

1.0 INTRODUCTION

1.1 Background

- 1.1.1 On the 07th January 2018, written confirmation was provided pertaining to the appeal decision to permit planning approval for: *10 residential dwellings (Use Class C3) with associated open space, landscaping, parking, and access at Land at Toddington Lane, Littlehampton, Wick, West Sussex BN17 7PP at appeal (Ref: APP/C3810/W/18/3197149).* As part of the approval, a number of conditions were imposed including one which related to hard and soft landscape: *No development above damp proof course level shall take place until there has been submitted to, and approved by, the Local Planning Authority, a landscaping scheme including details of hard and soft landscaping and details of existing trees and hedgerows to be retained, together with measures for their protection during the course of the development. The approved details of the landscaping shall be carried out in the first planting and seeding season, following the occupation of the buildings or the completion of the development, whichever is the sooner, and any trees or plants which, within a period of five years from the completion of development, die, are removed or become seriously damaged or diseased, shall be replaced in the next planting season with others of similar size and species.*
- 1.1.2 This *Landscape Management Plan* and accompanying *Maintenance Schedule* provide detailed objectives, establishment and long-term management prescriptions for the proposed soft landscape scheme to the residential development at Toddington Lane, Littlehampton.
- 1.1.3 BB Investments Property Ltd. will ultimately be responsible for the establishment and long-term maintenance of the proposed hard and soft landscape scheme. The initial landscape contract is to include a five-year maintenance and defects liability period. BB Investments Property Ltd. will also be responsible for the long-term care of communal areas outwith of residential curtilages – all of which are to be maintained in perpetuity through the formation / contracting of a management company.
- 1.1.4 The general overarching objectives for the proposed soft landscape scheme are as follows:
- *Ensure the long-term health and retention of existing boundary trees / shrubs;*
 - *Enable the successful implementation and establishment of the proposed landscape scheme and to secure wildlife and ecological benefits wherever possible;*
 - *Ensure best horticultural and health & safety practices at all times;*
 - *Establish and maintain high standards of landscape development thorough considered management prescriptions / procedures;*
 - *Ensure working methods both respect and encourage wildlife;*

- *Defects in the landscape scheme are to be identified at the earliest opportunity and dealt with promptly.*

- 1.1.5 The Contractor is to make a pre-implementation site visit and take note of all existing conditions including existing levels, condition of vegetation, soil conditions and access. Great care will be taken to avoid interference with the established levels and contours of the ground, and to avoid damage to footpaths, roads, drains, manholes and existing structures and vegetation.
- 1.1.6 All work will be carried out by appropriately experienced / qualified site operatives holding the required training certificates to undertake the works. All works detailed in the following specifications are to be carried out in accordance with good horticultural practice, using materials, plant and machinery appropriate to the task and undertaken in such a way any damage and/or nuisance to the site and surroundings are avoided. Any plant material that dies as a result of the appointed landscape contractors neglect is to be replaced at their cost.
- 1.1.7 The appointed landscape maintenance contractor is to provide details of all necessary insurances and certification (prior to commencement of maintenance operations) to undertake the works specified in this management plan. It is the responsibility of the appointing authority (BB Investments Property Ltd.) to ensure that all submitted insurances and certificates are up to date and provide the appropriate level of cover for the specified works.
- 1.1.8 All chemical weed control is to be carried out by suitably qualified / experienced trained staff in accordance with the manufacturers recommendations and the legislation set out below:
- *The Food and Environment Protection Act (1985);*
 - *The Control of Pesticides Regulations (1986);*
 - *The Control of Substances Hazardous to Health Regulations (2002);*
 - *The Environment Protection Act (1990).*
- 1.1.9 It is the Contractor's responsibility to ensure all operatives are fully conversant with the relevant legislation and any other relevant Codes of Practice / British Standards as well as being up to date with relevant guidance through ongoing CPD. The Contractor will make any notifications as required with regard to the appropriate legislation and will be responsible for any damage caused through inappropriate use or application of any hazardous substances.
- 1.1.10 Horticultural peat is not to be used as mulch or soil conditioner. All arisings from the site should be recycled (where appropriate) and will be removed from site and taken to an approved tip or registered green compost facility.
- 1.1.11 Watering operations will be carried out as specified in this management plan. A water source will be identified by the appointing authority and if no water source is available alternative watering provision (ie. a bowser) will be made in advance.

1.2 Site Context

- 1.2.1 The proposed development site lies to the northern part of Littlehampton immediately north of a mainline railway corridor and is a brownfield site which was formally used for parking / storage. Toddington Lane lies to the eastern and northern edges and to the south lie residential dwellings (*Toddington Farm Cottages*) with the mainline railway tracks located further south.

1.3 Existing Trees and Shrubs

- 1.3.1 There are no notable trees or shrubs which are proposed to be retained within the proposed development site area.

1.4 Proposed Soft Landscape Scheme

- 1.4.1 The proposed soft landscape scheme would seek to provide a mix of habitats which would provide ecological benefits as well as softening and filtering near and mid-distance views to and from the proposed development site area. Residential frontages would be enhanced with flowering shrub planting.
- 1.4.2 To the northern and western edges, a mixed species hedgerow and tree specimens are proposed to be planted. The northern edge would also feature a linear strip of native wildflower and grassland meadow. Areas of native, understorey shrub planting and tree specimens would feature to the edges of access routes and car parking areas.
- 1.4.3 For further details refer to:
- *RCo285 / 01 / Soft Landscape Layout;*
 - *RCo285 / 02 / Detailed Planting Plan;*
 - *RCo285 / 03 / Detailed Planting Plan;*
 - *RCo285 / 04 / Tree Planting Detail;*
 - *RCo285 / Detailed Plant Schedule and Specification.*

2.0 SOFT LANDSCAPE MANAGEMENT PRESCRIPTIONS

2.1 Management Prescriptions

- 2.1.1 Management prescriptions for the soft landscape scheme are as follows:
- *P 1 - Tree Planting;*
 - *P 2 - Native Hedgerow Planting;*
 - *P 3 - Native Understorey Shrub Planting Areas;*
 - *P 4 - Ornamental Planting Areas;*
 - *P 5 - Native Wildflower and Grassland Meadow;*

- *P 6 – Amenity Grass Seeded Areas.*

2.2 P 1 – Proposed Tree Planting

Proposed Tree Specimens

- 2.2.1 The proposed scheme includes tree specimens to the boundaries and adjacent to parking areas and features the following native and ornamental species:

- *Acer campestre (Field Maple);*
- *Acer campestre 'Elegant';*
- *Carpinus betulus (Hornbeam);*
- *Malus Sylvestris (Crab Apple);*
- *Ulmus columella.*

- 2.2.2 Trees are to be Standard Select Stock / 10-12cm girth / 3.0-3.5m height / 1.75-2.0m clear stem and are to be sourced and planted according to *BS8545 - Trees: from nursery to independence in the landscape – Recommendations.*

Tree Planting - Specification

- 2.2.3 All tree planting pits are to be cut after removing the existing grass or vegetation. Once set out, tree planting positions are to be treated with a suitable non-residual herbicide application. Tree planting positions are shown on *RCo288 / 01 / Soft Landscape Layout.*

- 2.2.4 The size of tree planting pits is to be 800 x 800 x 400 or 20% wider in any direction than the rootball – pits are to be backfilled with the existing excavated topsoil. Any additional soil ameliorants proposed by the landscape contractor to aid establishment are to be approved by the Landscape Architect.

Tree Planting – Single Staking: Standard Select Specimens

- 2.2.5 Tree staking is to be single-staked for standard select tree specimens. The stake is to be positioned close to the tree on the windward side and driven 300mm (minimum) into the bottom of the pit at a slight angle. The stake is to extend above ground level to a distance between 0.75 and 1.0 metre. The top of the stake is to be no more than 40 mm away from the stem of the planted tree. The tree is to be firmly secured with two adjustable rubber lock ties plus pacer collars with 25 mm long galvanised clout nails securing the ties to the stake.

Tree Planting - Protection

- 2.2.6 Where rabbits are known to be present, tree specimens are to be protected with mesh guarding or equal and approved: Height: 600mm (min): Support: one bamboo cane. Native tree mesh guard shelters are to be carefully placed around the tree stem and the entire base of the tree to prevent mammalian browsing.

Tree Mesh Guards: Removal

- 2.2.7 All tree mesh guards are to be collected and removed 3-5 years following successful establishment.

Tree Planting within Grassland - Weeding

- 2.2.8 Trees should be maintained with a weed and grass-free area at the base of each tree. A 500 - 700 mm diameter weed / grass-free zone should be achieved by either hand-weeding or application of a non-residual herbicide. Native tree planting should be kept weed free on a monthly visit between February-November for first two years then 6 times a year for 3 years.

Tree Planting: Organic Mulch

- 2.2.9 Organic mulch comprising well-composted organic material, wood chips, or bark, is to be free of pests, disease, fungus, weeds and foreign material. The organic mulch is to be matured for a minimum of 16 weeks. Organic mulch is to consist of graded fines to a maximum particle size of 40 mm with approximately 70 % particle size 5 mm to 40mm, 30 % particle size less than 5 mm.

Tree Planting: Mulch Top Up

- 2.2.10 Clear all weeds, water soil thoroughly and mulch all planting pits to an even depth of 75 mm after settlement. Pit planted trees positions are to be mulched around the base of the trees to a 500-700 mm diameter circle and mulch levels maintained for 2 no. years from planting.

Tree Planting - Strimming

- 2.2.11 No strimming should be undertaken around the base of the proposed tree planting. A 500 – 700mm diameter weed-free zone should be achieved.

Tree Planting - Watering

- 2.2.12 In order to establish newly planted Standard-Select Trees they should be watered throughout the Spring / Summer period. Trees should be watered fortnightly throughout the Spring / Summer Period: May / June / July / August / September. 20 litres should be applied to each tree at each watering visit for the first year only.

Tree Planting - Tree Stakes and Ties

- 2.2.13 All stakes, tree ties and spacers should be checked four times a year for the first two years. Tree ties should be fitted so that the tree is stable without any chafing or rubbing. Replace and refit rubber tree ties / stakes if necessary.

Tree Planting - Pruning

- 2.2.14 Tree specimens should be checked for dead, dying, or damaged branches and stems twice per year. Trees should also be checked for shape, form, and size within the site areas. Trees should be pruned accordingly during the Spring and Autumn, whilst the trees are still in leaf. All dead / damaged branches should be removed from the trees.

Tree Planting - Defects

- 2.2.15 Replace all dead / dying plant material within the first 5 years of establishment as required.

Tree Planting Specimens – Management Objectives

- 2.2.16 To ensure successful establishment and to promote healthy growth and an attractive form.

Tree Planting Specimens – Management Prescriptions

- 2.2.17 Replace all dead / dying tree specimens within the first 5 years of establishment as required. Replacement planting should be undertaken on an annual basis.

P 1 – Proposed Tree Planting: Management Prescriptions:

- *Tree Planting - Tree Mesh Guards: to be checked and refitted to all trees where required. Tree guards should be checked twice per year: Spring and Autumn for the first two years;*
- *Tree guards to be collected and removed 3-5 years follow successful establishment;*
- *Tree Planting - Weeding: Check and keep tree planting areas weed free on a monthly visit between Feb-November for first two years then 6 times a year for 3 years;*
- *Tree Planting: Mulching - Trees within Grassland should be maintained with a mulch zone 500 – 700mm diameter to the base of the trees. Mulch layer to be checked: Spring / Autumn for the first two years following planting;*
- *Tree Planting: Tree Watering - throughout the Spring / Summer period: May / June / July / August / September fortnightly: 20 litres per tree at each watering visit for the first initial year of establishment only;*
- *Tree Planting: Tree Stakes / Ties - checked four times per year: Winter / Spring / Summer / Autumn for the first three years;*
- *Tree Planting: Tree Pruning - trees should be checked for dead, dying, or damaged branches and stems twice per year: Spring / Autumn for the first three years and then annually;*
- *Native Tree Planting: Defects - Replace dead trees as required.*

P 2 – Proposed Native Hedgerow Planting

Proposed Native Hedgerow Planting

- 2.3.1 The proposed scheme includes native, mixed species hedgerows comprising the following species:
- *Acer campestre (Field Maple);*
 - *Carpinus betulus (Hornbeam);*
 - *Corylus avellana (Hazel);*
 - *Crataegus monogyna (Hawthorn);*
 - *Ilex aquifolium (Holly);*
 - *Prunus spinosa (Blackthorn).*

Native Hedgerow Planting - Specification

- 2.3.2 All shrub / hedge planting areas are to be cut by removing the existing grass or vegetation. Once set out shrub / hedge planting positions are to be treated with a suitable non-residual herbicide application. Plant species are to be grouped randomly in 3 - 5 of the same species at 400mm centres in two staggered rows 400mm apart.

Native Hedgerow - Transplant Hedge Stock

- 2.3.3 Hedgerow planting is to be formed with shrub transplants: 60 - 90cm Height. Transplant hedge planting is to be implemented by creating a planting notch for bare rootstock of sufficient depth and width to allow roots to spread without cutting or bending. The shrubs are to be inserted into the notch and the soil is to be firmed by treading with the heel, ensuring that the shrubs remain in an upright position.

Native Hedgerow - Shrub Protection

- 2.3.4 Shrub shelters are to be provided for all new hedgerow shrub transplants. Shrub shelters are to be 'Green-tech Rainbow Tree Spiral Guard' or equal and approved: Height: 600mm height: Diameter: circular in section: 50 mm: Colour: Clear. Shrub / Hedge shelters are to be carefully placed around the shrub plant material and the entire base.

Native Hedgerow - Shrub Guards

- 2.3.5 All Hedgerow shrub guards should be checked and refitted where necessary to all Hedgerow transplants. Shrub guards should be checked twice per year for the first two years and refitted where necessary.

Native Hedgerow - Shrub Guards: Removal

- 2.3.6 All Hedgerow shrub guards are to be collected and removed 3-5 years following successful establishment.

Native Hedgerow - Weeding

- 2.3.7 Hedgerow transplants are to be planted in mulched beds which should be kept clear of all weeds at the base of the plant material. The native hedgerow planting should be kept weed free by either hand weeding or application of a non-residual herbicide application, taking care not to spray or scorch existing plant material. Native shrub planting areas should be kept weed free on a monthly visit between Feb- November for first two years then 6 times a year for 3 years.

Native Hedgerow - Organic Mulch

- 2.3.8 Organic mulch comprising well-composted organic material, wood chips, or bark, to be free of pests, disease, fungus, weeds and foreign material and to be laid to the base of the hedge plant material. The organic mulch is to be matured for a minimum of 16 weeks. Organic mulch to consist of graded fines to a maximum particle size of 40 mm with approximately 70 % particle size 5 mm to 40mm, 30 % particle size less than 5 mm.

- 2.3.9 Clear all weeds, water soil thoroughly and mulch all native hedgerow planting positions to an even depth of 75 mm after settlement. Shrub / hedge positions are to be mulched around the base of the plant material to a 500 - 700mm diameter circle.

Native Hedgerow - Mulch Top Up

- 2.3.10 The native hedgerow plant material is to be located within mulched planting beds. The beds should be topped up with an organic mulch to assist with the suppression of weeds to the hedgerow planting areas. An organic mulch top-up should be undertaken and checked twice per year: Spring / Autumn for the first two years. Organic mulch levels should be maintained at a consistent depth of 75mm.

Native Hedgerow - Watering

- 2.3.11 In order to establish the hedgerow planting, transplants should be watered fortnightly throughout the summer season during the first year of establishment only during: May / June / July / August / September. The quantity of water to be 10 litres per square metre during each visit.

Native Hedgerow - Trimming and Pruning

- 2.3.12 During the first three years of native Hedgerow establishment, the Hedgerow transplants should be lightly trimmed to maintain shape and form. Light trimming should encourage vigorous and dense, bushy growth. Hedgerow trimming during the first three years of establishment should be undertaken annually during Spring to maintain size, shape, and vigorous growth.

Long-Term Native Hedgerow Objectives

- 2.3.13 Long-term, the management objective for the hedgerow planting should be to achieve a dense, healthy hedgerow approximately 1.20 metres height.

Long-Term Native Hedgerow Management

- 2.3.14 After three-five years of establishment and light trimming, the hedgerows should be maintained to a maximum height of 1.20 metres and should be trimmed every year between the dates of Sep 1st – Feb 28th. The hedgerow should be trimmed to an 'A' shape and form.
- 2.3.15 Replace all dead / dying plant material within the first 5 years of establishment as required.
- 2.3.16 P 2 – Proposed Native Hedgerow Planting: Management Prescriptions
- *Native Hedgerow Planting - Shrub Guards: Check and refit where necessary all Hedgerow shrub guards, check and refit where required twice per year: Spring / Autumn for the first two years;*
 - *All Hedgerow shrub guards are to be collected and removed 3-5 years following successful establishment.*
 - *Native Hedgerow Planting – Weeding: Check and keep shrub planting areas weed free on a monthly visit between Feb-November annually for first two years then 6 times a year for 3 years;*

- *Native Hedgerow Planting – Organic Mulch Top Up: Maintain organic mulch to all Hedgerow planting areas: check twice per year: Spring / Autumn for the first two years;*
- *Native Hedgerow Planting – Watering: Fortnightly during May / June / July / August / September for establishment of new Hedgerow planting: 10 litres per square metre at each watering visit for the first initial year of establishment only;*
- *Native Hedgerow Planting - Trimming and Pruning: Light trimming of Hedgerow transplants to stimulate vigorous and dense growth: carry out annually during early Spring for the first three years;*
- *Native Hedgerow Planting - Long-Term Management: Maintain Hedgerows at 1.20 metre height: trim every year between the dates of Sep 1st – Feb 28th;*
- *Native Hedgerow Planting: Defects - Replace dead hedgerow shrubs as required.*

2.4 P 3 – Proposed Native Understorey Shrub Planting

2.4.1 Understorey shrubs are to be transplants (60-90cm height) and to be planted at 1 no. per m²:

- *Acer campestre (Field Maple);*
- *Carpinus betulus (Hornbeam);*
- *Cornus sanguinea (Dogwood);*
- *Corylus avellana (Common Hazel);*
- *Crataegus monogyna (Hawthorn);*
- *Ilex aquifolium (Holly);*
- *Lonicera periclymenum (Honeysuckle);*
- *Rosa canina (Dogrose);*
- *Salix caprea (Goat Willow);*
- *Taxus baccata (Yew);*

Understorey Shrub Planting Areas

2.4.2 The understorey shrub planting stock is to be implemented into existing grassed areas and set out at 1.0 metre centres in staggered rows throughout the designated native, understorey shrub planting areas. Plant species are to be grouped randomly in 3-5 of the same species.

Native Shrub Planting (Understorey and Dense Thorny Areas) - Specification

2.4.3 All planting areas are to be cut and grass vegetation cleared. Planting positions are to be treated with a suitable non-residual herbicide application prior to planting.

2.4.4 The native understorey shrub planting areas are to be implemented into existing grass seeded areas. All grassed areas are to be cut before any shrub planting pit preparation is undertaken, to a maximum grass height of 75mm and a diameter of

500mm - 700mm. No excavations of the areas where herbicide has been applied are to commence until the relevant vegetation has been effectively controlled.

Transplant Shrub Planting

- 2.4.5 The contractor is to form a planting notch for bare rootstock to a sufficient depth and width to allow roots to spread without cutting or bending. The shrub plant material is to be inserted into the planting pit, firming the soil by treading with the heel, ensuring that the plant material remains in an upright position.

Native Transplant Shrub Planting - Shrub Protection

- 2.4.6 Transplant shrub guards are to be provided for all new native shrub transplants. Shrub shelters are to be 'Green-tech Rainbow Tree Spiral Guard' or equal and approved: Height: 600mm height: Diameter: circular in section: 50 mm / Colour: Clear. Shrub shelters are to be carefully placed around the shrub plant material and the entire base.

Native Transplant Shrub Planting - Shrub Guards

- 2.4.7 All shrub guards should be checked and refitted where necessary to all transplant shrubs. Shrub guards should be checked twice per year for the first two years and refitted where necessary.

Native Transplant Shrub Planting - Shrub Guards: Removal

- 2.4.8 All native shrub guards are to be collected and removed 3-5 years following successful establishment.

Native Transplant Shrub Planting - Organic Mulch

- 2.4.9 Organic mulch comprising well-composted organic material, wood chips, or bark, to be free of pests, disease, fungus, weeds and foreign material and to be laid to the base of the shrub plant material. The organic mulch is to be matured for a minimum of 16 weeks. Organic mulch to consist of graded fines to a maximum particle size of 40 mm with approximately 70 % particle size 5 mm to 40mm, 30 % particle size less than 5 mm.

- 2.4.10 Clear all weeds, water soil thoroughly and mulch all native shrub planting positions to an even depth of 75 mm after settlement. All Shrub positions are to be mulched around the base of the plant material to a 500 - 700mm diameter circle.

Native Transplant Shrub Planting - Mulch Top-Up

- 2.4.11 The base of the shrub transplants should be topped up with an organic bark mulch to assist with the suppression of weeds. An organic mulch top-up should be undertaken and checked twice per year: Spring / Autumn for the first two years. Organic mulch levels should be maintained at a consistent depth of 75mm.

Native Transplant Shrub Planting - Weeding

- 2.4.12 Native transplant shrub plant positions are to be kept clear of all weeds to an area measuring 500 – 700mm diameter at the base of the planted material. The native shrub plant material is to be kept weed free by either hand weeding or application of

a non-residual herbicide application, taking care not to spray or scorch existing plant material. Native shrub planting areas should be kept weed free on a monthly visit between Feb- November for the first two years then 6 times a year for 3 years.

Native Transplant Shrub Planting - Trimming and Pruning

- 2.4.13 During the first three years of establishment the native shrub transplants should be lightly trimmed to maintain shape and form. Light trimming should encourage vigorous and dense, bushy growth. Trimming during the first three years of establishment should be undertaken twice per year: Spring / Autumn to maintain size, shape, and vigorous growth.

Native Transplant Shrub Planting - Watering

- 2.4.14 In order to establish the native shrub planting, the transplants should be watered fortnightly throughout the summer season in the first year of initial establishment during May / June / July / August / September. Quantity of water to be 10 litres per metre square during each visit for the first initial year of establishment only.

Native Understorey Shrub Planting – Management Objectives

- 2.4.15 Long-term, the management objective for the native understorey shrub plant material should be to achieve a light boundary screen approximately 2.0 metres in height with a rich diversity of native species.

Native Understorey Shrub Planting – Long-Term Management

- 2.4.16 After three years of establishment and light trimming, the native understorey shrub plant material should be maintained to a maximum height of 2.0 metres and should be hard-trimmed twice per year during Autumn and Spring to achieve this goal.
- 2.4.17 Native understorey shrub planting areas once established are to be thinned on a regular and routine basis. The proposed native understorey shrub planting mix includes a number of larger shrub species. The native understorey shrub species should be selectively thinned out to allow a selection of tree / shrub specimens to emerge and establish as the dominant native understorey specimens. Selective tree / shrub thinning should be undertaken every five years to assist native understorey tree / shrub establishment.

Native Transplant Shrub Planting – Defects

- 2.4.18 Replace all dead / dying plant material within the first 5 years of establishment as required. Replacement planting should be undertaken on an annual basis.

P 3 – Proposed Native Transplant Shrub Planting - Management Prescriptions:

- *Native Transplant Shrub Planting - Check and keep shrub planting areas weed free on a monthly visit between Feb-November annually for first two years then 6 times a year for 3 years;*
- *Native Transplant Shrub Planting - Shrub Guards: to be checked and refitted (where required) to all shrubs. Shrub guards should be checked twice per year: Spring/Autumn for the first two years;*

- *All shrub guards are to be collected and removed 3-5 years following successful establishment.*
- *Native Transplant Shrub Planting - Mulch Top-Up: planting pits / areas should be topped up with an organic bark mulch. Mulch levels should be maintained at a consistent depth of 75 mm. Mulch top-up should be undertaken and checked twice per year: Spring / Autumn for the first two years;*
- *Native Transplant Shrub Planting - Trimming and Pruning; during the first three years of establishment the native shrubs should be lightly trimmed to encourage vigorous and dense re-growth. Trimming should be undertaken twice per year: Spring / Autumn;*
- *Native Transplant Shrub Planting – Watering: Fortnightly during May / June / July / August / September for establishment of new shrub planting: Watering of shrubs to be undertaken during the first year of establishment only. Quantity of water to be 10 litres per metre square during each visit;*
- *Native Understorey Shrub Planting - Long-Term Management; Hard-Trimming; after three years of establishment and hard trimming, the native shrub plant material should be maintained to a maximum height of 2.0 metres and should be hard-trimming twice per year during early Spring and late Autumn;*
- *Native Understorey Shrub Planting - Long-Term Management: Thinning; planting areas to be thinned on a regular and routine basis. Native understorey shrub species should be selectively thinned out. Selective tree / shrub thinning should be undertaken every five years;*
- *Native Transplant Shrub Planting; Defects; Replace dead shrubs as required within the first 5 years of establishment.*

2.5 P 4 – Proposed Ornamental Shrub Planting

Ornamental Shrub / Perennial Planting

- 2.5.1 For the proposed ornamental shrub / perennial planting locations refer to RCo285 / *Soft Landscape Layout* – for species and specification refer to: RCo285 / *Detailed Planting Schedule and Plant Specification*.

Ornamental Shrub / Perennial Planting Specification

- 2.5.2 Designated areas for ornamental shrub and herbaceous planting are to have 400mm depth subsoil overlain with a minimum of 300mm multi-purpose topsoil to BS3882: 2015 'Specification for Topsoil'. The soil is to be lightly compacted (with heel pressure only) in 100mm depth layers. Shrubs and perennials are to be planted according to CPSE 'Handling and Establishing Landscape Plants' (obtainable from the Horticultural Trades Association) Part III, Paragraphs 6.2 to 6.6 with the stock planted upright or well balanced with best side to front.

Ornamental Shrub / Perennial Planting Specification

- 2.5.3 Topsoil is to be loosened, aerated and broken up into particles of 2.0 – 8.0 mm with the surface left regular and even. All weeds, roots, stones and clods larger than 50 mm in any dimension are to be removed.

Ornamental Shrub Planting - Fertilizer

- 2.5.4 Apply an annual single dose of evenly spread, 11:22:9 NPK slow release fertiliser at a rate of 60g per m², in March – April of each year to each ornamental planting area.

Ornamental Shrub Planting - Weeding

- 2.5.5 Keep all beds clear of weeds by cultivating and hand weeding / use of approved herbicides. Ornamental planting areas should be kept weed free on a monthly visit between Feb- November for first two years then 6 times a year for 3 years.

Ornamental Shrub Planting – Mulch Top-Up

- 2.5.6 Ornamental planting areas are to be maintained with 75mm (min) depth of ornamental bark mulch. Top-up the mulch surface (where applicable) with ornamental, organic mulch following planting, to a depth of 75mm. Regularly monitor mulch levels and re-mulch as specified to 75mm depth. An organic mulch top-up should be undertaken and checked twice per year: Spring / Autumn for the first two years. Organic mulch levels should be maintained at a consistent depth of 75mm.

Ornamental Shrub Planting - Watering

- 2.5.7 Watering to the raised planter is to be fortnightly from May-Sept for the first year only (following planting), watering quantities to be 10 litres per square meter per visit. (Subsequent watering to be undertaken during prolonged dry spells as required).

Ornamental Shrub Planting – Pruning Generally

- 2.5.8 Prune and re-shape shrub species annually at the appropriate time according to individual requirements each year. Remove dead or dying wood, in order to promote healthy growth and attractive form. Shrubs should be prevented from becoming overgrown, with particular attention to plants adjacent to windows, footpaths and roads to prevent obstruction. Avoid hard pruning to bare wood – Pruning to be undertaken annually – timing to be appropriate to shrub species.

Ornamental Shrub Planting – Firming Up

- 2.5.9 Regularly check for plantings which have been loosened by wind or frost and re-firm any loose plants back into the ground. Plants to be checked for re-firming twice per year in Spring and Autumn for the first three years.

Ornamental Shrub Planting – Thinning

- 2.5.10 Regularly check beds on routine visits to assess whether thinning is required. When plantings are starting to overlap it may be necessary to remove some individual plants to retain the character of the bed. Thinning should take place as required in a logical process over several stages annually.

Ornamental Shrub Planting – Shrub Replacement

- 2.5.11 Monitor and replace failed specimens with new equivalent plants between October and March annually. All plants should be maintained in a disease and pest free state through the application of a suitable proprietary herbicide/pesticide.

Objectives

- 2.5.12 To ensure ornamental shrub planting is suitably cared for to enable successful establishment, to maintain growth and shape of plants and prevent ornamental planting areas becoming overgrown and untidy.
- 2.5.13 P 4 – Ornamental Shrub / Perennial Planting: Management Prescriptions:
- *Ornamental Shrub / Perennial Planting – Fertilizer: Apply an annual single dose of evenly spread, 11:22:9 NPK slow release fertiliser at a rate of 60g per m2, in March – April of each year;*
 - *Ornamental Shrub / Perennial Planting – Weeding: Check and keep shrub planting beds weed free on a monthly visit between Feb-November annually for first two years then 6 times a year for 3 years;*
 - *Ornamental Shrub / Perennial Planting – Organic Mulch Top Up: Maintain organic mulch to shrub planting beds: check twice per year: Spring / Autumn for the first two years;*
 - *Ornamental Shrub / Perennial Planting – Watering: Fortnightly during May / June / July / August / September for establishment of ornamental shrub planting: Watering of ornamental shrubs to be undertaken during the first year of establishment only (subsequent watering to be undertaken during prolonged dry spells as required);*
 - *Ornamental Shrub / Perennial Planting – Firming: shrubs / perennials to be checked twice per year (Spring and Autumn) and re-firmed where required for the first three years;*
 - *Ornamental Shrub / Perennial Planting – Pruning Generally: carry out annually – timing to suit shrub species;*
 - *Ornamental Shrub / Perennial Planting – Thinning: shrubs to be thinned where required annually;*
 - *Ornamental Shrub / Perennial Planting: Defects - Replace dead ornamental shrubs / perennials as required.*

2.6 P 5 – Native Wildflower Grassland Seeded Areas

Native Wildflower and Grassland Meadow Area - Seeding

- 2.6.1 Designated areas to the north of the residential development area are to be sown with a native mix of wildflower and grass seed. Seed mix to be Emorsgate: EM2 Standard General Purpose Meadow Mixture (or equal and approved).
- 2.6.2 The existing turf is to be removed or treated with a suitable non-residual herbicide application (repeated applications may be required to remove perennial weeds). The topsoil is to then be cultivated and firmed to a suitable depth prior to seeding.

Native Wildflower and Grassland Meadow Area – Initial Cutting

- 2.6.3 Initial cutting of the meadow areas once sown, on a monthly basis, will suppress invasive weeds which would otherwise hinder the establishment of the native wildflowers and grasses. Cutting the wildflower area again in late October will contribute to the initial establishment of the Wildflower Meadow. *(Grasses generally produce a flush of growth in late-autumn, cutting will check this flush and enhance wildflower growth).*

Native Wildflower and Grassland Meadow Area – Annual Cutting

- 2.6.4 The Wildflower Grassed Areas are to be allowed to develop and flower throughout the Spring and Summer growing season. The wildflower grassed areas are to be cut in October of each maintenance year.
- 2.6.5 The wildflower/grass cuttings could potentially either be composted locally or removed from site to a Local Authority Green Waste Recycling Facility however all the clippings must be removed to prevent any enrichment of the underlying soil. NB The native wildflower/grass areas are to be kept free of any fertilizer to create a nutrient poor soil structure – ensuring wildflowers are not out-competed by faster growing grasses.

Native Wildflower and Grassland Meadow Area – Management Objectives

- 2.6.6 Ensure native wildflower / grassland areas have a dense native, grass sward with a good show of seasonal, native wildflowers with good distribution and mix of species.

P 5 – Native Wildflower and Grassland Meadow – Maintenance Prescriptions

- *Initial monthly Cutting During Establishment: on a monthly basis to suppress invasive weeds, and again in late October to help initial establishment;*
- *Native Wildflower and Grassland Meadow Areas: Annual Cutting - October of each maintenance year, all clippings to be removed.*

2.7 P 6 – Amenity Grass

Amenity Grass Areas - Cutting

- 2.7.1 Amenity Grass Areas grass should be maintained to a height of 30mm approx - cutting regime to be;
- *Allow turf sward or amenity seeded areas to establish to a minimum height of 35mm before first cut. Once established, maintain to a height of 30mm by cutting fortnightly or as necessary through the growing season and as required during the winter months (to maintain height of 30mm approx.). Arisings to be collected and removed from site.*
 - *Final Yearly Cut: November – to tidy Grassed Areas 40 – 50mm height.*

- 2.7.2 Remove all litter including fallen leaves from grass areas prior to mowing. Do not use mowers / trimmers within 100mm of woody tree / shrub stems - use nylon filament rotary cutters or other hand-held machinery to avoid damage to tree and shrub stems. Strim around any obstructions.

Amenity Grass Areas – Bare Patches

- 2.7.3 Grass seeded areas which fail to establish or become bare due to wear should be top dressed with sandy loam topsoil and re-seeded with a general purpose, amenity grass seed mix. Any reseeded areas should be temporarily fenced off to enable establishment. Re-seeding to be in March / April or September / October. The Grassed Areas should be checked for bare patches twice per year for the first 5 years: Spring and Autumn.

Amenity Grass Areas – Fertiliser: Spring / Autumn

- 2.7.4 A fertiliser application should be made twice per year to grass seeded areas during Spring and Autumn:
- *In March apply Greentech Sportsmaster Spring Summer - 9-7-7 + 13%S Pre-Seeder/ General fertilizer at 35 - 70 g / m² or equal and approved;*
 - *In September apply Greentech Sportsmaster Autumn Winter - 4-12-12 + 7%S fertilizer at 35-70 g / m² or equal and approved.*

Grassed Areas – Management Objectives

- 2.7.5 Ensure amenity short-mown grass areas are suitably managed in order to maintain an attractive and tidy appearance with a dense sward.
- 2.7.6 P 6 - Grassed Areas: Management Prescriptions
- *Amenity Grass Cutting; Initial cut early Spring; Regular cutting fortnightly during April / May / June / July / August / September / October - Final Cut: November;*
 - *Amenity Grass - Bare Patches: Re-seeding twice per year (where required) - Spring and Autumn;*
 - *Amenity Grass - Fertiliser: twice per year - Spring and Autumn for the first three years.*