# Yew Tree Road

## Landscape Management Plan

06.06.2024

LMP-5871-01.02

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| **Report reference** | **LMP-5871-01.02** |
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| **Date** | 06/06/2024 |

**CONTENTS**

## 1.0 INTRODUCTION

This document has been prepared by Brooks Ecological Ltd as commissioned by North Park Homes Ltd to show how the created Landscape features on site will be managed and maintained to maximise their biodiversity and landscape value.

There are two development phases with similar landscape treatments. This Landscape Management Plan applies to both sites. The Sites will be developed for housing with relevant infrastructure, open space, gardens and landscaping. Landscape proposals have been developed with reference to the Brooks Ecological Ltd Biodiversity Net Gain Assessments (ER-5871-03A BNG 3.1 – West; and ER-5871-04 BNG 3.1 - East).

This document shall be read in conjunction and shall be delivered in accordance with the most up to date revision of the Yew Tree Road Landscape Masterplans (DR-5871-01 Landscape Masterplan Rev P05; and DR-5871-02 Landscape Masterplan Rev P03).

For the purposes of defining legal agreements for delivery of the activities detailed in this document, such specifications shall apply to all retained, enhanced and created ecological and landscape features within the red line boundary (application boundary) and all retained, enhanced and created ecological and landscape features along the red line boundary which fall under the responsibility of the site (including but not limited to walls, trees and hedgerows). For the avoidance of doubt, ecological and landscape features are any existing or created soft features outwith the roads, footpaths, buildings and hard elements of the project including but not limited to amenity grassland, ornamental shrub and herbaceous planting, street trees, species rich lawns, species rich wildflower meadows, amenity hedges, native hedgerows, as relevant to the project. Additional ecological elements such as bird and bat boxes, woodpiles or similar features are dealt with separately in the ecology reports.

The obligations of this LMP shall come into force on the first day of commencement of works on site and shall continue to operate, uninterrupted, until the last day of the 5 year maintenance period following practical completion. Beyond this it is anticipated that the LMP will be used to inform the in-perpetuity management of the site by the Management Company.

All works specified herein shall be undertaken and completed to the highest quality standards maximising the potential success of the landscape scheme for the development; and in compliance with relevant health and safety legislation.

This document shall be reviewed and updated annually with the option to extend delivery every 5 years. The client is not obliged to retain the services of the same provider for the full period of the LMP and shall follow the requirements of their own procurement rules.

### General Site Description

The sites sit adjacent to each other on the junction of Yew Tree Road and Burn Road. The land is currently rough grassland with boundary woodland to the western boundary (part of Kirklees Wildlife Habitat Network), a treed hedgerow with rough grassland beyond to the southern boundary and individual mature deciduous trees within the site. The site is bounded by Burn Road along its eastern extent with residential development and associated road access beyond, and Yew Tree Road along its northern extent with residential development and associated road access beyond.

Beyond the immediate surroundings, the wider landscape features a regular pattern of residential and agricultural use with associated roads. The site sits to the northwestern edge of Huddersfield 0.5 miles southeast of junction 24 off the M62 and 0.5 miles west of Huddersfield Golf Club.

**Ecology**

The ecological value of the site has been established through the Brooks Ecological Ltd Biodiversity Net Gain Assessments (ER-5871-03A BNG 3.1 – West; and ER-5871-04 BNG 3.1 - East) which identify a range of existing poor to medium quality habitats on site including: vacant / derelict land / bare ground; other woodland - broadleaved; urban trees; other neutral grassland; and mixed scrub.

In terms of ecological constraints the relevant legally constrained matters relate to nesting birds, invasive species and roosting bats to the properties off the northwestern corner of the site boundary.

Site works which may affect the onsite trees will need to be undertaken outwith the nesting bird season.

**Development Proposals**

The development consists of replacement of the existing vacant land and grassland with housing and associated road, footpath and private garden infrastructure with a public footpath link connecting the development to the Kirklees Wildlife Habitat Network woodland to the west. Some existing trees are being retained to the site's southern and western boundaries.

Each site is proposed to be accessed via a new road entrance off Yew Tree Lane with a further road connection between the two phases.

## 2.0 LANDSCAPE PROPOSALS

The landscape strategy seeks to provide an aesthetically pleasing development for new residents enhanced by planting of ecological value for local wildlife. Habitats on site are diversified by creating wildflower grassland in the public areas, with native hedgerow to the western and southern boundaries of phase 2, insect friendly ornamental planting and tree planting which connects the housing to the wider landscape providing foraging routes for wildlife.

Landscape Masterplan – Phase 1

Landscape Masterplan – Phase 2


KEY

Proposed tree - heavy or select standard

Hedge planting -7 species in every 5m

Ornamental planting

Amenity grass

Species rich grassland

Existing dry stone wall c 1m high

Proposed stone wall 900mm high

900mm close boarded timber fence on top of 900mm high stone wall

Close-boarded timber fence with 13 cm high by 13cm wide gap for hedgehogs to be created beneath each 1.8m long fence panel, with remainder of gap beneath fence blocked with 10cm deep timber board to keep small dogs within rear gardens.

900mm post and rail timber fence set 1m inside southern boundary

Top edge of swale

Centre line of swale, depth 450mm below adjacent ground levels, sides 1:3 gradient, culverted under drives, taken to soakaway/infiltration basin/mains drainage.

Bd — House sparrow terraces from Bird Brick Houses as blocks of two boxes set approx. 4 courses below top of house wall, no windows or doors beneath.

Bird and bat bricks on side elevations of all buildings.

Bt — Bat box from Bird Brick Houses set approx 4 courses down from top of wall, no windows or door beneath.

0m 1m 2m 3m 4m 5m 10m 20m

PLANT SCHEDULE

Species rich grassland

Grassed areas

| Seed Mix Name | Seed Mix Supplier | Density |
|---|---|---|
| EM2 Standard Meadow | Emmorsgate Seeds | 4g/m² |

Ground preparation:

Break up subsoil to a depth of 300mm and remove any rubbish or material greater than 50mm in any dimension. Remove perennial weeds using repeated cultivation. Apply 50mm topsoil.

Sowing:

Seed is best sown in the autumn or spring but can be sown at other times of the year if there is sufficient warmth and moisture. The seed must be surface sown and can be applied by machine or broadcast by hand. To get an even distribution and avoid running out divide the seed into two or more parts and sow in overlapping sections. Do not incorporate or cover the seed but firm in with a roll, or by treading, to give good soil/seed contact.

Aftercare:

First year management:

Most sown meadow wildflower and grass species are perennial; they will be slow to germinate and grow and will not usually flower in their first growing season. There will often be a flush of annual weeds from the soil in the first growing season which may grow up and obscure the meadow seedlings beneath. This annual weed growth is easily controlled by topping or mowing. Mow newly sown meadows regularly throughout the first year of establishment to a height of 40-60mm, removing cuttings if dense. This will control annual weeds and help maintain balance between faster growing grasses and slower developing wildflowers. Carefully dig out or spot treat any residual perennial weeds such as docks.

Management once established:

In the second and subsequent years EM2 sowings can be managed in a number of ways which, in association with soil fertility, will determine the character of the grassland. The best results are usually obtained by traditional meadow management based around a main summer hay cut in combination with autumn and possibly spring mowing. Meadow grassland is not cut from spring through to late July/August to give the sown species an opportunity to flower. After flowering in July or August take a 'hay cut': cut back with a scythe, petrol strimmer to c 50mm. Leave the 'hay' to dry and shed seed for 1-7 days then remove from site. Mow the re-growth through to late autumn/winter to c 50mm and again in spring if needed.

Amenity grass

Grassed areas

| Seed Mix Name | Seed Mix Supplier | Density |
|---|---|---|
| EG22 Strong Lawn Grass Mixture | Emmorsgate Seeds | 25g/m² |

Ground preparation:

Treat weed growth with a suitable herbicide and leave for 2-3 weeks prior to removing. Remove weeds using repeated cultivation. Plough or dig to break up the ground and remove any stones, rubble, large roots or other debris over 50mm in size and dispose off site, then cultivate the soil with a rotovator, harrow or rake to produce a medium tilth. Leave the ground to settle for several days or weeks. Lightly re-cultivate the surface, pick off any large stones or bricks, then rake and roll (or tread) the soil surface repeatedly in different directions, moving soil if needed to smooth out minor humps and depressions until you have a firm even surface. The final raking and rolling should produce a seed bed with a medium-fine tilth ready for seeding.

Sowing:

Seed is best sown in the autumn or spring but can be sown at other times of the year if there is sufficient warmth and moisture. The seed must be surface sown and can be applied by machine or broadcast by hand. To get an even distribution and avoid running out divide the seed into two or more parts and sow in overlapping sections. Do not incorporate or cover the seed but firm in with a roll, or by treading, to give good soil/seed contact.

Aftercare:

First year management:

Once seedling grasses are established, (typically in good growing conditions about three to four weeks after sowing), lightly roll or tread to firm and level the soil around the grass roots ready for the first cut. (Do not roll however if the ground is saturated with water).
After a few days, when the grass has picked up again, the lawn will be ready for its first cut. Cut with the mower set on a high setting (50mm +), aiming to trim the sown grass back by about one-third of its height and cut back any weeds.
Thereafter mow the new lawn regularly as needed to maintain a sward height of between 25-40mm.
A new sown lawn will take a full year or more to reach full strength and ground cover and knit together as a turf. It can be walked on during establishment, but avoid heavy use that might cause wear and tear.

Management once established:

Mow lawns regularly as required throughout the growing season (generally March - October). In the summer increase the mowing regime to twice a week unless the lawn is suffering drought in which case drop it back to once a week and increase the watering regime.

Trees

Trees

| Number | Species | Height | Girth | Specification |
|---|---|---|---|---|
| 3 - | Amelanchier arborea 'Robin Hill' | 400-450cm | 14-16cm | Heavy Standard :RB :3x |
| 2 - | Malus 'Rudolph' | 350-400cm | 12-14cm | Selected Standard :RB :2x |
| 1 - | Malus 'Rudolph' | 400-450cm | 14-16cm | Selected Standard :RB :2x |
| 3 - | Prunus subhirtella 'Autumnalis' | 400-450cm | 14-16cm | Heavy Standard :RB :3x |
| 2 - | Pyrus calleryana 'Chanticleer' | 400-450cm | 14-16cm | Heavy Standard :RB :3x |
| 2 - | Sorbus aria 'Lutescens' | 400-450cm | 14-16cm | Heavy Standard :RB :3x |
| 2 - | Sorbus commixta 'Embley' | 400-450cm | 14-16cm | Heavy Standard :RB :3x |

Preparation and planting:

Multipurpose Topsoil to comply with BS 3882. Remove any general rubbish, stones, large roots and existing weed vegetation from the planting site. Plant in the dormant season between late October to late March. Plant immediately upon delivery from the supplier. Roots must be well soaked prior to planting. Dig a planting pit larger than the root ball (at least 150mm wider in all directions) and break up the base. Back fill top soil into the planting pit to bring the root ball level with the soil surface. Place the tree into the planting pit and backfill with top soil, firming in to hold the root ball in place. Water immediately. Trees will require staking, place two stakes driven 500mm into the base of the tree pit with 600mm clearance above ground directly opposite each other with the tree in between the two. Using cross bracing and soft tree ties to secure the tree loosely to the stakes. Apply 75mm settled depth of chipped bark to an area 1m radius from the tree trunk.

Maintenance requirements:

During the first growing season, water regularly until new roots have established. Thereafter water regularly in hot weather. Allow 10L per tree per day. Top up annually to 75mm settled depth chipped bark. After the fifth year remove the stakes from the trees.

Ornamental planting

Shade Mix 1

| Number | Species | Pot Size | Height | Spread | Specification | Density | Percentage Contribution |
|---|---|---|---|---|---|---|---|
| 19 - | Dryopteris filix-mas | 3L | | | Full Pot | 4/m² | 20% |
| 10 - | Hebe brachysiphon | 3L | 30-40cm | | C | 4/m² | 10% |
| 10 - | Hebe ochracea | 3L | 30-40cm | | C | 4/m² | 10% |
| 10 - | Pulmonaria angustifolia | 3L | | 20-30cm | C | 4/m² | 10% |
| 10 - | Ruscus aculeatus | 3L | 30-40cm | | C | 4/m² | 10% |
| 10 - | Sarcococca confusa | 3L | 30-40cm | | C | 4/m² | 10% |
| 10 - | Sarcococca hookerana digy. 'Purple Stem' | 3L | 30-40cm | | C | 4/m² | 10% |
| 10 - | Skimmia japonica 'Fragrans' | 3L | 30-40cm | | C | 4/m² | 10% |
| 10 - | Vinca minor | 3L | 30-40cm | | C | 4/m² | 10% |
| Total :99 - | | | | | | | |

Prairie mix 1

| Number | Species | Pot Size | Spread | Specification | Density | Percentage Contribution |
|---|---|---|---|---|---|---|
| 8 - | Aster macrophyllus | 3L | 20-30cm | C | 4/m² | 3% |
| 29 - | Calamagrostis brachytricha | 3L | | Full Pot | 5/m² | 10% |
| 10 - | Digitalis ferruginea | 3L | 20-30cm | C | 5/m² | 3% |
| 15 - | Echinacea purpurea | 3L | 20-30cm | C | 5/m² | 5% |
| 24 - | Eragrostis curvula | 3L | | Full Pot | 4/m² | 10% |
| 8 - | Eupatorium cannabinum | 3L | 20-30cm | C | 4/m² | 3% |
| 8 - | Filipendula ulmaria 'Variegata' | 3L | 20-30cm | C | 4/m² | 3% |
| 13 - | Hemerocallis liliioasphodelus | 3L | 20-30cm | C | 4/m² | 5% |
| 18 - | Miscanthus sinensis 'Kleine Fontane' | 3L | | Full Pot | 3/m² | 10% |
| 24 - | Molinia caerulea arundinacea 'Transparent' | 3L | | Full Pot | 4/m² | 10% |
| 8 - | Monarda 'Prairie Night' | 3L | 20-30cm | C | 4/m² | 3% |
| 24 - | Panicum virgatum 'Heavy Metal' | 3L | | Full Pot | 4/m² | 10% |
| 24 - | Pennisetum alopecuroides | 3L | | Full Pot | 4/m² | 10% |
| 15 - | Rudbeckia laciniata | 3L | 20-30cm | C | 5/m² | 5% |
| 18 - | Stipa calamagrostis | 3L | | Full Pot | 3/m² | 10% |
| Total :246 - | | | | | | |

Preparation and planting:

Multipurpose topsoil to comply with BS 3882. Remove any general rubbish, stones, large roots and existing weed vegetation from the planting site. Break up subsoil and cultivate to a depth of 300mm. Add top soil to a further settled depth of 300mm. Plant in the dormant season between late October to late March. Plant immediately on delivery from the supplier and ensure to retain moisture to the roots. Roots shall be well soaked prior to planting. Dig a planting pit larger than the root ball (at least 50mm wider in all directions), add pelleted chicken manure or similar to the planting pit prior to planting in accordance with the manufacturers instructions. Back fill top soil into the planting pit to bring the root ball level with the soil surface. Place the plant into the planting pit and backfill with top soil, firming in to hold the root ball in place. Water immediately. Apply a biodegradable weed suppressant matting overlayed with 75mm settled depth of bark chippings to the shrub bed post planting to suppress weed growth. These instructions apply to all shrubs and perennials to be planted in the ornamental planting beds.

Maintenance requirements:

During the first growing season, water regularly until new roots have established. Thereafter water regularly in hot weather. Allow 3L water per shrub and 2L per perennial per day. At the end of the growing season cut away any dead, damaged, diseased, dying or crossing branches to maintain plant health. For the first 5 years feed all new plants with pelleted chicken manure or similar in accordance with the manufacturers instructions, once a year at the beginning of the growing season and water in. Thereafter a mulch of organic matter such as well rotted manure or leaf manure or compost at the beginning of the growing season will maintain a healthy supply of nutrients for each plant. Top up annually to 75mm settled depth of bark chippings to the shrub bed to suppress weed growth. Remove and replace any diseased plants to prevent the spread of disease.

Ornamental hedging

Shrubs

| Number | Species | Pot Size | Height | Specification | Density |
|---|---|---|---|---|---|
| 81 - | Escallonia 'Apple Blossom' | 3L | 40-60cm | C :Bushy | 0.4Ctr Double Staggered at 0.4m offset |

Preparation and planting:

A minimum of 350mm of topsoil (to BS 3882 Grade: General Purpose) and 300mm cultivated depth of sub-soil will be provided in all hedge planting areas. Remove all general rubbish, stones, earth clods, large roots and existing weed vegetation exceeding 50mm in any one dimension from the top soil. Rake the surface to an even, firm, friable surface that is not over compacted and ensure levels tie in to the surround areas. All plant material will be to BS 3936 (Nursery Stock). Plant in the dormant season between late October to late March. Plant immediately on delivery from the supplier. Roots must be well soaked prior to planting. Dig a planting pit larger than the root ball (at least 50mm wider in all directions), add pelleted chicken manure or similar to the planting pit prior to planting in accordance with the manufacturer's instructions. Plant in a double staggered row, planting bed minimum 800mm wide cultivated to a minimum 300mm depth, with 400mm between rows and 400mm between plants at 5 plants per meter, plant so the root collar is at the same level as when in the pot. Back fill top soil into the planting pit to bring the top of the root ball level with the soil surface. Water immediately. Apply 75mm settled depth of bark chippings post planting to all hedge planting beds to suppress weed growth.

Maintenance requirements:

During the first growing season, water regularly until new roots have established. Thereafter water regularly in hot weather. Allow 3L water per plant per day. Lightly prune the tips of the branches just before the growing season to make them branch out. At the end of the growing season cut away any dead, damaged or crossing branches to maintain plant health. For the first 5 years feed all new plants with a pelleted chicken manure or similar in accordance with the manufacturer's instructions, once a year at the beginning of the growing season and water in. Thereafter a mulch of organic matter such as: well-rotted manure or leaf manure or compost at the beginning of the growing season will maintain a healthy supply of nutrients for each plant. Top up to 75mm settled depth bark chippings annually to supress weed growth. Remove and replace any diseased plants to prevent the spread of disease.

Project Name: Yew Tree Road

Drawing Name: Landscape Masterplan

Drawing No: DR-5871-01

Drawn: TH Checked: MB

Date: October 2023

Scale: 1:150 at A0

| FOR PLANNING | | |
|---|---|---|
| P05 | TH | 19.10.2023 |
| Rev | Drawn | Date |

NB: All areas are indicative, scaled from plan, and must be checked on site.

NB: See architects drawings for details of boundary treatments. Proposals shown on this drawing for illustration purposes only.

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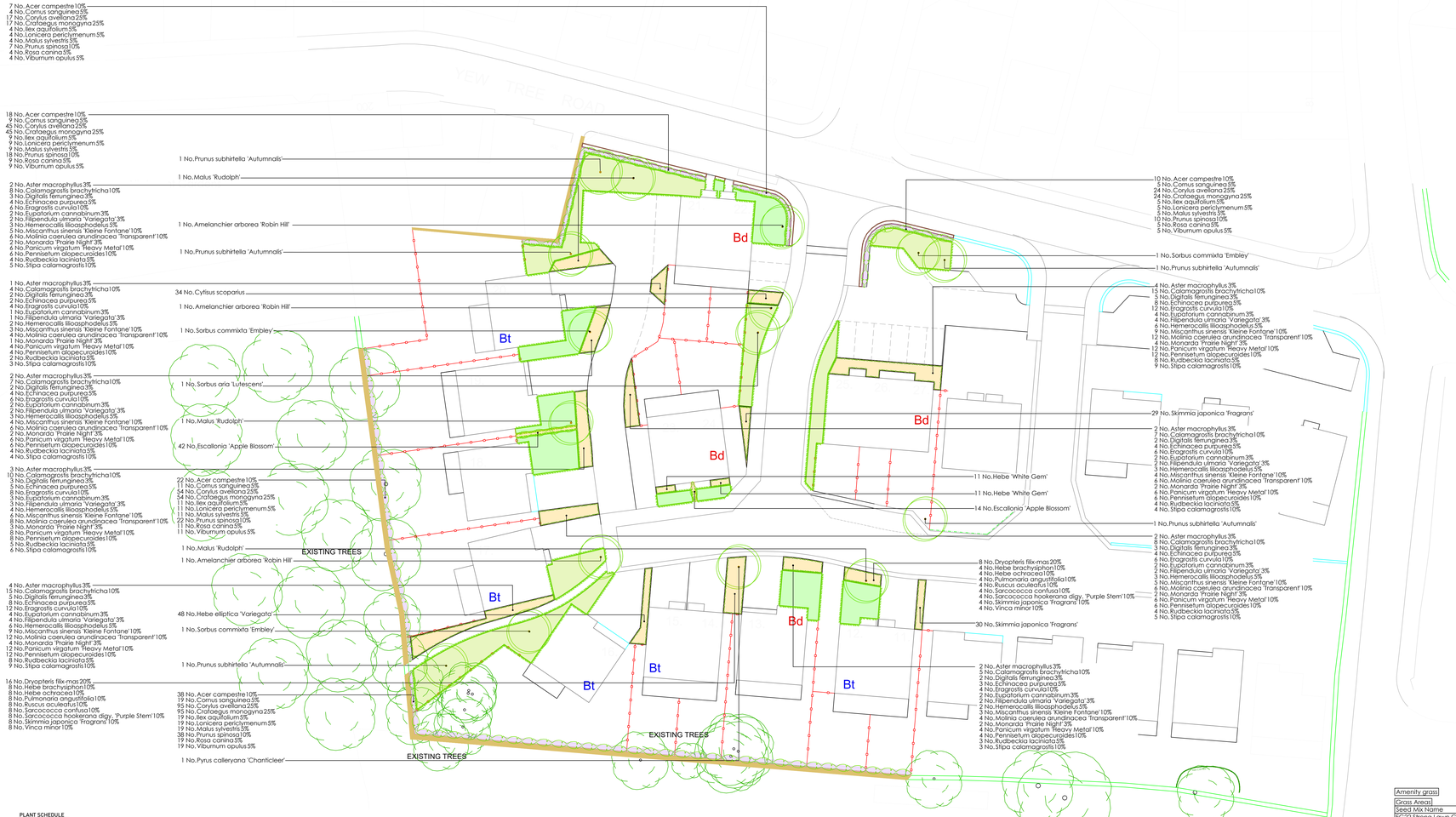
Brooks Ecological — Grounded advice




KEY

- Proposed tree - select standard
- Mixed, native hedge -7 species in every 5m
- Shrub/herbaceous planting
- Amenity grass
- Species rich grassland
- Existing dry stone wall c 1m high
- Proposed stone wall 900mm high
- 900mm close boarded timber fence on top of 900mm high stone wall
- Close-boarded timber fence with 13 cm high by 13cm wide gap for hedgehogs to be created beneath each 1.8m long fence panel, with remainder of gap beneath fence blocked with 10cm deep timber board to keep small dogs within rear gardens.
- 900mm post and rail timber fence
- Bd — House Sparrow terraces from Bird Brick Houses as blocks of two boxes set approx. 4 courses below top of house wall, no windows or doors beneath.

Bird and bat bricks on side elevations of all buildings.

- Bt — Bat box from Bird Brick Houses set approx 4 courses down from top of wall, no windows or door beneath.

0m 1m 2m 3m 4m 5m 10m 20m

N

PLANT SCHEDULE

Trees

Trees

| Number | Species | Girth | Height | Specification | Density |
|---|---|---|---|---|---|
| 3 | Amelanchier arborea 'Robin Hill' | 12-14cm | 350-400cm | Selected Standard 'RB' 2x | Counted |
| 3 | Malus 'Rudolph' | 12-14cm | 350-400cm | Selected Standard 'RB' 2x | Counted |
| 5 | Prunus subhirtella 'Autumnalis' | 12-14cm | 350-400cm | Selected Standard 'RB' 2x | Counted |
| 1 | Pyrus calleryana 'Chanticleer' | 12-14cm | 350-400cm | Selected Standard 'RB' 2x | Counted |
| 1 | Sorbus aria 'Lutescens' | 12-14cm | 350-400cm | Selected Standard 'RB' 2x | Counted |
| 3 | Sorbus commixta 'Embley' | 12-14cm | 350-400cm | Selected Standard 'RB' 2x | Counted |

Preparation and planting:

Multipurpose Topsoil to comply with BS 3882. Remove any general rubbish, stones, large roots and existing weed vegetation from the planting site. Plant in the dormant season between late October to late March. Plant immediately upon delivery from the supplier. Roots must be well soaked prior to planting. Dig a planting pit larger than the root ball (at least 150mm wider in all directions) and break up the base. Back fill top soil into the planting pit to bring the root ball level with the soil surface. Place the tree into the planting pit and backfill with top soil, firming in to hold the root ball in place. Water immediately. Trees will require staking, place two stakes driven 500mm into the base of the tree pit with 600mm clearance above ground directly opposite each other with the tree in between the two. Using cross bracing and soft tree ties to secure the tree loosely to the stakes. Apply 75mm settled depth of chipped bark to an area 1m radius from the tree trunk.

Maintenance requirements:

During the first growing season, water regularly until new roots have established. Thereafter water regularly in hot weather. Allow 10L per tree per day. Top up annually to 75mm settled depth chipped bark. After the fifth year remove the stakes from the trees.

Native hedgerow

Mixed Species Rich Native Hedgerow]

| Number | Species | Specification | Density | Percentage Contribution |
|---|---|---|---|---|
| 95 | Acer campestre | BR :1+1 : groups of 3-8 | 0.4Ctr Double Staggered at 0.4m offset | 10% |
| 48 | Cornus sanguinea | BR :1+1 : groups of 3-8 | 0.4Ctr Double Staggered at 0.4m offset | 5% |
| 235 | Corylus avellana | BR :1+1 : groups of 3-8 | 0.4Ctr Double Staggered at 0.4m offset | 25% |
| 235 | Crataegus monogyna | BR :1+1 : groups of 3-8 | 0.4Ctr Double Staggered at 0.4m offset | 25% |
| 48 | Ilex aquifolium | Individuals | 0.4Ctr Double Staggered at 0.4m offset | 5% |
| 48 | Lonicera periclymenum | Individuals | 0.4Ctr Double Staggered at 0.4m offset | 5% |
| 48 | Malus sylvestris | BR :1+1 : groups of 3-5 | 0.4Ctr Double Staggered at 0.4m offset | 5% |
| 95 | Prunus spinosa | BR :1+1 : groups of 5-9 | 0.4Ctr Double Staggered at 0.4m offset | 10% |
| 48 | Rosa canina | BR :1+1 : groups of 3-8 | 0.4Ctr Double Staggered at 0.4m offset | 5% |
| 48 | Viburnum opulus | BR :1+1 : groups of 3-5 | 0.4Ctr Double Staggered at 0.4m offset | 5% |
| Total :948 | | | | |

Branched, planted in a double staggered row at 400mm centres with 400mm between rows, protect plants with spiral tree guards and apply 75mm settled depth of chipped bark or similar to supress weeds.

Year 1-3: Standard hedgerow establishment in accordance with supplier guidelines.

Year 4 onwards: Cut no more than 90% of hedge in February, spread chippings under the hedge. Leave remaining sections to grow for 1 further year. Vary the location of sections which are left for two years each year.

Ornamental planting

Shrubs

| Number | Species | Pot Size | Height | Specification | Density |
|---|---|---|---|---|---|
| 34 | Cytisus scoparius | 3L | 30-40cm | RB :Bushy | 4/m² |
| 22 | Hebe 'White Gem' | 3L | 20-30cm | C :Bushy | 4/m² |
| 48 | Hebe elliptica 'Variegata' | 3L | 30-40cm | C :Bushy | 4/m² |
| 59 | Skimmia japonica 'Fragrans' | 3L | 30-40cm | C :Bushy | 4/m² |

Prairie mix 1

| Number | Species | Pot Size | Spread | Specification | Density | Percentage Contribution |
|---|---|---|---|---|---|---|
| 22 | Aster macrophyllus | 3L | 20-30cm | C | 4/m² | 3% |
| 79 | Calamagrostis brachytricha | 3L | | Full Pot | 5/m² | 10% |
| 27 | Digitalis ferruginea | 3L | 20-30cm | C | 5/m² | 3% |
| 42 | Echinacea purpurea | 3L | 20-30cm | C | 5/m² | 5% |
| 64 | Eragrostis curvula | 3L | | Full Pot | 4/m² | 10% |
| 22 | Eupatorium cannabinum | 3L | 20-30cm | C | 4/m² | 3% |
| 22 | Filipendula ulmaria 'Variegata' | 3L | 20-30cm | C | 4/m² | 3% |
| 32 | Hemerocallis lilioasphodelus | 3L | 20-30cm | C | 4/m² | 5% |
| 48 | Miscanthus sinensis 'Kleine Fontane' | 3L | | Full Pot | 3/m² | 10% |
| 64 | Molinia caerulea arundinacea 'Transparent' | 3L | | Full Pot | 4/m² | 10% |
| 22 | Monarda 'Prairie Night' | 3L | 20-30cm | C | 4/m² | 3% |
| 64 | Panicum virgatum 'Heavy Metal' | 3L | | Full Pot | 4/m² | 10% |
| 64 | Pennisetum alopecuroides | 3L | | Full Pot | 4/m² | 10% |
| 42 | Rudbeckia laciniata | 3L | 20-30cm | C | 5/m² | 5% |
| 48 | Stipa calamagrostis | 3L | | Full Pot | 3/m² | 10% |
| Total :662 | | | | | | |

Shade Mix 1

| Number | Species | Pot Size | Height | Spread | Specification | Density | Percentage Contribution |
|---|---|---|---|---|---|---|---|
| 24 | Dryopteris filix-mas | 3L | | | Full Pot | 4/m² | 20% |
| 12 | Hebe brachysiphon | 3L | 30-40cm | | C | 4/m² | 10% |
| 12 | Hebe ochracea | 3L | 30-40cm | | C | 4/m² | 10% |
| 12 | Pulmonaria angustifolia | 3L | | 20-30cm | C | 4/m² | 10% |
| 12 | Ruscus aculeatus | 3L | 30-40cm | | C | 4/m² | 10% |
| 12 | Sarcococca confusa | 3L | 30-40cm | | C | 4/m² | 10% |
| 12 | Sarcococca hookerana digy. 'Purple Stem' | 3L | 30-40cm | | C | 4/m² | 10% |
| 12 | Skimmia japonica 'Fragrans' | 3L | 30-40cm | | C | 4/m² | 10% |
| 12 | Vinca minor | 3L | 30-40cm | | C | 4/m² | 10% |
| Total :120 | | | | | | | |

Preparation and planting:

Multipurpose topsoil to comply with BS 3882. Remove any general rubbish, stones, large roots and existing weed vegetation greater than 50mm in any one dimension from the planting site.
Break up subsoil and cultivate to a depth of 300mm. Add top soil to a further settled depth of 300mm. Plant in the dormant season between late October to late March. Plant immediately on delivery from the supplier and ensure to retain moisture to the roots. Roots shall be well soaked prior to planting. Dig a planting pit larger than the root ball (at least 50mm wider in all directions), add pelleted chicken manure or similar to the planting pit prior to planting in accordance with the manufacturers instructions. Back fill top soil into the planting pit to bring the root ball level with the soil surface. Place the plant into the planting pit and backfill with top soil, firming in to hold the root ball in place. Water immediately. Apply a biodegradable weed suppressant matting overlayed with 75mm settled depth of bark chippings to the shrub bed post planting to suppress weed growth. These instructions apply to all shrubs and perennials to be planted in the ornamental planting beds.

Maintenance requirements:

During the first growing season, water regularly until new roots have established. Thereafter water regularly in hot weather. Allow 3L water per shrub and 2L per perennial per day. At the end of the growing season cut away any dead, damaged, diseased, dying or crossing branches to maintain plant health. For the first 5 years feed all new plants with pelleted chicken manure or similar in accordance with the manufacturers instructions, once a year at the beginning of the growing season and water in. Thereafter a mulch of organic matter such as well rotted manure or leaf manure or compost at the beginning of the growing season will maintain a healthy supply of nutrients for each plant. Top up annually to 75mm settled depth of bark chippings to the shrub bed to suppress weed growth. Remove and replace any diseased plants to prevent the spread of disease.

Species rich grassland

Grass Areas]

| Seed Mix Name | Seed Mix Supplier | Density |
|---|---|---|
| EM2 Standard Meadow | Emmorsgate Seeds | 4g/m² |

Ground preparation:

Break up subsoil to a depth of 300mm and remove any rubbish or material greater than 50mm in any dimension. Remove perennial weeds using repeated cultivation. Apply 50mm topsoil.

Sowing:

Seed is best sown in the autumn or spring but can be sown at other times of the year if there is sufficient warmth and moisture. The seed must be surface sown and can be applied by machine or broadcast by hand. To get an even distribution and avoid running out divide the seed into two or more parts and sow in overlapping sections. Do not incorporate or cover the seed but firm in with a roll, or by treading, to give good soil/seed contact.

Aftercare:

First year management:

Most sown meadow wildflower and grass species are perennial: they will be slow to germinate and grow and will not usually flower in their first growing season. There will often be a flush of annual weeds from the soil in the first growing season which may grow up and obscure the meadow seedlings beneath. This annual weed growth is easily controlled by topping or mowing. Mow newly sown meadows regularly throughout the first year of establishment to a height of 40-60mm, removing cuttings if dense. This will control annual weeds and help maintain balance between faster growing grasses and slower developing wildflowers. Carefully dig out or spot treat any residual perennial weeds such as docks.

Management once established:

In the second and subsequent years EM2 sowings can be managed in a number of ways which, in association with soil fertility, will determine the character of the grassland. The best results are usually obtained by traditional meadow management based around a main summer hay cut in combination with autumn and possibly spring mowing. Meadow grassland is not cut from spring through to late July/August to give the sown species an opportunity to flower. After flowering in July or August take a 'hay cut': cut back with a scythe, petrol strimmer to c 50mm. Leave the 'hay' to dry and shed seed for 1-7 days then remove from site. Mow the re-growth through to late autumn/winter to c 50mm and again in spring if needed.

Amenity grass

Grass Areas]

| Seed Mix Name | Seed Mix Supplier | Density |
|---|---|---|
| EG22 Strong Lawn Grass Mixture | Emmorsgate Seeds | 25g/m² |

Ground preparation:

Treat weed growth with a suitable herbicide and leave for 2-3 weeks prior to removing. Remove weeds using repeated cultivation. Plough or dig to break up the ground and remove any stones, rubble, large roots or other debris over 50mm in size and dispose off site, then cultivate the soil with a rotovator, harrow or rake to produce a medium filth. Leave the ground to settle for several days or weeks. Lightly re-cultivate the surface, pick off any large stones or bricks, then rake and roll (or tread) the soil surface repeatedly in different directions, moving soil if needed to smooth out minor humps and depressions until you have a firm even surface. The final raking and rolling should produce a seed bed with a medium-fine filth ready for seeding.

Sowing:

Seed is best sown in the autumn or spring but can be sown at other times of the year if there is sufficient warmth and moisture. The seed must be surface sown and can be applied by machine or broadcast by hand. To get an even distribution and avoid running out divide the seed into two or more parts and sow in overlapping sections. Do not incorporate or cover the seed but firm in with a roll, or by treading, to give good soil/seed contact.

Aftercare:

First year management:

Once seedling grasses are established, (typically in good growing conditions about three to four weeks after sowing), lightly roll or tread to firm and level the soil around the grass roots ready for the first cut. (Do not roll however if the ground is saturated with water).
After a few days, when the grass has picked up again, the lawn will be ready for its first cut. Cut with the mower set on a high setting (50mm +), aiming to trim the sown grass back by about one-third of its height and cut back any weeds.
Thereafter mow the new lawn regularly as needed to maintain a sward height of between 25-40mm.
A new sown lawn will take a full year or more to reach full strength and ground cover and knit together as a turf. It can be walked on during establishment, but avoid heavy use that might cause wear and tear.

Management once established:

Mow lawns regularly as required throughout the growing season (generally March - October). In the summer increase the mowing regime to twice a week unless the lawn is suffering drought in which case drop it back to once a week and increase the watering regime.

Ornamental hedging

Shrubs]

| Number | Species | Pot Size | Height | Specification | Density |
|---|---|---|---|---|---|
| 56 | Escallonia 'Apple Blossom' | 3L | 40-60cm | C :Bushy | 0.4Ctr Double Staggered at 0.4m offset |

Preparation and planting:

A minimum of 350mm of topsoil (to BS 3882 Grade: General Purpose) and 300mm cultivated depth of sub-soil will be provided in all hedge planting areas. Remove all general rubbish, stones, earth clods, large roots and existing weed vegetation exceeding 50mm in any one dimension from the top soil. Rake the surface to an even, firm, friable surface that is not over compacted and ensure levels tie in to the surround areas. All plant material will be to BS 3936 (Nursery Stock). Plant in the dormant season between late October to late March. Plant immediately on delivery from the supplier. Roots must be well soaked prior to planting. Dig a planting pit larger than the root ball (at least 50mm wider in all directions), add pelleted chicken manure or similar to the planting pit prior to planting in accordance with the manufacturer's instructions. Plant in a double staggered row, planting bed minimum 400mm wide cultivated to a minimum 300mm depth, with 400mm between rows and 400mm between plants at 5 plants per meter. plant so the root collar is at the same level as when in the pot. Back fill top soil into the planting pit to bring the top of the root ball level with the soil surface. Water immediately. Apply 75mm settled depth of bark chippings post planting to all hedge planting beds to suppress weed growth.

Maintenance requirements:

During the first growing season, water regularly until new roots have established. Thereafter water regularly in hot weather. Allow 3L water per plant per day. Lightly prune the tips of the branches just before the growing season to make them branch out. At the end of the growing season cut away any dead, damaged or crossing branches to maintain plant health. For the first 5 years feed all new plants with a pelleted chicken manure or similar in accordance with the manufacturer's instructions, once a year at the beginning of the growing season and water in. Thereafter a mulch of organic matter such as: well-rotted manure or leaf manure or compost at the beginning of the growing season will maintain a healthy supply of nutrients for each plant. Top up to 75mm settled depth bark chippings annually to supress weed growth. Remove and replace any diseased plants to prevent the spread of disease.

Project Name: Yew Tree Road

Drawing Name: Landscape Masterplan

Drawing No: DR-5871-02

Drawn: TH Checked: MB

Date: October 2023

Scale: 1:250 at A0

FOR PLANNING

| Rev | Drawn | Date |
|---|---|---|
| P03 | TH | 19.10.2023 |

NB: All areas are indicative, scaled from plan, and must be checked on site.

NB: See architects drawings for details of boundary treatments. Proposals shown on this drawing for illustration purposes only.

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Brooks Ecological — Grounded advice

## 3.0 PROTECTION OF LANDSCAPE FEATURES TO BE RETAINED

### Mature trees

Protection to existing trees:

An Arboricultural Method Statement is recommended to be completed which, in combination with BS 5837; 2012, Trees in relation to Design, Demolition & Construction, shall be complied with at all times.

No pruning, lopping, felling or severance of roots is to take place without prior consent of the Local Authority.

Any work to the existing trees shall be carried out by a qualified tree surgeon.

The position and construction of protective fencing shall be agreed with the Local Authority prior to any site works commencing.

Under no circumstances must any materials be stored under the canopy of the existing trees, and no cement, diesel or oil stored near them.

No vehicles are permitted to be operated within the confines of the existing tree canopy.

Under no circumstance should the levels around existing trees be either raised or reduced.

No fires should be lit in close proximity to existing trees.

No ropes, cables, services or notice boards to be fixed to existing trees.

Scaffolding may only be erected within protected areas if it is done so in accordance with BS 5837.

Any excavation under existing tree canopy spreads shall be done by hand.

## 4.0 ESTABLISHMENT AND MAINTENANCE OF NEW ECOLOGICAL FEATURES

### Wildflower grasslands

### Management aims

*To create an attractive feature which can be used by people. This will maximise the number of flowering plants to benefit invertebrates and in turn, larger fauna that will prey upon these. The biodiversity value of grasslands can be maximised by having a range of cutting regimes in action. A gradation from uncut grass, through to annually or twice annually and then on to once a month cutting regimes being best. Amenity cutting which is more frequent that once every month creates the least biodiverse habitats and should be reserved for high activity areas and paths only.*

### Objectives

Ensure low fertility of soil is maintained to prevent competitive species dominating to the detriment of diversity.

Ensure that flowering plants attain, and remain at, no less than 30% of the sward

Ensure that plants can flower and set seed.

### Specification

See DR-5871-01 Landscape Masterplan Rev P05; and DR-5871-02 Landscape Masterplan Rev P03.

### Management

### Year 1

Five cuts, collect arisings and remove from site.

Use a weed wipe three times in year 1 to kill off weeds - spear thistle, creeping thistle, broad-leaved dock, clustered dock, wood dock, curled dock, nettle, ragwort and others according to ECoW recommendations. Operative shall be proven competent in identifying these in their early stages to prevent killing off sown wildflowers.

### Year 2 - in perpetuity

The second year from sowing is the first in which a sown meadow is left uncut to flower. The first cut is done between late June to end August at a height of 40-75mm.

Avoid mowing in May or early June as this could disturb nesting birds.

Cutting in sections at different times within the season allows the greatest flower diversity.

Remove the dried arisings from site to avoid over nutrition of the soil.

Leave areas of species rich grassland uncut to allow a winter refuge for insects.

Following the mid-summer cut, mow the regrowth at least twice in late summer and autumn (end November latest) to a height of 40-75mm and remove arisings.

As the new growing season starts mow the lush spring growth and remove arisings.

Review planting plan and update maintenance plan for the next 5 years.

Renew maintenance contract inviting previous contractors to tender.

**Cutting regime**

**Fortnightly cut**

A flowering lawn offers a more species diverse option to standard amenity grass while still being robust enough to accommodate a bi-weekly mowing regime. This can be reduced to a three weekly cutting regime in the areas shown in June.

**Monthly cut**

Grasslands need not be 'green deserts' but should provide nectar and pollen food sources for creatures vital to ecosystem health. Flowers with low growth points and are resistant to regular cutting include Clovers (Trifolium spp), Bird's-foot trefoil (Lotus corniculatus), daisy (Bellis perennis) and autumn hawkbit (Leontodon autumnalis).

**Annual cut**

Grassland cut once or twice a year can make great habitats for invertebrates and amphibians and in summer make attractive flower filled habitats for people to enjoy. Once cut these areas are good for people to enjoy and walk on so make good multi-use spaces. Managing for wildlife also means there is less need to use chemical fertilisers or pest treatments so make healthy sustainable environments.

**No cut**

Strips and islands of grassland to be available to act as faunal refuges and habitat for small mammals and invertebrates that depend on coarse vegetation with a thatch layer.

*Note this cutting plan is indicative and can be varied under agreement with an ECoW (Ecological Clerk of Works).*

Species rich grassland planting–bi-weekly cut

Species rich grassland planting–annual cut

Species rich grassland planting–monthly cut

Species rich grassland planting–no cut

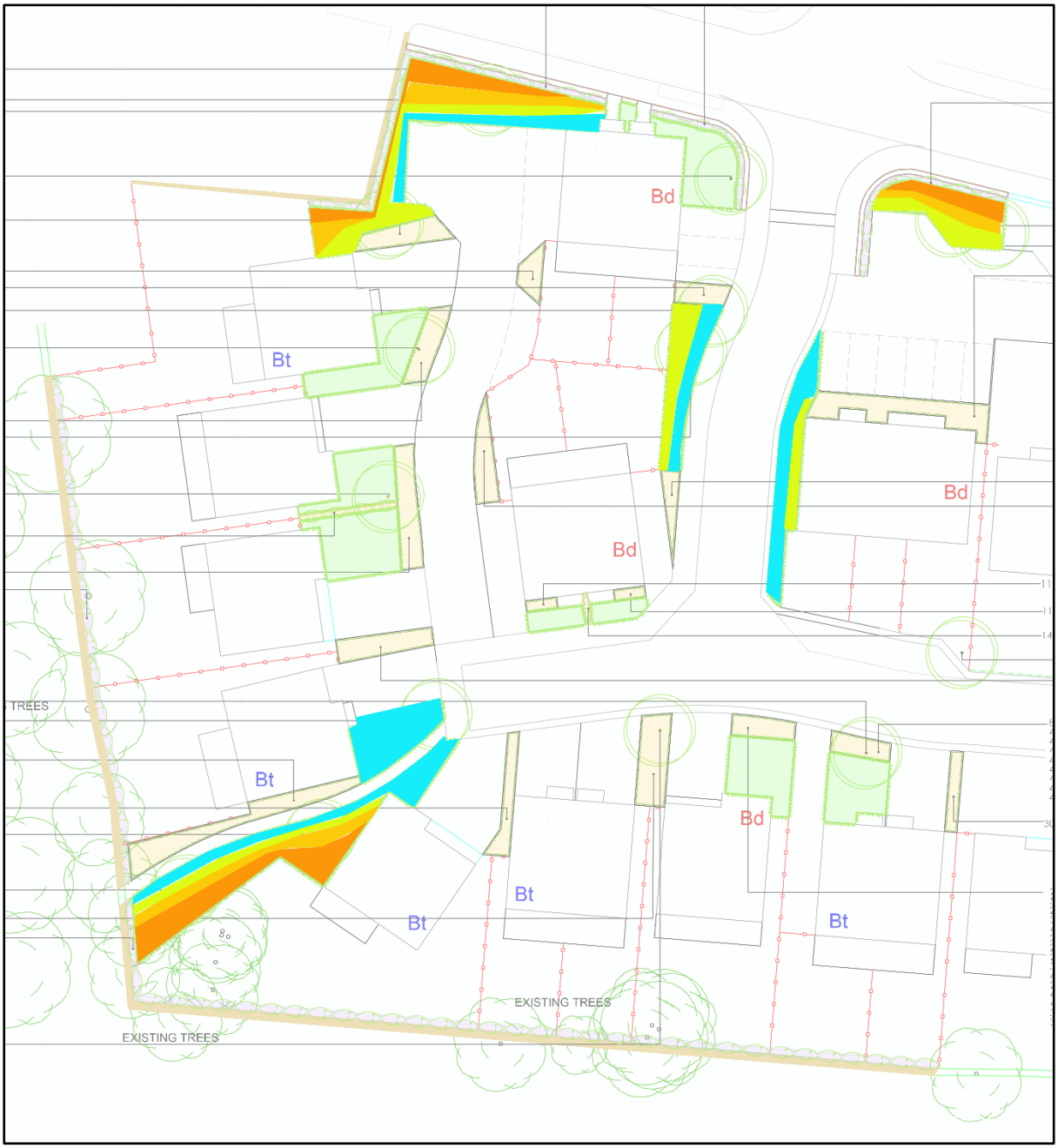

Species rich grassland cutting regime – phase 1

Species rich grassland planting–bi-weekly cut

Species rich grassland planting–annual cut

Species rich grassland planting–monthly cut

Species rich grassland planting–no cut




Species rich grassland cutting regime – phase 2

## 5.0 ESTABLISHMENT AND MAINTENANCE OF NEW LANDSCAPE FEATURES

## LANDSCAPE FEATURES GENERAL MEASURES

All work undertaken on site by any paid or volunteer personnel must comply with the appropriate H&S and COSHH legislation.

All work shall be carried out in accordance with:

- BS 4428:1989 Code of practice for landscape operations
- BS 3998:1989 Recommendations for tree works
- BS 7370 Part 4 1993 Recommendations for maintenance of soft landscape.

Existing trees shall, where possible, be retained and for those trees required to be removed, relevant permissions shall be obtained from the Local Authority in sufficient time to allow removal outside of the nesting season.

All installed landscape features will be covered by a 12 month defects liability period following practical completion of the development.

### General Management Requirements

### Irrigation

The Contractor shall ensure that sufficient water is applied in sufficient quantities and at sufficient frequencies to maintain healthy plant growth.

Advantages of micro-irrigation: lower water usage for maximum effect; reduced weed growth; uniform water application which enhances plant growth; water is delivered where it is needed most; and it is easy to mix organic liquid fertilisers such as seaweed, nettle or comfrey solutions into the water; can be operated at night to reduce evaporation.

### Pesticides, herbicides and use of chemicals

Where possible the use of pesticides, herbicides and other chemicals on site shall be avoided due to the potential for ecological harm. Where their use cannot be avoided, low environmental impact options shall be prioritised over standard chemical treatments and in all cases, chemicals shall be stored, used and disposed of in accordance with industry national safety standards.

### Weeding

The contractor shall:

- Remove weeds entirely, including roots.
- Remove the minimum quantity of soil, and disturb plants and mulched surfaces as little as possible.
- Upon completion, rake area to a neat, clean condition and remove soil or plant material as a result of weeding activities from adjacent hard surfaces.
- Reinstate mulch to original depth.

**Pests and diseases**

Where possible wildlife is to be encouraged and not treated as a 'pest'. The fauna a habitat supports is a natural part of the balance of the ecosystem you are maintaining.

If occasional problems with insect pests arise, for example a particularly bad year for aphids, in the first instance use companion planting methods whereby species which attract pest predators are planted in the area of infestation, for example yarrow, tansy, marigold and achillea attract lacewings and ladybirds which eat aphids. Additionally plants such as lupins attract aphids and can be used as a sacrificial plant for that purpose, once gathered into one locality the aphid infestation will in turn attract birds which eat aphids, thereby eliminating the need for the application of pesticides and encouraging the landscape to naturally manage its own health.

Usually the occurrence of diseases is a result of a plant becoming stressed or growing in sub-optimal conditions to be able to maintain its own health. The contractor shall ensure the plant/tree/shrub is getting sufficient water, nutrients, light and air flow to maintain its own health before resorting to chemical application to treat the infection. Retain chemical application as a last resort and use products which cause minimal damage to the environment.

**Pruning**

At the appropriate time (usually early spring or late autumn), the contractor shall:

- Prune plants to remove dead, dying or diseased wood and suckers to promote healthy growth and natural shape;
- Prune in accordance with good horticultural and arboricultural practice:
- Avoid damage or tearing to the stem or bark when removing branches;
- Keep wounds as small as possible and cut cleanly back to sound wood;
- Make cuts above and sloping away from an outward facing healthy bud, angled so that water will not collect on cut area;
- Prune larger branches neither flush nor leaving a stub, but using the branch bark ridge or branch collar as a pruning guide;
- Thin, trim and shape each specimen appropriately to species, location, season, and stage of growth, leaving a well-balanced natural appearance;
- Use clean sharp secateurs, hand saws or other approved tools. Trim off ragged edges of bark or wood with a sharp knife;
- Give notice to Contract Administrator if disease or infection is detected; and
- Avoid use of growth retardants, fungicide or pruning sealant unless instructed.
- (Where excessive overhang is observed) remove any growth annually, as outlined in Maintenance Schedules, encroaching onto grassed areas, paths, roads, signs, sightlines and light fittings.

**Other**

The contractor shall:

- Provide a minimum of 2 days' notice to the Contract Administrator prior to carrying out works at any time from project commencement to practical completion. Thereafter works will be carried out in accordance with a pre-agreed schedule of maintenance approved by the site management company;
- Remove litter from the site at a minimum frequency of once a month; and
- Where possible, retain leaf litter and compostable prunings on site for use as chipped mulch.

A record of maintenance activities shall be maintained by the contractor and made available to the client.

Review of the management plan shall be approved by the client.

Following a site management visit, all tools and materials used shall be cleaned and safely tidied away or removed from site to avoid harm to wildlife or members of the public. All management operations shall be completed and left in a safe condition or if this is not possible, shall be secured to ensure the safety of site users. All areas of the site accessed for maintenance purposes shall be left safe, clean and tidy for users.

All contractors shall be suitably trained and qualified to carry out works on site.

No works shall be carried out without the necessary planning or statutory consents secured.

All maintenance shall be carried out from the date of planting and turfing up to handover to the adopting authority/householder to ensure successful establishment.

All dead, diseased, damaged plants shall be replaced by the contractor during the initial 5 year defects/liability period unless the Local Planning Authority states, in writing, any variation to this.

The contractor shall reinstate to original condition any damage or disturbance to soil structure, planting, grass, fencing, hard landscaping, structures or buildings.

Thereafter, the site shall be managed and maintained by a resident owned management company which shall be set up prior to completion of the site and financed by an annual service charge to the residents.

## 6.0 AMENITY GRASS

### Management Aims

To provide an even and well-maintained appearance to enhance the aesthetic value of the development area and to control weeds.

### Objectives

To maintain a short, even, healthy sward, containing a maximum of 10% herb species and no perennial weeds or emerging scrub.

### Specification

See DR-5871-01 Landscape Masterplan Rev P05; and DR-5871-02 Landscape Masterplan Rev P03.

### Management

### Year 1

The initial cut shall be carried out when first growth is apparent, blades set to 20mm above ground. The Contractor shall continue cutting at appropriate intervals during the growing season and maintain a 40mm high sward until grass areas are handed over. Watering, weeding, cutting, repair of all erosion and settlement and re-seeding as necessary to establish a uniform and healthy stand of grass shall continue until handover to the householder or management company. Alternate the direction of mowing.

Keep regularly watered. Always water in the early morning or evening to minimise evaporation. The contractor shall be responsible for any scorched turf. All necessary watering shall be carried out with sprinklers or oscillating sprays so as not to wash soil out of the joints. If shrinkage occurs and the joints open, fine topsoil shall be brushed in and well-watered.

### Year 2 - in perpetuity

The mowing season generally runs from March to October. In spring and autumn mow lawns once a week.

For the first mowing in spring, set the cutting height to the highest setting. Reduce to 40mm for regular mowing in spring and autumn.

In summer, for ordinary amenity grassland, the mowing height is 13-25mm. In the summer increase the mowing regime to twice a week unless the lawn is suffering drought in which case drop it back to once a week and increase the watering regime.

Over the winter mowing may occasionally be necessary if the weather is mild enough to allow continued growth. Mow at a high setting in winter and only on dry and mild days.

Avoid excessive close mowing as this will reduce the vitality of the grass.

In mid-spring (often late March to April), use an organic approved spring or summer lawn fertiliser at the manufacturer's recommended rates and apply when the soil is moist, or when rain is expected.

If grass loses its vigour and freshness between late spring and late summer (often May to August), repeat the application of the organic approved spring or summer lawn fertiliser.

Apply fertiliser in cool, moist conditions and lightly water it in.

Repeat fertiliser application a third time if needed six to eight weeks later.

Do not apply spring or summer lawn fertilisers after August. They contain too much nitrogen for autumn use, encouraging green leafy growth at the wrong time of year, when it could be damaged by winter cold or pests and disease.

Repair damage from trampling, abrasion or scalping. Where turf shows signs of wear and damage and requires repair, remove the damaged turf to a depth of 150 mm, cultivate substrate to a fine tilth, reinstate either by returfing with turf of a quality and appearance to match existing; or topsoiling to BS 3882 multipurpose class, free from stones, debris and weeds, and reseed with a seed mix to match existing grass in quality and appearance.

Review planting plan and update maintenance plan for the next 5 years.

Renew maintenance contract inviting previous contractors to tender.

## 7.0 ORNAMENTAL SHRUBS AND HERBACEOUS PERENNIALS/GRASSES

### Management Aims

To create an aesthetically pleasing setting for users of the development while also increasing biodiversity for the benefit of local wildlife.

### Objectives

To provide year-round interest with species diversity and a variety of planting structures requiring minimal maintenance.

To provide seasonal foraging and nesting resources for wildlife.

### Specification

See DR-5871-01 Landscape Masterplan Rev P05; and DR-5871-02 Landscape Masterplan Rev P03.

### Management

### Year 1

Keep each planting bed clear of weeds to minimise competition during establishment.

In dry spells, water each plant to saturation on a regular basis to prevent the plant showing signs of stress such as wilting, yellowing of the leaves, leaf die back and branch loss. Allow 2L per plant for herbaceous perennials and small shrubs and 5L per plant for large shrubs.

Ensure the plants continue to grow upright and don't lean.

Check plants for pest damage.

Remove any damaged or diseased shoots or branches.

Replace any dead or dying plants in the dormant season.

Prune all shrubs to maintain a neat and tidy appearance in accordance with individual species pruning requirements.

### Year 2 – in perpetuity

Keep each planting bed clear of weeds.

Remove any dead, dying, damaged, diseased or crossing branches in spring.

Replace any dead, diseased, damaged or dying shrubs between 1 November and 31 March.

Prune perennials in spring to encourage thicker growth and a more compact shape in accordance with good horticultural practice.

In dry periods, water to saturation on a regular basis to prevent plants from showing signs of stress such as wilting, yellowing of the leaves, leaf die back or branch loss.

In mid-spring (often late March to April), use an organic approved spring or summer fertiliser such as chicken manure pellets or similar at the manufacturer's recommended rates and apply when the soil is moist, or when rain is expected.

Check for pest damage or signs of disease.

Top up mulch in autumn to a settled depth of 75mm.

Remove prunings to dispose of off-site and leave the site in a neat and tidy condition which is also safe for users.

Review planting plan and update maintenance plan for the next 5 years.

Renew maintenance contract inviting previous contractors to tender.

## 8.0 STREET TREES

### Management Aims

To soften the built form of the development and provide connectivity through the development to habitat blocks in the wider area for the benefit of wildlife.

### Objectives

To ensure the healthy, even, upright growth of newly planted trees from establishment to maturity.

To maintain clear sightlines below the tree canopy for pedestrians and vehicle users.

### Specification

See DR-5871-01 Landscape Masterplan Rev P05; and DR-5871-02 Landscape Masterplan Rev P03.

### Management

### Year 1

Keep a 1m diameter around each tree clear of weeds to minimise competition during establishment.

If there is a particularly prolonged dry spell, water each tree pit to saturation at a sufficient frequency to ensure the health of the tree. Allow 5-7L per inch of stem caliper at each watering daily for the first week, 2-3 times a week for the subsequent 11 weeks and once to twice a week thereafter in particularly dry conditions.

Ensure the trees continue to grow upright and don't lean, ensure stakes are firmly secured in the ground, ensure tree ties are well secured and causing no damage to the tree, re-firm the ground around the base of the tree if it shows signs of lifting.

Check trees for pest damage and general health.

Replace any trees which fail for any reason, become unsalvageable due to pest damage or disease, and become unsalvageable due to other damage, between 1 November and 31 March.

### Year 2 – in perpetuity

Remove any dead, dying, damaged, diseased or crossing branches in spring. Carry out pruning works as necessary to maintain the natural habit of the tree, in keeping with good horticultural practice.

Replace any dead, damaged, diseased or dying trees in spring.

In periods of prolonged drought, water to saturation as often as the tree needs to prevent it from showing signs of stress such as wilting, yellowing of the leaves, leaf die back or branch loss.

Top up mulch in autumn to a settled depth of 75mm.

Where the canopy requires lifting, cut back branches selectively to lateral or sub-lateral buds or branches to 2m above ground level, allowing the retention of flowing branch lines avoiding unsightly stumps.

Remove stakes and ties (after a minimum of 5 years) once root system has established and the tree is able to self-secure.

Review planting plan and update maintenance plan for the next 5 years.

Renew maintenance contract inviting previous contractors to tender.

## 9.0 FORMAL HEDGES AND MIXED NATIVE HEDGEROWS

### Management Aims

For formal hedges: to provide dense, even, neatly maintained and defensible boundaries to individual properties.

For native hedgerows - to provide dense, even, neatly maintained native hedgerows with species diversity and a variety of foraging and nesting opportunities for wildlife while also performing the practical function of providing screening and boundary definition.

### Objectives

To ensure the healthy, even growth of newly planted hedge features, both native and ornamental.

### Specification

See DR-5871-01 Landscape Masterplan Rev P05; and DR-5871-02 Landscape Masterplan Rev P03.

### Management

### Year 1

Keep hedge planting beds clear of weeds to minimise competition during establishment.

Water to saturation on a regular basis in dry periods.

Ensure plants continue to grow upright and don't lean. Re-firm after strong winds, frost heave or other disturbances which may have caused lifting of the plant.

Check plants for pest damage.

Tip prune once a month during the growing season to encourage thicker, shrubby growth with a minimal gap between the bottom of the hedge canopy and the soil.

### Year 2 – in perpetuity

Prune regularly to encourage plants to thicken up and in accordance with good horticultural practice.

Shape into a continuous hedge.

Keep hedge planting beds clear of weeds.

Water regularly to saturation in dry periods to prevent plants showing signs of stress such as wilting, yellowing of the leaves, leaf die back or branch loss.

In mid-spring (often late March to April), use an organic approved spring or summer fertiliser such as chicken manure pellets or similar at the manufacturer's recommended rates and apply when the soil is moist, or when rain is expected.

Remove any dead, dying, damaged, diseased or crossing branches in spring.

Replace any dead, damaged, diseased or dying shrubs between 1 November and 31 March.

Check for pest damage, signs of disease and for general plant health.

Top up mulch in autumn to a settled depth of 75mm.

Review planting plan and update maintenance plan for the next 5 years.

Renew maintenance contract inviting previous contractors to tender.

## APPENDIX 1: LANDSCAPE MAINTENANCE SCHEDULE

| Task | ECoW to direct | ECoW to carry out | Management Company to carry out | Prior to practical completion | Year 1 | Year 2 | Year 3 | Year 4 | Year 5 | 6+ |
|---|---|---|---|---|---|---|---|---|---|---|
| **Bird and bat boxes** | | | | | | | | | | |
| ECoW verification faunal boxes | Yes | | Yes | As built | As built | As built | | | | |
| ECoW Monitoring of faunal boxes | | Yes | | Yes | Yes | | Yes | | Yes | |
| **Replacement planting during defects period** | | | | | | | | | | |
| Replace dead, dying, damaged or diseased turf, hedging and ornamental planting | | | Contractor | | February-April or October-February | | | | | |
| **General maintenance** | | | | | | | | | | |
| Mulching – top up to minimum levels | | | Yes | | Annually in autumn | Annually in autumn | Annually in autumn | Annually in autumn | Annually in autumn | Annually in autumn |
| Watering | | | Yes | April-October frequency as required | April-October frequency as required | April-October frequency as required | April-October frequency as required | April-October frequency as required | April-October frequency as required | April-October frequency as required |
| Weeding | | | Yes | Monthly March-October | Monthly March-October | Monthly March-October | Monthly March-October | Monthly March-October | Monthly March-October | Monthly March-October |

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Pruning | | | Yes | | Annually in late spring or autumn | Annually in late spring or autumn | Annually in late spring or autumn | Annually in late spring or autumn | Annually in late spring or autumn | Annually in late spring or autumn |
| Check for pest damage | | | Yes | | Monthly March-October | Monthly March-October | Monthly March-October | Monthly March-October | Monthly March-October | Monthly March-October |
| Check for disease | | | Yes | | Monthly March-October | Monthly March-October | Monthly March-October | Monthly March-October | Monthly March-October | Monthly March-October |
| **Species rich grassland** | | | | | | | | | | |
| Manage species rich grassland - cutting | | | Yes | | 5 cuts, remove arisings | In accordance with cutting regime avoiding May or early June, remove arisings | | | | |
| **Amenity grass** | | | | | | | | | | |
| Manage amenity grassland - mowing | | | Yes | | Initial cut when growth is apparent – to 20mm sward height<br><br>Thereafter frequency to maintain 40mm sward height | Weekly April-September | Weekly April-September | Weekly April-September | Weekly April-September | Weekly April-September |

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Manage amenity grassland – fertiliser application | | | Yes | | | Annually late March-April | Annually late March-April | Annually late March-April | Annually late March-April | Annually late March-April |
| Manage amenity grassland – repair of damaged areas | | | Yes | | | Annually in spring and/or autumn | Annually in spring and/or autumn | Annually in spring and/or autumn | Annually in spring and/or autumn | Annually in spring and/or autumn |
| **Ornamental planting** | | | | | | | | | | |
| Manage ornamental planting - pruning | | | Yes | | Annually in spring | Annually in spring | Annually in spring | Annually in spring | Annually in spring | Annually in spring |
| Manage ornamental planting – fertiliser application | | | Yes | | Annually in spring | Annually in spring | Annually in spring | Annually in spring | Annually in spring | Annually in spring |
| **Trees** | | | | | | | | | | |
| Manage trees – keep 1m diameter around each tree clear of weeds | | | Yes | | Monthly March-October | Monthly March-October | Monthly March-October | Monthly March-October | Monthly March-October | Monthly March-October |
| Manage trees – lift canopy to 2m above ground level where required to retain clear visibility | | | Yes | | | Annually in autumn | Annually in autumn | Annually in autumn | Annually in autumn | Annually in autumn |
| Check for die back or failure | | | Yes | | Monthly March- | Monthly March- | Monthly March- | Monthly March- | Monthly March- | Monthly March- |

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| in tree health | | | | | October | October | October | October | October | October |
| Replace dead, dying, damaged or diseased trees | | | Yes | | | February-April or October-February | February-April or October-February | February-April or October-February | February-April or October-February | February-April or October-February |
| Ensure trees growing upright and secured | | | Yes | | Weekly April-May<br><br>Weekly September-November | Weekly April-May<br><br>Weekly September-November | Weekly April-May<br><br>Weekly September-November | Weekly April-May<br><br>Weekly September-November | Weekly April-May<br><br>Weekly September-November | |
| Remove tree stakes | | | Yes | | | | | | End of year 5 | |
| **Ornamental hedging** | | | | | | | | | | |
| Manage formal hedges – shape into a continuous hedge | | | Yes | | 2x annually March to October | 2x annually March to October | 2x annually March to October | 2x annually March to October | 2x annually March to October | 2x annually March to October |
| Manage formal hedges – fertiliser application | | | Yes | | Annually in spring | Annually in spring | Annually in spring | Annually in spring | Annually in spring | Annually in spring |
| Replace dead, dying, damaged or diseased hedging | | | Yes | | | February-April or October-February | February-April or October-February | February-April or October-February | February-April or October-February | February-April or October-February |

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| **Native hedgerow** | | | | | | | | | | |
| Manage native hedgerow – shape into a continuous hedge | | | Yes | | Monthly March to October | Monthly March to October | Monthly March to October | Monthly March to October | Monthly March to October | Monthly March to October |
| Manage native hedgerow – fertiliser application | | | Yes | | Annually in spring | Annually in spring | Annually in spring | Annually in spring | Annually in spring | Annually in spring |