

**SOFT LANDSCAPE WORKS
MAINTENANCE AND
MANAGEMENT PROPOSALS
– 5 YEARS**

BARNESLEY ROAD
Goldthorpe



BCA Design Ltd.

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Landscape Masterplan	1:2500-A1	GDT-BCA-ELS-XX-DR-L-S4-2267/22-21

Revisions:

P1	Issued for planning submission purposes.	27/03/23 MG
P2	Appendix B amends to accommodate RSPB comments.	11/03/24 MG
P3	Amends to align with FPCR LEMP.	20/06/24 MG

MAINTENANCE AND MANAGEMENT STATEMENT

(Refer to Appendix C for landscape proposals drawings)

The establishment and future success of the external landscape is largely dependent on the standard and frequency of the subsequent maintenance and management it receives. Throughout the development period and thereafter a maintenance and management regime will be adopted with the following aims and objectives.

The aims and objectives of the landscape maintenance and management will be:

- To ensure the successful establishment and continued growth through to maturity of the Soft Landscape scheme shown on Landscape Proposals drawings.
- To ensure that the infrastructure and plot landscape at Barnsley Road develops in a manner commensurate with the original design intentions.
- To ensure that the maintenance and management of the soft landscape areas is commensurate with and achieves the aims and objectives of the Landscape & Ecological Management Plan prepared by FPCR. **Any ecology habitat enhancement measures such as log piles or bird/ bat boxes to be maintained in accordance with this document.**
- To ensure the successful establishment and retention of effective landscape buffer planting, particularly along the boundaries of the site.
- To secure a long term future for the existing trees and new tree and thicket planting with particular emphasis upon achieving enhancement of ecological potential, conservation and visual amenity.
- To achieve rapid establishment of the plant material with resultant total ground cover, thereby suppressing weed growth and reducing maintenance requirements.
- To retain the natural growth form and maximise the seasonal potential of individual species by the pruning methods adopted.
- To manage the landscape in a manner convivial with the safety of site users, such as maintaining visibility splays and the removal of dead, dying or diseased tree branches.
- To ensure the successful establishment and continual enhancement of the landscape areas in accordance with ecological principles /ecologist's recommendations to increase the overall bio-diversity of the site.
- **Any maintenance activities are to be commensurate with current environmental legislation that may restrict activities to particular timing to protect wildlife and ecology habitat (e.g. bird nesting season).**

The soft landscape will, for the initial 1 year after Practical Completion, be maintained by the Landscape Contractor responsible for implementation of the works. The contract will include a defects liability clause to ensure replacement planting is carried out and successful establishment achieved. Refer to Appendix A for the schedule of maintenance for year 1. Thereafter maintenance contracts will be organised by facilities management on an annual basis.

The maintenance and management matrix (Appendix B) provides information the general techniques and methods to be adopted for the ongoing maintenance operations.

These will be reviewed at regular intervals to respond to natural or man-made changes in the environment which affect the landscape types (eg. tree disease).

The above approach will ensure that the quality of the landscape infrastructure created in the early years can be maintained for the benefit of visitors to the development at Barnsley Road, Goldthorpe as well as providing a benefit to persons who live near and pass by the boundaries. In addition it will ensure that the landscape develops to maximise the ecological potential of the proposals.

APPENDIX A

YEAR 1 MAINTENANCE SCHEDULE

	YEAR 1 LANDSCAPE MAINTENANCE SCHEDULE	FREQUENCY
	DESCRIPTION	
	During the initial twelve month period after Practical Completion.	
	Note: Allow for twenty-two maintenance visits (18 during the growing season, 4 during the dormant season). A visit shall be defined as the period of time required by the Contractor to carry out all maintenance items specified in the Schedule of work below.	
A	GENERAL	
A.1	Tidy up areas removing rubbish, litter, etc., from planted and grassed areas.	At each visit
A.2	Check that the plant material is firmly planted and firm in where required.	6 times
A.3	Treat pests and diseases by agreement with the Contract Administrator.	As necessary
A.4	Prune woodland transplants / shrubs as necessary to avoid conflict with footpaths, grass mowing, etc.	As necessary
B	TREE PLANTING	
B.1	To extra heavy standard/heavy standard trees: Check, adjust and replace stakes and ties as necessary. Prune, water and feed where required.	As necessary
B.2	Check spiral guards and replace when required.	Four times
C	WOODLAND / THICKET / NATIVE HEDGE PLANTED AREAS	
C.1	Keep areas clear of weed growth by spot herbicide treatment as appropriate from mid April to late September.	Four times
C.2	Check shelter guards and refirm / replace when required. Remove weed growth from within.	Four times
D	ORNAMENTAL/FORMAL CLIPPED HEDGEROW	
D.1	Keep areas clear of weed growth by hand weeding and spot herbicide as appropriate from mid April to late September in accordance with ecologist's recommendations..	Four times

	YEAR 1 LANDSCAPE MAINTENANCE SCHEDULE	FREQUENCY
D	ORNAMENTAL/FORMAL CLIPPED HEDGEROW (CONTINUED)	
D.2	Check shelter / spiral guards and refirm/replace when required. Remove weed growth from within if necessary.	Four times
D.3	Prune hedges as necessary to maintain desired height as shown on the drawing.	As necessary
E	SHRUB PLANTED AREAS	
E.1	Water ornamental shrub beds to maintain healthy growth.	As necessary
E.2	Prune shrubs as required to achieve desired form and prevent invasive species smothering less aggressive species.	As necessary
E.3	Prune dead, dying or diseased wood from plant material.	As necessary
E.4	Keep shrub areas clear of weed growth by hand weeding and spot herbicide treatment as appropriate.	12 times
E.5	Apply a slow release fertilizer, Enmag CRF or similar approved, composition NPK 11 + 22 + 9 + 6.0% Mg, to shrub areas at a rate of 30 gms / m2 (timing to be agreed with Contract Administrator).	Once only
E.6	Edge up planted areas to maintain soil level 25mm below adjacent hard surfaces and kerbs. Any soil washed onto hard surfaces to be cleaned off. Repeat at each maintenance visit.	At each visit
E.7	Lightly cultivate all shrub beds, breaking up soil evenly. Once only. Timing to be agreed with the Contract Administrator.	Once only
F	MAINTENANCE OF GRASS AREAS (CLOSE MOWN)	
F.1	Grass will be mown as required . Litter will be collected immediately prior to mowing. Note: at each cut excessive arisings shall be removed from site.	12-18 times/year dependent on location & season
F.2	Fertilizer will be applied.	As necessary
F.3	<u>PROVISIONAL</u> Supply and apply a selective herbicide in accordance with manufacturer's recommendations.	As necessary

	YEAR 1 LANDSCAPE MAINTENANCE SCHEDULE	FREQUENCY
	MAINTENANCE OF GRASS AREAS (CONTINUED)	
F.4	Water grass as necessary to achieve establishment and maintain healthy growth.	As necessary
F.5	Shape grass edge with half moon spade. Timing to be agreed with Contract Administrator.	Two times
F.6	Worn areas will be re-seeded.	May or September
G	MAINTENANCE OF SPECIES RICH GRASSLAND AREAS	
G.1	During initial establishment, when the grass reaches 200mm in height, the sward should be mown to a height of typically 75mm to reduce the number of coarse grasses and pernicious weeds.	When appropriate to maximize seed dispersal.
G.2	If autumn sown the sward shall be cut 3no. times in first year, once in March, once in May and once in September. If Spring sown then sward shall be cut once after six weeks (if sufficient material) and then twice more, once in May and once in September. Maintenance thereafter to be cut twice per annum, once in March/ April and once in September / October. All cuts to be to a length of 75mm and to the recommendations of the seed supplier.	When appropriate to maximize seed dispersal.
G.3	Spot treat or remove by hand undesirable species eg. (Creeping Thistle, Spear Thistle, Curled Dock, Broad Leaved Dock, Common Nettle, Greater Plantain, Cow Parsley & invasive non-native species following the first seasons growth.	As necessary
G.4	Avoid use of herbicide adjacent to riparian and aquatic habitats to prevent pollution of such habitats.	Note
G.5	Arisings to be left for 48 hours to allow dispersal of seeds and invertebrates. To prevent soil enrichment and thatching, arisings should be removed from site no more than 72 hours after cutting.	Note

	YEAR 1 LANDSCAPE MAINTENANCE SCHEDULE	FREQUENCY
	MAINTENANCE OF AQUATIC PLANTING & POND MANAGEMENT (Ponds & SUDS)	
H.1	When cutting/pulling vegetation is required to clear inlet/ outlet apertures to ponds or swales and to maintain 50% open water, its should be undertaken during autumn/winter months August-January, (outside of the amphibian breeding season). These operations should be carried out by hand.	As required
H.2	All removed vegetation to be left by pond edge for 48 hours to allow any trapped animals to escape, before removing the arisings from site.	Note
H.3	Leaf litter should be removed during Autumn/Winter along with any de-silting operations.	Note
H.4	Management to reduce nutrient load to be undertaken should filamentous algae/ duckweed become dominant.	As required

APPENDIX B

MAINTENANCE AND MANAGEMENT SCHEDULE MATRIX FOR 5 YEAR PERIOD

MAINTENANCE AND MANAGEMENT SCHEDULE MATRIX FOR 5 YEAR PERIOD					
ITEM OF WORK	YR 1	YR 2	YR 3	YR 4	YR 5 ONWARDS
(As Appendix A)					
GENERAL					
Tidy up areas removing rubbish, litter, etc, from planted and grass areas	“	✓	✓	✓	✓
Treat pests and disease as necessary	“	✓	✓	✓	✓
Water all plant material and grass as necessary to maintain healthy growth	“	✓	✓		
Check plant material is firmly planted and firm in where required.	“	✓	✓		
Dead, dying or diseased wood to be pruned out	“	✓	✓	✓	✓
Check shelter guards / rabbit protection and refirm / replace as required including removing weed growth from within. Consider removal at years 4 to 5.	“	4 times	4 times	2 times	2 times
Removal of diseased or dead plants with replacements as appropriate	“	✓	✓	✓	✓
TREE PLANTING					
Check, adjust, replace stakes and ties as necessary. Remove stakes after approximately 3 years if appropriate. Prune, water and feed as necessary.	“	✓	✓	✓	✓
Remedial tree surgery as necessary to remove any dead, dying or diseased branches and to allow the tree to achieve full stature. All works to be carried out by an Arboricultural Association approved contractor in accordance with BS3998: Recommendations for Tree Work.	“	✓	✓	✓	✓
WOODLAND / THICKET / NATIVE HEDGE PLANTED AREAS					
Keep areas clear of weed growth by herbicide treatment as appropriate from mid April to late September.	“	4 times	4 times	4 times	2 times
Remove branches that overhang footpaths or prevent access for grass cutting. Allow native hedges to achieve natural form with only lower branches removed.	“	✓	✓	✓	✓

MAINTENANCE AND MANAGEMENT SCHEDULE MATRIX FOR 5 YEAR PERIOD					
ITEM OF WORK	YR 1	YR 2	YR 3	YR 4	YR 5 ONWARDS
WOODLAND / WOODLAND EDGE THICKET / NATIVE HEDGE PLANTED AREAS (CONTINUED) (Yr 1 As Appendix A)					
Prune native hedges to 'A' profile to promote basal growth (between September & January) as required after year 4, on a 50/50 rotational basis to provide continual provision of cover for foraging resources through the seasons. Long term hedgerow management cycle to be established by periodically laying or coppicing.	"			✓	✓
During early establishment and from year 5 onwards, woodland and wet woodland mix planting is to be managed to ultimately achieve a tree canopy with understorey. Thicket mix areas are to be managed to achieve general broad age diversity. A gradual development of a diverse age structure should be established over a 30 year period of time by the use of selective thinning, pruning & coppicing under the supervision of a qualified project Ecologist , in a cyclical regime of 10% proportion per cycle during September-January. Wet woodland areas will be thus managed to create a mosaic of open areas and woodland to create a suitable habitat for Willow Tit and other species favouring such conditions. This will be supplemented by siting of appropriate nesting boxes, wood piles and hibernacula to provide a broad range of habitat enhancements. Deadwood from Birch and Willow 10-20cm in diameter attached to existing trees or posts with wire and staples at 1.5m from ground level. If decayed or unusable, to be replaced annually. Woodland structure along Carr Dyke to be managed to create a diverse structure within the woodland suitable for Willow Tit. A scalloped edge of structural planting should be established.					

SHRUB AND FORMAL HEDGE PLANTED AREAS

Keep ornamental shrub and formal hedge areas clear of weed growth by hand weeding or spot herbicide treatment.	"	12 times	12 times	10 times	10 times
Prune shrubs as necessary to prevent invasive species smothering less aggressive species and to prevent shrubs overhanging footpaths and other areas of hard paving.	"	✓	✓	✓	✓
Slow release fertilizer application as appropriate to ensure establishment of planting.	"	✓	✓		
Prune formal hedges to heights stated on landscape drawings (approx. timing May and September). Cut sides, tops and ends to straight and true lines.	"	2 times	2 times	2 times	2 times
Lightly cultivate all planted areas, breaking up soil evenly. Once only.	"	✓			

MAINTENANCE AND MANAGEMENT SCHEDULE MATRIX FOR 5 YEAR PERIOD					
ITEM OF WORK	YR 1	YR 2	YR 3	YR 4	YR 5 ONWARDS
Edge up planted areas to maintain soil level 25mm below adjacent hard surfaces and kerbs. Any soil wash onto hard surfaces to be cleaned off.	“	✓	✓	✓	✓

(As
Appendix
A)**CLOSE MOWN GRASS AREAS**

Grass cutting with edge trim (where required). Frequency of grass cutting operations to be commensurate with location and visual importance of grass area: Up to 18no. cuts per year	“	✓	✓	✓	✓
Shape grass edge as necessary with half moon spade. 2 times per year.	“	✓	✓	✓	✓
Application of fertilizer and selective weedkiller as appropriate	“	✓	✓	✓	✓
Re-seeding of worn areas	“	✓	✓	✓	✓

SPECIES RICH GRASSLAND/WILDFLOWER AREAS

Grass cutting. 3no. cuts per year When appropriate to maximize seed dispersal following recommendation from an ecologist.	“	✓	✓	✓	✓
Treat and remove pernicious weed growth where it may be detrimental to establishment of wildflower sward.	“	(Refer to schedule in Appendix A items G.2-G.5 for detailed maintenance requirements).			

AQUATIC/ POND & FLOOD ATTENUATION AREAS

To maintained to achieve the original design objectives. Where necessary aggressive or pernicious weeds or woody plants shall be removed.	“	(Refer to schedule in Appendix A items H.1-H.4 for detailed maintenance requirements).			
Willow and other native shrub species planted within areas of flood attenuation shall be coppiced to ground level on a cyclical basis. Selected trees shall be allowed to grow on to mature size. Excessive feathered growths at base of plants shall be removed if they would significantly reduce flood attenuation capacity. (Refer to schedule in Appendix A items H.1-H.4 for detailed maintenance requirements).	“		1/3 rd of plants		1/3 rd of plants every second year

APPENDIX C

DRAWINGS

DRAWING TITLE	SCALE	DRAWING NO.
Landscape Species Schedule	1:500-A2	GDT-BCA-ELS-XX-DR-L-S4-2267/22-01
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