

Trebor Developments

Iceni Way, Haverhill

LONG TERM LANDSCAPE MANAGEMENT PLAN



our ref: 19050 / DP / LMP001
date: 29.04.2019
prepared by: DP
checked by: TGW

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management scheme



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1.0 Statement Of Aims:

- 1.1 Retention of existing mature trees throughout the proposed development.
- 1.2 Enhance the screening benefit of existing site boundary vegetation.
- 1.3 Improve site provision for biodiversity
- 1.4 Achieve successful establishment of introduced new planting.
- 1.5 Achieve a landscape that combines quality design with aspirations of sustainable management and conservation.
- 1.6 The management of existing woodland and / or post establishment and senile phases of the woodland life cycle the principle aim is to promote longevity by the use of thinning, coppicing and felling to allow for retention of species and individual specimens, including replanting.

For the lifetime of the development as detailed in section 5.0.

2.0 Management Objectives:

- 2.1 Retain and manage the existing mature trees, screen planting to promote longevity.
- 2.2 Maintain and manage areas of introduced native species to ensure successful establishment of plantings including the promotion of self-set trees where appropriate.
- 2.3 Manage hedgerow / tree belt to diversify habitat provision by improvement of understorey and establishment of margin vegetation.
- 2.4 Maintain and manage the meadow grass swards to encourage species diversity.
- 2.5 Maintain and manage areas of shorter grass swards to enable the use of grass areas for passive recreation and to encourage species diversity.
- 2.6 Maintain and manage specimen tree and areas of ornamental planting to ensure successful establishment, maturity and longevity.
- 2.7 Manage woodlands / screen planting to allow for the selected climax trees to mature fully and with adequate space whilst also allowing for either natural succession or selected trees or allow for new introduced planting.

For the lifetime of the development as detailed in section 5.0.

3.0 MANAGEMENT OPERATIONS:

3.1 Existing Woodland Management Operations

3.1.1 *Selective coppicing:* Hazel, Goat Willow, Field Maple and Hawthorn understorey to be managed by coppicing on a fifteen year rotation to encourage differing ages and heights.

3.1.2 *Selective thinning:* in favour of tree species such as Oak, Birch, Alder and Rowan to be carried out. Immature self-set and regenerating Sycamore trees are to be progressively reduced to avert species dominance.

- Thinning should be carried out to ensure diversity of stand structure with old, middle aged and young trees present in the wood either as individuals, groups or as roughly even aged stands.
- Natural regeneration should be encouraged where species of the parent source are desirable.

3.1.3 *Selective felling:* woodlands of mixed species and age diversity individual trees should be removed to retain a matrix of large specimens that provide visual cover and shelter for new plantings or natural regeneration. As new trees grow further fellings can be performed to increase the room available for the new trees.

3.2 Proposed Woodland / Native Shrub Mix Management Operations

3.2.1 *Weed Control:* between forestry transplants or whips to be carried out by mechanical means or herbicide depending on species and site accessibility. Any arisings are to be removed from site.

- To be carried out during the initial 3-5 years of plant establishment, dependant on canopy closure. Base of planting one metre diameter to be kept weed / grass free.
- Eradicate noxious weeds by manual and mechanical means or selective herbicide as appropriate.

3.2.2 *Thinning:* of forestry planting to be carried out by mechanical or manual means arisings to be shredded and used to mulch were appropriate. Retention of felled material to occur after the second thinning. Once cut down to lengths of between one and two metres, the felled material should be stacked in appropriate permanent locations. Thinning to be carried out during December and January. Haul routes should be minimised to avoid ground disturbance.

- First thinning to be carried out after 10 years, to favour climax species removing pioneer and nurse species competing with or affecting growth to enable shrubs to spread and climax trees to grow without competition.
- Second thinning to be carried out after 15 years, additional pioneer and nurse species to be thinned out, the best climax tree out of a group of three is to be selected and the remaining trees removed.

- Thinning to select the best climax trees and to control growth of pioneer / nurse species to be carried out every 20 to 15 years. Operations to include both low thinning and crown thinning as appropriate.

3.2.3 *Coppice management*: of forestry planting (including Hazel, Hawthorn and Elder) to be carried out by manual means (to include chainsaws). Selected arisings to be stacked for ecological benefit in appropriate locations. Newly coppiced stools to be protected from grazing damage by covering with brash. Remaining arisings to be shredded and used to mulch as appropriate. Coppicing to be carried out during early December and January. Haul routes should be minimised to avoid ground disturbance.

- Coppice shrubs to be coppiced after fifth year of planting.
- Coppicing of shrubs to be carried out every fifteen years thereafter, on a staggered small scale rotation to ensure understorey maintained at differing ages and heights and maintain areas of ground cover for Great Crested Newts.
- Clear compartment areas of litter, rubbish and debris. To be carried out on maintenance visits and thereafter on a bi-annual basis.

3.2.4 *Tree protection guards / spirals*: to be removed once trees are sufficiently established. Larger trees with support stakes to be checked and adjusted on a regular basis to prevent instances of chafing damage to bark. Tree stakes and ties to be removed once trees are sufficiently established.

3.3 Existing Clipped Hedgerow Management Operations

3.3.1 *Manage*: shorter hedgerows within area using traditional methods. To be laid every 30 years if trimmed and every 15 years if untrimmed.

- *Trim hedges on rotation every three years by manual or mechanical means during early December to late February. No more than 50% of site hedges are to be trimmed at any one time. Mechanical trimming to be restricted to use of a bar hedge cutter or freshly sharpened flail.*
- *Retain existing tree standards emerging from the hedgerows. Protect trees from bark damage during hedgerow management operations.*
- *Keep pathways clear from overgrowth increasing frequency of cutting / pruning as necessary.*

3.3.2 *'Gap up'* - planting the hedgerows, using an appropriate mix of species that includes Hawthorn, Hazel, Blackthorn, Holly, Beech and Wild Rose.

3.4 Proposed Hedgerow Management Operations

3.4.1 *Weed Control*: between hedgerow transplants or whips to be carried out by mechanical means. Any arisings to be removed from site.

- To be carried out during the initial 3-5 years of plant establishment, dependant on canopy closure. Base of planting to be kept weed / grass free.
- Eradicate noxious weeds by manual or mechanical means.

3.4.2 *Pruning:* to be carried out by mechanical or manual means. Arisings to be shredded and used to mulch where appropriate. Pruning to be carried out in early spring and / or late autumn.

- To be carried out twice a year during the initial establishment period three to five years from planting. Mechanical trimming to be restricted to use of a bar hedge cutter or freshly sharpened flail.
- To be carried out every two years once hedgerow is established.
- Prune hedges to an 'A' shape to encourage a dense, wide base.
- Ten years from establishment, hedges to be coppiced and regrowth laid to encourage density at base. Hedge laying to be repeated every 30 years thereafter if trimmed as prescribed, or every 15 years if untrimmed.
- Support fences and tree protection guards / spirals to be removed once the hedgerow is sufficiently established.
- Keep pathways clear from overgrowth increasing frequency of cutting / pruning as necessary.

3.5 Existing Mature Tree Management Operations:

3.5.1 *Condition Survey:* of all retained mature trees situated close to proposed buildings and publicly accessible areas to be carried out and reviewed after 10 years. Additional safety inspections will be required after storms or severe weather conditions.

3.5.2 *Tree surgery:* to be implemented as appropriate in order to promote the longevity of existing mature trees with due consideration for health and safety. All tree surgery works are to be undertaken in accordance with BS 3998 by a qualified arborist registered with the Arboricultural Association. Restriction of works to late September / October will minimise potential for impact upon protected species. Prior inspection for bats by an appropriately licensed ecologist will be required regardless of the season.

3.5.3 *Decaying trees:* Perpetuate existing, dead and decaying trees for ecological benefit where safe and appropriate to do so. Retain reasonable amounts of felled material on site for benefit of habitat diversity.

3.5.4 *Protect Existing Trees:* from damage during construction and management operations in accordance with BS 5837: Trees in Relation to Construction.

3.6 Proposed Specimen Tree Management Operations:

- 3.6.1 *Initial Establishment:* for all planted trees. Routinely check to ensure staking is secure and not causing damage to the trees. Base of newly planted trees to be kept free from grass and weeds for a minimum 1 metre diameter area. Tree stakes to be removed once trees are established.
- 3.6.2 *Thinning:* Specimen tree groups to be thinned by mechanical or manual means, arisings to be shredded and used to mulch where appropriate. Thinning to be carried out during September / October.
- Thinning to be carried out every 15 years or as required, to favour specimens that are well established, disease free with a good habit, structure and a strong central leader.
- 3.6.3 *Tree Surgery:* to be undertaken at appropriate times. All dead, dying and diseased wood, unwanted branches, thin or malformed roots, multiple leaders, crossing / rubbing branches and potential heavy disfiguring limbs to be removed.
- 3.6.4 Arboricultural works to be restricted to late September / October. All proposed arboricultural works, regardless of the season, will require prior inspection for bats by an appropriately licensed ecologist.

3.7 Hedgerow Margin Vegetation Management Operations:

- 3.7.1 *Establishment:* of hedgerow margins by maintaining graduated profiles of shrubs, taller broadleaf herbs and grasses. Diversity of ground flora will be encouraged by restriction of dominant plants such as Brambles. Cutting and clearance during late March to Early April will be followed by an additional cut during late October. Arisings to be collected and removed from site in all cases.
- Routine reduction of persistently dominant ground flora including Nettles and coarse grasses to be undertaken by mechanical or manual means for improvement of species diversity. Collect arisings and remove from site.
 - Clear areas of litter, rubbish and debris. To be carried out on maintenance visits and thereafter on a bi-annual basis.

3.8 Wildflower Meadow Management Operations:

- 3.8.1 The main aim during the first few months after sowing must be to control competition from weeds to ensure that the sown species are able to become an established sward. Cutting regimes are the most appropriate means of control.
- 3.8.2 *Initial Establishment - Autumn sown meadow (late August – late October)*
- Autumn sow to allow sufficient germination time for slower species. Vernalization (winter cold treatment) is required for some species to germinate – notably Yellow Rattle and Cowslip.

- Cut meadows with cornfield annuals in early April to 75 mm. Second cut to 75 mm to occur during late September – late October.
- Cut meadows without cornfield annuals to 75mm when average height exceeds 100 mm (likely on sites of higher fertility). Repeat cut to reduce competition from annual weeds whenever growth exceeds 200 mm (3-4 times during first year).
- Cutting to be carried out during dry spells, arisings to be collected and removed from site on all occasions.

3.8.3 *Initial Establishment - Spring sown meadow (late March – early May)*

- Do not cut meadows with cornfield annuals until after mid-May. Allow the annuals to flower and cut in late August. When regrowth exceeds 100mm – cut to a height of 75 mm. Make final cut in late October to a height of 75 mm.
- Cut meadows without cornfield annuals when height exceeds 100 mm - reducing the height to 75 mm (3-4 times during the first year).
- Cutting to be carried out during dry spells, arisings to be collected and removed from site on all occasions.

3.8.4 *Meadow management: subsequent to initial establishment to improve diversity.*

- First annual cut in late March or Early April to 75 mm, followed by a second cut to 75 mm during late October. After the initial year the cuts are to be made in June or July during hot dry weather.
- Increase / decrease cutting regime according to growth rates and exceptional weather conditions (e.g. drought or excess rain).
- Arisings to be collected and removed from site.
- Instances of noxious weeds to be eradicated with localised application of appropriate selective herbicide as required.
- An uncut margin is to be left alongside hedgerows.

3.9 Grassland Management Operations:

3.9.1 *Mown Grass verges:* to meadow areas and open space areas of grassland to be regularly cut (average frequency of 10-14 days) throughout the growing season. Arisings to be collected and removed from site.

- Instances of noxious weeds to be eradicated with appropriate selective herbicide as required (refer to Appendix 2 for a defined list of plant species).

3.9.2 *Grass reinstatement works:* areas of excess wear and tear to be cordoned off where practicable. Improvement works to comprise topdressing, reseeding and alleviation of compaction.

3.10 Ornamental Planting Area Maintenance Operations:

3.10.1 *Ornamental plant beds:* to be kept free of debris, litter and weed growth on a regular basis throughout the year.

- Remove dead / damaged growth from ornamental shrubs and prune to encourage healthy, bushy growth and desirable ornamental features as appropriate to each species, e.g. flowers, fruit, autumn colour and stem colour.
- Formal ornamental hedges to be cut back in September to encourage bushy growth down to ground level.
- Evergreen ornamental grasses to be annually tidied to remove dead leaves and deciduous ornamental grasses to be cut back close to the ground in late winter to prevent the build-up of old culms and encourage sturdy growth.
- Maintain consistent specified depth of mulching materials by raking over and replenishment as necessary.

3.10.2 *Footpaths and Roads:* to be kept free of litter, debris and material arisings from landscape management / maintenance works.

- Remove instances of weed growth on or between hard surfaces by manual means or appropriate use of herbicide.

4.0 SITE SAFETY

4.1 When working in wooded areas, carrying out hedgerow maintenance or grass cutting, do so with due regard for public health and safety. Ensure adequate notification, with protective fencing and signage as appropriate.

4.2 Power tools such as chain saws or scrub cutters should be operated only by qualified and experienced operatives. Ensure such machinery is never left unattended. Particular care should be taken when working with machinery on slopes or steep banks.

4.3 Carefully inspect water depths prior to commencing work in or adjacent to wetland areas. Sudden increases in depth are to be clearly marked. Never work on ice over deep water.

4.4 Use of chemical weed control is to be in strict accordance with manufacturers' recommendations and the Control of Pesticides Regulations.

5.0 MONITORING AND REVIEW:

5.1 The management of the site is to be reviewed every five years for the lifetime of the development to ensure the aims and objectives of the scheme are being met, incorporating any additional operations required.

5.2 On review any amendments or additional operations to the Management Operations and / or Frequency are to be agreed in writing with the Local Planning Authority prior to continuation of this Management Plan.

6.0 ROLES AND RESPONSIBILITIES:

6.1 Contractors invited to tender for the implementation of the management scheme will be required to include within the tender an Annual Work Programme and Method of Working statement.

management schedule



| project: Icen Way, Haverhill | | review date: 5 Years from landscape practical completion | | | | | | | | | | | | | | | | | | | | |
|-------------------------------------|-----------------------|-----------------------------------------------------------------|----|---|---|---|---|---|---|---|----|----|----|----|----|----|----|----|----|----|----|----------------------|
| Landscape Type | Operation | Number of Operations Per Year | | | | | | | | | | | | | | | | | | | | Notes |
| | | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | |
| 3.1 Existing Woodland | Weed Control | 3 | 3 | 3 | 1 | 1 | | | | | | | | | | | | | | | | Until canopy closure |
| | Litter | 2 | 2 | 2 | 1 | 1 | | | | | | | | | | | | | | | | |
| | Thinning | 1 | | | | | | | | | 1 | | | | | | | | | | | |
| | Coppicing | | | | | 1 | | | | | | | | | | | | | | | 1 | Staggered rotation |
| 3.2 Proposed Woodland / Native Mix | Water | 20 | 10 | 5 | | | | | | | | | | | | | | | | | | Until established |
| | Weed Control | 3 | 3 | 3 | 1 | 1 | | | | | | | | | | | | | | | | Until canopy closure |
| | Thinning | | | | | 1 | | | | | 1 | | | | | 1 | | | | | 1 | If required |
| | Tree guards / spirals | 2 | 2 | 2 | 1 | | | | | | | | | | | | | | | | | |
| | Weed Control | 3 | 3 | 3 | 1 | 1 | | | | | | | | | | | | | | | | |
| | Litter | 3 | 3 | 3 | 1 | 1 | | | | | | | | | | | | | | | | |
| | Pruning | 2 | 2 | 2 | 2 | 2 | | | | | | | | | | | | | | | | |
| Coppicing | | | | | 1 | | | | | | | | | | | | | | | | | |
| 3.3 Existing Hedges | Weed Control | 3 | 3 | 3 | 1 | 1 | | | | | | | | | | | | | | | | Until canopy closure |
| | Litter | 3 | 3 | 3 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | |
| | Pruning | | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | |
| | Laying / Coppice | 1 | | | | | | | | | | | | | | 1 | | | | | 1 | If required |
| 3.4 Prop Hedgerow | Water | 20 | 10 | 5 | | | | | | | | | | | | | | | | | | Until established |
| | Weed Control | 3 | 3 | 3 | 1 | 1 | | | | | | | | | | | | | | | | Until canopy closure |
| | Litter | 3 | 3 | 3 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | |
| | Pruning | 2 | 2 | 2 | 2 | 2 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | |
| | Hedge Laying | | | | | | | | | | 1 | | | | | | | | | | | If required |
| | Tree guards / spirals | 2 | 2 | 2 | 1 | | | | | | | | | | | | | | | | | |
| | Replant Failures | 1 | 1 | 1 | 1 | 1 | | | | | | | | | | | | | | | | |
| 3.5 Existing Trees | Tree Surgery | 1 | | | | | | | | | 1 | | | | | | | | | | 1 | As required |
| | Condition Survey | 1 | | | | | | | | | 1 | | | | | | | | | | 1 | |



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| Landscape Type | Operation | Number of Operations Per Year | | | | | | | | | | | | | | | | | | | | Notes |
|----------------------|---------------|-------------------------------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|---------------------------------------------|-------------------|
| | | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | |
| 3.6 Prop Trees | Water | 20 | 10 | 5 | | | | | | | | | | | | | | | | | | Until established |
| | Weed Control | 3 | 3 | 3 | 1 | 1 | | | | | | | | | | | | | | | | Until established |
| | Tree stakes | 2 | 2 | 2 | | | | | | | | | | | | | | | | | | Until established |
| | Thinning | | | | | | | | | | | | | | | 1 | | | | | | If required |
| | Tree Surgery | | | | | 1 | | | | | 1 | | | | | 1 | | | | | | If required |
| 3.7 Hedge Margin | Grass Cut | 4 | 2 | 2 | 2 | 2 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | | |
| | Litter | 4 | 2 | 2 | 2 | 2 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | Prior to cutting | |
| | Noxious Weeds | 2 | 2 | 2 | 2 | 2 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | | |
| 3.8 Wildflower Grass | Water | 3 | 3 | 3 | 1 | 1 | | | | | | | | | | | | | | | Until established | |
| | Grass Cut | 3 | 3 | 3 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | | |
| | Litter | 2 | 2 | 2 | 2 | 2 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | Prior to cutting | |
| | Noxious Weeds | 2 | 2 | 2 | 2 | 2 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | If required | |
| 3.9 Grass Areas | Water | 20 | 10 | 5 | | | | | | | | | | | | | | | | | Until established | |
| | Grass Cutting | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | When attained 100mm, cut to 35mm | |
| | Litter | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | Collect litter prior to cutting grass areas | |
| | Reinstatement | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | Re-seed bare areas | |
| | Noxious Weeds | 2 | 2 | 2 | 2 | 2 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | Spot spray | |
| 3.10 Shrub Planting | Water | 20 | 10 | 5 | | | | | | | | | | | | | | | | | Until established | |
| | Weed Control | 15 | 15 | 15 | 8 | 8 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | Litter pick and removal | |
| | Litter | 15 | 15 | 15 | 8 | 8 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | Top up to spec'd depth | |
| | Bark Mulch | 1 | | 1 | | 1 | | | | | | | | | | | | | | | As required | |
| | Pruning | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | As required | |
| | Hedges | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | Cut to shape | |
| | Failures | 1 | 1 | 1 | 1 | 1 | | | | | | | | | | | | | | | Replace | |

The Landscape Maintenance is to be carried out by an approved Landscape Contractor who is a certified member of B.A.L.I (British Association of Landscape Industries). The five year maintenance period is to commence on completion of the approved landscape proposals.

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