

**CLIFFE LANE, GOMERSAL
KEEPMOAT HOMES**

LANDSCAPE MANAGEMENT SPECIFICATION



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DRAWING: 4248/2-3 DETAILED LANDSCAPE PROPOSALS

To be read in conjunction with drawings 4248/2-3 entitled Detailed Landscape Proposals which show the extent and location of each category of landscape below.

1.0 INTRODUCTION

1.1 Purpose of Report

1.1.1 The purpose of this report is to set out clearly the basic management/maintenance techniques appropriate to this site up to Year 5 in detail and basic recommendations beyond Year 5.

1.1.2 For the purpose of this report, on newly created landscapes, Year 1 begins 12 months after practical completion has been achieved, and the Defects Liability and Aftercare Period have been served and the site handed over.

1.1.3 The 12 months Aftercare Period should have included the following items:

- Maintaining a weed and litter free site
- Herbicide and fertiliser applications
- Ensuring mulch mats are secure and missing ones replaced
- Ensuring bark mulch is evenly spread to specified depth and is replenished as necessary
- Watering through periods without significant rainfall
- Replacing plants that have died in the 12 months since practical completion was achieved.

1.1.4 Generally all the planting should be according to the relevant drawing, in a healthy condition, and free from litter and competition from weed growth.

1.1.5 This landscape management specification shall last for the lifetime of the development.

1.2 Design Aims

1.2.1 The design vision for the whole site is to provide an attractive, planted context for the new dwellings and circulation areas. This will be achieved by retaining the substantial belts of mature vegetation along the site boundaries and augmenting this with new planting throughout the site.

1.2.2 The site will be subdivided into compartments around each new building to the use of extensive formal hedge planting containing lines of specimen trees.

1.2.3 Within each housing parcel, groups of specimen trees in grass together with occasional blocks of ornamental shrub planting (to define the front gardens of dwellings) will provide an attractive environment for those using the site (both residents and visitors).

1.2.4 The general aims of the management/maintenance plan are to present guidelines that enable the landscape to achieve the original design objectives whilst maintaining a presentable appearance at all times; these works are summarised in a table in the Appendix.

1.3 Climate change and biodiversity statement

- This document recognises that the breakdown in global climate and biodiversity is the most serious issue of our time and that the built environment is a major contributor, accounting for almost 40% of energy-related carbon dioxide emissions whilst also having a significant impact on our natural habitats.

- All works will be undertaken with the aim of ensuring that the built and natural environment has increased resilience and both are capable of adapting to the future climate.
- The works listed below will be reviewed on a regular basis to identify examples of best practice carbon reduction, climate resilience, biodiversity protection and improvement.
- In this regard, possible actions could include: reductions in mowing frequency; reducing soil fertility; use of renewable energy sources; use of electric equipment over petrol or diesel power; and phasing out the use of chemicals and plastics.

1.4 **The Specification**

The various landscape elements are collated together under the headings below. Their treatment is described in detail year by year up to Year 5 and with basic recommendations beyond Year 5.

Section 2.0	Existing Trees and Vegetation
Section 3.0	Grass Areas
Section 4.0	Wildflower Areas
Section 5.0	Shrub Beds
Section 6.0	New Specimen Trees
Section 7.0	Native Species Shrub Mix
Section 8.0	Hedging
Section 9.0	Hard Surfaces

2.0 **EXISTING TREES AND VEGETATION** (see drawing for location and extent)

2.1 **Maintenance Objective**

The aim is to retain the existing character of the woodland areas, ensuring the health and safety of all specimens contained therein.

2.2 **General Maintenance Application to all Years**

2.2.1 Maintain existing tree areas litter free.

2.2.2 Do not allow adjacent residents to deposit rubbish, grass cuttings, or other deleterious materials within existing tree areas.

2.2.4 Inspect all existing trees on an annual basis and remove any deadwood. Cut back any limbs overhanging footpaths. Fell any tree that has become damaged. Cut up and remove branches. Cut up major limbs and leave on site to provide a habitat for invertebrates. Replace with feathered tree of same species, together with stake and tie, and maintain as New Specimen Trees (see Section 6).

2.2.5 Visits to site shall be made at the following intervals:

Grass cutting – normally every 10-14 days but frequency shall be adjusted as necessary to maintain height of sward within stated range.

Planting areas – monthly throughout growing season and as necessary during dormant season to resolve any outstanding items.

Inspection visit – annually in autumn to review state of plant growth and identify action required for the forthcoming growing season.

3.0 GRASS AREAS (see drawing for location and extent)

3.1 Maintenance Objective

The maintenance objective is to provide an even standard of vegetation of uniform height and colour comprising of predominantly grass species, with no more than 5% dicotyledenous plants.

3.2 Maintenance Operations – Year 1 and beyond

Mowing shall be carried out using a cylinder or rotary mower where appropriate to maintain the vegetation within the limits of 20mm and 50mm during April to September inclusive and between 30mm and 60mm during the rest of the year. The clippings may be returned but must be distributed evenly over the surface, and at no time shall the layer of clippings be of such a depth that will affect the growth of the sward.

3.2.1 Where necessary grass area may be sprayed overall with a suitable approved selective herbicide in accordance with the manufacturer's instructions. Alternatively, spot weeding of isolated weed infestation may be carried out.

3.2.2 Scarify grass annually in the autumn.

3.2.3 Apply organic fertiliser in the spring and autumn.

3.2.4 Spike for aeration to 150mm depth annually.

3.2.5 Remove all litter, debris, and deleterious material from the site at regular intervals and prior to mowings.

3.2.6 All edges of grass areas, against buildings, footpaths, roadways, trees, posts, and any other obstructions shall be kept neat and tidy by use of hand/mechanical edge trimmer or herbicide as appropriate.

3.2.7 Reinstatement by re-turfing or re-seeding of worn areas shall be undertaken as necessary and at the appropriate time of year.

4.0 WILDFLOWER AREAS (see drawing for location and extent)

4.1 Maintenance Objective

The purpose of the wildflower areas is to form attractive grassed areas containing diverse grassland species that will increase the habitat diversity of the open spaces principally along the northern site boundary.

Existing grasslands

4.2 Maintenance Operations - Year 1

These shall be cut annually, in August/September, removing the arisings, gathering a proportion into compost piles. Minimum height of cut to be 50mm. Re-seed any areas that do not establish. Maintain free of invasive weeds by spot treating with herbicide (or by hand weeding in areas adjacent to any watercourse).

4.3 Year 2 onwards

Cut annually, in August/September, removing the arisings, gathering a proportion into compost piles. Minimum height to be minimum 50mm.

*Newly seeded areas***4.4 Maintenance Operations - Year 1**

Cut once per year in Aug/September, or if needed to be cut twice, this should be in April. Minimum height of cut to be 50mm. Re-seed any areas that do not establish. Maintain free of invasive weeds by spot treating with herbicide (or by hand weeding in areas adjacent to any watercourse).

4.5 Year 2 onwards

Cut once per year in Aug/September, or if needed to be cut twice, this should be in April. Minimum height to be minimum 50mm.

5.0 SHRUB BEDS (see drawing for location and extent)**5.1 Maintenance Objective**

To maintain a boscage of shrub growth to cover as much as possible of the border area and allowing the individual plants to achieve as nearly as possible their natural form. Maintain the borders free of visible weeds and shape and prune the shrubs to avoid obstructing pathways or blocking light to windows.

5.2 Maintenance Operations - Year 1

5.2.1 Immediately after planting, and thereafter yearly, in the appropriate season for the species involved, prune the shrubs to develop their desirable ornamental characteristics. At the same time remove intermediate plants that are restricting the natural and attractive development of their neighbours. These plants may be used to fill gaps produced elsewhere in the scheme where species have not been as successful in their development. Remove all arisings from site.

5.2.2 Carry out appropriate maintenance operations as indicated on the planting schedule on the landscape drawing. The following maintenance operations to be applied as appropriate to the relevant species:

- Hard prune March – April (where species flowers on current year's wood)
- Remove flower wood after flowering (where species flowers on last year's wood)
- Clip or trim to maintain shape and bushy habit.

5.2.3 Maintain the soil surface substantially free of weeds (less than 5% weed cover) by spot treating with Glyphosate or approved equivalent during the growing season.

5.2.4 Top up mulch to 75mm depth as required.

5.2.5 Replace any dead or missing plants to the original specification.

5.3 Year 2

5.3.1 Prune the shrubs as much as is necessary to achieve their desirable ornamental features (flowering, autumn colours, overcrowded, leggy plants etc.), following sound horticultural practices, and to prevent them overgrowing footpaths or blocking light to windows. Carry out any maintenance operations as indicated in Item 5.2.2.

5.3.2 Remove all arisings from site as well as any damaged dead or diseased parts of the shrub.

- 5.3.3 Maintain any visible surface soil free of weeds as specified for newly planted borders.
- 5.3.4 Apply organic fertiliser prior to commencement of the growing season, except adjacent to any watercourses, prior to re-mulching any bare areas where necessary.
- 5.3.5 Apply fungicide/insecticide to any plants suffering from fungal infection or insect attack as per manufacturer's instructions.
- 5.4 **Year 3 & Year 4**
 - 5.4.1 Repeat all the procedures as in Year 2.
 - 5.4.2 Maintain any visible surface soil free of weeds (less than 5% weed cover) by applying an annual dressing of approved residual herbicide in the winter months and spot treating with Glyphosate or approved equivalent during the growing season.
- 5.5 **Year 5**
 - 5.5.1 Repeat all the procedures as in Year 2 except item 5.3.4.
 - 5.5.2 Thin out over mature plants that are becoming unsightly and have outgrown their useful life. Replace these with young plants as per the original specification where gaps remain.
- 5.6 **Beyond Year 5**

The above 5-year cycle should be repeated thereafter except omit Item 5.3.4. Maintain bare patches weed and litter free, however allow the growth of self-seeded, regenerated shrub species. Formative prune shrubs as required to achieve their desirable ornamental features as Item 5.2.2.
- 6.0 **NEW SPECIMEN TREES** (see drawing for location and extent)
 - 6.1 **Maintenance Objective**

Establish a stable and healthily growing tree within three years from planting with a well-shaped framework for future growth.
 - 6.2 **Maintenance Operations - Year 1**
 - 6.2.1 A one metre diameter circle is to be maintained weed free around all specimen trees. Circle to be topped up with mulch and spot treated as necessary to maintain weed free. The bases of trees in planted beds to be absorbed into the general maintenance of the areas in which they occur.
 - 6.2.2 All dead and missing specimen trees or trees which fail to develop properly during the first season after planting shall be replaced. Specification for replacements shall be the same as for their originals.
 - 6.2.3 Water newly planted trees throughout the summer months (April to September) at weekly intervals after any period of four weeks without significant rainfall (less than 5mm). Apply sufficient water to thoroughly wet the top 150mm of soil around the tree roots. This will normally require 10 litres for a seedling or whip and 20 litres for a standard tree.
 - 6.2.4 Check stakes and ties for firmness and support and adjust or replace as necessary. Check once a year in late spring.

- 6.2.5 Firm the soil around the roots to ensure that the tree is securely planted in the ground and upright.
- 6.2.6 Formative prune the tree to remove any dead, diseased or damaged shoots and create a balanced form for future growth.
- 6.3 **Year 2**
 - 6.3.1 Begin phased removal of tree stakes and ties beginning with the stakes of the most vigorous and established trees, except in special circumstances.
 - 6.3.2 Repeat procedures 6.2.1 to 6.2.3 inclusive.
 - 6.3.3 Apply organic fertiliser prior to commencement of growing season at a rate of 30 litres per tree.
- 6.4 **Year 3**
 - 6.4.1 Continue phased removal of tree stakes and ties beginning with the stakes of the most vigorous and established trees, except in special circumstances.
 - 6.4.2 Repeat procedures 6.2.1 to 6.2.3 inclusive.
 - 6.4.3 Thin out competing species of plants around the bases of specimen trees occurring in planted beds to reduce competition.
 - 6.4.4 Apply organic fertiliser prior to commencement of growing season at a rate of 30 litres per tree.
- 6.5 **Year 4**
 - 6.5.1 Continue phased removal of tree stakes and ties beginning with the stakes of the most vigorous and established trees, except in special circumstances.
 - 6.5.2 Repeat procedures 6.2.1 to 6.2.3 inclusive.
 - 6.5.3 Apply organic fertiliser prior to commencement of growing season at a rate of 30 litres per tree.
- 6.6 **Year 5 and beyond**
 - Repeat procedures 6.2.1 to 6.2.3 inclusive.
- 7.0 **NATIVE SPECIES SHRUB MIX** (see drawing for location and extent)
 - 7.1 **Maintenance Objective**

To maintain a bosage of shrub growth to cover as much as possible of the area and allowing the individual plants to achieve as nearly as possible their natural form. Maintain the borders free of visible weeds and shape and prune the shrubs to prevent obstruction of pathways.
 - 7.2 **Maintenance Operations - Year 1**
 - 7.2.1 Immediately after planting, and thereafter yearly, in the appropriate season for the species involved, prune the shrubs to ultimately develop their desirable natural mature form (see maintenance operations on landscape drawing). At the same time remove intermediate plants that are restricting the natural and attractive development of their neighbours. These plants may be

used to fill gaps produced elsewhere in the scheme where species have not been as successful in their development. Remove all arisings from site.

- 7.2.2 Prune *Cornus sanguinea* (Dogwood) down to 200mm above ground level to stimulate bushy habit and ensure a bright display of coloured stems. Repeat process every 2 years thereafter.

- 7.2.3 Maintain the soil surface substantially free of weeds (less than 5% weed cover) by applying an annual dressing of approved residual herbicide in the winter months and spot treat with Glyphosate or approved equivalent during the growing season. Handweed where necessary and in areas adjacent to water course, or where contamination of watercourse could occur.

7.3 **Year 2**

- 7.3.1 Prune shrubs as much as is necessary to achieve their natural shape (flowering, autumn colours or overcrowded and leggy plants etc), following sound horticultural practices, and to prevent them overgrowing footpaths.

- 7.3.2 Remove all arisings from site as well as any damaged dead or diseased parts of the shrub.

- 7.3.3 Maintain any visible surface soil free of weeds.

- 7.3.4 Apply organic fertiliser prior to commencement of the growing season, except adjacent to watercourses.

- 7.3.5 Ensure ground surface maintained weed free by mechanical or chemical means.

- 7.3.6 Apply fungicide/insecticide to any plants suffering from fungal infection or insect attack as per manufacturer's instructions. Avoid any contact with watercourse.

7.4 **Years 3 & Year 4**

Repeat all the procedures as in Year 2.

7.5 **Year 5**

- 7.5.1 Repeat all the procedures as in Year 2 except 7.3.6. Thin out over mature plants that are becoming unsightly and have outgrown their useful life. Replace these with young plants as per the original specification, where gaps remain.

- 7.5.2 Formative prune shrubs as required

7.6 **Beyond Year 5**

The above 5-year cycle should be repeated thereafter except omit item 7.3.6. Maintain bare patches weed and litter-free, however allow the growth of self-seeded, regenerated shrub species. Formative prune shrubs as required to achieve their desirable features.

8.0 **HEDGING** (see drawing for location and extent)

8.1 **Maintenance Objective**

All hedges to be carefully and regularly clipped with line and level being maintained to promote a dense, uniform and tidy appearance, according to the type of hedge and situation. Regularly mow or otherwise control any weed or grass growth at the base of the hedge so that it does not detract from the overall appearance. Maintain litter free beds (applicable to all years).

8.2 **Maintenance Operations - Year 1**

- 8.2.1 Spot treat any weeds with Glyphosate (or similar approved) during the growing season prior to topping up with 75mm depth bark mulch where applicable to suppress weeds and retain soil moisture. Carefully clip and prune the top and sides of the hedge to promote dense growth to ground level and in the desirable parameters that the hedge will eventually attain. Prune the top of the hedge only when it has achieved its desired height (50-80cm).

8.3 **Year 2**

Water recently replaced plants as necessary to ensure establishment. Apply fungicide and or insecticide to any plants suffering from fungal infection or insect attack. Repeat all operations as for Year 1.

8.4 **Year 3**

Repeat procedures as for Year 2 above, residual herbicide may be applied to bare ground in accordance with manufacturer's instructions.

8.5 **Year 4**

Hedge should be dense and clothed in leaves to ground level, no further requirement for spot treating weeds or topping up mulch. Replace dead or missing plants as necessary to maintain the hedge density. Clip the top and sides of the hedges to maintain true and even levels and using suitable mechanical cutters to retain shape and height. Remove any cuttings lodged in the surface of the hedge and rake up and remove all arisings. Allow for the operation to be carried out to suit the species and the position of the hedge as follows:

- 8.5.1 Formal hedge (Copper Beech, Beech, Hornbeam, New Zealand Broadleaf, Yew) - cut once every four weeks in the main growing season.
- 8.5.2 New mixed native hedge (Hawthorn, Hazel, Holly, Guelder Rose, Blackthorn, Goat Willow and Field Maple) - cut once a year in the autumn or winter but with an additional cut in early June where it overhangs footpaths.
- 8.5.3 Existing hedge along eastern site boundary - cut once a year in late summer.

8.6 **Year 5 and beyond**

Repeat procedures as for Year 4 above.

9.0 **HARD SURFACES**

9.1 **Maintenance Objective**

To maintain in a safe and tidy condition suitable for use by all site users – both tenants and visitors.

9.2 **Maintenance Operations - Year 1 onwards**

Inspect footpath surfaces and repair as required to ensure that they are safe. Collect all litter and remove from site

APPENDIX

OPERATIONAL SCHEDULES

Note: numbers in brackets after each heading refer to section within main text which contains a full description of each operation

Operation	Year					Proposed frequency	Restrictions
	1	2	3	4	5		
Existing Trees and Vegetation (2.0)							
Undertake annual walkover inspection.	#	#	#	#	#	Annually	Any required works to TPO trees to have permission of local authority
Identify areas where rubbish, grass cuttings or other materials have been deposited; remove from site.						Monthly	Advise landowner for need for action to address problem (e.g. speak to adjacent tenants)
Remove any failing/dead material on health and safety (or visual) grounds.	#	#	#	#	#	As required	Undertake works out of bird nesting season. Cut up major limbs and leave on site to provide a habitat for invertebrates; remove smaller branches off site
Remove any non-native or invasive species. Replace with feather of appropriate species and maintain as New Specimen Trees.	#	#	#	#	#	As required	Undertake works out of bird nesting season.
Grass Areas (3.0)							
Maintain amenity grass to uniform height as specified	#	#	#	#	#	Normally fortnightly	Adjust frequency as appropriate to weather conditions and growth rate
Apply organic fertiliser	#	#	#	#	#	Once annually	In spring or autumn
Apply selective herbicide	#	#	#	#	#	Once annually	As instructed by landscape architect
Scarify or spike for aeration to 150 mm depth as appropriate	#	#	#	#	#	Once annually	
Reinstate any damaged areas as required by re-seeding or re-turfing		#	#	#	#	Annually in season	
Maintain edges against buildings, footpaths, roadways, etc neat and tidy by mechanical or chemical means.	#	#	#	#	#	Once annually	Employ mechanical means in areas adjacent to any watercourse

Operation	Year					Proposed frequency	Restrictions/Notes
	1	2	3	4	5		
Wildflower Areas (4.0)							
Cut to 50 mm height and remove arisings off-site	#	#	#	#	#	June and September	
Re-seed any areas that do not establish	#	#	#	#	#	Annually in season	
Maintain free of invasive weeds by spot treating with herbicide	#	#	#	#	#	Monthly	Employ hand weeding in areas adjacent to any watercourse
Ornamental Shrub Beds (5.0)							
Maintain shrub beds weed free	#	#	#	#	#	Monthly	Avoid use of chemicals in areas containing herbaceous plants or bulbs
Apply organic slow-release fertiliser		#	#	#		Once annually	In March or April
Check firmness of shrubs and re-firm as required	#	#	#	#	#	Monthly	Carry out additional checks after exceptionally windy or frosty weather during years 1-2
Prune shrubs to remove damage and to develop their desirable ornamental characteristics	#	#	#	#	#	Once annually	Either (i) hard prune March-April or (ii) remove flower wood after flowering (dependent on species)
Replace defective and failed plant material	#	#	#	#	#	Once annually	Review density of bed and only replace if gaps are evident
Top up mulch to original depth	#	#	#			Once annually	In March or April
Litter pick/remove fly tipping. Remove all arisings.	#	#	#	#	#	Monthly	Check for harbouring wildlife.
Water as required	#	#	#			As required	Weekly April to September during prolonged dry weather
New Specimen Trees (6.0)							
Maintain tree circles in grass weed free	#	#	#	#	#	Monthly	Avoid use of chemicals in sensitive/nature conservation areas
Apply organic fertiliser	#	#	#			Once annually	In March or April
Check firmness of trees and re-firm is required	#	#	#			Monthly	Carry out additional checks after exceptionally windy or frosty weather during years 1-2

Operation	Year					Proposed frequency	Restrictions/Notes
	1	2	3	4	5		
Prune damaged branches	#	#	#	#	#	As required	Prune as soon as identified
Check tree stakes/ties and repair/replace	#	#	#			Every three months	Replace as soon as identified with materials to existing specification
Check establishment of trees and remove stakes if necessary			#	#	#	As required	Commence with most vigorous and well-established trees
Replace defective and failed trees	#	#	#	#	#	Once annually in planting season	Replace all failures in year one and thereafter as agreed at annual walkover
Top up mulch to tree circles in grassed areas	#	#	#	#	#	Once annually	In March or April
Litter pick	#	#	#	#	#	Monthly	Remove all risings from site to tip in accordance with relevant Waste Management Regulations
Water as required	#	#	#			As required	Weekly April to September during prolonged dry weather
<i>Native Species Shrub Mix (7.0)</i>							
Prune all species to remove damage and to develop their natural characteristics	#	#	#	#	#	Once annually	Only undertake work as necessary
Prune Dogwood down to 300mm above ground level	#		#		#	Bi-annually	To stimulate bushy growth and ensure a bright display of coloured stems
Maintain ground surface substantially free of weeds (Less than 5% weed cover) by application of residual herbicide	#	#	#			Once annually	Apply herbicide during winter months. Avoid use of chemicals in sensitive areas
Spot treat with glyphosate or hand weed where necessary during the growing season	#	#	#			Monthly	
Replace dead or missing plants	#	#	#	#	#	Once annually	Replace to original specification only where gaps are obvious
Apply fungicide/insecticide to any plants suffering from fungal infection or insect attack	#	#	#	#	#	Monthly	Use as per manufacturer's instructions; avoid any contact with watercourses
Thin out over mature plants that are becoming unsightly and have outgrown their useful life.				#	#	Once annually	Replace with young plants as per the original specification only where gaps remain.

Operation	Year					Proposed frequency	Restrictions/Notes
	1	2	3	4	5		
Hedging (8.0)							
Maintain 300 mm diameter area around each plant weed free by mechanical or chemical means	#	#	#	#	#	Monthly	Avoid use of chemicals in sensitive areas
Check firmness of plant material and re-firm is required	#	#	#			Monthly	Carry out additional checks after exceptionally windy or frosty weather during years 1-2
Cut formal hedge (Copper Beech, Beech, Hornbeam, New Zealand Broadleaf, Yew) throughout main growing season	#	#	#	#	#	Monthly	
Lightly trim new mixed native hedge (Hawthorn, Hazel, Holly, Guelder Rose, Goat Willow, Field Maple and Blackthorn)	#	#	#	#	#	Once a year in autumn or winter	Additional cut in early June where it overhangs footpaths
Maintain existing height of hedge along eastern site boundary	#	#	#	#	#	Once a year in late summer	
Replace dead or missing plants	#	#	#	#	#	Once annually	Replace to original specification where gaps occur
Top up mulch to original depth	#	#	#			Once annually	In March or April
Water as required	#	#	#			As required	Weekly April to September during prolonged dry weather
Litter pick	#	#	#	#	#	Monthly	Remove all risings from site to tip in accordance with relevant Waste Management Regulations
Hard Surfaces (9.0)							
Inspect footpath surfaces and repair as required to ensure that they are safe.	#	#	#	#	#	Once annually	
Collect all litter and remove from site	#	#	#	#	#	Monthly	