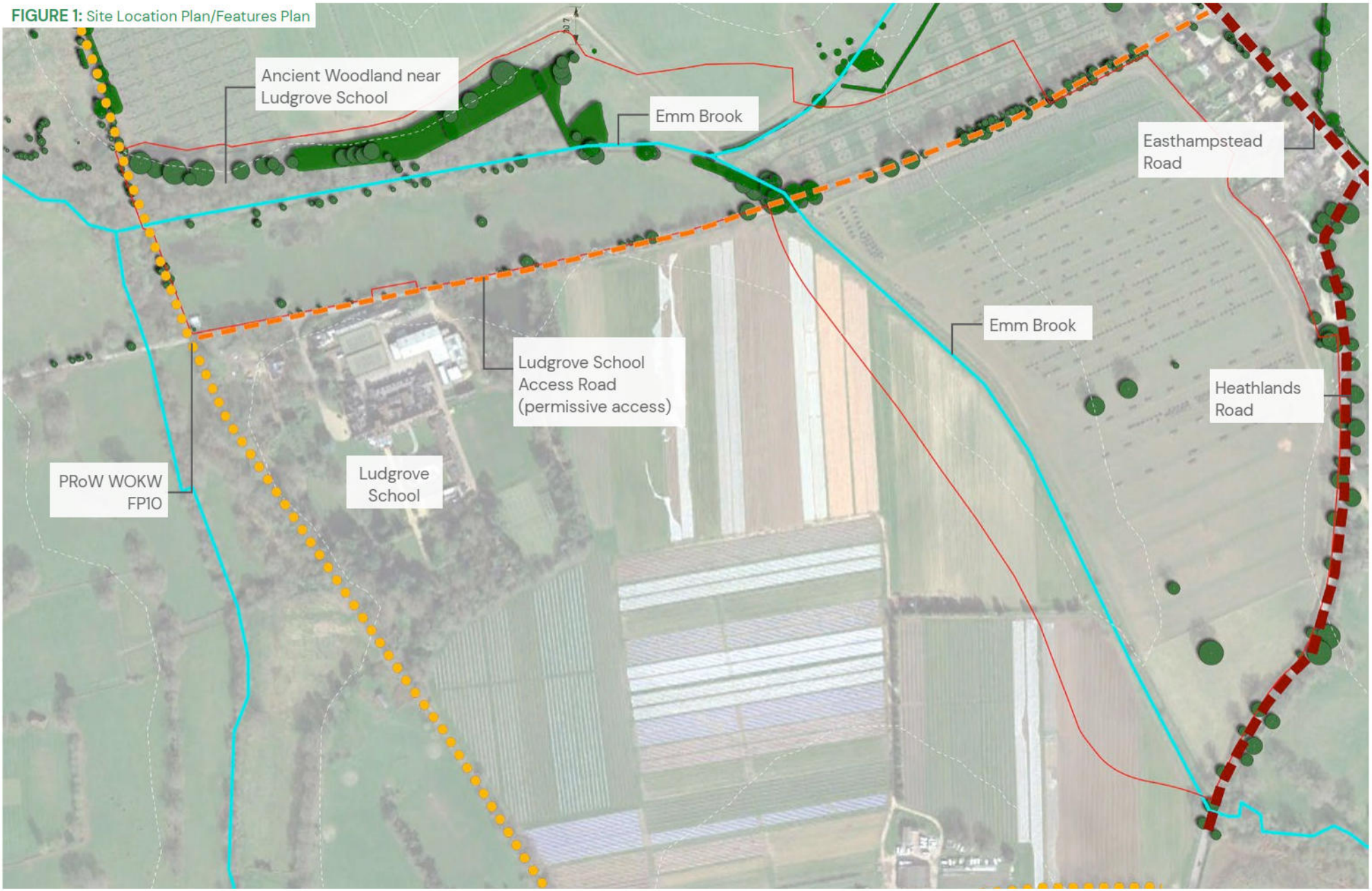

FIGURE 2: Holme Park SANG General Arrangment

2.0 SCHEME DESCRIPTION AND OBJECTIVES

SCHEME AND PHASING DESCRIPTION

2.1 The proposed SANG comprises the following, refer to Figure 2: Holme park SANG General Arranagement

- Open space for informal recreation including a 2.54km circular walking route with additional secondary footpaths;
- Woodland planting, including the retention of existing ancient woodland near Ludgrove School;
- Native tree, shrub and hedgerow planting;
- A mosaic of grasslands including wildflower meadow, wetland meadow grassland and areas of flowering lawn with wildflower plugs and bulb planting to create high floristic value;
- Wetland corridor along a series of detention basins and swales that contribute to the wider SuDS strategy of Phase 2b of the South Wokingham SDL;
- Emm Brook corridor with wetland meadow grass and footbridges to allow for access across the watercourse;
- Primary access from the Strategic Development Road (SDR), with additional access points from Public Right of Ways (PRoW) and into the neighbouring sports hub;
- A permanent car par to provide 25 spaces off Heathlands Road; and
- Local Landscape Area for Play (LLAP).

2.2 Time-scales for the creation of the SANG are anticipated to be from 2025 to 2026. Changes to this time-scale would be revised within the LEMP and agreed with Wokingham Borough Council.

LANDSCAPE SUMMARY

Site Description

2.3 The proposed 24.71 hectares Phase 2b SANG site will be located within existing agricultural fields broadly to west of East Hampstead Road. The site is divided into two areas by the access road to Ludgrove School.

2.4 The space to the north of the access road is predominantly occupied by a pastoral field and an area of woodland, some of which is classified as Ancient Woodland, and forms part of the 'Woodland near Ludgrove School' Local Wildlife Site. There is also an area of game pens to the east of this northern section of the SANG.

2.5 The northern boundary will run adjacent to the proposed residential area in the west and the local centre and primary school in the east that form part of the wider Phase 2b of the South Wokingham SDL development.

2.6 The north-western boundary follows the existing field boundary that is adjacent to the Public Right of Way WOKW FP10.

2.7 The space to the south of the access road is predominantly occupied by agricultural fields containing game pens.

2.8 The eastern boundary abuts the existing residential properties along Easthampstead Road and extends south to run along Heathlands Road. Whilst the western boundary is currently partially undefined as it runs through an agricultural field.

ECOLOGY SUMMARY

Habitats

2.9 An area of woodland (Semi-natural alder and drier oak/hazel woodland) within the site is classified as Ancient Woodland in addition to being a Local Wildlife Site (Woodland north of Ludgrove School). Beyond the area of woodland, the site is predominantly formed of arable or grassland ley with hedgerows, tree belts, scattered trees and the Emm Brook and tributaries.

Species

2.10 The following notable and protected species are considered likely to be making use of habitats currently present within the Phase 2b SANG

- Bats (common pipistrelle Pipistrellus pipistrellus, soprano pipistrelle Pipistrellus pygmaeus, Nathusius' pipistrelle Pipistrellus nathusii, long-eared bat Plecotus species, Myotis species, serotine Eptesicus serotinus, barbastelle Barbastella barbastellus, Leisler's bat Nyctalus leisleri and noctule Nyctalus noctula);
- [redacted]
- European hedgehog Erinaceus europaeus;
- Birds (all species of which are protected while nesting);
- Reptiles (slow-worm Anguis fragilis, grass snake Natrix natrix and common lizard Zootoca vivipara);
- Amphibians (including common toad Bufo bufo)

MANAGEMENT OBJECTIVES

Landscape Objectives

2.11 Existing Vegetation

The existing vegetation comprises grassland enclosed by hedgerows, tree belts along the access road to Ludgrove School, trees along the Emm Brook and an area of woodland.

The principal hedgerow species include; Blackthorn (Prunus spinosa), Hawthorn (Crataegus monogyna) and other mixed native species.

The principal tree species include; Alder (Aluns glutinosa), Ash (Fraxinus excelsior), Field Maple (Acer campestre), Hawthorn (Crataegus monogyna), Oak (Quercus robur), Wild service-tree (Sorbus torminalis) and Willow (Salix species).

It is proposed to retain and manage the existing vegetation structure with the following objectives:

1. To protect and maintain the existing area of ancient woodland to ensure its long term visual amenity and ecological benefit;
2. To retain vegetation along the Emm Brook where appropriate to maintain this ecological corridor;

New Planting

2.12 To enhance the landscape character of the GI, the following objectives are proposed:

3. To create new areas of woodland planting along the site boundaries to enhance the sense of enclosure within the site. Further pockets of woodland within the site would provide additional habitat opportunities;
4. To create and maintain a wetland corridor that contributes to the SuDS management on site in addition to creating a feature within the landscape and providing ecological interest;
5. To create an area of orchard tree planting to provide opportunities for communal growing and create seasonal interest through blossom and fruit;
6. To create a diverse environment through the use of a range of native shrub and tree planting. Species, suitable for their context within the site, would provide structure and an element of screening to create a sense of discovery; and
7. To enhance areas of existing grassland by creating a rich mosaic of grassland habitats including wildflower meadow, wetland meadow and flowering lawn. Cultivation and/or management methods will be used to provide ecological and visual interest;

Hardworks

2.13 The following objectives are proposed for the on site hardworks:

8. To create a series of pathways, pedestrian and maintenance gates, footbridges and appropriate fencing that integrates and enhances with the character of the site; and
9. To deliver hardworks in the form of benches, signage, play equiptment and public art.

Ecology Objectives

2.14 The following ecological objectives are proposed:

1. To incorporate high value habitats including a variety of grasslands, wetland vegetation, species rich hedgerows, woodland and wooded boundaries. Species are to be native or wildlife friendly species wherever possible;
2. To establish green corridors across the site, comprising of tree lines and hedgerows with wide margins where vegetation can be left more unmanaged;
3. To design and manage SuDS sympathetically to wildlife with native marginal and emergence species planted where possible to provide enhancement for potential colonisation by great crested newts;
4. To establish areas of wildflower and wetland grassland within the site, with minimal management to provide enhancement for reptiles and amphibians; and
5. To provide areas of scrub within the site to create nesting opportunities for a range of birds. Flowering species should be chosen within the scrub mix to provide nectar and seed resource for insects, birds and mammals. The threshold between the grassland and scrub aim to create refuge for small mammals and nesting opportunities for ground nesting birds.
6. To provide bird and bat boxes as well as hibernacula for reptile and amphibians.

3.0 ENVIRONMENTAL CONSIDERATIONS

Horticultural Peat

3.1 Horticultural peat is not to be used as mulch on any planting areas or as a soil conditioner, and wherever possible plants grown without peat will be preferred to those grown using peat.

Recycled Materials

3.2 Where appropriate, use should be made of materials made from recycled components, eg wood chip mulch.

Pesticides/Herbicides

3.3 Weed control of transplant areas is to be achieved by using mulch mats and hand weeding. The control of invasive and pernicious weeds can be carried out with targeted applications of glyphosate based herbicides.

Water Management

3.4 Where necessary, maintenance staff are to water plants at appropriate times of the day to ensure minimum water evaporation. It is anticipated that watering will only be necessary during the establishment period.

Habitat Management

3.5 Opportunities for the creation of additional micro-habitats and habitat enhancement should be taken wherever possible. Where appropriate habitat creation could include working with the Wildlife Trust and local wildlife groups to create log/habitat piles.

3.6 Allow deadwood, jagged stumps, splits, fungal growths/fruiting bodies and holes in tree trunks to remain unless they are creating a safety hazard.

3.7 Trees should not be felled unless they are classified as dangerous. Where a tree poses as a health and safety hazard, advice shall be sought immediately from an arborist. Ivy should only be severed where it is growing into tree canopies and is likely to create a sail hazard.

3.8 The retention, as far as possible, of the existing vegetation is considered an important part of the development. Such areas will be managed appropriately to maintain and develop their value.

General Maintenance

3.9 Maintenance operations are to be carried out with regard to BS 4428: Code of Practice for General Landscape Operations. Maintenance of soft landscaping (other than amenity turf) to have regard to BS 7370-4: Grounds Maintenance. Recommendations for Maintenance of Soft Landscape.

Tree Works

3.10 No pruning works to trees, hedgerows or structural planting are to be undertaken during the general bird nesting season of 1st March to 31st August inclusive. Works outside of this time period should be subject to checks by an ecologist to ensure there are no nesting birds present.

3.11 All tree surgery work is to be carried out to BS 3998:2010 Tree Work– Recommendations, and should be undertaken by a suitably qualified operative. Any trees with bat potential to be inspected by a qualified bat specialist prior to any tree works commencing.

3.12 Hygiene works will be avoided, for example fungal fruiting bodies should not be removed nor trees felled because they have bracket fungi on them unless classified as dangerous by an arborist. Where possible, trees will be allowed to age naturally and dying trees will be allowed to decay in-situ. Where a tree poses a health and safety hazard, advice will be sought from an arboriculturist.

Watering

3.13 Care should be taken not to over-water plants. Until well established all shrubs/trees are to be watered during the growing season. Following any dry periods of 7-10 days soil water content should be assessed and watering undertaken as necessary. Planting areas are to be brought up to field capacity at each visit and each tree is to receive 40 litres or as required. If trees are showing signs of drought stress the watering regime should be reviewed and increase as required. Care should be taken to ensure applied water is absorbed into the root-zone and does not run off the surface.

Failure to Thrive

3.14 Any shrubs, hedges or trees which fail to thrive in the first five years shall be replaced with the same species and variety at the size specified on the original landscape planting plan. Trees and shrubs should be checked in September and marked with paint, or noted on a plan, as necessary. Replacements will be planted during the following planting season. No substitutes will be planted without written approval from the local planning authority.

3.15 If a particular species fails to establish successfully then an alternative, comparable species should be considered as replacement, in agreement with the landscape consultant. Replacement planting of container plants to be undertaken as required, root-ball/bare root planting to be undertaken November to March. Planting of new trees to have regard to Section 10 of BS 8545:2014 Trees: from nursery to independence in the landscape. All plants to conform to BS 3936 and be in accordance with the National Plant Specification.

Litter and Arisings

3.16 All arisings from landscape works will be removed from site and disposed of at a registered facility, recycling or composting of arisings should be prioritised. Litter and debris shall be cleared by hand from all open space areas and removed from site on a monthly basis, and prior to mowing amenity grassland, tussocky grassland, wildflower meadow, wildflower meadow for shade, damp grassland and retained lowland meadow

Weed Management

3.17 A minimum intervention approach will be used in terms of weed control. In areas of transplant tree/shrub or ornamental shrub planting this is to be achieved by using mulch mats and hand-weeding. Weed killer and other chemicals will be used as little as possible on site and limited to hard surfaces where possible. Spot removal of weeds will be carried out by hand removal as necessary. Where mulch is used around plants, this is to be kept topped up to 75mm to minimise weed growth.

4.0 MAINTENANCE SPECIFICATION

4.1 GENERAL MANAGEMENT WORKS

Site supervision by a landscape architect would be undertaken to monitor the following:

- Setting out of planting areas;
- Tree pit excavations;
- Delivery and storage of trees and shrubs;
- Tree and shrub planting; and
- Stock protection.

Ecological Clerk of Works

An Ecological Clerk of Works (ECoW) would be appointed to oversee all ecological matters during creation. An Ecological Tool Box Talk would be provided to contractors at the start of on site works by the ECoW. The talk would identify all ecological site management issues, particularly specific management measures for reptiles, amphibians, bats and nesting birds. In conjunction with the landscape architect, the ECoW would review the planting proposals and supervise planting as required

Himalayan Balsam

"Himalayan balsam are listed on Schedule 9 of the Wildlife and Countryside Act 1981 (as amended). This makes it illegal to plant or otherwise cause the species to grow in the wild. It is also classed as a 'controlled waste' under the Environmental Protection Act 1990 (EPA). As such it must be removed by a suitably qualified professional and disposed of safely at a licensed landfill site according to the EPA (Duty of Care) Regulations 1991.

4.2 RETAINED TREES, TREE GROUPS AND WOODLAND

Areas and landscape elements included

Refer to ACD Arboricultural Impact Assessment for full location and schedule of retained trees and woodland on site ref: ACD Tree Protection Plan PRI24132-03

Management Aim

- To prolong the life and enhance the aesthetic and wildlife value of the existing trees and woodland across the site and along the site's boundaries

Management Objectives

- To maintain the health and visual amenity of the retained trees, tree groups and woodland;
- To enhance their ecological/ biodiversity value; and
- To maintain the varied age and structure of the trees.

A detailed condition survey of all trees will be carried out by a qualified arborist at least once every two years. Any necessary remedial works will be carried out as soon as possible.

There will be no regular pruning of trees to retain at least 75% of the expected canopy for their age range and height.

Note: deadwood resulting from tree management works will be used on the site to create wood piles as and when required following the completion of the public open space areas. The wood at the bottom of the pile is to be set 1/3rd into the ground. Piles are not to be located in areas of green space with high public usage.

An arboricultural contractor will be employed under the supervision of the ecologist to undertake the initial woodland management works as follows:

- The ecologist will brief the arboricultural contractor prior to any works commencing;
- The setting out and construction of all footpath routes directly adjacent to areas of existing woodland must be carried out under the supervision of an arborist and will comply with the requirements of the appropriate British Standard (BS 5837:2012);

- Vegetation will be removed with due diligence for all wildlife and ecological requirements and should be undertaken outside of the bird nesting season (March to August inclusive). Works outside of this time period will be subject to checks by an Ecologist to ensure there are no nesting birds present;
- All vegetation planned for removal in accordance with the woodland management plan will be subject to further surveys by an arboriculturist in conjunction with an ecologist and clearly marked out on-site;
- Habitat enhancement works such as the creation of log piles and hibernacula will be created.

4.3 EXISTING HEDGEROW

Areas and landscape elements included

Refer to ACD Arboricultural Impact Assessment for full location and schedule of retained trees on site ref: ACD Tree Protection Plan PRI24132-03

Management Aim

- To strengthen the commuting routes for wildlife to provide enhanced foraging, resting and nesting habitats for birds, bats, reptiles and invertebrates.

Management Objectives

- To maintain the health and visual amenity of the retained hedgerow;
- To maintain dense, bushy, continuous hedge lines with a good species mix and no gaps;
- To enhance the ecological and biodiversity value of the existing hedgerow;
- To take care due care during maintenance operations near existing hedgerow; and
- To maintain a varied structure of hedgerow through rotational cutting.

Hedgerows shall be cut on a 3 year rotation as the abundance of berries increases from one year to two years after cutting and then slowly declines, cutting annually reduces the availability of food for wildlife.

Existing hedgerows are to be maintained at a minimum height of 1.5m and minimum width of 1.5m.

1/3 of the retained hedgerows shall be trimmed per year, leaving the remaining 2/3 untrimmed, this will prevent encroachment into open space whilst promoting growth of fruiting plants. The untrimmed growth of the hedgerows will allow wildlife to migrate and re-colonise before the next trim, and also allow development of mature fruiting stems.

Any gaps in hedgerows on the site are to be in-filled using native species as soon as identified to prevent short-cuts developing. These will be planted as tall whips and will comprise a similar native species mix to those present within the hedgerow. To ensure that the plants establish new planting will be protected from trampling with appropriate guards and fencing until they are well established.

A 1m width of grassland is to be maintained unmown on either side of the hedge (where practical and at least to one side where it is not practical on both sides) Natural regeneration of herbaceous species is to be encouraged. Areas of bare ground should be sown with a semi-shade tolerant grassland mix to be approved by the project ecologist.

4.4 SCATTERED TREES

Areas and Landscape Elements Included

Individual trees located within the SANG as shown on P19-0052_EN_139

Management Aim

- To successfully establish new tree planting;
- To maintain new tree planting to establish a diverse treed environment with a high quality visual appearance; and
- To provide enhanced opportunities for foraging and sheltering for a range of wildlife including birds, bats and invertebrates.

Management Objectives

- To maintain newly planted trees to ensure good survival rate and development;
- To minimise competition from grass and weeds around newly planted trees;
- To maintain appropriate form of trees for future growth; and
- To ensure trees do not present a hazard to site users;

Any necessary remedial works will be carried out as soon as possible. All tree work should be carried out in accordance with BS 3998 (2010) (or any subsequent updates).

Tree stakes and ties will be regularly checked during the establishment period and adjusted as necessary to ensure that the developing trees are not damaged. Stakes and ties will be removed from site (to a legal disposal facility) by the landscape maintenance contractor at the earliest opportunity (between year 3 and year 5) when it is considered that the trees are self supporting.

There will be a minimal pruning policy for trees as pruning wounds can provide a source of infection. Formative pruning of new trees will be carried out to remove dead and diseased wood and to create a well balanced tree with a single leader.

If trees die the reason for death shall be investigated and addressed before replanting a replacement. If death is due to the planting conditions these shall be ameliorated. If death is due to pests or disease and likely to be present in the future a resistant species of an alternative similar native tree shall be selected.

Where trees have become moribund due to compaction or lack of nutrients then soil aeration techniques and/or the use of inoculants shall be considered.

During the first two to three years, all trees are to be watered weekly (it is recommended newly planted trees are given 50 litres of water per week) from May to the end of September unless unnecessary due to heavy rain. Ideally watering should be carried out in the early morning or evening. Trees should be visually monitored for signs of water stress from year 3 onwards and action taken if required. If the water supply is likely to be restricted, e.g. due to emergency drought legislation, obtain instructions on watering.

4.5 ORCHARD

Areas and Landscape Elements Included

Proposed fruiting trees within the orhcard area of the SANG as shown on P19-0052_EN_139

Management Aim

- To successfully establish new orchard tree planting;
- To provide opportunities for residents and community groups to be able to pick fruit from orchard trees.

Management Objectives

- To ensure orchard trees are maintained to promote annual fruit cropping opportunites for residents and community groups;
- To minimise competion from grass and weeds around newly planted trees;
- To maintain appropriate form of trees for future growth; and
- To ensure trees do not present a hazard to site users.

Any necessary remedial works will be carried out as soon as possible. All tree work should be carried out in accordance with BS 3998 (2010) (or any subsequent updates).

Tree stakes and ties will be regularly checked during the establishment period and adjusted as necessary to ensure that the developing trees are not damaged. Stakes and ties will be removed from site (to a legal disposal facility) by the landscape maintenance contractor at the earliest opportunity (between year 3 and year 5) when it is considered that the trees are self supporting.

Signage should be provided close to orchard trees to inform residents and community groups of species, origins, cropping seasons and providing tasting or use notes. There should also be seaonal signs to inform residents, community groups and allotment users when fruit can be picked.

Pruning of trees will ensure continued fruit production and ensure trees retain at least 75% of the expected canopy for their age range and height.

4.6 NEW SPECIES RICH NATIVE HEDGEROW PLANTING (WITH AND WITHOUT TREES)

Areas and landscape elements included

Proposed species rich native hedgerow planting with and without trees located within the SANG as shown on P19-0052_EN_139

Management Aim

- To assist the establishment of new native species rich hedgerow and native species rich hedgerow with trees to enhance and create green corridors throughout the site.
- To strengthen the commuting routes for wildlife and provide enhanced foraging, resting and nesting habitats for birds, bats, reptiles and invertebrates

Management Objectives

- To help establish and maintain a dense continuous hedge line with no gaps;
- To maintain the health, visual amenity and species diversity of the proposed native hedgerow; and
- To take due care during maintenance operations near new hedgerows.

New hedgerows will be planted such that there is a minimum of 5 native woody species in every 30 meters of hedgerow.

Hedgerow cutting will take place between November and January inclusive, outside of the bird nesting season, unless works are essential for public safety.

Hedgerow plants will be trimmed to create a healthy solid hedge. The frequency of cutting will depend upon growth rates and weather conditions; the requirement for cutting will therefore be assessed annually.

Hedgerow planting will be maintained by weeding, pest & disease control and appropriate guards and fencing until it is well established.

From year 4 the proposed native hedgerow will be pruned/shapes as part of a rotational management regime whereby hedgerows are cut on a 3 year rotation to allow for an abundance of berries from one to two years after cutting

Hedgerows will be maintained at a minimum height of 1.5m and a minimum width of 1.5m.

1/3 of the hedgerows shall be trimmed per year, leaving the remaining 2/3 untrimmed. This will prevent encroachment into the open space whilst promoting growth of fruiting plants.

Any gaps in hedgerows on site are to be in-filled using like-for-like species as soon as identified to prevent short-cuts developing.

A 1m width of grassland is to be maintained unmown on either side of the hedge (where practical and at least to one side where it is not practical on both sides) Natural regeneration of herbaceous species is to be encouraged. Areas of bare ground should be sown with a semi-shade tolerant grassland mix to be approved by the project ecologist.

Trees planted within hedgerows should be managed according to the management prescriptions set out for trees under section 5.3 scattered trees

4.7 OTHER WOODLAND; BROADLEAVED

Areas and landscape elements included

Proposed woodland within the SANG as shown on P19-0052_EN_139

Management Aim

- To assist the establishment of woodland habitat through the provision of woodland trees and shrubs.

Management Objectives

- To establish and maintain a two storey area of woodland planting with a mix of native trees and shrubs.
- To maintain ground cover of semi-shade tolerant grassland with areas of open space within the woodland
- To allow natural regeneration of the woodland over time to create a diverse wood

No rhododendron or laurel to be present and any other invasive species would be less than 10% of overall coverage within the woodland.

Woodland is to be maintained to have five or more native trees or shrub species across the area of woodland.

Natural regeneration is allowed to occur within the woodland with a minimum of two storeys of vegetation across the area of woodland should be maintained at all times.

Note: deadwood resulting from tree management works will be used on the site to create wood piles as and when required following the completion of the public open space areas. The wood at the bottom of the pile is to be set 1/3rd into the ground. Piles are not to be located in areas of green space with high public usage.

Report any evidence of excessive or inappropriate use of the woodland so measure to deter access can be reviewed to ensure an appropriate level of disturbance is maintained throughout the woodland area.

Tree Canopy Level Maintenance

Any necessary remedial works will be carried out as soon as possible. All tree work should be carried out in accordance with BS 3998 (2010) (or any subsequent updates).

Tree stakes and ties will be regularly checked during the establishment period and adjusted as necessary to ensure that the developing trees are not damaged. Stakes and ties will be removed from site (to a legal disposal facility) by the landscape maintenance contractor at the earliest opportunity (between year 3 and year 5) when it is considered that the trees are self supporting.

There will be a minimal pruning policy for trees as pruning wounds can provide a source of infection. If trees die the reason for death shall be investigated and addressed before replanting a replacement. If death is due to the planting conditions these shall be ameliorated. If death is due to pests or disease and likely to be present in the future a resistant species of an alternative similar native tree shall be selected.

Where trees have become moribund due to compaction or lack of nutrients then soil aeration techniques and/or the use of inoculants shall be considered.

Care should be taken not to over-water trees. Until well established trees are to be watered during the growing season following any dry periods of 7 days. Watering is unlikely to be required after year one of the management plan, but trees should be visually monitored for signs of water stress from year 2 onwards and action taken if required.

Understorey Shrub Maintenance

Shrubs should be allowed to grow dense where it does not encroach on grassland or amenity areas.

Semi-Shade Tolerant Grassland Maintenance

Arisings shall be swept from hard surfaces adjacent grass/wildflower areas after each maintenance visit.

Junctions between grass/wildflower areas and plant beds/hard surfaces shall be regularly edged and trimmed to maintain a neat and tidy appearance. In order to avoid damage to trees no mower or strimmer will be allowed within 400mm of a tree trunk.

Areas of greater than 5% failed grass shall be prepared and re-sown with the specified seed mix either in April or September. **No fertiliser or grass growth regulator will be permitted on these grassland mixes.**

Undesirable plant growth within the sward, such as scrub, dock, thistle, nettles and ragwort, should be controlled by hand excavation /pulling. Any encroaching scrub vegetation shall be removed by hand picking/weeding, this should be undertaken in the winter months, to avoid the bird nesting season.

Litter shall be hand picked and bagged from all grass areas prior to cutting. Bags shall be removed from site and legally disposed of.

4.8 MIXED SCRUB

Areas and landscape elements included

Proposed mixed scrub including defensible shrub within the SUDs and native scrub planting – wet and woodland edge planting within the SANG as shown on P19-0052_EN_139

Management Aim

- To establish new areas of mixed scrub planting

Management Objectives

- To maintain newly planted scrub to ensure successful establishment; and
- To minimise competition from grass and weeds from around newly planted scrub.

Mixed scrub is to be maintained to have a minimum of three wood species with no one species comprising more than 75% of the cover. There is to be an absence of invasive non-native species (includes species listed on Schedule 9 of the Wildlife and Country Act) and species indicative of sub-optimal condition make up less than 5% of the ground cover. Where found within the native shrub they are to be removed by hand (and treated as controlled waste where appropriate) to minimise disturbance of establishing/established native shrub plants.

Where possible (in line with maintained edges required to hard standing - see grassland maintenance within 5.9 and 5.10) a 1m edge of tall grassland should be maintained to the edge of proposed native shrub planting to help a well-developed edge and provide an ecological transition between habitat areas.

Shrubs should be allowed to grow dense where it does not encroach on grassland or amenity areas.

4.9 OTHER NEUTRAL GRASSLAND AND PURPLE MOOR GRASS AND RUSH PASTURES

Areas and landscape elements included

Proposed other neutral grassland habitat includes Long Mown Grassland, Wildflower Meadow Mix, Wetland meadow grassland and Flowering Lawn within the SANG as shown on P19-0052_EN_139

Management Aim

- For grassed areas to present and maintain high quality visual appearance.

Management Objectives

- To ensure grassland areas successfully establish;
- To keep grass areas free from weeds, litter and rubbish; and
- To maintain grass areas in good condition that is reflective of the character they are within.

Arisings shall be swept from hard surfaces adjacent grass/wildflower areas after each maintenance visit.

Junctions between grass/wildflower areas and plant beds/hard surfaces shall be regularly edged and trimmed to maintain a neat and tidy appearance. In order to avoid damage to trees no mower or strimmer will be allowed within 400mm of a tree trunk.

Areas of greater than 5% failed grass shall be prepared and re-sown with the specified seed mix either in April or September. No fertiliser or grass growth regulator will be permitted on these grassland mixes.

A 1m maintenance strip adjacent to areas of hard standing is to be regular mown to a height of 15cm to minimise encroachment onto hard standing and provide cues to care within all areas of the public open space.

Flowering lawn is to be maintained through regular mowing. Mowing can be relaxed during June and July to allow flowering only in areas away from maintenance edges to hardstanding as stated above.

Undesirable plant growth within the sward, such as scrub, dock, thistle, nettles and ragwort, should be controlled by hand excavation /pulling. Any encroaching scrub vegetation shall be removed by hand picking/weeding, this should be undertaken in the winter months, to avoid the bird nesting season.

Litter shall be hand picked and bagged from all grass areas prior to cutting. Bags shall be removed from site and legally disposed of.

Areas of grassland that fail the establish and thrive should be reported to the project landscape architect and ecologist to establish reason for failure such as unsuitable site conditions or ground compaction.

4.10 INTRODUCED SHRUB

Areas and landscape elements included

Proposed planting around the LLAP as shown on P19-0052_EN_139

Management Aim

- To successfully establish areas of new ornamental planting; and
- To present and maintain high quality visual appearance of planting.

Management Objectives

- To maintain newly planted shrubs and herbaceous plants to ensure a good survival rate and development;
- To minimise competition from grass and weeds; and
- To keep planted areas free from litter, rubbish, garden waste and dog faeces.

Formative pruning will be kept to a minimum, where necessary diseased and damaged plant material will be removed. Where shrubs overhang path edges they will be neatly clipped back in order to maintain the full width of pedestrian access routes.

Planting beds will be checked regularly throughout the growing season for pests and diseases and treated as necessary. Plant losses should be monitored and recorded. If a particular plant becomes subject to a fatal pest or disease it shall be replaced by an alternative resistant plant with a similar form and habit (refer to note on plant substitution in general maintenance guidance paragraph 4.7).

4.11 PLAY EQUIPMENT

Areas and landscape elements included

Proposed play equipment within the LLAP as shown on P19-0052_EN_139

Management Aim

- To regularly inspect and maintain play area to comply with current legislation and regulations.

Management Objective

- To maintain the recreational equipment in a safe and viable state which ensures freedom from unacceptable risk.

All play equipment (informal and formal) will be regularly inspected to identify any obvious hazards, this includes a post installation inspection, weekly, monthly and annual inspections. The high quality appearance of the equipment will be maintained through maintenance inspections with work undertaken as required.

Post installation inspections (carried out by a ROSPA consultant) will ensure that the play space meets the required standards and has been installed correctly. The inspection will check the site on completion including equipment, surfacing, any ancillary items and undertake a disability and risk assessment with a report produced to confirm the findings.

Weekly and monthly inspections - regular checks will ensure the play space and its equipment is functional, and will help to identify any faults or dangers arising from vandalism or breakage. The weekly inspection will check the site, surfacing and equipment and record any faults within the log book. Should a fault be found on a piece of play equipment or the play area be found unsafe and cannot be immediately corrected the equipment should be removed or immobilised and the piece/space be cordoned off with a warning noticed attached.

Annual inspections are required to ensure the play equipment and ancillary items are compliant to EN 1176 and EN 1177 and should be undertaken by an independent, suitably qualified specialist. The annual inspection will look at the site design safety, ancillary item safety, equipment and surfacing safety. The condition of the equipment is assessed and any repair or refurbishment requirements noted. Where necessary the inspector would make suggestions where the quality of the site could be improved. The annual inspections will be non-dismantling, however, where dismantling work is required, this will be recommended.

After each annual inspection, a written report is to be supplied to the client covering site safety and condition, equipment, surfacing, and ancillary item safety and condition, and compliance with EN1176 where relevant.

Recommendations for any remedial action required are given together with risk ratings for each item. The report will note compliance with standards and notifications of failures/faults where necessary and an assessment of risk, notification of faults and suggested remedial action.

Whilst annual inspection is not mandatory law under Section 3 of the Health and Safety at Work Act 1974 requires a risk assessment to be undertaken as part of the inspection process for play equipment.

4.12 ECOLOGICAL ENHANCEMENTS TO THE EMM BROOK

Areas and landscape elements included

Proposed pre-planted coir rolls located within the Emm Brook as shown on P19-0052_EN_139

Management Aim

- To enhance the bankside habitat of the Emm Brook to contribute to biodiversity net gain of the site.

Management Objectives

- To ensure pre-planted coir logs are secure; and
- To maintain newly planted coir logs to ensure a good survival rate and development

During the first year after installation, coir rolls are to be inspected at regular intervals to ensure they haven't worked loose and to ensure the plants have successfully established

During the first three years no management is to be carried out on the plants, other than to check for successful establishment and to report any plant faliures.

From year four onwards a four year cuttting cycle should be carried out with an annual winter cut to a height of 100mm.

Eventually the coir will decompose with the plants living on and becoming part of the bank edge soil.

The wider 8m wide wildlife zone is to be sown with purple moor grass and rush pastures and should therefore be managed in line with the maintenance requirements set out 4.9.

4.13 HARD LANDSCAPE – INCLUDING FOOTPATHS, STREET FURNITURE AND PUBLIC ART

Areas and landscape elements included

Proposed hard landscaping including footpaths, street furniture, public boundary treatments and public art located within the SANG as shown on P19-0052_EN_139

Management Aim

- To present the visible indication of high quality, regular site maintenance.

Management Objectives

- To keep hard landscaped areas free of debris, litter, graffiti & dog faeces;
- To keep weed colonisation at a minimum and acceptable level;
- To maintain hard landscaped areas in safe condition;
- To maintain public art in a safe condition; and
- To maintain street furniture, including litter bins and seats and replace if necessary.

Hard areas and elements will be regularly checked for subsidence and damage and will be repaired at the earliest opportunity using the original specified material. Areas where damage poses a hazard to pedestrians shall be cordoned off with bollards and high visibility tape until repair can be organised.

A "no tolerance" policy will apply to graffiti which shall be removed as soon as it appears and where necessary specialist contractors shall be employed to carry out this work.

4.14 ECOLOGICAL HABITATS

Areas and landscape elements included

Proposed ecological habitat includes the retained habitats and proposed grassland, hedgerow and woodland planting will provide opportunities for a range of protected species including bats, [redacted] breeding birds, reptiles, great crested newt and invertebrates.

Management Aim

- To establish habitats that provide benefits to protected species

Management Objectives

- To avoid harm and disturbance to protected species during habitat management

Bird and Bat Roost Boxes

Bird and bat boxes will be installed on site in accordance with the Bird and Bat Box Plan. A barn owl box will be installed within a retained tree within Holme Park SANG

Reptile and amphibian habitat

Reptile/amphibian hibernacula should be installed, under the supervision ofan ecologist, in accordance with the Bird and Bat Box Plan.

Habitat management objectives for grassland and scrub will ensure suitable habitats are present on site for reptiles and great crested newt

Invertebrate Habitat

Invertebrate towers will be installed on site in accordance with the Bird and Bat Box Plan

SUMMARY

Management Action	Landscape Objective(s)	Ecological Objective(s)
Management of soft landscape in accordance with the landscape management plan	1 - 7	
Inspection and maintenance of hard landscape items	8 - 9	
Management and maintenance of bird and bat boxes, in addition to reptile hibernacula		6
Undertake planting and seeding in accordance with the Landscape Specification	3 - 7	
Undertake landscape hardworks in accordance with the Landscape Hardworks Specification	8 - 9	
Undertake woodland management		1 - 2
Undertake hedgerow management	1, 3, 6	1 - 2
Undertake grassland management	7	4
Protection and management of Emm Brook in accordance with the SANG CEMP	2 - 4	3
Undertake Environmental Tool Box Talk		1 - 6
Undertake provision of bird and bat boxes and reptile hibernaculas		6

5.0 SCHEDULE OF MANAGEMENT AND MAINTENANCE

5.1 ESTABLISHMENT YEARS 0-5

The below table sets out how the maintenance tasks for the management aims and objectives will be achieved for the establishment period of years 0-5:

Establishment Years 0-5			
Ref	**Management Categories**	**Timing**	**Maintenance Task and Method**
5.1.1	All planting areas	Every Visit	• Ensure continued health of all landscaping - water and fertilise as required to ensure that the planting continues to establish successfully. Investigate any failed growth and take remedial action as necessary.
		Monthly	• Removal of rubbish and debris - clear litter and fly-tipped rubbish by hand and remove from site. Remove rubbish and debris from grass/wildflower areas before mowing. • Inspect for vandalism - visual inspection of all landscaping for vandalism, report to client. On instruction from client replace any landscaping damaged by vandalism.
		Annually	• Monitor and record any plant losses and report to client - on instruction from client remove dead plant and replace as per original approved specification, unless otherwise agreed to plant alternative species. Maintain to ensure survival. Re-planting to be undertaken in November/December. • Remove exotic plant species that do not belong in each type of habitat/the general environment - check all landscaped areas for exotic species, clear by hand and remove from site • Control vigorous plant species that are out competing less vigorous species - check all landscaped areas for invasive species e.g. self seeded sycamore, brambles, ground ivy and nettles. Reduce/clear by hand and remove from site.
5.1.2	Trees/tree groups/existing woodland/woodland buffer/new woodland areas/structural shrubs - retained and newly planted	Immediately prior to implementation of landscape proposals	• An assessment of trees suitable to support bat roots should be undertaken by an ecologist prior to any tree works. Where possible trees or features within suitability for roosting bats should be retained, if this is not possible, additional surveys should be undertaken and a licence gained for the tree works as appropriate.
		Monthly	• Ensure trees/shrubs are stable - visually inspect tree/shrub guards/shelters to check for signs of bark damage or damage. Check that stakes, ties and guards are not too loose, too tight or broken. Check underground anchors. On instruction from client, replace or upgrade guards/shelters as necessary. • Where trees have become moribund due to compaction or lack of nutrients soil aeration techniques are to be used and the use of inoculants shall be considered. • Monitor transplants to ensure developing healthily - visual inspection of plants, if not stable/upright rectify by replanting in an upright position and re-firm, if plant remains unstable remove by hand and replace. Undertake for the first two years. • Visual inspection for fungal activity (for trees this is to be performed by a qualified arboriculturist) - remove diseased wood or treat as appropriate. Keep use of pesticides to a minimum. Inspection to be undertaken March to October when trees/shrubs are still in leaf.

Establishment Years 0-5			
Ref	Management Categories	Timing	Maintenance Task and Method
	Trees/tree groups/ woodland buffer/ structural shrubs - retained and newly planted (continued)	3 times per annum	• Visually inspect bark mulch areas around trees and top up to 75mm depth, if required. Remove any weeds within the mulch by hand, do not use strimmers or herbicides in these areas - April/June/August. • Visually inspect structural shrub surrounds for grass/weeds - remove by hand or spray grass/weeds with a glyphosate based herbicide. Do not use strimmers - April/June/August
		Annually	• Establishment survey for new trees - to be undertaken by a qualified arborist, any recommendations to assist with establishment must be undertaken as soon as possible. • Keep paths/highway/parking clear from branches/vegetation - pruning/cut back any tree branches/vegetation encroaching. Trees shall be pruned to a height of 5m if overhanging highways and 3m if over paths. • Remove dead, damaged or dying branches as appropriate. Deadwood is to be retained in a number of piles within the woodland area, to provide additional habitat areas for wildlife. Piles are to be no more than 600mm high, with the wood at the bottom of the pile set 1/3rd into the ground. • Formative pruning of new trees - to create a well balanced tree with a single leader and, by rubbing off any shoots, creating a clear stem of 2m. When the trees reach 5-6m in height, lower branches will be removed to give a canopy height of approximately 2.4m.
		Biennial (or as recommended)	• A detailed condition survey of all trees will be carried out by a qualified arborist at least once every two years to check tree safety - identify hazards and carry out necessary maintenance works. A visual tree assessment is to be undertaken by a qualified arboriculturist of all new and existing tree planting, with instrumental back up where necessary. Any resulting tree works are to be carried out to BS 3998:2010. Keep records up to date.
		3 to 5 years after planting	• Confirm root growth is well established and remove shelters, stakes, guards and ties from trees/transplants - to avoid damage cut shelters away then remove stakes.
5.1.3	Orchard tree	Annually	• Pruning should be carried out in winter, when the leaves are off the tree. • Best practice should be followed and work is to be undertaken by a qualified arborist. • Prune between 10-20% of the overall canopy off in any one winter. Pruning should remove old wood to stimulate new growth and create an open centre to the tree to allow light into the canopy to ripen fruit and improve air movement to discourage disease. • Signage is to be used to inform visitors when fruit trees can be cropped. • Rotting fruit is to be removed from the ground surrounding the tree and disposed of responsibly. • Remove dead, damaged or dying branches as appropriate. Deadwood is to be retained in a number of piles within the woodland area, to provide additional habitat areas for wildlife. Piles are to be no more than 600mm high, with the wood at the bottom of the pile set 1/3rd into the ground.
		Biennial (or as recommended)	• A detailed condition survey of all trees will be carried out by a qualified arborist at least once every two years to check tree safety - identify hazards and carry out necessary maintenance works. A visual tree assessment is to be undertaken by a qualified arboriculturist of all new and existing tree planting, with instrumental back up where necessary. Any resulting tree works are to be carried out to BS 3998:2010. Keep records up to date.

Establishment Years 0-5			
Ref	**Management Categories**	**Timing**	**Maintenance Task and Method**
5.1.4	Existing Woodland - Including Ancient Woodland	Immediately	• Further assessment to select, identify and then undertake the removal of a small number of individual trees and shrubs, with a focus on undesirable species, to encourage natural regeneration of both trees and ground flora. • Removal of any hazardous trees and/or other tree hazards adjacent the edges of the woodland. • Creation of habitat features including creation of standing deadwood where possible, log piles and hibernacula. Log piles are to be no more than 600mm high, with the wood at the bottom of the pile set 1/3rd into the ground.
		Annually	• Monitor woodland following the above works to assess natural regeneration. Management/works to be amended as and where necessary to achieve the objectives of the Woodland Management Plan. • Remove dead, storm damaged or dying branches as appropriate. Deadwood is to be retained in log piles within the woodland area, to provide additional habitat for wildlife and improve biodiversity.
		Biennial (or as recommended)	• A detailed condition survey of all trees will be carried out by a qualified arborist at least once every two years to check tree safety - identify hazards and carry out necessary maintenance works. A visual tree assessment is to be undertaken by a qualified arboriculturist of all new and existing tree planting, with instrumental back up where necessary. Any resulting tree works are to be carried out to BS 3998:2010. Keep records up to date.
5.1.5	Hedgerows - New and Existing	Monthly	• Check hedgerows for gaps, record and infill during late October to March. Plant replacement tall whips, of a species mix to match the hedgerow or to increase native diversity, in a suitably prepared soil bed. Ensure successful establishment and protect from trampling/use as a short cut using a temporary fence/guards. • Keep hedgerow planting free from weeds - visually inspect bark mulch areas around planting and top up to 75mm depth, if required. Remove any weeds within the mulch by hand, hoe or fork. Take care not to disturb shrub roots and excessive treading of bed surface. Do not use strimmers or herbicides in these areas - March to October.
		Annually	• Prune retained hedgerows to ensure a good shape and healthy growth - prune to maintain an 'A' shape and control future growth. Management to be undertaken in January/February. • Identify suitable growth in retained hedgerows to develop into frequent standard tree s, maintain as per tree maintenance and management. • All hedgerow trees will be monitored for any signs of defects or poor health on a yearly basis, or after sever weather by a suitably qualified arborist. Any signs of damage or ill health will require action to be taken immediately. Prior to any works consultation will be undertaken with an experienced ecologist in respect to bats. Where possible, trees will be allowed to age naturally and dying trees allowed to decay in-situ. • Prune/shape new hedgerow planting to a shape and form appropriate to the species with formative and seasonal pruning to create and maintain a natural 'A' shape hedgerow, pruning dead foliage and extension growth as necessary. • Re-plant in an upright position and re-firm plants that suffer from wind-rock - January/February. • Feed instant hedgerows - as per suppliers recommendations, feed in spring with a good quality nutrient blend fertiliser.
		3 to 5 years after planting	• Confirm root growth is well established and remove shelters, stakes, guards and ties from hedgerow transplants - to avoid damage cut shelters away then remove stakes.

Establishment Years 0-5			
Ref	Management Categories	Timing	Maintenance Task and Method
5.1.6	Grasslands - Flowering Lawn, Wildflower Meadow, and Wetland Grassland Meadow.	Cutting Regime - Year 1	• Do not cut grass in drought conditions. Mow with suitable machinery - no mower or strimmer will be allowed within 400mm of a tree trunk. Edge and trim junctions between grassland / wildflower and hard surfaces to maintain a neat and tidy appearance. For all areas of grassland, remove arisings from site and dispose of responsibly. Clean adjoining path areas after mowing. • Keep grassland/wildflower free from weeds - remove weeds and encroaching scrub by hand, hoe or fork, or mowing, as appropriate. Undertake monthly from March to October, or as required. Scrub removal from long grass/wildflower to be undertaken outside of the bird nesting season. • Wildflower meadow : mow regularly throughout the first year to maintain a sward height between 30 and 50mm, (if sown in autumn, allow to grow during spring and early summer. Mow regularly from mid-summer throughout the growing season to maintain the height). • Wetland grassland meadow: mow regularly throughout the first year to maintain a sward height between 40-60mm . • Areas of flowering lawn with wildflower plugs and bulbs: mow regularly throughout the first year to maintain a sward height between 40 - 60mm.
		Cutting Regime - Year 2 onwards	• Do not cut grass in drought conditions. Mow with suitable machinery - no mower or strimmer will be allowed within 400mm of a tree trunk. Edge and trim junctions between grassland / wildflower and hard surfaces to maintain a neat and tidy appearance. Remove arisings from site and dispose of responsibly. Clean adjoining path areas after mowing. • Keep grass areas/wildflower free from weeds - remove weeds and encroaching scrub by hand, hoe or fork, or mowing, as appropriate. Undertake monthly from March to October, or as required. Scrub removal from long grass/wildflower to be undertaken outside of the bird nesting season. • Wildflower meadow : mowing is to be restricted to two mows a year, one in spring and one in autumn with a minimum sward height of 150mm • Wetland grassland meadow: once established the wetland grassland meadow should be managed with an annual hay cut. • Areas of flowering lawn with wildflower plugs and bulbs: once established the planting the grassland with wildflower plugs and bulbs should be managed with through regular mowing (every three weeks) to allow flowering.
		Annually	• Keep grassland areas in good condition - check and report to client on damaged areas. On instruction from client repair damaged/failed areas and re-sow seed. If required, apply feed treatment to amenity grass only, do not apply feed to wildflower or wetland meadow grass. Undertake aeration and thatch removal if required. April or September.
5.1.7	Pre-Planted Coir Rolls	Monthly (first two years)	• Ensure coir logs are secure
		Every 4 years	• Annual winter cut to 100mm of planting within coir-logs

Establishment Years 0-5			
Ref	Management Categories	Timing	Maintenance Task and Method
5.1.8	Introduced Shrubs	Monthly	• Keep planting beds free from weeds - visually inspect bark mulch areas around planting and top up to 75mm depth, if required. Remove any weeds within the mulch by hand, hoe or fork. Take care not to disturb shrub roots and excessive treading of bed surface. Do not use strimmers or herbicides in these areas - March to October. • Keep paths and parking bays clear from vegetation - prune back ornamental planting which has encroached. As required from March to October. • Keep ornamental planting in prime condition and appearance - qualified horticultural staff to inspect and check on condition of ornamental planting. Prune dead foliage, flowers and extension growth as necessary. Divide perennials as necessary. Formative and seasonal pruning to shrubs to create a natural shape - do not routinely clip shrub. Apply organic fertiliser if required. Re-plant in an upright position and re-firm plants that suffer from wind-rock. Management to be undertaken as required depending on species. • Check on health of ornamental planting - qualified horticultural staff to inspect planting and deal with individual problems as they arise. Keep pesticide use to a minimum - March to October.
		2 times per annum	• Removal of excessive leaf litter and fallen twigs and branches - use leaf blower and leaf litter collection equipment - November to December
5.1.9	Playground Equipment *play spaces are to be fenced off (with appropriate signage to tell users not to enter) until the post installation inspection is completed and the play space is fit for purpose/use	Post Installation*	• Post installation inspections are to be carried out by a ROSPA consultant and will ensure that the play space (equipment, safety surfacing and any ancillary items including gates, fences, seats etc.) meet the required standards and has been installed correctly. • The inspection will include a disability and risk assessment with a report (including photographs) produced to confirm the findings including the quality of the installation and equipment finish. The report will be sent to the client
		Weekly	• Routine visual inspection of all play areas to identify obvious hazards or respond to complaints by public. Check for signs of vandalism and remove any litter, glass etc. Check safety surface for faults. If parts are found to be unsafe and cannot be immediately repaired the equipment should be immobilised or cordoned off with a warning noticed attached. • Check each item against a checklist (as provided by manufacturer for play equipment item) and record each visit on a spreadsheet, including any actions. • Note – Inspection to be undertaken by suitably qualified/competent professional.

Establishment Years 0-5			
Ref	**Management Categories**	**Timing**	**Maintenance Task and Method**

	Playground Equipment Continued	Monthly	• Perform operational inspection of all items of equipment, fences and gates to check the operation and stability. Checks to include:
			  • all working parts and oil and grease bearings as necessary;
			  • all ropes, chains and shackles;
			  • anti slip surfaces e.g. on step treads;
			  • that structures and foundations are secure;
			  • for trip hazards and obstructions in surrounding area;
			  • finger traps;
			  • wooden items for splinters and cracks;
			  • metal items for corrosion and sharp edges;
			  • plastic/polythene items for brittleness and sharp edges.
			• If parts found to be unsafe and cannot be immediately corrected the equipment should be removed or immobilised and cordoned off with a warning noticed attached. Check each item against a check list and record each visit and required actions on a spreadsheet.
			• Inspect superficial appearance of equipment and street furniture - as required, sand down and re-paint or re-stain equipment, seats, bins and fences to specification provided by supplier.

		Annual	• Annual technical inspection of all play areas to establish overall level of safety of the equipment (whilst an annual inspection is not mandatory a risk assessment is required by law under the Health and Safety Regulations) - to be carried out by RPII (Register of Play Inspectors International) trained and certified inspectors or manufacturers inspection engineers.
			• Ensure the play space meets the relevant standards (EN1176) and will note any faults or failures and suggest appropriate remedial action and identify risks.
			• Assess all elements of site design safety, ancillary items, equipment and surfacing including an operational inspection of all to check the operation and stability. Checks to include:
			  • all working parts and oil and grease bearings as necessary;
			  • all ropes, chains and shackles;
			  • anti slip surfaces e.g. on step treads;
			  • that structures and foundations are secure;
			  • for trip hazards and obstructions in surrounding area;
			  • finger traps;
			  • wooden items for splinters and cracks;
			  • metal items for corrosion and sharp edges;
			  • plastic/polythene items for brittleness and sharp edges.
			• If parts found to be unsafe and cannot be immediately corrected the equipment should be removed or immobilised and cordoned off with a warning noticed attached.
			• Check each item against a checklist (as provided by manufacturer for play equipment item) and record each visit and required actions on a spreadsheet, including corresponding actions and any remedial actions undertaken.
			• Includes a non–dismantling inspection of all equipment where recommended. To be supported by a detailed technical report highlighting any action required. If parts are found to be unsafe and cannot be repaired the equipment should be removed or immobilised and cordoned off with a warning notice attached.

Establishment Years 0-5			
Ref	Management Categories	Timing	Maintenance Task and Method
5.1.10	Hard Landscape	As necessary	• Remove graffiti - a 'no tolerance' policy will apply to graffiti which shall be removed as soon as it appears, where necessary specialist contractors shall be employed to carry out this work.
		Fortnightly	• Empty bins - remove and replace bags form bins and deposit in legal tip. • Keep hard landscape areas clean - remove litter, debris and faeces. Use pressure washer to remove chewing gum and staining. Fortnightly March to October and as required during the winter months.
		Monthly	• Maintain all hard landscape areas/elements, including bridges, footpaths, walls, signage, seating and other street furniture, in a safe and clean condition - monitor and report to client on damaged areas/items and repair as instructed by the client. Repair using the original material/product to maintain the integrity of the design. Areas where damage poses a hazard to pedestrians shall be cordoned off with bollards and high visibility tape until repair can be organised.
		2 or 3 times per annum	• Removal of excessive leaf litter and fallen twigs and branches - use leaf blower and leaf litter collection equipment - November to December. • Keep hard landscaped areas clear of weeds - kill weeds using a herbicide spray containing glyphosate using a knapsack sprayer - April, June and August.
		Every 5 years	• Check painted and stained surfaces for fading/damage - where necessary prepare and re-paint/stain using the same product to maintain the integrity of the design.
5.1.11	Bat and Bird Boxes	Annually	• Visual inspection of all roosting/nesting boxes to maintain potential roosting sites - replace any broken/fallen bat or bird boxes.

5.2 LANDSCAPE MANAGEMENT REVIEW

The below table sets out how the review processes:

Monitoring and Review			
Ref	Management Categories	Timing	Maintenance Task and Method
5.2.1	Landscape and Habitat Management	As necessary	• Monitor comments/suggestions from residents and other users - feedback comments to client/ owner and respond as instructed and incorporate into LEMP as required. • Respond to comments from client/ owner and incorporate into LEMP as required.
5.2.2	Habitat Management - annual monitoring report	Annual	• Review of habitat conditions (including grassland, hedgerows, shrub, scrub and trees) and species to be undertaken by a qualified ecological professional. The review and report will be used to determine whether or not objectives for the site and component features have been met. Once the review has been completed a monitoring report is to be produced. Any amendments set out within the report to be incorporated within this LEMP following discussions with the client/ owner.
5.2.3	LEMP Review	Every 5 years	• Suitably experienced professional to undertake a review of habitat / landscape establishment and quality, respond to review and incorporate into LEMP as required.

6.0 RESPONSIBILITIES

SANG CREATION

6.1 Kier Venture Ltd and Miller Homes Ltd will appoint;

Landscape contractor to;

- Carry out all planting/seeding, hardworks, management of hedgerows and woodland and management of the Emm Brook

Landscape architect to:

- Monitor landscape planting/seeding, hardworks and habitat management.

ECoW to:

- Be responsible for the delivery of actions identified in Sections 4.5 and 5.1, including supervising bat box, bird box and reptile hibernacula installation

POST-SANG CREATION

6.2 It will be required that the SANG is open prior to first occupation. The SANG will then be transferred to WBC 35 days after this date.

6.3 It is anticipated that all landscape and ecological management, as outlined in Section 5 and detailed within this LEMP, would be undertaken by WBC or their appointed contractors.

6.4 Management is to include;

- Delivery of the woodland management plan;
- Management of grassland;
- Management of hedgerows;
- Management of wetland habitats including SuDS basins;
- Undertaking of arboricultural assessment of the trees every 5 years;
- Inspection of the bird/bat boxes every two years;
- Inspection and maintenance of the hardworks, including bridges, and undertake the proposed litter picks; and
- Establish a programme of events and activities within the SANG to animate the site and encourage community use and ownership.

6.5 It would be the responsibility of WBC to review and update the LEMP at the end of the five-year post-construction period.

7.0 APPENDICES

APPENDIX 1

List of Associated Detailed Planting Plans and Detailed Hard Landscape Plans

- P19-0052_139 Phase 2b SANG Detailed Hard and Soft Landscape (sheets 1 to 7)
- P19-0052_145 Phase 2b SANG Detailed LLAP

Office Location
33 Sheep Street,
Cirencester
GL7 1RQ
T 01285 641717
cirencester@pegasusgroup.co.uk

Offices throughout the UK and Ireland.

Expertly Done.

DESIGN | ECONOMICS | ENVIRONMENT | HERITAGE | LAND & PROPERTY | PLANNING | TRANSPORT & INFRASTRUCTURE

Pegasus_Group @pegasusgroup Pegasus_Group

PEGASUSGROUP.CO.UK