

Planting, Specification and Ecological Management Plan Land at Ellesmere Road – Rev B

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INTRODUCTION

The landscape Management Plan (LMP) includes an explanation of the long-term landscape design objectives, land scape and planting specification and a maintenance schedule for each landscape type.

The hard and soft landscaped areas covered by this management and ecological plan comprise of the Proposed Native Hedgerow, Proposed Trees, New Planting Type 1 & 2, Pond Edge Mixture and Meadow grasses & Pond Planting as shown on Drawing PL100 Hard & Soft Landscaping, Lighting and Ecological Enhancement Plan rev A.

This is a management and maintenance plan by which the formed Private Management Company (PMC) will maintain the landscaping (hard and soft) for the site, beyond the initial five year establishment period and in perpetuity, following completion of the landscape works and handover of all outdoor spaces from Primesave Properties (the developer) to the Private Management Company (PMC). The PMC will be owned and managed by the residents of the development, this will include a sinking fund to ensure monies are available for the long term maintenance works required. The communal areas (Roads and communal area as defined in drawing PL100) will be maintained in perpetuity following this management plan by a management company.

EVALUATION AND DESCRIPTION OF FEATURES TO BE MAINTAINED AND MANAGED

Comprising mainly of managed grass land The main ecological features of note is the existing established hedgerow to the eastern boundary of the site. This is to be retained and protected during the works.

The existing boundary hedgerow is to be enhanced and managed and protected as part of the long term management plan.

DESCRIPTION AND LOCATION OF HABITATS TO BE CREATED

- A wildlife corridor is created around the margins of the southern half of the site to maintain foraging opportunities and connectivity to the wider landscape for various species of wildlife. These corridors are to comprise of native hedgerow.
- Formation of an ecological swale to the centre of the site, this will comprise of three types of planning. Pond, pond edge and flowering wildflower meadow planting. This will provide a water source for small mammals (including hedgehogs) and bird life. The mix of planting will also encourage invertebrates and insects, providing a further food source. This ecological zone will be linked to the wildlife corridor as listed above.
- Enhancement of existing and provision of new native mix hedgerows

LANDSCAPE DESIGN OBJECTIVES

The long term landscape design objectives can be described as follows:

- to achieve a high quality ecologically appropriate landscape scheme with relatively low long term maintenance
- To contribute to the local character by using tree and shrub species which reflect those naturally found within the area
- To enhance the landscape and amenity value of the site with a scheme of planting which fits in with the character of the development and complements the new dwellings.

ECOLOGICAL PLANTING SPECIFICATION, GROUND PREPARATION AND PLANTING METHODS

Landscaping Notes General

Hard landscaping will be completed prior to the first occupation of each residential curtilage to which the works relate.

Planting to be between the months of November and March

All planting, seeding or turfing comprised in the details of this drawing shall be carried out in the first planting and seeding seasons (November to March) following first occupation /use of the development, whichever is the sooner and the PMC is to replace any trees, hedgerows or plants contained in the approved planting scheme which within a period of 5 years from the completion of the development die, are removed or become seriously damaged or diseased shall be replaced in the next planting season with others of similar size and species, unless the local planning authority gives written consent to any variation.

All plants shall comply with BS 3936
All topsoil to comply with BS3882 - multi-purpose use
All shrub beds to receive a 450mm topsoil
All grass areas to receive 150mm of topsoil

Prior to planting all areas are to be cultivated to an even tilth any debris larger than 50mm to be removed from site
Shrub beds are to be mulched with 50mm of bark mulch

Shrubs are to be planted at a minimum of 3/m²
Shrubs to be planted as indicated on plans adding fertilizer to the backfill

Standard Trees are to be planted in pits 600 x 600 x 600mm
Heavy Standard Trees are to be planted in pits 900 x 900 x 900mm
Semi-mature Trees are to be planted in pits 1000 x 1000 x 1000mm
Tree pits to be backfilled with a mixture of topsoil, planting compost and fertilizer
Bare-root trees to be supported by 1no stake and 2no ties
Rootballed / containerised trees to be supported by 2no stakes and crossbar
All trees are to be planted as shown ensuring a minimum of 5 metres from buildings and 3 metres from drainage. A suitable system for controlling the roots of the trees should be installed where necessary. Where tree abut footpaths or highways a suitable root barrier to be installed along the footpath/highways edge of the planting pit. Re-root 100 or similar.

All plants to be watered in as necessary during exceptional dry weather and only in year 1 .

GENERAL GRASS AREAS (NOT ECOLOGICAL)

To be read in conjunction with standard NBS conditions and terminology

Q30 Seeding/ Turfing

General information/ Requirements

Q30/115 SEEDED AND TURFED AREAS

- Growth and development: Healthy: vigorous gross sward, free from the visible effects of pests, weeds and disease.
- Appearance: A closely-knit, continuous ground cover of even density, height and colour.

Q30/120 CLIMATIC CONDITIONS

- General: Carry out the work: while soil and weather conditions are suitable.

Q30/145 WATERING

- Quantity: Wet full depth of topsoil.
- Application: Even and without displacing seed, seedlings or soil.
- Frequency: As necessary to ensure the establishment and continued thriving of all seeding/turfing.

Q30/150 WATER RESTRICTIONS

- Timing: If water supply is or is likely to be restricted by emergency legislation do not carry out seeding/turfing until instructed. If seeding/ turfing has been carried out, obtain instructions on watering

Q30/160 NOTICE

- Give notice before:
- Setting out.
- Applying herbicide.
- Applying fertilizer.
- Preparing seed bed.
- Seeding or turfing.
- Visiting site during maintenance period.
- Period of notice: 5 working days.

Preparation of any areas requiring repair, reseeding or re turfing

Q30/227 Topsoil for turf

Blended premium topsoil for turf to BS 3882 (Specifically prepared for turfing).
Available from Beechwood Industries Ltd, Primrose Hill Nurseries Warrington Road, High Legh. Knutsford. WA 16
OSQ, or similar approved.
Depth: 150mm

030/228 Topsoil for seeded area

Supply topsoil to BS3882 see Q28

Depth:150mm

Ensure sample is approved prior to use.

Q30/250 CULTIVATION of topsoil for area to be reseeded

- Compacted topsoil: Break up to full depth any topsoil which becomes compacted during construction.
- Tilth: Reduce topsoil to a tilth suitable for blade grading.
- Depth: 150mm .
- Particle size /maximum):2/3mm-

260 GRADING

- Topsoil condition: Reasonably dry and workable.
- Contours: Smooth and flowing, with falls for adequate drainage.
- Hollows and ridges: Not permitted.
- Finished levels after settlement: 25 mm above adjoining paving, kerbs, manholes etc.
- Give notice: If required levels cannot be achieved by movement of existing soil.

280 FINAL CULTIVATION

- Timing: After grading and fertilizing.
- Seed bed: Reduce to fine, firm tilth with good crumb structure.
- Depth: 25 mm.
- Surface preparation: Rake to a true, even surface, friable and lightly firmed but not over compacted.
- Remove surface stones/ earth clods exceeding:
- Adjacent levels: Extend cultivation into existing adjacent grassed areas sufficient to ensure full marrying in of levels.

SEEDING Provide option cost for seeding and turfing to The Vineyard Wellington

310 GRASS SEED Available from Beechwood Industries Ltd, Primrose Hill Nurseries Warrington Road, High Legh, Knutsford, WA 16 OSQ, Or similar approved.

- Mixture: Avanta MM 16 or similar approved
- Application rate: 35g /M2.

Turfing

400 CULTIVATED TURF

- Supplier: Beechwood Industries Ltd, Primrose Hill Nurseries Warrington Road. High Legh. Knutsford, WA 16 OSQ, or similar approved. Product reference: Rolown Medallion or similar approved

420 DELIVERY AND STORAGE

- Timing: Lay turf with minimum possible delay after lifting. If delay occurs, lay turf out on topsoil and keep moist.
- Frosty weather or waterlogged ground: Do not lift turf.
- Delivery: Arrange to avoid need for excessive stocking.
- Stacking height (maximum): 1 m.
- Dried out or deteriorated turf: Do not use.

423 INSPECTION OF TURF

- Give notice: Before lifting turf to Landscape Architect.

430 TURFING GENERALLY

- Time of year: To be agreed
- Timing of laying:
- Spring and summer: Within 18 hours of delivery.

- Autumn and winter. Within 24 hours of delivery.

- Weather conditions: Do not lay turf when persistent cold or drying winds are likely to occur or soil is frost bound, waterlogged or excessively dry.

- Working access: Planks laid on previously laid Turf. Do not walk on prepared bed or newly laid turf.

- Jointing: Laid with broken joints, well butted up. Do not stretch turf.

- Edges: whole turfs, trimmed to a true line.

- Adjusting levels: Remove high spots and till hollows with fine soil.

- Consolidating: lightly and evenly firm as laying proceeds 10 ensure full contact with substrate.

Do not use rollers.

- Dressing, brushed well in to completely fill all joints: Sand as approved ..

Turfing on slope get approval on method prior to starting turfing work.

- watering: Thoroughly water completed turf immediately after laying. Check that water has penetrated into the soil below.

530 FIRST CUT OF GRASSED AREAS

- Timing: When grass is reasonably dry.
- Height of initial growth: 30-40mm.

- Preparation:
 - Debris and litter: Remove.
 - Stones and earth clods larger than 25 mm in any dimension: Remove.
 - Height of first cut: 12mm .
 - Mower type: Cylinder mower with rollers and a grass box.
 - Arisings: Remove.
- Application of fertilizer two days after first cut.

590 CLEANLINESS

- Soil and arisings: Remove from hard surfaces.
- General: Leave the works in a clean' tidy condition at Completion and after any maintenance operations

ECOLOGICAL SWALE

- **POND EDGE MIX COMPOSITION**

Pond edge mixture EP1 contains wild flowers and grasses suitable for sowing at the wet margins of ponds, streams and ditches.

Wild Flowers

% Latin name Common name

0.5 *Achillea ptarmica* Sneezewort
 2 *Angelica sylvestris* Wild Angelica
 0.2 *Caltha palustris* Marsh Marigold
 1.5 *Centaurea nigra* Common Knapweed
 1 *Eupatorium cannabinum* Hemp Agrimony
 3 *Filipendula ulmaria* Meadowsweet
 0.5 *Geum rivale* Water Avens
 0.5 *Hypericum tetrapterum* Square-stalked St John's Wort
 4 *Iris pseudacorus* Yellow Iris
 1 *Lotus pedunculatus* Greater Birdsfoot Trefoil
 0.8 *Lycopus europaeus* Gypsywort
 0.6 *Lythrum salicaria* Purple Loosestrife
 0.1 *Mentha aquatica* Water Mint
 0.1 *Pulicaria dysenterica* Common Fleabane
 2 *Ranunculus acris* Meadow Buttercup
 0.6 *Sanguisorba officinalis* Great Burnet
 0.8 *Silene flos-cuculi* - (*Lychnis flos-cuculi*) Ragged Robin
 0.5 *Succisa pratensis* Devil's-bit Scabious
 0.3 *Vicia cracca* Tufted Vetch

20Grasses

% Latin name Common name

10 *Agrostis capillaris* Common Bent
 2 *Alopecurus pratensis* Meadow Foxtail (w)
 2 *Anthoxanthum odoratum* Sweet Vernal-grass (w)
 2 *Briza media* Quaking Grass (w)
 32 *Cynosurus cristatus* Crested Dogstail
 1 *Deschampsia cespitosa* Tufted Hair-grass (w)
 24 *Festuca rubra* Slender-creeping Red-fescue
 1 *Hordeum secalinum* Meadow Barley (w) 6 *Schedonorus pratensis* - (*Festuca pratensis*) Meadow Fescue (w)

80

Sowing Rates

4 g/m

Growing guide

Ground preparation

To prepare a seed bed, first remove weeds using repeated cultivation or a herbicide. Then cultivate to bury the surface vegetation and harrow or rake to produce a medium tilth.

Sowing

Sowings on ground prone to winter flooding are safest either in late summer or in spring once the land has drained.

Most plants need time to grow mature enough to withstand flooding.

The seed must be surface sown and can be applied by machine or broadcast by hand. Do not incorporate or cover the seed.

- **FLOWERING WILD MEADOW MIXTURE COMPOSITION**

Mixture contains slow growing grasses with a selection of wild flowers that respond well to regular short mowing.

Wild Flowers

%Latin name Common name

3.5 *Galium verum* Lady's Bedstraw

0.5 *Leontodon hispidus* Rough Hawkbit
 1.5 *Leucanthemum vulgare* Oxeye Daisy
 2 *Lotus corniculatus* Birdsfoot Trefoil
 4 *Primula veris* Cowslip
 3 *Prunella vulgaris* Selfheal
 2 *Ranunculus acris* Meadow Buttercup
 2 *Rumex acetosa* Common Sorrel
 1.5 *Trifolium pratense* Wild Red Clover

20

Grasses

%Latin name Common name

8 *Agrostis capillaris* Common Bent
 40 *Cynosurus cristatus* Crested Dogtail
 28 *Festuca rubra* Slender-creeping Red-fescue
 4 *Phleum bertolonii* Smaller Cat's-tail

80

Sowing Rates

4g/m²Growing guide

Ground preparation

To prepare a seed bed first remove weeds using repeated cultivation or a herbicide. Then plough or dig to bury the surface vegetation, harrow or rake to produce a medium tilth, and roll, or tread, to produce a level firm surface.

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. Do not incorporate or cover the seed, but firm in with a roll, or by treading, to give good soil/seed contact.

• POND PLANTING

Mix of native non invasive pond planting species:

%Latin name Common name

10% *Agrostis stolonifera* (Creeping bent grass)
 10% *Apium nodiflorum* (Fools water cress)
 20% *Filipendula vulgaris* (Meadowsweet)
 10% *Glyceria fluitans* (Floating sweet grass)
 10% *Myosotis scorpioides* (Water forget-me-knot)
 10% *Mentha aquatic* (Water mint)
 10% *Nasturtium officinale* (Watercress)
 10% *Persicaria amphibian* (Amphibious bistort)
 10% *Veronica beccabunga* (Brooklime)

Ground Preparation

Pond liner to be formed with puddled clay lining. Ponds lined with clay can be cleaned out without fear of damage and if leaks do occur they are generally easy to repair.

The clay should be at least 10cm deep overall and to be puddled i.e. clay and water should be pounded together into a dense mass which resists water penetration.

A layer of substrate such as sub soil will be required on the base of the pond into which to plant. Shelves can be used to create areas for planting around the margins of ponds, where the water would otherwise be too deep.

Planting

Rhizomatous plants such as pond weeds and amphibious bistort are particularly suitable for transplanting from other suitable sites and should be gathered in spring and transplanted as quickly as possible. For non-rhizomatous species such as water cress and water-milfoil, rooted plants should be pushed into the bottom mud or placed on top of the mud with a stone to anchor until they have rooted. Wetland plants should be introduced in clumps of individual species to allow establishment prior to coping with competition from other faster growing species.

• PROPOSED NATIVE HEDGEROW

%Latin name Common name

60% *Crataegus monogyna* Hazel
 20-25% *Prunus spinosa* Blackthorn
 10-15%
Acer campestre Field Maple
Corylus avellana Hazel

Ilex aquifolium Holly
5%
Sambucus nigra Elder
Viburnum opulus Guelder Rose
Rosa arvensis Field Rose
Malus sylvestris Crab Apple

Planting

New hedgerow planting is provided by installing bare rooted stock spaced approximately 30cm apart in two staggered rows to allow six whips per metre, and using supportive canes and plastic spiral guards.

- **TREE PLANTING**

Type 1

Standard Heavy

%**Latin name Common name**

4 no *Betula jacquemontii*

4 no *Sorbus cashmiriana*

Type 2

Standard Heavy

%**Latin name Common name**

6no *Tilia Cordata*. Small Leaved Lime

6no *Prunus avium*. Swedish Whitebeam

6no *Malus Sylvestris*. Crab Apple

Trees, bare rooted pit planted as general landscape notes.

- **SHRUB PLANTING TYPE 1 & 2**

Type 1: Mix of:

Crataegus oxyacanthoides. Midland Hawthorn

Viburnum opulus. Guelder Rose

Euonymus europaeus, Forsythia x *intermedia* Spindle

Type 2:

Prunus laurocerasus 'Rotundifolia'

Planted as per general landscape notes.

SHORT AND LONG TERM MANAGEMENT PLAN OF WORKS

- The short term strategy is to ensure that the proposed soft landscaping is planted appropriately and maintained to ensure its successful establishment by the contractor.
- Long term the aim is to ensure that future growth is properly managed with care and consistent standards by the property owners.

MAINTENANCE GENERAL

The Maintenance Period for soft landscaping will be 12 months and should be undertaken by a competent contractor under the control of Primesave Properties Ltd. Thereafter responsibility will be undertaken by the management company as outlined in the introduction.

Within the first year of planting a Landscape Contractor shall carry out the maintenance as follows (to be read alongside Management Description and Maintenance Schedules as listed below):

- Make visits at approximately monthly intervals depending on the time of year
- Control weeds in beds by the use of approved herbicide
- (Handweeding may also be carried out when part of the specification)
- Check condition of stakes, ties guys and guards at each maintenance visit
- Adjust ties if necessary to prevent rubbing of bark
- Litter pick planting beds at each visit only (excludes fly tipping)

During this period the Landscape Contractor shall carry out the maintenance of the grass areas as follows:

- Make visits at intervals of between two and four weeks depending on the time of year
- Before each visit remove litter and debris from grass areas (excluding fly tipping)
- At the time of each cut trim grass edges around trees / manholes etc.. and sweep cuttings from hard areas
- Arisings to be left on site unless otherwise stated in the specification

At the end of each visit the site will be left in a tidy condition. The Contractor will report any damages, fly tipping or losses at regular intervals to the Client. In the late Autumn each year prepare a report on losses, damaged areas and pruning requirements for the Client.

After the first 12 month establishment period hard and soft landscaping outside of private garden space to be maintained by management company. (to be read alongside Management Description and Maintenance Schedules as listed below)

- Make visits at approximately monthly intervals during the growing season
- Control weeds in beds by the use of approved herbicide
- Shrubs to be kept in tidy form and prevented from encroaching hard areas
- Any dead/damaged tree branches to be removed
- Check condition of stakes, ties guys and guards at each maintenance visit
- Adjust ties if necessary to prevent rubbing of bark
- Litter pick planting beds at each visit only (excludes fly tipping)

Bark mulch to be topped up bi-annually, any failed shrubs or trees to be replaced and the end of the each year.

In Perpetuity (after 5 years)

Hedgerow Planting – Replacement of diseased or dying plants as necessary .Formative pruning/trimming as appropriately required, twice a year – Spring & Summer

Trees – Formative pruning/trimming as appropriately required, twice a year – Spring & Summer. Every year check tree for disease, need for pruning or replacement

Shrubs- Prune to shape/remove vegetation
Top up mulch
Hand weeding twice a year
Replacement of diseased or dying trees where necessary

In Perpetuity (at 5 year intervals)

Sediment accumulations in pond should be removed, typically once every 7-10 years. Ensure care taken to avoid damage to pool liner if required.

GENERAL GRASS AREAS (NOT ECOLOGICAL)

Preparation of any areas requiring repair, reseeding or re turfing

Q30/227 Topsoil for turf

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Available from Beechwood Industries Ltd, Primrose Hill Nurseries Warrington Road, High Legh. Knutsford. WA 16 OSQ, or similar approved.
Depth: 150mm

Q30/228 Topsoil for seeded area

Supply topsoil to BS3882 see Q28
Depth:150mm
Ensure sample is approved prior to use.

Q30/250 CULTIVATION of topsoil for area to be reseeded

- Compacted topsoil: Break up to full depth any topsoil which becomes compacted during construction.
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- Depth: 150mm .
- Particle size /maximum):2/3mm-

260 GRADING

- Topsoil condition: Reasonably dry and workable.
- Contours: Smooth and flowing, with falls for adequate drainage.
- Hollows and ridges: Not permitted.
- Finished levels after settlement: 25 mm above adjoining paving, kerbs, manholes etc.
- Give notice: If required levels cannot be achieved by movement of existing soil.

280 FINAL CULTIVATION

- Timing: After grading and fertilizing.
- Seed bed: Reduce to fine, firm tilth with good crumb structure.
- Depth: 25 mm.
- Surface preparation: Rake to a true, even surface, friable and lightly firmed but not over compacted.
- Remove surface stones/ earth clods exceeding:
- Adjacent levels: Extend cultivation into existing adjacent grassed areas sufficient to ensure full marrying in of levels.

SEEDING Provide option cost for seeding and turfing to The Vineyard Wellington

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- Mixture: Avanta MM 16 or similar approved
- Application rate: 35g 1M2.

Turfing

400 CULTIVATED TURF

- Supplier: Beechwood Industries Ltd, Primrose Hill Nurseries Warrington Road. High Legh. Knutsford, WA 16 OSQ, or similar approved. Product reference: Rolown Medallion or similar approved

420 DELIVERY AND STORAGE

- Timing: Lay turf with minimum possible delay after lifting. If delay occurs, lay turf out on topsoil and keep moist.
- Frosty weather or waterlogged ground: Do not lift turf.
- Delivery: Arrange to avoid need for excessive stocking.
- Stacking height (maximum): 1 m.
- Dried out or deteriorated turf: Do not use.

423 INSPECTION OF TURF

- Give notice: Before lifting turf to Landscape Architect.

430 TURFING GENERALLY

- Time of year: To be agreed
- Timing of laying:
- Spring and summer: Within 18 hours of delivery.

- Autumn and winter. Within 24 hours of delivery.

- Weather conditions: Do not lay turf when persistent cold or drying winds are likely to occur or soil is frost bound, waterlogged or excessively dry.
- Working access: Planks laid on previously laid Turf. Do not walk on prepared bed or newly laid turf.

- Jointing: Laid with broken joints, well butted up. Do not stretch turf.
- Edges: whole turfs, trimmed to a true line.
- Adjusting levels: Remove high spots and till hollows with fine soil.
- Consolidating: lightly and evenly firm as laying proceeds 10 ensure full contact with substrate.
Do not use rollers.
- Dressing, brushed well in to completely fill all joints: Sand as approved

605 MAINTENANCE

- Duration: Carry out the following operations from completion of seeding/turfing until 12 months after completion/site handover.

610 FAILURES OF SEEDING/TURFING

- Defective materials or workmanship: Areas that have failed to thrive.
- Method of making good: Recultivation and reseeding/ returfing.
- Timing of making good: As required.

620 MAINTAINING _Prepare programme visits on weekly basis throughout growing period or as required by pre-arranged schedule.

- Maximum height of growth at any time: 30mm.
- Preparation: Before each cut remove all litter and debris.
- Cutting: As and when necessary to a height 10-12mm
- Weed control: Substantially free of broad leaved weeds.
- Method: Application of a suitable selective herbicide.
- Stones brought to the surface: Remove regularly.
- Size: Exceeding 25 mm in any dimension.
- Areas of settlement: Make good.
- Watering: As required.

680 MAINTENANCE FERTILIZER Available from Beechwood Industries Ltd, or similar approved.

March application: Organic fertilizer at 70 g/m² •

- March Nitrogen 12, Phosphorus 4, Potassium 8 and Iron 0.5
- September Application: As above

• POND EDGE MIX COMPOSITION MAINTENANCE

First year management

In the first year, annual weed growth may be cut back to encourage the development of a good perennial ground cover. Establishment on sites prone to flooding may be patchy and may take several years to fully colonise.

Management once established

The habitat value of pond edge sowings is enhanced if there are a variety of vegetation structures from dense tussock stands to bare and recently colonised mud. Management of these wetland areas should therefore aim to create variation with minimum disturbance to animal populations.

Variation in structure can be achieved by cutting back and removing short sections of vegetation every 2-3 years in rotation. In ditches, cut out sections and /or work from one bank each year. With ponds, remove vegetation as a wedge, like removing a slice of cake. Dense stands of single species (eg yellow iris) may benefit from selective thinning. Vegetation removal causes the least disruption to wildlife when carried out between September and November. Machines and heavy equipment should be used with care on wet sites to avoid damage to soil and vegetation.

Wet grassland which only occasionally or seasonally floods can be managed as meadow or grassland. In marginal wetland zones the water levels in the soil are never more than 50cm below the surface, but only occasionally submerge the plants growing there. New ponds constructed with liners often have very narrow margins (less than 1 metre wide) unless wider, gently shelving edges are designed in from the outset.

• FLOWERING WILD MEADOW MIXTURE COMPOSITION MAINTENANCE

First year management

Most of the sown species are perennial and will be slow to germinate and grow. This and the low sowing rate means that ground cover will take longer to develop as compared with conventional lawn sowings. The grass sward may take 12-18 months to knit together as turf.

There will often be a flush of annual weeds from the soil in the first growing season. This weed growth is easily controlled by topping or mowing. Perennial weeds, docks, thistles and nettles to be removed by hand.

To encourage perennial flowers and grasses to make good root development, it is important to mow the meadow in the first year after sowing. Cut to a height of 5cm (2in) after about six-to-eight weeks of growth, and repeat every two months throughout the first summer.

All cuttings should be collected and removed from site.

Management once established

The key cuts of the season fall roughly into three times of year and a perennial meadow can be managed effectively with one or more of these cuts;

1. **Spring cut** - this is useful for meadows where grass growth is very lush. Cut back to height of 7.5cm (3in) only and complete this cut no later than the end of April. It can also be used in conjunction with sowing yellow rattle in August to help manage grass-dominant meadows.
2. **Main summer cut** - this is also referred to as the 'hay cut' and removes the bulk of the material, allowing it to either be baled or composted. This cut is done between late June and the end of August; the earlier cutting favours spring flowers such as cowslips, fritillary, lady's smock, selfheal and bugle; the later cutting favours summer flowers such as knapweed, devil's bit scabious and lady's bedstraw.
3. **Autumn cut** - particularly useful for fertile sites, one or two cuts between the end of August and late November removes surplus growth and helps keep grasses at bay to allow the wildflowers to persist.

The main summer cut will alternate from either late June one year and then late August the next (and so on). Alternating will encourage the growth of spring or summer flowers each year to help provide a biodiversity gain.

Following the last cut of the season, all meadows can be kept mown to keep the grass short and neat through the winter as desired. Any cut that produces substantial clippings should have the clippings removed and composted.

Where grasses become dominant sow the annual wildflower, yellow rattle (*Rhinanthus minor*) which is semi-parasitic on grasses. Sow this in August and keep the grass mown until March.

All cuttings should be collected and removed from site.

- **POND PLANTING MAINTENANCE**

Maintenance

The vegetation around the margins of the pond should be inspected quarterly and any unwanted or invasive species removed. Sediment accumulations should be removed, typically once every 7-10 years. Care should be taken not to damage any pond liner.

It is the nature of ponds that they will eventually fill in with vegetation over time and if open water is to be retained periodic clearance will be necessary. In order to minimise disturbance to wildlife, it is preferable to clear out small areas regularly rather than clear the whole pond in one go.

Elevated nutrient levels may result in algal blooms and this can be dealt with by barley straw bales. As barley straw rots in water it releases a chemical that controls algal growth and does no harm to other plants. A small bale of straw will treat a pond of about 0.5ha

- **PROPOSED NATIVE HEDGEROW MAINTENANCE**

Maintenance

The native hedgerow shall be kept in a weed free condition during the first three years of the management programme leading to establishment. Weed control methods beneath hedgerow to be by the use of a systemic glyphosphate herbicide used in strict accordance with the manufacturer's instructions. Spray equipment shall be fitted with a guard to prevent drift onto neighbouring plants, a pressure regulating device and an approved spray nozzle of a poli-jet type. Equipment shall be free of leaks, and shall be cleaned thoroughly before and after use. All empty herbicide containers shall be disposed of through a registered professional waste disposal collector.

Spraying operations shall only be carried out in suitable weather conditions when there is no risk of spray drift onto adjoining areas. Systemic herbicide shall not be applied when rain is forecast within 6 hours. All spraying shall be undertaken by properly trained, licensed operatives. Where appropriate the glyphosphate systemic herbicide shall be applied with a wick-type applicator to preclude damage by spray drift.

Approved 7:7:7 (NPK) formulation fertiliser shall be spread around the base of each plant and lightly raked into the soil surface once only in the period 1st April to 31st May in the first two years. Rabbit guards to be checked on each inspection visit. Any

items that are found to be loose, damaged or missing shall be re-fixed or replaced at the time of inspection. All other repairs shall be undertaken no later than the next maintenance visit. Regular check/maintenance of the rabbit guards which shall be removed progressively as the shrubs develop strong leaders and side shoots to be judged on site between years 2-3. After periods of heavy wind or severe frost the ground around all shrubs is to be firmed by treading.

- **TREE PLANTING MAINTENANCE**

Fertiliser and Mulching

Approved 7:7:7 (NPK) formulation fertiliser shall be spread around the base of each tree at 450gm per tree in years 1 and 2. Maintain mulch to trees to a depth of 75mm, topping up as necessary in years 1 and 2.

Tree Pruning

Check each tree is growing healthily and remove all dead wood, damaged or diseased branches. Carry out formative pruning and remove any crossing branches or suckering shoots growing from the clear stem. Pruning's to be removed to on site composting if available or otherwise off site to tip.

Tree Wounds

Any wounds shall be neatly pored back to sound wood in accordance with BS. 3998:1989 Recommendations for tree work.

- **SHRUB PLANTING TYPE 1 & 2 MAINTENANCE**

Weed control

New shrub planting to be kept in a clean and weed free condition. Manual control of weeds in planting beds is preferable and shall be undertaken with care to avoid disturbance to plants. Weeds shall be removed entirely, including roots and removed off site. Desirable adventitious growths on plants are to be carefully preserved.

Where essential some use of a systemic glyphosphate herbicide can be used in strict accordance with the manufacturer's instructions. Spray equipment shall be fitted with a guard to prevent drift onto neighbouring plants, a pressure regulating device and an approved spray nozzle of a poll-jet type. Equipment shall be free of leaks, and shall be cleaned thoroughly before and after use. All empty herbicide containers shall be disposed of through a registered professional waste disposal collector.

Spraying operations shall only be carried out in suitable weather conditions when there is no risk of spray drift onto adjoining areas. Systemic herbicide shall not be applied when rain is forecast within 6 hours. All spraying shall be undertaken by properly trained, licensed operatives. Application of herbicides to amenity planting beds shall be undertaken with particular care to avoid damage to low and ground cover plants. Where appropriate the glyphosphate systemic herbicide shall be applied with a wick-type applicator to preclude damage by spray drift.

After weed control all areas shall be left in a neat raked and clean condition with mulch re-spread evenly. Any plants damaged during weed control operations shall be made good.

After periods of heavy wind or severe frost, the ground around all shrubs is to be firmed by treading. Approved 7:7:7 (NPK) formulation fertiliser shall be spread evenly at the rate specified in the maintenance schedules around planting pits and lightly raked into the soil surface. Fertiliser shall be applied only in the period 1st April to 31st 1 May.

Litter to be removed from planting beds as a routine part of the maintenance operation.

Watering

Watering is to be carried out only in exceptional dry weather and only in year 1.

Pruning

All pruning is to be carried out in accordance with the highest horticultural and arboricultural practice. Wounds should be kept as small as possible and cut back cleanly to sound wood. Tools shall include approved mechanical hedge-cutters, secateurs and hand-saws only. Dead foliage, stems and branches are to be removed by cutting back to an outward pointing bud or branch angled so that water will not collect on the cut area. Suckers are to be removed by cutting back to their source on the roots of the affected plant.

Shrubs shall be pruned to encourage vigorous growth. Remove any growth encroaching onto paths and vehicular areas. Allowance is to be made for thinning, trimming, and shaping according to species, variety, season, stage of growth, and required visual effect.

HARDWORKS

The areas of hard standing will be kept clean and tidy and any damage repaired using the same materials and construction specifications as per the original construction details. Footpaths will be kept in a clean and weed free condition, where essential some use of a systemic glyphosphate herbicide can be used in strict accordance with the manufacturer's instructions. Spray equipment shall be fitted with a guard to prevent drift onto neighbouring plants, a pressure regulating device and an approved spray nozzle of a poli-jet type. Equipment shall be free of leaks, and shall be cleaned thoroughly before and after use. All empty herbicide containers shall be disposed of through a registered professional waste disposal collector.

Brickwork/Stonework will be checked annually for damage or when damage is brought to the attention of the management company by residents. At that time appropriate repairs will be made, any damaged will be replaced with new stone or mortar to match existing, loose mortar scraped out and pointed to match existing.

SOFT LANDSCAPING MAINTENANCE SCHEDULE

PLANTING MAINTENANCE SCHEDULE

LANDSCAPE ELEMENT	PRESCRIPTION	YEAR					
		1	2	3	4	5	6+ In perpetuity
HEDGEROW PLANTING	2 herbicide applications (April/May & July/Aug)	●	●	●	●	●	●
	1 fertiliser 35g/sq.m (April)	●	●				
	2 firm ups	●	●				
	2 hand weeding	●	●	●	●	●	●
	Replacement of diseased or dying plants when necessary	●	●	●	●	●	●
	2 checks to shelters and stakes (remove end of year 5 or sooner)	●	●			●	
TREES	2 checks to ties and stakes	●	●	●	●	●	
	1 fertiliser 450gm/tree	●	●	●	●	●	
	Formative pruning/trimming as appropriately required, twice a year- Spring and Autumn	●	●	●	●	●	●
	Form 900mm clear area at base and cultivate 2x per year	●	●	●	●	●	●
	Water to land capacity if under stress	●	●	●	●	●	
	Every year check tree for disease, need for pruning or replacement	●	●	●	●	●	●

LANDSCAPE ELEMENT	PRESCRIPTION	YEAR					
		1	2	3	4	5	6+ In perpetuity
SHRUBS	1 prune to shape/remove dead vegetation	●	●	●	●	●	●
	1 top up mulch	●	●	●	●	●	●
	water to ground capacity if under stress	●	●	●			
	4 hand weedings with light cultivation	●	●	●	●	●	●
	2 spot treatments with residual herbicide	●	●	●	●	●	●
	Replacement of diseased or dying plants where necessary	●	●	●	●	●	●
GRASS	Cutting: As and necessary to a height of 30 to 40 mm. Frequency:Maximum: height of growth at any time:15mm including general maintenance clauses as per 605, 610,620,680	●	●	●	●	●	●

LANDSCAPE ELEMENT	PRESCRIPTION	YEAR					
		1	2	3	4	5	6+ In perpetuity
POND EDGE MIX COMPOSITION MAINTENANCE	Weed growth to be cut back	●	●	●	●	●	●
	September-November Pond vegetation 'wedge' removal Every 3years rotation.			●		●	Every 7 years
POND PLANTING MAINTENANCE	Weed growth to be removed quarterly	●	●	●	●	●	●
	Sediment removal						Every 7 years
FLOWERING WILD MEADOW	Weed growth to be cut back	●	●	●	●	●	●
	MOW 8 WEEKS AFTER PLANTING. THEN EVERY 2MONTHS THROUGHTOUT FIRST SUMMER	●					
	SPRING, SUMMER AND AUTUMN CUT	●	●	●	●	●	●
LITTER TO BE REMOVED FROM PLANTING BEDS AS A ROUTINE PART OF THE MAINTENANCE OPERATION UPON EACH VISIT							
Replacement of diseased or dying plants where necessary		●	●	●	●	●	●