



Landscape Management Plan

**Botley Road,
Moorgreen**

Date: 11/01/19

Ref: DD187.R01

Revision A – updated to coordinate
with ecological management plan.

Revision B – Landscape plans
updated

Revision C – Landscape plans
updated

Prepared by:

Deacon Design Ltd
12A The Square
Wickham
Hampshire
PO17 5JQ

info@deacondesign.co.uk
www.deacondesign.co.uk

Written by: Phil Deacon CMLI

DD Ref: DD187.R01

Document Status: FOR PLANNING

Date: Jan 2019

CONTENTS

1	Introduction	3
	Landscape Strategy	3
2	Preliminaries	6
3	Landscape and Ecology Planting	7
4	Soft Landscape Maintenance – General Schedule of Activities	14
5	Maintenance Schedule – Specific Activities to Plant Typologies	16
6	Monitoring and Ongoing Review	23
7	Appendices	24

1 Introduction

Background

- 1.1 This Landscape Management Plan (LMP) has been prepared for Foreman Homes Ltd to inform the on-going landscape management and maintenance operations for the residential development on land at Botley Road, Moorgreen (hereafter referred to as 'the site') as required under Condition 7 of the outline approval stating:

No development shall take place until a landscaping and open space management plan and maintenance schedule has been submitted to and approved in writing by the local planning authority. The landscaping and open space shall thereafter be managed in accordance with the approved details.

- 1.2 This LMP describes the overarching landscape strategy for the development and the range of existing and proposed landscape planting, typologies and post implementation maintenance and aftercare.

Landscape Strategy

- 1.3 The landscape proposals have been carefully formulated in response to the existing site constraints and opportunities, landscape character, setting and the future needs of residents and the local community. The design seeks to create a residential environment that's reflects the clients' aspirations for high quality development that embraces the landscape setting and inherent features that give the site its sense of place.

Landscape vision

- 1.4 The vision for the landscape identifies a series of design principles that will guide the future implementation of the detailed landscape scheme and is based on achieving the following aims:
- Establishing a sense of arrival to the site through the creation of a communal green;
 - Provision for mix of pedestrian-friendly streets and a high-quality public open space including provision for future links across the site as part of sensitively designed play and recreational trails;
 - Conserving the site's landscape features including retention of the central woodland belt with extra provision for native woodland understorey improvements across the site;
 - Enhanced biodiversity corridors within the site including wildflower meadows, biodiverse grasslands, wetland areas and an enriched woodland mosaic;
 - Acoustic bund/fencing to incorporate suitable native trees, shrubs, climbers and grassland to enhance existing vegetation and local landscape character.

- Using Sustainable Drainage Systems that integrates and form part of the landscape vision.

Planting Strategy

- 1.5 The supporting planting strategy plan and outline schedule submitted as part of the application (appended to this report) sets out the proposed planting strategy for the development which comprises a mix of trees, shrubs and herbaceous plants that together delivers a preference to native species indigenous to the local area or appropriate alternative species approved by the appointed ecologist and able to withstand climate adaptation. Planting typologies set out within this LMP will include:
- Buffer Planting / Understorey Woodland Planting - Protect existing line of trees with native understorey planting and wildflower meadow that will reinforce ecological connectivity;
 - Kickabout Areas - Wildflower meadow and amenity grassland to increase biodiversity and to provide opportunities for passive recreation;
 - Buffer understorey woodland planting - Clear unwanted underground vegetation without disturbance to tree roots. Plant native species to improve landscape setting and biodiversity within buffer zones;
 - Planted Acoustic Bunds - Screen and soften M27 noise attenuation barrier with suitable native trees, shrubs, climbers and grassland to enhance existing vegetation and local landscape character;
 - Aquatic Planting - Marginal and aquatic planting to create interest and promote biodiversity; and
 - Residential Planting - Amenity planting to complement the landscape setting prioritising native species.

Arboricultural Impact

- 1.6 The proposals have sought to design out any potential conflicts with the existing trees and associated Root Protection Areas (RPA). Any proposed new hard surfaces within the RPA will seek to use no dig construction techniques in using best practice guidelines identified in BS5827:2012 Trees in Relation to Design, Demolition and Construction. Please refer to the project arboriculture's report for further details.

Aims and Objectives

- 1.7 The Management Plan will ensure that the landscape vision is realised through a programme of regular maintenance that will deliver the following objectives:
- The successful establishment of the planting design using best horticultural practices to maintain healthy growth, seasonal interest and legibility for the future enjoyment of residents;
 - Protection, conservation and enhancement of existing trees, vegetation and associated habitats to achieve ecology value in both

biodiversity terms and human amenity – bringing, for example, the benefits of bird song, butterflies and the restorative effects of natural environments to residents and visitors;

- To achieve and maintain a high standard of cleanliness, appearance and repair using sustainable management techniques as far as possible.

- 1.8 This Plan is intended to cover the long-term establishment of the landscape for a period of 10 years.
- 1.9 It should be noted that as the establishment of the new planting progresses, the operation and management maybe altered from that included within this document. However, this document provides minimum standards to be achieved and a 'benchmark' system, which is capable of adjustment and fine tuning in order to achieve the stated objectives and standards.

2 Preliminaries

- 2.1 This management plan should be read in conjunction with the supporting landscape plans and ecological management plan (ecosupport document 'Land off Botley Road, West End, Ecological Management Plan' issued in Jan 2019).
- 2.2 Subject to the relevant conveyancing information being agreed the landscape maintenance of the private areas will be the responsibility of the domestic owners with all remaining areas not adopted by the local authority managed by the appointed Management Company, the agreement for which shall be set up by the Developer.
- 2.3 The appointed Management Company shall be responsible for all periodic maintenance as set out in this document and replacements thereafter for all planted areas to which its management covers.
- 2.4 The maintenance of trees, shrubs and other plants after the date of practical completion will be carried out by the Contractor until the responsibility is transferred to the Management Company.
- 2.5 In addition to the above, all planting must be carried out within the first planting season following occupation. Any tree and plant showing the following attributes must be replaced within a period of 5 years from the date of completion. These include those plants that:
 - Dead, diseased or dying
 - Are missing or not in accordance with the specification
 - Lack any vigourReplacements must be carried out immediately, or in the next planting season, by the contractor at his own cost.
- 2.6 Any additional topsoil applied to the planting should be quality loam to BS 3882.
- 2.7 All loss or damage arising from theft or malicious damage prior through the contract shall be made good by the Contractor at his own expense.
- 2.8 Inspection checks shall be carried out by a competent person, either a current member of BALI or the Landscape Institute, acting for the Management Company, at minimum monthly intervals and as appropriate work is carried out.
- 2.9 All site operatives to refer to O&M Manual for identified site risks.
- 2.10 No existing trees, shrubs or other plants shall be removed or cut without specific instructions from the Contract Administrator. Existing trees are to be retained, protected and undisturbed throughout the contract.

3 Landscape and Ecology Planting

All Planting

- 3.1 All planting beyond the boundaries of domestic ownership will be maintained in perpetuity by the management company.

Biodiversity Enhancements / Habitat Corridor

- 3.2 Attention has been given to prioritising the use of native species important foraging habitat for a range of birds and invertebrates.
- 3.3 The retention and enhancement of the boundary vegetation will create a green swathe around the development and opportunity to create an enhanced habitat corridor including:
- Native hedgerow retention and enhancements to reinforce movement corridors and maintain a varied structure and protection for foraging birds and insects.
 - Wildflower meadow and grasslands to form natural edges to support wildlife corridors;
 - Provision of habitat areas for dead wood invertebrates. This can include measures such as burying a wooden 'log' up to 1 metre below the earth's surface thus providing essential larval habitat.
- 3.4 Further details of the ecological enhancements proposed for the site can be found within the ecological management plan (ecosupport document 'Land off Botley Road, West End, Ecological Management Plan' issued in Jan 2019).

Existing Trees and Hedgerows

- 3.5 Management of existing trees will require periodic management.
- 3.6 Managed thinning, significant pruning works and / or felling should be undertaken by an Arboricultural Association Approved Contractor to British Standard 3998 Tree Work specifications.
- 3.7 Any works to trees protected by a Tree Preservation Order or within a Conservation Area will need to obtain the necessary approval from the Local Planning Authority prior to any works.
- 3.8 All tree surgery works to be carried out between October and February. No works should be carried out between 1st March and 31st September to avoid the bird nesting season.

Buffer Planting / Woodland Understorey Planting

- 3.9 Limited intervention is proposed alongside the boundary vegetation in the areas identified as being rich in arboriculture and ecological value. Instead these areas will be left undisturbed and protected.

- 3.10 Planting enhancements will seek to reinforce these edges creating a more organic boundary that will improve the woodland setting, augment diversity, improve habitat and provide opportunities for managed human interaction with the woodland environment.
- 3.11 It will be important that an ecologist and arboriculturist remains involved to oversee any construction associated within close proximity to these areas.

Native Hedgerows

- 3.12 During construction, the existing boundary vegetation identified to be retained shall also be protected in accordance with the measures described in 'British Standards 5837:2012 Trees in relation to design, demolition and construction – Recommendations' will be followed.
- 3.13 Any new hedgerows including infill planting will assist in reinforcing the character of the hedgerow framework providing improved green corridors for wildlife to migrate around the site and seek refuge. The species selected have been chosen to complement these natural edges, avoiding unnecessary maintenance operations and instead allowing their natural form to establish along this generous edge.
- 3.14 Trimming should ensure a consistent screen from ground level, and a suitable nesting habitat for birds. Many hedgerow plant species do not produce fruits until 2-3 years after they have been cut. The site boundary hedgerows will therefore be cut on a three-year rotation as per best practice guidelines.
- 3.15 With the exception of visibility splays, hedges should be trimmed on a three-year rotation not annually. In year one the inside aspects of the hedges will be cut, in year two the tops of the hedges will be cut, and in year three the hedges will be left uncut, to allow the outside aspects to be cut.
- 3.16 Any failures to new hedgerows should be replaced during the next suitable planting period for that species. This will be undertaken in September annually for five years' post construction.
- 3.17 Pruning operations should take place between November and February to avoid harm to nesting birds and plant health during the spring / summer growing period. During this period, no cutting of the hedgerow bases should take place to avoid harm to hibernating dormice. If bases require cutting this should occur in April after an appropriate check for nesting birds.

New Tree Planting

- 3.18 Management operations will include thinning to remove any deadwood and promote growth.
- 3.19 All tree works to be undertaken by an Arboricultural Association Approved Contractor to British Standard 3998 Tree Work specifications.
- 3.20 Any thinning works are to be carried out outside of the nesting season to avoid disturbance to birdlife.

- 3.21 Trees planted within amenity grass areas to have a weed free circle of 1.2 metre diameter during the first 5 years of establishment. Following this vegetation will be allowed to grow.

Formal Hornbeam Hedgerow Planting

- 3.22 A series of formal Hornbeam hedgerows will be established to provide protection between the highway, areas of public open spaces and private residential frontages.
- 3.23 Even though hornbeam is deciduous, the dry leaves stay on for winter to provide structure and screening all year round.
- 3.24 Where this forms the only boundary treatment, temporary post and wire fence will be positioned along the middle of the hedge prior to planting to prevent people from gaining access to the embankment behind. Once the hedge is established removal of the fence will be difficult, so it can remain in situ.
- 3.25 Any part of the fence that at any time: presents a hazard to people; presents a hazard to wildlife; or looks unsightly, should be repaired (if still serving a supporting function) or removed (if the hedge is established).
- 3.26 These hedgerows should be kept neat and formal at a height no greater than 1 metre to retain visibility, natural surveillance and retain a consistent form. Lateral growth to be trimmed at 1m wide, ensuring that growth does not obstruct highway visibility.
- 3.27 The maintenance regime for these hedgerows will aim to increase a dense structure for habitat provision while avoiding the creation of unsafe traffic routes with overgrown vegetation. Maintenance is limited to a yearly trim ensuring a consistent screen from ground level, and a suitable nesting habitat for birds.

Shrub Planting

- 3.28 Shrub planting varieties have been chosen for their aesthetic value and their suitability to the site conditions / aspect. The proposed species will provide all year interest for residents, while attracting wildlife with shelter and food. Non-indigenous species have been limited to residential front gardens only and the species chosen, will avoid spread by cuttings.
- 3.29 Management operations will include thinning of shrubs to remove any deadwood and promote growth and regular pruning to maintain a healthy and attractive form. Thinning promotes new dense growth thus encouraging a strong, more robust planting in the mid to long term, and also increases air flow within the planting to maintain its good health.
- 3.30 A programme of thinning will also maintain a balance between the shrub and perennial planting types, increasing biodiversity rather than allowing one to dominate and kill off the weaker which would potentially happen in a natural situation. This system is to be managed to maintain a point in succession, which provides a greater ecological and aesthetic benefit to the residential areas.

- 3.31 Any growth which will obscure windows, signs or sight-lines shall be removed. Once established, any support canes shall be removed from the shrubs.
- 3.32 Any thinning works are to be carried out outside of the nesting season to avoid disturbance to birdlife.
- 3.33 Operations are to be carried out by hand and waste is to be recycled as compost wherever possible or appropriate.
- 3.34 The density of planting will require that all weeding is carried out by hand (unless agreed with CA otherwise), using the appropriate tools. All resultant material should be removed from site.
- 3.35 The management company is responsible for litter picking in those areas that it manages. Litter should be cleared every two weeks.
- 3.36 All plants shall be watered as may be required to maintain healthy growth following planting, during the maintenance period and subsequently in cases of extreme drought.
- 3.37 If the local temperature exceeds 25 degrees centigrade, then planting should be watered daily during the first season, and at least every two days in the second and third seasons until the onset of natural rainfall.
- 3.38 Any failures due to drought shall be replaced by the management company at their own cost.
- 3.39 Bark mulch should be maintained at an even spread, no less than 50mm deep, of consistent thickness, to ensure that it is effective as a weed suppressant and moisture conserver.
- 3.40 Following any maintenance operations and on a biannual basis, the mulch shall be supplemented to allow for any material which may have been lost.

Herbaceous Planting

- 3.41 Herbaceous plants will provide seasonal interest to the planting. The proposed species will provide flowers and attractive leaf structure.
- 3.42 Perennials will need selective cutting back in the autumn and early winter. Most herbaceous plants will need aesthetical pruning after their flowering period, although some species will provide winter interest when dry flower heads and long shoots are left on.
- 3.43 Any attractive dead stems or flowerheads can be left until early spring.

Ornamental Grasses

- 3.44 Similar to management of the herbaceous plant, attractive flower heads can be left on during winter. With this treatment, ornamental grasses will provide striking winter structure within the planting beds.
- 3.45 Detailed pruning methods of ornamental grasses are described in Section 5 of this document.

Wildflower Meadow / Grassland Areas

Mowing Regimes

- 3.46 A variety of complementary meadows and mowing regimes will seek to manage pedestrian access, tree protection areas and creation of a more species rich edge to the boundary vegetation. The details below define these different areas in more detail and how they relate to the overall landscape strategy.

Hedgerow Buffer Edges / Central Tree belt

- 3.47 Wildflower and grass mixes EH1 – Hedgerow Mixture (to existing hedgerow buffers) and EW1 – Woodland Mixture (to arboriculturally identified sensitive areas of the central belt) have been specified to create a more diverse understorey, with the mowing regime relaxed to discourage public access and provide more of a visual amenity / ecological asset. These native mixes will provide a rich ground flora to the existing vegetation structure and seek to safeguard their future contribution to the site's character.
- 3.48 Flowering species will include ox-eye daises and cowslip that will provide an attractive setting for adjacent residents and a link to the wider countryside environments.
- 3.49 During the first year of sowing invasive species will need to be controlled and topped / mowed to avoid them seeding and competing with the wildflower/grass mix.
- 3.50 Once established, zoned management of hedgerow margins frequently produces the best diversity of habitat structure: areas closest to the hedge and those which are more shaded are left uncut in most years. Areas that are further from the margin and more open can be managed as grassland habitat to complement the adjoining POS areas.
- 3.51 These areas should be cut by a large wheeled vehicle that drives slowly over the site. Grass should not be cut during wet weather as the machinery may damage the soil structure. The arisings will be left on the grassland floor for a few days before being removed, to allow the seed to drop back into the grassland. The grassland will be cut annually in September/October thereafter.

Attenuation Areas

- 3.52 As part of the sustainable drainage strategy an attenuation pond will be located at the towards the northern end of the open space network. Emorsgate's Standard General-Purpose Meadow Mixture for Wetlands EM8 will provide a suitable mix able to tolerate the seasonally wet conditions. Seeded to the basin's draw area this support natural filtration of any surface water drainage prior to joining the adjacent waterbodies.
- 3.53 In the first year the wetland meadow mix and marginal pond planting should be cut back once in the year to no less than 100mm. To avoid potential disturbance to wildlife, this should be undertaken in the middle of winter

between 1st November and 31st January. All maintenance activities, and any further maintenance cuts required, are to be carried out in accordance with recommendations set out by the project ecologist.

- 3.54 In subsequent years the meadow should not be cut from spring through to late July/August to give the sown species an opportunity to flower. After flowering in July or August take a 'hay cut': cut back with a scythe, petrol trimmer or tractor mower to approx. 50mm. Leave the 'hay' to dry and shed seed for 1-7 days then remove from site. Mow or graze the re-growth through to late autumn/winter to c 50mm and again in spring if needed.
- 3.55 Any green arisings from site should be removed and recycled wherever possible or appropriate.

Biodiverse Grassland / Rough Grassland Enhancements

- 3.56 To supplement the woodland belt POS a proprietary seed mix will be applied to the existing areas of retained grassland.
- 3.57 This grassland type can form a good habitat for insects, small mammals, birds, amphibians and reptiles, providing nesting sites during spring, food during summer and autumn, and shelter during winter.
- 3.58 A tussocky seed mixture (Emorsgate EM10 – Tussock Mixture) will be sown which once established, will need 'topping' once a year as per the existing rough grassland. The cutting is best done on a rotational basis so that no more than half the area is cut in any one year leaving part as an undisturbed refuge for wildlife.
- 3.59 For details of reptile habitat enhancements and maintenance see the ecological management plan (ecosupport document 'Land off Botley Road, West End, Ecological Management Plan' issued in Jan 2019).

Amenity Grass to Kickabout / Public Open Spaces

- 3.60 Continuing the fluid nature of the landscape design provision has been made for a series of communal greens and a kickabout area to the northern boundary. communal green which will support a variety of local activities. Seeded with Wear Tolerant Turfgrass mixture (Emorsgate EG22) this will provide a robust, wear tolerant grass mix capable of withstanding a variety of uses and footfall and associated mowing regimes and seasonal use demands.
- 3.61 These areas shall be cut by means of ride-on or pedestrian guided motor cylinder mowers. Arisings should always be removed from site unless a suitable composting on site is agreed with the developer.
- 3.62 Frequency of cutting shall be regulated so that the grass, including any flowering stalks, do not exceed 100mm in height at any time unless otherwise agreed. Machines shall be so adjusted to cut no lower than 25 mm.
- 3.63 When cut, the turf must not show any corrugated or 'wash boarding' effect caused by travelling at excessive speed, incorrect gear selection or by the use

- of cutting reels having insufficient blades. There must be no uncut grass due to failure to overlap adjacent passes on straight runs or at the turning points.
- 3.64 Any slight hollows which appear due to settlement or other causes shall be top dressed, early in the growing season, with fine compost lightly rolled in and the grass allowed to grow through before cutting.
- 3.65 Deeper hollows shall be treated by neatly cutting out a square of turf, building up beneath with the fine compost plus an equal quantity of sharp sand, and the turf replaced at the correct level for rolling. Cutting may proceed without interruption.
- 3.66 Grassed edges to planted areas to be trimmed to maintain a clear smooth edge to planted beds; strim edges elsewhere but not against trees; spike annually in October.
- 3.67 Nylon Line Grass Cutters. This specification refers to the hand-held machines which utilise horizontally revolving strips of nylon to cut grass and other herbage obstacles.
- 3.68 Particular care must be exercised when cutting grass and weed growth close to trees and shrubs. No damage is to be caused to the bark of such trees and shrubs by the nylon cutting line.
- 3.69 The nylon line is not to be allowed to touch the ground, thereby creating the danger of throwing soil and stones into the air.
- 3.70 The Contractor shall submit for Employer's approval a method statement for mowing and maintaining grass and planting on steep banks.

Bulb Planting within Grassland Areas

- 3.71 Bulb planting within verges and amenity lawn areas will provide seasonal interest and a swathe of colour amongst the grassland areas throughout the winter months and early spring whilst other areas of the site are dormant.
- 3.72 Once established they require little maintenance but will need to be factored into the mowing regime for the lawn areas to encourage growth and avoid damage before and during flowering periods.

Acoustic Fence Screening

- 3.73 An overlap is provided to allow reptiles and smaller mammals to pass through.
- 3.74 Planting is proposed to both screen the acoustic as well as to enhance biodiversity. Around the base of the structure longer grass and /or wildflowers will be allowed to develop to further benefit biodiversity.
- 3.75 For details see the ecological management plan (ecosupport document 'Land off Botley Road, West End, Ecological Management Plan' issued in Jan 2019).

4 Soft Landscape Maintenance – General Schedule of Activities

4.1 The following maintenance activities should be carried out for all areas of soft landscaping under management control:

Item	Activities	Suggested Frequency
Watering	Water all areas of grass, perennials, shrub and tree planting to ensure healthy development and survival	As required during periods of dry weather
Plant replacements	All plant deaths should be replaced as soon as practical Remove dead plants within one week and replace within the next planting season, with originally specified species at a size to match maturity of established planting or as soon as practical	As required
Clearing of services	All plant material is to be kept clear of the following structural elements where present: ventilation ducts and openings, drainage channels and gullies, service access points, and light fittings	Once a month
Debris and Litter	Keep planting beds clear of litter, leaves and debris	Total 18 visits. Twice a month from May to October. Once a month from November to April.
Weed Control	Keep planting beds free from weeds at all times Remove weeds entirely, including roots Remove the minimum quantity of soil, and disturb plants, bulbs and mulch as little as possible Rake area to a neat and tidy condition Where present reinstate mulch. Do not mulch where ground cover planting has established, and no bare ground is visible	Total 18 visits.
	Treat all planting beds with a winter herbicide to control weed growth	Once a year before March

Soil Aeration	All areas of planting suffering compaction by pedestrian or vehicular movements should be lightly forked over Prick surface to a depth of 75mm Reduce soil to crumbs and level off Do not damage plant roots	Once every 2 months
Digging Over	All planting beds, should be lightly forked over to maintain health soil condition to a depth of 75mm	Once a year in Spring

5 Maintenance Schedule – Specific Activities to Plant Typologies

- 5.1 The following maintenance activities are specific to the plant species and planting combinations and habitats created within the created within the residential, open space and habitat corridors. They should be carried out in addition to the above standard activities.

Boundary Protection / Understorey Management

ITEM	ACTIVITIES	SUGGESTED FREQUENCY
Establishment	Remove Invasive Species /	As recommend by specialist contractor
	Clear understorey to enable construction of acoustic fence / bunding.	Outside of Bird nesting season – November – March
	Coppice appropriate trees (to be agreed on site)	Outside of Bird nesting season – November – March
	Remove unsafe structures	As required
Assessment	Inspect trees within falling distance of footpaths and residential boundaries. Prescribe works to ensure risk of harm is maintained within reasonable levels.	Annually
Monitoring	Review objectives and management plan	As required

New Tree Planting

ITEM	ACTIVITIES	SUGGESTED FREQUENCY
Establishment	Inspect newly planted trees to ensure healthy development, carry out necessary arboricultural works as necessary	Twice a year Spring and Autumn for first 3 years
Assessment	Arrange for all site trees to be inspected by a qualified arboriculturalist, and recommendation report obtained to identify any health problems or necessary arboricultural works	Once every 5 Years

Formative Pruning Young trees up to 4m	Type and timing to suit species Do not prune during late winter/ early spring sap flow period Crown prune by removing dead branches and reducing selected side branches by 1/3rd to preserve a well-balanced head and ensure development of a single leader Remove duplicated branches and potential weak or tight forks Whips and feathers do not prune	Once a year late spring or early autumn
Crown Lifting	Where required and as growth of tree allows crown lift street trees to maintain a clear stem of 2.5m within pedestrian areas and 2.5- 3m where crowns will overhang roads Ensure clear stem does not represent more than 50% of total height of tree to maintain a natural appearance	Once a year until mature
Annual Maintenance	Check tree ties, stakes, irrigation pipes and adjust as required Stakes: replace loose, broken or decayed stakes Ties: Adjust, fix and replace loose or defective ties allowing for growth and to prevent chafing. Where chafing has occurred, reposition or replace ties to prevent further chafing	Twice a year March and August
Replacement planting	Inspect short lived wood stemmed shrub species and carry replacement planting to maintain healthy stock and appearance	As required straight away or during the next planting season
Annual Maintenance year 4 onwards	Remove tree ties, stakes and guys, make good stake holes on adequately established trees	Once in August

Native Hedgerows

ITEM	ACTIVITIES	SUGGESTED FREQUENCY
------	------------	---------------------

Pruning / Trimming	Trim to specified heights and profiles using suitable mechanical cutters In accordance with good horticultural and arboricultural practice to suit species To encourage healthy and busy growth Type and timing to suit species Do not prune during late winter/ early spring sap flow period Allow hedge to reach planned dimensions only by gradual degrees, depending on growth rate and habit.	To suit species – Three-year rotation and alternate sides should be cut in the first three years with the top cut within the third season. Any hedge cutting to take place between December and February to avoid disturbance of nesting birds or dormice. Arisings must be removed by hand and not dragged.
Replacement planting	Inspect hedgerow for gaps and carry replacement planting to maintain healthy stock and appearance	Once every 10 years
Removal of dead plant material	At end of growing season, check all plants and remove all dead foliage, wood and broken or damaged branches and stems	Once a year in late autumn

Formal Native (Hornbeam) Hedgerow

ITEM	ACTIVITIES	SUGGESTED FREQUENCY
Removal of dead plant material	At end of growing season, check all plants and remove all dead foliage, wood and broken or damaged branches and stems Trim to specified heights and profiles using suitable mechanical cutters	Twice a year in late spring and late Autumn To suit species. (Once or twice a year)
Pruning / trimming	In accordance with good horticultural and arboricultural practice to suit species To encourage healthy and busy growth Type and timing to suit species Do not prune during late winter/ early spring sap flow period Allow hedge to reach planned dimensions only by gradual degrees, depending on growth rate and habit.	As required to maintain height of 1 metre

Replacement planting	Inspect hedgerow for gaps and carry replacement planting to maintain healthy stock and appearance	Once every 10 years
----------------------	---	---------------------

Meadow Areas

ITEM	ACTIVITIES	SUGGESTED FREQUENCY
Watering	- During establishment / germination of seed / wildflower mixtures	As required
Wildflower and grass mixes EH1 – Hedgerow Mixture (to existing hedgerow buffers) and EW1 – Woodland Mixture		
Cutting	- First Cut: Mow to just top grass (50mm minimum height) - Thereafter mow the new lawn regularly as needed, progressively reducing the mowing height over its first spring/summer to the desired height. - Remove arisings as required	As required between March and October to maintain height and remove annual weeds
Once Established	- Cut to desired height - For more details refer to https://wildseed.co.uk/mixtures/view/19 - Remove arisings as required	March – October
(Newly Created Grassland / meadows) - Emorsgate EM10 – Tussock Mixture		
Cutting	- First Cut: Mow to just top grass (100mm minimum) - Remove arisings	Once during July/August to remove annual weeds
Once Established	- Subsequent cuts (100mm minimum) - Remove arisings two weeks after cutting to allow wildflowers to set seed. For more details refer to https://wildseed.co.uk/mixtures - Mown path / clearings to be maintained at 40-60mm depths - Arisings spread across adjacent grassland areas no deeper than 50mm	Once during September / October. For wildlife, this cutting is best done on a rotational basis so that no more than half the area is cut in any one year leaving part as an undisturbed refuge. Ecologist to advise location strategy for rotational cutting.
Wear Tolerant Grass to Formal POS – Emorsgate EG22		
Cutting	- Mown path / clearings to be maintained at 40-60mm depths. - Arisings spread across adjacent grassland areas no deeper than 30mm or remove.	Every 7 -10 days during first year growing season to control annual weeds

Once Established	- Subsequent cuts (to match existing course grassland treatment) - Cut to no lower than 25-40mm depth - To permit flowering, mowing can be relaxed from late June. Cut again when the sward gets untidy (after 4-8 weeks). Mowing may be suspended earlier in the year to allow cowslips to flower. Heavy quantities of cuttings should be collected and removed from site. - For more details refer to https://wildseed.co.uk/mixtures/view/56/flowering-lawn-mixture	Mow regularly as a lawn, where necessary but not too short (25-40mm).
Meadow Mixture for Wetlands (Swales / SuDS basin) - Emorsgate EM8		
Cutting	- First Cut: Mow to just top grass (100mm minimum) - Remove arisings	Once during August /September
Once Established	- Subsequent cuts (50-75mm) - Remove arisings (Leave the 'hay' to dry and shed seed for 1-7 days then remove from site.) - For more details refer to: http://wildseed.co.uk/mixtures/view/9	After flowering October/November
Scrub / Invasive Weed Management	- To control scrub, bramble development and unwanted perennial weeds (docks, thistles) should be removed by hand or machinery only. Weed killers are not to be used within any SuDS or where there is a risk of dispersal into any watercourse.	Once a year
Assessment	- Arrange for all wildflower meadow areas / attenuation to be inspected by a qualified ecologist to ascertain the establishment of the meadow areas and associated habitat enhancements. - Make recommendations as necessary to address any health problems or necessary remedial works.	Once every 5 Years
SuDS features	- Hydrologist to check SuDS / headwall features periodically to ensure functioning requirements are being achieved. - Make recommendations as necessary	Once a year

Native and Specimen Shrub Planting

ITEM	ACTIVITIES	SUGGESTED FREQUENCY
Removal of dead plant material	At end of growing season, check all shrubs and remove all dead foliage, wood and broken or damaged branches and stems	As required
	Trim to specified heights and profiles using suitable mechanical cutters	To suit species (once or twice a year)

Pruning Ornamental Shrubs	In accordance with good horticultural and arboricultural practice to suit species To encourage healthy and busy growth and desirable ornamental features, such as flowers, fruit or autumn colour	To suit species. Once a year
Replacement planting	Inspect short lived wood stemmed shrub species and carry replacement planting to maintain healthy stock and appearance	As required straight away or during the next planting season

Herbaceous / Bulb Planting

ITEM	ACTIVITIES	SUGGESTED FREQUENCY
Removal of dead plant material	At end of growing season, check all perennials and remove all dead foliage and flower heads	As required
	Bulb vegetation should be allowed to die back naturally and not be cut.	N/A
Replacement planting / Splitting	Inspect species and carry out replacement planting to maintain healthy stock and appearance / Lift and split healthy stock periodically (in accordance with good horticultural principles) to maintain coverage	As required / Lift and split every 2-4 years

Ornamental Grasses

ITEM	ACTIVITIES	SUGGESTED FREQUENCY
Deciduous Species	Prune to remove dead and remaining foliage in late November to 150mm	Once a year in Winter
	Remove remaining last season's foliage by hand when first buds of new growth appear	Once a year in Spring
Evergreen Species	Trim down foliage to 150 mm above ground	Once every two years in Spring
Large Specimens	DO NOT PRUNE	
Selective Thinning	Selectively remove 1/3rd of plants. Where possible select larger, mature and over developed individuals to encourage natural regeneration	Once every 3 years

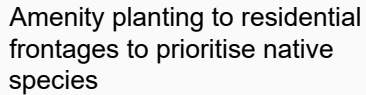
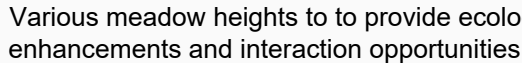
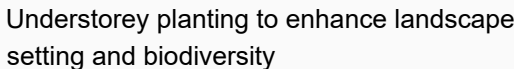
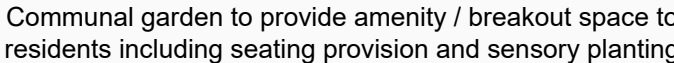
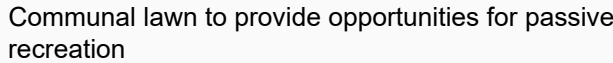
Lift and split	Lift and split healthy stock periodically (in accordance with good horticultural principles) to maintain coverage	Every 2-4 years
----------------	---	-----------------

6 Monitoring and Ongoing Review

- 6.1 During the construction period it is recommended, where appropriate, that a suitably qualified Landscape Architect, Arboriculturist and Ecologist monitor the success of the scheme implementation and ongoing maintenance of the works during Year 1. Thereafter a suitably qualified Landscape Manager will be required to manage the prescription operations for Years 2-5 to ensure compliance and appropriate development of the scheme and remedial action is taken with regard to plant replacements and habitat creation.
- 6.2 Close monitoring of the environmental indicators, watering requirements and species identification will provide a clearer view of the actual performance of the landscape and will form a closer indicator of possible changes in management focus.
- 6.3 Before the end of this Plan period the management objectives and maintenance prescriptions should be reviewed, and any refinements incorporated into an updated management plan for on-going medium and long-term management.
- 6.4 Methods and techniques identified in these documents will be updated where relevant to respond to updated best practices in landscape and ecological management.
- 6.5 The results of all any monitoring surveys/reports will feed back into the general management of the site, and management strategies will be altered where necessary to ensure the long-term objectives for the landscape and ecological planting is achieved.
- 6.6 Where possible management undertaken in conjunction with local residents should be encouraged to instil a sense of ownership and value to the landscape.

7 Appendices

7.1 DD187L01 Illustrative masterplan (Deacon Design Ltd)



NOTES:

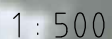
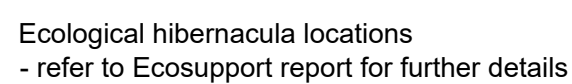
1. This drawing is to be read in conjunction with all relevant contract drawings and specifications with any conflicting information to be brought to the attention of Deacon Design before works commence on site.

2. Do not scale from this drawing, always work to noted dimensions.

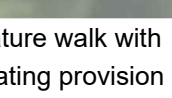
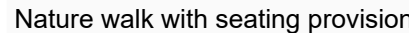
3. All given dimensions in mm.

KEY:

— Estate railings surrounding LEAP and indicative location to front boundaries adjacent to open space - refer to image



Seating a
POS



Existing m
trees to be



Block paving to define footpaths under tree canopies

- Understorey planting designed and managed to enhance landscape setting and biodiversity whilst protecting mature trees by deterring pedestrian access

Communal lawn to provide opportunities for passive recreation

Proposed trees, shrubs
and climbers to screen
acoustic fence and bund

Parking spaces softened with ornamental planting

— Understorey planting designed and managed to enhance landscape setting and biodiversity whilst protecting mature trees by deterring pedestrian access

Hornbeam hedge to plots
fronting spine road (extent
dependant on Highways
visibility splays

A variety of different models of bat box erected on suitable retained trees - refer to ecologist's report

Residential street planting to prioritise native species

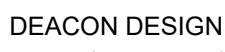
Existing vehicle access to
be retained and improved

FINAL

28.02.19	MM	Architects layout amended	G	JH
22.02.19	MM	Layout updated following planner's comments	F	JH
11.01.19	RC	Updated to LPA Ecology / Landscape Comments	E	PD
22.11.18	CG	Tree positions coordinated with services	D	JH
24.10.18	CG	Architects layout updated	C	JH
11.09.18	CG	Architects layout updated	B	JH
05.03.18	PM	Knee rail added and communal garden area at the	A	JH

DRAWING STATUS

FOR PLANNING



Landscape Architecture | Masterplanning | Urban Design
 Furzehall Farm, Wickham Road, Fareham PO16 7JH
 Tel: 01329 279 067 Email: info@deacondesign.co.uk
 Copyright Deacon Design 2016

PROJECT TITLE :

Botley Road, Moorgreen

PROJECT NUMBER

20.02.18

DRAWING SCALE :

APPROVED BY _____

PAPER SIZE

DRAWN BY :

DRAWING TITLE :
Illustrative masterplan

DRAWING NUMBER:

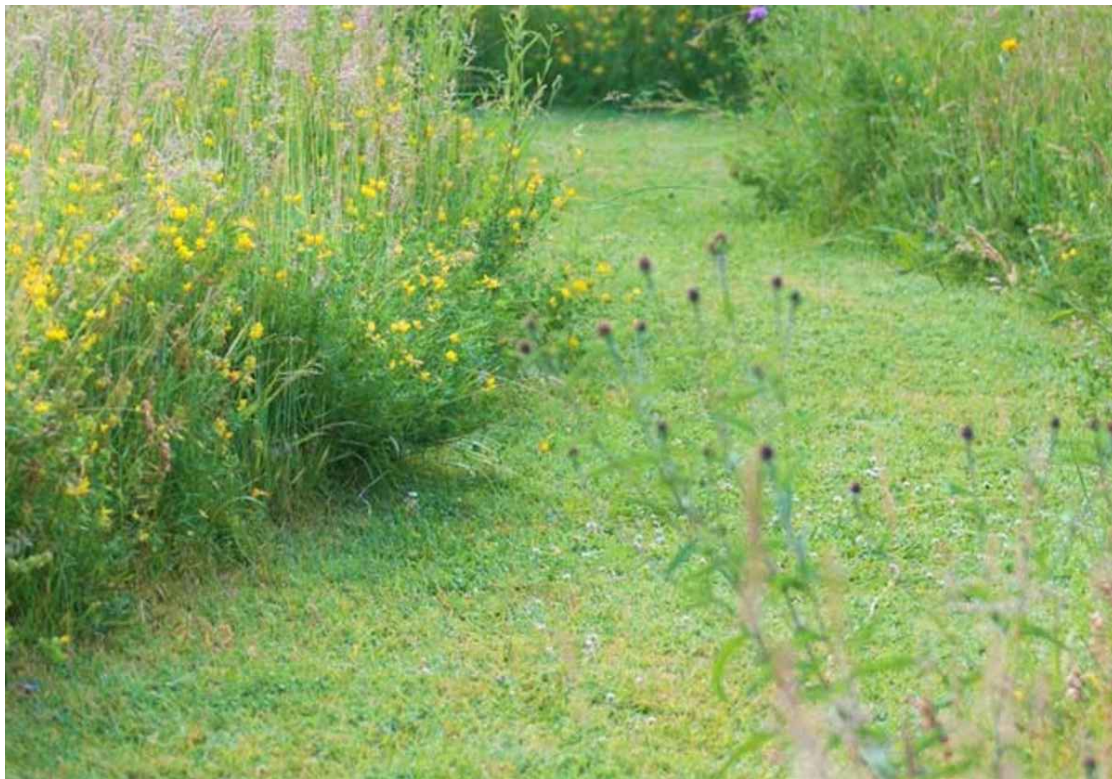
REVISION LETTER

DRAWING FILE LOCATION :
Z:\Dropbox (Deacon Design Ltd)\03 PROJECTS 100+1\DD187 Botley
Road_Moorgreen\04-Drawings\Autocad\1-Landscape Dwgs\DD187L01_Illustrative
Masterplan.dwg

7.2 DD187L02 Planting Strategy Plan (Deacon Design Ltd.)



Formal Hornbeam Hedging:
- To provide continuous frontage to main spine road



Enhanced Biodiverse Grassland to northern boundary to support reptile habitat:
- Existing grassland to be enhanced with native flowers through plug planting at a density of 2 or 3 / m² with pockets of scrub planting positioned nearby hibernacula to provide refuge. Mown path provided to support managed access for local residents.



Understorey woodland planting to central belt:
- Clear unwanted underground vegetation without disturbance to tree roots
- Plant native species to improve landscape setting and biodiversity within buffer zones



Landscape Buffer / Hedgerow enhancements to incorporate acoustic bund/fencing detail.
- Screen and soften noise attenuation barrier with suitable native trees, shrubs, climbers and grassland to enhance existing vegetation and local landscape character.



Attenuation Basin Wet Woodland / Aquatic planting:
- Marginal and aquatic planting to create interest and promote biodiversity.

NOTES:

1. This drawing is to be read in conjunction with all relevant contract drawings and specifications with any conflicting information to be brought to the attention of Deacon Design before works commence on site.
2. Do not scale from this drawing, always work to noted dimensions.
3. All given dimensions in mm.

Tree planting			
Species Name	Common Name	Specification	No.
Acer griseum	Paperbark maple	Extra Heavy Standard :RB	7 No.
Apple 'Cox's Orange Pippin'		Heavy Standard :RB	22 No.
Betula pendula	Common Silver Birch	Multi-Stemmed :RB	20 No.
Betula pendula	Common Silver Birch	Heavy Standard :Clear Stem min. 200 :RB	20 No.
Carpinus betulus 'Frans Fontaine'	Hornbeam 'Frans Fontaine'	Heavy Standard :RB	8 No.
Corylus avellana		Multi-Stemmed :RB	2 No.
Corylus colurna	Turkish Hazel	Extra Heavy Standard :RB	6 No.
Prunus avium 'Plena'	Double Gean	Heavy Standard :RB	2 No.
Prunus cerasifera 'Pissardi'		Heavy Standard :RB	16 No.
Pyrus calleryana 'Chanticleer'	Chanticleer Pear	RB :Heavy Standard	17 No.
Quercus robur	Common Oak	Heavy Standard :Clear Stem 175-200 :B	3 No.
Sorbus aucuparia 'Sheerwater Seedling'	Rowan 'Sheerwater Seedling'	RB :Heavy Standard	17 No.

Ornamental Woodland Planting to residential areas	
Carex oshimensis 'Evergold'	Sedge
Cornus sanguinea 'Mid-Winter Fire'	Dogwood
Cornus stolonifera 'Flaviramea'	Dogwood
Deschampsia cespitosa	Tufted Hair-grass
Deutzia x hybrida 'Strawberry Fields'	-
Euonymus alatus 'Compactus'	-
Hamamelis x intermedia 'Diane'	Witch Hazel
Helleborus Var.	-
Hedera helix 'Green Ripple'	Ivy
Hypericum calycinum	St John's wort
Iris pseudacorus	Yellow Iris
Lavandula angustifolia 'Hidcote'	Lavender
Luzula sylvatica	Woodrush
Miscanthus 'morning light'	Ornamental Grass
Rosa 'Kent'	Rose
Sarcococca confusa	Christmas Box
Skimmia japonica 'Rubella'	-
Skimmia x confusa 'Kew Green'	-
Viburnum davidii	-
Viburnum x bodnantense 'Dawn'	-
Vinca minor 'Gertrude Jekyll'	Periwinkle
Wisteria floribunda	Wisteria
Clematis vitalba	-

Hedgerow Planting (Formal)	
Carpinus betulus	Hornbeam (to define rear garden boundaries)

Hedgerow Planting (Native)	
Acer campestre	Field Maple
Corylus avellana	Hazel
Crataegus monogyna	Hawthorn
Ilex aquifolium	Holly
Prunus spinosa	Blackthorn
Rosa canina	Dog-rose
Viburnum lantana	Wayfaring Tree
Viburnum opulus	Gelder Rose

Meadow Mix	
Wildflowers	
Achillea millefolium	Yarrow
Anthyllis vulneraria	Kidney Vetch
Centaurea nigra	Common Knapweed
Centaurea scabiosa	Greater Knapweed
Clinopodium vulgare	Wild Basil
Daucus carota	Wild Carrot
Galium verum	Lady's Bedstraw
Knautia arvensis	Field Scabious
Leontodon hispidus	Rough Hawkbit
Leucanthemum vulgare	Oxeye Daisy
Lotus corniculatus	Birdsfoot Trefoil
Onobrychis vicifolia	Sainfoin
Origanum vulgare	Wild Marjoram
Poterium sanguisorba	Hoary Plantain
Salad Burnet	Plantago media
Primula veris	Cowslip
Prunella vulgaris	Selfheal
Ranunculus acris	Meadow Buttercup
Reseda lutea	Wild Mignonette
Scabiosa columbaria	Small Scabious
Grasses	
Briza media	Quaking Grass
Cynosurus cristatus	Crested Dogtail
Festuca ovina	Sheep's Fescue
Festuca rubra	Red Fescue
Koeleria macrantha	Crested Hair-grass

01	Outline Planting Schedule
L02	NTS

Note: For tree location refer to DD187D04-05 - Tree Planting Volume & Tree Pit Details



Residential planting:
- Amenity planting to complement landscape setting prioritising native species



KEY

- Existing trees to be protected in accordance with BS5837:2012
- Proposed trees
- Formal hornbeam hedge to properties fronting main spine road
- Residential street planting
- Flowering Lawn Mixture to POS / Road verges
- Reptile Mitigation Area / Biodiverse grassland enhancements
- Establish woodland planting to central tree belt
- Landscape buffer / screening / Hedgerow enhancements to incorporate acoustic fence detail. Refer to detail DD187D06 for more details.
- Attenuation Basin Wet Woodland / Aquatic marginal planting - Refer to Detail DD187D07
- Red arrow showing ecological tunnel to Acoustic fence / gibbon wall to support ecological connectivity

- Ecological hibernacula locations - refer to Ecosupport report for further details
- East railings surrounding LEAP and indicative location to front boundaries adjacent to open space - refer to DD187L01 for more details

Landscape Specification

Implementation

All planting to be carried out at appropriate time within the first planting season post completion and maintained for a period of up to 5 years to ensure successful establishment. Recommended planting times.

- Wildflower / Lawn seed mix - First sow (April to June) / Secondary (August - September)
- Container Grown Planting - All year round (except during periods of frosts)
- Bareroot/Rootball Stock - November (After first frost) - March

It is the contractor's responsibility to check for services in this area before groundworks commence.

Growing Medium

Existing topsoil, ripped to a depth of 300mm, the full remaining depth replaced with BS 3882 Multipurpose Grade topsoil supplemented with PAS100 compost of spent mushroom compost at a depth of 100mm. Topsoil should be friable.

Trees and shrubs to be grown in accordance with NPS.

Trees - tree pits to be 300mm larger than the rootball on all sides with the base of the pit broken up. Heavy Standard trees to be double staked.

Planting Shrubs - to be planted in prepared beds, back filled and firmed to nursery level. After planting all trees and shrubs are to be well watered, lightly firmed, mulched with 75mm of FSC certified mulch ensuring no damage to the plants. Rabbit proof fencing maybe required to protect the establishment of the plants.

Wildflower Meadow

A native seed mix has been proposed for the woodland edge to encourage a species rich / woodland edge meadow to establish. In the first year, wildflower should be cut short to a minimum height of 100mm during July/August to reduce competition with annual weed growth and encourage the development of groundcover. Once established, providing the weed species have been controlled through regular cutting, the grassland should be allowed to flower and set seed naturally.

Management and Maintenance

Refer to Landscape Management Plan Ref: DD187R01.

28.02.19				MM	Architects layout amended	G	JH
22.02.19				MM	Layout updated following planner's comments	F	JH
11.01.19				RC	Updated to EPA Ecology / Landscape Comments	E	PD
22.11.18				CC	Trees coordinated with services	D	JH
24.10.18				CC	Architects layout updated	C	JH
11.09.18				CC	Architects layout updated	B	JH
05.03.18				PM	Knee rail added and communal garden area at the southern boundary amended	A	JH

DATE	DRAWN	DESCRIPTION OF REVISION	REVISION LETTER	CHECKED BY
------	-------	-------------------------	-----------------	------------

DRAWING STATUS
FOR PLANNING

DEACON DESIGN
Landscape Architecture | Masterplanning | Urban Design
Furzehall Farm, Wickham Road, Fareham PO16 7JH
Tel: 01329 279 067 Email: info@deacondesign.co.uk
Copyright Deacon Design 2016

PROJECT TITLE:
Botley Road, Moorgreen

PROJECT NUMBER:
DD187

PLOT DATE:
23-02-18

DRAWING SCALE:
1:200

APPROVED BY:
PD

PAPER SIZE:
A1

DRAWN BY:
PM

DRAWING TITLE:
Planting Strategy

DRAWING NUMBER:
DD187L02

REVISION LETTER:
G

DRAWING FILE LOCATION:
Z:\Droptbox (Deacon Design Ltd)\03 PROJECTS 100-DD187 Botley Road_Moorgreen\04-Drawings\AutoCAD-Landscape Design\DD187L02_Planting Strategy.dwg