

# **Landscape Management and Maintenance plan**

**Bowland High School**

**06<sup>th</sup> May 2021**

**[www.jbaconsulting.com](http://www.jbaconsulting.com)**

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## **Revision History**

<b>Revision Ref/Date</b>	<b>Amendments</b>	<b>Issued to</b>
06/05/2021	Draft Report	Peter Harrison
07/05/2021	Final Report	Peter Harrison

## **Purpose**

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# **1 INTRODUCTION**

## **1.1 PURPOSE AND SCOPE OF DOCUMENT**

The Management Plan shall address conditions 4 and 6 of the approval notice SSL2277 10. This document further supports any specifications approved as part of the Ribble Valley Borough Council Core Strategy (2014).

The purpose of this document is to schedule all required maintenance regimes, operations and works necessary for the satisfactory management of the landscape in perpetuity. The Management Plan sets out the management aims and objectives for the site along with the specific management objectives for each landscape component, and the associated maintenance works required on an Annual and Cyclical basis, continuing for a period of up to 25 years. The Annual Works are those works that will be required every year, such as watering, weeding and cleaning. The Occasional Works are those that will be required on an irregular or cyclical basis, such as repairs and renewals.

# **2 THE GROUNDS**

## **2.1 BOWLAND HIGH SCHOOL**

### **2.1.1 Location**

The site is located between fields of agricultural land in close proximity to Bowland High School, 50m South East of the site. Access is gained from Hill brook side road which cuts between the School and grounds of the site, accessed off Sawley road.

Bowland High School is located in the village of Grindleton, which sits in the Ribble Valley of Lancashire. The village is close to the A59, connected 14km North East to the towns of Blackburn and 20km to Preston.

### **2.1.2 Site description and Development Proposals**

Currently the site is characterised as a field of undeveloped land which is used as a playing field. The site is surrounded by agricultural fields on the North, East and West boundaries, with native hedgerow and scrub located along field edges on the South East access point and North East adjacent field. A new artificial grass pitch is being proposed.

The proposals for the site are a result of consideration of the current vegetation, regarding how it contributes to the character and containment of the site. The proposals include the introduction of new tree planting, new planting and repair of hedgerow, and the introduction of wildflower meadows, to help increase long term biodiversity net gain. The proposals are included within the overall site planting plan (Appendix: Figure1: 2020s0614\_Landscape Plan).

# **3 AIMS AND OBJECTIVES OF THE LANDSCAPE MANAGEMENT PLAN**

## **3.1 AIMS**

The principal aims of this Landscape Management Plan are to secure a coordinated and high standard of landscape management for the landscape areas within the site, to ensure the successful establishment of any planting enhancements made and enhance

nature conservation interests. This will include the appropriate maintenance of existing and proposed landscape components.

### **3.2 OBJECTIVES**

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

- To maintain landscape character: To protect and conserve the existing landscape character and screening function of the existing hedgerow on the site boundaries, and to incorporate native species of local origin, to provide an attractive and robust landscape setting and reinforce local distinctiveness.
- To achieve a high standard of maintenance: To take measures to ensure the successful establishment and growth of new trees, hedgerow, and wildflower meadow and to take appropriate long-term management measures to ensure the satisfactory appearance and sustainability of all vegetation. To ensure that landscape components are replaced, augmented and/or improved over time as appropriate.
- The sustainable management of existing vegetation: To retain existing trees, hedgerows and other vegetation that are worthy of retention, and to enhance their character, composition and age structure through positive management with consideration to long-term viability and health and safety.
- To maintain and enhance biodiversity: To protect and enhance the nature conservation interest of both existing and new habitats and to ensure the adoption of management practices that enhance the biodiversity value of the site. To fulfil all legal requirements in relation to the protection and management of ecological features and the protection and management of target species including bats and reptiles.
- To ensure health and safety: To uphold the duty of care that all landscape components are safe and that all reasonable steps are taken to minimise risk of injury and damage to people.
- To provide a mechanism or monitoring and review: To ensure that management practices are monitored and where necessary reviewed on an annual basis in accordance with changing site circumstances.

## **4 SPECIFIC ELEMENTS REQUIRING MANAGEMENT AND MAINTENANCE**

### **4.1 LANDSCAPE AREAS AND COMPONENTS**

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

- Proposed tree planting
- Proposed informal grassland and wildflower meadow
- Existing and proposed hedgerow

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

## **4.2 PROPOSED NATIVE TREE/WHIP PLANTING**

### **4.2.1 Description**

Native whip planting has been proposed on the North East and South East boundary edges of the newly proposed 4G artificial turf field. Native species will be selected to provide general habitats for wildlife.

### **4.2.2 Management objectives**

The management objectives for native tree whip planting are to:

- Ensure the satisfactory establishment and growth of new tree planting typical of the respective species;
- Promote conditions so that trees are healthy and safe;
- Maintain trees in a healthy and attractive condition and enhance the value of trees as a food source to wildlife; and
- Ensure continuity of the design approach and amenity value of planting.

### **4.2.3 Annual Works**

- General tree maintenance during establishment: Check all trees for firmness and stability in the ground.
- All trees shall be fertilised using a suitable and approved liquid feed (N10:P15:K10) at a rate of 60g/m<sup>2</sup> during early May and again in late September. Prune back any diseased or rotten wood (including the removal of main stems and limbs) back to sound wood as required. Remove all cut material from site.
- Watering: For the first year after planting, water tree whips during dry periods (being any period without substantial rainfall for 14 days or more). Apply water at a frequency of up to 2 times per week from April to the end of September (to a maximum of 15 visits in any one calendar year) as required during any continuous hot weather lasting more than 7 days. The Adopting Authority shall be entirely responsible for varying the frequency of these visits according to climatic conditions and for agreeing the timing of any additional watering visits if required and where restrictions are placed on the use of water, sources and costs of obtaining second class water. The Adopting Authority shall be responsible for any tree failures or excessive die back from drought stress. Following the first year after planting watering should be unnecessary as all the species are native and should be well rooted and hence more tolerant of drought conditions.

## **4.3 Cyclical Works**

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

the top of the post, in order to prevent chaffing against the post in high winds. Remove old posts and ties and arisings and dispose off site.

- Thinning and Coppicing: Thinning and coppicing will allow trees to develop diversity of form and different types of nesting, feeding and foraging habitat and extend the potential life of individual trees.

The timing of thinning should be informed by the arboricultural survey, which should include a visual inspection, checking if crowns are overlapping and thinning is needed. Any trees, apart from understorey species, which have failed to reach the canopy and have been suppressed, will need removal. Thin on a phased basis in blocks. The aims should be to create a 'ring of sky' around each tree that is retained, into which it can spread. Remove weeds and invasive species as required.

A competent person, such as a qualified Arboriculturist should plan thinning and coppicing operations in advance by identifying and marking all trees for removal and coppicing in winter. All thinning operations should be undertaken between October and February.

- Long-term tree surgery works: After 10-20 years of maintenance (or earlier if required), newly planted trees will reach semi-maturity and at this time may be in need of corrective surgery. Trees should become subject to the annual Arboricultural Assessment.
- Tree replacement and enhancement of tree cover: Any tree that dies or is necessarily felled, but which is not removed as part of a programme of tree removals, shall be replaced with a tree of appropriate species and stock size. Such replacement shall be with a tree of either the same or similar species as those existing. The option for replacing with a different species is to allow some flexibility avoiding problems encountered with 'Same Species Disease' and to ensure sustainable tree cover in the interests of visual amenity. Possible damage to drainage/services and adjoining building foundations must be considered before choosing a replacement tree species and location. Where alternative species are being considered, then the species should be suitable to the character of the location and adjoining trees. Once annually the site shall be considered for the need for any strategic replacement or enhancement planting, to broaden the age class of trees and tree groups, in the interests of the long-term sustainability of strategically important vegetation. Trees should be a minimum stock size of standards (10-12cm girth) and implemented and maintained in accordance with good horticultural practice. Replacement and enhancement planting is best undertaken during the planting season (November through to March inclusive).

#### **4.4 PROPOSED INFORMAL GRASSLAND AND WILDFLOWER MEADOW**

##### **4.4.1 Description**

The proposals will comprise informal grassland and perennial Wildflower seeding. The grassland will incorporate a diversity of wildflower and grass species (appropriate to the microclimate and soil type) to benefit a variety of species including birds, bats and invertebrates.

##### **4.4.2 Management Objectives**

The management objectives for wildflower grassland areas will be to:

- To ensure the satisfactory establishment of the grass sward; and
- To maintain a healthy and biodiverse sward suitable for a range of wildlife.

##### **4.4.3 Annual Works**

- Cutting of wildflower areas: Meadow grass and wildflower areas shall be trimmed only once a year to a height of 100mm in late August. To ensure that soil fertility is reduced, rake up the arisings immediately, or in hot dry weather, they can be left in situ for a maximum of 2 days to set seed before raking. In a warm and wet year, a second cut may be required and if so this should be carried out either in October or March as appropriate. The timing of all cutting operations should take into consideration any protected species (such as reptiles) that may be present. There may be an additional requirement for monitoring or a watching brief by a qualified ecologist to ensure that no protected species are present. Once cut and raked up, all arisings shall be collected and removed off site as agreed.
- General care: Hand weed pernicious, ruderal and aggressive or invasive weeds in in order to maintain the visual amenity of the area. Do not herbicide or fertilise. Hibernacula should be left undisturbed. Arising's from tree surgery work can be retained on site and used to create new hibernacula as required.

#### **4.4.4 Cyclical Works**

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

### **4.5 PROPOSED AND EXISTING HEDGEROW**

#### **4.5.1 Description**

Hedgerow restoration and maintenance of existing hedgerow has been proposed as part of this scheme, providing habitat for a variety of invertebrate and mammal species.

#### **4.5.2 Management Objectives**

The management objectives for native hedgerows will be to:

- To ensure the satisfactory establishment of new hedgerow planting; and
- To maintain a healthy and biodiverse habitat suitable for a range of wildlife.

#### **4.5.3 Annual Works**

- Weeding: Remove all weed growth by hand as necessary to ensure weed free and tidy planting areas. Six to eight visits are required per growing season. Visits should occur approximately monthly in the growing season, subject to weather conditions from April to October, with an extra visit outside of the growing season in December or January to inspect the



condition of the beds. Weeding frequency should therefore be varied according to the site and density of vegetation cover, i.e. whatever is required to achieve a weed free scheme. All weeds shall be removed from the site.

- Spot Herbiciding: Where required, persistent perennial weeds can be controlled using herbicide. The use of herbicides should only be made following a risk assessment to consider potential effects on the environment and on human health, but also spray drift killing the wrong plants. The purchase, transport and storage of herbicides are regulated by Part III of the Food and Environment Protection Act 1985, Control of Pesticides (Amendment) Regulations 1997; the Health and Safety at Work Act 1974; the COSHH Regulations, the product COSHH sheet and EC Directive 91/414/EEC (the "Authorization Directive") and the Plant Protection Products Regulations 1995 as amended by the Plant Protection Products (Basic Conditions) Regulations 1997. All herbicides must have an appropriate full or "off-label" approval for use in a relevant situation. Refer to the Pesticide Safety Directive, for which the website is given here for your assistance: [www.pesticides.gov.uk](http://www.pesticides.gov.uk).
- All pesticides shall be applied in suitable calm weather conditions; allow for repeat spraying as required to achieve a complete kill. Apply herbicide as required and at intervals to ensure no regeneration of weed, usually equating to four sprays per year during the growing season at 6-week intervals, from late April onwards. The timing of visits may vary according to weather conditions. Extreme care must be taken to avoid damage to surrounding plants and grass, and to avoid spray drift. Any damage resulting from incorrect usage, spillage, and spray drift, to be rectified at the Management company expense.
- Pruning: Prune back hedge shrubs in the period between October to March in accordance with sound horticultural practices, pruning back to a node, shoot or bud; prune out dead, leggy and broken branches, without damage to the natural habit or appearance of plant without box clipping or rounding off plants. Prune out crossover branches, invasive suckers, dead wood, damaged stems, any spindly growths and any epicormic growth that will weaken the plant. Prune back Rosaceous and quick and leggy growing plants much harder than other species but prune back by no more than 30% in any one-year.
- Watering: For the first year after planting water shrubs during dry periods (being any period without substantial rainfall for 14 days or more). Water all shrubs to field capacity (minimum 10 litres per m<sup>2</sup>). Apply water at a frequency of up to 2 times per week from April to the end of September (to a maximum of 15 visits in any one calendar year) as required during any continuous hot weather lasting more than 7 days. The Management company shall be entirely responsible for varying the frequency of these visits according to climatic conditions and for agreeing the timing of any additional watering visits if required and where restrictions are placed on the use of water, sources and costs of obtaining second class water.

#### **4.5.4 Cyclical Works**

- Replacement and enhancement planting: Cut back any shrubs where they have become old, misshapen, leggy or they have lost their vigour. Shrubs that fail to show growth or develop full foliage (including plants damaged during management operations), where such plant failure leaves a gap in the foliage not filled by adjacent plants, shall be replaced with stock of the size, species and quality originally specified. Include any plants that are destroyed by vandalism, theft or similar cause, up to and not exceeding 5% of the plant stock. Shrubs replaced shall be the same as those specified,

previously supplied and approved. Planting should be implemented and maintained in accordance with good horticultural practice. Once annually the site shall be considered for the need for any strategic replacement or enhancement planting, to broaden the age class of vegetation in the interests of the long-term sustainability of strategically important vegetation.

- Thinning and Coppicing: Thinning and coppicing will allow shrubs to develop diversity of form and different types of nesting, feeding and foraging habitat and extend the potential life of individual plants.

## **5 IMPLEMENTATION, MONITORING AND REVIEW**

### **5.1 IMPLEMENTATION**

All management aspects relating to the external landscape areas will be undertaken by the selected management team. The Management team will coordinate all management of the site in perpetuity in accordance with this Landscape Management Plan and the accompanying maintenance schedules. A representative of the Management team will be appointed as the main point of contact for the school, relating to the management of the site.

Specialist Contractors may be used on an as needs basis to complete specialist operations and/or occasional works. The Management Team may also appoint from time-to-time consultants to provide specialist advice, monitoring or to undertake a watching brief in relation to particular aspects of this site or specific maintenance operations. This may include suitably qualified ecologists, arboriculturists, landscape architects, engineers and/or health and safety executives. All works, materials and operations will be in accordance with relevant legislation, British Standards, Regulations (including the CDM Regulations) and Codes of Practice.

### **5.2 PROCESS FOR MONITORING AND REVIEW**

The Landscape Management Plan and maintenance schedules will be monitored and assessed for their effectiveness on an annual basis following the completion of the development. Each annual review will be coordinated and completed by a suitably qualified representative. The review will include advice from specialist consultants as required (such as a qualified Arboriculturist and ecologist), the management team and other stakeholders including representative(s) from the School.

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

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

The review should identify any changes to site conditions and circumstances, whether the aims and objectives of the Landscape Management Plan are being met, and where identified changes are need to existing management practices and timeframes.

Within 1 calendar month of the review, a revised Landscape Management Plan shall be produced (if appropriate) and circulated to stakeholders.

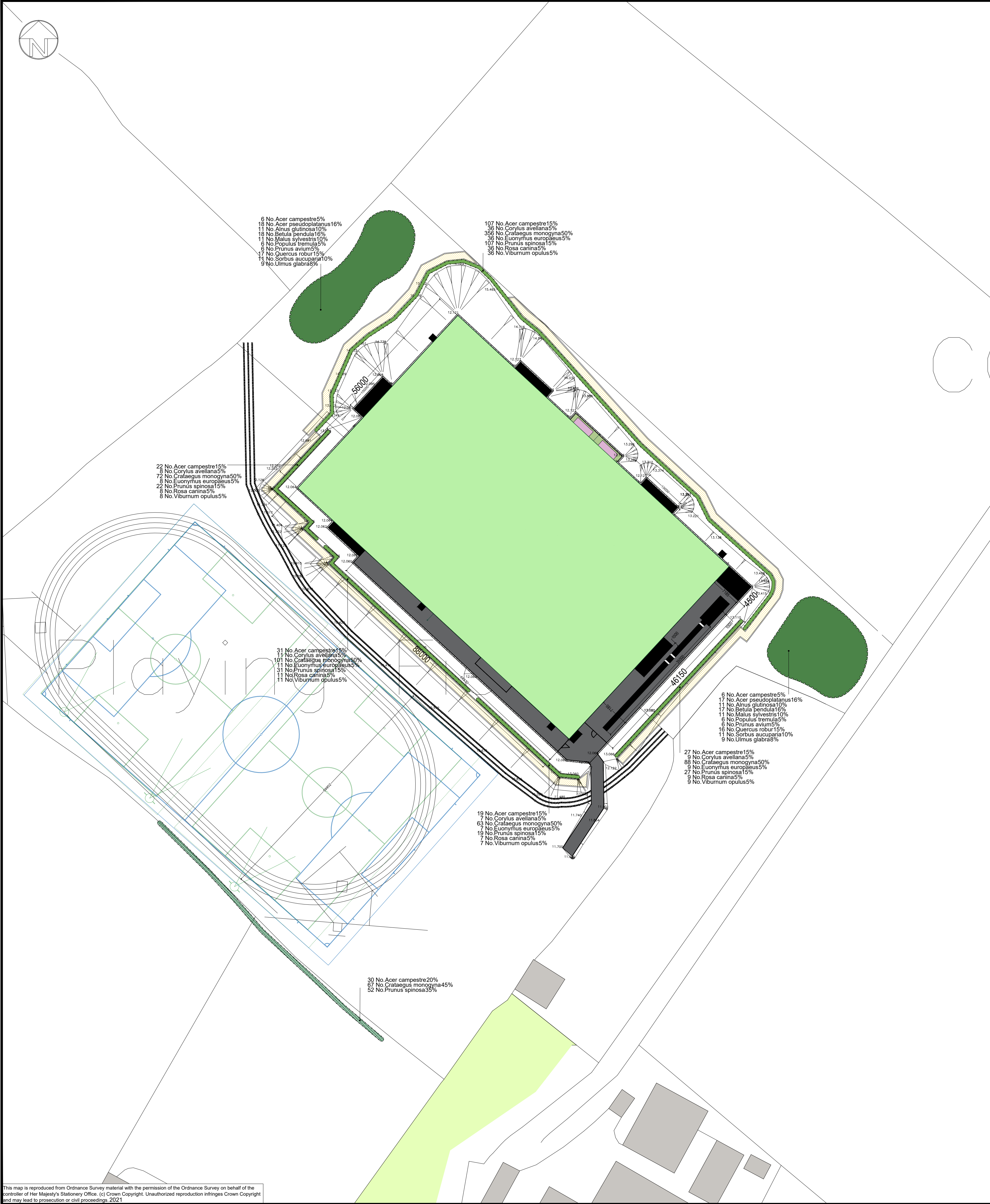
After the first five years the Landscape Management Plan will be reviewed every five years, or as required to ensure the satisfactory management of the landscape in perpetuity.

## **6 APPENDICE**

### **6.1 SITE PLANTING PLAN**

Figure 1: 2020s0614\_Landscape Plan





Native Hedgerow Planting Specification

Trees					
Number	Abbreviation	Species	Specification	Density	Mix Species Density
206	Ac	Acer campestre	Whip -BR	0.5Ctr	Double Staggered at 0.5m offset
71	Ca	Corylus avellana	Whip -BR	0.5Ctr	Double Staggered at 0.5m offset
680	C mon	Crataegus monogyna	Whip -BR	0.5Ctr	Double Staggered at 0.5m offset
71	Eeu	Euonymus europaeus	Whip -BR	0.5Ctr	Double Staggered at 0.5m offset
206	PRUSP	Prunus spinosa	Whip -BR	0.5Ctr	Double Staggered at 0.5m offset

Shrubs					
Number	Abbreviation	Species	Specification	Density	Mix Species Density
71	Rca	Rosa canina	1+1 -BR	0.5Ctr	Double Staggered at 0.5m offset
71	V op	Viburnum opulus	1+1 -BR	0.5Ctr	Double Staggered at 0.5m offset

Native Tree Planting Specification

Trees					
Number	Abbreviation	Species	Specification	Density	Mix Species Density
12	Ac	Acer campestre	Whip -BR	2Ctr	
35	ACE PSE	Acer pseudoplatanus	Whip -BR	2Ctr	
22	A gl	Ainus glutinosa	Whip -BR	2Ctr	
35	BET PEN	Betula pendula	Whip -BR	2Ctr	
22	MALSY	Malus sylvestris	Whip -BR	2Ctr	
12	POPTR	Populus tremula	Whip -BR	2Ctr	
12	Pav	Prunus avium	Whip -BR	2Ctr	
33	Qr	Quercus robur	Whip -BR	2Ctr	
22	Sau	Sorbus aucuparia	Whip -BR	2Ctr	
18	ULMGL	Ulmus glabra	Whip -BR	2Ctr	

Hedgerow Restoration Specification

Trees					
Number	Abbreviation	Species	Specification	Density	Mix Species Density
30	Ac	Acer campestre	Whip -BR	2/m	
67	C mon	Crataegus monogyna	Whip -BR	2/m	
52	PRUSP	Prunus spinosa	Whip -BR	2/m	

Wildflower grassland - Emorsgate Seeds EM4 Meadow Mix

Sown at 4g/m²

Wildflowers		%
Achillea millefolium		0.5
Agrimonia eupatoria		0.5
Centaurea nigra		3.5
Daucus carota		1.4
Filipendula ulmaria		0.2
Galium album		1.3
Geranium pratense		0.1
Knautia arvensis		0.7
Leontodon hispidus		0.1
Leucanthemum vulgare		3
Medicago lupulina		0.1
Primula veris		0.1
Prunella vulgaris		3.5
Ranunculus acris		0.5
Rumex acetosa		0.5
Sanguisorba officinalis		0.5
Silvaum silaus		0.1
Vicia cracca		0.5
Grasses		%
Agrostis capillaris		10
Alopecurus pratensis		2
Anthoxanthum odoratum		2
Briza media		3
Cynosorus cristatus		29
Festuca rubra		24
Poa pratensis		10

SPECIFICATION NOTES:

General

Services: Check for below and above ground services, including land drainage, in the vicinity. Give notice if they may be affected and obtain instructions before proceeding.

Site clearance:  
Remove rubbish, concrete, metal, glass, decayed vegetation and contaminated topsoil.  
Stones: Remove those with any dimension exceeding 50 mm.  
Contamination: Remove material containing toxins, pathogens or other extraneous substances harmful to plant, animal or human life.  
Vegetation: Clear scrub and herbaceous material to ground level using suitable approved tools and remove arisings.  
Large roots: Grub up and dispose of without undue disturbance of soil and adjacent areas.  
Additional requirements: Apply a suitable non-residual herbicide to all planting areas.

All trees and shrubs to BS. 3936 and as scheduled.

Minimum 24 months defects period to cover defects and establishment of all tree planting, 12 months defects period to cover defects and establishment of all shrub planting.

Topsoil: To BS. 3882:2015; min depth 450mm for shrubs, 600mm for whips and 150mm for grass seeded areas; preparation including grading to many in levels including finishing 25mm above adjacent hard surfaces, kerbs, inspection covers etc. and min 150mm below damp proof course level; cultivation, weed control, and stone-picking to 50mm dimension. Soil to be moist, friable and not waterlogged.

Grass and wildflower seeding: Preparation including cultivation, grading and stone-picking to 50mm. Minimum topsoil 150mm, good quality top soil, free of vegetation should be turned over, levelled, lightly consolidated and free from surface stone, other debris and perennial weeds. Do not compact the soil.

Sowing: Establish good seed contact with the root zone. Method to suit soil type, proposed usage, location and weather conditions during and after sowing. Spread seed evenly at the specified rates applied in two equal sowings in transverse directions. Lightly harrow or rake to cover seed. On light soils, roll and cross roll after seeding using a lightweight roller. Grass sowing season: April to June or August to October. Wildflower sowing season: March to May or August to October.

Maintaining grasses areas with perennial wildflowers: Before each cut remove all litter and debris.

Height and frequency of cut in first growing season:

- Time of first cut: June/ July.
- Height of first cut: 50mm.
- Frequency of subsequent cutting (minimum): Twice per year.
- Height of growth permitted (maximum): 150 mm until established.

Height and frequency of cut in second growing season:

- Time of cut: Single cut in October.
- Height of cut: 50 mm.
- Trimming: All edges.
- Arisings: Remove.
- Watering: As required.

Tree planting:

General

Condition: Materially undamaged, sturdy, healthy and vigorous.

Appearance: Of good shape and without elongated shoots.

Hardiness: Grown in a suitable environment and hardened off.

Health: Free from pests, diseases, discoloration, weeds and physiological disorders.

Root system and condition: Balanced with branch system.

Standard: The National Plant Specification or as otherwise agreed.

Species: True to name.

Whips to be planted by notch planting.

Safety: Comply with Arboriculture and Forestry Advisory Group Safety leaflets.

Notch planting in uncultivated ground:

Notching: Make a vertical 'I', 'L', 'T' or 'H' notch adjacent to ripping furrows at spacing specified.

Depth: To accommodate full depth and spread of roots.

Planting: Soak all bare root plants in water/root dip solution immediately before planting. Scatter slow release fertilizer into the planting notch at the time of planting. Fertiliser subject to contractor's choice.

Plant tree upright at nursery level, close notch with the root collar at ground level and firm well in.

Prune all plants back to bud nearest 200mm at planting or as agreed with CA.

All plants to be well watered in within 72 hours of planting.

Protection:

Manufacturer: Contractor's choice.

Product reference: Contractor's choice.

Type: Round.

Material: Polyethylene.

Size: 0.6 m high x 175 mm diameter.

Colour: Green.

Support: Single timber stake.

General: Ensure that protection methods do not impede natural movement of shrubs or restrict growth.



1			
2			
No.	Construction Risk	Maintenance Risk	Demolition Risk
In addition to the hazards/risks normally associated with the types of work detailed on this drawing take note of the above.			

SAFETY, HEALTH AND ENVIRONMENTAL INFORMATION BOX

General Notes

- All dimensions shown are in metres unless otherwise stated and levels in metres to Ordnance Datum.
- Do not scale from this drawing. All dimensions must be checked/verified on site.
- Any discrepancies noted on site are to be reported to the Supervisor immediately.
- The locations of any known services shown on drawing are approximate and for guidance only. The Contractor will confirm the location of any services prior to the commencement of any works.
- The electronic version of this drawing is not to be used for setting out.
- Refer to Contract Specification for details of materials and workmanship to be used for the works shown on this drawing.

Drawing Notes

- This drawing is to be read in conjunction with:-

Legend

- Proposed native tree planting
- Wildflower grassland
- Native hedgerow planting
- Native hedgerow restoration planting

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Project

Bowland High School Landscape

Title

Landscape Plan

Client

for

Bowland High School

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Drawn:	L Taylor	06/05/21	Designed:	L Taylor	06/05/21
Checked:	P Harrison	06/05/21	Approved:	P Harrison	06/05/21
Project Reference:		2020s0614	Scale:	AS SHOWN @ A1	
Drawing Number:			Status:	Revision:	Sheet Size:
2020s0614_Landscape Plan			S0	P01.01	A1

## **7      SCHEDULE OF MAINTENANCE OPERATIONS**



GENERAL SITE	Objectives	Actions	Time of Year (by month) and Frequency of Action (per month) for Year 1												Time of Year and Frequency of Action Years 2 – 25
			J	F	M	A	M	J	J	A	S	O	N	D	
Landscape Management and Maintenance Plan	To ensure the maintenance evolves with the site, promote successful establishment and adapts to future requirements/ standards	Review the maintenance schedules and revise where necessary												1	Every year as Year 1. This action should be continued years 2-25
Litter removal	To maintain high standard of appearance	Remove all litter and chewing gum from surfaces & planting areas	1	1	1	1	1	1	1	1	1	1	1	1	Every year as Year 1
Manual weed control	To ensure successful establishment of planting	Remove all arisings off site			1	2	2	2	2	1					Every year as Year 1 - weeding requirements will gradually reduce
Chemical weed control	To ensure successful establishment of planting	Spring and summer and only where other methods of weed control have failed. Not to be undertaken within 10m of water bodies.			1					1					Every year as Year 1 - weeding requirements will gradually reduce as planting establishes
Residual herbicide	To ensure all hard surfaces remain weed free	Applied to all hard surfaces in early spring at the start of growing season			1										Every year as Year 1
Manual cleaning of hard surface	To ensure all hard surfaces remain free from debris and trip hazards	To be undertaken by hand tools	1	1	1	1	1	1	1	1	1	1	1	1	Every year as Year 1
Mechanical cleaning of hard surfaces	To ensure all surfaces are free from chewing gum, staining and moss / algae build up, and debris / trip hazards	Road / path sweepers and pressure washers only permitted, use of chemical not permitted	As required												Every year as Year 1
Removal of dog dirt from ground	To ensure the estate remains a safe and pleasant environment for all users	Remove dirt and dispose of by bagging and disposal off site	1	1	1	1	1	1	1	1	1	1	1	1	Every year as Year 1
Graffiti removal	To maintain high standard of appearance		As required												Every year as Year 1
Snow removal	Removal of snow from all hard surfaces, mature trees and shrubs	Excessive snow to be removed from shrub/ tree planting to avoid damage to planting due to weight pressure from snow build up	As required									As required			Every year as Year 1

Ice removal/ gritting	Make safe all hard surfaces during cold spells	Any products used must be non-toxic to humans and animals, and 100 biodegradable and eco friendly													Every year as Year 1	
Clearance of fallen leaves	To reduce potential slip hazards	Leaf litter to be disposed off-site in a sustainable manner. i.e. to a composting facility										2	2	2	Every year as Year 1	
Assessment of all boundary treatments (and repair where needed)	To maintain high standard of appearance and functionality of all boundaries	Any damage is to be fenced off immediately to avoid risk of injury and repaired at the earliest opportunity	1	1	1	1	1	1	1	1	1	1	1	1	Every year as Year 1	
<b>GENERAL SITE</b>																
Objectives		Actions	Time of Year (by month) and Frequency of Action (per month) for Year 1											Time of Year and Frequency of Action Years 2 – 25		
J F M A M J J A S O N D																
Assessment of all signage	To maintain a high standard of appearance	Any damage identified is to be immediately replaced with temporary signage to ensure all necessary safety and warning information is available at all times, permanent replacement signage as required is to be ordered and installed at the earliest opportunity	1	1	1	1	1	1	1	1	1	1	1	1	Every year as Year 1	
Watering	Any planting as required to ensure successful establishment	Watering is envisaged to be required predominantly at regular intervals throughout the spring and summer months following planting works, however some additional watering may be required during excessive dry spells throughout the year	As required											Every year as Year 1		
<b>NATIVE HEDGEROW (EXISTING AND NEWLY PLANTED)</b>																
Objectives		Actions	Time of Year (by month) and Frequency of Action (per month) for Year 1											Time of Year and Frequency of Action Years 2 – 25		
J F M A M J J A S O N D																
Removal of dead, dying or diseased plants	To ensure success of scheme and safety	Watering during dry conditions (during first year subsequent planting only be required in exceptional circumstances)	1	1								1	1	1	1	Action to be carried up to Year 2. Year 3 reduced to bimonthly checks and Year 4-5 reduced to an annual check.

Gapping up existing hedgerow	Provide diverse habitat	Seeding of herbaceous cover beneath and adjacent to hedgerow species. Level/ specification of new seeding works to be agreed and provided by project ecologist, monitor success of species within individual areas and re seed bare areas with suitable seed mixes. Protect new seeding with netting and bird scarer's as required to ensure successful establishment	As instructed by project ecologist as part of defects planting works for each phase												During year 1-2
Cutting	To ensure that plants remain in a healthy, attractive and safe condition. To enhance the value of created habitat.	Cut hedgerow in late winter every second year once agricultural hedges reach required form to maximise see and berry crop. Hedges to be maintained at a height of no less than 2m and a minimum width of 2m with a mixture of heights and widths over the site. This will not be undertaken on roadsides where the hedgerow will be more intensively managed for health and safety reasons													Hedges to be cut on a rotation al basis so that some hedges remain uncut each year. Hedges will not be cut during the bird breeding season (1 March - 31 July).
Litter removal and vandalism checks	To maintain high standard of appearance	Remove all litter from all hedge rows and replace any damaged plants on a like for like basis, following a review of protection of these features to prevent future vandalism.	1	1	1	1	1	1	1	1	1	1	1	1	Every year as Year 1
Repair/replace/reinstate all stakes, guards and ties as required	To provide living planting with the greatest opportunity for success	Replace any damaged guards on a like for like basis, following a review of protection of these features to prevent future vandalism.	1	1	1	1	1	1	1	1	1	1	1	1	Action to be carried out up to Year 2. Year 3 reduced to bi-monthly checks and Year 4-5 reduced to an annual check.



Spray off 1m radius around the base of each plant/tree	To minimise competition from surrounding weed/grass growth	The presence of pernicious weeds such as broadleaved dock, common nettle, creeping thistle, ragwort and bramble will be as sessed as part of this. Should the presence of these species sto be recorded, they will be removed through the use of appropriate herbicides (if more than 10m from the nearest water body) using spot treatments or hand-pulling.				1				1						Once planting is established (approx 3 yrs onwards) spraying off no longer required.		
Inspect mammal gaps	To remain functioning	Remove any objects blocking the mammal gaps such as litter, waste and branches	1	1							1	1	1	1		Action to be carried up to Year 2. Year 3 reduced to bi-monthly checks and Year 4-5 reduced to an annual check.		
Watering	To ensure that plants remain in a healthy, attractive and safe condition.	Watering during dry conditions (during first year subsequent planting only be required in exceptional circumstances)				As required depending on weather conditions mainly through May to August. Water daily during dry spells									Only required in exceptional circumstances.			
NEWLY PLANTED TREES			Objectives		Actions		Time of Year (by month) and Frequency of Action (per month) for Year 1										Time of Year and Frequency of Action Years 2 – 25	
J F M A M J J A S O N D																		
Removal of dead, dying or diseased trees	To ensure success of scheme and safety		1	1	1	1	1	1	1	1	1	1	1	1	1	Every year as Year 1		
Repair/replace/reinstate all stakes, guards and ties as required	To provide living planting with the greatest opportunity for success		1	1	1	1	1	1	1	1	1	1	1	1	1	Every year as Year 1		
Spray off 1m radius around the base of each tree	To minimise competition from surrounding weed/grass growth					1				1						Every year as Year 1		

Watering	To ensure that trees remain in a healthy, attractive and safe condition							As required depending on weather conditions mainly through May to August. Water daily during dry spells								As required based on weatherconditions. Water daily during dry spells (especially important during years 1 - 3)
Crown lifting of specimen trees as they mature	To provide clear sight lines beneath canopy, and protect trees from vandalism															Once trees have been clear stemmed to a height of approx 2m no further removal of limbs is required unless deemed necessary by qualified arborist
PRE-EXISTING TREES (Retained)	Objectives	Actions	Time of Year (by month) and Frequency of Action (per month) for Year 1											Time of Year and Frequency of Action Years 2 – 25		
J F M A M J J A S O N D																
Removal of dead, dying or diseased trees	To ensure success of scheme and safety		As required											Every year as year 1		
Replacement planting of removed trees	To ensure success of scheme and safety	Replacement planting of any dead or diseased trees, with same species or approved substitution (of similar size) if unavailable	As required											Every year as year 1		
Pruning as required	To promote healthy future growth and keep all footpaths and routes clear from obstructions		As required											Every year as year 1		
WILDFLOWER GRASSLAND	Objectives	Actions	Time of Year (by month) and Frequency of Action (per month) for Year 1											Time of Year and Frequency of Action Years 2 – 25		
J F M A M J J A S O N D																
Ground preparation	To create optimal environment for sowing and ensure successful establishment of meadow	Remove weeds, harrow or rake to create medium tilth and tred to prepare firm surface for sowing. Advisable to plough or dig soil in Autumn for sowing in Spring, to avoid accumulated wet soils. Can be sown at other times of year if sufficient warmth and moisture.										1	1	1	Year 1 only	

Sowing	For successful establishment of meadow	Surface sown by hand or applied by machine. For even distribution, sow in overlapping sections. Firm in seed with roll or by treading				Sow once - as per chosen month								Year 1 only
Cutting (Short term)	Control of annual weeds obscuring meadow seedlings. Help to maintain balance between faster growing grasses and slower growth wildflowers	Wildflowers and grasses will not usually flower in first growing season. Annual weeds in first season should be mown. Mow to height of 40-60mm removing cuttings if dense				As required								Year 1 only
Cutting (Long term)	To ensure meadow perennials add colour, interest and form on a yearly basis	Hay cut' after flowering in July/August with a scythe, petrol strimmer or tractor mower to c40-75mm. Leave hay cuttings to dry and set seed for 2-7 days before collecting and removing off site.									1			Mow or graze regrowth again to c50mm in October or March if required due to weather conditions. Cutting may be varied by ecologist if reptiles are present.
Watering	To ensure that planting areas remain in a healthy, attractive and safe condition													
Mulching	To minimise weed growth within planting areas						1	1	1	1				Every year as Year 1

#### Offices at

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