

Landscape Maintenance & Aftercare Plan

Extension to William Stukeley CE Primary School

Spalding Road, Holbeach, Spalding PE12 7HG

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ENVIRONMENTAL AND
SUSTAINABILITY CONSULTANTS

encon associates

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Contents

Executive Summary 4
1 Introduction 6
2 Landscape Management Objectives 8
3 Components with Specific Management Objectives 9
4 Maintenance Specification 11
5 Programme of Implementation, Maintenance, Management & Responsibilities 21
6 British Standards check these are the most current versions: 27
7 Landscaping Plans 28

Executive Summary

This Landscape Maintenance & Aftercare Plan has been produced as part of the planning application for a proposed extension to William Stukeley CE Primary School at Spalding Road, Holbeach, Spalding PE12 7HG.

This document is provided in response to the following draft Pre-commencement Conditions, advised by the local authority Planning Officer:

No development shall take place until the written approval of the County Planning Authority has been secured for a scheme of compensating tree planting (indicating inter alia the number, species, heights on planting and positions of all the trees) along with details of a ***five year maintenance and aftercare programme*** *to be adopted to ensure their success commencing from the date the scheme has been implemented. The approved scheme shall be carried out in its entirety in the first available planting season following confirmation of the written approval from the County Planning Authority and any plants which die, are removed or become seriously damaged or diseased within the five year aftercare period shall be replaced in the next planting season with others of a similar size and species.*

No development shall commence until details of the methodology to remove and successfully re-establish the Gingko biloba (i.e. Tree T30 as identified within the approved Arboricultural Impact Assessment Survey & Report Rev 1 (received 7 July 2023) have been submitted and approved in writing by the County Planning Authority. No works shall commence within Phase 2 until the tree has been removed and replanted in accordance with the approved details, the tree shall only be removed/replanted when the tree is dormant (late November – march).

The document corresponds directly to the landscaping scheme as detailed on the drawings appended to this document (A5856-01) and the following condition:

This document should also be read in conjunction with the Protected Species Report (Bat Survey) undertaken in September 2023 (see separate report for details).

The development involves the extension of the primary school to increase the pupil capacity. Although the construction work is planned over 2 phases, the landscape work will all be carried out during phase 1 of the development.

The landscaping scheme incudes the creation of an inviting outdoor environment delivering effective, enjoyable education to build healthy lifestyles, experience nature and provide

areas to play and learn. The landscaping scheme includes the planting of 94 new trees as well as the establishment of a new native hedgerow with ground flora wildflowers.

Other new habitats will be created and maintained to encourage biodiversity including areas of meadow grassland and wildflowers, the erection of bird boxes in trees and on the new buildings and the installation of bat boxes on a mature tree within the site and an integrated bat box within the external brick façade of the building extension.

The aim of this report is to provide appropriate prescriptive management and recommendations to achieve the objective of enhanced biodiversity on site and on-going maintenance.

This includes management actions and an annual work schedule to be rolled over for a 5 year period, as per local authority requirements.

1 Introduction

1.1 This management plan has been prepared as part of the planning application for the extension of William Stukeley CE Primary School at Spalding Road, Holbeach, Spalding PE12 7HG.

1.2 This Landscape Management and Maintenance Plan ('Plan') corresponds directly to the landscaping scheme as detailed on the drawings appended to this document.

1.3 **Principles of the Management Plan**

This plan sets out the principles and quality standards required for the installation of planting and ecological enhancement for the long term management operations.

It includes:

- Design Intentions
- Aims of the management plan
- Detailed installation specification
- Management objectives
- Detailed maintenance specification
- Annual schedule of operations

1.4 This Plan should be read alongside the approved landscaping scheme and used by the maintenance team to produce a detailed priced programme of work for the client. It should also form the basis for annual reviews and evaluation of maintenance works to ensure they continue to meet the needs of the site.

1.5 **Long Term Landscape Design Objective**

The site is located within the village of Holbeach in the South Holland district of Lincolnshire. The school site is bounded to the north by parkland (previously part of Stukeley Hall which is now demolished); to the east and west by residential properties and to the south by a care home for the elderly.

Mature trees and established hedging form the perimeter of the site with some substantial trees located throughout the school grounds. The site is within a Conservation Area and all trees are protected by a Tree Preservation Order.

The design is based on the need to deliver a landscape setting suitable for an educational environment and to add to the biodiversity and ecological enhancement.

The landscaping scheme incudes the creation of an inviting outdoor environment delivering effective, enjoyable education to build healthy lifestyles, experience nature and provide areas to play and learn.

1.6 Aims of the Landscape Proposals

Along with ecological enhancement as a key consideration for the landscaping, the need to provide a welcoming external environment to cater for walking, cycling and vehicular access in a controlled, safe manner has obviously been high up in the design process.

The landscape proposals include the provision of a soft landscape scheme which aims to enhance the species and bio-diversity of the site and also provide identity to the school boundary through the proposed planting scheme and further ecological habitats, particularly around the perimeter of the site.

The proposals will include measures to increase biodiversity and add to the ecological enhancement:

- a belt of native trees planted along the western boundary to provide an increase in tree species and to mitigate the loss of existing trees
- copse planting in 3 groups of native trees and shrubs to form blocks of scrub
- native hedgerow with ground flora of wildflowers
- specimen trees planted around the southern boundary
- areas of species rich meadow grassland with a diverse range of wildflowers
- relocation of an existing Ginko tree
- bird nesting boxes on trees and new buildings
- bat boxes on a mature tree within the site
- integrated bat box within the external brick façade of the building extension

1.7 For the purposes of management and maintenance of the landscape and biodiversity there are five main areas:

1) Meadow Grassland and Wildflower Areas
2) Existing Grassed Areas
3) Native Hedge
4) Trees
5) Bird & Bat boxes

2 Landscape Management Objectives

2.1 The Maintenance Period

Maintenance is required to run for a minimum of 5 years including the initial 12 months defects liability period which should be built into the implementation contract to cover post-installation maintenance requirements for the whole of the landscape works. During the initial 12 month period the contractor is responsible for all horticultural maintenance operations, including the replacing of planting which has failed to flourish. At the end of the initial 12 month aftercare period any defects in soft landscape materials due to materials or workmanship will be rectified and future responsibility will be handed over to the person responsible for grounds maintenance on site for a further 4 years thereafter and any trees or plants which, within the period of five years from first use of the site, die, are removed or become seriously damaged or diseased, shall be replaced in the next planting season with others, of similar size and species.

2.2 Access

For landscape maintenance purposes, vehicular access will be from Spalding Road B1515 via the main vehicular access.

2.3 Facilities

The grounds maintenance contractor shall liaise with the site management directly regarding permissions for parking, storage, use of water and any other resources.

2.4 Management Objectives for Soft Landscape

- apply good horticultural and ecological practice to all operations
- promote healthy growth and establishment of all plants and trees
- regularly cut existing grassed areas to maintain a neat, short sward
- ensure consistent control of invasive weeds
- promote optimum display and flowering periods and stem colour
- 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

3 Components with Specific Management Objectives

3.1 Grassed Areas: Existing public grass area and rear grass play area

- Ensure sward is maintained so as to create an optimum functional surface
- Establish an annual programme of aeration and feeding
- Review requirements for whole or part sward refurbishment
- Employ cultural techniques which use organic fertilisers and minimize the use of chemicals wherever possible.

3.2 Hedge Planting: Native, deciduous tree and shrub planting to form a dense hedge buffer along the site boundary

- Species selected to provide a range of native trees and shrubs of local provenance
- The native hedge should be managed for its wildlife interest with only 50% cut annually on rotation, to allow fruits and shelter for birds and insects through the winter.
- The hedge should be cut to form an A-frame shape to avoid it becoming leggy and diminishing its biodiversity value.
- Hedges should be pruned in late winter (February) to prevent destroying berries and seeds vital food for birds, as well as the eggs of overwintering insects.
- Cutting should not take place during the bird nesting season (March to August).
- Good horticultural practice should be employed to encourage long term health and vitality of all hedge planting

3.3 Specimen Tree Planting: Planted as individual specimens

- Species selected to provide a range of native trees and shrubs of local provenance.
- Ensure that good horticultural practice is employed to encourage long term health and vitality of all trees
- Ensure well-balanced crowns and natural shape
- Remove rubber ties and supporting stakes once the trees are well established enough to support themselves

3.4 Feature Tree Planting: Tree Copse planting and multi stemmed tree planting

- Species selected to provide a range of native trees and shrubs of local provenance.
- Ensure that good horticultural practice is employed to encourage long term health and vitality of all trees
- Copse planting in 3 groups to form blocks of scrub to provide an increase in biodiversity and encourage wildlife
- Multi stemmed tree planted as features in specified locations within the rear grass play area
- Ensure trees are left to reach full maturity and not pruned, lopped or topped.
- Ensure all tree locations are kept weed free for 3 growing seasons during the establishment period

3.5 Existing Tree Vegetation: Managed to continue the growth and maturity of all remaining trees and vegetation for nature conservation and biodiversity

- All existing trees have been assessed by a qualified Arboriculturalist to BS5837: 2012 "Trees in relation to design, demolition and construction – Recommendations" (see separate Arboricultural Impact Assessment Report)
- Existing Ginko tree to be relocated using "Air Spade" as per the AIA Report
- Recommendations within the report for all management works will be included as part of the specification and schedule of works issued to the building contractor.
- All work must be undertaken to BS3998: 2010 "Recommendations for Tree Work" and carried out by qualified, experienced and Arboricultural Association approved contractors who must be adequately insured.

3.6 Bird & Bat Boxes: Secured to existing mature trees and building

- Boxes should checked to make sure they are cleared of any obstructions to ensure they remain suitable for nesting and roosting.

4 Maintenance Specification

4.1 Maintenance Details

4.2 The following specification items are to be addressed within the long term landscape maintenance contract. Included are performance specifications, quality standards and some detailed operational descriptions. The landscape maintenance contractor will be required to apply their expertise in relating these to the Management Objectives above in producing annual programmes of work. Maintenance work associated with pruning of trees and shrubs is to be carried out outside of the bird nesting season, approximately March to September.

4.3 Establishment Phase Maintenance

Maintenance during the initial establishment phase is highlighted within the following maintenance details and as per schedules in Clause 5.

4.4 Maintenance to accord with requirements of BS 7370:1991

- Duration: Carry out the operations in the following clauses from completion of planting for a minimum of 5 years
- Frequency of maintenance visits: Monthly during growing season and as per the schedules in Clause 5
- Frequency of watering visits: Weekly during any periods of spring drought and through the summer months

4.5 Tree Planting: Planted as individual specimens, tree copse and multi-stemmed feature trees:

Specification for Specimen Tree Planting:

- Refer to the landscaping drawings appended to this document for species and planting locations.
- Tree pits to be 2.35 x 2.35m x 0.9m deep to provide a minimum of 5m^3 rooting volume. Rootball tree planted with roots well spread out, backfill with excavated material incorporating compost at 1m^3 per 3m^3 of soil and tree located centrally in the pit.
- For trees in closer proximity to adjacent paving where the risk of damage caused by future root growth could be an issue, the trees should be planted within a

"root deflection" system to be utilised to divert roots downwards to a level where they can safely establish without surface damage.

- Specimen trees to be pit planted with an irrigation pipe and secured with a single timber stake and rubber tie with spacer.
- All specimen trees to be "Extra Heavy Standard" 16-18cm girth, 4.5m high with 1.75-2.0m clear stem (supplied by Barcham Trees or similar approved)

Specification for Tree Copse Planting:

- Refer to the landscaping drawings appended to this document for species and planting locations.
- 2.5m high a 2 transplanted Feathered Trees to be pit planted in groups of 20 at 1.5m centres including tree stake and rubber spacer and tie. 600mm transplants for the shrubs.

Specification for Multi Stemmed Tree Planting:

- Refer to the landscaping drawings appended to this document for species and planting locations.
- 3.5m high x 4 transplanted multi stemmed Feathered Tree (3 stems) to be pit planted including tree stake and rubber spacer and tie.

4.6 Hedge Planting: Native hedge to provide a dense hedge buffer along the site boundary

Specification for Hedge:

- Refer to the landscaping drawings appended to this document for species and planting locations.
- Hedging bed to consist of 300mm topsoil cultivated by incorporating green compost into upper 200mm of topsoil layer.
- Remove all stones and debris over 50mm, planting holes to be 300x300x300 deep and backfilled with excavated material
- Trees and Shrubs to be pit planted at 3-4 per metre in a double staggered row.
- Plants to be 125-150cm barefoot nursery stock reduced by 30-50% immediately after planting
- Ground flora species to be sown within the hedgeline and copse tree planting using HE1 (Hedgerow Mixture) by Emorgsate Seeds (or similar approved)

4.7 Understorey: to be sown within the hedgeline and copse tree planting

Specification for Understorey Flora Mix:

- To be sown with HE1 (Hedgerow Mixture) by Emorsgate Seeds (or similar approved)
- Mix contains 18 nectar rich, wildflower species selected to encourage butterflies, moths and insects

4.8 Tree & Hedge Maintenance:

Trees and hedges to be maintained by the landscape contractor appointed by the developer:

Watering:

- All planting to receive watering for at least the first 3 growing seasons during the establishment phase
- All planting to receive watering beyond the establishment phase during periods of drought
- Ensure sufficient water is applied to maintain healthy growth; taking into account published meteorological data on rainfall for any given period, in particular in periods of spring drought (April, May & June) and through the summer months

Quantity:

- Standard trees: 10 gallons per tree per application
- Shrubs: Wet soil to full rooting depth

Weed control:

- All planting areas shall be kept clear of weed growth for the first 3 growing seasons during the establishment period
- After 3 years, a herb layer can be allowed to return to all planting except the ornamental planting which should be kept weed free
- Achieve by a combination of herbicide applications and hand-weeding/hoeing
- Ensure that the methods used will cause a minimum of damage to adjacent planted areas

Tree and plant stems:

- Do not allow nylon filament rotary cutters or other mechanical tools closer than 200mm to the stem of any tree or plant
- Maintain a grass & weed-free area around the base of each tree, min diameter 500mm during the first 3 growing seasons during the establishment period
- Carry out operations close to stems using hand tools

Herbicide application:

- A foliar acting translocated or contact herbicide shall be applied to emergent weeds

Hand weeding:

- Hoe and loosen the soil throughout the planting areas, taking care to avoid disturbance of roots of planted material
- Remove weeds entirely, including roots
- Remove the minimum of soil and minimise disturbance to plants, bulbs and mulched surfaces
- On completion, rake areas to a neat condition

Mulch:

- Top up mulch to a minimum thickness of 75mm across all planting for trees, hedges and shrubs
- Mulch spill on adjacent surfaces to be removed
- Any weeds and debris to be taken out of the spilled mulch before returning to planted areas
- Melcourt 'Forest BioMulch' or similar approved to be used
- After 5 years any compost created on site should be used if possible

Re-firming, check/tidy:

- Trees and shrubs shall be maintained in a firm position in the ground and all stakes and ties shall be checked regularly, particularly after strong winds, frost heave and other disturbances
- Report any significant failures

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
- Check stakes for looseness, breaks and decay and replace as necessary
- Remove stakes and ties once tree has established sufficiently to support itself or after 3 years establishment whichever is the sooner
- Remove spiral guards from hedge plants once established

Hedge Pruning:

- Generally to be carried out in accordance with good horticultural and arboricultural practice
- In accordance with BS 7370.4, clauses 3.6.3 to 3.6.5
- Before starting work, agree which shrubs and hedges are to be pruned.
- 50% of hedges are to be cut annually on a rotational basis, ie 50% cut in year 1, 50% left uncut and then alternated for year 2 and all subsequent years.
- Hedges to be cut to an A-frame shape
- Trim individual plant appropriate to species, location and season to leave a well-balanced natural shape
- All cutting to be done with appropriate clean sharp tools
- Clean cuts back to sound wood
- Do not use growth retardants, fungicides or sealant unless instructed

Pruning of trees:

- In accordance with BS 3998 and Forestry and Arboriculture
- During pruning protect adjacent structures, plants or trees
- Trees to be maintained with a well-balanced natural appearance
- Remove any suckers or basal growth
- Cut back level with source stem or root
- For any chain saw work, operatives must hold a certificate of competence

Timing:

- Prune between leaf fall and mid winter
- After 3 years full growing seasons, selectively thin, re-space and crown raise trees

Reinstatement:

- Remove dead plants as soon as possible and replace in the next scheduled round of replacement planting during the dormant season

Maintaining a safe, clean and secure environment:

- Litter and dog waste to be collected as necessary to maintain a clean, litter-free environment
- Include clear signage against dog fouling and litter at entrances
- Report fly tipping

4.9 Grass Verges and Open Space

Watering and Feeding:

- Newly laid turf for grass verges and existing grass areas which have been re-seeded to be well watered at time of laying/seeding and regular watering thereafter during the first 2 growing seasons to ensure healthy establishment of the grass
- Ensure sufficient water is applied to maintain healthy growth; taking into account published meteorological data on rainfall for any given period, in particular in periods of summer drought (June, July & August)
- Slow release fertiliser to be spread over grass areas in accordance with manufacturer's instructions
- Carry out a single application between March and May for the first 3 years after laying

Weed control:

- All grass to be kept clear of weed growth for the first 3 growing seasons during the establishment period
- Achieve by a combination of herbicide applications and hand-weeding

- Ensure that the methods used will cause a minimum of damage

Mowing:

- All grass areas to be regularly mown to maintain the sward to create an optimum functional surface
- Grass verges are to be cut a minimum of 15 times during the growing season usually between March and October, depending on weather conditions
- Cut grass should be removed from paved areas at the time the grass is cut
- Strimming around obstacles such as trees or furniture to be carried out early in the growing season and then herbicide applied around the base of trees and obstacles in April/May and again in September/October to prevent weed or grass growth

4.10 Grassland and Wildflower Areas

Specification for Meadow Grassland and Wildflower Areas:

- Areas to be seeded with species rich grassland/wildflower mix EM2 (Standard General Purpose Meadow Mixture) by Emorsgate (or similar approved)
- Mix contains species that are characteristic of traditional meadows, composed of 15% native wild flowers and 85% slow growing grasses
- All areas of landscaping to have the existing topsoil and subsoil decompacted by hand digging or rotorvator
- Planting should take place during the dormant planting season ie October to March and seeding between late summer to mid-autumn

Watering

- Grassland and wildflowers thrive in impoverished conditions and therefore no watering is required unless seeding is done during a prolonged dry spell in which case initial watering should be carried out to ensure sufficient moisture content of the soil to enable germination to take place.

Feeding:

- Grassland and wildflowers thrive in impoverished conditions and therefore no fertiliser should be applied.

Weed control:

- The grassland and wildflower seed mix contains a certain amount of plants which ordinarily would be considered as "weeds", however those plants form an important part of the overall mix and should be left to establish. Therefore, no weed control is necessary in the grassland areas.
- Regular inspections for any non-native invasive species and notifiable native weeds such as ragwort to be carried out and removed where identified.
- Any invasive species and notifiable weeds identified are to be removed by hand digging and disposal off site at a licenced receptor site and/or chemical weed killing, depending on which is the most appropriate for the type of invasive species.
- In the unlikely event that Japanese Knotweed is identified on site, a specialist contractor should be consulted and a programme for eradication should be devised and implemented at the earliest opportunity to prevent the further spread of this invasive species.

Mowing:

- Grassland/wildflower areas are to be mown less frequently than the other grass areas on site to enable the flowers to establish and produce seeds before being cut and should only be cut twice a year in March to mid-April and then again August/September.
- No mowing during the spring and summer.
- Mown to a height of approximately 100-150mm from the ground with all grass arisings removed from site.
- After the autumn cut, the vegetation should be left on the ground for a few days to allow to set-seed before being raked and taken away to form compost heaps located away from the wildflower areas.
- 20% of the wildflower grassland should remain uncut annually, on a rotational basis, in order to provide over-wintering habitat for invertebrates.

Year 1:

- For newly created grassland (for enhanced grassland skip to year 2)
- Provide temporary protection and water if required to ensure satisfactory establishment

- Mow newly sown grass regularly to 40-60mm, reducing to <25mm from July to the end of the growing season to control annual weeds, removing all arisings.
- Control weeds by hand weeding or spot treatment of herbicide as required
- Stone rake on at least one occasion

Year 2:

- Grassland left to grow throughout spring and summer to allow to flower
- After flowering, a single 'hay' cut to 50mm in mid-July-August
- Arisings will be left for up to one week to dry and re-seed before removal
- Following the summer cut mow again to 40-75mm in October to leave the grass short through the winter, collecting and removing all arisings
- Control weeds by hand weeding or spot treatment of herbicide as required
- Monitor for scrub/bracken encroachment and reinstate damaged areas by changing the management regime, protecting areas of high wear or reseeding as appropriate

Subsequent Years:

- Repeat Year 2 for Years 3, 4 and 5, etc.

4.11 Bird & Bat Boxes

Specification for Bird Boxes:

- Sparrow nest boxes (2 no.): on new building, Woodstone Sparrow nest boxes or similar approved should be incorporated into the eastern elevation of the new school buildings, positioned at least 2m from the ground
- Bird boxes in existing trees (37 no.): Woodstone Seville nest boxes or similar approved should be installed on the retained scattered trees within the site. The boxes should be positioned on the northern and eastern elevations of trees at 2m high
- Sparrow and Swift nest boxes on new buildings (4 no.): 2 x 1SP Schwegler Sparrow Terraces and 2 x Schwegler Swift nests (placed in pairs) should be integrated into the northern and eastern elevations of the new building

Specification for Bat Boxes:

- Oak Kent bat boxes (2 no) to be installed on a mature tree within the site ownership
- Permanent compensatory bat roosting habitat feature to comprise an area of lifted fascia at the location of the existing roost and an integrated bat box (such as a Habibat 001) incorporated within renovated building at the northern aspect (exact location to be confirmed by the Ecologist prior to installation).

General maintenance:

- Bird boxes would not require any specific management. However, if the bird boxes are regularly used it may be necessary to remove old nests from time-to-time. This should be undertaken outside of the bird nesting season by an experienced ecologist or ornithologist.
- The nesting boxes are unlikely to become damaged but if for any reason they are no longer fit for purpose, they are to be replaced as soon as possible during the autumn/winter period.
- Bat boxes are a 'self-cleaning' design which do not accumulate droppings and are less used by birds. Boxes should require no ongoing management, if checks are required this should be done in the late autumn/winter period by a licensed bat-worker and cleared of any obstructions.

5 Programme of Implementation, Maintenance, Management & Responsibilities

5.1 Implementation Timetable

The planting of trees and shrubs should ideally be implemented during the dormant season, ie October to March with grass and wildflower sowing from late summer to mid-autumn being the optimum period. The soil is warm and damp from rain which is perfect for seeds to germinate.

5.2 If the completion date does not allow implementation during these periods, there is a risk to the establishment of the landscaping due to lack of moisture and therefore the contractor must make special arrangements to ensure all new tree and shrub planting is well watered to ensure they receive sufficient water to prevent dying out.

5.3 Seeding may alternatively take place in mid-spring, however watering is essential to prevent the ground from drying out and a strict watering regime must therefore be in place if seeding is scheduled from April onwards.

5.4 Monitoring

To protect the investment in the quality of soft and hard landscape works, the long term maintenance contractor must provide a high standard of maintenance. The long term success of the scheme is dependent on its maintenance regime. 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 four yearly basis thereafter.

5.5 Schedule of Maintenance

The following is an indicative annual schedule of maintenance visits applicable for the first 5 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 their own experience and horticultural knowledge. 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 such as re-spacing of plants, pruning, topping up of mulch, replacement of plants/restocking of beds etc
- Planting review and refurbishment
- Monitoring and review; the effectiveness of the management operations is to be closely and continually monitored and reviewed annually against the LEMP, with any resulting changes incorporated into the subsequent years' programme.

5.6 Maintenance Responsibilities

Maintenance of the landscaping is required to run for a minimum of 5 years including the initial 12 months defects liability period which should be built into the implementation contract to cover post-installation maintenance requirements for the whole of the landscape works. During the initial 12-month post completion period the Contractor is responsible for all horticultural maintenance operations, including the replacing of planting which has failed to flourish.

5.7 At the end of the initial one-year aftercare period any defects in soft landscape materials due to materials or workmanship will be rectified by the Contractor and future maintenance responsibility will be handed over to the occupiers grounds maintenance team for a further 4 years thereafter. Any trees or plants which, within the period of five years from first use of the site, die, are removed or become seriously damaged or diseased, shall be replaced in the next planting season with others, of similar size and species.

5.8 All future maintenance beyond the 5th year post completion will remain the responsibility of the site occupier including grass cutting, hedge pruning, weeding, fence repairs etc. During this period the new hedgerows will have become established and it will be necessary to remove the rabbit guards from the plants. The new tree planting will also be established and removal of any supporting stakes and rubber ties will be the responsibility of the site's grounds maintenance team.

5.9 Schedule of annual maintenance operations

The following schedules list the timings for key annual operations for the soft landscape areas as shown on the proposed landscaping plan:

Schedule 1: General Maintenance

Month	Litter pick	Remove fall leaves	Bird & Bat Boxes
January	1 visit		
February	1 visit		
March	1 visit		
April	1 visit		
May	1 visit		
June	1 visit		
July	1 visit		
August	1 visit		
September	1 visit		
October	1 visit	1 visit	1 visit
November	1 visit		
December	1 visit	1 visit	

Schedule 2: Existing Trees and Vegetation

Month	Tree inspection	Weed control	Pruning
January			
February			
March			
April		1 visit	
May			
June			
July	1 visit	1 visit	
August			
September			
October		1 visit	
November	1 visit		
December			1 visit

Schedule 3: Specimen Trees & Hedgerows – Establishment Phase (first 3 years)

Month	Tree inspection	Replace dead	Weed control	Watering	Hedge cutting
January					
February					1 visit
March					
April			2 visits	2 visits	
May				4 visits	
June				4 visits	
July	1 visit		2 visits	4 visits	
August				4 visits	
September				4 visits	
October			2 visits	2 visits	
November					
December		1 visit			

Schedule 4: Specimen Trees & Hedgerow – Continuing Maintenance after 3 years

Month	Tree inspection	Replace dead	Weed control	Watering	Hedge cutting
January					
February					1 visit
March					
April			1 visit	2 visits	
May				2 visits	
June				2 visits	
July	1 visit		1 visit	2 visits	
August				2 visits	
September				2 visits	
October			1 visit	2 visits	
November					
December		1 visit			

Schedule 5: Grass Verges & Open Spaces

Month	Weed control	Fertilizer	Mowing	Trim edges	Thatch removal	Watering
January						
February						
March			3 visits		1 visit	
April		1 visit	4 visits	2 visits		
May	1 visit		4 visits	2 visits		4 visits
June			4 visits	2 visits		4 visits
July			4 visits	2 visits		4 visits
August			4 visits	2 visits		4 visits
September	1 visit	1 visit	4 visits	2 visits		
October			3 visits	2 visits		
November						
December						

Schedule 6: Grassland/Wildflower Areas

Month	Weed control	Fertilizer	Mowing	Trim edges	Thatch removal
January					
February					
March					
April					
May					
June					
July					
August					
September			1 visit		
October			1 visit		
November					
December					

6 British Standards check these are the most current versions:

6.1 As well as the standards described above the soft landscape works should meet the following British Standards where appropriate:

Topsoil handling, stripping and storage:

- BS ISO 15799:2003 Soil quality - guidance on ecotoxicological characterization of soils and soil materials
- BS 3882:2007 Specification for topsoil
- BS 4428:1989 guide of practice for general landscape operations (excluding hard surfaces) AMD 6784
- BS 3882:1994 specification for topsoil and AMD 9938

Quality of Trees and Shrubs:

- BS 3936-1:1992 Nursery stock specification for trees and shrubs
- BS 3936-10:1990 nursery stock specification for ground cover plants
- BS 3998:2010 recommendations for tree work and AMD 6549

Horticulture:

- BS EN 12579:2000 Soil improvers and growing media - sampling
- BS EN 13037:2000 Soil improvers and growing media - determination of pH

7 Landscaping Plans

KEY TO SOFT LANDSCAPE PROPOSALS

Existing Vegetation & Surfaces

Existing Trees Retained

Existing trees to be retained and protected as per BG22.327.2 William Stukeley School, Holbeach Arboricultural Impact Assessment Report - REV1 by Brindle & Green July 2023

Existing Trees Removed (10no.)

Existing trees to be removed as per BG22.327.2 William Stukeley School, Holbeach Arboricultural Impact Assessment Report - REV1 by Brindle & Green July 2023. T21 (Ash leaved Maple), T24 (Pine), T32 (Cherry Laurel) and G5 (4 x Silver Birch, 2 x Oak and 1 x Rowan)

Existing Tree Relocated

Existing Ginko tree to be relocated using 'Air Spade', as per BG22.327.2 William Stukeley School, Holbeach Arboricultural Impact Assessment Report - REV1 by Brindle & Green July 2023

Position of Existing Relocated Tree

Existing Ginko tree to be re-planted in this position as per BG22.327.2 William Stukeley School, Holbeach Arboricultural Impact Assessment Report - REV1 by Brindle & Green July 2023

Existing Public Grass

Areas of existing grass within public areas of the site

Existing Rear Grass Play Area

Areas of existing grass to the rear play area

Existing Hard Surfaces

Areas of existing tarmac roads and access paths

Existing Hard Play

Areas of existing tarmac surfaced hard play

Existing Concrete

Areas of existing concrete surfacing

Existing Gravel

Areas of existing gravel surfacing

Existing Hard Surfacing

Areas of existing hard surfacing made good where required

Existing Bare Soil

Areas of existing bare soil

Proposed Planting Details & Specification

All areas of new landscaping to have the existing topsoil and subsoil decompacted by hand digging or rotorvator. If any imported topsoil is required it should be placed to a depth of 200mm minimum in grass areas and 450mm minimum in tree and shrub planting areas. Planting should take place during the dormant planting season ie October to March and seeding between late summer to mid-autumn.

Areas of Grass & Wildflower Meadow

Grass to be established to provide ground cover, to the following specification:

Meadow Grassland and Wildflower Areas (1,020m²)

Areas to be seeded with species rich grassland/wildflower mix EM2 (Standard General Purpose Meadow Mixture) by Emorsgate (or similar approved) contains species that are characteristic of traditional meadows across a wide range of soil types, composed of 15% native wild flowers and 85% slow growing grasses

Understory Flora Mix (1,620m²)

Species selected to encourage butterflies, moths and insects including nectar rich species. HE1 (Hedgerow Mixture) by Emorsgate Seeds (or similar approved) to be sown within the hedgeline and copse tree and shrub planting. Mix contains 18 wildflower species including yarrow, agrimony, garlic mustard, etc

Hedge Planting

Plants to be pit planted at densities indicated, to provide a dense hedge buffer along the site boundary as follows:

Cultivate and grade hedging bed, bring top 300mm of soil to a fine tilth, dig planting holes (average 300 x 300 x 300 deep), supply and plant specified shrubs

Native Hedge Planting (140 linear metres)

Trees and shrubs to be pit planted at 3-4 plants per metre in a double staggered row. Plants to be 125-150cm bareroot nursery stock reduced by 30-50% immediately after planting.

30% Crateagus monogyna (Hawthorn)
20% Prunus spinosa (Blackthorn)
10% Acer campestre (Field Maple)
10% Corylus avellana (Hazel)
10% Salix caprea (Goat Willow)
10% Cornus sanguinea (Dogwood)
5% Prunus avium (Wild Cherry)
5% Rosa canina (Dog Rose)

Tree Planting

Standard specimen trees of local prevalence as per the following specification:

Excavate tree pit to provide 5m³ of rooting volume, plant tree, backfill with soil and secure with timber stake and rubber tie and spacer.

New Specimen Tree Planting (27 no.)

4.5m high, 16-18 cm girth Extra Heavy Standard root balled trees to be pit planted including timber stake and rubber spacer to secure the tree in an upright position and bulky organic compost backfill planted in locations shown

7 x Acer campestre (Field Maple) - Ac
2 x Acer pseudoplatanus (Sycamore) - As
2 x Alnus glutinosa (Common Alder) -Ag
3 x Prunus avium (Wild Cherry) - Pa
3 x Sorbus aucuparia (Rowan) - Sa
2 x Tilia cordata (Lime) - Tc
3 x Quercus robur (English Oak) - Qr
5 x Crataegus monogyna (Hawthorn) - Cm
3 x Betula pendula (Silver Birch) - Bp
2 x Betula pubescens (Downy Birch) - Bpu



Feature Tree Planting

Tree Copse Planting (60 no. in 3 groups)

2.5m high, x 2 transplanted Feathered Tree to be pit planted in groups of 20 at 1.5m centres including tree stake and rubber spacer and tie for the trees and 600mm transplants for the shrubs in the following mix:

60% Betula pendula (Silver birch)
20% Euonymous europæus (Spindletree)
20% Corylus avellana (Hazel)
10% Cornus sanguinea (Dogwood)
10% Rosa canina (Dog rose)

Multi Stemmed Tree Planting (7 no.)

3.5m high, x 4 transplanted Multi Stem Feathered Tree (3 stems) to be pit planted including tree stake and rubber spacer and tie

100% Betula utilis jaquemontii (Himalayan birch)

KEY TO HARD LANDSCAPE PROPOSALS

Refer to Architects Drawing for full details

Proposed Level Adjustments

Areas of existing impermeable tarmac to have levels adjusted

Proposed Permeable Hard Standing

Areas of permeable hard standing for access paths and play area

Proposed New Concrete Hard Standing

Area of concrete hard standing for relocated shed (by others)

Relocated Fencing

Existing paladin mesh fencing and gates to be relocated

KEY TO ECOLOGICAL ENHANCEMENT

Refer to Ecology Report for full details

Sparrow Nest Boxes on New Building (2 no.)

WoodStone Sparrow Nest boxes or similar approved should be incorporated into the eastern elevation of the new school buildings, positioned at least 2 metres from the ground.

Bird Boxes in Existing Trees (37 no.)

Woodstone Seville nest boxes, or similar approved, should be installed on the retained scattered trees within the site The boxes should be positioned on the northern and eastern elevations of trees. Located 2m high.

Sparrow and Swift Nest Boxes on New Building (4 no.)

Two 1SP Schwegler Sparrow Terraces and two Schwegler Swift Nests (placed in pairs) should be integrated into the northern and eastern elevations of the new building.

Bat Boxes on Mature Tree (2 no.)

Install 2 Oak Kent bat boxes or similar approved upon a mature tree within the site ownership. The boxes will be placed above 3-4 metres away from sources of artificial light sources and have a clear flight line.

Bat Box on Building Extension (1 no.)

Permanent compensatory bat roosting habitat feature to comprise an area of lifted fascia at the location of the existing roost and an integrated bat box (such as a Habibat 001) incorporated within renovated building at the northern aspect (exact location to be confirmed by the Ecologist prior to installation)

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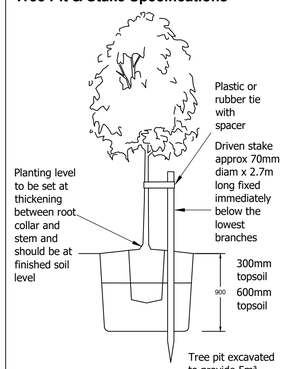
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Notes:

This drawing is based on:

- WSP22-DBS-XX-00-DR-A-2902-Proposed Site Plan-S3-P01 from Kier
- WSP22-DBS-00-XX-DR-A-1151-Tree Removal Plan_P05_S4 from Kier
- BG22.237 William Stukeley School Holbeach PRELIMINARY ECOLOGICAL APPRAISAL FINAL

Tree Pit & Stake Specifications



Rev	Date	Description	Drawn	Checked
C	13.10.23	Location for Ginko tree moved from drainage	MJB	LB
B	13.10.23	Integrated bat box added to building	MJB	LB
A	10.10.23	Revised in line with comments from DTM	MJB	LB

Client
Lindum

Project
Option 5A - Plot 4
William Stukeley School
Holbeach

Title
Landscaping Scheme

Drawing Status
FOR PLANNING APPROVAL

Drawn	MJB	Checked	LB
Date	27.07.23	Scale (A1)	1:500

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Job Number	Drawing Number	Rev
a5856	01	C