



Landscape Design Rationale

**Residential Development
PHASE 2**

Kilwoghan Woods

**Maynooth Road, Celbridge
Co. Kildare**

Seattle Construction Ltd

PC **ROCHE** + associates
landscape architects and site planners
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INTRODUCTION

The proposed development will provide residential dwellings, a shop and a Creche. Also proposed will be car parking, bicycle, associate site, and development works.

The site is in a mature setting with developed gardens and natural landscapes. The mature gardens are typical of this setting and have a mixed range of trees and shrubs. The trees in the surrounding gardens vary in age from young to mature. Gardens in many of the surrounding residential sites are mature and are generally in a well-maintained condition. The sites boundaries are hedging, fencing and walls in varying stages and conditions of repair.

The landscape design report sets the rationale and objectives achieved in this application. The general site layout is set out to maintain the sylvan character and to provide a soft landscape to the urban edge of the proposed residential development.

- pedestrian and cyclists link to lands beyond the site's boundary
- retain existing trees in good to fair condition and to retain sylvan appearance of the site with planting of selection semi mature trees and shrubs
- planting within the proposed development with herbs and pollinator friendly plants with vegetables and fruit trees
- residents and visitor car parking also bicycle parking
- residential amenities with junior play facilities, multi usage games areas area
- kickabout pitch also exercise courts with patent equipment and instructions on usage
- setting within the planted areas a variety of bird and bat boxes together with hedgehog shelters
- planting with mix of plan types to encourage wildlife habitats and circulation within and through the site

LANDSCAPE DESIGN VISION

Landscape and Environmental Report:

The objective of the landscape proposals is to ensure that the application for phase 2 will not interfere with the range of high-quality approved materials and finishes proposed to complete the landscaping to the residential currently under construction.

The approved landscape proposals reflect the quality of the site's environment, the sites heritage, and the architectural proposals. The proposal of using materials that will integrate the development into the surrounding environment that will be sensitive to nearby properties and any future developments.

The proposals will achieve a landscape that is:

- Attractive and practical and will provide an environment that is encouraging to residents to partake in its development.
- Of high quality, with hard and soft landscape materials that is sensitive to the site's location.
- Using native plant material or plant materials that are adopted and long established in the area and that are suitable in terms of mature size.
- Acknowledging long term maintenance and sustainability.
- Planting that will contribute to wildlife development and movement both within the site and along its edges.
- Provides a permeable network and connectivity to the greater environment for pedestrians and cyclists

DEVELOPMENT STANDARDS

In the preparation of the landscape proposals cognisance is taken of the.

- Kildare County Development Plan
- Hard Landscaping, materials, street furniture, boundaries
- Soft Landscaping,
 - Tree survey
- Existing trees tree survey and tree protection to BS 5837;2012
 - Tree retention/removal plan and tree protection plan
 - Details of retained trees and root protection zone
- Tree works recommendations to BS 3998;2010
- Sustainable Urban Housing; Design Standards for New Apartments
- New trees planting and maintenance to BS 8545; 2014
- Department of the Environment, Community and Local Government 2015
- National Pollinator Plan
- WHO +UN Environmental Programme
- Ready Steady Play, A national Play Policy, National Children's Office
- Biodiversity for Low and Zero Carbon Buildings, Dr Carol Williams
- Sustainable Urban Housing; Design Standards for New Apartments
- A Guide to Landscape Treatments for National Road Schemes in Ireland,
- Biodiversity by Design, Town and Country Planning Association 2004
- Wildlife Act, Ireland, 1976, 2000
- Green City Guidelines, UCD Urban Institute Ireland

LANDSCAPE CHARACTER AND VISUAL IMPACT

The proposed alterations to the approved development will not significantly alter the existing approved open space, areas and street scape, Pathway connections and gradients will be adhering to a maximum 1 in 20, will ensure accessibility for all users, including those with mobility impairments, complying with Part M regulations.

The seating courts, strategically positioned to provide opportunities for social interaction and relaxation. The incorporation of night-time stargazing considerations, through thoughtful lighting design and minimal light pollution, will further enhance the space's appeal.

The proposed planting scheme will dramatically alter the landscape character, transitioning from a potentially underutilised open space to a diverse and ecologically rich environment. Parkland tree planting will create visual structure and shade, while native woodland trees and shrubs will establish a naturalistic backdrop, fostering a sense of place. Ornamental tree planting will add seasonal colour and interest. Native mixed shrub planting will create valuable habitat for wildlife, enhancing biodiversity.

The development of the existing stream on the sites boundary as an amenity will add a dynamic element to the landscape, providing visual and auditory stimulation. The sound of running water and the sight of aquatic life will create a tranquil and engaging environment.

Environmental Impact and Mitigation:

The proposed open space development will have a positive environmental impact, primarily through biodiversity enhancement and increased carbon sequestration. The diverse planting scheme will create habitats for a range of wildlife, including birds, insects, and small mammals.

The creation of wildflower meadows will further enhance biodiversity, providing valuable foraging resources for pollinators. The use of native species will ensure that the planting scheme is well-adapted to the local climate and soil conditions, minimising the need for artificial irrigation and fertilization.

The development of the stream amenity will require careful consideration to avoid negative impacts on water quality and aquatic ecosystems. Measures such as erosion control, bank stabilisation, and the creation of buffer zones will be implemented to protect the stream's ecological integrity.

The construction of the pedestrian pathways and other built elements will require careful management to minimise soil compaction and disturbance. The use of permeable materials and sustainable construction practices will be prioritized.

The planned green link through the residential development will enhance pedestrian and cyclist connectivity, reducing reliance on private vehicles and promoting sustainable transport.

Recreational and Social Benefits:

The proposed green corridor will provide a valuable recreational resource for the local community. The pathway will accommodate pedestrians and cyclists of all ages and abilities. The seating courts, exercise elements, and play areas will cater to a wide range of recreational needs.

The protected junior play area with a safety surface will provide a safe and stimulating environment for young children. The casual natural exercise features for adults and young teens will promote physical activity and well-being.

The green corridor will also serve as a social hub, providing opportunities for community interaction and engagement. The seating courts and open spaces will encourage social gatherings and informal recreation.

Detailed Proposals Incorporated

- **Detailed Ecological Survey:** comprehensive ecological survey to identify existing habitats and species, informing the planting scheme and mitigation measures.
- **Sustainable Drainage System (SuDS):** Incorporate SuDS features, such as rain gardens and permeable paving, to manage stormwater runoff and enhance water quality.
- **Long-Term Management Plan:** long-term management plan will ensure the ongoing maintenance and sustainability of the approved green corridor, including planting maintenance, path upkeep, and habitat management.
- **Lighting Strategy:** sensitive lighting strategy incorporates minimizes light pollution and enhances the night-time experience, focusing on safety and stargazing opportunities



Play area with natural play materials to encourage free play with visual appeal. Seating courts to encourage social interaction.

LANDSCAPE MATERIAL AND PLANT IMAGES

- Grass areas with native wildflower mix with early flowering bulbs
- Planting with semi mature native trees and sensorial shrub plants to open space areas and dwelling gardens
- Planting with smaller growing trees, sensorial shrub's, and hedging to community areas and the eastern site boundary
- Native plants incorporated in planting proposals and in the grass seed mix
- Placing bat boxes within the existing trees and retained panting along by the River Suir edge.
- Bat boxes will also be placed into the mixed planted areas
- Bird boxes will be placed throughout the planted areas with the objective of encouraging a healthy bird population and reinforce the ecological and educational resources for the residents.
- Hedgehog shelters will be placed within the shrub planted areas. The shrub planting to provide natural screening and protection
- Wildlife corridors will develop through the mixed native shrub planting and hedgerows
- The ultimate number of bat and bird boxes along with hedgehog shelters to be agreed with the ecologist
- Minimise existing topsoil movement through detailed setting out and noting retained soil areas

ECOLOGICAL ENHANCEMENTS



- Insect hotel with debris from site construction clearance waste
- Pallet to form hotel base and platforms with various construction clearance waste
- Pond to open space with planting of
 - Native mixed woodland trees and shrubs
 - Meadow grasses mix with native seed types
 - Wildflower mix native seed types
 - Early flowering bulbs planted in scatter pattern



Surface water Pond and swale

Pond formed with compacted clay depth of water to have various depths, 0.1 to 100 mm with rain water to percolate through surface layer at a slow rate to subsoil base.

Swale to retain and to channel surface water run off towards engineered pond with 1 in 6 gradients to edges. This allows easy access across the swale it also allows regular grass cutting maintenance. Swale to have meadow grass mix with native wildflower mixture and early flowering bulbs.

Ecological swale and pond contribution include the layers,
a) pond edge and surface

b) surface layer

c) shallow under water layer

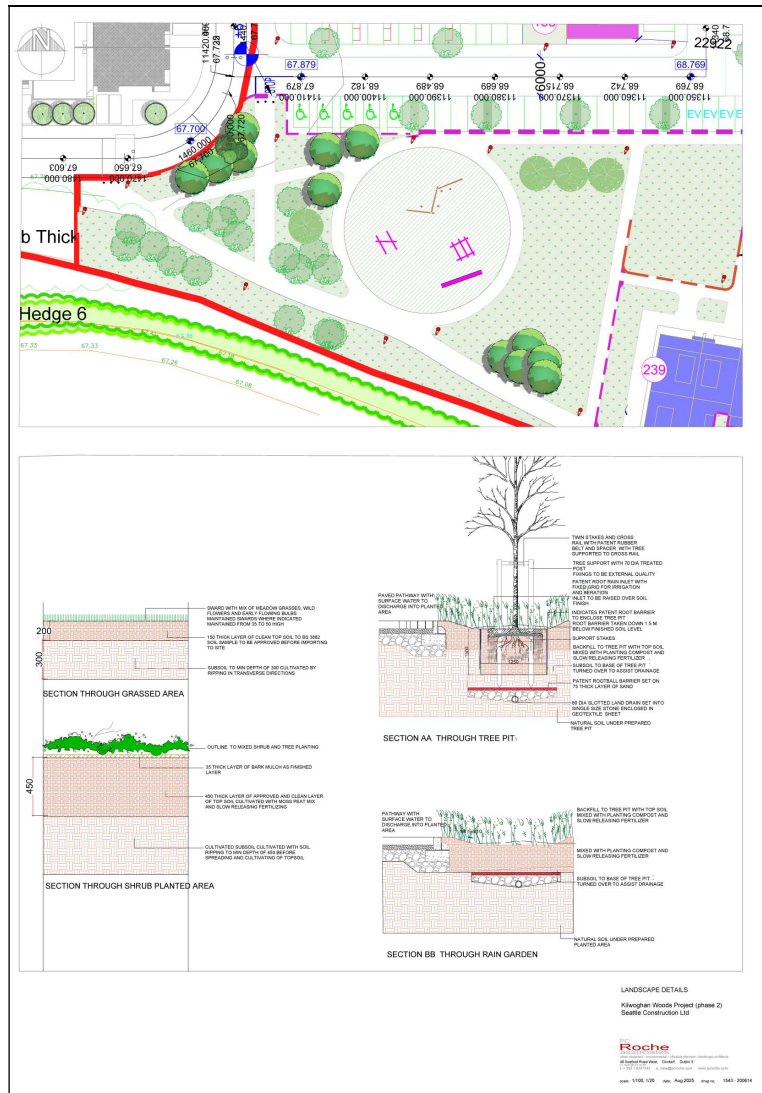
d) deeper under water layer



- Pedestrian and bicycle dominate the entrance surface to encourage slow traffic movement
- Pedestrian and bicycle links to adjoining lands
- Bicycle locking positions throughout the development
- Paved entrance for pedestrians and cyclists with paving slabs
- Led uplighters to highlight main entrance areas to residential zone
- Car parking on porous surface finish
- Grass areas with native wildflower mix with early flowering bulbs
- Planting with semi mature native trees and sensorial shrub plants to open space area
- Planting with smaller growing trees, sensorial shrubs, and hedging
- Placing bird boxes, bat house and bug hotels and hedgehog shelters throughout the site
- Play equipment with natural timber units on appropriate surfaces with seating areas
- Existing trees and hedgerows retained



LANDSCAPE STRATEGY PROPOSAL



LAYOUT TO THEV OPEN SPACE TO THE SOUTH



LAYOUT TO THE APPROVED OPEN SPACE TO THE NORTH



PROPOSED PLANTING LAYOUT

LANDSCAPE SPECIFICATION

GENERAL

1.1 Description of work

The work consists of general works, soil preparation, grass seeding, shrub, shall satisfy the landscape architect that all works have been carried out to

B.S. 4428 General Landscape Operations,
B.S. 3936 Nursery Stock
Part 1 – 1991, Specification for trees and shrubs
Part 4 – 2007, Specification for forest trees, poplars and willows
Part 7 – 1989, Specification for bulbs, corms and tubers
Part 10 – 1990, Specification for ground cover plants
B.S. 3882, Topsoil and the items stated below.
B.S. 3998 Recommendations for tree work

It is always essential that the site is kept clean and tidy and that the planting appears healthy. The landscape contractor should always be prepared to ensure that such conditions are met and should include for this in his rates. An agreed schedule of phased completion and expected handover dates will be finalised after the contract is awarded.

The construction of hard works shall be undertaken with the main construction program. Care is to be taken to avoid unnecessary machinery traffic on completed areas.

Top soiling shall be carried out in areas where the underground service work and hard works elements are completed to avoid disturbance to top soiled areas. Any unnecessary works and disturbance to be reinstated by the contractor at no expenses to the client.

Planting bare root and rootballed stock to take place in the following planting season from completion of loamy topsoil works, namely between November and March. Container grown stock and grass seeding shall be carried out in the appropriate weather conditions following completion of loamy topsoil works.

1.2 Standards of Workmanship and Materials

The landscape contractor should include for this in his rates.

No existing plants shall be removed or damaged other than those specified by the landscaped architect.

1.3 Notice of Intentions and Recording Actions

The landscape contractor shall give 48 hours' notice of his intentions to commence setting out, planting and maintenance visits.

The landscape contractor shall return a weekly record of all site actions.

1.4 Leaving the Site Tidy

The site shall be left in a neat and orderly condition at the end of each day's work.

1.5 Season

Landscape work shall take place in the appropriate season and only when conditions are suitable i.e. it is dull, moist and mild, without undue risk of frost or drying winds.

There shall be no cultivation or planting when the soil is frozen or waterlogged.

If exceptional weather conditions occur after planting eg heavy frost, measures shall be undertaken as approved by landscape architect.

1.6 Replacement

The landscape contractor shall make good at his own expense any losses of trees and plants which die or appear unhealthy at any time up to practical completion and in the 18 months after planting.

Plant failures will not be charged to the landscape contractor if the failure is due to, damage by hares, rabbits, livestock where not protected by guards or fencing, damage or loss due to theft, vandalism or disturbance by other contractors.

1.7 Damage

All trees and plants are to be adequately and carefully packed and protected to survive transport, whatever means, to the site, during loading, transit or unloading.

If in spite of these precautions' roots, branches, or shoots suffer slight damage, they are to be carefully pruned.

If major damage has occurred, the plants or tree shall be rejected and replaced at the landscape contractor's expense.

1.8 Defects liability period

The landscape contractor shall be responsible for any plants that fail to take during the first growing season, 18 months, from date of completion.

1.9 Protection

The landscape contractor shall provide adequate temporary protection to the whole of the works and shall include temporary coverings, planked barrow runs and all other measures for protecting the work from damage.

The landscape contractor shall also protect from damage all existing roadways, kerbs, services and other completed works on site.

Any work damaged or soiled by weather, traffic or other causes due to inadequate temporary protection shall be removed and made good at the cost of the landscape contractor. The form of protection is left to the discretion of the landscape contractor.

1.10 Setting out the works:

Setting out shall be in accordance with the landscape architect, and the supplied drawings.

1.11 Finished grading

All area planted by the landscape contractor shall be left in a reasonably even state, with all soil dumps broken up, stones >50mm shall be removed off site.

1.12 Site access

The landscape contractor is to consult with the developer as to the most suitable access point to undertake the works. The contractor to ensure that as little inconvenience as possible is caused to the users of the public road. In this regard arrangements will be agreed with the client as to the times for moving of materials onto or about the site.

1.13 Existing services

The contractor is to make himself aware of the extent of the existing services in so far as they affect his contract area. The contractor to make good at his own expense any damage to services damaged, due to any cause within his control and he shall pay any costs and charges in connection with same.

The landscape contractor is to indemnify the client and the landscape architect against any charge of negligence and cost of repairs caused by the landscape contractor during the course of this contract.

1.14 Plant materials

The landscape contractor is to ensure that plants brought onto the site are grown in Ireland, written proof will be required.

1.15 Nursery stock:

All plant material shall be good quality nursery stock, free from fungal, bacterial or viral Infection, aphids, red spider or other insect's pests and any physical damage. It shall comply with the requirements of B.S. 3936: parts 1-10: 1965 Specification for nursery stock, where Applicable.

All plants shall have been nursery grown in accordance with good practice. They shall have the Habit of growth that is normal for the species. The contractor will be deemed to have advised his/her suppliers of the relevant sections of this in all cases be liable to replace materials brought on site that are not in accordance with this specification

1.16 Species

All plants supplied shall be exactly true to name as shown in plant schedules. Unless stipulated, varieties with variegated and/or coloured leaves not to be accepted, and any plant found to be of this type upon leafing out shall be replaced by the contractor at his/her own expense.

Bundles of plants shall be marked in conformity with B.S. 3936: Part 1 1965 and B.S. 3936: Part 4: 1966. The landscape contractor shall replace any plants, which, on leafing out, are found not to conform to the labels. Definitions of all terms used in accordance with the following British Standards: - B.S. No. 3936: Part 1: 1965 entitled "Nursery Stock- Trees and Shrubs" B.S. No. 3936: Part 4: 1966 entitled "Nursery Stock- Forest Trees" B.S. No. 3936: 1967 entitled "Specification for Nursery Stock"

2.0 TREES

All trees to be to B.S. 3936, Part 1, including orientation, pruning and root systems.

2.1 Tree specification

Trees shall have a sturdy, reasonably straight stem, and a well-defined straight and upright central leader, with branches growing out of the stem with reasonable symmetry. The crown and root systems shall be well formed. Roots shall be in reasonable balance with the crown and shall be conducive to successful transplantation.

2.2 Setting out

Supply and plant trees in location shown on layout drawing. All plants to be set out for approval.

Minimum tree sizes are indicated on the accompanying layout drawing.

2.3 Planting

Standard and advanced standard trees planted with tie and two number 70 dia. treated stakes set in pit. Each tree to have 70 grams of milorgranite 0636 organic nitrogen at rate of 14 kg per 250 m² mixed with 20 litres of moss peat and good quality loamy topsoil. Bottom of pit to be broken up and turned over to a depth of 350 to assist drainage.

Tree stakes to be pressure treated timber to manufactures instructions.

2.4 Stakes:

Round stakes shall be of peeled larch, pine or Douglas fir, preserved with a water-borne Copper chrome arsenic composition in accordance with I.S. 131. Drive stake with a wooden maul or cast-iron headed drive.

Tree ties shall be rubber, PVC or proprietary fabric laminate composition and shall be Strong and durable enough to hold the tree securely in all weather conditions for a period of three years. They shall be flexible enough to allow proper tightening of the tie. Ties shall be min. 38mm wide for standard trees and upward sizes. They shall be fitted with a simple collar spacer to prevent chafing, and with a buckle for adjustment. Nail each tie to the stake with one galvanised nail immediately behind the buckle, leaving the tie free for adjustment

2.5 Tree and shrub planting

2.5.1 Standards

Excavate tree pits to minimum dimensions of 350 mm wider than root ball, minimum tree planting tip to be 800 x 800 x 800 deep. The base of the pit shall be broken up to a depth of 450 below root ball and glazed sides roughened. Incorporate milorgranite 0636 organic nitrogen at rate of 14 kg per 250 m² and moist moss peat to each tree pit prior to planting. Backfill planting hole with excavated loamy topsoil, and remove all stones and debris, firming plants into position. Supply and drive the stake 800mm into the ground.

Where indicated trees set into precast containers to have prepared backfill with loamy topsoil mixed with patent potting compost and approved loam.

2.5.2 Containerized shrubs and herbaceous

Excavate planting hole to a minimum depth of 350 wider than root ball. The base to be broken to a depth of 350 mm and glazed sides roughened. Apply milorgranite 0636 organic nitrogen at rate of 14 kg per 250 m² and moist moss peat as directed.

Where indicated shrubs set into precast containers to have prepared backfill with loamy topsoil mixed with patent potting compost and approved loam.

2.5.3 Container grown shrubs / conifers / bare root shrubs

Excavate planting pit to a minimum depth of 350mm wider than root ball. The base to be broken to a depth of 350 mm and glazed sides roughened. Apply prepared mix of bone meal, moss peat and loamy topsoil to planting pit.

2.5.4 Protection of plants

Plants shall be protected from drying out and from damage in transport. All stock awaiting transport shall be protected from the wind and frost and from drying out.

2.5.5 Damage / Inspection

On completion of lifting of plants in the nursery, any broken shoots or severed roots shall be pruned, areas of damaged bark neatly pared back to sound tissue.

2.5.6 Raking off

Upon completion of planting, all pits shall be raked over lightly to even surface and neat appearance. All stones greater than 50mm dia. to be removed off site.

3.0 WATERING

All bare rooted light standards and selected standards shall be soaked in water overnight, on site. Fertilisers shall conform to B.S. 5581: 1981. In the case of granular fertiliser being added to plantings, it must be mixed though and incorporated into the base of the planting hole and covered over in order to avoid roots of plants coming in direct contact.

4.0 MULCH TO PLANTED AREAS

Supply and spread a 25 mm thick layer of approved and treated mulch. Mulch to be approved and treated bark.

5.0 GRASSING AND EARTHMOVING

Landscape contractor to allow for removing loamy topsoil to depth of 150 and storing in selected area for re-uses.

Contractor to allow for deep rippling of the sub-base with 300mm deep at 1000mm centre rips. Approved mound of spoil to be spread to achieve levels as indicated on the attached layout drawing, allowing for loamy topsoil finish. Sub-soil to be placed in layers not exceeding 150 thick.

On completion of soil spread contractor to allow for ripping of soil with deep plough at 400 deep and 900 centres. On completion of sub-soil moving the formation level shall be graded with box scraper to even, running contours.

Loamy topsoil to be spread evenly on formation levels to achieve minimum depth of 150mm. Loamy topsoil to be cultivated to crumb size to a condition suitable for blade grading. When the loamy topsoil is reasonably dry and workable grade to smooth flowing contours, with falls for adequate drainage, removing all minor ridges and hollows. Large stones and unwanted material 50mm and over to be picked off and removed from site. Final contouring to be achieved with blade grader to true, flowing contours as indicated on the attached layout drawing.

The use of heavy rubber tyred vehicles shall be governed by weather conditions. All loamy topsoil to be cultivated to a depth of 150mm prior to cultivation. Unless otherwise stated, finished levels of loamy topsoil, after settlement, to be 32mm minimum above adjoining pavements and kerbs.

Landscape contractor to allow for final raking to prevent the development of humps and hollows in grassed areas, preparation to include for raking to encourage surface water runoff, removing stones and all foreign material.

5.1 Grass seed

Grass seed mixture to be,

25% Perennial Ryegrass, Aberelf, Darius
25% Perennial Ryegrass, Bareine, Lorina
25% Chewings Fescue, Bargreen, Baroxi, Darwin, Raissa
25% Slender Creeping Red Fescue, Barcrown.

or other approved.

Pedestrian routes through the open space areas to have a min 1.5 m wide mown grassed verge maintained at between 35 and 75 mm high.

Where indicated the seed mixture to include a selection of native wildflower seeds mixed through and spread by contractor. On completion of seeding and in season following sward establishment a selection of bulbs to be hand scattered and planted into sward.

5.2 Wild grass mix to include selection

Grasses

Crested Dogstail (*Cynosurus cristatus*)

Sheep's Fescue (*Festuca ovina*)

Flora

Autumn Hawkbit (*Scorzoneroidea autumnalis*)

Bladder Campion (*Silene vulgaris*)

Common Sorrel (*Rumex acetosa*)

Cowslip (*Primula veris*)

Lady's Bedstraw (*Galium verum*)

Meadowsweet (*Filipendula ulmaria*)

Perforate St Johns Wort (*Hypericum perforatum*)

Ribwort Plantain (*Plantago lanceolata*)

Tufted Vetch (*Vicia cracca*)

Wild Red Clover (*Trifolium pratense*)

Betony (*Stachys officinalis*)

Cats Ear (*Hypochaeris radicata*)

Common Vetch (*Vicia sativa ssp. segetalis*)

Field Scabious (*Knautia arvensis*)

Meadow Buttercup (*Ranunculus acris*)

Musk Mallow (*Malva moschata*)

Ragged Robin (*Lychnis flos-cuculi*)

Salad Burnet (*Sanguisorba minor*)

Wild Carrot (*Daucus carota*)

White Campion (*Silene latifolia*)

Birdsfoot Trefoil (*Lotus corniculatus*)

Common Knapweed (*Centaurea nigra*)

Common Toadflax (*Linaria vulgaris*)

Greater Hawkbit (*Leontodon hispidus*)

Meadow Cranesbill (*Geranium pratense*)

Ox Eye Daisy (*Leucanthemum vulgare*)

Red Campion (*Silene dioica*)

Self-heal (*Prunella vulgaris*)

Wild Marjoram (*Origanum vulgare*)

Yarrow (*Achillea millefolium*)

5.3 Grass maintenance

5.3.1 Grass margins and margin to pedestrian routes through open space

Where indicated grass margins to pedestrian routes through open space to be maintained at between 35 to 75 mm high. Grassed roadside verges to be maintained between 35 to 55 mm high.

5.3.2 Open space areas

Where indicated open space area to be cut height to maintain of between 30 to 70 mm. Remove cuttings and remove perennial weeds such as dock or nettles to be removed by hand.

5.3.3 Open space areas

Where indicated open space areas with a mix of meadow grasses, native wildflowers and early flowering bulbs to be sown in spring or autumn.

Year 1, following planting grass cutting to take place in mid-October. Cut height to be 30 to 50mm. Remove cuttings and remove perennial weeds.

Year 2 and 3, cut to height between 35 to 50 mm in mid-November, leave cut vegetation for 3 days before removing. Remove perennial weeds.

Year 4 and subsequent years, cut to height between 35 to 50 mm in mid-November, leave cut vegetation for 3 days before removing. Remove perennial weeds.

Perennial weeds such as dock or nettles to be removed.

6.0 Bulb planting

Landscape contractor to supply and plant in designated areas indicated on the planting drawing at rate of 20 bulbs per m2. Bulbs planted in scatter pattern in mixed groups.

Anemone nemrosa
Crocus tommasinians
Narcissus February Silver
Narcissus February gold
Narcissus Mt Hood

6.1 Bulb Planting

If planting whilst laying turf, for a naturalised effect, bulbs should be scattered from waist height onto prepared soil (a light tilth) and then covered over with the turf. The turf provides adequate cover so no additional soil or dibbing is required. Bulb sizes are deliberately small, but care should be taken not to put too much heavy weight on to the turf, so as not to damage the bulbs underneath.

Planting into established wildflower areas, use a handheld bulb planter to a depth of 6-8 cms and plant where they have fallen after scattering them from waist height. A motorised turf cutter can also be used for a larger area, forking over the bared soil to create a light tilth, scattering the bulbs and taking care to lay down the cut turf back into place once the bulbs have been scattered.

Bulbs should be planted between September and December, ideally when the ground temperature is between 4-8° C.

6.2 Densities

For a naturalised effect we recommend planting 20 bulbs per m². Denser looks can be achieved by doubling the rate.

7.0 MAINTENANCE.

Landscape contractor to allow for maintaining the works for a period of 18 months after practical completion,

This work to include -

Grass cutting to maintain sward between 35 to 50 mm as noted above. Cutting of areas with native wildflower seed and bulbs to be agreed.

Fertilizing of grassed areas to commence in late spring/early summer following development of sward as required. Apply Milorganite 0636 Organic Nitrogen at rate of 14 kg per 250 m², to manufactures recommendations.

Application and type of fertilizer to be agreed on site with landscape contractor, prior to application.

Replacing all plants, which die or fail to thrive, under circumstances within the contractor control, within the 18 months.

Weeding docks and nettles to be removed by mechanical means from all areas, allow for supplying and spreading an approved herbicide weed suppressing to grassed verges, to manufactures instructions.

Watering all planted areas, including shrubs and trees, allow for standpipe connection and hoses as required.

Resetting and retying all ties to trees.

Maintaining a min diameter of 500 mm free of foreign material, weeds and grass at the base of each tree.

Maintaining the public open space litter and rubbish free.

7.1 Long Term Maintenance.

Long-term maintenance to be undertaken by approved landscape contractor.

8.0 HERBICIDE AND PESTICIDE

The use of all chemicals, such as herbicides, pesticides and fertilizers will require prior approval

Herbicide and pesticide usage to be carried out in accordance with'

S.I. 155 of 2012 – European Communities (Sustainable Use of Pesticides) Regulations 2012

S.I. 159 of 2012 – European Communities (Plant Protection Products) Regulations 2012

All weedkiller application and handling shall be carried out in accordance with the manufacturer's instructions, COSHH Regulations, using the necessary PPE and by trained personnel only.

9.0 AFTERCARE AND MAINTENANCE SCHEDULE

The following maintenance regime shall apply

9.1 Drainage and Irrigation

All areas to receive a minimum of one inspection per month, during the growing season, to ensure that the planted and grassed areas require irrigation and that drainage outlets are maintained free.

Water newly planted trees throughout summer months May to August, when rainfall is less than 5 mm. Apply sufficient water to thoroughly wet the top 150 mm of soil around the roots. Allowing 20 litres of water per tree.

Schedule 1 per month

9.2 Furniture and Fencing

All external furniture and fitting to be visually checked at the start and end of growing season Early Spring and Late September. The Inspection to include both visual and physical contact.

Management company to be informed immediately in writing of any repair or replacement works required

9.2.1 Furniture

Examine fixed furniture and ground fixture fittings.

9.2.2 Fence

Examine fence fixings at ground level and post fixings. Examination to include a physical and visual inspection. Make good to any loose fitting or fixture.

Schedule 1 per month

9.3 Paving and Footpaths

Paving and footpaths to be maintained in a weed and mould free condition and be power hosed at a minimum of once a year.

Schedule 1 per year

9.4 Weed Control

Any weed growth occurring to receive a spot treatment of a glyphosate free herbicide, applied to manufacture instructions.

Schedule as required.

9.5 Plant replacement

Tree and shrubs that fail due to natural losses shall be replaced within the following planting with plants of similar size and shape to the failed plants.

Schedule as required

9.6 Pests and diseases

All plants to be visually inspected at least twice a year for the presence of pests and disease. If either or both are present the contractor to implement the appropriate control measures immediately.

Any heavily infested plants to be removed and replaced with clean stock.

Schedule 2 per year

9.7 Mature trees

All mature trees to be visually inspected annually by qualified Arborist.

Arborist to prepare and to agree a schedule of necessary works to maintain the mature trees in a healthy condition including preparing a schedule of necessary works and method statement to complete works.

If necessary, an agreed schedule of works to B.S. 3998, to be agreed and undertaken by a suitably approved contractor.

9.7.1 Tree felling and removal

No trees to be felled to be undertaken at any time without prior approval.

Tree or tree limb removal allowed to storm damaged or dangerous or tree or tree limb likely to cause immediate serious damages to persons or property.

Schedule 1 site visit per year by Arborist

9.8 Trees, newly planted

Maintain a weed free area around the base of newly planted trees by hoeing.

Check and adjust if required the tree tie and tree support stake

Schedule 2 per year

9.9 Grass areas

Mowing to be carried out to maintain the sward between 30 and 70 mm during April to end of August and between 50 to 90 mm high during the rest of the year.

Grass sward 200 wide edge to fence and wall edge to be maintained free.

Schedule growing season 1 weekly visit – 1st April to 31st August – allow 20 visits

Schedule dominant season 1 monthly visit – September to March – allow 30 visits

9.10 Planted areas

Maintain all planted areas free of weeds (less than 10 per cent weed cover) by hand removal and spot treatment with Glyphosate or approved equivalent.

Schedule 5 times per year

9.11 Trim and tidy shrubs

Existing shrubs to be trimmed and light pruned to remove dead vegetation or overcrowding branches. During winter months.

Schedule 1 per year

9.12 Site Signage

signage to be cleaned regularly and maintained free of graffiti and be surfaced cleaned with propriety cleaning product.

Schedule 1 per month

9.12 Litter and Rubbish Collection

Maintain the public open space free of all litter and rubbish.

Litter includes placed, thrown or windblown. Rubbish includes all placed, deposited or placed debris or foreign materials. Litter and rubbish to be removed and taken off site.

Schedule 1 per week

10.0 TIMESCALE AND PROGRAMME OF LANDSCAPING WORKS.

Landscaping works to be undertaken in first planting season following completion of site and the development works.

Phased completion of landscaping works to be undertaken to match completion of each phase of the development.

Loamy topsoil spreading and preparation of soft landscaped areas of gardens and open space area including subsoil cultivation shall be agreed and carried out in suitable weather conditions. Avoiding waterlogged and frost weather periods.

Planting of trees and shrubs to be undertaken in dormant period of growth, generally between October and March subject to approval, grassing and surface cultivation between April and September.