

PROPOSED PART 8 RESIDENTIAL DEVELOPMENT

LAMB'S CROSS (LDR)

Dun Laoghaire-Rathdown County Council

Landscape Report

October/ 2024

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Site Description

A residential development on a site located in the townland of Balally, at Lamb's Cross, Dublin 18 situated at the junction of Sandyford Road and Hillcrest Road

The proposed development includes:

- i. 37 no. apartment units in a 3 - 5 storey building over undercroft area, including 29 no. one bed units; and 8 no. two bed units;
- ii. 1 no. community facility at ground floor of 171sqm;
- iii. Energy Centre at first floor level and external plant area set back at third floor level;
- iv. Undercroft area at lower ground level comprising (a) 2 no. ESB substations (b) car, bicycle and motorcycle parking; (c) bin storage; (d) bulk storage area; and (e) supporting mechanical, electrical and water infrastructure.
- v. Landscaping works including provision of (a) communal open space; and (b) public realm area fronting onto Sandyford Road and Hillcrest Road
- vi. All associated site development works including (a) vehicular access off Hillcrest Road; (b) public lighting; (c) varied site boundary treatment comprising walls and fencing; and (e) temporary construction signage.

Landscape Design Aims and Objectives

The landscape structure of the proposed residential development adopts the open space strategy of the Landscape Masterplan which provides for a varied accessible and permeable open space network for community use that as it matures will become a significant resource.

As the Covid pandemic has brought into sharp relief for people's health and well-being there is a community requirement for open, natural spaces, which facilitate exercise, recreation, and free play.

The proposed open space network provides for these flexible activities in a natural environment with inclusive access.

Varied habitats are created for ecological connections and landscape visual amenity;

- rain gardens and bioretention planting
- new tree planting,
- undergrowth woodland planting and edible fruit and nut trees and shrubs
- pollinator friendly sensory garden planting and vegetable gardens
- flexible amenity lawn areas
- ornamental native pollinator friendly planting
- green roofs

Management Structure

The landscape areas will be managed by the development management company for a period of 25 years.

Bird Season Restrictions

Vegetation clearance will take place outside the breeding bird season (i.e. the start of September to the end of February, inclusive) to avoid any potential impact on breeding birds. Where this seasonal restriction cannot be observed, a check for active nests will be carried out immediately prior to any site clearance and repeated as required to ensure compliance with Irish wildlife law. This will be carried out under the supervision of a qualified Ecologist.

Ecology

The open space landscape network has been designed to provide for ecological value in the area and this function will be enhanced in accordance with further recommendations from the Ecologist Consultant.

The two main design principles of landscape and biodiversity for this site are as follows.

1. Biodiversity enhancement in the landscaping scheme.
2. Biodiversity enhancement for fauna

These are outlined further in the biodiversity chapter below.

All Ireland Pollinator Plan 2021-2025

Planting and management of the landscape areas shall be undertaken in accordance with pollinator friendly management objectives as outlined in the “All Ireland Pollinator Plan 2021-2025 (Councils: Actions to Help Pollinators)” National Biodiversity Data Centre and will include interpretative signage highlighting the areas Managed for Wildlife.

SUDS integration for water management (are there nature-based suds solutions)

A coordinated approach within the landscape design has been taken to site services, in particular SUDS integration for water management and habitat creation.

Design criteria for swales and raingardens will include the following:

- Maximum side slopes will be 3:1. Slopes and depths should be minimised to the extent practical for aesthetic and safety reasons. The base width should be a minimum width of 2 feet.
- Check dams should be installed at regular intervals along the swales to promote ponding. Large rocks that are obvious and do not become concealed by vegetation should be used as check dams. Such rocks will create an attractive as well as effective check dam and will provide micro-habitat for species (e.g. basking sites for invertebrates etc.). Figure 3 provides examples of swales.
- Broadleaved trees should be planted along the filter strips (see example diagram in Figure 4).

Standards of Care

High standards will be maintained in all areas of service delivery.

High standards of care will be achieved by:

- a landscape maintenance specification
- maintenance works to be undertaken by trained staff members, providing on-site supervision of trainees
- providing Health & Safety training for staff
- proactive maintenance of hard landscape areas, play elements and seating
- a programme of tree works
- monitoring of standards of care
- working with local interest groups to ensure community ownership of the site
- updating risk assessments for operations by the landscape staff
- periodic review of standards and procedures
- perceptions of safety will be increased, and vandalism and other anti-social behaviour discouraged with additional natural surveillance by increasing circulation, overlooking from the residential development and maintaining open views across the woodland area

Landscape design description

The development at Lambs Cross will include 3 main landscape areas : the streetscape along Hillcrest road and Enniskerry Road, the car parking area enclosed with existing planting and stream, and the communal courtyard.

The spaces are designed to maximise biodiversity, recreational amenity, permeability and incorporate nature-based SUDS.

The amenities are designed to reach the DLRD Park Department standards in terms of amenity space.



1. Streetscape

The existing streets of Hillcrest and Enniskerry road have a suburban to countryside character with low stone walls and groups of trees.

The aim of the landscape proposal is to respect this character, while creating a suburban street with space for non-residential uses, such as shops, cafe etc. in the ground floor of the proposed buildings creating a small local centre with amenities at Lambs cross.

The proposal is therefore to include for comfortable pedestrian footpath, cycle lane, and a small plaza at Lambs cross junction, while respecting the local character.

Greening and SUDS measures are also proposed to soften the streetscape, provide for biodiversity, water attenuation, filtration and infiltration and therefore contributing to climate resilience. Raingardens are therefore proposed to attenuate,

filter and infiltrate the water from pedestrian footpaths and excessive rainwater from roofs, while creating a pleasant pedestrian connection and buffer between the carriageway and the plaza and seating. While tree planting is proposed to Enniskerry road, the plaza is more open with a clear view to the Dublin mountains.

Groups of trees are proposed rather than lines of trees as well as low stone walls that create a continuity to the existing character. The low walls sometimes form a privacy boundary, edges to edges to raingardens, and sometimes provide for seating opportunities with timber seats.



Pictures above showing the current character with low stone walls and groups of trees rather than tree lines.



Stone walls are incorporated in the layout, sometimes creating an edge to rain gardens or a privacy screen to ground floor patios, other time providing for seating opportunities.

Raingardens are proposed to the building as part of the SUDS strategy and to increase biodiversity and visual amenity. Only native planting is proposed to raingardens. Native trees are proposed to the street.

2. Parking

The parking is provided to the back of the site with access from Hillcrest road. SUDS measures are incorporated in form of permeable paving and bioretention planting. The area is enclosed from the north and east with existing planting.

Reinstatement and additional planting is proposed to the existing planting to the embankment at the northern boundary of the site in form of a native microforest planting to increase biodiversity.

3. Communal courtyard

The communal courtyard is located on the podium level. The proposal seeks to create balance between privacy - providing screening planting to apartments and patios, and community - seeking to encourage residents to meet in the courtyard and engage in a diversity of outdoor activities.

The courtyard's amenity consists of play areas, seating on the sun, and gathering space, community gardening, tiny food forest planting, amenity lawn and high visual amenity with planting that is attractive across seasons.

While the seating at the play area and play spaces create opportunities for young families, parents and children to meet, the gathering space with seating around a large table surrounded by a herb garden and vegetable garden, create meeting opportunities for residents of all ages.

The vegetable planter can be planted and maintained by the residents themselves or alternatively planted with perennial vegetables and herb and maintained as part of the overall planting.

Play spaces include wet pour rubber safety surfacing area with timber play equipment such as a carousel, a seesaw for 4, bee springers, but more nature inclusive play areas are also provided, such as grass mounding for toddler, or a small stepping logs and balancing logs path through the edible woodland planting.

Privacy planting is proposed to the apartments and patios of min 1.5 m depth to apartments and minimum 0.8 m depth to patios, including tree and shrub planting.



Reference pictures above: Privacy planting to apartments and patios.

Sun tolerant pollinator friendly planting to south and west facing facades and shade tolerant woodland atmosphere to north facing facade.

Native planting with additional pollinator friendly planting to extend flowering season and increase visual amenity. Pictures below: Sun facing seating with sensory planting to the back.



Reference pictures above: Seating is located on sunny location facing south and south-west. The shape of the seating promotes social interaction.



Reference pictures above: (Perennial) vegetable and herb planters for community gardening but also as a sensory experience.

Planting Strategy

The general planting strategy throughout the scheme is for significant structure tree planting with 2 metre clear stems to provide a leafy canopy layer, softening the proposed buildings and a base layer of shrub planting to create low level seasonal interest and colour softening the hard surfaced areas, curtilage and car parking. Eye level between the two planting types is kept clear to maintain sight lines throughout the scheme.

Throughout the scheme, the planting palette is uplifted with edible trees and shrubs and sensory planting as part of the amenities provided for the future residents.

The priority is given to locally sourced and native planting, when appropriate, to enhance biodiversity and support local biome. Native and naturalised tree species are to be planted within the amenity space to increase opportunities for native wildlife.

PUBLIC SPACE

The planting to the streetscape and boundaries consists of a variety of native planting, aiming to maximise biodiversity. This includes native microforest planting and bioretention and raingarden planting. The aim is to also add native pollinator friendly flowering species to the mix both for enhancing biodiversity as well as visual amenity.

Note pollinator friendly planting is marked with an asterisk*

Native microforest planting

To reinforce existing woodland planting along the northern boundary.

Inspired by the Miyawaki method. 14 species of native trees and shrubs to develop in time the forest multi-storey structure - with emerging tree layer, tree layer, sub-tree layer and shrub layer. By combining this large variety of plants, a complex habitat will develop attracting much biodiversity. Whip planting (seedlings) in planting density 4 plants/ sqm.

Emerging tree layer: (15% of mix)

10% Pedunculate oak *Quercus robur*, Irish provenance

5% Sessile oak *Quercus petraea*, Irish provenance

Tree layer (40% of mix)

20% Alder *Alnus glutinosa*

5% Cherry* *Prunus avium*

10% Downy birch *Betula pubescens*

5% Silver birch *Betula pendula*

Sub-tree layer (22% of mix)

2% Forest apple* *Malus sylvestris*

10% Hawthorn* *Crataegus monogyna*

5% Hazel *Corylus avellana*

5% Holly* *Ilex aquifolium*

Shrub layer (23% of mix)

3% Elderberry*	<i>Sambucus nigra</i>
13% Grey willow*	<i>Salix cinerea</i>
5% Guelder rose*	<i>Viburnum opulus</i>
2% Spindle	<i>Euonymus europaeus</i>

Native bioretention planting and raingardens



Alder	<i>Alnus glutinosa</i>
Birch	<i>Betula pendula</i>

Creeping Jenny*	<i>Lysimachia nummularia</i>
Cuckoo flower	<i>Cardamine pratensis</i>
Devil's bit scabious	<i>Succisa pratensis</i>
Flowering rush*	<i>Butomus umbelatus</i>
Greater pond sedge	<i>Carex riparia</i>
Hemp agrimony*	<i>Eupatorium cannabinum</i>
Large sedge	<i>Carex pendula</i>
Marsh marigold*	<i>Caltha palustris</i>
Meadowsweet	<i>Filipendula ulmaria</i>
Oxeye Daisy*	<i>Leucanthemum vulgare</i>
Purple loosestrife*	<i>Lythrum salicaria</i>
Ragged robin*	<i>Silene flos-cuculi</i>
Red campion	<i>Silene dioica</i>
Reed sweet grass	<i>Glyceria maxima</i>
Sneezewort*	<i>Achillea ptarmica</i>
Soft rush	<i>Juncus effusus</i>
Square-stalked St John's wort	<i>Hypericum tetrapterum</i>
Tufted hair grass	<i>Deschampsia caespitosa</i>
Water avens*	<i>Geum rivale</i>

Water mint*	<i>Mentha aquatica</i>
Yellow iris*	<i>Iris pseudacorus</i>

Native hedging to plaza

To retaining walls and bike parking:

Hawthorn*	<i>Crataegus monogyna</i>
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COMMUNAL COURTYARD

The planting in the communal courtyards is based on maximising seasonal visual amenity, prioritising pollinator friendly planting. Non-native species are added to the mix as well as native species, to extend the flowering season both for pollinators as well as visual amenity.

Evergreen species, winter flowering species, and grasses are used in the mixes in order to extend the effect over winter month and to provide privacy to apartments and patios.

Edible herbs, edible flowers and berry bearing shrubs and trees are used in the communal garden planter and edible woodland planting.

Please see below indicative lists of proposed species. Note pollinator friendly planting is marked with an asterisk*, natives species marked N.

Privacy planting to courtyards with trees

SUN

Himalayan birch	<i>Betula utilis</i> var. <i>jacquemontii</i>
Camomile, N	<i>Chamaemelum nobile</i>
Common yarrow*, N	<i>Achillea millefolium</i>
Cowslip*, N	<i>Primula veris</i>
Field scabious*, N	<i>Knautia arvensis</i>
Fennel*	<i>Phoeniculum vulgare</i>
Great mullein*, N	<i>Verbascum thapsus</i>
Oxeye Daisy*, N	<i>Leucanthemum vulgare</i>
Purpletop*	<i>Verbena bonariensis</i>
Purple coneflower*	<i>Echinacea purpurea</i>
Sage*	<i>Salvia nemorosa</i>
White gaura*	<i>Gaura lindheimeri</i>
Wild carrot, N	<i>Daucus carota</i>
Wild marjoran*, N	<i>Origanum vulgare</i>
Mexican feather grass	<i>Stipa</i> 'Pony tails'
Tufted hair grass, N	<i>Deschampsia cespitosa</i>

SHADE AND SEMI-SHADE

Cornelian cherry*	<i>Cornus mas</i>
Hawthorn*, N	<i>Crataegus monogyna</i>
Hazel 'Contort', N	<i>Corylus avellana</i> 'Contorta'
Rowan*. N	<i>Sorbus aucuparia</i>
Bellflower*, N	<i>Campanula trachelium</i>

Bluebell, N	<i>Hyacinthoides non-scripta</i>
Common columbine*	<i>Aquilegia vulgaris</i>
Common polypody, N, E	<i>Polypodium vulgare</i>
Geranium 'Rozanne'*	<i>Geranium</i> 'Rozanne'
Guelder rose 'Compactum'*, N	<i>Viburnum opulus</i> 'Compactum'
Hard fern, N, E	<i>Blechnum spicant</i>
Hellebore*, E	<i>Helleborus niger</i>
Japanese anemone*	<i>Anemone</i> 'Honorine Jobert'
Mahonia 'Soft Carress'*, E	
Royal fern, N	<i>Osmunda regalis</i>
Snowdrop*, N	<i>Galanthus nivalis</i>
Wood anemone*, N	<i>Anemone nemorosa</i>

Food forest planting to playground

Mix of native and cultural planting of edible and medicinal species of trees, shrubs and herbaceous perennials, includes many pollinator friendly plants

Sub-tree layer

Hazelnut, N	<i>Corylus avellana</i> , native
Serviceberry*	<i>Amelanchier alnifolia</i> 'Smokey'

Shrub layer:

Red currant*	<i>Ribes rubrum</i>
Gooseberry	<i>Ribes uva-crispa</i>
Raspberry	<i>Rubus idaeus</i> , native, to forest edges

Undergrowth mix:

Chervil (*Anthriscus cerefolium*), Comfrey (*Symphytum officinale*), Forget-me-not* (*Myosotis sylvatica*), Lungwort* (*Pulmonaria officinalis*), Mint* (*Mentha piperita*), Musk mallow (*Malva moschata*), Primerose*, N (*Primula vulgaris*, native), St John's wort, N (*Hypericum perforatum*), Sorrel, N (*Rumex acetosa*), Sweet Cicely (*Myrrhis odorata*), Sweet woodruff* (*Galium odoratum*), Violet, N (*Viola odorata*), Wild strawberry*, N (*Fragaria vesca*)

Courtyard communal garden planter

Perennial edible and medicinal herbs and edible flowers planting mix. Alternatively residents can plant and maintain planters themselves.

Pollinator friendly plants marked by *.

Anise hyssop*	<i>Agastache officinalis</i>
Bay leaf*	<i>Laurus nobilis</i>
Cardoon*	<i>Cynara cardunculus</i>
Chamomile, N	<i>Chamaemelum nobile</i>
Chicory	<i>Cichorium intybus</i>
Chives*	<i>Allium schoenoprasum</i>
Daylilies	<i>Hemerocallis</i>
Fennel*	<i>Foeniculum vulgare</i>
Hyssop*, E	<i>Hyssopus officinalis</i>
Lavander*, E	<i>Lavandula angustifolia</i>
Leek, perennial*, N	<i>Allium ampeloprasum</i> var <i>babingtonii</i>

Lemon balm	<i>Melissa officinalis</i>
Mint*	<i>Mentha piperita</i>
Oregano* ,N	<i>Origanum vulgare</i>
Purple coneflower*	<i>Echinacea purpurea</i>
Roses*	<i>Rosa villosa, Rosa rugosa</i> ‘Blanc Double de Coubert’
Rosemary*, E	<i>Rosmarinus officinalis</i>
Sage*, E	<i>Salvia officinalis</i>
Saffron*	<i>Crocus sativus</i> , bulbs
Sea kale, N	<i>Crambe maritima</i>
Straberry, wild*, N	<i>Fragaria vesca</i>
St John’s wort , N	<i>Hypericum perforatum</i>
Thyme *	<i>Thymus vulgaris</i>
Tree collard	<i>Brassica oleracea acephala</i>
Welsh onion*	<i>Allium fistulosum</i>
9 star broccoli	<i>Brassica oleracea botrytis</i>

Planting details are included on the following landscape details drawings:

- SHB4-LDR-DR-MAL-L-P-0200
- SHB4-LDR-DR-MAL-L-P-0201

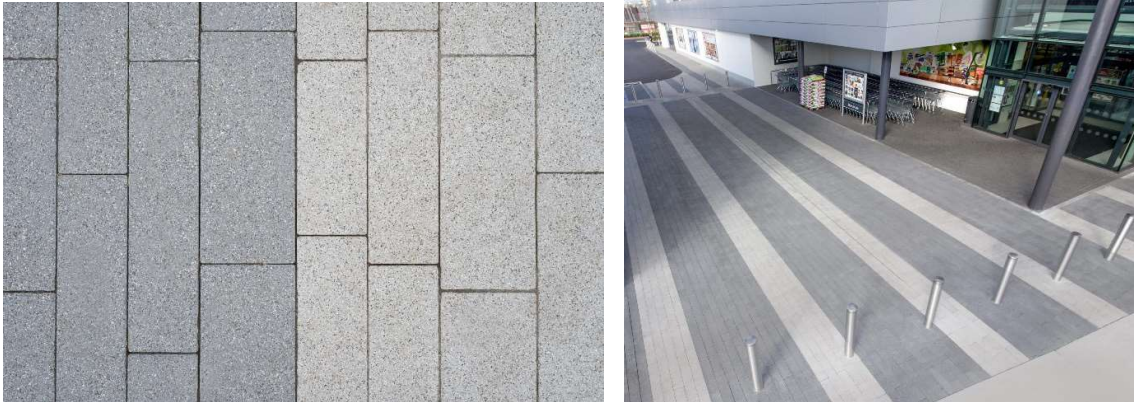
Furniture and Finishes

Proposed Furniture and finishes are outlined on the landscape drawings and associated legends, and on the detail sheets.

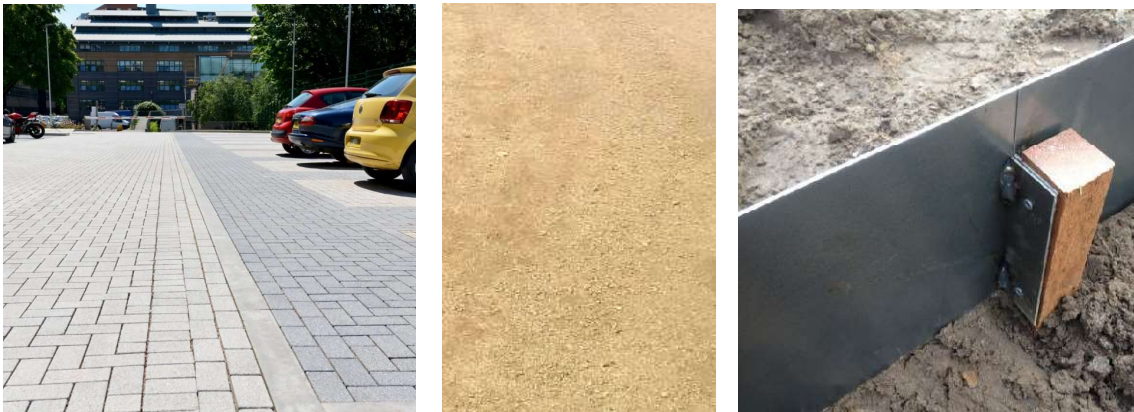
- SHB5-BDR-DR-MAL-L-P-0300
- SHB5-BDR-DR-MAL-L-D-0301

Finishes

Feature PC concrete paving with granite surface finish is proposed to public open space – streetscape.



Permeable pre-cast concrete paving with granite finish for car parking. Permeable paving chosen to benefit sustainable drainage in line with Dublin City Development plan and national guidelines.



Compacted gravel with a metal edge is proposed to bicycle parking spaces.

Wet-pour safety surfacing (colour to be agreed) is proposed to the play space.

Furniture

Age friendly seating is proposed to the streetscape and to the communal courtyard with backrests and armrests. Sheffield type bicycle stands are provided to the front of the building as well as spaces for cargo bike parking.

Raised planters for gardening and sensory experience are proposed to the courtyard.

Play equipment

The following play equipment is proposed to the small children and toddler play space.

- 1no carousel with seats
- 1no seesaw
- 3no springers
- Stepping and balancing logs through food forest planting

Maintenance should maximize the biodiversity potential of the site, providing new opportunities for expansion of (and cross-interaction between) habitats whilst also providing an attractive area of green open space with high amenity value. The open space network can be broken down into the following softworks planting types for maintenance:

Amenity Active Use Grassland

Objective: To produce a firm hard wearing sward with the appropriate cover of acceptable species, and adequate control of weeds, pests and diseases. The lawn is to be maintained to 40mm height to create a close mown turf for active and passive recreational use.

Operations: Grass maintenance strips to be cut at 2-week intervals to a height of 40mm during the growing season of April to October. Grass cuttings to be broken down and spread evenly across the area and remain on site. Lightly roll Amenity Grass areas in spring and autumn annually to consolidate the soil. Carry out when ground conditions are appropriate when soil is moist but not waterlogged. Any settlements or local depressions should be made good.

Woodland Planting Areas

Objective: Areas planted with trees and shrubs to promote and develop native deciduous and mixed woodland in the development. The woodland provides habitat and seasonal interest and provides an amenity space for community use.

Operations: Woodland planting areas to remain clear of weeds to a diameter of 1m circle around each plant planted. Achieved by a circle of mulch 75mm deep being maintained to the base of each tree planted. At all times, weed cover to be less than 5% and no weed to exceed 100 mm high. Check the condition of stakes, ties, guys and guards. Replace broken or missing items. Adjust if necessary to allow for growth and prevent rubbing of bark. Review presence of rabbits within the woodland area and if risk of damage to juvenile planting is low remove spiral rabbit guards after three years all other guards to be removed after five years. Gently firm loosened soil around trees. Straighten leaning trees/ shrubs.

Frequency of checks: Every month or after periods of strong winds. Ensure that trees and shrubs are not damaged by use of mowers, nylon filament rotary cutters and similar powered tools. A two-meter strip of unmown grass will surround all areas of woodland planting to form a buffer zone and to increase species biodiversity.

Planting Seasons

- Bare Root Deciduous Stock: November to Mid March
- Rootballed Deciduous Stock: November to Mid March
- Rootballed Evergreens and Conifers: late September or October or between March and early May
- Container Grown Stock: Any time of the year
- Grass Seeding: Spring or Autumn – when the soil is still warm and there is the promise of rain.

No planting should take place during periods of frost, drought, cold drying winds or when soil is waterlogged, or when the moisture of the soil exceeds field capacity (the maximum amount of water that soil can hold).

Grass Seeding

Grass seeding should only be carried out in the correct season from late summer to mid autumn and in suitably calm but moist weather conditions. If the opportunity to sow grass in autumn is not possible sow seed in mid Spring, but only if there is the promise of rain as it is critical to provide the seed with sufficient water to prevent it from shriveling up and dying. Ideal growing conditions for grass seed to germinate is warm soil damp from rain. Seed should be cross sown in two directions at right angles to each other (half the seed to be used in each direction) to prevent stripping.

Replacements

In September or each year, the Landscape Maintenance Team shall provide a list of all trees and plants that are dead, dying, vandalised or not growing in a vigorous condition. These are to be replaced during November – December of the same year or for evergreens April/May of the following year. All plants shall be planted at the size as shown in the Planting Schedule.

All replacement planting shall be in accordance with the Specification/Planting Schedule.

Dead Plant Removal

Remove dead plants and dead parts of plants as soon as possible and replace plants within the appropriate planting seasons.

Topsoil

Topsoil should be clean, free from stones, perennial weeds, roots and other plant matter, sticks, sub soil or any waste, toxic, rotting or foreign matter. The soil should be fertile with a humus and fibre content and be of a medium texture having a pH value of between 6.0 and 7.5 (unless imported for specific wildflower meadow seeding

areas. Imported topsoil should not contain stones greater than 40mm in size, nor have a total stone content exceeding 10 per cent by mass.

Topsoil should be spread evenly on formation levels. Grass areas and shrub/groundcover areas should have a minimum of 150mm and 450mm respectively, after firming. Stones should be removed up to 40mm in diameter.

Plant Material

All plants should be well grown, sturdy and bushy, according to type, and free from all disease and defects. All plants should be adequately hardened off prior to planting, where frost or cold winds may be a problem. This is particularly relevant to planting at the Dublin foothills.

- Shrubs should be bushy, well established nursery stock with a good fibrous root system.
- All trees should be full and well-shaped; bark unmarked and have healthy root systems. Rootballed trees should be rootballed immediately when lifted at the nursery.
- The rootball should be suitable for the size of crown and the rootball should be flat bottomed.
- The rootball should be formed through regular transplanting; every 2-3 years minimum. The rootball should be wrapped in hessian and steel wire netting or other suitable and approved decomposable material. Trees should have a well defined, straight and upright central leader, with branches growing out of the stem with reasonable symmetry. The crown should be well shaped, balanced, of a form and habit natural for the species.
- All coniferous trees should be supplied rootballed or container grown, with a good fibrous root system. Trees should conform to specified height with well-developed uniform branching systems.

Planting Preparation

The proper preparation of the ground, the quality of plants and materials, and good planting techniques are essential for proper plant growth and establishment, ensuring minimal loss of plants and ease of maintenance. Where the project requires earthworks such as the formation of subsoil levels and topsoiling works it is important that it is done in the right way to avoid compaction, so that the best conditions are available for planting.

If topsoil is stockpiled on site it should be stored in mounds of maximum height 1.5m constructed so that they shall shed water and not puddle. Care should be taken that no trafficking of placed topsoil and no mixing of topsoil and subsoil take place. Any Topsoil stockpiles should be kept weed free.

The areas for planting should be prepared prior to planting by ensuring that the subsoil is free draining and well cultivated and suitable for topsoiling. The aim of cultivation is to produce a well-drained and textured soil suitable for plant growth.

All areas to be planted or seeded should be cultivated to a minimum depth of 450mm or deeper if needed. Areas where obvious compaction has occurred should be ripped to allow adequate drainage.

Subsoil should be placed in layers not exceeding 150mm in depth.

To create the best growing environment for the planting in subsoil a combination of actions were applied to each planting pit. Any future planting works into subsoil should follow the following these principles:

- The pits should be dug prior to delivery of plants so that the trees are out of the ground for as short a time as possible.
- Planting to be into pits which are excavated 200mm deeper and 300mm greater in diameter or 1/3 greater depth and diameter than the root size (whichever is greater)
- The plant must be planted to the same level relative to top of soil as that grown in the nursery.
- The sides and bottom of the planting pits are to be thoroughly broken up by forking to alleviate compaction and to facilitate drainage.
- When planting on slopes ensure that an area made by a 0.3m diameter circle from the centre of each plant is level (horizontal) at the ground surface upon completion of backfilling.
- The backfill or soil placed back in around the plant roots will comprise of broken up (to a loose friable state) soil removed to form the planting pit. Large solid soil / clay clods larger than 50mm will be rejected and deficiencies made up with topsoil.
- Bare root stock to be dipped in root dip gel containing sufficient species of mycorrhizae for the tree or shrub being planted, water holding gel and bio-stimulant.
- 100mm bark mulch to be applied to surface for weed suppression and water retention

Planting Seasons

- Bare Root Deciduous Stock: November to Mid March
- Rootballed Deciduous Stock: November to Mid March
- Rootballed Evergreens and Conifers: late September or October or between March and early May • Container Grown Stock: Any time of the year
- Grass Seeding: Spring or Autumn – when the soil is still warm and there is the promise of rain.

No planting should take place during periods of frost, drought, cold drying winds or when soil is water logged, or when the moisture of the soil exceeds field capacity (the maximum amount of water that soil can hold). Grass Seeding Grass seeding should only be carried out at the correct season from late summer to mid autumn and in suitably calm but moist weather conditions. If the opportunity to sow grass in autumn is not possible sow seed in mid Spring, but only if there is the promise of rain as it is critical to provide the seed with sufficient water to prevent it from shrivelling up and dying. Ideal growing conditions for grass seed to germinate is warm soil damp from rain. Seed should be cross sown in two directions at right angles to each other (half the seed to be used in each direction) to prevent striping. Replacements In September or each year, the Landscape Maintenance Team shall provide a list of all trees and plants that are dead, dying, vandalised or not growing in a vigorous condition. These are to be replaced during the November - December of the same year or for evergreens April/May of the following year. All plants shall be planted at the size as shown in the Planting Schedule. All replacement planting shall be in accordance with the Specification/Planting Schedule.

The Arboricultural Contractor will:

- Submit a full method statement containing machinery to be used, removal of wood etc to the CA.
- Carry out works to the most up to date arboricultural practices available e.g. BS 3998.
- Recommendations for tree work (as amended).
- Undertake work only with suitably qualified operatives in constant consultation with the Site Arborist.
- Trees identified for removal will be section felled in wooded areas so as not to damage remaining trees.

Control of dogs

It is recommended that dogs should be kept on a lead when walking the path network within the open spaces to prevent disturbance to wildlife. Signage should be erected to encourage public cooperation. This may help to reduce disturbance impacts to bird species.

Hard Surfaces including: Permeable and impermeable paved areas, Compacted Gravel and safety surfacing

Note: Paved areas that drain into grass areas/rain gardens, tree pits and planted areas avoid use of high concentrations of salt, detergent or soil-acting herbicides. Materials used in repairs should match the existing surface material specification and be laid to the same depth as originally specified and, where applicable, to a similar degree of compaction.

Objective: pathways and steps throughout the area are to provide a solid surface for users of the open space to circulate. Maintain clean, even, consistent surfaces, safe for use by normal traffic in all weather conditions.

Hard surfaces to be kept free from the following:

- litter including autumn leaf fall,
- dust and accumulated grit,
- stains, e.g. oil or paint spillage,
- graffiti,
- weeds, moss and algae
- standing water

Operations: Arisings or cuttings to be removed from pathways after maintenance of planting. Surface of tarmac pathways to be clean, not slippery, build up of algae etc to be removed.

Compacted Gravel

Ballylusk aggregate dust, well compacted on hardcore subbase.

If litter accumulates, remove by picking or sweeping.

If the surface is stained, replace it.

Where weeds colonise, remove.

Surfaces should be raked/rolled at least once a year in winter when wet.

Where the surface becomes uneven or there is a drainage problem, rake and roll when wet, and make up levels to falls.

Surfaces should be repaired by loosening, raking and making up with matching material to maintain profiles, levels and gradients, followed by rolling.

Furniture

Play Equipment

Objective: To provide opportunities to play and exercise within the open space network for individuals of all ages and abilities. Including opportunities for social interaction, physical activity, imaginative or intellectual stimulation, creative achievement, emotional and educational development.

Operations: A visual inspection is to be carried out when on site carrying out other maintenance works or at 2-week intervals, whichever is more frequent, or immediately in response to reports or complaints from the public. This inspection must bring any defects to the immediate attention of the management company. As a general policy, equipment is repaired as soon as possible. Every twelve months a full ROSPA inspection shall take place using independent inspectors. This results in a full written report with a safety assessment and recommendations for action. The recommendations are acted upon immediately, or should they require large capital investment, they will be used as justification to support the application for funding.

Play equipment is repaired by the manufacturer/supplier other than routine replacements.

Introduction

The aim of this chapter is to describe aspects of the landscaping scheme that are intended specifically for biodiversity. It includes biodiversity enhancements included in the landscaping scheme and biodiversity enhancements for fauna.

Some features have been discussed in detail elsewhere in this report, in which case we will refer readers to relevant locations rather than repeating information.

This document should be read in combination with the Ecological Impact Assessment for the development, which provides information on the baseline condition of the site.

Green and Blue Infrastructure

The proposed landscape design aims to strengthen the value of the site as a place for delivering green/blue infrastructure whilst protecting and enhancing the natural/built and cultural assets of the site.

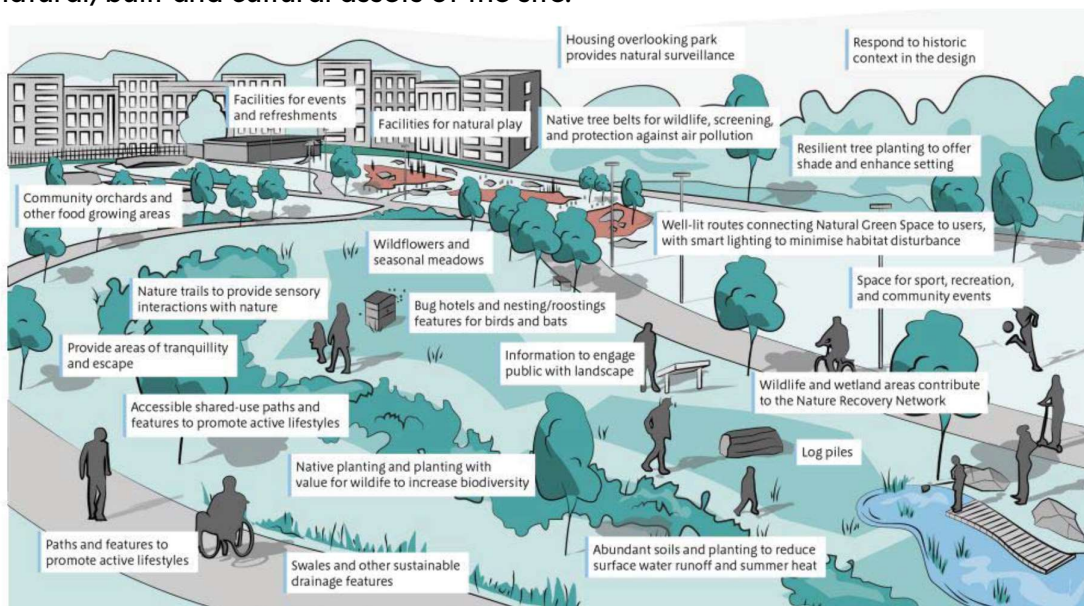


Figure 21: Parks and Green Space

Figure Extract from “Green Infrastructure Planning and Design Guide” published by Natural England

Green Infrastructure is designed and managed to provide and facilitate the following:

- High quality open spaces which provide health and social benefits for people through the provision of formal and informal nature-based play areas, safe and attractive areas and routes for meeting with a variety of seating areas for socialising and relaxing, accessible walking and cycling routes facilitated.
- Opportunities and space for contact with nature, which is considered essential for good health and wellbeing and to promote community cohesion. In the design there is access to nature with the retention of historic garden paths through the woodland boundaries.
- Adaptation to the impacts of climate change and flooding.

- Space for biodiversity (nature and wildlife) to flourish
- A sense of place and local distinctiveness.
- The design facilitates connections for people and wildlife; active travel routes are maintained through the site for neighbours and residents through green spaces, the network of open space is designed to connect with the existing surrounding movement/open space networks to access a number of adjacent neighbourhood amenities and facilities. Retention of ecological connectivity/ stepping stone function of the site to facilitate movement of fauna, to keep foraging and commuting routes, and as a nesting resource.
- Features are multifunctional, they are designed to benefit people and wildlife.

Biodiversity national guidance

National Biodiversity Action Plan 2017-2021

Ireland's Vision for Biodiversity:

“That biodiversity and ecosystems in Ireland are conserved and restored, delivering benefits essential for all sectors of society and that Ireland contributes to efforts to halt the loss of biodiversity and the degradation of ecosystems in the EU and globally.”

The Biodiversity Climate Change Sectoral Adaptation Plan. 2019. Department of Culture, Heritage and the Gaeltacht.

“The Goal of this Plan is to protect biodiversity from the impacts of climate change and to conserve and manage ecosystems so that they deliver services that increase the adaptive capacity of people and biodiversity while also contributing to climate change mitigation”.

Action 4.4 “Co-design green spaces and wildlife refuges in cities and peri-urban areas with local communities to provide habitats for species under threat from climate change and to connect people to biodiversity”.

All Ireland Pollinator Plan 2015-2020 (Councils: Actions to Help Pollinators) NBDC

There are 7 key actions in the guidance document – all of which inform the planting design within the site:

A: Identify and protect existing areas that are good for pollinators

B: Alter frequency of mowing of grassy areas to allow more native plants to flower

C: Pollinator friendly planting

D: Provide wild pollinator nesting habitat: hedgerows, earth banks and hotels

E: Reduce the use of pesticides

F: Raise public awareness of pollinators

G: Tracking progress and recognition for efforts

Protecting pollinators by planting and appropriately maintaining:

1. Flowering Native Hedgerows
2. Flowering margin of 0.5 to 2 metres around field edges
3. Low to zero pesticide inputs
4. Pollinator friendly trees
5. Wildflower meadow, flower rich pasture, cover crop, herbal ley

Planting and management of the planted areas shall be undertaken in accordance with pollinator friendly management objectives as outlined in the “All Ireland Pollinator Plan 2021-2025 (Councils: Actions to Help Pollinators)” National Biodiversity Data Centre and will include interpretative signage highlighting the areas Managed for Wildlife.

Ecology design elements

Additional planting is proposed to strengthen areas within the site for wildlife and biodiversity and to reinstate green infrastructure across the site where feasible. The proposed trees and small edible woodland planting will provide connectivity between habitats, shelter and a food resource for nesting birds.



Birds

Breeding Bird Season Restrictions

Any removal of vegetation, including trees and hedges within the site will take place outside the breeding bird season (i.e. the start of September to the end of February, inclusive) to avoid any potential impact on breeding birds. Where this seasonal restriction cannot be observed, a check for active nests will be carried out immediately prior to any site clearance and repeated as required to ensure compliance with Irish wildlife law. This will be carried out under the supervision of a qualified Ecologist.



Biodiversity enhancement in the landscaping scheme.

Outlined above in the landscape proposals and the landscape masterplan submitted with this application.

The proposal aims to maximise the diversity of planting, prioritising native planting and pollinator friendly planting:

- rain gardens and bioretention planting
- new tree planting,
- undergrowth woodland planting and edible fruit and nut trees and shrubs
- pollinator friendly sensory garden planting and vegetable gardens
- flexible amenity lawn areas
- ornamental native pollinator friendly planting
- green roofs

Edible planting including berry bearing shrubs and fruit trees, as well as nuts are included and will provide interest and amenity for people as well as food resources for birds etc. Nature based solutions to SUDS are introduced to the site through a series of bioretention raingardens and swales.

These measures will partially compensate for some of the habitats removed during site clearance (trees, grass) and create some features that are not currently present at the site (pollinator friendly planting, raingardens, shrubs, etc.).

Biodiversity enhancement for fauna.

This would include swift / swallow nest boxes on the buildings (they need to be at least 5 m above ground level), other bird nesting boxes for finches, tits, etc.

- Bird nest boxes of a variety of sizes/typologies will be installed as per Ecologist recommendations.
- Swallow and Swift bricks to Apartment structure.
- House Martin nest structures to Apartment structure
- Ground nesting bird habitat to Living Roof to Apartment structure

