Nantgaredig, Carmarthen

Landscape Management Plan

R01

09th October 2026

Prepared on behalf of Obsidian Homes

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LANDSCAPE ARCHITECTS

Floor 7, Brunel House, 2 Fitzalan Road, Cardiff, CF24 0EB
Tir Collective Limited. Registered Company No.13489264

Nantgaredig, Carmarthen

Landscape Management Plan

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1.0 Introduction

1.1 Background

1.1.1 Tir Collective is instructed by Obsidian Homes to prepare this Landscape Management Plan (LMP), which relates to the proposed residential development at Nantgaredig, Carmarthen, consisting of 38 units with associated infrastructure.

1.1.2 The aim of the LMP is to provide details of the measures proposed to protect existing landscape features, and prescriptions for the creation and management of the new and retained landscape features.

1.2 Scope

1.2.1 This Landscape Management Plan sets out the maintenance and management requirements for the proposed soft landscape areas within the development, including short-term (0–5 years) and long-term (5+ years) management objectives. The plan provides details of the maintenance operations and their frequency to ensure the successful establishment and long-term management of the proposed planting, maintain and enhance the appearance of the development, and promote biodiversity.

1.3 The Site

1.3.1 This Landscape Management Plan is based on the landscape drawings produced by Tir Collective, as follows:

- TC26390 L100 Landscape Strategy
- TC26390 L200 Planting Plan
- TC26390 L300 Specification
- TC26390 L301 Grass Specification

1.3.2 The site comprises approximately 3.5 acres of agricultural land located east of Station Road, Nantgaredig, within Carmarthenshire. The site is relatively flat and comprises a single agricultural field, predominantly improved grassland.

1.3.3 The site is bordered by agricultural land to the north, east and southeast, residential properties to the southwest, and Station Road to the west. Existing vegetation is mainly concentrated along the site boundaries, comprising hedgerows with occasional established trees, providing screening and ecological connectivity with the surrounding landscape.

1.4 Development Proposals

1.4.1 The proposed development comprises the construction of 38 residential dwellings, together with associated infrastructure.

1.4.2 The site will be accessed via a new access from Station Road to the west.

1.4.3 The landscape proposals focus on establishing a robust green infrastructure framework that enhances biodiversity and visual amenity whilst integrating with the site's existing landscape and ecological features. The majority of existing trees and hedgerows will be retained and protected during construction. The hedgerow and tree along the western boundary will be removed to facilitate site access, together with a tree group at the northern boundary to accommodate the proposed development.

1.4.4 A total of 33 new trees, comprising a mix of native and non-native species, will be planted throughout the development to compensate for vegetation losses, provide seasonal interest and contribute to long-term canopy cover.

1.4.5 Native shrub planting will be introduced along sections of the site boundaries to strengthen existing vegetation, provide additional screening and enhance ecological connectivity. Ornamental hedgerows, specimen shrubs, coppice planting and herbaceous planting will also be incorporated throughout the development to provide structure, seasonal interest and visual amenity.

1.4.6 Areas of species-rich grass will be established within the west of the site to enhance biodiversity and provide habitats for pollinators and other wildlife. Sustainable Drainage Systems (SuDS), including an attenuation basin and rain gardens, will be integrated into the landscape with appropriate grassland and SuDS planting.

1.4.7 This Landscape Management Plan will address the establishment, maintenance and management requirements for the following landscape types:

- Tree planting
- Specimen shrub and coppice planting
- Native shrub planting
- Ornamental hedgerow planting
- Shrub and herbaceous planting
- Species-rich grass mixes

2.0 Design Concepts

2.1 Key design objectives

2.1.1 The following list defines the key landscape design objectives which have guided the preparation of the landscape proposals:

- Retention and protection of existing trees and hedgerows wherever possible.
- Proposed tree planting where possible.
- Proposed native shrub planting along sections of the site boundary to strengthen existing vegetation, provide additional screening and connection with the existing vegetation.
- Proposed ornamental hedgerows, specimen shrubs and herbaceous planting to provide visual amenity, seasonal interest and flowering plants for pollinators.
- Species-rich grassland to help increase the site's biodiversity.
- Integration of SuDS features, including an attenuation basin and rain gardens, with appropriate planting to enhance biodiversity and support sustainable water management.

2.1.2 The management and maintenance objectives have been formulated to achieve and fulfil the overall design concepts.

2.2 Management objectives

2.2.1 Management objectives will involve short term and long-term commitments to achieve and fulfil the overall design concepts.

Short term objectives (0-5 years):

- Manage the retained and proposed trees and vegetation along the site boundaries in a safe environment to strengthen the wildlife corridors and visual amenity.
- Successfully establish tree and coppice planting with acceptable rates of growth.
- Establish new planting throughout the site in the first 12 months.
- Remove weeds from the establishing planting areas.
- Replace dead plants within the structure planting where necessary.
- Provide sufficient resources including necessary labour, materials and machinery.
- Establish species-rich grassland.

- Ensure the landscape proposals are managed and maintained in a way that enhances the site's biodiversity and habitat value whilst maximising visual amenity.

Long term objectives (5+ years):

- To carry out periodic maintenance as necessary.

2.2.2 With all aspects of management, it is essential that the principle of an 'on-going commitment' is established and that sufficient recourses are made available to ensure continuity.

2.3 Maintenance objectives

2.3.1 Maintenance objectives will include regular planting checks and maintenance to ensure that the planting is establishing and is consistent with the original design intentions. This will involve continuous / ongoing routine operations throughout the year, for which a detailed maintenance schedule is to be followed.

2.3.2 Management and maintenance operations will be carried out by suitably trained operatives.

2.4 Monitoring

2.4.1 Monitoring is an essential element of the plan to ensure that the results of any management work are measured and evaluated. Any lessons learnt from monitoring can be reflected in a review of this management plan which should normally be made every five years.

3.0 Management Objectives and Prescriptions

3.1.1 The following provides management objectives and prescriptions for implementing the landscape scheme, including ongoing management of the site.

3.2 Retained trees and hedgerows

3.2.1 The existing trees and hedgerows along the site boundaries will be retained in accordance with the landscape proposals. The hedgerow and one individual tree along the western boundary will be removed to facilitate site access, together with a tree group along the northern boundary to accommodate the proposed development.

3.2.2 Retained trees and hedgerows will need to be protected in line with BS 5837:2012 Trees in relation to design, demolition and construction – Recommendations. This will include the installation of protective fencing, such as a Heras fence, to reduce the potential for impacting the Root Protection Area (RPA). The protective fence will be installed prior to construction to ensure no impacts occur to the RPAs. No machinery, digging, or storage of materials, chemicals, cabins, or vehicles will be permitted within these RPAs during the construction phase.

3.3 Tree planting

Creation Prescriptions

3.3.1 Tree planting is proposed throughout the site and includes native and non-native species. Refer to the landscape plans L100-200-300 for locations of the proposed trees, species and an implementation specification.

3.3.2 The following measures will be carried out for the proposed tree planting.

3.3.3 **Tree pits:** planting pits shall be excavated in accordance with drawing TC26390 L300 Specification, with planting depth and pit width appropriate to the rootball dimensions.

3.3.4 Where there is sloping ground, maintain horizontal bases and vertical sides with no less than minimum depth throughout. Pit bases, sides and backfilling materials shall be prepared in accordance with drawing TC26390 L300 Specification. Supply a slow release fertiliser N:P:K-4:19:10 ENMAG or similar approved at the following rates:

- Extra Heavy Standard trees: 130g/ per tree pit.

3.3.5 **Protection:** trees will be planted with an underground guying system to support them from falling over in the initial establishment period following implementation. The landscape plans provide details of the type of system proposed.

3.3.6 **Mulching trees:** provide and spread over tree planting an organic graded bark flakes to a depth of 50mm. The material shall be free of pests, disease, fungus and weeds and no recycled content. Prior to mulching, ensure that weeds have all be cleared and that the soil is watered thoroughly.

Management prescriptions

3.3.7 Maintenance commitments will be minimal after the initial establishment period although the following will need to be undertaken:

- Watering, including during periods of drought;
- Mulching once a year as necessary;
- Tree replacements if necessary;
- Underground guying systems to be inspected and maintained in accordance with the manufacturer's recommendations; and if tree stakes are used instead due to ground conditions, they should be removed once the trees are sufficiently established to remain stable without support, normally after two growing seasons.
- Selective pruning to improve health, free form and longevity;
- Selective thinning in the long term to allow space for the trees to develop; and

- Pest and disease control.

3.3.8 Long-term objectives will involve annual monitoring, and any tree work shall be undertaken in accordance with BS 3998:2010 Recommendations for Tree Work, including:

- Removal of any dead, diseased or damaged wood;
- Crown reduction to maintain clearance from buildings;
- Crown raising to maintain sufficient clearance for vehicular and pedestrian routes; and
- Removal of any crossing branches.

3.3.9 An ARB Approved tree surgeon (contractor), approved by the Arboricultural Association, shall be responsible for undertaking management and maintenance operations of trees and hedges planted within the core of the development.

3.3.10 Pruning of any tree will not be undertaken between March to August inclusive to protect breeding birds. If this cannot be avoided, a nesting bird check will be undertaken within 48hrs of the works, or immediately prior by a suitably experienced ecologist, to identify nests and enforce suitable buffer zones (5-10m expected) until the young have fledged. Any removal of deadwood or dying trees should be subject to appropriate checks for roosting bats.

3.4 Native shrub planting

Creation Prescriptions

3.4.1 Refer to the landscape plans L100-200-300 for planting locations and an implementation specification.

Management Prescriptions

3.4.2 Native shrubs will be supplied as transplant-sized plants, generally 80–100cm in height at the time of planting, with the exception of *Ilex aquifolium*, which will be supplied as rootballed specimens.

3.4.3 Transplant-sized shrubs will be planted at the specified centres in accordance with the planting schedule provided on Tir Collective's 'L300 Specification' sheet. These will be notch-planted using a vertical I, L, T or H-shaped notch, formed to a sufficient depth to accommodate the full root system without bending or distortion.

3.4.4 *Ilex aquifolium* will be pit-planted, with planting pits excavated to accommodate the full rootball, ensuring that the root collar remains at the correct finished soil level.

3.4.5 Bark mulch will be applied as necessary to suppress weed growth following planting. Shrubs will be arranged in naturalistic groupings, avoiding straight lines and geometric patterns, whilst maintaining the specified planting densities.

3.4.6 Plant protection will only be required where there is a risk of damage from rabbits or other mammals. Suitable spiral guards or other appropriate protection measures will be installed where necessary.

3.4.7 Maintenance commitments for the native shrub will be minimal after the initial establishment period although the following will need to be undertaken:

- Watering, including during periods of drought;
- Mulching once a year as necessary;
- Plant replacements if necessary;
- Checking tree and shrub guards and any canes following strong winds;
- Litter removal; and
- Pruning as necessary.

3.4.8 Native shrubs will be relatively maintenance free, but care should be taken to ensure that they establish successfully. Following establishment, selective pruning and thinning will be undertaken as necessary to maintain plant health and the intended structure of the planting. Shrubs should not be removed or severely thinned during the bird nesting season (March–September) to avoid possible illegalities, as breeding birds and their nests are protected by law.

3.5 Specimen shrub and coppice planting

Creation Prescriptions

3.5.1 Refer to the landscape plans L100-200-300 for planting locations and an implementation specification.

Management Prescriptions

3.5.2 Specimen shrubs and coppice are relatively maintenance free, but care should be taken to ensure that they establish successfully. Shrubs are a diverse group of plants with many different requirements in terms of watering, pruning, feeding etc. and consequently, general good horticultural practice should be continually applied with regards to different species' requirements

3.5.3 Maintenance commitments for the ornamental shrubs will be minimal after the initial establishment period although the following will need to be undertaken:

- Watering, including during periods of drought;
- Mulching as necessary;
- Plant replacements if necessary;
- Litter removal; and
- Pruning and pest and disease control as necessary.

3.5.4 Hazel coppice planting will be allowed to establish before coppicing operations commence. Once established, coppicing will be undertaken on a rotational basis, generally every 7–10 years, depending on growth and site conditions. Stems will be cut close to the ground to encourage vigorous regrowth, with only a proportion of the coppice stools cut in any one year to maintain habitat continuity and structural diversity.

3.5.5 Specimen shrubs will require occasional formative pruning to maintain their natural form and encourage healthy growth. Any dead, damaged, diseased or crossing branches will be removed as necessary. Severe or frequent pruning should be avoided unless required for plant health, safety or to maintain appropriate clearance.

3.5.6 Long-term management will include annual monitoring of the health and condition of hazel coppice and specimen shrubs. Management and maintenance requirements include:

- Removal of dead, dying, diseased and damaged growth;
- Selective pruning to maintain the natural form and shape of specimen shrubs;
- Rotational coppicing of established hazel to encourage regeneration and maintain habitat diversity;
- Removal of excessive weed growth and competing vegetation; and
- Replacement of failed plants where necessary

3.5.7 Coppicing and significant pruning operations should be undertaken during the dormant season, preferably between November and February, to minimise disturbance to wildlife. Works should avoid the bird nesting season (March–August inclusive). Where works during this period cannot be avoided, an appropriate nesting bird check should be undertaken by a competent ecologist prior to commencement.

3.6 Ornamental shrubs, grasses, hedges and herbaceous planting

Creation Prescriptions

3.6.1 Refer to the landscape plans L100-200-300 for planting locations and an implementation specification.

Management Prescriptions

3.6.2 Shrubs are relatively maintenance free, but care should be taken to ensure that they establish successfully. Shrubs are a diverse group of plants with many different requirements in terms of watering, pruning, feeding etc. and consequently, general good horticultural practice should be continually applied with regards to different species' requirements.

3.6.3 It will be necessary to undertake occasional formative pruning of certain ornamental shrubs (refer to **Appendix 3**); this should be done with respect to the overall form and shape of the shrub, and any dead, dying or diseased wood and suckers will be removed. Species selection and the location of planting should ensure that shrubs will not require severe pruning. It is not intended that the shrub planting will be cut back on a frequent basis.

3.6.4 Maintenance commitments for the ornamental shrubs will be minimal after the initial establishment period although the following will need to be undertaken:

- Watering, including during periods of drought;
- Mulching as necessary;
- Plant replacements if necessary;
- Litter removal; and
- Pruning and pest and disease control as necessary.

3.6.5 Herbaceous plants will need to be cut annually at the end of winter before new shoots begin to appear and divided as required.

3.6.6 Shrubs and herbaceous plants will need to be pruned to encourage vigorous growth. Management and maintenance requirements include:

- Remove dead, dying, diseased and crossing growth, and thin by cutting back old, weak shoots to the base. Retain shape and avoid stems over-spilling into neighbouring hard areas.
- Other than during the first year, divide any overcrowded plants whilst still in the green. Use excess plant material to fill any gaps.
- Remove last season's growth from ornamental grasses.

3.7 Grass seeding

Creation Prescriptions

3.7.1 Refer to the landscape plans L100-200-300-301 for grass areas locations and an implementation specification.

3.7.2 Special General Purpose Meadow Mixture EM3 (by Emorsgate Seeds), or similar approved seed mix, is proposed for species-rich grass.

3.7.3 All Purpose Landscaping Grass Mixture A19 (by Germinal Seeds), or similar approved seed mix, is proposed for amenity grass.

3.7.4 Meadow Mixture for Wetlands EM8 (by Emorsgate Seeds), or similar approved seed mix, is proposed within the attenuation basin.

3.7.5 Once bare (or near bare soil) is achieved through general development, the top 50mm of soil will be rotovated. This could be using a power harrow or pedestrian rotavator. Where existing grassland remains within proposed meadow areas, the existing vegetation shall be removed or sufficiently suppressed and the ground prepared to provide a suitable seedbed for the specified meadow mixture, in accordance with the seed supplier's recommendations. Where root protection areas of trees are present, ground preparation shall avoid mechanical cultivation or disturbance of tree roots and comply with the approved arboricultural protection measures.

Management Prescriptions

3.7.6 Species-rich grass should be maintained with the long-term objective of developing a diverse meadow, enhancing biodiversity and providing visual amenity.

3.7.7 Species-rich grass areas will be seeded with a suitable seed mix such as Emorsgate Seeds **'Special General Purpose Meadow Mixture EM3'**, or similar and approved, based on the landscape plans L100-200-300-301 produced by Tir Collective. This meadow mixture contains a very wide range of species. It may be used to create a very diverse sward where conditions vary across a site. It is also useful in situations where precise soil and site characteristics have not been established before sowing.

3.7.8 **Ground Preparation**: "Endeavour to select ground that is not highly fertile and does not have a problem with perennial weeds. Good preparation is essential to success so aim to control weeds and produce a good quality seed bed before sowing.

To prepare a seed bed first remove weeds using repeated cultivation. Then plough or dig to bury the surface vegetation, harrow or rake to produce a medium tilth, and roll, or tread, to produce a firm surface."

3.7.9 **Sowing:** "Seed is best sown in the autumn or spring but can be sown at other times of the year if there is sufficient warmth and moisture. The seed must be surface sown and can be applied by machine or broadcast by hand. To get an even distribution and avoid running out divide the seed into two or more parts and sow in overlapping sections. Do not incorporate or cover the seed, but firm in with a roll, or by treading, to give good soil/seed contact."

3.7.10 **First Year Management:** "Most of the sown meadow species are perennial and are slow to establish. Soon after sowing there will be a flush of annual weeds, arising from the soil seed bank. These weeds can look unsightly, but they will offer shelter to the sown seedlings, are great for bugs, and they will die before the year is out. So resist cutting the annual weeds until mid to late summer, especially if the mixture contains Yellow Rattle, or has been sown with a nurse of cornfield annuals. Then cut, remove and compost. Early August is a good time. This will reveal the young meadow, which can then be kept short by grazing or mowing through to the end of March of the following year. Dig out any residual perennial weeds such as docks."

3.7.11 **Management Once Established:** "In the second and subsequent years EM3 sowings can be managed in a number of ways which, in association with soil fertility, will determine the character of the grassland. The best results are usually obtained by traditional meadow management based around a main summer hay cut in combination with autumn and possibly spring mowing or grazing.

3.7.12 Meadow grassland is not cut or grazed 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 strimmer or tractor mower to c 50mm. Leave the 'hay' to dry and shed seed for 1-7 days then remove from site.

3.7.13 Mow or graze the re-growth through to late autumn/winter to c 50mm and again in spring if needed."

Ref: EM3 Special General Purpose Meadow Mixture - Emorsgate Seeds

3.7.14 Attenuation basin will be seeded with a suitable mix such as Emorsgate Seeds **'Meadow Mixture for Wetlands EM8',** or similar and approved, based on the landscape plans L100-200-300-301 produced by Tir Collective. This mixture contains species suitable for seasonally wet soils and is based on the vegetation of traditional floodplain and water meadows. Soils in wet meadows may flood for short periods in winter, but are usually well drained in summer.

3.7.15 **Ground Preparation**: "Endeavour to select ground that is not highly fertile and does not have a problem with perennial weeds. Good preparation is essential to success so aim to control weeds and produce a good quality seed bed before sowing.

To prepare a seed bed first remove weeds using repeated cultivation. Then plough or dig to bury the surface vegetation, harrow or rake to produce a medium tilth, and roll, or tread, to produce a firm surface."

3.7.16 **Sowing:** "Sowings on ground prone to winter flooding are safest either in the early autumn or in spring once the land has drained. Most plants need time to grow mature enough to withstand flooding.

3.7.17 The seed must be surface sown and can be applied by machine or broadcast by hand. To get an even distribution and avoid running out, divide the seed into two or more parts and sow in overlapping sections. Do not incorporate or cover the seed but firm in with a roll, or by treading, to give good soil/seed contact."

3.7.18 **First Year Management:** "Most of the sown meadow species are perennial and are slow to establish. Soon after sowing there will be a flush of annual weeds, arising from the soil seed bank. These weeds can look unsightly, but they will offer shelter to the sown seedlings, are great for bugs, and they will die before the year is out. So resist cutting the annual weeds until mid to late summer, especially if the mixture contains Yellow Rattle, or has been sown with a nurse of cornfield annuals. Then cut, remove and compost the cuttings. This will reveal the young meadow, which can then be kept short by grazing or mowing through to the end of March of the following year. Dig out any residual perennial weeds such as docks."

3.7.19 **Management Once Established:** "In the second and subsequent years EM8 sowings can be managed in a number of ways which, in association with soil fertility, will determine the character of the grassland. The best results are usually obtained by traditional meadow management based around a main summer hay cut in combination with autumn and possibly spring mowing or grazing.

3.7.20 Meadow grassland is not cut or grazed from spring through to 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, strimmer or tractor mower to c 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." Ref: EM8 Meadow Mixture for Wetlands - Emorsgate Seeds

3.7.21 Amenity grass areas will be seeded with a suitable seed mix such as Germinal **'All Purpose Landscaping A19'**, or similar and approved, based on the landscape plans L100-200-300-301 produced by Tir Collective. Ref: https://germinalamenity.com/a19-all-purpose-landscaping

3.7.22 Amenity grass areas are to be kept short, with the following undertaken:

- Mow grass, with cut height of 25mm and remove cuttings (Ten summer cuts on a three-week rotation and one winter cut).
- Edge hard surfaces.
- Clearing of overspill onto paths after cutting.
- Apply spring fertiliser.
- Apply herbicide as necessary.

- Ensure successful establishment of grass sward and regularly water during extended periods of dry weather.
- Control undesirable plant growth within sward if necessary, such as dandelion, dock, thistle, nettles and ragwort by hand excavation or pulling.
- In winter/spring, inspect for areas of poor drainage and/or compaction and instigate remedial action

4.0 Maintenance

4.1 General

4.1.1 This LMP includes the following appendices that provide further details on the maintenance of the proposals and timeframes.

- Appendix 1: Annual maintenance programme
- Appendix 2: Detailed maintenance schedules
- Appendix 3: Pruning techniques
- Appendix 4: Typical maintenance clauses: NBS Q35

4.1.2 The use of pesticides and herbicides should be minimised in the interests of biodiversity and best practice. Where possible, weeds should be removed by hand. Pests should only be treated when they are affecting the establishment/ health of thriving plants.

4.1.3 The client should be notified if any invasive plant species are discovered onsite. Invasive species should be eradicated by the most suitable and efficient means possible and must avoid contaminating the wider site.

4.1.4 Maintenance operations must avoid the disturbance of wild birds and animals. The maintenance operative should be aware of statutory obligations, including the protection of nesting birds.

4.2 Tree/ plant replacements

4.2.1 Should any trees or plants die within the first year, become seriously damaged or diseased or are removed, they are to be replaced in the following planting season as detailed in the landscape proposals and schedules.

4.2.2 Following the first growing season and up to five years following planting, should any trees fail to establish, die, become seriously damaged or diseased or are removed, they are to be replaced in the following planting season as detailed in the landscape proposals and schedules.

4.2.3 Following the first growing season and up to five years following planting, should any plants fail to establish, die, become seriously damaged or diseased or are removed, they are to be replaced in the following planting season, if appropriate, with others of a similar size and species to those detailed in the landscape proposals and schedules to ensure there are no gaps in the planting beds.

Appendix 1 - Annual Maintenance Programme

The following annual maintenance programme is suggested to ensure the maintenance work is carried out at the most beneficial time. The requirement for the individual maintenance operations will be informed by ongoing monitoring with amendments made agreed with the steering group.

For all seasons, the following will need to be undertaken:

- Inspections, including checking tree stability and underground guying systems, or stakes and ties where used, particularly after strong winds.
- Watering - water when necessary and through periods of drought to ensure the planting / grass areas continue to thrive.
- Pest and disease control.
- Litter removal.

Table 1 Annual Maintenance Programme

Action	Tree planting	Native shrubs planting	Shrub planting	Herbaceous planting	Amenity grass	Species rich grass
January Inspections, including checking tree stability and underground guying systems, or stakes and ties where used, particularly after strong winds,	x	x				
Watering	x	x	x	x	x	x
Pest and disease control	x	x	x	x		
Litter removal	x	x	x	x	x	x
Remedial actions						
February Weed control	x	x	x	x	x	x
Grass cutting (and removal of cuttings)					x	
March Fork over planting beds (aeration)	x	x	x			
Prune trees, native shrub planting and shrubs as necessary, subject to nesting bird checks where required.	x	Prune as necessary.	x			
Grass cutting					x	
Reseed						

Action	Tree planting	Native shrubs planting	Shrub planting	Herbaceous planting	Amenity grass	Species rich grass
First-year species-rich grass: continue mowing as necessary to maintain a short sward until the end of March, following the initial late-summer cut. Remove arisings.						x
April Apply fertiliser (first year only)	x		x		x	
Weed control	x	x	x	x	x	
Trim edges					x	x
Review and top up bark mulch			x			
May Weed control	x	x	x	x	x	x
Grass cutting (remove cuttings from site)					x	
Trim edges					x	x
June Grass cutting (remove cuttings from site)					x	
Trim edges					x	x
July Weed control	x	x	x	x	x	
Grass cutting (remove cuttings from site)					x	
Trim edges					x	x
August Grass cutting (remove cuttings from site)					x	
Cutting of Species-rich grass: **first year management** – cut to 50mm height to remove the annual weeds. Remove from site. Undertake first cut in August, then keep short until the end of March for the first year.						x
Hay cut of species-rich grass: **second and subsequent years**, to 50mm high. Leave the 'hay' to dry and shed seed for 1-7 days then remove from site.						x
Trim edges					x	x
September Weed control	x	x	x	x	x	
Lightly fork over planting beds (aeration)	x	x				
Grass cutting					x	
Trim edges					x	x
October Grass cutting (and removal of cuttings)					x	
Trim edges					x	
First-year species-rich grass: undertake additional mowing to approximately 50mm as necessary following the initial August cut. Remove arisings.						x
Mowing of species-rich grass: **second and subsequent years**, to 50mm high.						x
Divide or cut herbaceous plants				x		

Appendix 2 - Detailed Maintenance Schedules

Tree planting

Action	Details	Timing	Standard
Watering	Water to establish trees and thereafter during periods of drought. Water should be applied slowly to avoid soil erosion.	When necessary	As a general guide to provide an adequate soaking of dry soil, the following are minimum quantities required: • 1.5 - 2.0m high: 10 litres • 3.0 - 5.0m high: 20 litres • 6.0 – 8.0m high: 40 litres • 9.0 – 10.0m high: 100 litres Refer to **Appendix 4**: Q35/ 110; 155; 160
Weed control	**Hand weed** to remove all weeds and their roots around the trees (within the planting beds) using a hoe, trowel or fork. **Apply a herbicide** to kill re-growth when required	February; April; May; July	Refer to **Appendix 4**: Q35/ 645; 650; 657
Fertilizer	Applications of fertilizer to be carried out early in the growing season in first year (further application to be advised by monitoring)	April	Ensure correct fertilizer application. Refer to **Appendix 4**: Q35/ 695
Tree stakes/ties	Trees shall be supported using underground guying systems as specified. Where stakes and ties are used as an alternative, they shall be maintained until the tree is sufficiently established to remain stable without support.	-	Inspect tree stability and the condition of accessible support components, particularly following strong winds. Where stakes and ties are used, inspect and adjust ties to accommodate stem growth and prevent chafing. Refer to **Appendix 4**: Q35/ 510
Pruning	At the appropriate season for the species, pruning to be carried out to remove all damaged diseased or dead wood	When required	Refer to **Appendix 4**: Q35/ 540 - 580
Pest and disease control	To be carried out if necessary and in accordance with best practice	When required	To eradicate all pests and disease to a high standard
Litter removal	Collect and remove all extraneous rubbish	January	Refer to **Appendix 4**: Q35/ 190

Native hedgerow and native shrub planting

Action	Details	Timing	Standard
Watering	Water to establish hedgerows, coppice and native planting and thereafter during periods of drought. Water should be applied slowly to avoid soil erosion.	When necessary	Water is to soak into the ground, it is not sufficient to dampen the surface. Water must be applied slowly to avoid damage to plants. Refer to **Appendix 4**: Q35/ 110; 155; 160
Weed control	**Hand weed** to remove all weeds and their roots around the trees (within the planting beds) using a hoe, trowel or fork. **Apply herbicide** to kill re-growth when required	February; April; May; July	Refer to **Appendix 4**: Q35/ 645; 650; 657
Fertilizer	Applications of fertilizer to be carried out early in the growing season in first year (further application to be advised by monitoring)	April	Ensure correct fertilizer application. Refer to **Appendix 4**: Q35/ 695
Pruning	At the appropriate season for the species, pruning to be carried out to remove all damaged diseased or dead wood	When required Where pruning occurs in bird breeding season (Mar – Sept), works must avoid impacting nests	Refer to **Appendix 4**: Q35/ 540 - 580
Pest and disease control	To be carried out if necessary and in accordance with best practice	When required	To eradicate all pests and disease to a high standard
Litter removal	Collect and remove all extraneous rubbish	January	Refer to **Appendix 4**: Q35/ 190

Ornamental shrubs, hedges, herbaceous and planting

Action	Details	Timing	Standard
Watering	Watering shall be carried out to maintain vigorous plant growth	When necessary	Water is to soak into the ground, it is not sufficient to dampen the surface. Water must be applied slowly to avoid damage to plants. Refer to **Appendix 4**: Q35/ 110; 155; 160
Weed control	**Hand weed** a minimum of 4 times per year. **Apply a herbicide** to kill re-growth when required	February; April; May; July	Refer to **Appendix 4**: Q35/ 645; 650; 657; 670
Lightly aerate compacted ornamental planting beds where necessary, avoiding disturbance to plant roots.	Prick up trodden or compacted soil surfaces to aerate the soil without damaging the plants.	March/September	Refer to **Appendix 4**: Q35/680

Action	Details	Timing	Standard
Fertilizer	Applications of fertilizer to be carried out to shrubs early in the growing season in first year (further application to be advised by monitoring). No fertilizer application to bulbs	April	Ensure correct fertilizer application. Refer to **Appendix 4**: Q35/695
Pest and disease control	to be carried out if necessary and in accordance with best practice	When required	To eradicate all pests and disease to a high standard
Pruning	At the appropriate season for the species, pruning to be carried out to remove all damaged diseased or dead wood.	February - October	**Shrubs**: Prune to ensure the plant is kept well balanced and in good shape. Refer to **Appendix 4**: Q35/ 540 - 580
Litter removal	Collect and remove all extraneous rubbish	January	Refer to **Appendix 4**: Q35/ 190

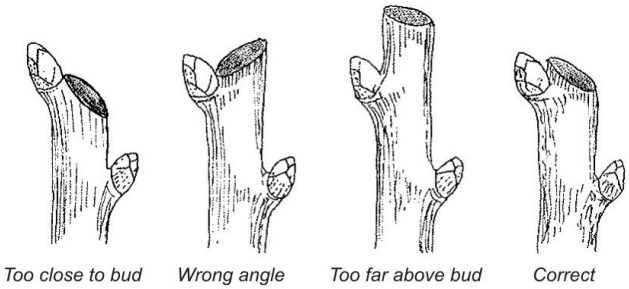
Species-rich grass mixes and wildflower

Action	Details	Timing	Standard
Watering	-	When necessary	Refer to **Appendix 4**: Q35/ 110; 155; 160
Mowing	Undertake a principal hay cut to approximately 50mm in July/August, following flowering and seed setting. Leave arisings for 1–7 days to shed seed before removal. Additional autumn or early spring mowing may be undertaken as required.	July/August, with additional cutting as required.	Refer to **Appendix 4**: Q35/ 170; 220; 225; 235; 240; 265
Weed control	Remove undesirable perennial weeds selectively by hand or other appropriate targeted methods. Avoid routine herbicide application to species-rich grass areas.	February; April; May; July	
Fertilizer	Do not routinely apply fertiliser to species-rich grass areas.	N/A	
Pest and disease control	to be carried out if necessary and in accordance with best practice	When required	To eradicate all pests and disease to a high standard
General	If surface is disturbed by over use, restore by firming or lifting with a fork	When required	-
Litter removal	Collect and remove all extraneous rubbish	January	Refer to **Appendix 4**: Q35/ 190

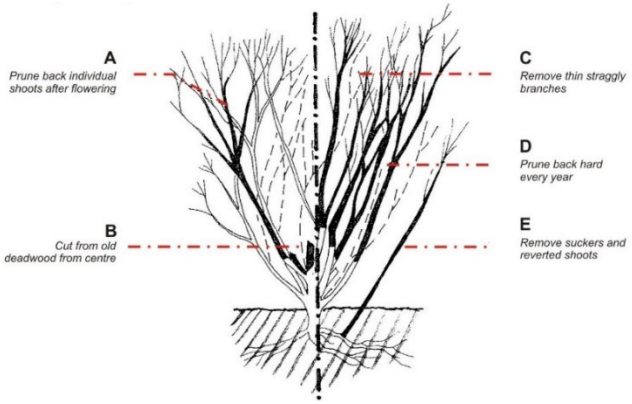
Appendix 3 - Pruning Techniques

- All pruning cuts shall be made in accordance with BS 3998:2010 for tree works, and appropriate horticultural practice for shrubs.
- Pruning shall be undertaken to promote flowering and fruiting in accordance with the species and age of the plant;
- Stems shall only be removed to retain the natural appearance of the individual plant species;
- All damage, diseased or deadwood material shall be removed from trees/shrubs;
- Any crossing or rubbing branches are to be removed from trees/shrubs;
- Plants may be permitted to overlap hard areas e.g. paving. If growth restricts the use of the paving, it will be necessary to trim by shortening long growths NOT by cutting indiscriminately along the edge; and
- Ground cover plants should not overhang grass areas because of the difficulty in keeping edges trimmed, prune back encroaching.

Pruning cuts



Pruning techniques



Taken from Landscape Management & Maintenance Handbook, Jones, Hing P (1990)

Appendix 4 - NBS Q35

Q35 Landscape maintenance

To be read with Preliminaries/ General conditions.

GENERALLY

110 NOTICE
- Give notice before:
  - Application of herbicide.
  - Application of fertilizer.
  - Watering.
  - Each site maintenance visit.
- Period of notice: 2 days.

130 REINSTATEMENT
- Damage or disturbance to soil structure, planting, grass, fencing, hard landscaping, structures or buildings: Reinstate to original condition.

155 WATERING
- Supply: Potable mains water.
- Quantity: Wet full depth of topsoil .
- Application: Do not damage or loosen plants.
- Compacted soil: Loosen or scoop out, to direct water to rootzone.
- Frequency: As necessary for the continued thriving of all planting.

160 WATER RESTRICTIONS
- General: If water supply is, or is likely to be, restricted by emergency legislation, submit proposals for an alternative suitable source of water. Obtain instructions before proceeding.

170 DISPOSAL OF ARISINGS
- General: Unless specified otherwise, dispose of arisings as follows:
  - Biodegradable arisings: Remove to recycling facility.
  - Grass cuttings: Remove to recycling facility.
  - Tree roots and stumps: Remove from site.
  - Shrub and tree prunings: Remove to recycling facility.
  - Litter and nonbiodegradable arisings: Remove from site.

180 CHIPPING OR SHREDDING
- General: Not permitted on site.

190 LITTER
- Extraneous rubbish not arising from the contract work: Collect and remove from site.

195 PROTECTION OF EXISTING GRASS
- General: Protect areas affected by maintenance operations using boards/tarpaulins. Do not place excavated or imported materials directly on grass.

197 CLEANLINESS
- Soil and arisings: Remove from hard surfaces.
- General: Leave the works in a clean, tidy condition at completion and after any maintenance operations.

GRASSED AREAS

210 MAINTENANCE OF GRASSED AREAS
- General: Maintain turf in a manner appropriate to the intended use.
- Soil and grass:
  - Condition: Maintain a healthy vigorous sward, free from disease, fungal growth, discolouration, scorch or wilt.
  - Waterlogging and compaction: Prevent.
  - Damage: Repair trampling, abrasion or scalping.
- Ornamental lawns: Maintain reasonably free from moss, excessive thatch, weeds, frost heave, worm casts and mole hills.
  - Edges: Neat and well defined, in clean straight lines or smooth flowing curves.
- Litter and fallen leaves: Remove regularly to maintain a neat appearance.

220 GRASS CUTTING GENERALLY
- Before mowing: Remove litter, rubbish and debris.
- Finish: Neat and even, without surface rutting, compaction or damage to grass.
- Edges: Leave neat and well defined. Neatly trim around obstructions.
- Adjoining hard areas: Sweep clear and remove arisings.
- Drought or wet conditions: Obtain instructions.

225 TREE STEMS
- Precautions: Do not use mowing machinery closer than 100 mm to tree stems. Use nylon filament rotary cutters and other hand held mechanical tools carefully to avoid damage to bark.

250 LEAF REMOVAL
- Operations: Collect fallen leaves.
- Special requirements: None.
- Disposal: Remove from site for recycling.

265 MOWING GENERAL AREAS
- Grass height: Maintain between 25 and 50 mm.
- Arisings: Spread evenly over cut areas.

290 ROLLING
- Location: All lawns.
- Timing: After all risk of frost heave.
- Roller: Contractor's choice.
- Operations: Consolidate turf and reduce frost heave.

300A SCARIFYING
- Location: Planting beds, paths, manhole covers and the like.
- Timing: Contractor's choice.
- Operations: draw back soil and reform edges to clean straight lines of smooth flowing curves, sloping slightly back from vertical.
- Arisings: Remove.

309 EDGES TO SEEDED AREAS
- Location: Planting beds and around newly planted trees.
- Timing: After seeded areas are well established.
- Edges: Cut to clean straight lines or smooth curves. Draw back soil to permit edging.
- Arisings: Remove.

310 RE-FORMING GRASS EDGES
- Location: Planting bed edges and Service access cover edges.
- Edges: Draw back soil and re-form edges to clean straight lines or smooth flowing curves, sloping slightly back from vertical.

320 LEVELLING HOLLOWS AND BUMPS IN TURF
- Standard: To BS 7370-3, clauses 12.4 and 12.5.

325 RELIEVING SURFACE COMPACTION IN TURF
- Standard: To BS 7370-3.
- Method: Concractors choice.
- Top dressing: Not required.
  - Depth: n/a.

330 SELECTIVE HERBICIDE
- Location: as directed.
- Herbicide: Contractors choice.
- Areas not to be sprayed: Wildflower areas.

345 CONTROL OF JAPANESE KNOTWEED
- Operations: Spot treat in June and September during suitable weather conditions and when plants are growing vigorously.
- Herbicide: Contractor's choice.
- Application: Contractor's choice.
- Arisings: Remove to an appropriately licenced facility.

SHRUBS/TREES/HEDGES

500 ESTABLISHMENT OF NEW PLANTING
- Duration: 24 months from the date of practical completion.
- Weed control:
  - Method: Keep planting beds clear of weeds by contractor's choice of method, subject to approval by LA.
  - Area: Maintain a weed free area around each tree and shrub, minimum diameter the larger of 1 m or the surface of the original planting pit.
- Soil condition: Fork over beds to keep soil loose, with gentle cambers and no hollows. Do not reduce depth or effect of mulch.
- Watering: When instructed.

502 ESTABLISHMENT OF NEW PLANTING - FERTILIZER
- Time of year: March or April.
- Type: To be approved by LA.
- Spreading: Spread evenly. Carefully lift and replace any mulch materials.
  - Application rate: To be approved by LA.

510 TREE STAKES AND TIES

- Inspection/ Maintenance times: As per the contract.
- Stakes:
  - Replace loose, broken or decayed stakes to original specification.
  - If longer than half of clear tree stem height, cut to this height in spring. Retie to tree firmly but not tightly with a single tie.
- Ties: Adjust, refix or replace loose or defective ties, allowing for growth and to prevent chafing.
  - Where chafing has occurred, reposition or replace ties to prevent further chafing.
- Removal of stakes and ties: During spring when no longer required to support the tree.
  - Fill stake holes with lightly compacted soil.

520 REFIRMING OF TREES AND SHRUBS

- Timing: After strong winds, frost heave and other disturbances.
- Refirming: Tread around the base until firmly bedded.
- Collars in soil at base of tree stems, created by tree movement: Break up by fork, avoiding damage to roots. Backfill with topsoil and refirm.

540 PRUNING GENERALLY

- Pruning: In accordance with good horticultural and arboricultural practice.
  - Removing branches: Do not damage or tear the stem or bark.
  - Wounds: Keep as small as possible and cut cleanly back to sound wood.
  - Cutting: Make cuts above and sloping away from an outward facing healthy bud, angled so that water will not collect on cut area.
  - Larger branches: Prune neither flush nor leaving a stub, but using the branch bark ridge or branch collar as a pruning guide.
- Appearance: Thin, trim and shape each specimen appropriately to species, location, season, and stage of growth, leaving a well balanced natural appearance.
- Tools: Use clean sharp secateurs, hand saws or other approved tools. Trim off ragged edges of bark or wood with a sharp knife.
- Disease or infection: Give notice if detected.
- Growth retardants, fungicide or pruning sealant: Do not use unless instructed.

545 PRUNING OF EXCESSIVE OVERHANG

- Timing: As instructed.
- Operations: Remove growth encroaching onto grassed areas, paths, roads, signs, sightlines and road lighting luminaires.
- Special requirements: Allow ground cover plants to partially overlap paths and lawns.

550 PRUNING OF EXCESSIVE HEIGHT

- Timing: As instructed.
  Operations: Remove excessive height As instructed.

555 PRUNING TREES AND SHRUBS

- Standard: To BS 7370-4.
- Special requirements: None.

570 FORMATIVE PRUNING OF YOUNG TREES

- Standard: Type and timing of pruning operations to suit the plant species.
- Time of year: Do not prune during the late winter/ early spring sap flow period.
- Young trees up to 4 m high:
  - Crown prune by removing dead branches and reducing selected side branches by one third to preserve a well balanced head and ensure the development of a single strong leader.
  - Remove duplicated branches and potentially weak or tight forks. In each case cut back to live wood.
- Whips or feathered trees: Do not prune.
- Operatives: Member of the Arboricultural Association.

575 PRUNING ORNAMENTAL SHRUBS

- General: Prune to encourage healthy and bushy growth and desirable ornamental features, e.g. flowers, fruit, autumn colour, stem colour.
- Suckers: Remove by cutting back level with the source stem or root.

580 PRUNING FLOWERING SPECIES OF SHRUBS AND ROSES

- Time of year:
  - Winter flowering shrubs: Spring.
  - Shrubs flowering between March and July: Immediately after the flowering period.
  - Shrubs flowering between July and October: Back to old wood in winter.
  - Rose bushes: Early spring to encourage basal growths and a balanced, compact habit.

620 REMOVAL OF DEAD PLANT MATERIAL

- Operations: At the end of the growing season, check all shrubs and remove all dead foliage, dead wood, and broken or damaged branches and stems.

630 DEAD AND DISEASED PLANTS

- Removal: Within one week of notification.
- Replacement: In the next scheduled round of replacement planting.

635 REINSTATEMENT OF SHRUB/ HERBACEOUS AREAS

- Dead and damaged plants: Remove.
- Mulch/ matting materials:
  - Carefully move to one side and dig over the soil, leaving it fit for replanting.
- - Do not disturb roots of adjacent plants.
- Replacement plants:
  - Use pits and plants: To original specification or to match the size of adjacent or nearby plants of the same species, whichever is the greater.
  - Additional requirements: Submit details and cost of plants before ordering.
- Dressing: Slow release fertilizer:
  - Type: Submit proposals.
  - Application rate: 50 g/m².

640 THINNING BY REMOVAL OF SURPLUS PLANTS
- Plants to be thinned: Shrub beds.
- Standard: BS 7370-4.
- Timing: As per the contract.
- Roots:
  - Disturbance to adjacent plants: Minimise.
  - Soil: Refill holes with topsoil to leave an even graded surface.
  - Mulch: Maintain mulch as original specification.
  - Adjacent plants: Make good any minor damage immediately.
- Plants for retention: Select plants with a strong healthy habit.
- Mature planting density: 4 plants per m².

645 WEED CONTROL GENERALLY
- Weed tolerance: At all times, weed cover less than 5% and no weed to exceed 100 mm high.
- Adjacent plants, trees and grass: Do not damage.

650 HAND WEEDING
- General: Remove weeds entirely, including roots.
- Disturbance: Remove the minimum quantity of soil, and disturb plants, bulbs and mulched surfaces as little as possible.
- Completion: Rake area to a neat, clean condition.
- Mulch: Reinstate to original depth.

655 WEED CUTTING BY HAND OR MACHINE
- Undesirable grass, brambles and herbaceous growth: Cut down cleanly to a maximum height of 50 mm.
- Herbicides: Give notice before use.

657 HERBICIDE TO KILL REGROWTH
- Type: Suitable foliar acting herbicide to kill regrowth.
- Timing: Allow recommended period for herbicide to take effect before clearing dead weeds.

665 WEED CONTROL WITH WINTER HERBICIDE
- Type: Suitable residual soil acting herbicide.
- Time of year: Unless otherwise agreed, complete before end of March.
- Timing: Allow recommended period for herbicide to take effect before clearing dead weeds.

670 WEED CONTROL WITH SUMMER HERBICIDE
- Type: Suitable foliar acting herbicide.
- Timing: Allow recommended period for herbicide to take effect before clearing dead weeds.

675 DIGGING OVER
- General: Dig over beds. Do not damage existing plants, bulbs and roots.
  - Depth of dig (minimum): 100 mm.

680 SOIL AERATION
- Compacted soil surfaces:
  - Prick up: To aerate the soil of root areas and break surface crust.
  - Size of lumps: Reduce to crumb and level off.
  - Damage: Do not damage plants and their roots.

685 SOIL LEVEL ADJUSTMENT
- Level of soil/mulch at edges of beds: Reduce to 50 mm below adjacent grass or hard surface.
  - Arisings (if any): Spread evenly over the bed.

690 MAINTENANCE OF LOOSE MULCH
- Thickness (minimum): 50 mm.
  - Top up: As requied.
- Mulch spill on adjacent areas: Remove weeds and rubbish and return to planted area.
- Weeding: Remove weeds growing on or in mulch by hand weeding or herbicide treatment.

695 FERTILIZING ESTABLISHED TREES AND SHRUBS
- Time of year: During April or May.
- Type of fertilizer: Slow release.
- Application: Spread evenly.
  - Rate: As manufacturer's recommendations.

715 WOODLAND THINNING
- Mature planting density: 4 plants per m^2.
- Timing: Thin in stages in accordance with the agreed management plan.

720 COPPICING
- Material to be coppiced Coryllus species.
- Standard: Good forestry practice.
- Cut stems: 200 mm.
  - Finish: Leave sloping upward towards the centre to promote rainwater runoff.
- Brash: Stack around coppice stool to alleviate deer damage.
- Coppiced timber: Stack.

TREE WORK

810 TREE WORK GENERALLY
- Identification: Before starting work agree which trees, shrubs and hedges are to be removed or pruned.
- Protection: As section A34.
- Standards: To BS 3998 and Health & Safety Executive (HSE) 'Forestry and arboriculture safety leaflets'.
- Removing branches: Cut as Arboricultural Association Leaflet 'Mature tree management'. Cut vertical branches similarly, with no more slope on the cut surface than is necessary to shed rainwater.
- Appearance: Leave trees with a well balanced natural appearance.
- Chain saw work: Operatives must hold a Certificate of Competence.
- Tree work: To be carried out by an approved member of the Arboricultural Association.

815 ADDITIONAL WORK
- Defective, diseased, unsafe or weak parts of trees additional to those scheduled for attention: Give notice if detected.

820 PREVENTION OF WOUND BLEEDING
- Standard: To BS 3998, clause 8.

825 PREVENTION OF DISEASE TRANSMISSION
- Standard: To BS 3998, clause 9 and Appendix B.

830 CLEANING OUT AND DEADWOODING

- Remove:
  - Dead, dying, or diseased wood, broken branches and stubs.
  - Fungal growths and fruiting bodies.
  - Rubbish, wind blown or accumulated in branch forks.
  - Wires, clamps, boards and metal objects, if removable without causing further damage and not part of a support structure that is to be retained.
  - Other unwanted objects, e.g. tree houses, swings.
  - Climbing plants as instricted by LA.

835 CUTTING AND PRUNING GENERALLY

- Tools: Appropriate, well maintained and sharp.
- Final pruning cuts:
  - Chainsaws: Do not use on branches of less than 50 mm diameter.
  - Hand saws: Form a smooth cut surface.
  - Anvil type secateurs: Do not use.
- Removing branches: Do not damage or tear the stem.
- Wounds: Keep 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.
- Cutting: Cut at a fork or at the main stem to avoid stumps wherever possible.
  Large branches: Remove only if unavoidable.
  - Remove in small sections and lower to 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 or fungus: Give notice if detected. Do not apply fungicide or sealant unless instructed.

840 CROWN REDUCTION/ SHAPING

- General: Cut back selectively to lateral or sublateral buds or branches to retain flowing branch lines without leaving stumps.
- Operations: As instucted by LA.

845 CROWN LIFTING

- Clearances: Remove branch systems to give clearance.
  - Height: As instructed by LA.
- Removing branches: Remove whole branches back to the stem, or cut lower portions of branches back to lateral or sublateral buds or branches. Do not leave stumps.

850 CROWN THINNING

- Removing branches: Remove inward growing, crossing, rubbing, dead and damaged branches.
- Thinning: Selectively remove secondary and small live branch growth evenly throughout the crown.
  - Quantity: As instructed by LA.
- Cutting: Make no cuts of more than 25 mm diameter.
  - Branches: Cut back to lateral or sublateral buds or branches without leaving stumps.
- Appearance: Leave a uniform and well balanced structure of branches and foliage.

855 CUTTING TREE ROOTS

- Excavating: Use hand tools only.
- Protected area: Do not cut roots within an area which is the larger of:
  - The branch spread of the tree.
  - An area with a radius of half the tree's height, measured from the trunk.
- Outside protected area: Give notice of roots exceeding 50 mm in diameter. Do not cut without approval.
- Cutting:
  - Cutting: Make clean smooth cuts with a hand saw.
  - Wounds: Minimize. Avoid ragged edges.
  - Finishing: Pare cut surfaces smooth with a sharp knife.
- Backfilling:
  - Protection: Cover cut roots with clean sharp sand.
  - Material: Backfill with original topsoil.

860 REMOVING TREES, SHRUBS AND HEDGES

- Standards: To BS 3998, Appendix A and Health & Safety Executive (HSE)/ Arboricultural and Forestry Advisory Group Safety Leaflets.
- Existing services: Check for below and above ground services. Give notice if they may be affected.
- Shrubs and smaller trees: Cut down and grub up roots.
- Tree stumps:
  - Removal: Remove mechanically to a minimum depth of 300 mm below ground level.
  - Removal by winching: Give notice. Do not use other trees as supports or anchors.
- Protection: As section A34.
- Work near retained trees: Where tree canopies overlap and in confined spaces generally, take down trees carefully in small sections to avoid damage to adjacent trees that are to be retained.
- Filling holes:
  - Material: Use as-dug material and/ or imported soil as required.
  - Finishing: Consolidate and grade to marry in with surrounding ground level.

865 BARK DAMAGE

- Wounds:
  - Do not attempt to stop sap bleeding.
  - Bark: Remove ragged edges using a sharp knife.
  - Wood: Remove splintered wood from deep wounds.
  - Size: Keep wounds as small as possible.
- Liquid or flux oozing from apparently healthy bark: Give notice.

870 CAVITIES IN TREES

- Investigation: Remove rubbish and rotten wood. Probe the cavity to find the extent of any decay, and give notice.
- Water filled cavities: Do not drain.
- Sound wood inside cavities: Do not remove.
- Cavity openings: Do not cover.

HARD LANDSCAPE AREAS/FENCING

910 HARD SURFACES AND GRAVEL AREAS

- Herbicide: Apply a suitable foliar acting or residual herbicide. Allow recommended period for herbicide to take effect before clearing arisings.
- Hard surfaces: Remove litter, leaves and other debris.
- Surface gutters and channels: Remove mud, silt and debris.
- Drainage gullies: Empty traps and flush clean.
- Gravel areas: Rake over. Remove weeds, litter, leaves and debris, and level off.
- Repairs to flexible bituminous pavings: In accordance with the original paving specification or BS 7370-2, clause 4.12.
- Stain removal: In accordance with BS 7370-2, table 4.

920 FENCING

- Fences: Inspect and repair to maintain protection against stock.

930 GRAFFITI REMOVAL

- Method: As instructed.
- Subsequent treatment: As instructed.
  - Finish: As instructed.

Appendix 5 - Drawings

- TC26390 L100 Landscape Strategy
- TC26390 L200 Planting Plan
- TC26390 L300 Specification
- TC26390 L301 Grass Specification



OBSIDIAN

tir

Nantgaredig, Carmarthen

Landscape Strategy L100

Key

Site boundary

Existing features

Trees to be retained. Root Protection Area shown as orange line

Trees to be removed

Proposed Soft Landscape

Trees

Ornamental planting

Native planting

Ornamental hedge

Specimen shrubs

Species-rich grass

Amenity grass

Proposed drainage

Rain garden with SuDS planting

Attenuation basin with SuDS appropriate specimen shrubs and species rich grass seeding

Attenuation tank

0 5 10 15 20 25 50 m

Scale 1:500 @ A1 / 1:1,000 @ A3

North

TC26390 ST3 V1.dwg

09 October 2026

tir collective
LANDSCAPE ARCHITECTS

Floor 7, Brunel House, 2 Fitzalan Road, Cardiff, CF24 0EB
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Trees					
Number	Abbreviation	Species	Height	Girth	Specification
3	Ac ce	Acer campestre 'Elsrijk'	400-450cm	14-16cm	Extra Heavy Standard: 5 brks: 3x: RB: Clear Stem min. 200cm
5	Be pu	Betula pubescens	400-450cm	14-16cm	Extra Heavy Standard: 5 brks: 3x: RB: Clear Stem 175-200cm
11	PcC	Pyrus calleryana 'Chanticleer'	400-450cm	14-16cm	Extra Heavy Standard: 5 brks: 3x: RB: Clear Stem 175-200cm
1	Qu ro	Quercus robur	400-450cm	14-16cm	Extra Heavy Standard: 5 brks: 3x: RB: Clear Stem 175-200cm
10	Sau	Sorbus aucuparia	400-450cm	14-16cm	Extra Heavy Standard: 5 brks: 3x: RB: Clear Stem 175-200cm
3	Ul lo	Ulmus 'Lobel'	400-450cm	14-16cm	Extra Heavy Standard: 5 brks: 3x: RB: Clear Stem 175-200cm
Total :33					

Marginal / Aquatics				
Number	Abbreviation	Species	Specification	Density
208	Ips	Iris pseudacorus	Full Pot: C	0.6Ctr

Grasses				
Number	Abbreviation	Species	Specification	Density
131	Ca kf	Calamagrostis x acutiflora 'Karl Foerster'	Full Pot: C	0.7Ctr
198	Ca gr	Carex grayi	Full Pot: C	0.6Ctr

Native Shrub						
Number	Abbreviation	Species	Height	Specification	Density	Percentage Contribution
118	CORAV	Corylus avellana	80-100cm	1+2; Transplant - seed raised; branched; 4 breaks; B	0.6Ctr	20%
176	C mon	Crataegus monogyna	80-100cm	1+2; Transplant - seed raised; B	0.6Ctr	30%
32	I a	Ilex aquifolium	80-100cm	Leader with laterals; RB	0.6Ctr	5%
89	SALCA	Salix caprea	80-100cm	0/1; Cutting; Branched; 2 breaks; B	0.6Ctr	15%
89	SAMNI	Sambucus nigra	80-100cm	1+1; Transplant - seed raised; branched; 3 breaks; B	0.6Ctr	15%
89	V op	Viburnum opulus	80-100cm	1+2; Transplant - seed raised; branched; 3 breaks; B	0.6Ctr	15%
Total :593						

Shrubs and Herbaceous							
Number	Abbreviation	Species	Height	Diameter	Specification	Pot Size	Density
123	Al mo	Alchemilla mollis			Full Pot: C	2L	0.6Ctr
169	Be ca	Berberis candidula	25-30cm		Bushy: 4 brks: C	3L	0.5Ctr
119	Ci co	Cistus x corbariensis	40-60cm		Bushy: 6 brks: C	5-7.5L	0.7Ctr
150	Co al	Cornus alba	60-80cm		Branched: 3 brks: C	3L	0.7Ctr
182	Co sa	Cornus sanguinea	60-80cm		1+1; Transplant - seed raised: Branched: 3 brks: B		0.6Ctr
16	Co av	Corylus avellana	100-125cm		Branched: 5 brks: RB		Counted
144	Eu eg	Euonymus fortunei 'Emerald Gaiety'	20-30cm	20-30cm	Bushy: 7 brks: C	3L	0.6Ctr
103	Fu tt	Fuchsia 'Tom Thumb'	15-20cm		Bushy: 4 brks: C	2L	0.45Ctr
154	Hy aa	Hydrangea arborescens 'Annabelle'	40-60cm		Branched: 5 brks: C	5L	0.7Ctr
187	Hy hi	Hypericum 'Hidcote'	30-40cm		Bushy: 7 brks: C	5L	0.7Ctr
1153	Ln	Laurus nobilis	80-100cm		Leader with laterals	10L	0.25Ctr Double Staggered at 0.3m offset
90	La an	Lavandula angustifolia	20-30cm		Bushy: 5 brks: C	5L	0.7Ctr
202	Pe bs	Perovskia 'Blue Spire'	20-30cm		Bushy: 3 brks: C	2L	0.5Ctr
175	Po fa	Potentilla fruticosa 'Abbotswood'		30-40cm	Bushy: 5 brks: C	5-7.5L	0.7Ctr
176	Ro mu	Rosmarinus officinalis 'Miss Jessopp's Upright'	30-40cm		Bushy: 5 brks: C	5L	0.7Ctr
15	Sa re	Salix repens	40-60cm		0/1: Cutting: Branched: 3 brks: B		Counted
94	Sa co	Sarcococca confusa	30-40cm		Bushy: 6 brks: C	5L	0.6Ctr
135	Sp jf	Spiraea japonica 'Firelight'	30-40cm		Bushy: 7 brks: C	5-7.5L	0.7Ctr
17	Vi bd	Viburnum x bodnantense 'Dawn'	100-125cm		Branched: 4 brks: RB		Counted

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Nantgaredig, Carmarthen

Planting Plan L200

Key

Site boundary

Existing features

- Trees to be retained. Root Protection Area shown as orange line
- Trees to be removed

Proposed Soft Landscape

- Trees
- Ornamental planting
- Native planting
- Ornamental hedge
- Specimen shrubs
- Species-rich grass
- Amenity grass

Proposed drainage

- Rain garden with SuDS planting
- Attenuation basin with SuDS appropriate specimen shrubs and species rich grass seeding
- Attenuation tank

0 5 10 15 20 25 m

Scale 1:250 @ A1 / 1:500 @ A3

North

TC26390 ST3 V1.dwg

09 October 2026

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Trees

Number	Abbreviation	Species	Height	Girth	Specification
3	Ac ce	Acer campestre 'Elsrijk'	400-450cm	14-16cm	Extra Heavy Standard: 5 brks: 3x: RB: Clear Stem min. 200cm
5	Be pu	Betula pubescens	400-450cm	14-16cm	Extra Heavy Standard: 5 brks: 3x: RB: Clear Stem 175-200cm
11	PcC	Pyrus calleryana 'Chanticleer'	400-450cm	14-16cm	Extra Heavy Standard: 5 brks: 3x: RB: Clear Stem 175-200cm
1	Qu ro	Quercus robur	400-450cm	14-16cm	Extra Heavy Standard: 5 brks: 3x: RB: Clear Stem 175-200cm
10	Sau	Sorbus aucuparia	400-450cm	14-16cm	Extra Heavy Standard: 5 brks: 3x: RB: Clear Stem 175-200cm
3	Ul lo	Ulmus 'Lobel'	400-450cm	14-16cm	Extra Heavy Standard: 5 brks: 3x: RB: Clear Stem 175-200cm

Total :33

Marginal / Aquatics

Number	Abbreviation	Species	Specification	Density
208	Ips	Iris pseudacorus	Full Pot: C	0.6Ctr

Grasses

Number	Abbreviation	Species	Specification	Density
131	Ca kf	Calamagrostis x acutiflora 'Karl Foerster'	Full Pot: C	0.7Ctr
198	Ca gr	Carex grayi	Full Pot: C	0.6Ctr

Native Shrub

Number	Abbreviation	Species	Height	Specification	Density	Percentage Contribution
118	CORAV	Corylus avellana	80-100cm	1+2; Transplant - seed raised; branched; 4 breaks; B	0.6Ctr	20%
176	C mon	Crataegus monogyna	80-100cm	1+2; Transplant - seed raised; B	0.6Ctr	30%
32	I a	Ilex aquifolium	80-100cm	Leader with laterals; RB	0.6Ctr	5%
89	SALCA	Salix caprea	80-100cm	0/1; Cutting; Branched; 2 breaks; B	0.6Ctr	15%
89	SAMNI	Sambucus nigra	80-100cm	1+1; Transplant - seed raised; branched; 3 breaks; B	0.6Ctr	15%
89	V op	Viburnum opulus	80-100cm	1+2; Transplant - seed raised; branched; 3 breaks; B	0.6Ctr	15%

Total :593

Shrubs and Herbaceous

Number	Abbreviation	Species	Height	Diameter	Specification	Pot Size	Density
123	Al mo	Alchemilla mollis			Full Pot: C	2L	0.6Ctr
169	Be ca	Berberis candidula	25-30cm		Bushy: 4 brks: C	3L	0.5Ctr
119	Ci co	Cistus x corbariensis	40-60cm		Bushy: 6 brks: C	5-7.5L	0.7Ctr
150	Co al	Cornus alba	60-80cm		Branched: 3 brks: C	3L	0.7Ctr
182	Co sa	Cornus sanguinea	60-80cm		1+1; Transplant - seed raised: Branched: 3 brks: B		0.6Ctr
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144	Eu eg	Euonymus fortunei 'Emerald Gaiety'	20-30cm	20-30cm	Bushy: 7 brks: C	3L	0.6Ctr
103	Fu tt	Fuchsia 'Tom Thumb'	15-20cm		Bushy: 4 brks: C	2L	0.45Ctr
154	Hy aa	Hydrangea arborescens 'Annabelle'	40-60cm		Branched: 5 brks: C	5L	0.7Ctr
187	Hy hi	Hypericum 'Hidcote'	30-40cm		Bushy: 7 brks: C	5L	0.7Ctr
1153	Ln	Laurus nobilis	80-100cm		Leader with laterals	10L	0.25Ctr Double Staggered at 0.3m offset
90	La an	Lavandula angustifolia	20-30cm		Bushy: 5 brks: C	5L	0.7Ctr
202	Pe bs	Perovskia 'Blue Spire'	20-30cm		Bushy: 3 brks: C	2L	0.5Ctr
175	Po fa	Potentilla fruticosa 'Abbotswood'		30-40cm	Bushy: 5 brks: C	5-7.5L	0.7Ctr
176	Ro mu	Rosmarinus officinalis 'Miss Jessopp's Upright'	30-40cm		Bushy: 5 brks: C	5L	0.7Ctr
15	Sa re	Salix repens	40-60cm		0/1: Cutting: Branched: 3 brks: B		Counted
94	Sa co	Sarcococca confusa	30-40cm		Bushy: 6 brks: C	5L	0.6Ctr
135	Sp jf	Spiraea japonica 'Firelight'	30-40cm		Bushy: 7 brks: C	5-7.5L	0.7Ctr
17	Vi bd	Viburnum x bodnantense 'Dawn'	100-125cm		Branched: 4 brks: RB		Counted

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Nantgaredig, Carmarthen

Planting Plan L200

Key

Site boundary

Existing features

Trees to be retained. Root Protection Area shown as orange line

Trees to be removed

Proposed Soft Landscape

Trees

Ornamental planting

Native planting

Ornamental hedge

Specimen shrubs

Species-rich grass

Amenity grass

Proposed drainage

Rain garden with SuDS planting

Attenuation basin with SuDS appropriate specimen shrubs and species rich grass seeding

Attenuation tank

0 5 10 15 20 25 m

Scale 1:250 @ A1 / 1:500 @ A3

North

TC26390 ST3 V1.dwg

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General specification

Ground preparation: Protect retained trees/areas of retained soil where structural landscaping is proposed in accordance with an approved Arboricultural Method Statement and Tree Protection Plan. Tree protection fencing shall be erected as noted within an Arboricultural Method Statement and Tree Protection Plan. The fence is to maintained for the duration of the works. Protection of existing trees against damage to be in accordance with the BS 5837:2012 - Trees in relation to design, demolition and construction - Recommendations. Protective fence to be approved by the LPA. Any excavations shall be in accordance with B.S. 8000 part 1:1989.

Landscape planting areas to have a minimum depth of soil of 500mm and grass areas will have 300mm.
Loosen formation level with single tine ripper, driven 450mm deep at 1m centres, when ground conditions are dry.

Imported Subsoil: Where necessary, supply approved imported subsoil to B.S. 8601:2013 Specification for subsoil and requirements for use - Multipurpose subsoil to make up any deficiency in on-site subsoil.
Spread and level to depth of:
- 200mm for planting areas
- 200mm for grass areas

Imported topsoil: Where necessay, supply approved imported topsoil to B.S. 3882:2015 Specification for topsoil - Multipurpose topsoil to make up for any deficiency in on-site topsoil.
Spread and level to depth of:
- 300mm for planting areas
- 100mm for grass areas

Backfilling: Backfill tree pits with 100/300mm depth subsoil and 400mm topsoil including Melcourt Topgrow peat free planting compost or similar approved at a rate of 0.125m^3/pit.

Backfill shrub pits with topsoil including Melcourt Topgrow peat free planting compost or similar approved at a rate of 1.0m^3/20m^3.

Cultivation: Do not cultivate tree and shrub planting soils, only cultivate prior to planting if the soil is compacted (for example due due site/construction activities). For grass seeding areas, cultivate topsoil to a loose friable tilth suitable for grass seeding. Collect and remove from site all stones, builders' rubble and other deleterious material over 50mm in any dimension.

General Grass Areas;
In general areas and front gardens as shown on L100, supply and spread pre-seeding N:P:K. fertiliser (10:15:10) at a rate of 30g/m^2.
Grass areas to be sown at a rate of 50g/m^2 with a suitable grass seed mix such as Germinal Amenity A19. Initial grass cutting and edge trimming down to 50mm. Sow between March-October at a depth of 10mm. Sowing instructions: Create a fine friable seedbed down to 150 mm in depth. Carry out two equal sowings at right angles to each other and diagonally to main axis. Broadcast manually or use seed drill, rake level and roll. Ensure good seed to soil contact.

Over the attenuation basin, supply and spread pre-seeding N:P:K. fertiliser (10:15:10) at a rate of 30g/m^2.
Grass areas to be sown at a rate of 4g/m^2 with a suitable grass seed mix such as Emorsgate Seeds EM8: Meadow Mixture for Wetlands. Initial grass cutting and edge trimming down to 50mm.

In species rich grass areas as shown on L100, supply and spread pre-seeding N:P:K. fertiliser (10:15:10) at a rate of 30g/m^2.
Grass areas to be sown at a rate of 4g/m^2 with a suitable grass seed mix such as Emorsgate Seeds EM3: Special General Purpose Meadow Mixture. Initial grass cutting and edge trimming down to 50mm.

Planting Areas:
Excavation: Any excavations in order to win soil for re-use as part of landscaping must be undertaken in accordance with BS 3882:2015, BS 8601:2013 and the 2009 DEFRA Construction Code of Practice for the Sustainable Use of Soils on Construction Sites.

Trees: excavate a few centimeters shallower than root-ball and twice its width with sloping, scarified sides. Root-balls of trees shall be set on a 150mm depth of horticultural grade sharp sand. Semi-Mature trees shall be set on a 400-450mm depth of horticultural grade sharp sand. Shrubs: excavate 300 x 300 x 300mm depth.

Plant specifications: Plant specification to be in accordance with the HTA National Plant Specification: 03/02.
Tree planting to be in accordance with BS 8545:2014 - Trees from nursery to independence in the landscape recommendations.

Fertiliser: Supply and plant, incorporating slow release fertiliser N:P:K - 4:19:10 ENMAG or similar approved at the following rates:
- Extra Heavy Standard Trees: 130g / tree pit
- Shrubs: 70g / m^2

Provide and spread evenly over all planting areas an organic graded bark flakes or similar approved bark mulch to a depth of 50mm.

General Notes:
Substitutions, if made, should be similar in size, form and water demand.
Plants shall be arranged to avoid straight lines and geometric patterns.

Maintenance:
All landscape areas to be maintained in accordance with B.S. 7370 Part 3:1991 and Part 4:1993; including weed control, and adjustment to tree stakes and ties.

Soft landscape areas to be maintained in accordance with **B.S. 7370 Part 3:1991** and Part 4:1993. The maintenance of trees should be in accordance with **BS 3998:2010** and **BS 8545:2014.** Maintenance operations to successfully establish plants shall be carried out for the first 5 years after planting.

Maintenance operations for successful plant establishment shall include watering; weed control; fertiliser application; pest and disease control; pruning; and litter picking. Watering for trees should follow an irrigation plan in accordance with BS 8545:2014 and must be in anticipation of drought.

Tree pruning should be in the winter months or summer (July-August).

The replacement of failed trees should occur once reasons for failure have been identified and amendments to the specification are made as necessary. Shrubs which die, are removed or become seriously damaged shall be replaced in the next planting season with others of similar size and species, to be agreed in writing by the Local Planning Authority. For all new landscape areas, the following maintenance programme shall be undertaken:

Inspections:	January - December. Replace dead plants when necessary.
Watering:	When necessary in accordance with an irrigation plan.
Pest and disease control:	January.
Litter removal:	January - December
Weed control:	February - May; July; and September.
Prune:	Winter months or summer.
Fork over planting beds:	March.
Cut grass and trim edges:	March - October.
Apply fertiliser:	April.
Lightly fork over planting beds:	September.
Rake / scarify grass	September.
Mulch:	Mid to late spring.

Watering: Water trees in accordance with an irrigation plan as per BS 8545:2014. Watering shrubs shall be carried out to maintain vigorous plant growth. Water shall soak into the ground; it is not sufficient to dampen the surface. Water must be applied slowly to avoid damage to plants.

Weed control: Hand weed to remove all weeds and their roots using a hoe, trowel or fork. Apply a herbicide to kill re-growth when required.

Fertiliser: pplications of fertiliser to be carried out early in the growing season. Ensure correct fertiliser application. Inspect once a month and after very heavy winds. Adjust ties if necessary to conform to stem growth or to prevent chafing.

Pruning: At the appropriate season for the species, pruning to be carried out to remove all damaged diseased or dead wood. Prune shrubs to ensue the plant is kept well balanced and in good shape. For trees, pruning shall be in accordance with **BS 3998:2010.**

Pest and disease control: To be carried out if necessary and in accordance with best practice.

Litter removal: Collect and remove all extraneous rubbish.

Fork over planting beds: Prick up trodden or compacted soil surfaces to aerate the soil without damaging the plants.

Mulching: Mulching to be topped up annually over the duration of the agreed maintenance period. At the end of the maintenance period, undertake a final mulch. Ensure that the soil is thoroughly moistened prior to remulching, applying water where necessary. Planting beds and trees: re-mulch to a minimum depth of 50 mm.

Mowing: Amenity grass areas shall be managed to a height of 40mm. Species rich grass areas to be mowed as advised by the supplier.

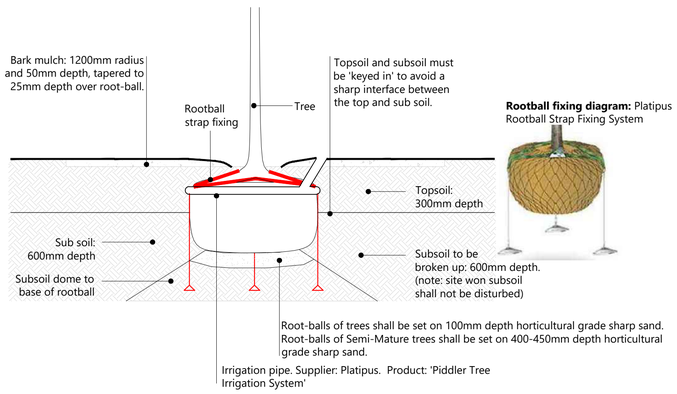
Raking/Scarifying: Relieve thatched conditions and remove dead grass in the autumn over all grassed areas.

Spiking (Aeration): Aerate to increase water, nutrient and oxygen movement into the soil.

General: If grass surface is disturbed by over use, restore by firming or lifting with a fork

Any newly planted trees, plants or hedgerows, which within a period of 5 years from the completion of the development die, are removed, become seriously damaged or diseased, or in the opinion of the Local Planning Authority otherwise defective, shall be replaced. Replacement planting shall take place during the first available planting season

Tree Pit Detail



Rootball fixing diagram: Platipus Rootball Strap Fixing System

Typical tree pit detail showing tree planting in soft landscape Scale 1:20 @ A1

SuDS

Above ground SuDS within the site include Rain Gardens and a Swale. They are designed as shallow depressions with filtration medium to manage the flow of water and to extract pollutants before the water enters the pipe network. The SuDS will be planted with a range of shrubs, grasses, and herbaceous species.

Ornamental grass and herbaceous species shall be implemented during the first planting season after the hard landscape has been constructed to prevent damage to the new vegetation and to avoid compaction of soils. Avoid planting if the ground is waterlogged or if the ground is frozen.

Climatic conditions need to be observed with no planting/maintenance to be carried out in extremes of temperature <3°c or > 24°c (without suitable provision for irrigation). If the water supply is, or is likely to be, restricted by emergency legislation then planting/maintenance should be suspended.

Container grown plants: At any time of the year subject to weather conditions.

Maintenance objectives will include regular planting checks and maintenance to ensure that the planting is establishing, and the SuDS elements are consistent with the original design intentions. This will involve continuous / ongoing routine operations throughout the year, for which a detailed maintenance schedule is to be followed.

Regular maintenance and monitoring inspections of rain gardens should be undertaken to maintain SuDS performance and balance. Management and maintenance commitments would be more intense during the in initial establishment period, 1-2 years after planting. This would involve:

- Watering (as necessary)
- Weed control
- Pest and disease control
- Pruning
- Checking and cleaning of inlets and outlets
- Mulching (not bark mulch), and
- Litter picking.

Filter media

The filter medium should be sufficiently permeable to allow water to pass through it, so that the surface of the retention area does not become waterlogged. It also needs to contain sufficient organic material and plant nutrients to support the proposed vegetation.

Filter media should be correctly specified. Any specification should take into account site specific requirements and constraints. The specification parameters should be clearly stated, so that in the event that a supplier ceases trading the filter material can still be replaced on a like for like basis.

Incorrect specification can cause reduced hydraulic conductivity through over compaction or structural collapse, leading to reduction in treatment capacity and surface ponding, loss of vegetation etc. The filter medium should be correctly installed with an appropriate level of compaction during installation to prevent migration of fine particles.

A filter medium that is placed uncompacted will initially show a very high hydraulic conductivity which will then rapidly decrease. So it is essential that testing of hydraulic conductivity be carried out on the compacted filter medium before installation.

A typical specification for the filter media:

clay and silt (< 0.063 mm) < 5%

fine sand (0.063-0.2 mm) <20%

medium sand (0.2–0.6 mm) 35% to 65%

coarse sand (0.60–2.0 mm) 50% to 60%
fine gravel (2.0-6.0 mm) <10%

The filter medium should be well graded, and the composition should contain limited particle size range.

Organic matter content

Organic matter content should be 3–5% (w/w).

pH

pH should be 5.5-8.5 (1:2.5 soil/water extract).

Electrical conductivity (salinity)

Electrical conductivity (EC) should be < 3300 µS/cm (1:2.5 soil/CaSO4 extract)

Major plant nutrients

Total nitrogen should be 0.10–0.30%

Extractable phosphorus should be 16-100 mg/l

Extractable potassium should be 120-900 mg/l

(Methods of analysis in accordance with BS 3882:2015, unless otherwise stated.)

OBSIDIAN

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Nantgaredig, Carmarthen

Specification L300



Pyrus calleryana 'Chanticleer'



Sorbus aucuparia

TC26390 ST3 V1.dwg

09 October 2026

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Damp grassland areas over attenuation basin such as Emorsgate Seeds EM8: Meadow Mixture for Wetlands



Suggested Sowing Rates
40kg/ha 16kg/acre 4g/m2

Description
EM8 contains species suitable for seasonally wet soils and is based on the vegetation of traditional floodplain and water meadows. Soils in wet meadows may flood for short periods in winter, but are usually well drained in summer.

Ground Preparation
Endeavour to select ground that is not highly fertile and does not have a problem with perennial weeds. Good preparation is essential to success so aim to control weeds and produce a good quality seed bed before sowing.

To prepare a seed bed first remove weeds using repeated cultivation. Then plough or dig to bury the surface vegetation, harrow or rake to produce a medium tilth, and roll, or tread, to produce a firm surface.

Sowing
Sowings on ground prone to winter flooding are safest either in the early autumn or in spring once the land has drained. Most plants need time to grow mature enough to withstand flooding.

The seed must be surface sown and can be applied by machine or broadcast by hand. To get an even distribution and avoid running out, divide the seed into two or more parts and sow in overlapping sections. Do not incorporate or cover the seed but firm in with a roll, or by treading, to give good soil/seed contact.

First Year Management
Most of the sown meadow species are perennial and are slow to establish. Soon after sowing there will be a flush of annual weeds, arising from the soil seed bank. These weeds can look unsightly, but they will offer shelter to the sown seedlings, are great for bugs, and they will die before the year is out. So resist cutting the annual weeds until mid to late summer, especially if the mixture contains Yellow Rattle, or has been sown with a nurse of cornfield annuals. Then cut, remove and compost. Early August is a good time. This will reveal the young meadow, which can then be kept short by grazing or mowing through to the end of March of the following year. Dig out any residual perennial weeds such as docks.

Management Once Established
In the second and subsequent years EM8 sowings can be managed in a number of ways which, in association with soil fertility, will determine the character of the grassland. The best results are usually obtained by traditional meadow management based around a main summer hay cut in combination with autumn and possibly spring mowing or grazing.

Meadow grassland is not cut or grazed 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 strimmer or tractor mower to c 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.

Wetland habitats are characteristically quite variable in composition, reflecting local drainage and management. Conditions can vary, for instance, between the highs and lows in ridge and furrow grassland. Localized differences may require a targeted approach. For example, boggy areas which remain waterlogged for much of the year may be best sown with pond edge mixture EP1.

Composition
EM8 is a complete mix composed of 20% native wild flowers and 80% slow growing grasses (by weight). The flower and grass components are also available to order separately as EM8F for the flower component and EG8 for the grass component.

Ref: https://wildseed.co.uk/product/mixtures/complete-mixtures/meadow-mixtures-for-specific-soils/meadow-mixture-for-wetlands/

Species rich grass such as Emorsgate Seeds EM3: Special General Purpose Meadow Mixture



Suggested Sowing Rates
40kg/ha 16kg/acre 4g/m2

Description
This meadow mixture contains a very wide range of species. It may be used to create a very diverse sward where conditions vary across a site. It is also useful in situations where precise soil and site characteristics have not been established before sowing.

Ground Preparation
Endeavour to select ground that is not highly fertile and does not have a problem with perennial weeds. Good preparation is essential to success so aim to control weeds and produce a good quality seed bed before sowing.

To prepare a seed bed first remove weeds using repeated cultivation. Then plough or dig to bury the surface vegetation, harrow or rake to produce a medium tilth, and roll, or tread, to produce a firm surface.

Sowing
Seed is best sown in the autumn or spring but can be sown at other times of the year if there is sufficient warmth and moisture. The seed must be surface sown and can be applied by machine or broadcast by hand. To get an even distribution and avoid running out divide the seed into two or more parts and sow in overlapping sections. Do not incorporate or cover the seed, but firm in with a roll, or by treading, to give good soil/seed contact.

First Year Management
Most of the sown meadow species are perennial and are slow to establish. Soon after sowing there will be a flush of annual weeds, arising from the soil seed bank. These weeds can look unsightly, but they will offer shelter to the sown seedlings, are great for bugs, and they will die before the year is out. So resist cutting the annual weeds until mid to late summer, especially if the mixture contains Yellow Rattle, or has been sown with a nurse of cornfield annuals. Then cut, remove and compost. Early August is a good time. This will reveal the young meadow, which can then be kept short by grazing or mowing through to the end of March of the following year. Dig out any residual perennial weeds such as docks.

Management Once Established
In the second and subsequent years EM3 sowings can be managed in a number of ways which, in association with soil fertility, will determine the character of the grassland. The best results are usually obtained by traditional meadow management based around a main summer hay cut in combination with autumn and possibly spring mowing or grazing.

Meadow grassland is not cut or grazed 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 strimmer or tractor mower to c 50mm. Leave the 'hay' to dry and shed seed for 1-7 days then remove from site.

Composition
EM3 is a complete mix composed of 20% native wild flowers and 80% slow growing grasses (by weight). The flower and grass components are also available to order separately as EM3F for the flower component and EG1 for the grass component. Please note that the exact composition supplied is provided on the label on the seed packaging.

Ref:
https://wildseed.co.uk/product/mixtures/complete-mixtures/general-purpose-meadow-mixtures/special-general-purpose-meadow-mixture/

Amenity grass such as A19: All Purpose Landscaping



Suggested Sowing Rates
500kg/ha 50g/m2

Sowing Time
March - October

Sowing Depth
10 mm

Sowing Instructions
Create a fine friable seedbed down to 150 mm in depth. Carry out two equal sowings at right angles to each other and diagonally to main axis. Broadcast manually or use seed drill, rake level and roll. Ensure good seed to soil contact.

Cutting Height
Down to 20 mm

Minimum cuts per year
10

Overseeding Rate
20 g/m2 (200 kg/ha)

Fertiliser Recommendation
In the seedbed - Agrosil LR

Once established - GSR Tri-Phase (Spring/Summer)

Novatec Premium (Autumn)

Ref: https://germinalamenity.com/a19-all-purpose-landscaping

OBSIDIAN

Nantgaredig, Carmarthen

Grass Specification L301

TC26390 ST3 V1.dwg

09 October 2026

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