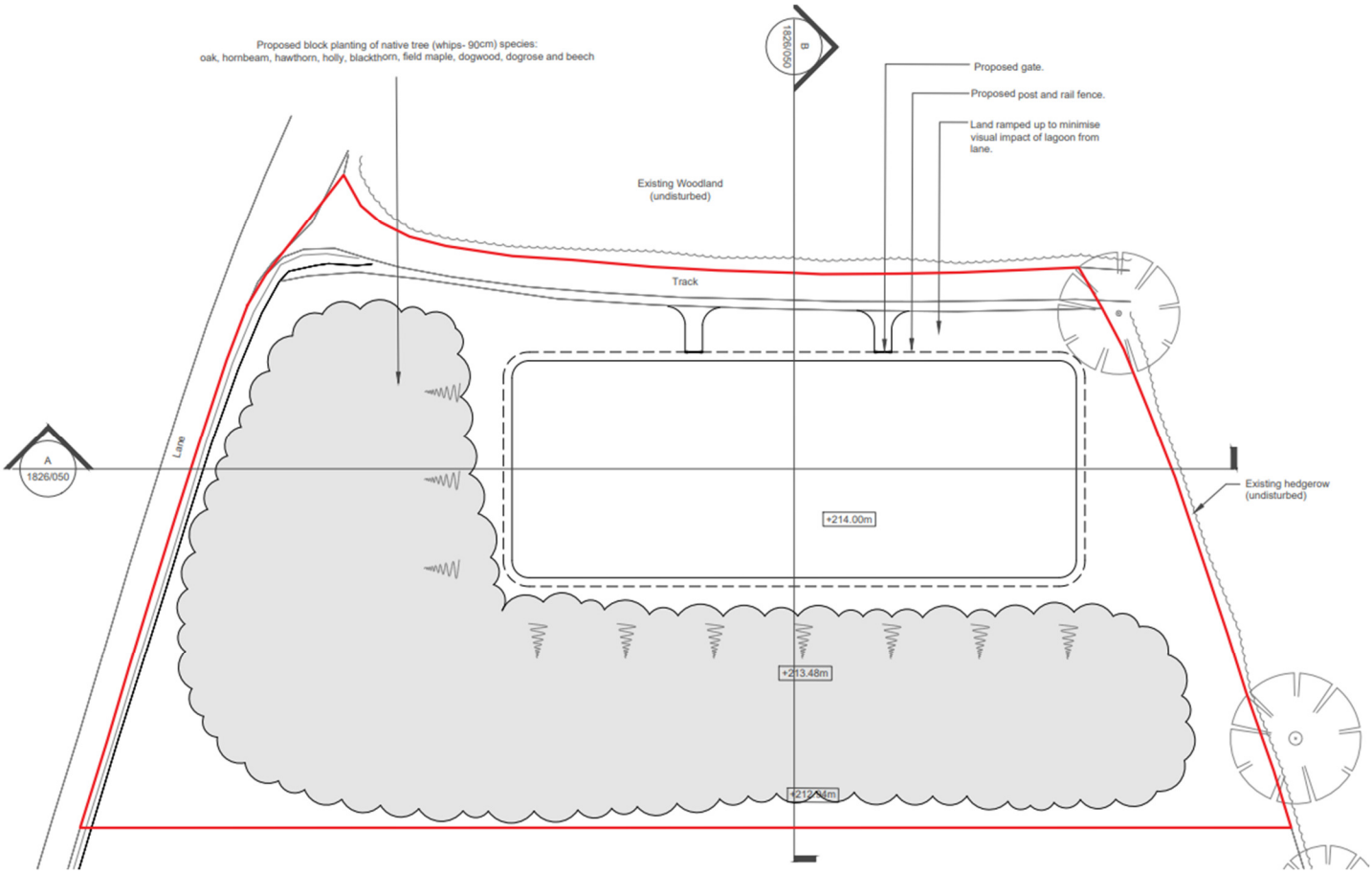
Landscape Maintenance and Management Plan



Keysley Farm– Lagoon

Monkton Deverill, Warminster BA12 7EY

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STEELE LANDSCAPE DESIGN

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Plans

1826_A01_003A_Proposed Site Plan (Orme Architects)

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Section 1: Introduction

1.1. This Landscape Maintenance and Management Plan (LMMP) has been prepared by Steele Landscape Design (SLD), and accompanies planning information for submission to WILTSHIRE COUNTY COUNCIL.

1.2. The purpose of the LMMP is to provide details for landscaping for the implementation phase and maintenance period – 10 years.

1.3. In addition, the landscape proposals for the site have been carefully designed to maximise opportunities for biodiversity and wildlife and have been completed as part of a cohesive strategy to provide both landscape and ecology requirements. The Landscape proposals are detailed on the following plan:

1826_A01_003_Proposed Site Plan (Orme Architects)

Format of the LMMP

1.4. This LMMP is set out as follows:

- Section 2: **Site Summary** and describes the site context and important landscape features within and close to the site that have informed this LMMP;
- Section 3: **Vegetation Types**
- Section 4: sets out the **Management Objectives** for the LMMP;
- Section 5: sets out the **Landscape Management Specification** and
- Section 6: describes the **Management Prescriptions** including timings to achieve objectives set out in Sections 4-5, as well as detailing possible remedial action where necessary.

Design Intentions

1.5. The design intention for the landscape at the site is to aid the visual screening of the agricultural lagoon which contains 'bio-fertiliser' (digestate) and which satisfies the following;

- Reinforces and enhances the existing woodland and field hedgerow
- Maintains current landscape character while replacing landscape features to enhance local woodland and Hedgerows.
- Provides new remedial woodland to surround the lagoon.
- Provides a clear landscape setting for the development that is in-keeping with the site and the surrounding area
- Integrates and unites the agricultural lagoon and low earth bund into the wider countryside
- Enhances existing boundary treatments and provides new planting where necessary
- Provides landscape mitigation measures to the existing agricultural field

Management Responsibilities

1.6. It is anticipated that the planting of the and woodland would be completed by the landowner (Mr Colin Godwin) and also to carry out regular maintenance for the specified 10-year period and beyond.

Establishment Period

1.7. Maintenance of the planting for the first 12 months after completion will come under a defect's liability period, where by the care of the softworks shall fall under the responsibility of the landowner who carried out the works.

Section 2: Site Summary

2.1. This section of the LMMP summarises the existing landscape features within the site that will be managed under this plan, together with new landscape features that will be created.

Site Location

2.2. Existing situation, the site of the agricultural lagoon located north of A303 and south of Keysley Farm, High House Farm Monkton Deverill, Warminster BA12 7EY.

2.3. At present the development site forms part of the adjacent agricultural field and is adjacent to the woodland (north-west) and existing hedge and field boundary (north-east). There is an existing access road (west) leading from the A303 to Keysley Farm and a smaller unbound track leading from the farm access road and along the northern boundary of the proposed lagoon.

2.4. The lagoon will be enclosed with a stock-proof fencing, thereby protecting the lagoon area.

3 **Planting to be maintained**

3.1. Along the western and southern boundary, an ‘ecological buffer’ will be maintained as part of the mitigation measure. This ‘ecological buffer’ shall be retained and managed accordingly and as part of this LMMP.

A lagoon is accessed from the track along the northern perimeter and the lagoon is enclosed by a 1.3m high timber fence. The periphery of the lagoon will be planted with varying sizes of trees – refer to 1826_A01_003A_Proposed Site Plan (Orme Architects).

3.2. The newly planted trees will eventually form a woodland block and will be maintained and managed as part of this report. The tree whips will be approx. 60-90cms tall and to be planted at 3 metre centres to enable maintenance and management activities.

3.3. The existing woodland and wider agricultural field are outside the remit of this report and will be managed by the landowner.

Section 3: Vegetation Types

3.1. 1826_A01_003A_Proposed Site Plan (Orme Architects) illustrates the extent of the proposed of woodland block planting. The proposed planting aims to complement both the existing woodland / hedgerow relating to the surrounding countryside.

3.2. The above will require varying management and maintenance regimes to successfully achieve the design objectives. These are detailed in Section 6 Management Prescriptions.

Section 4: Management Objectives

4.1. The existing agricultural field contains minimal landscape features and the existing woodland is outside the scope of this report and as such will not have any further recommendations.

4.2. Therefore, the existing arable field within the development area will be converted into an agricultural lagoon which will be deep and require specialist access methods to carry out remedial works.

4.3. The remainder of the development area (outside the lagoon) will be planted with trees (whip size) to create a woodland.

Taking account of the above points, the following management objectives were identified.

Objective 01 – Management of ecological woodland buffer

4.4. This ecological corridor will provide additional wildlife habitat as part of the lagoon mitigation measures. At present this 25 m wide buffer is a regularly ploughed agricultural field and will be rewilded to create a native woodland.

5.1. A number of native trees species will be planted and managed through to maturity. Species mix will be as follows;

- Oak, hornbeam, beech, field maple and yew
- Lower story shrub/smaller trees - hazel, hawthorn and blackthorn, dogwood and dogrose

Objective 2 - Monitoring

4.5. All existing and new planting within the site will be monitored for a ten-year period following completion of the development and any trees or plants that die, become seriously damaged or diseased will be removed and replaced in the next planting season with other trees or plants of a similar size and species as those originally planted.

Over-arching Management Objectives

4.6. The following overarching management objectives apply to this site:

- Apply good horticultural and ecological practice to all operations
- Promote healthy growth and establishment of woodland
- Ensure consistent control of invasive weeds
- Ensure development of optimum plant form, shape and planting density
- Provide protection against pests and diseases
- Promote wildlife value and species diversity where appropriate
- Ensure long term commitment to replacement of defective plant material
- Review opportunities for introduction of new species or replacement of exhausted species where appropriate, in line with original design intentions.

Objective 1 - Management of Existing Boundary Hedgerows

4.7. ALL HEDGES - cutting hedge in a rotation of three or more years to create and maintain thick dense vegetation.

4.8. Rotational cutting of only one side of the hedges at a time would also allow hedge plants to produce flowers and berries and thereby provide further food sources for small mammals, birds, invertebrates and a range of other wildlife.

4.9. This management will take place at the end of the winter months to avoid the active period for most wildlife, including the breeding bird season. In addition, cutting in late winter, after most of the berries have gone, will allow the hedges to provide food for birds over wintering.

4.10. Should any management be required within the breeding bird period, checks for nesting birds by a suitably trained ecologist will take place prior to any works commencing to ensure that no breeding birds are present. If any are present, no works will take place in that area until the young have fledged the nest.

Objective 3 – Management of New Trees (Woodland)

Description:

4.11. The area surrounding the lagoon will be planted with a variety of woodland species that will be grown through to maturity and help screen views of the lagoon from the adjacent footpath and distant roads.

4.12. A number of native trees species will be planted and managed through to maturity. Species mix will be as follows;

- Oak, hornbeam, beech, field maple and yew
- Lower story shrub/smaller trees - hazel, hawthorn and blackthorn, dogwood and dogrose

Management Objectives:

- Establishment of the woodland must begin with the ground preparation to enable the trees to thrive in the existing soil conditions.
- Keysley Farm has previous planted similar woodland blocks for the grain silos has had great success with tree species planted at 'whip' size (approx. 90cms tall) and struggled to ensure survival with trees at the size of 6-8cm girthy (approx. 2 metres)
- Small trees will require a suitably smaller planting hole and can be dug by hand.
- All whip trees will require a bamboo stakes (or similar approved by LA) at approx. 1.2 m high) and biodegradable guard tubes to enable the trees to be securely protected against wind damage and animal predation – deer / rabbit etc.

Section 5: Landscape Management Specification

5.1. The following principles should be applied when carrying out maintenance tasks:

- The following specification items are to be addressed within a long term landscape maintenance plan. Included are performance specifications, quality standards and some detailed operational prescriptions.
- The landscape maintenance contractor will be required to apply his expertise in relating these to the Management Objectives above in producing annual programmes of work.
- Maintenance to accord with requirements of BS 7370:1991. Duration: Carry out the operations in the following clauses from completion of planting. Frequency of maintenance visits: Monthly during growing season.

Objective 1 - Creation and management of ecological grassland

5.2. The site layout includes the creation of wildflower grassland - see 1826_A01_003A_Proposed Site Plan (Orme Architects). The areas of grassland will maximise biodiversity post-development.

Objective 2 - Creation and Management of Woodland

5.3. The site layout includes the creation of woodland - see 1826_A01_003A_Proposed Site Plan (Orme Architects). The areas of woodland will maximise biodiversity post-development.

5.4. A number of native trees species will be planted and managed through to maturity. Species mix will be as follows;

- Oak, hornbeam, beech, field maple and yew
- Lower story shrub/smaller trees - hazel, hawthorn and blackthorn, dogwood and dogrose

Tree Planting – 'Whip trees'

- Plant trees within the dormant phase of the tree growing season – i.e. between late October and early March, depending on prevailing weather conditions to the local area.
- Ensure good quality and local provenance trees are supplied and have a good canopy shape and the tree trunk, branches and roots are intact and re-from damage/breaks etc.
- Ensure that the tree pit is of an appropriate size and depth to accommodate the tree root ball / bare root with sufficient perimeter space to encourage lateral root growth.
- Provide and secure the bamboo stakes (approx. 1.2m tall) with additional guard tubes to ensure that the stakes robustly supporting the tree.

Tree stakes and ties

- Inspect all trees twice a year. Adjust fixing to suit stem growth and provide correct and uniform tension. If growth is sufficient for tree to be self-supporting, remove fixing and fill holes with lightly compacted soil.
- Remove stakes and guard tubes (if required) after 3 years establishment.

Re-firming, check/tidy

- General: Trees & shrubs shall be maintained in a firm position in the ground and all stakes and ties shall be checked regularly.
- Particular timing of inspections: After strong winds, frost heave and other disturbances
- Replace missing guard guards
- Report any significant failures

Pruning generally

- Pruning to be carried out in accordance with good horticultural and arboricultural practice.
- Standard: BS 7370.4, clauses 3.6.3 to 3.6.5
- Agreement: Before starting work agree which trees, whips, shrub and hedges are to be pruned or removed;
- Appearance: Trim individual plant appropriate to species, location and season to leave a well balanced natural shape;
- The trees should be managed to ensure that they don't 'over-shade' the adjacent lagoon.
- Cutting: appropriate clean sharp tools. Clean cuts back to sound wood;
- Disease of fungus; give notice if detected;
- Do not use growth retardants, fungicides or sealant unless instructed;
- Disposal of arisings: compost on site within specified areas in the open space.

Pruning of trees

- Tree work standards: to BS 3998 and Forestry and Arboriculture Training and Safety Council Safety Guidance;
- During pruning protect adjacent structures, plants or trees;
- Appearance: Trees to maintain a well-balanced natural appearance; remove any suckers or basal growth. Cut back level with source stem or root.
- Chain saw work: operatives must hold a Certificate of Competence;
- Timing: Prune between leaf fall and mid winter
- Prunings: All prunings to be utilised in the creation and maintenance of habitat piles in unobtrusive areas.

Objective 3 - Monitoring

5.5. All new planting within the site will be monitored for a five-year period following completion of the development and any trees or plants that die, become seriously damaged or diseased will be removed and replaced in the next planting season with other trees or plants of a similar size and species as those originally planted.

Section 6: Management Prescriptions/schedules

6.1 The management prescriptions, including implementation timetable and responsibilities, are set out in table form over the page. The LMMP will be implemented in stages as indicated in the timings column of the tables. This LMMP will run for an initial ten years and will be subject to continual review. The prescriptions detailed are flexible and can be amended as appropriate.

6.2 The landscape planting are detailed on 1826_A01_003A_Proposed Site Plan (Orme Architects).

6.3 It will be the responsibility of the landowner or the appointed management company to employ a suitably qualified landscape contractor to undertake management and maintenance of the site.

6.4 The management plan and maintenance operations included herewith will be reviewed on letting of the long term maintenance contract following the end of the initial contract works defects period and from then on a regular three year basis.

6.5 This management plan is intended to provide a basic performance specification to enable the landowner/contractor to submit for agreement a detailed ten year programme of work which shall include scheduled dates for planting refurbishment and review.

6.6 The following is an indicative annual schedule of maintenance visits applicable for the first ten years of establishment. This provides a reasonable frequency of the more common operations, and a good indication of the required level of intensity of management required but is not intended to be fully comprehensive or restrictive. The landscape contractor is required to construct a schedule of operations specifying operations and frequency using his own experience and horticultural knowledge.

6.7 The ongoing programme of maintenance work will also include proposed frequency of visits and operations detailed in the specification, i.e. pruning. It shall also include scheduled dates for:

- Infrequent operations, replacement of plants / restocking of beds etc.
- Planting/Seeding review and refurbishment

6.8 On completion of the LMMP, the prescriptions undertaken will be fully reviewed and the LMMP will then be updated and continued.

01 –Enhancement and Management of Retained Hedges

New Planting and Appropriate Management				
Prescription	**Rationale for Management**	**Management Tasks**	**Timing**	**Responsibility**
Management of existing hedgerows – throughout site.	Improving the structure of retained hedges The hedge management will take place during the winter months in order to avoid the active period for most wildlife, including breeding birds and to maintain the foraging resource	Traditional hedges - where health and safety permits, the hedges will be cut on rotation every two or more years and will only have one side cut at a time. Hedge height to be cut to approx. 300cm above ground level. Wildlife hedges - where health and safety permits, the hedges will be cut only when required and to maintain a dense a viable structure. Hedge height to be cut to approx. 300cm every fifth year. Suitable standard trees in existing hedges, other than elm, are to be tagged and allowed to grow unrestricted, to form mature hedgerow trees.	November – February, but ideally January – February. If necessary, between March and August, checks for nesting birds by an ecologist required.	Landowner / Contractor

02 – Creation and Management of Species Rich Woodland

Trees				
Prescription	**Rationale**	**Management Tasks**	**Timing**	**Responsibility**
Existing trees **(Hedgerow)**	Existing mature trees will be managed to ensure their safety and to promote their vigour and longevity. Mature trees should be surveyed and tagged by a suitably qualified arborist with any defects being catalogued. Remedial action may be required to render trees in a safe condition. Corrective actions such as; the removal of dead limbs, crown thinning or reduction; and pollarding should be considered where necessary. Felling should only be undertaken as a last resort. 1826_A01_003A_Proposed Site Plan (Orme Architects).	Survey and tag all existing mature trees (to be undertaken by a suitably qualified arborist). Annual inspection to be undertaken thereafter. Undertake corrective tree surgery operations as necessary may consist of the removal of dead limbs, crown thinning or reduction or pollarding where necessary, although only where there is a risk to the public due to the benefits to wildlife that these features could support. Ash trees, that are within the Hedgerow and Woodland, don't show visible signs of 'Ash Die-Back'. Therefore, the recommendation should be to have a watching brief to monitor on an annual visual survey undertaken by the landowner. Any new signs of 'die-back' should be dealt with accordingly and on a tree-by-tree basis. This would ensure that any ash tree(s) that are resistant to the disease is retained, protected and managed.	October to February. If necessary, between March and August, checks for nesting birds by an ecologist required. Checks for roosting bats or potential for roosting bats by an ecologist will also be required prior to any works.	Landowner / Contractor

New trees	Trees to be planted outside the lagoon and within the surrounding wildlife buffer. 1826_A01_003A_Proposed Site Plan (Orme Architects).	New trees to be planted, including a native mix and those species of known value to wildlife including; Size: 5 Litre Pots or Bare Rooted (depending on availability at time of planting. <u>Formative Pruning of Trees:</u> Prune to shape young trees, but don't cut back leader Remove crossing branches and branches that grow back towards the centre of the crown Check guards and stakes, and remove between years 3-5, dependant on site conditions. As the block planting matures begin thinning of trees to develop a woodland structure leaving small trees / shrub planting to create a boundary thicket.	The first planting season following the first occupation of any part of the site: Allow for the use of container grown stock during the period 1 April to 31 October, and field grown stock from 1 November to 31 March. Annually, during winter months between November – February. Check and adjust every 3 months. Year 3 and Year 9	Landowner / Contractor

Section 7: Monitoring and Review

Monitoring

Monitoring of the landscape planting will be undertaken by the landowner/landscape contractor as part of the 12-month defects correction period. All future landscape monitoring would be undertaken by the landowner.

The planting scheme should also be formally monitored by a competent and qualified landscape architect or Ecologist at the end of years One, Three, Seven and Nine. As a result of these monitoring visits it may be necessary to adjust certain prescriptions and or timings to suit the actual condition of the scheme at those times.

Plan Review: A formal review of the Plan will take place in year Ten, which would provide revised objectives and prescriptions for a further ten years.

REPORT END