

CUNNANE STRATTON REYNOLDS
LAND PLANNING & DESIGN

POPE'S HILL RESIDENTIAL, BLACKPOOL, CORK CITY
Green & Blue Infrastructure (GBI)
Landscape Design Rationale

PROJECT NO. 24184

March 2026



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Response to Landscape Items in the Cork County Council (CCC) Written Opinion on the Proposed Large-Scale Residential Development at Popes Hill, Cork.

Date of LRD Meeting: 01.10.2025

Cork County Reference: LRD 25-08

Landscape Items

CCC Opinion: *Development will only be appropriate in Areas of High Landscape Value, where it results in a neutral/positive impact on the landscape, with the built form typically being secondary to the landscape character. The site is heavily vegetated along the perimeter of the site, within the central area of the site and the original field boundaries are still evident. Given the potentially high ecological value of the site, and the Area of High Landscape Value designation pertaining to the site, further consideration shall be given to the existing biodiversity value of site, the retention of movement corridors for wildlife and to existing and supplementary planting.*

Response: The boundary vegetation across the site has been retained and enhanced where necessary as part of the proposed landscape design. Additional native hedgerow planting is proposed to strengthen existing boundaries and ecological corridors. This is complemented by additional street tree planting, open space tree planting, and shrub planting throughout the development to enhance biodiversity and reinforce the landscape structure of the site. These measures support the retention of wildlife movement corridors and contribute positively to the landscape character of the Area of High Landscape Value. Further details and commentary are provided in the Landscape Drawings 24184-2-101 and pages 13, 14 and 20 of the report and within the Ecologist's Report submitted as part of this application.

CCC Opinion: *Consideration of the open space layout along the perimeter given the potential number of areas where proximity of the residential units within the proposed development and existing adjoining developments is creating a "no-man's land" which may lead to illegal dumping and antisocial activities. The landscape proposal at the northern boundary proposes to significantly increase the ground level at the northern end of Block F adjacent to the existing Glentrassa dwellings. It is advised that the levels in this area be reconsidered to mitigate the impact on the neighbouring properties and avoid creating areas which are difficult to maintain, lack passive supervision and have the potential to become places for anti-social behaviour in the future.*

Response: The existing boundary vegetation is retained and incorporated within the private garden areas of the proposed dwellings where appropriate. These areas are defined by boundary fencing and gated access to allow for ongoing maintenance. This approach ensures that the vegetation is properly managed while avoiding the creation of "no-man's land". The design concept aims to achieve good permeability through the site while providing connections to the adjoining development to the north. Due to the challenging site topography, a combination of a ramped and stepped pedestrian connection has been provided to improve accessibility, permeability, and connectivity between the developments. Native shrub planting is proposed along the slopes to minimise long-term maintenance requirements while maintaining clear visibility and passive supervision of the area. This approach ensures the spaces remain functional, well overlooked, and integrated into the overall landscape infrastructure of the site.

LAND PLANNING & DESIGN

01. INTRODUCTION, CONTEXT & ANALYSIS

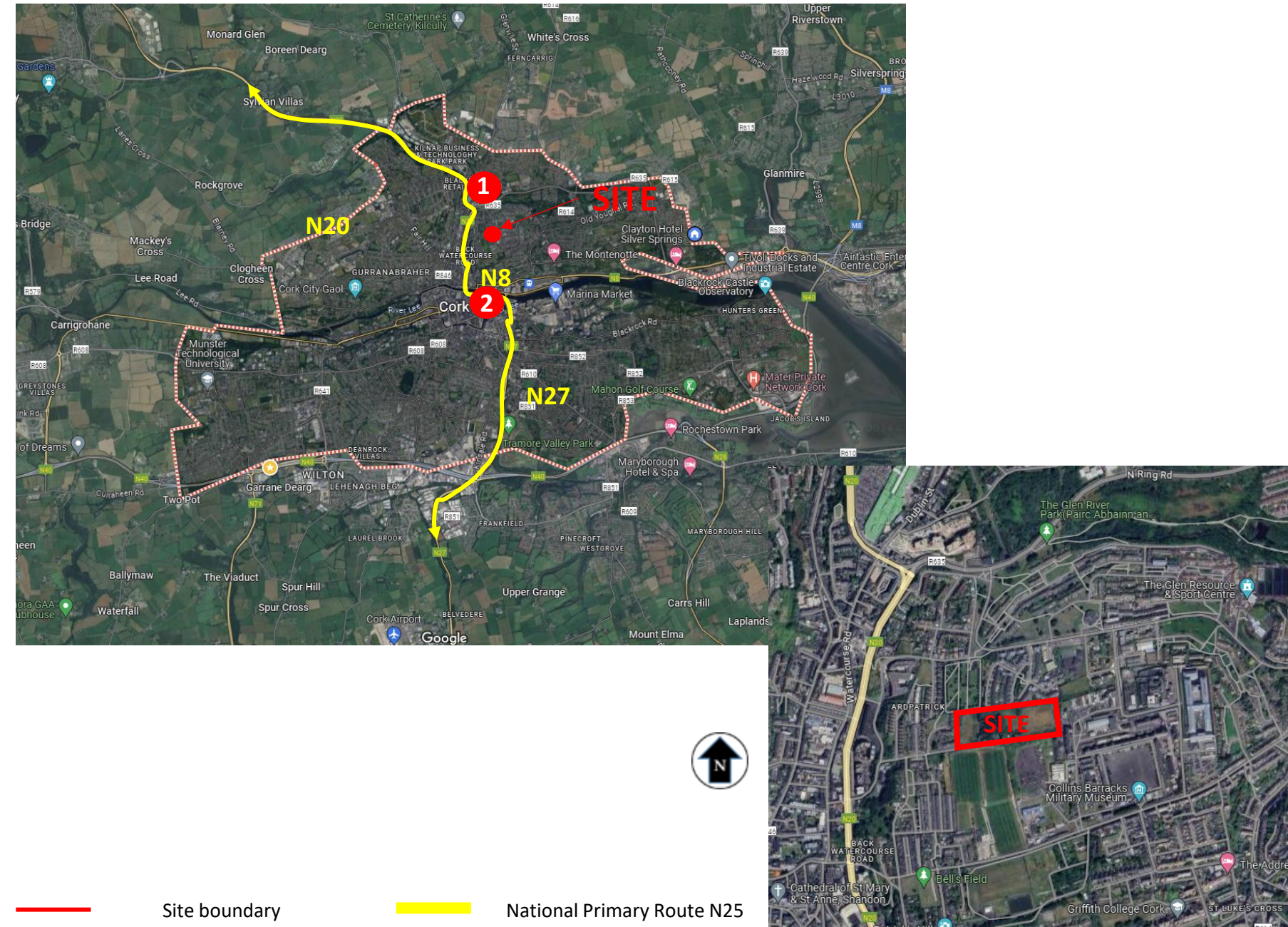
SITE CONTEXT

The proposed development site is located in Blackpool, approximately 1,5 km away to the north of Cork City centre. It can be accessed from the N20 to the west of the site along Popes Hill Rd.

The site is covered with scrub vegetation, with hedgerows along part of northern and eastern boundary. The site is situated between an existing housing estate to the north and west. There are CBC sports ground fields to the south of the site and Military Museum to the southeast.

The topography of the site is sloped, sloping down to northwest.

This report provides an overview of key landscape design considerations in support of a planning application.



Wider Area Character

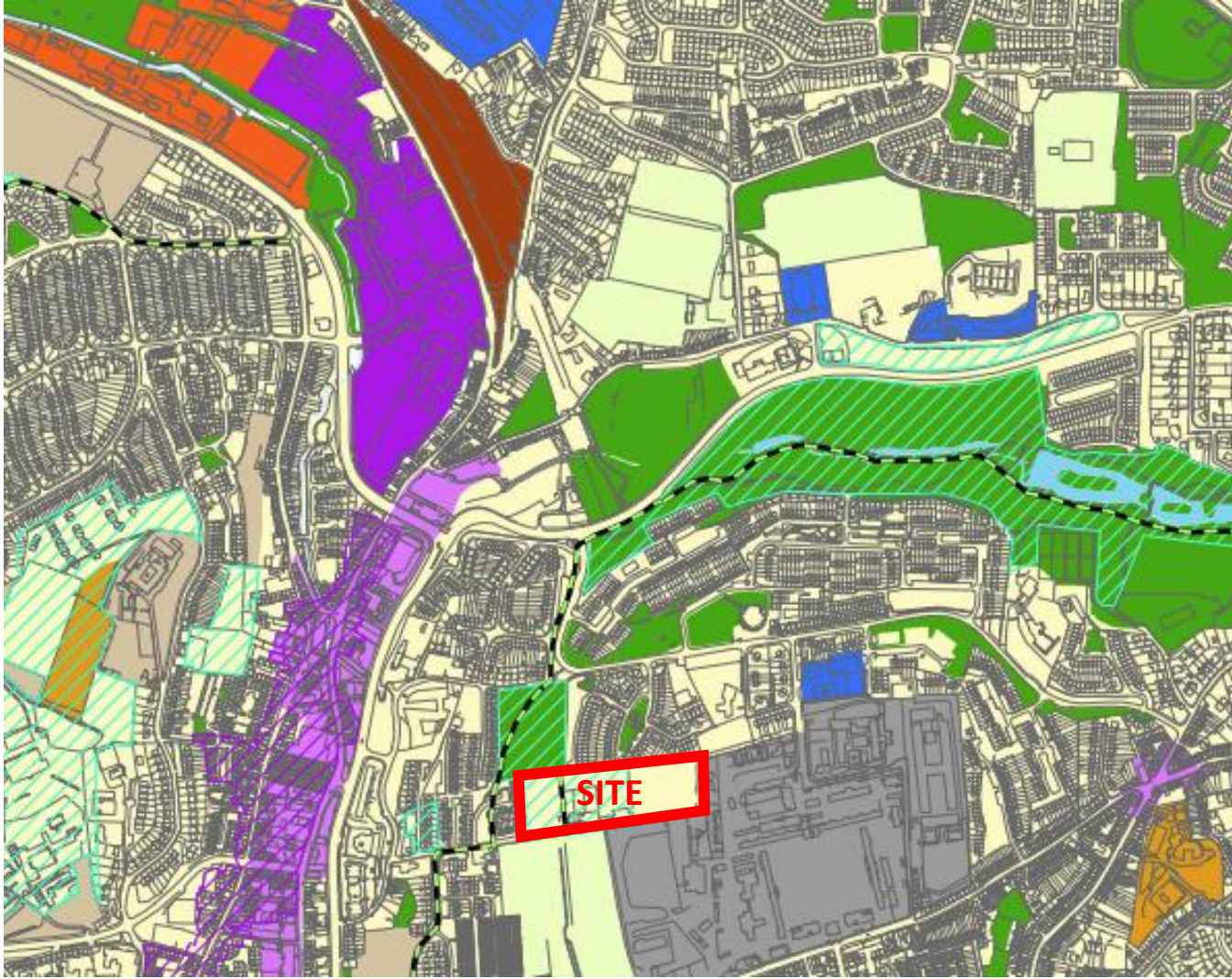
1. Blackpool Shopping centre



2. Cork City centre



EXISTING SITE CONDITIONS: DEVELOPMENT PLAN EXTRACT



- City & Central Areas
- Inner Urban Suburbs
- Primary Urban Corridors & Principal Towns
- Outer Suburbs

- Walkways & Cycleways
- ZO 16, Sports Grounds and Facilities
- ZO 08, Neighbourhood and Local Centres
- ZO 15, Public Open Space
- Architectural Conservation Area
- ZO 01, Sustainable Residential
- ZO 13, Institutions and Community
- ZO 07, District Centre

In accordance with the Cork City Development Plan 2022-2028, the site is designated for residential purposes. Part of it belongs to an Area of High Landscape Value.

EXISTING SITE CONDITIONS: SITE BOUNDARIES & EXISTING VEGETATION



Key plan



C: Central part: Large group of vegetation inside the site



A: North boundary: Vegetation and stone wall



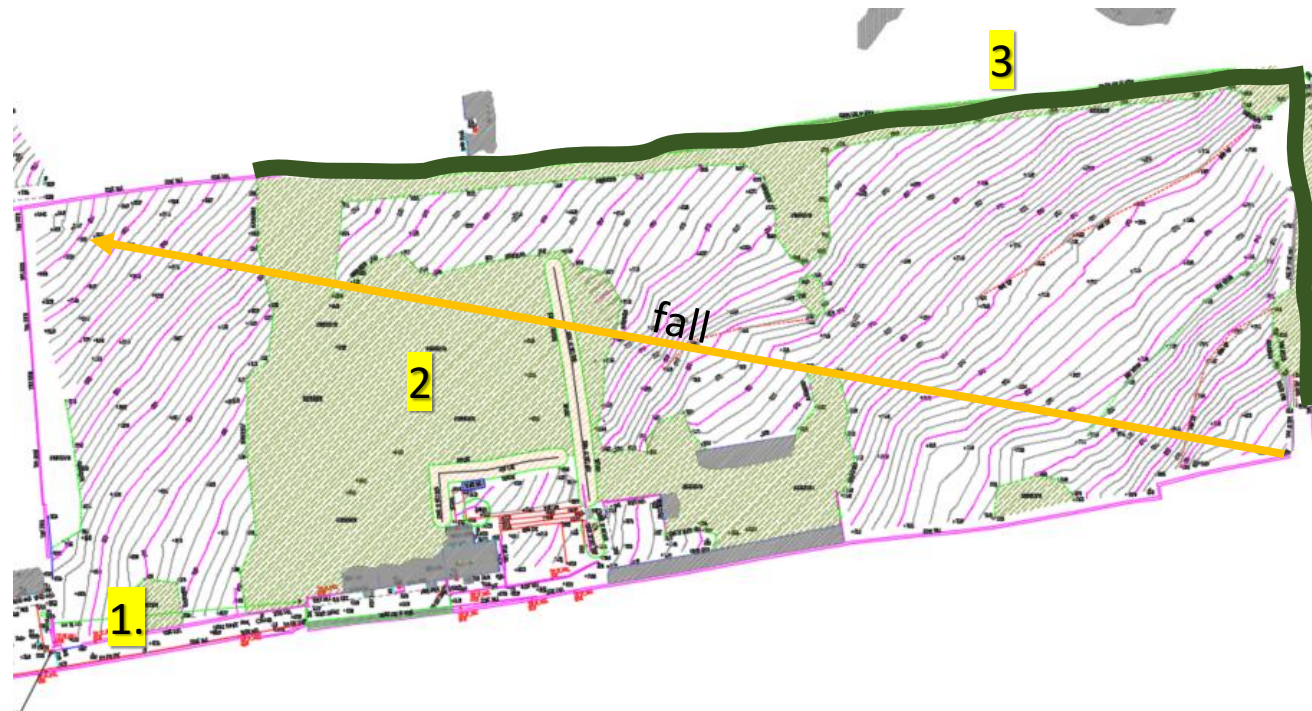
D: East boundary: Hedgerow along northeast part of the site boundary



B: South boundary: Scrubby vegetation with trees adjacent to the sports field



E: Southeast boundary: Hedgerow and scattered trees along the boundary line



- Topography is one of the main characteristics of the site. The site rises from +54.5m O.D. in the northwestern corner of the site near to +82.5m O.D. at its highest point at the southeastern corner.
- Development Area has the potential to be well connected to zoned amenity parkland green infrastructure through development amenity spaces and boundary treatments.
- Drainage on the site is facilitated across the steep contours

Key Challenges:

- Retaining boundary vegetation (proximity to the dwellings and level differences)
- Retention of existing trees in the middle of the site-quality of existing vegetation
- Proposal and treatment for open space areas to address level difference
- Biodiversity/Pollinator Planting net gain/loss calculation
- Integrating the proposed development with the established residential developments in the environs.



1. Existing vegetation



2. Steep topography of the site



3. Existing boundary vegetation

GREEN AND BLUE INFRASTRUCTURE- LOCAL AREA OVERVIEW



LEGEND



Hedgerows



Sports Grounds and Facilities
(as per Cork County
Development Plan 2022-2028)



Zoned Public Open Space (as per
Cork County Development Plan
2022-2028)



Water bodies



Links between site and GI
elements



Site boundary

GREEN & BLUE INFRASTRUCTURE: KEY DEVELOPMENT PLAN OBJECTIVES



Based on the Cork City Development plan 2022-2028 GBI Objectives 6.7 new developments require to manage and enhance GBI network. Chapter 6 sets out a framework and themes as well as key components of Green and Blue infrastructure (GBI) which are summarized below and inform the site-specific GBI proposals for the subject site as outlined on page 17.

PRINCIPLES AND THEMES

Green infrastructure includes the integration of vegetation, trees, and open green spaces, while blue infrastructure focuses on sustainable water management through features such as streams, wetlands, swales, dry basins, and infiltration systems. By combining these two strategies, any new development will promote sustainability, enhance biodiversity, support healthy ecosystems and neighbourhoods, and improve the overall quality of life for residents. Successful implementation will require thoughtful planning, collaboration with key stakeholders, and the use of innovative design solutions. These measures are central to creating sustainable, forward-thinking neighbourhoods that prioritise both people and nature.

KEY COMPONENTS



Sustainable Urban Drainage Systems (SuDS)

aim to manage stormwater effectively, minimize flood risks, and promote sustainable water management practices. By implementing a comprehensive SuDS strategy, the development site can enhance its resilience to extreme weather events, protect water resources, and create a more sustainable and environmentally friendly living environments. SuDS proposals must be developed appropriate to local site ground conditions. SuDS components can make a significant contribution at to the biodiversity (ecological) value of an area (eg. rain gardens, swales, detention basins, trees).

SUDS EXAMPLES:

- Permeable Paving
- Rain Gardens
- Swales
- Infiltration Basins



Biodiversity

in housing developments is crucial. It means a variety of plants, animals, and insects can thrive, creating a balanced environment. This diversity improves air quality, promotes pollination for gardens, and enhances residents' well-being. Preserving biodiversity ensures a healthier and more sustainable living space for everyone.



The benefits of protecting pollinators

Enhance biodiversity is done by choosing native plant species that naturally belong to the area and

including pollinator-friendly non-native species to attract bees and butterflies. This thoughtful landscaping promotes a thriving ecosystem, supports local wildlife, and contributes to the overall well-being of both nature and residents.



Open spaces and recreation

are integral components of green infrastructure in housing developments. Emphasizing the preservation of existing habitats and the establishment of new ones within amenity spaces is essential. This approach fosters biodiversity and enhances the overall ecological balance. Ensuring robust connectivity among all green spaces contributes to a cohesive and well-integrated environment. Beyond providing areas for leisure and physical activity, this systematic incorporation of green infrastructure elevates the quality of life for residents.

It also underscores a commitment to sustainable urban planning, creating neighbourhoods that harmoniously blend with nature while offering residents accessible and thriving green environments.



02. DESIGN CONCEPT

DESIGN CONCEPT: INSPIRING IMAGES



DESIGN CONCEPT: AIMS & STRATEGY



The landscape design proposal for the site is intended to establish an outdoor environment that effectively addresses the needs of local residents while being seamlessly integrated into the surrounding framework. The use of clear stem trees, lawns, and shrubs will create an extensive network of green infrastructure throughout the development, offering a diverse natural habitat and enhancing visual appeal for residents.

The landscape strategy for the project site at Pope’s Hill aims to deliver the following:-

- **Place Making’** - develop a strong sense of identity and belonging by creating a place that is visually appealing, functional, and deeply connected to the local character.
- **Connectivity/Permeability** – provision of adequate pedestrian access across the development in line with principles of DMURS.
- **Recreation and Amenity** - provision of versatile and inclusive amenity spaces , well distributed across the site that cater to the needs of people of all ages and abilities; designed to allow ease of access, supervision and overlooking.
- **Boundaries** – retention of existing trees along vegetation where possible.
- **Topography** – consideration of contours by designing with the land, utilizing slopes for terraces, seating areas. Introduction of green retaining walls to address challenging levels, minimizing visual impact and creating vertical green spaces that support biodiversity.
- **Biodiversity** – bolstering habitat value of the overall site with a wildlife friendly tree, shrub and meadow planting strategy developed in line with the principles and recommendations of the All Ireland Pollinator Plan.
- Integrating **Blue and Green Infrastructure elements**, such as rain gardens, bioswales, and tree-lined streets, to naturally manage stormwater while enhancing the visual and sensory appeal of the space. These elements will contribute to a climate-resilient urban landscape that prioritizes sustainability
- **Maintenance and Management** – requiring that all specified hard and soft materials, finishes and treatments are robust, durable and can be managed / maintained with relative ease.

DESIGN CONCEPT: LANDSCAPE MASTERPLAN

(Extract from Landscape Masterplan dwg. no. 24184-2-101)

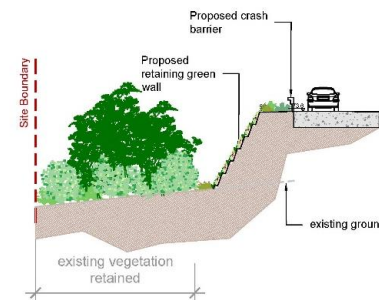
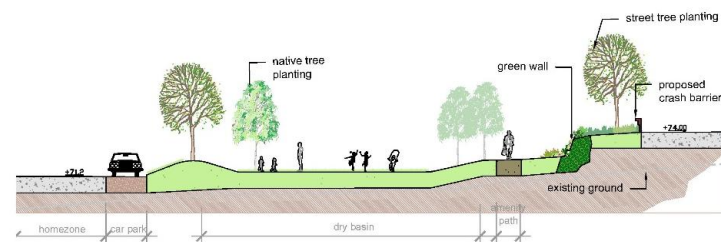
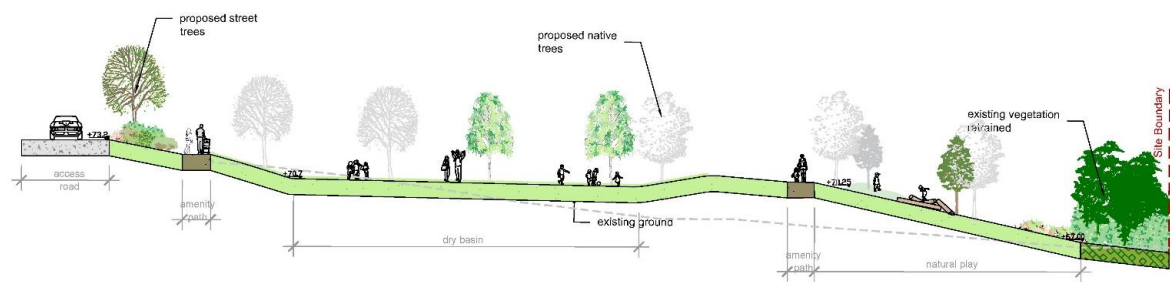
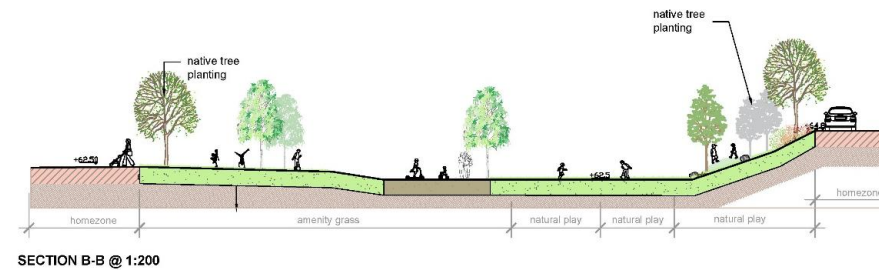


LEGEND

- | | | | |
|--|---|--|--|
| | EXISTING TREES RETAINED- Refer to arborist report | | ROAD SURFACE
- to engineers specification |
| | OPEN SPACE TREES - NATIVE
- Refer to Planting Schedule | | PROPOSED PAVED PRIVATE CAR PARK SPACES |
| | STREET TREES - NATIVE
- Refer to Planting Schedule | | CONCRETE FOOTPATH |
| | GARDEN POLLINATOR TREES
- Refer to Planting Schedule | | PRIVATE PATIO |
| | OUTLINE EXISTING BOUNDARY VEGETATION RETAINED | | PROPOSED FEATURE SEATING |
| | PUBLIC AMENITY GRASS | | FORMAL PLAY AREA |
| | PROPOSED GROUND CONTOURS | | STEPPED SEATING WALLS |
| | PRIVATE GARDENS | | SHARED SURFACE |
| | MEADOW AREA ENCOURAGED THROUGH THE MAINTENANCE REGIME | | ATTENUATION TANK |
| | SHRUB AND GROUNDCOVER POLLINATOR PLANTING- Refer to Planting Schedule | | RETAINING WALL |
| | NATIVE HEDGEROW PLANTING - Refer to Planting Schedule | | PROPOSED CRASH BARRIER |
| | NATIVE SHRUB AND GROUNDCOVER PLANTING - Refer to Planting Schedule | | WELDMESH FENCE WITH GATE |
| | NATURAL PLAY AREA WITH MOUNDS AND BOULDERS | | SITE BOUNDARY |
| | PROPOSED GREEN RETAINING WALL | | |
| | FEATURE PAVING | | |
-
- | | |
|-------------|--|
| CRECHE AREA | |
| | PROPOSED GRASS MOUNDS AND STEPPING LOGS |
| | PROPOSED SAFETY SURFACE WITH PAINTED GAMES |
| | PROPOSED CANOPY |
| | PROPOSED SENSORY PLANTING |

DESIGN CONCEPT: SITE SECTIONS

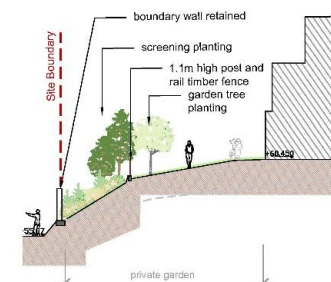
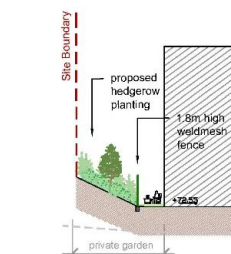
(Extract from Landscape Masterplan dwg. no. 24184-2-201)



SECTION C-C @ 1:200

SECTION D-D @ 1:200

SECTION E-E @ 1:200



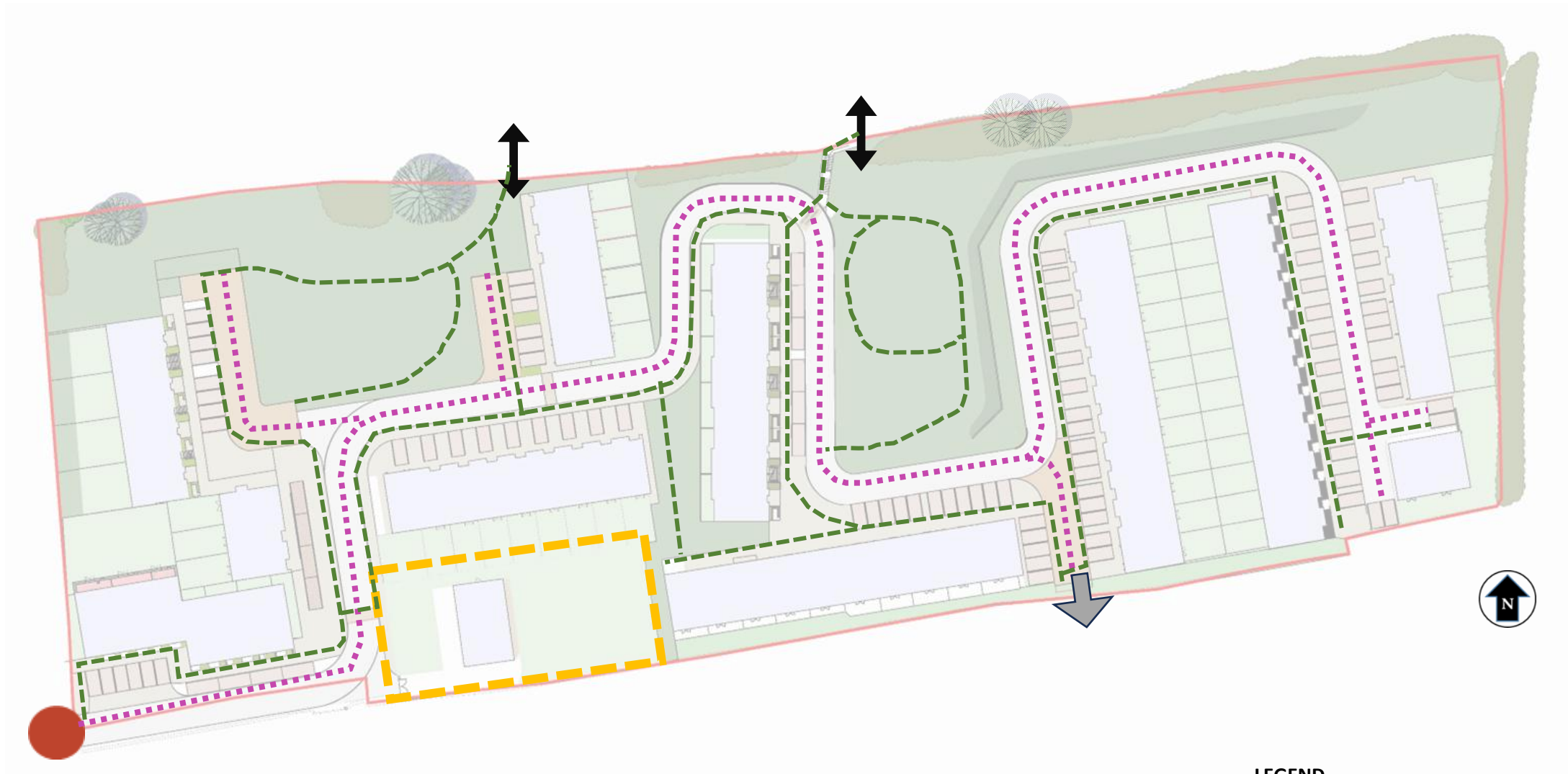
SECTION F-F @ 1:200

SECTION G-G @ 1:200

SECTION H-H @ 1:200



DESIGN CONCEPT: CIRCULATION



LEGEND

- - - Vehicular circulation
- - - Pedestrian circulation
- Main site entrance
- ↕ Connections to the adjoining development
- ↙ Potential future connections
- - - Private house dwelling

The planned network of pedestrian paths is aimed at ensuring convenient access to the heart of the site, facilitating easy movement for the new residential community while establishing connections to neighbouring areas and local services.

Safety measures incorporated within the design encompass traffic calming features, clearly marked crossing points, variation in road surface finishes, and tree planting along streets to contribute towards slowing down vehicular movement.

Furthermore, the amenity spaces are thoughtfully crafted to be inclusive, offering easy accessibility for all residents, including those with mobility challenges, fostering a welcoming environment for everyone within the community.

DESIGN CONCEPT: RECREATION AND AMENITY



The recreation and amenity strategy is centered on the creation of public open spaces that provide accessible areas for children’s play, relaxation, socializing, and community events.

These public open spaces are designed to cater to different age groups, ensuring that children and adolescents have engaging and age-appropriate activities. Additionally, all open spaces are strategically overlooked to avoid hidden areas and discourage antisocial behavior, fostering a safe and welcoming environment.

Retained and proposed green infrastructural elements will enrich the outdoor experience, offering seasonality, a sense of connectivity with nature, and support for biodiversity.

In line with the Public Open Space Provision – Quantitative/Qualitative Standards outlined in the Cork City Development Plan 2022–2028, we are providing:

- 13 % usable open space
- 18% of overall open space

LEGEND

-  Public amenity space
-  Biodiversity area
-  Play areas
-  Natural play area
-  Pedestrian route
-  Seating area

DESIGN CONCEPT: RECREATION & AMENITY



RECREATION AND AMENITY FOR ALL AGE GROUPS/USERS:

The Recreation & Amenity strategy for the site delivers the following range of facilities :

Amenity Green Areas

Green amenity areas in developments are essential spaces designed to enhance the quality of life for residents while promoting community interaction and environmental sustainability. These versatile spaces typically feature lush landscaping, native plantings, and comfortable seating, creating inviting environments for relaxation, social gatherings, and recreational activities. Incorporating elements like shaded pavilions, pathways, and picnic spots, these areas encourage outdoor engagement and foster connections among neighbors. Additionally, they may include features such as community gardens and play zones that enhance biodiversity and promote ecological health. By integrating green amenity areas into developments, planners can create vibrant, inclusive spaces that support active lifestyles and strengthen community ties.

The neighbourhood areas provide overlooked green spaces for kickabout and informal play.

Play Areas

The play areas consists of compacted Ballylusk gravel surfaces with timber or recycled plastic edges located within open spaces. They provide an alternative to grass surfaces for informal play as well as being functional in wet weather.

Natural Play Area

The area consists of grass mounds and slopes with tree planting and boulders forming a part of the open spaces. The area encourages creative play and adds visual appeal and texture to the green open spaces.

Seating areas- The spaces also have seating/resting places for all users.

Home Zone / Shared Use Spaces

Homes zones / shared use spaces provide opportunity for localised informal play in environments where the emphasis is on traffic calming and accommodating and prioritising the pedestrian and cyclist in line with the principles of DMURS.

Recreational paths

Age groups/users:

Children 2-12 years old are catered for with Neighbourhood Play Areas and generous grass open spaces for kickabout and other informal play activities.

Teenagers are also catered for in each of the open spaces in respect of space for passive amenity, kickabout and circulation paths.

Adults of All Ages can use the street and footpath hierarchy for walking and exercise loops around the site while also availing on the benches for stopping and socialising.

DESIGN CONCEPT: PASSIVE SUPERVISION



Passive supervision plays a crucial role in fostering a sense of safety and community in the use of local public open spaces, streets, cycle lanes and walkways. It also has the effect of deterring anti-social behaviour as hidden spaces are avoided through the careful consideration of the street hierarchy and orientation of housing units as part of the design process.

LEGEND

- Public open space
- Passive supervision
- Passive supervision from adjacent development

03. GREEN AND BLUE INFRASTRUCTURE PRINCIPLES

GREEN AND BLUE INFRASTRUCTURE: PROPOSED SETTLEMENT LEVEL NETWORK STRATEGY

GI Components:

- The retention/enhancement of existing hedgerows.
- The provision of overlooked recreational spaces throughout the site
- The planting of native/pollinator-friendly trees and shrubs to define spaces, provide screening, shelter & a sense of seasonality.
- Proposed planting of street trees and open space trees, increasing tree cover that helps absorb carbon dioxide, reduce air pollution, provide shade, and manage storm water
- Where appropriate, provide wildlife-friendly features such as bat and bird nest boxes, insect hotels etc.
- Sustainable GI management/maintenance operations

BI Components

- Existing Ditches, Trees and Hedgerows are to be retained wherever feasible. This will assist in the conveyance and treatment of surface water runoff and retained vegetation will also contribute towards mitigating runoff through the process of evapotranspiration.
- Soakaways
- Permeable paving
- Dry basins
- Bioretention areas
- Refer to the engineers SuDS Strategy for the site



LEGEND

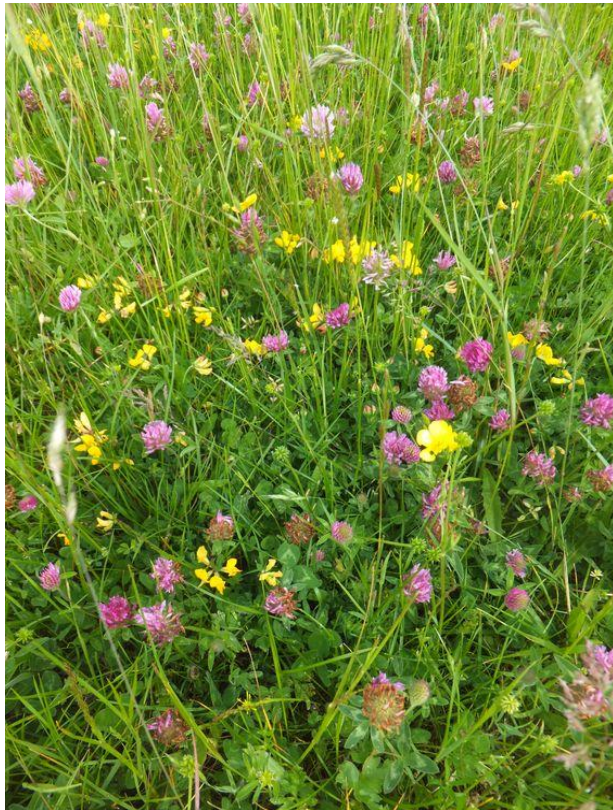
- | | | |
|------------------------------|----------------------|-------------------|
| Existing vegetation retained | Native tree planting | Permeable paving |
| Public amenity space | Garden tree planting | Soakaway system |
| Hedgerow planting | Street tree | Street tree |
| Shrubs planting | Green wall | Bioretention area |

GREEN AND BLUE INFRASTRUCTURE: RECREATION & AMENITY WITH INTEGRATED NATURE-BASED SUDS -Precedent Examples



The integration of green and blue infrastructure will foster healthier, more resilient communities, reduce environmental impact, and contribute to a more engaging environment for all. Depressions in the open spaces for nature-based SuDS allow opportunity for integrated natural play and exploration outside flood events.

DESIGN CONCEPT: SUSTAINABILITY & BIODIVERSITY



Wildflower meadow



Differential mowing regime on green spaces



Hedgehog highway



insect hotel, Bat box

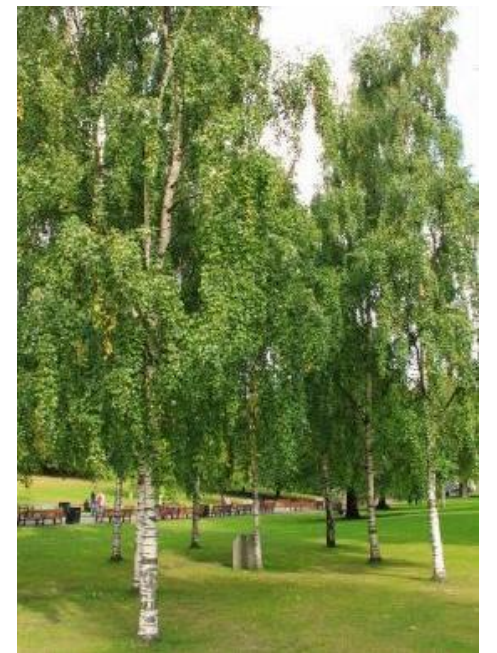
The biodiversity potential of the site will be enhanced by the following measures:

- Significant specimen tree planting across the site including open space trees, street trees, orchard trees and garden trees
- Retention of existing boundary hedgerows and trees
- Pollinator-friendly planting through the site with emphasis on the use of native species.
- The promotion of wildflower meadow areas within open spaces by means of differential mowing regimes.
- Openings in garden fences to allow small mammals to pass through back gardens (e. g. hedgehog highway)
- Biodiversity areas encouraging meadow establishment and self seeding
- Bat boxes, insect hotels

Note: The emphasis will be on the use of native tree species while ensuring that selected trees are suitable for each location in respect of ultimate size and crown spread. Otherwise, the selection of any non-native shrubs and groundcover species will aim to maximise their contribution towards biodiversity on the site.



Specimen tree planting



DESIGN CONCEPT: TREES

STREET TREES



Prunus sp



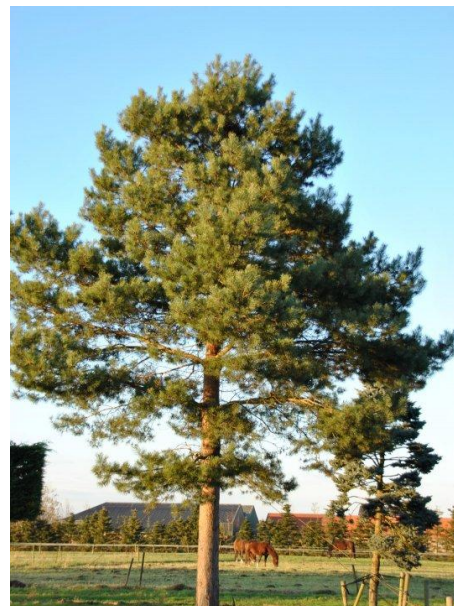
Betula pendula

The proposed design utilizes trees to provide structure throughout the site. These would all be native species, delivering significant biodiversity and pollinator benefits.

OPEN SPACE TREES



Quercus petraea



Pinus sylvestris



Alnus glutinosa



Prunus avium



Sorbus aucuparia

DESIGN CONCEPT: HEDGEROWS, SHRUBS, GROUNDCOVERS

POLLINATOR ORNAMENTAL HEDGE



Sarcococca confusa



Viburnum tinus 'Eve Price'



Eleagnus pungens 'Maculata'

POLLINATOR SHRUBS



Shrub species mix: *Rosmarinus officialis*, *Lavandula angustifolia*, *Stachys byzantine*, *Hebe sp.*, *Bergenia*, *Mahonia sp.*, *Sarcococca hooceriana*, *Skimmia japonica*, *Viburnum tinus*

NATIVE HEDGEROW PLANTING MIX



Crataegus monogyna



Prunus spinosa



Ilex aquifolium



Sambucus nigra



Euonymus europaeus

The proposed design features shrub planting to designate different areas, soften edges, and create inviting spaces. These would be fully native species, enhancing biodiversity throughout the site. Supplementing the more structural shrubs and trees would be pollinator-friendly bulbs and perennials, as well as a differential mowing regime in grassed areas to encourage native wildflowers.

DIFFERENTIAL MOWING REGIME



A differential mowing regime can allow for both reduced maintenance needs, with less intensive and extensive mowing throughout the site, and enhanced biodiversity. By mowing fewer areas and mowing less often, native grasses and wildflowers can flower and set seed, creating more rich ecological processes throughout the site. This can also create attractive patterns within the landscape to further user interest.

INTRODUCTION

This document sets out the proposed maintenance and management plans for the establishment and ongoing maintenance of the landscape element of the proposed development. There will be a minimum 18 months defects period on all soft landscape works implemented. Thereafter the landscaping will be maintained by a management company in perpetuity by consecutive 12 months periods.

1.0 SOFT LANDSCAPE WORKS SPECIFICATIONS

1.1 Site Clearance Generally

- General: Remove rubbish, concrete, metal, glass, decayed vegetation and contaminated topsoil.
- Stones: Remove those with any dimension exceeding 25mm.
- Contamination: Remove material containing toxins, pathogens or other extraneous substances harmful to plant, animal or human life. In accordance with current Health and safety legislation.
- Vegetation: remove all weed growth.
- Large roots: Grub up and dispose of without undue disturbance of soil and adjacent areas.

1.2 Weed Control

Remove all noxious and undesirable weeds from the site. Weeds shall include: Ragwort, Himalayan Balsam, Giant hogweed & Japanese knotweed, Thistle, Dock, Common Barberry, Male Wild Hop and Spring Wild Oat, or any other noxious species identified by the Department of Environment. For the removal of certain species such as Japanese Knotweed a method statement is to be prepared and submitted to the Department of Environment.

1.3 Standards

The following standards are to be adhered to in the preparation of landscaping, the supply of plants, and the maintenance of the landscaping :

- BS 3882 Specification for topsoil and requirements for use
- BS 3936-1 to 10 Specification for the supply of nursery stock
- NPS National Plant Specification
- BS 3998 Tree Works: Recommendations
- BS 4428 Code of Practice for general Landscape Operations
- BS 5837 Tree in relation to Construction
- BS 7370-1 to 5 Grounds Maintenance
- BS 8545 Trees: from nursery to independence in the landscape-recommendations
- BS 8601 Specification for subsoil and required use
- BS EN 1722-9 Fences Specification for mild steel - low carbon steel - fences with round or square verticals and flat horizontals

The latest publications for each document are to be used.

1.4 Soil Conditions

- Soil for cultivating and planting: Moist, friable and do not plant if waterlogged.
- Frozen or snow covered soil: Give notice before planting. Provide additional root protection. Prevent planting pit sides and bases and backfill materials from freezing.

1.5 Climatic Conditions

- General: Carry out the work while soil and weather conditions are suitable.
- Strong winds: Do not plant.

1.6 Times of year for planting

- Deciduous trees and shrubs: Late October to early March.
- Evergreens/Conifers: October/November or Feb/ March.
- Container Grown plants: Any time of years.

1.7 Mechanical Tools

Restrictions: Do not use within 100mm of tree and plant stems.

1.8 Watering

- Quantity: Wet full depth of topsoil.
- Application: Even and without damaging or displacing plants or soil.
- Frequency: As necessary to ensure establishment and continued thriving of planting.

1.9 Preparation, Planting and Mulching Materials

General: Free from toxins, pathogens or other extraneous substances harmful to plant, animal or human life.

1.10 Plants/ Trees - General

- Condition: Materially undamaged, sturdy, healthy and vigorous.
- Appearance: Of good shape and without elongated shoots.
- Hardiness: Grown in a suitable environment and hardened off.
- Health: Free from pests, diseases, discoloration, weeds and physiological disorders.
- Budded or grafted plants: Bottom worked.
- Root system and condition: Balanced with branch system.
- Species: True to name.

1.11 Container Grown Plants/ Trees

- Growing medium: With adequate nutrients for plants to thrive until permanently planted.
- Plants: Centred in containers, firmed and well watered.
- Root growth: Substantially filling containers, but not root bound, and in a condition conducive to successful transplanting.
- Hardiness: Grown in the open for at least two months before being supplied.
- Containers: With holes adequate for drainage when placed on any substrate commonly used under irrigation systems.

1.12 Labelling And Information

General: Provide each plant/ tree or group of plants/ trees of a single species or cultivar with supplier's labelling for delivery to site, showing:

- Full botanical name., Total number, Number of bundles, Part bundles.
- Supplier's name, Employer's name and project reference.
- Plant specification, in accordance with scheduled National Plant Specification categories and BS 3936.

1.13 Plant/ Tree Substitution

Plants/ trees unobtainable or known to be likely to be unobtainable at time of ordering. Submit alternatives, stating the price and difference from specified plants/ trees. Obtain approval before making any substitution.

1.14 Plant Handling, Storage Transport and Planting

- Standard: To HTA 'Handling and Establishing Landscape Plants'.
- Frost: Protect plants from frost.
- Handling: Handle plants with care. Protect from mechanical damage and do not subject to shock, e.g. by dropping from a vehicle.
- Planting: Upright or well balanced with best side to front.

1.15 Treatment of Tree Wounds

Cutting: Keep wounds as small as possible.

- Cut cleanly back to sound wood using sharp, clean tools.
- Leave branch collars. Do not cut flush with stem or trunk.
- Set cuts so that water will not collect on cut area.
- Fungicide/ Sealant: Do not apply unless instructed.

1.16 Protection of Existing Grass

- General: Protect areas affected by planting operations using boards/ tarpaulins.
- Excavated or imported material: Do not place directly on grass.

Duration: Minimum period.

1.17 Surplus Material

Subsoil, stones, debris, wrapping material, canes, ties, temporary labelling, rubbish, pruning's and other arising's: Remove.

1.18 General Planting/Seeding

- Planting shall be carried out within the contract period but not during periods of frost, drought, cold drying winds or when the soil is waterlogged, or when the moisture of the soil exceeds field capacity.
- All containers and protective coverings including biodegradable coverings to root systems shall be removed prior to planting. Roots, except for emergent vegetation, shall be teased out from the root-ball, spread evenly and not twisted.

All plant material shall be planted upright or placed so as to be well-balanced. Extreme care is to be taken to avoid damage to the root system, stem and branches when planting. The plant shall be positioned such that after planting the original soil mark on the stem is at finished ground level.

- Following completion of planting, grass seeding and turf laying, the soil over the whole of the planted, seeded or turfed area shall be sufficiently watered to achieve its field capacity.

- On completion of planting, watering and mulching, all areas shall be left tidy and weed-free and shall be maintained in a tidy and weed-free state until completion of the works.
- For shrub and transplant pit planting, notch planting and ordinary planting, the plant positions shall be set at equal centres in order to obtain a natural dense cover when mature. For notch and pit planting plants shall be planted in parallel lines. Planting positions in each row shall be staggered with the previous row.
- Finely-broken backfill material shall be carefully spread around roots and root trainers of all plants and the plants given slight shake to ensure that all interstices/ gaps are filled with soil, which shall then be consolidated by heeling. Careful filling and heeling shall continue as necessary at 150mm layers.

1.18.1 Mulching

Newly planted shrub areas shall be mulched immediately after planting to a depth of 50mm or in accordance with the details indicated on the drawing. Mulch shall be coarse chipped tree bark, composted for 2-4 months. Particle size 25-75mm diameter. No Fines.

1.18.2 After Planting & Mulching

- Watering: Immediately after planting, thoroughly and without damaging or displacing plants or soil.
- Firming: Lightly firm soil around plants and fork and/ or rake soil, without damaging roots, to a fine tilth with gentle cambers and no hollows.
- All areas shall be left tidy and weed-free and shall be maintained in a tidy and weed-free state until completion of the works.

1.19 Tree Planting

Attached in the appendix are typical tree planting details for this site.

1.19.1 Tree Pits

- Sizes: at least 300mm greater than rootball in all directions.
- Sloping ground: Maintain horizontal bases and vertical sides with no less than minimum depth throughout.
- Pit bottoms: With slightly raised centre. Break up to a depth of 100mm.
- Pit sides: Scarify.

1.19.2 Semi-Mature Trees

- Standard: Prepare roots and transplant to BS 8545.
- Planting shall be carried out by positioning the tree in the centre of the pit closely against the tree stake and spreading the tree roots to their fullest extent.
- Backfilling material: Previously prepared mixture of topsoil excavated from pit and additional compost as required.
- Immediately following planting, trees with stakes shall be secured with tree ties. Tree ties shall be fixed so that movement of the tree shall not cause damage or abrasion to the bark, top tie to be 50mm below top stake.

1.19.3 Staking Generally

Softwood, peeled chestnut, larch or pine, straight, free from projections and large or edge knots and with pointed lower end. Adjustable rubber ties to be fixed to all trees and at the correct size for the tree.

1.19.4 Mulch Circles/Squares

All existing trees/newly planted trees within open grass areas or grass verges shall have 50mm depth mulch circle/square of a maximum 1m diameter or as allowed by verge width.

1.20 Shrub Planting

- All shrubs are to be pit planted. General pit dimensions are to be wide enough to accommodate roots when fully spread and 75mm deeper than root system.
- Break up base of pit to a depth of 150 mm, incorporating soil ameliorant/ conditioner at 50 g/m².
- Pits to be backfilled with previously excavated material. Backfilling to be done in layers of 150mm depth; at each stage the filling to be firmly consolidated.
- Soil ameliorants can be premixed with the soil applied or mixed in during planting.
- Soil ameliorants to consist of an approved compost at 10L per m²; and 150g/m² of 10:10:10 NPK slow release fertilizer, or as approved.
- All shrub areas to be finished, with 75mm of medium grade bark mulch.

1.21 Hedgerow Planting

- Preparation: Dig trench to 500mm width for single staggered row, ensuing pit base is broken up 100mm deeper than plant rootball.
- Ameliorants: Compost at 10lt/m² and 10:10:10 NPK slow release fertiliser at 150g/m².
- Planting: Mix in soil ameliorants with excavated topsoil, or if there is poor topsoil then mix in with imported new topsoil. Firm down topsoil lightly in layers of 150mm by treading.
- Additional Requirements: If there is no existing fencing or barrier, install a protective fence to stop people walking through it until hedge is established. If there is livestock adjoining hedge install a stockproof fence or electrical fence 1m from hedge line until hedge is established.
- Prior to new growth cut the hedge back by 300mm to encourage new growth from base.

1.23 Removing Trees and Shrubs

- Identification: Clearly mark trees and hedges to be removed.
- Work near retained trees: Where canopies overlap, take down trees carefully in small sections to avoid damage to adjacent trees that are to be retained.

1.24 Failures of Planting

- Defects due to materials or workmanship not in accordance with the Contract: Plants/ trees/ shrubs that have failed to thrive.
 - Exclusions: Theft or malicious damage after completion.
 - Rectification: Replace with equivalent plants/ trees/ shrubs.
- Replacements: To match size of adjacent or nearby plants of same species or match original specification, whichever is the greater.

1.25 Green Roofs

Due care is to be taken when planting in gardens to ensure no damage occurs to the waterproof membranes. All planting is to be laid over a green-roof system that complies with EEuropean Federation of Green Roof Associations, (EFB), or equivalent, and in accordance with the drawings provided.

1.26 Grass Seeding

1.26.1 Herbicide Application

- Type: Suitable for suppressing perennial weeds and existing grass.
- Glyphosate and other controlled chemical pesticides will not be used under any circumstances.
- Suitable herbicide use to the instruction of a registered professional user.
- Timing: Allow fallow period before cultivation.
- Duration: As manufacturer's recommendation.

1.26.2 Seedbed cleaning before sowing

Operations: Herbicides as per registered professional user only.

1.26.3 Cultivation

- Compacted topsoil: Break up to full depth.
- Soil ameliorant/ Conditioner/ Fertilizer are to be used to boost late seeding only. Type to be used is to be agreed with the administering body depending on the time of year and the condition of the soil.
- Tilth: Reduce topsoil to a tilth suitable for blade grading.
 - Depth: 75 mm.
 - Particle size (maximum): 20 mm.
- Material brought to the surface: Remove stones and clay balls larger than 50 mm in any dimension, roots, tufts of grass, rubbish and debris.

1.26.4 Topsoiling

- Areas to be reinstated shall be top-soiled to a min. depth of 150mm.
- Quantity: Provide as necessary to make up any deficiency of topsoil existing on site and to complete the work.
- General: Do not use topsoil contaminated with subsoil, rubbish or other materials that are:
 - Corrosive, explosive or flammable;
 - Hazardous to human or animal life;
 - Detrimental to healthy plant growth.

1.26.5 Grading

- General appearance to be achieved: A fine graded finish to bring the ground to a uniform and even grade at the correct finished levels with smooth, flowing contours.
- Topsoil condition: Reasonably dry and workable.
- Contours: Smooth and flowing, with falls for adequate drainage.
- Hollows and ridges: Not permitted.
- Finished levels after settlement: 25 mm above adjoining paving, kerbs, manholes etc.
- Blade grading: May be used to adjust topsoil levels provided depth of topsoil is nowhere less than 150mm.
- Give notice: If required levels cannot be achieved by movement of existing soil.

1.26.6 Fertilizer for Seeded Areas

- Types: Apply both:
 - Superphosphate with a minimum of 18% water-soluble phosphoric acid.
 - A sulphate of ammonia with a minimum of 20% nitrogen.
- Application: Before final cultivation and three to five days before seeding/turfing.
- Coverage: Spread evenly, each type at 70 g/m², in transverse directions.

1.26.7 Final Cultivation

- Timing: After grading and fertilizing.
- Seed bed: Reduce to fine, firm tilth with good crumb structure.
- Depth: 50-100mm.
- Surface preparation: Rake to a true, even surface, friable and lightly firmed but not over compacted.
- Remove surface stones/earth clods exceeding:
 - Pastoral areas: 50mm.
 - Fine lawn areas: 10mm.
- Adjacent levels: Extend cultivation into existing adjacent grassed areas sufficient to ensure full marrying in of levels.

1.26.8 Grass Seed

- All seeds shall carry appropriate certificates.
- Seed shall be purchased fresh for each growing season and seed purchased impervious sowing seasons is not to be used.
- Seed shall be stored under non-transparent wrapping, off the ground, in a dry, shaded place, in well ventilated conditions under cover and shall be protected from vermin and contamination until required for use.
- No seeding shall take place until the seedbed is completed. All seeding shall be carried out within the sowing season.

1.26.9 Sowing

- General: Establish good seed contact with the root zone.
- Method: To suit soil type, proposed usage, location and weather conditions during and after sowing.
- Distribution: 2 equal sowings at right angles to each other.
- Protection: fence off areas with suitable fencing to stop people or animals from trampling new growth.

1.26.10 Grass sowing season

Grass seed generally: April to June or August to November.

1.27 Cleanliness

After completion of all works remove all debris and waste material from site.

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

2.0 MAINTENANCE

The maintenance programme will be organised on the basis of specific **performance standards** which must be met by the contractor at all times and will be the basis on which this contract will be assessed. Along with these performance standards a monthly report sheet shall be filled out and returned each month. Details of the performance standards are outlined below.

Remove all noxious and undesirable weeds from the site. Weeds shall include: Ragwort, Himalayan Balsam, Giant hogweed & Japanese knotweed, Thistle, Dock, Common Barberry, Male Wild Hop and Spring Wild Oat, or any other noxious species identified by the Department of Environment. For the removal of certain species such as Japanese Knotweed a method statement is to be prepared and submitted to the Department of Environment.

Performance Standards and Maintenance Operations

2.1 Grassed Areas

2.1.1 Fine-Cut Grass Areas

Fine cut grass areas shall achieve an even cover of vegetation of uniform height and colour comprising predominantly of grass species. No more than 5% of the grass areas shall contain dicotyledonous (dicots) weeds, except clover. Grass cutting shall not be carried out during excessively wet or waterlogged conditions. Contractor to inform administrative authority if conditions are unsuitable.

Fine-Cut Mowing

Where practical fine grass areas shall be cut using a cylinder mower, otherwise a rotary mower shall be used. All grass clippings shall be collected and removed off-site after each cut.

Lawn grass cutting shall be carried out every 10-14 days during the growing season, (throughout the period of March to October), but will need to be adjusted according to season's weather conditions. Grass shall be kept at a maximum height of 50mm and minimum height of 35mm. A minimum of 24 cuts shall be carried out annually.

Weed Control

Lawn grass areas shall be treated using an approved selective Glyphosate-free herbicide according to a registered professional user and manufacturer's instructions. Areas of invasive and noxious species in the lawn or areas, shall be mechanically removed or spot sprayed by a registered professional user.

Fertilizer

Approved fertilizer shall be applied 2no. times per year to lawn areas if required due to poor grass growth / establishment or yellowing. Spring fertilizer application of NPK ratio 9:7:7 shall be applied in May of each year and Autumn/Winter fertiliser of NPK ratio 3:12:12 shall be applied in October of each year to all fine cut grass areas.

2.1.2 Amenity Grass Areas

Amenity grass areas shall achieve an even cover of vegetation of uniform height and colour comprising predominantly of grass species. Unless otherwise agreed with the landscape architect no more than 15% of the grass areas shall contain dicotyledonous (dicots) weeds, except clover. Grass cutting shall not be carried out during excessively wet or waterlogged conditions. Contractor to inform administrative authority if conditions are unsuitable.

Amenity Grass Mowing

Where practical grass areas shall be cut using a cylinder mower, otherwise a rotary mower shall be used. Unless excessive or unsightly, or likely to cause a nuisance or damage to the sward, arisings shall be spread evenly over sward areas collected.

Lawn grass cutting shall be carried out every 10-14 days during the growing season, (throughout the period of March to October), but will need to be adjusted according to season's weather conditions. Grass shall be kept at a maximum height of 75mm and minimum height of 35mm. A minimum of 24 cuts shall be carried out annually.

Weed Control

Areas of invasive and noxious species in lawns, shall be mechanically removed. Glyphosate and other chemical pesticides will not be used under any circumstances unless otherwise instructed by a registered professional user. Weed infestations shall be reviewed in the context of the aesthetic and amenity functioning of the grass and if necessary controlled or eradicated.

Fertilizer

Approved fertilizer shall be applied 2no. times per year to lawn areas if required due to poor grass growth / establishment or yellowing. Spring fertilizer application of NPK ratio 9:7:7 shall be applied in May of each year and Autumn/Winter fertiliser of NPK ratio 3:12:12 shall be applied in October of each year to all fine cut grass areas.

2.1.3 Wildflower areas

Prepare the area before each cut remove all litter and debris.

Height and frequency of cut in first growing season:

- Time of first cut: August or September, only after the first flowering.
- Time of second cut: Another cut will be required prior to flowering in the following April or May to 'strim' away the taller annual growth.
- Height of first cut: 100mm.
- Frequency of subsequent cutting (max.): every 24 weeks.
- Trimming: All edges.
- Arisings: Remove.

If using mulching mowers rake the soil very well at the end of the season to remove all the dead debris. Any cut that produces substantial clippings should have the clippings removed and composted.

Height and frequency of cut in second growing season:

- Time of cut: Year: Year 2 = 2 cuts in spring and autumn. For mown strip along cycle paths 5 cuts per year.
- Height of cut: 150mm.
- Any cut that produces substantial clippings should have the clippings removed and composted.
- Trimming: All edges.
- Arisings: Remove.

2.1.4 Edging and Trimming

Grass edges along pathways, planting borders, roadways, trees, lampposts, signs and any other obstacle shall be kept neat and tidy at all times.

Between the months of March and October inclusive edging shall be carried out to all areas of grass abutting isolated/ specimen trees or shrub borders or mulch circles. These areas shall be maintained using a half moon tool or similar to maintain straight or curved defined line and shall be carried out a minimum of 2 - 3 times per year.

Mowing strips against permanent obstacles shall be a max. width of 150mm and shall be maintained using a hand strimmer. Large areas of desiccated/ burnt off grass are not permitted. Strimming shall be carried out a min. of 12 times per year.

Grass clipping and all arisings shall be swept up and removed off site.

2.1.5 Spring Bulbs in Grassed Areas

Only cut grassed areas populated by spring bulbs after the leaves of the bulbs have died down and/or yellowed completely. Initially reduce height by one third, followed by a 2-3 stage further reduction over two weeks to achieve desired grass height.

2.1.6 Failed areas

Areas of grass which fail or are damaged or worn shall be reinstated by re-turfing or re-seeding in accordance with the original specification.

2.2 Shrub Planting

Shrub areas shall be kept litter and weed free, particularly of perennial weeds. Healthy growth shall be maintained to cover as much as possible of the planting area and allowing the individual plants to achieve as near as possible their natural form. With the exception of hedges, boxing or pruning to shapes is prohibited. Plants shall be contained with designed planting areas and pruned to avoid obstructing pathways or sightlines. Climbers are to be pruned and tied into trellises as required, with two main inspections annually to check trellis system is intact and anchor points are secure.

2.3 Pruning

In general pruning shall be done only to enhance natural growth. Dead, damaged and diseased portions of the plant will be removed. All cuts shall be flush and clean, leaving no stubs or tearing of bark. All major pruning shall be done following flowering or during plant's dormant season. Emergency or minor pruning shall be done when needed.

Pruning shall be carried out to maintain proper size in relationship to adjacent plantings and intended function. Remedial attention and repair to shrubs shall be provided as appropriate by season or in response to incidental damage.

Groundcover plants shall be pruned as required to restrain perimeter growth to within planting bed areas where adjacent to walks and curbs. Tip prune selected branches of low growing shrub or groundcover masses to maintain even overall heights and promote fullness.

Certain plants, such as Cornus spp. will require heavy annual pruning in order to maintain healthy colourful stems and healthy leaves. All arising's from pruning shall be removed of site.

2.4 Weed Control

Planting beds shall be maintained relatively weed free (no more than 10% of weed cover at maximum) by hand weeding or spot spraying any emergent weeds during the growing season with Glyphosate-free herbicide or approved equivalent. Saplings shall be removed from all planting areas on emergence or immediately after to prevent establishment.

Specific weed control operations shall be carried out a min of 9no. times per year, however it will be the contractor's duty to control weeds by hand weeding or other accepted method if weed cover exceeds 10% of the planting area.

2.5 Mulching

Shrub beds shall contain a min. depth of 50mm bark mulch throughout the year. Contractor to top-up as 2 times per year or as appropriate to maintain depth. Mulch is not required in areas where plant foliage completely covers the soil surface, such that the soil is not visible through the foliage. The contractor shall spot treat to remove emergent weeds as specified above but do not cultivate or incorporate the mulch into the soil. Any mulch outside of designated planting areas shall be returned to the planter on a weekly basis.

Mulch shall be uniform in colour and appearance, and free of leaves, sticks, or trash. Mulch may be chipped or shredded wood, bark. When replacing existing mulch, use a mulch product that is similar in appearance to that already at the site.

2.6 Tree Planting Care

Trees shall be maintained in a healthy, vigorous growing condition with a well-shaped framework for future growth.

2.7 New Tree Planting

Spring and autumn of each year during the maintenance period the trees, double-stakes, rabbit guards and ties shall be checked and adjusted, the soil firmed, any dead wood removed back to healthy tissue and mulch adjusted to original levels. Any broken stakes or ties evident throughout the maintenance period shall be replaced.

A 1m-diameter mulch circle/square shall be maintained at the base of each tree located in open grass areas or grass verges. Top up bark mulch to 75mm where required and make good any mulch mats.

During the first growing season all standard trees / semi-mature trees shall be watered at least five times during the growing season - in April, May, June, July and August unless otherwise directed by the Landscape Architect. During the second growing season trees will be kept well watered, particularly during June, July and August.

The edge of the mulch circle shall be maintained in a neat and tidy condition as above.

The surface of all planting pits is to be kept free of weeds during the maintenance period by mechanical weeding of annual weeds and perennial weeds - to be carried out on three visits during the growing season.

2.8. Tree Stakes and Ties

Check tree stakes and ties on each maintenance visit. Repair, strengthen and adjust (loosen / tighten) to ensure optimum functioning and trees not being damaged by poor fixings. If trees no longer require stake / tie remove. Prior to handover, check all tree stakes and ties and remove those no longer required.

2.9 Woodland/Scrub Area Management

Woodland areas specified shall be maintained in a healthy, vigorous condition and free from litter and noxious weeds throughout the year.

Certain areas of woodland may require thinning over the 5-year period. These areas shall be thinned by no more than 10%, removing only the weaker tree specimens. Thinning shall be carried out as directed onsite by administrative authority.

Weed control around trees bases and in shrub areas will be achieved by mulches and mulch top ups only. Contractor to ensure that no damage is caused to trees by herbicide application.

Areas of natural scrub as indicated on the maintenance plans shall be contained by trimming back once per year. The contractor shall control noxious weeds. This shall be carried out 2no. times per annum.

All clearance operations within woodland and scrub areas shall be carried out outside of the bird-nesting season to preserve the bird life in the area. This season extends from the 1st March to 31st August.

2.10 Native hedgerow Areas

Maintain hedges to ensure they remain healthy, neat, and free from litter and noxious weeds throughout the year. Regularly observe the hedge's health, growth, and any signs of distress throughout the year.

Trim every three years in rotation around the site leaving soe areas undisturbed for wildlife. Trim only from the 1st of September to the last day of February to avoid disturbing nesting birds. Trimming in late winter allows full use of the hedgerow's food resources.

Before cutting, inspect the hedgerow to identify trees and other wildlife features, as well as obstacles or hazards. Cut hedgerows in a triangular shaped profile with a bushy structure for maximum protection from wind., providing a variety of heights.

Weed control around will be achieved by mulches and mulch top ups only. Contractor to ensure that no damage is caused to trees by herbicide application.

Control competing vegetation by mechanical weeding. to prevent smothering and to allow lower branches develop, giving a dense base.

2.11 Soft Landscaped SuDS Areas

Regular Inspections:

- Inspect infiltration surfaces: Check for silting and ponding, record the de-watering time of the facility, and assess standing water levels in the underdrain (if applicable) to determine if maintenance is necessary.

Typical Frequency: Quarterly.

- Check operation of underdrains: Inspect flows after rain.

Typical Frequency: Annually.

- Assess plants: Look for signs of disease, poor growth, or invasive species, and replace plants as necessary.

Typical Frequency: Quarterly.

- Inspect inlets and outlets: Ensure there are no blockages.

Typical Frequency: Quarterly.

Regular Maintenance:

- Remove litter, surface debris, and weeds: Ensure the area remains clean and tidy.

Typical Frequency: Quarterly (or more frequently for tidiness or aesthetic purposes).

- Replace plants: Maintain planting density by replacing plants as needed.

Typical Frequency: As required.

- Remove sediment, litter, and debris build-up: Focus on areas around inlets or forebays.

Typical Frequency: Quarterly or biannually.

Occasional Maintenance:

- Infill holes or address scouring in the filter medium: Improve erosion protection if necessary.

Typical Frequency: As required (review biannually or after significant storm events).

- Repair minor silt accumulations: Rake away surface mulch, scarify the surface medium, and replace the mulch.

Typical Frequency: As required (review biannually or after significant storm events).

Remedial Actions:

- Remove and replace soils and vegetation: Address as needed, typically expected after more than 20 years.

Typical Frequency: As required but likely greater than 20 years.

2.12 Litter Clearance/Pick-up

The contractor shall maintain all areas free from litter. This shall mean the removal of all extraneous litter, rubbish and any other debris from all areas, which will include grass areas, planted areas, carparks, footpaths as well as woodlands and tree canopies.

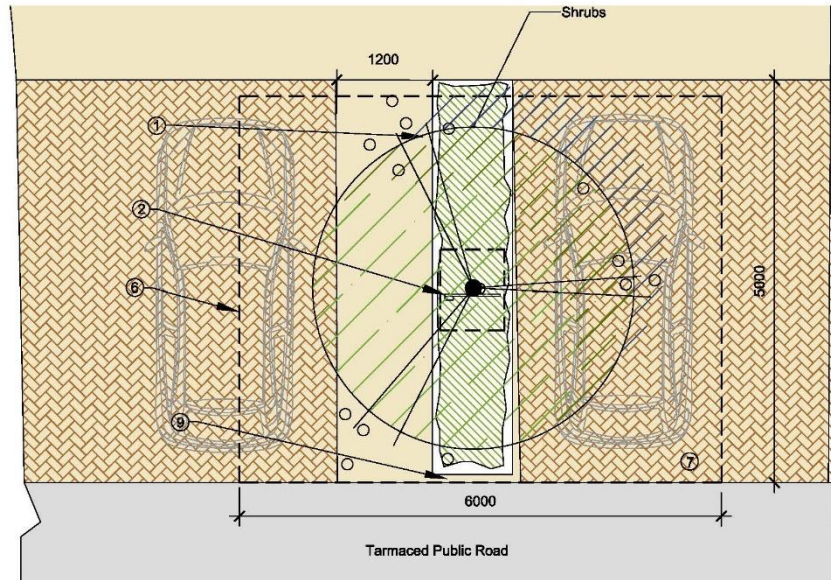
Notwithstanding the above it is expected that the contractor and his staff shall take sufficient pride in the appearance of the site and that they would pick up all visible litter during every site visit.

In addition to removal of litter from footpaths, planted areas, etc., the contractor shall make provision for the immediate (within 1 days of notification) arrangement for collection and removal of all extraneous matter which has been deliberately been deposited on site by persons known or unknown (fly-tipping).

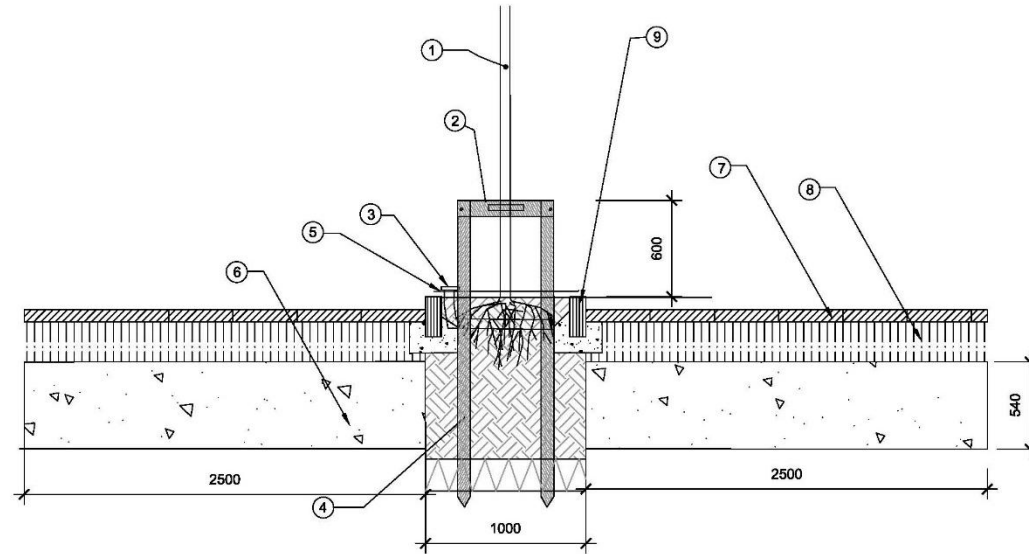
2.13 Replacements

Any tree, hedge or shrub that is removed, uprooted, destroyed or becomes seriously damaged, defective, diseased, or dead shall be replaced in the same location with another plant of the same species and size as that originally planted within the defect period after planting. All such replacements shall be carried out in the first available planting season after the requirement to do so is recognised.

Tree planting detail



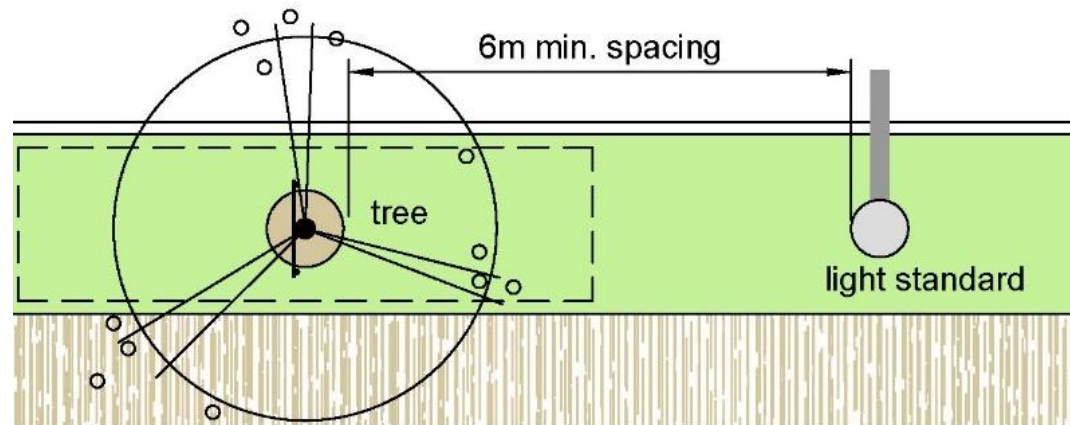
VO1: Street Tree Pit Detail – Plan



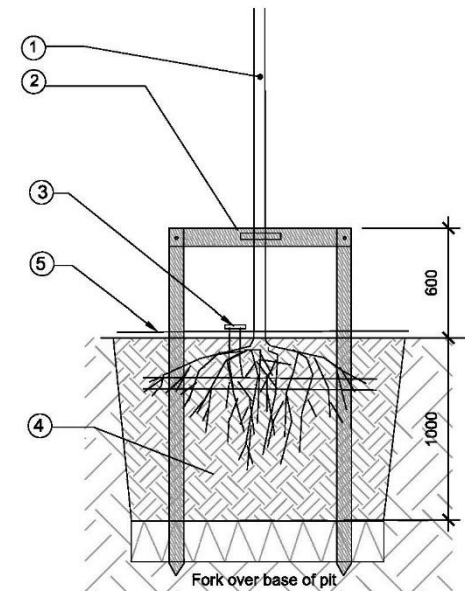
VO1: Street Tree Pit Detail – Section

NOTES

- ① Tree to have a clear stem height of 2000mm.
- ② 2no. 75mm diameter stakes pressure treated driven 1300mm below ground 600mm above ground with specified biodegradable adjustable tie affixed to tree & stake.
- ③ 6cm diameter perforated flexible plastic drainage pipe positioned as shown over rootball with one end open to surface to facilitate watering.
- ④ Pits to be size 80x125x100cm. Remove the full depth of topsoil and set aside for reuse. Scarify sides, break up base of pit to a depth of 200mm and incorporate a soil ameliorant into base. Back fill pit with topsoil mixed with soil ameliorants in 150mm firmed-in layers. All planting to receive a minimum of 25lit water per m2 immediately after planting.
- ⑤ 50mm bark mulch in 80cm dia circle to base of trunk.
- ⑥ 16m3 area root zone under permeable paving for parking bays, made up of 50% 70-100mm aggregate sizes, 30% multipurpose topsoil and 20% grit (20mm down).
- ⑦ Permeable parking paving to engineers spec.
- ⑧ Sub base to parking to engineers spec.
- ⑨ Kerb to engineers spec.



VO2: Street Tree Pit and Light Standard Detail – Plan



VO2: Street Tree Pit Detail – Section

NOTES

- ① To have a clear stem height of 2000mm.
- ② 2no. 75mm diameter stakes pressure treated driven 1300mm below ground 600mm above ground with specified biodegradable adjustable tie affixed to tree & stake.
- ③ 6cm diameter perforated flexible plastic drainage pipe positioned as shown over rootball with one end open to surface to facilitate watering.
- ④ Pits to be size 1x1x1m or 15cm wider than rootball which ever is greater. Remove the full depth of topsoil and set aside for reuse. Scarify sides, break up base of pit to a depth of 200mm and incorporate a soil ameliorant into base. Back fill pit with topsoil mixed with soil ameliorants in 150mm firmed-in layers. All planting to receive a minimum of 25lit water per m2 immediately after planting.
- ⑤ 50mm bark mulch in 80cm dia circle to base of trunk.

3.0 Maintenance Programme

This programme is a guideline only and times of operations may vary on approval by landscape architect.

ONGOING REQUIREMENTS:	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
Lawn grass cutting (Min 18 cuts)		*	**	**	***	***	***	***	***	**	**	
Edging to lawn grass areas				*			*			*		
Rough Grass							*					
Wildflower areas				*					*			
Fertiliser application to lawn grass areas.					*		*			*		
Hedge pruning/cutting					*			*			*	
Shrubs pruning and feeding				*		*			*	*	*	*
Native hedgerow cutting (no more than every other year)		*										
Weed control of hedge and shrub planting areas		*	*	*	*	*	*	*	*	*	*	
Tree pruning											*	*
Removal of tree stakes (3-5yr)				*								
Mulch top-up to tree circles/ squares						*				*		
Weed control to tree mulch circles				*			*				*	
Weed control to shrubs & hedgerow				*			*				*	
Watering of new trees (or after 3 weeks of no rain)				*	*	*	*	*				
Trimming of scrub areas												*
Weed control of scrub areas				*					*			
Weed control to footpaths, cycle paths.				*								
Litter Clearance/pick up	***	***	***	***	***	***	***	***	***	***	***	***