LANDSCAPE MANAGEMENT PLAN FOR BOGNOR REGIS COMMUNITY COLLEGE, SITES 1, 2 & 3 FOR BELLWAY HOMES

To be read in conjunction with drawing no.959/01 rev A, and 961/01 rev A and 960/02 rev A. The plan should also be read together with the Specification of Soft Landscape Works.

1.0 PRELIMINARIES

1.1 The landscape contractor appointed to carry out the soft landscape works will be responsible for all maintenance during the first twelve months as detailed in the Soft Landscape Specification, and will replace any dead, dying or diseased stock at the end of the Defects Liability Period.

1.2 After the twelve months Defects Liability period, the private residents will be responsible for maintaining and replacing trees and shrubs on their property, and a management company will be responsible for maintaining and replacing the soft landscape (on shared landscape such as grounds to blocks of flats) by arranging for a suitable qualified contractor to carry out the work as described in this management plan. The report focuses on the first five years after the Defects Liability Period, and longer term maintenance should be the subject of a further management plan. The management company will also be responsible for maintaining POS areas until such time as it is handed over to the Local Authority.

1.3 Where possible, alternative methods of weeding to the use of herbicides should be considered, particularly by mechanical means (e.g. hand weeding, hoeing, strimmers) or by maintaining a good covering of mulch to prevent weed growth. Where chemicals are deemed to be required, all weed killers shall be specified, stored and applied in accordance with the relevant regulations. All staff applying chemicals shall be certified to do so, and must provide evidence at the start of each contract or when new staff are employed.

1.4 Any tree work should be carried out by a tree surgeon who is a member of the Arboricultural Association, unless it is of a very minor nature. Where mature trees overhang the site, neighbours should be advised of works to be carried out. The local planning authority may need to be informed, and where Tree Preservation Orders are in place, permission will need to be sought, unless the trees are thought to pose an immediate danger. Where this is the case, only the minimum work required for safety should be carried out, and photos or reports may be required to prove the need for action.

1.5 All maintenance operatives must be properly trained and qualified, and the contractor must be able to give evidence of qualification.

1.6 All operations will be carried out in accordance with the relevant British Standards as listed;

BS 7370 Grounds Maintenance;
BS7370-1 establishing and managing grounds maintenance companies, and

design recommendations to aid maintenance
BS7370-2 maintenance of hard areas
BS7370-3 maintenance of turfed areas
BS7370-4 maintenance of soft landscape

BS 4428: 1989 Code of Practice for General Landscape Operations

BS 3882 Specification for Topsoil

BS 3998 Recommendations for Tree Work

BS 3936 Nursery stock specification for trees and shrubs

Other useful publications;

Arboricultural Association Leaflets:
1. Trees for Small Gardens
2. A guide to Tree Planting
3. Young tree maintenance
4. Tree management
5. Evergreen hedges
6. Tree roots
7. Thinning groups of trees
8. Mature tree maintenance

Joint Council for Landscape Industries (JCLI):
JCLI Landscape Works Contract 2008
JCLI Landscape Maintenance Works Contract 2008

DEFRA: Guidance Note on methods to control harmful weeds

2.0 MAINTENANCE OPERATIONS (YEARS 1-5)

2.1 GENERAL

2.1. Notice
The maintenance contractor shall give 48 hours notice of the intention to carry out maintenance work, and to give 7 days notice of seeding, turfing, planting or tree works.

2.2 Weather
Maintenance operations to be carried out only in the appropriate season and when weather and soil conditions are favourable.

23 Reinstatement
Any damage or disturbance to any planting and/or turf to be re-instated to original condition. Imported topsoil, cultivations and replacements of plant failures all to be carried out in accordance with the original soft landscape specification and planting schedule.

2.4 Machines/Tools
Hand tools are to be used where possible and practical to avoid damage to plants and disturbance to residents.

2.5 Litter
Collect and remove all litter and tipped and extraneous rubbish from the entire site at monthly intervals.

2.6 Vandalism
Make good any malicious damage or theft which may occur and inform the client immediately if vandalism is suspected.

2.7 Arisings
All arisings from maintenance operations are to be removed from site, unless the client has arranged for a compost area within the site to be made available for biodegradable waste.

2.8 Chipping and Shredding
No chipping or shredding is allowed on site.

2.9 Use of Chemicals
Ensure site operatives are certified in the safe handling and application of fertilisers, herbicides and other chemicals. The contractor must supply a certificate of competence for the storing and use of all chemicals., and comply with the Control of Pesticides Regulations 1986 and the COSHH Code of Practice. Only products approved under the above regulations are to be used and must be applied in accordance with manufacturer's instructions. All empty containers are to be disposed of off-site in accordance with the regulations. The client is to be informed of the use of chemicals, the product type and the dosage rates.

2.10 Pest Control
After informing the client, apply approved pesticides as necessary to control any insect or fungal attack.

2.11 Weed Control
Keep planting beds clear of weeds, and ensure that existing mulch is not disturbed, or dug in by cultivation. Weeding is to be carried out by hand or by application of chemicals. The timing of weeding visits is detailed in the maintenance programme.

2.12 Vehicles and Equipment
Only lightweight vehicles and equipment is to be used over landscaped gardens and any damage caused to turf, paving or planting is to be repaired at the contractor's own expense.

3.1 TREE WORK

3.1 Tree Work Generally

All mature trees are to be inspected every two years by a suitable qualified member of the Arboricultural Association to assess any remedial work that may be required. When work is identified as necessary, confirmation must be sought that the trees are not covered by a Tree Preservation Order, and if they are, the contractor must apply for approval from the Local Authority to carry out the work. Where trees are on the site boundaries, or overhanging adjacent sites, the owners of adjacent site must be given notice of works.

3.2 Surgical Work

All surgical work to be carried out as shown in Arboricultural Association Leaflet no 8 ‘Mature Tree Maintenance’ and leave trees with a well balanced natural appearance.

3.3 Crown Reduction and Shaping

Cut back selectively to lateral or sub lateral buds or branches to retain flowing branch lines without leaving stumps

3.4 Crown Lifting

Remove branch systems to give sufficient height clearance as agreed with the client. Remove whole branches back to the stem, or cut lower portions of branches back to lateral or sub lateral buds or branches. Do not leave stumps.

3.5 Crown Thinning

Remove inward growing, crossing, rubbing, dead and damaged branches. Selectively remove secondary and small live branch growth evenly throughout the crown. Percentage removal to be agreed with the client. Leave a uniform and well balanced structure of branches or foliage or as specified.

3.6 Pruning Generally

Prune using the branch bark ridge or branch collar as a pruning guide. Remove large branches in small sections and lower to the ground with ropes and slings.

3.7 Deadwooding

Remove dead, dying or diseased wood, broken branches and stubs, fungal growths and fruiting bodies, rubbish wind blown or accumulated in branch forks, wires, clamps, boards and metal objects, if removable without causing further damage, and other unwanted objects.

3.8 Operational Damage to Trees

On completion of planting or in the course of maintenance operations any broken branches shall be pruned and damaged areas of bark shall be neatly pared back to sound tissues. Each tree is to be inspected for bruising and chafing which may not be easily apparent. Where damage has occurred, the bark shall be treated with a fungicidal sealant. If the tree is in the opinion of the client too badly damaged, it shall be replaced at the contractors expense.

4.1 NEW TREE AND SHRUB MAINTENANCE

4.1 Fertiliser

Enmag fertiliser at 25gms per shrub and 100gms per tree added early Spring for years 1, 2 and 3 to all newly planted areas.

4.2 Establishing New Trees

Maintain a weed free area around the base of each tree at least 1m diameter or the surface area of the original pit. When in leaf spray the tree crowns in the early morning or late evening during particularly dry weather.

4.3 Re-firming of Trees

All trees to be checked for position and stability at regular intervals. Check trees for re-firming after strong winds, frost heave and other disturbances. To re-firm, tread around the tree base until firmly bedded. Break up by fork any collars in soil at base of tree stems created by tree movement. If necessary backfill with topsoil and re-firm to original levels.

4.4 Tree Ties

The tree ties are to be checked and adjusted annually, and removed, together with the stakes, at the end of 5 years, once the tree is fully established.

4.5 Dead Plants

Remove all dead material as soon as possible and replace in the following appropriate season.

4.6 Thinning

Shrubs and herbaceous material is to be thinned when beds become overgrown and tangled. Remove as much of the root system as possible without causing undue disturbance to adjacent plants. Refill holes with topsoil to leave an even graded surface and make good any minor damage to adjacent plants.

4.7 Weeding

Regular weed control to be undertaken to maintain clean soil within the planted areas at all times. Winter herbicide may be used before the end of March. and allow recommended period before arisings are cleared. When weed control is to be undertaken by hand weeding, remove whole weeds including roots. Existing bark mulch is not to be disturbed. Re-firm all plants after frost heave or wind blow. At the end of year 3, the bark mulch is to be topped up to original specification.

4.8 Pruning

All trees and shrubs are to grow to their expected mature height, and any pruning will be to cut back overhanging branches or to remove broken, dead, diseased or suckering branches.

The native shrub mix is to be cut back by 1/3rd every other year, until such time as a dense thicket has developed, and then maintain above.

4.9 Pest Control

Any pesticides to be used must be non-residual and non-injurious to wildlife. The contractor must report any sign of pest damage and apply approved pesticides as instructed.

4.10 Watering

Water during times of drought when watering should be carried out once a fortnight. Water should be applied to trees and shrubs using a fine sprinkler until the full depth of topsoil is saturated, to ensure continued healthy growth of plants.

4.11 Replacements

All dead, dying and diseased plants and trees, those which have failed to thrive or have been removed or damaged shall be replaced by the same species during the next available planting season, or substituted if the planting position is unsuitable for that species.

4.12 Mulching

At the end of year 3, the bark mulch is to be topped up to original specification.

5 HEDGE MAINTENANCE

5.1. Replacement

Replacement plants when required are to be of even shape and similar strain, bushy to the base and have been grown and maintained as hedging plants in the nursery.

5.2 Trimming

Trim back growth at regular intervals to maintain a regular appearance, and prevent overhanging to the footpath and maintain at a height of 1.5m.

5.3 Dead Material

At the end of the growing season, check all hedges and remove all dead foliage, deadwood, and broken or damaged branches and stems.

6 GRASSED AREAS

6.1 Grassed Areas Generally

All bare patches or failed seeded/turf areas to be made good by re-seeding and re-cultivation. Seed shall conform to BS 3969: 1978. Maintenance shall be carried out as BS 7370-3.

6.2 Re-Seeding/Sowing of Formal Lawns

Any areas of grass which die off shall be scarified and re-seeded with a mixture of seed and compost during March-May or August-October. After sowing the area shall be rolled with a Cambridge roller to incorporate the seeds into the surface. Irrigate the area as necessary to ensure germination.

Once the blade leaf growth reaches 35-45mm, roll the surface to anchor the roots of the new shoots. Mow lawn to remove the top 25% and remove mowings.

6.3 Weedkilling

Carry out any necessary cultivation or weedkilling with an approved weedkiller in accordance with the maintenance programme.

No weedkilling to be carried out on the wildflower meadow.

6.4 Watering

Water during times of drought when watering should be carried out once a fortnight. Water should be applied to lawns using a fine sprinkler until the full depth of topsoil is saturated, to ensure continued healthy appearance of the lawns.

6.5 General Grass Maintenance

All grass cutting must be carried out by a machine which collects all cuttings. Cutting shall be disposed of off site, unless the client has provided a suitable compost area within the site. The contractor is to exercise care to prevent the hazard of flying stones etc. All rotary mowers must be fitted with safety guards. Any necessary rolling must also be included.

The area sown with wildflowers to the centre of the POS to be mown once at the end of July and once at the end of the summer. The thatch to be thoroughly raked through after the second cut to allow for wild flower seeds to be spread.

6.6 Mowing Height

Grass height to be maintained at 35-40mm, but areas in heavy shade may be left to 75mm if the client agrees.

The wildflower lawn to be allowed to mature until wildflowers have produced seed.

6.7 Leaf Removal

Remove all fallen leaves from lawns to maintain a neat appearance.

7 PAVED AREAS

7.1 Hard Surfaces and Gravel Areas

Apply approved foliar acting or residual herbicide to weeds in hard surfaces or gravel areas. Allow recommended period for herbicide to take effect and remove arisings. Remove litter, leaves, excess mulch and other debris from all hard surfaces. Remove mud, silt and debris from surface gutters and channels and empty traps and flush clean drainage channels. Rake over gravel areas and remove weeds, litter and debris, and level gravel afterwards. Brush paved areas to clear debris or algae. Ensure paved areas are not slippery.

8 Re-assessment

The Landscape Management Plan shall be reviewed every 5 years. At the end of 20 years, the whole site will be assessed by a suitably qualified person to ensure that shorter lived shrubs are replanted, and any necessary adjustments made to the overall layout.

Linda Oak, M.L.I., Dip. L.A. Revised May 2012

APPENDIX A MAINTENANCE REPORT FORM

Maintenance Operator: **Job Name:**

Duty Supervisor: **Job Number:**

Weather Conditions: **Area/Phase:**

Maintenance Date: **Report Form No:**

MAINTENANCE OPERATIONS

1 Herbicide Application (Summer)	Yes/ No
2. Herbicide Application (Winter)	Yes/ No
3. Hand Weeding, including weeds killed by herbicide	Yes/ No
4. Removal of weeds from hard surfaces	Yes/ No
5. Sweeping up leaves and debris	Yes/ No
6. Litter Removal	Yes/ No
7. Pesticide Application	Yes/ No
8. Pruning of Trees	Yes/ No
9. Fertiliser Application	Yes/ No
10. Watering of all soft landscape areas	Yes/ No
11. Refirming plants	Yes/ No
12. Remove defective plants (report to Client Representative)	Yes/ No
13. Cut back groundcover plants	Yes/ No
14. Cutting, trimming and making good grass areas	Yes/No
15. Cutting and clearing wildflower meadow	Yes/ No

16. Check mulch levels Yes/No

Signed (Maintenance Operator): Position:

Signed (Client Representative) Position:

APPENDIX B MAINTENANCE PROGRAMME CHECKLIST

JANUARY
Herbicide application (as required)
Sweeping up leaves and debris
Litter removal
Pesticide application (as required)
Refirming plants (as necessary)
Remove defective plants
Check mulch levels

FEBRUARY
Herbicide application (as required)
Sweeping up leaves and debris
Litter removal
Pesticide application (as required)
Refirming plants (as necessary)
Remove defective plant

MARCH
Herbicide application (as required)
Hand weeding
Removal of weeds from hard surfaces
Sweeping up leaves and debris
Litter removal
Pesticide application (as required)
Fertiliser application
Watering
Remove defective plants
Grass cutting (every 2 weeks)
Top dressing (if required)

APRIL
Hand weeding
Sweeping up leaves and debris
Removal of weeds from hard surfaces
Litter removal
Pesticide application (as required)
Pruning of trees/shrubs
Watering
Remove defective plants
Grass cutting (every 2 weeks)
Top dressing (if required)
Check mulch levels

MAY
Hand weeding
Sweeping up leaves and debris
Removal of weeds from hard surfaces
Litter removal

Pesticide application (as required)
Watering
Remove defective plants
Grass cutting (every 2 weeks)

JUNE
Hand weeding
Sweeping up leaves and debris
Removal of weeds from hard surfaces
Litter removal
Pesticide application (as required)
Watering
Remove defective plants
Grass cutting (every 2 weeks)

JULY
Hand weeding
Sweeping up leaves and debris
Removal of weeds from hard surfaces
Litter removal
Pesticide application (as required)
Watering
Remove defective plants
Grass cutting (every 2 weeks)
Grass cut to wildflower meadow
Check mulch levels

AUGUST
Hand weeding
Sweeping up leaves and debris
Removal of weeds from hard surfaces
Litter removal
Pesticide application (as required)
Watering
Remove defective plants
Grass cutting (every 2 weeks)
Top dressing (if required)
Check mulch levels

SEPTEMBER
Hand weeding
Sweeping up leaves and debris
Removal of weeds from hard surfaces
Litter removal
Pesticide application (as required)
Fertiliser application
Watering
Remove defective plants
Grass cutting (every 2 weeks)
Grass cut to wildflower meadow and scarify
Top dressing (if required)

OCTOBER
Hand weeding
Sweeping up leaves and debris

Removal of weeds from hard surfaces
Litter removal
Pesticide application (as required)
Pruning of trees/shrubs
Remove defective plants
Grass cutting (every 2 weeks)

NOVEMBER Herbicide application
Hand weeding
Sweeping up leaves and debris
Removal of weeds from hard surfaces
Litter removal
Pesticide application (as required)
Remove defective plants
Check mulch levels

DECEMBERHerbicide application
Sweeping up leaves and debris
Removal of weeds from hard surfaces
Litter removal
Refirming plants (as necessary)
Pesticide application (as required)
Remove defective plants
Check mulch levels