

Landscape Management Plan

For Cypress Heights, Carlton Road, Barnsley

Client: Saul Homes

11th September 2015

re-form
landscape architecture

1. Introduction

- 1.1. re-form Landscape Architecture Ltd. have been appointed by Saul Homes to prepare information to assist in the discharge of planning condition eleven associated with the planning approval for the erection of twenty-eight new dwellings at Cypress Heights, Barnsley.
- 1.2. This document sets out the management objectives, responsibilities and maintenance activities required to ensure healthy establishment of new and longevity of existing soft landscape on the site, including amenity landscape areas and private gardens.
- 1.3. This document should be read in conjunction with the proposed landscape plan as provided by the project Architect.

2. Site Description

- 2.1. The site is located to the north of Barnsley Town Centre in an area known as Smithies.
- 2.2. The area comprises of predominantly residential dwellings. An industrial estate and military buildings exist to the west of the site.
- 2.3. The development includes the extension of an existing access road, new roads, car parking, dwellings, boundary fencing and rear and front gardens. There are no areas of public open space on the site.
- 2.4. Much of the soft landscape on the site is contained within domestic curtilage with the exception of a steep vegetated embankment which runs from the south east to the north west of the site. This area forms a landscape buffer to the western boundary and neighbouring residential site and military buildings.
- 2.5. The bank currently comprises of unmanaged scrub and grassland. Species such as Gorse (*Ulex europaeus*), Common Hawthorn (*Crataegus monogyna*), and Blackthorn (*Prunus spinosa*) are present. There are currently no proposals for any new planting within these areas.
- 2.6. Native trees and shrub planting are proposed where space allows along access roads and to reinforce boundaries between domestic curtilage and the existing vegetated embankment.
- 2.7. A public right of way exists to the north west of the site which links Wakefield Road and Richard Road.

3. Management Objectives

3.1. The objectives of the management plan for new areas of planting are:

- Ensure healthy establishment of new planting
- Enhance ecology and biodiversity
- Enhance the setting of the site and create an attractive place to live

3.2 The objectives of the management plan for existing landscape areas are:

- Preserve the existing scrubland
- Ensure longevity of the planting
- Manage the balance between scrub and open grassland
- Maintain a landscape buffer

4. Maintenance Responsibilities

4.1. Maintenance of all new planting will be the responsibility of Saul Homes. Planting within domestic curtilage will be the responsibility of the home owner from hand over.

4.2. Maintenance of existing and new areas of landscape outside of domestic curtilage will remain the responsibility of Saul Homes.

5. 10 Year Management and Maintenance Plan

5.1. General preamble

- **Duration of plan:** 10 years following Practical Completion of the landscape works.
- **Area:** The management plan applies to all external soft landscape areas on the site.
- **Specification:** Any tree, shrubs or grass areas which die within the first five years of planting shall be replaced at the next appropriate time according to the horticultural calendar.

5.2. Machinery and Tools

Use only machines and tools suitable for the site conditions and the work to be carried out. Use hand tools around trees, plants and in confined spaces where it is impracticable to use machinery.

5.3. Chemicals

(i) Legislation

Pesticides include herbicides, insecticides, fungicides and plant growth regulators. The use of pesticides is governed by legislation. The Landscape Contractor must comply with the 'The Control of Pesticides Regulations 1986' made under the 'Food and the Environment Protection Act 1985', 'The Control of Substances Hazardous to Health Regulations 1988' made under the 'Health and Safety at Work Act 1974' and any other legislation enacted during the contract period.

All pesticides must be products on the current list of Agricultural Chemicals Approval Scheme. All pesticide users shall comply with the conditions of approval relating to use clearly stated on the product label.

The Contractor must comply with all relevant Codes of Practice issued by DeFRA. In particular where work is near water, comply with the 'Code of Practice for the Use of Herbicides on Weeds in Watercourses and Lakes'. Written approval from the Environment Agency should be obtained prior to the use of pesticides within these areas.

Wherever practical, other non-chemical means of plant removal should be used in consultation with the Environment Agency.

(ii) Certificates

A recognized nominated storekeeper's certificate of competence (BASIS) is required by a Contractor storing more than 200 litres of pesticides. All pesticides transported or stored in the Contractor's vehicles (regardless of quantity) shall be locked in a separate storage compartment in the vehicle or within a lockable container in 'pickups' that are bolted to the floor of the vehicle.

The storage locker must be sealed and clearly marked as containing pesticides and must bear a standard black and yellow hazard sign. A Certificate of Competence (National Proficiency Training Certificate) must be held by the Contractor applying pesticides and handed to the Client prior to commencement on site. *Only Certificate of holders shall mix, apply and dispose of pesticides and other chemicals on the site.*

(iii) Use of Pesticides

Notification of at least 24 hours shall be given to the Client of the Contractor's intention to carry out application of pesticides. The Contractor shall select the most appropriate and effective method for each particular area or situation or for any particular use or specific work, and shall notify the Client of the type of pesticide, active ingredient, and method and timing of application.

The Contractor shall keep a written logbook detailing all uses and pesticide applications carried out and a copy shall be submitted to the Client for record.

The Contractor is required to notify the public of any pesticide application. A warning sign shall be posted at the entrance to the areas to be treated. Where contained solely within planting beds the sign shall be placed adjacent to edges in noticeable positions. Details of the application and a contact person shall be indicated on the sign.

The Contractor shall in accordance with COSHH Regulations protect employees and other persons, including the public, who may be exposed to substances hazardous to health.

(vi) Disposal

The Contractor shall dispose of waste pesticides and containers in accordance with the control 'Control of Pesticides Regulations 1986', Control of Pollution Act 1974', and 'Water Act 1989'. Safe disposal arrangements shall be made before starting to apply pesticides.

Concentrated pesticides shall be disposed of in arrangement with the local Environmental Health Department or with a specialist waste disposal Contractor.

Empty containers shall not be re-used for any purpose and containers shall be cleaned thoroughly in accordance with label instructions prior to safe disposal.

(v) Generally

The Contractor shall be responsible for making good and or compensation for any damage resulting from negligence in the application, handling and storage of pesticides.

The Contractor shall be responsible for keeping up to date with all legislation and regulations regarding the use of pesticides. The Landscape Contractor shall inform the Client of any subsequent changes to legislation and regulations that affect the contract.

5.4.1 General (Years 1 to 10)

5.4.2 Failures of planting: general

Any trees/shrubs/plants that have died or failed to thrive (not developing full foliage throughout all branches) within the period of this maintenance plan should be replaced. Years one to three replacements must match the size of adjacent or nearby plants of the same species or should match the original specification, whichever is the greater. Years four to ten replacements to be as original specification.

5.4.2 Watering: general

The contractor shall make due allowance in his rates for carrying out these tasks outside normal working hours when necessary to avoid premature evaporation or leaf damage caused through watering in bright sunlight.

The contractor is to allow for the provision of water, water carts or hoses with a fine hose attachment or sprinklers at normal mains pressure. The contractor is to include and state in his tender the cost of compliance with this clause so that the cost of visits can be deducted in whole or in part if not required to be used.

5.4.3 Drought Conditions:

Should emergency legislation restricting the use of water during drought conditions be imposed, the contractor will be required to ascertain — before operations — the availability and cost of, and arrange to collect and apply second class water by bowser or other means from an approved sewage works, deliver to site and apply as specified. When required by the Architect, the contractor shall arrange for tests of this water to be carried out in accordance with BS 6068:2000 Water Quality.

5.4.4 Pests and Diseases: general

Maintenance shall include the control of insects, fungus and disease by spraying with an approved insecticide or fungicide.

5.4.5 Litter Collection: general

The contractor shall at all times keep the site clean, tidy and free from litter and carry out a litter collection at each maintenance visit.

'Litter' is anything whatsoever that is thrown down, dropped or otherwise deposited in onto or from any place in the open air to which the public are permitted to have access without payment.

5.4.6 'Fly tipping': large items such as discarded furniture that require two or more people to lift or are in excess of 0.5m³ will be treated as fly tipping and not litter. The contractor should provide a cost for removal and depositing for fly tipping on each and every occasion.

5.4.7 The contractor shall take care to avoid any spillage of fuel, oil, chemicals or other materials noxious to plant life. Plants or soil contaminated by such material must be removed off site and replaced.

5.4.8 Cleanliness: general

At completion and at each visit, remove soil and other debris from all hard surfaces and grassed areas and leave the works in a clean and tidy condition.

5.4.9 Leaf Clearance:

The contractor is responsible for the clearance of leaves, twigs, etc from areas of the grounds including planting beds, lawns, paths, channels, drains, car park steps and other areas specified by the Client, from leaf fall (normally October until end December). The Client will instruct the contractor when to begin.

The clearance shall be carried out with hand raking or sweeping, or using machinery appropriate and approved by the Client.

All collected leaves to be removed from site and should not be left in piles awaiting removal but cleared immediately.

Leaves should not be left on ground for more than a week. The contractor shall schedule operations to achieve this standard.

5.5 Grass Areas:

5.5.1 The site includes areas of new shade tolerant wildflower seeded meadow and existing unmanaged grassland.

5.5.2 Wildflower meadow: Initial year/establishment: Areas should be cut regularly when grass reaches height of 100mm to a level of 50mm. Arisings should be removed from site.

5.4.5 Wildflower meadow: Year two onwards / post establishment

Ensure that trees and shrubs are not damaged by the use of mowers, nylon filament rotary cutters and similar powered tools.

Before each cut remove all litter and debris.

At the time of each cut trim all grass edges, round the base of trees, manholes, etc. and remove arisings. Sweep all adjoining hard areas clear of cuttings and remove.

Keep the sward substantially free of broad-leaved weeds by applying a suitable selective herbicide.

Bare patches to be re-seeded annually in September as per the original specification.

If bare patches appear, do not top dress with topsoil and do not apply fertiliser. Add grass seed as per original specification.

Frequency of cuts:

Hay cut after flowering in July/August leave 'hay' to dry for 1-7 days to allow seed to drop then clear from site. Further cut in late autumn. Cut again in late November to 50mm if required and early spring. Do not cut in between spring and mid-summer.

5.5.2 Existing unmanaged grassland: Initial works: Cut back areas of existing grass adjacent to publicly accessible areas such as roads and public footpaths where gradients are shallower than 1:3 to a width of 1.5m from the edge.

5.5.3 Existing unmanaged grassland: Years 1-10: Maintain a 1.5m mown grass verge adjacent to roads. Strim all other open grass areas in Autumn on a yearly basis.

5.6 New Shrub Planting

5.6.1 Watering: Year 1 - Establishment

Between May and September of the first year shrub beds will be watered on each visit if there has been no rainfall for a period of seven days. Shrub areas should be watered at a rate of 15 litres per square metre.

During subsequent years watering should be undertaken as necessary.

5.6.2 Weeding and mulching: Years 1-10

Shrub beds should be weeded monthly during the growing season, March to October inclusive, utilizing the following methods:

Ornamental shrub & perennial areas	- Hand pulling only
General amenity shrub areas	- Hand pulling or herbicide spot treatment

Use only an approved herbicide in accordance with manufacturer's instructions. Care should be taken not to spray the green parts of shrubs or low ground cover planting. All weeds are to be removed from site once they have died down.

Remulch as necessary the whole surface of shrub beds to ensure a depth of 75mm. Ensure that the soil is thoroughly moistened prior to remulching, applying water where necessary.

5.6.3 Fertiliser: Years 1-3

For years 1-3 all shrub areas shall receive 'Enmag' fertilizer at 50g per square metre in late April and 'Ficote 140' (or similar approved) at 50g per square metre in September.

5.6.4 Pruning: Years 1-10

Shrub plants should be pruned at appropriate times, to remove dead or dying and diseased shoots or branches, to promote healthy growth and natural shape. Prune overgrowing specimens to avoid suppression of adjacent species, overgrowth onto grass or over walls, paving etc. Ensure that shrubs are maintained at a maximum of waist height.

All shrubs shall be cut using sharp shears, reciprocating hand held cutters or secateurs. Large leafed species such as *Prunus* should only be pruned using secateurs or similar approved equipment.

All cuts shall be clean and any ragged edges shall be removed using a sharp knife or secateurs.

All arisings shall be collected immediately following cutting or at the end of each work period and taken to the designated location for disposal off site by the contractor. This includes trimmings hung up in shrubs and the sweeping of adjacent hard surfaces.

Once commenced, the cutting operation shall continue and be completed without delay.

5.7 Existing Scrubland

5.7.1 The existing scrubland will be managed to preserve it's existing condition and prevent colonization of grass areas.

5.7.2 Brambles will be cut back to their base every five years.

5.7.3 Deciduous shrubs and trees such as Hawthorn and Blackthorn will be coppiced every ten years to prevent colonization of open grass areas.

- 5.7.4 Deciduous shrubs and trees to edges of scrub areas will be coppiced on a shorter rotation of between five and seven years to promote biodiverse edge conditions for flowering plants to thrive.

5.8 Newly Planted Trees

5.8.1 Watering: Year 1 and 2 - Establishment

Between May and September all newly planted trees shall be watered at a rate of 50 litres per visit. Minimum number of visits: twice a month between May and September.

5.8.2 Mulching and weeding: Years 1-3

Maintain a mulched, weed-free area 800mm radius around each tree. Mulch should be maintained at a depth of 75mm deep. Weeding within this zone should be hand-weeding which should be done as often as required or through the use of biodegradable mulch.

5.8.3 Fertiliser: Years 1-3

All trees areas shall receive 'Enmag' fertilizer at 70g per square metre in late April.

5.8.4 Inspection of stakes, ties etc. Years 1-10

Once a year check condition of stakes, ties, guys and guards.

Redundant ties:

Check for excessive movement at ground level by pulling on tree at shoulder height. If most of movement is in the bending of the stem then it is likely that the root system is providing adequate support and stakes and ties can be removed.

Adjustment and/or replacement of ties:

Trees should be able to move approximately 50mm (2") in all directions when staked properly. Too little movement may result in poor root structure and inability to withstand wind loading. Too much movement may cause rocking and damage of new root growth. Ties should not rub bark. Ties should be loosened, tightened or replaced as required.

Stakes to be removed after the third winter

5.8.5 Re-firming Trees

Shall be carried out after strong winds, frost heave and other disturbances. To re-firm the Contractor should tread around the base until firmly bedded. Any collars in the soil at the base of tree stems, created by tree movement should be broken up by fork, avoiding damage to roots. The voids should be backfilled with topsoil and re-firmed.

5.8.4 Pruning: Years 1-10

Prune at appropriate times, to remove dead, dying, damaged and diseased wood along with crossing branches (where branches are rubbing together) in accordance with BS 3998: 1989, to promote healthy growth and natural shape.

Prune trees to favour a single central leading shoot, unless specified otherwise. Formative pruning should include the removal of dead, dying and damaged material along with crossing branches (where branches are rubbing together). Branches displaying signs of included bark should also be removed.

Where co-dominant stems are evident, one stem should be either removed or significantly reduced to minimise competition with the preferred stem. Further pruning may be carried out to select an evenly spaced, balanced branch framework.

The total amount of foliage removed should not be more than 30% of the total crown and the natural form of the species should not be compromised.

All shoots or suckers emanating from roots or the root stock and all epicormic shoots arising from dormant or adventitious buds growing from the trunk should also be removed.

Any resultant wounds over 25mm in diameter shall be treated with an approved fungicidal sealant.

5.8.5 Cutting and Pruning: Generally:

All the tools used should be appropriate, well maintained and sharp. Final pruning cuts – do not use chainsaws on branches of less than 50 cm diameter. When using handsaws, cut in one continuous operation to form a smooth cut surface. Do not use anvil type secateurs.

When removing branches do not damage or tear the stem.

Keep wounds as small as possible, cut cleanly back to sound wood leaving a smooth surface, and angled so that water will not collect on the cut area.

When cutting, cut at fork or at the main stem to avoid stumps wherever possible.

Large branches – remove only if unavoidable. Remove in small sections and lower to the ground with ropes and slings.

Dead branches and stubs – when removing do not cut into live wood.

Unsafe branches – remove epicormic shoots and potentially weak forks that could fail in adverse weather conditions.

Disease of fungus – give notice if detected. Do not apply fungicide or sealant unless instructed.

Bark Damage – wounds – do not attempt to stop sap bleeding. Gently remove ragged edges and remove splintered wood from deep wounds as small as possible. Give notice if there is any liquid or flux oozing from apparently healthy bark.

Stack all wood arising from the works in neat piles within meadow area to provide invertebrate habitat opportunities.

5.8.6 Crown Reduction/Shaping

In general cut back selectively to lateral or sub lateral buds or branches to retain flowing branch lines without leaving stumps. The extent of the works will be as instructed by the client.

5.8.7 Crown Lifting

Removing branches: 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.

The extent of the works will be as instructed by the client. In general for clearance remove branch systems to give clearances as follows: 2.5m above pathways, 3m above cycleways, & vehicle carriageways.

5.8.8 Crown Thinning

When removing branches, remove inward growing, crossing, rubbing, dead and damaged branches. When thinning selectively remove an agreed percentage of secondary and small live branch growth evenly throughout the crown. When cutting make no cuts of more than 50mm diameter. Cut portions of branches back to lateral or sub lateral buds or branches without leaving stumps. The appearance should be uniform with a well balanced structure of branches and foliage.

- 5.9.1 Management of existing mature trees within scrubland areas:
- 5.9.2 In order to ensure that trees do not become hazardous, the condition of all existing trees on the site should be checked annually. Trees should also be checked following storms, where there may be damage from wind throw.
- 5.9.3 Deciduous trees are often vulnerable to diseases caused by pathogens, fungi, bacteria and viruses. Trees should be monitored for signs of diseases, which may include visible mushrooms and patchy and discoloured leaves. Where it is suspected that a tree may be suffering from a disease advice should be sought from an Arboriculturalist.
- 5.9.4 Hazardous branches must be surveyed for potential bird's nests or bat roosts prior to felling. Trees and hazardous branches should only be removed outside the bird-breeding season, between March and August for most species, unless a suitably qualified ecologist undertakes a survey of the affected area.
- 5.9.5 All tree surgery works should be undertaken by a professional tree surgeon who should work in accordance with BS 3998:1989 'Recommendations for Tree Work'.
- 5.9.6 If new trees are required to be planted to compensate for loss they should be of a native species and compliment those present on site.

6.0 Typical Maintenance Schedule

Item	Description	Month											
		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec
1.0	General Maintenance												
1.1	Remove litter and debris												
1.3	Check stakes on standard trees are firmly in place and have not become loose or damaged. Replace any which have.												
1.4	Check fence and railing for damage. Damaged panels or posts should be reported to the neighbouring property(s) and replaced.												
1.5	Ensure paths are clear of obstructions and leaf fall.												
2.0	Watering												
2.2	Water manually during dry periods when soil moisture content falls below 25% to achieve the above.												
3.0	Grass / Weed Lower Areas												
3.1	Cut newly seeded areas regularly during the first year to eliminate dominant grass species. Cut twice a year as per the management plan thereafter.												
3.2	Mow verges to maintain a height of 75mm.												
3.3	Trim unmanaged grassland areas on a yearly basis.												
4.0	Shrub and Scrub Areas												
4.1	Weed new shrub planting beds by hand or spot herbicide treatment.												
4.2	Apply slow release fertiliser once a year for the initial three years.												
4.3	Prune new areas of shrub planting yearly to remove dead, diseased or dying branches and maintain a neat and tidy form.												
4.4	Cut back brambles to the base every five years.												
4.5	Coppice scrub edges every five to seven years.												
4.6	Coppice minor scrub areas every ten years.												
5.0	Tree Planting												
5.1	Check stakes are firmly in the ground. Remove after year three.												
5.2	Apply slow release fertiliser every year until year three.												
5.3	Formative prune trees to favour a single central leader and remove dead, diseased or dying branches.												

re-form
landscape architecture

T: 0113 245 4695

E: info@re-formlandscape.com

www.re-formlandscape.com

Tower Works | Globe Road | Leeds LS11 5QG

RF15-274R01