Proposed Development at Forest Rd, Co. Dublin

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GREEN INFRASTRUCTURE STRATEGY PLAN

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1. GREEN INFRASTRUCTURE THEMES

Biodiversity

As seen in the Arborist plan of the site, the central hedgerows within the site are to be removed It is then recommended to augment any existing vegetation with new dense woodland, native hedges and wildflower mix, bolstering the ecological grounding and biodiversity of the site.

Additional native hedge areas are proposed to connect to existing vegetation in a wider context. Furthermore, understorey planting of new trees is also proposed. In grassed areas, wild flower/meadow mixes are being introduced to increase the range and species present on site. Therefore, appropriate additional habitats are being introduced to the site area which will both preserve and contribute to the existing ecological networks and overall biodiversity value of the subject site.

Open Space

Public open spaces have been provided in throughout the site. These areas are thoughtfully designed to create an enjoyable communal experience, with clear Landscape Architecture principles guiding our design approach, and ecological principles guiding our planting approach.

Sustainable Water Management

Natural SUDS measures have been introduced where appropriate as part of the proposed development.

It is proposed to introduce permeable paving in private parking spaces serving the development. The goal of permeable paving is to control stormwater at the source to reduce runoff. In addition to reducing surface runoff, permeable paving has the dual benefit of improving water quality by trapping suspended solids and filtering pollutants in the substrata layers.

Swales are grassed channels proposed to run parallel and adjacent to selected roads throughout the site. The roads, footpaths and cycle lanes in these areas will be linked to the swales, and rainfall from these surfaces may then be percolated to the soil. Grassed swales also enhance surface water runoff quality as the blades of grass slow down water flow, allowing suspended particles to filter and settle out of suspension. The swales will be connected to the surface water network so that any excess flows can be directed to the mains rather than overspilling to open spaces on the site.

Landscape

The proposed development has been designed to be integrated sensitively into a high quality landscaped environment consisting of grasslands and enhancing existing vegetation. The overall character of the landscape shall be naturalised with a range of habitats, hedgerow, trees and grassland. This will add to the green infrastructure of the local area and shall feed into the existing hedgerows and trees surrounding the proposal.

2. GREEN INFRASTRUCTURE OBJ.

Objectives of the Fingal Development Plan 2023-2029 relating to Forest Road, Residential Development:

Objective DMSO125 - Management of Trees and Hedgerows

Protect, preserve and ensure the effective management of trees and groups of trees and hedgerows.

Objective DMSO126 - Protection of Trees and Hedgerows during Development

Ensure during the course of development, trees and hedgerows that are conditioned for retention are fully protected in accordance with *BS5837 2012 Trees in relation to the Design, Demolition and Construction – Recommendations* or as may be updated and are monitored by the appointed arboriculture consultant.

Objective DMSO127 - Use of Native Species in New Developments

Require the use of native species where appropriate in new developments in consultation with the Council.

Objective DMSO128 - Demarcation of Townland Boundaries

Ensure trees, hedgerows and other features which demarcate townland boundaries are preserved and incorporated where appropriate into the design of developments.

Objective DMSO129 - Tree Selection

Consider in tree selection the available rooting area and proximity to dwellings or business premises particularly regarding shading of buildings and gardens.

Objective DMSO131 - Street Tree Planting Plans

Street tree planting plans shall accompany developments over 50 units. Constructed tree pits will be required where trees are planted in hard surfaces and grass verges less than 1.2m wide. These plans will include the location of each constructed tree pit of a minimum rooting volume of 16 cubic metres, lamp standards and underground services. The location of tree planting in proximity to built features including footpaths must refer to *BS5837:2012 Trees in Relation to Design, Demolition and Construction – Recommendations*. The width of grass verges where tree planting is proposed must be labelled on landscape plans.

Objective DMSO132 - Planting along Distributor Roads

Ensure new distributor roads or similar provide for grass verges of a minimum width of 2.4 metres to allow for avenue tree planting and where necessary provide for constructed tree pits as part of the landscape specification. Road verges shall be a minimum of 1.2 metres wide at locations where small canopy trees are proposed.

Objective DMSO133 - Location of new Trees

Where new trees are being planted, these will be located so they do not cause future interference to streetlights, typically trees shall be located so there is a distance of no less than 7m from the centre of the main stem to the lighting pole.

Objective DMSO134 - Site Summary of Specimen Removal, Retention and Planting

Regardless of development size or type, applicants must submit an overall site summary quantifying and detailing the following:

- tree and hedgerow removal;
- tree and hedgerow retention; and
- > new tree and hedgerow planting.

This information will be submitted in a digital format agreed with the Council to allow amalgamation and reporting on tree and hedgerow cover within the County over time.

Objective DMSO136 - Tree Selection within Developments

Tree planting within developments shall adhere to the 30:20:10 rule in relation to tree selection in order to prevent an over reliance on certain genera or species in the existing stock and to combat climate change. Species and varieties will be selected to meet the requirements of the 30:20:10 rule – no more than 30% of trees from any one family, 20% from a single genus or 10% from a single species.

Objective DMSO137 - Replacement of Removed Trees

Ensure trees removed from residential areas are replaced, where appropriate, within the first planting season following substantial completion of construction works.

DMS0125 - We have aimed to protect and protect the existing group of trees and hedgerows along the site

DMS0126 - Protection of trees and hedgerows during development will be implemented with the use of Heras Fencing

DMS0127 - We have incorporated native species into our planting scheme.

DMS0128 - We have ensured trees, hedgerows and other features demarcating townland boundaries are preserved and incorporated into the development where appropriate.

DMS0129 - We have carefully considered the tree selection and proximity of tree planting to dwellings and ensure there are no potential clashes.

DMS0133 - We have ensured new trees do not cause interference with proposed streetlights, locating trees at least 7m away from the centre of the lighting pole.

DMS0134 - Please refer to Arborist Report for more detail on:

- Tree and hedgerow removal
- Tree and hedgerow retention

DMS0136 - We have a considered street lighting through the design and have kept trees away from lighting. - approx 7m from light stand

DMS0137 - We have ensured that removed trees will be replaced with suitable native species





PROPOSED LANDSCAPE DESIGN - METHODOLOGY

The landscape design will provide for the following;

- 1. Support an increase in species and new habitats in and around the new Development.
- 2. Provide a wide variety of Park areas with a range of habitats and amenity spaces to meet the needs of nature and residents.
- 3. Be equipped to cope with the effects of climate change and weather events, this includes the integration of Suds into the landscape design, swales and permeable paving.
- 4. The landscape design has been developed to fit into the landscape setting and the surrounding context.

The proposed landscape design seeks to use native landscape materials in a high development low impact way, i.e. the use of natural materials, planting (native pollinator) to achieve a sustainable landscape that will increase the range of species and or improve the existing landscape habitat on site. The sustainable nature of the design requires it to be used by both nature and people, based on the following principles;

- 1. Connectivity A well-connected green space network that can serve both humans amenity and nature biodiversity. Theses shall link to the external landscape wherever possible.
- 2. Multifunctionality Provision of a number of ecosystems within the development, combined between human and natural needs.
- 3. Integration Interactions and links between grey and green infrastructure, Suds interventions. Liaise with the consulting Engineers on drainage.
- 4. Diversity Enhancing the different structures that are in place managed/artificial or natural and combine them as a sustainable landscape design. (Large or small).
- 5. Applicability Considers if the proposals are realistic, that were developed by the design team . I.e. if the solutions to sustainable issues are adaptable to the site or not.
- 6. Continuity Sustainable, the landscape proposals must be realistic and useable into the future. A level of monitoring and periodic evaluation may be required. This would be seen in terms of maintenance and management.







←→ Links - between new and existing green infrastructure

RMD A



PROPOSED LANDSCAPE DESIGN - DRAINAGE SOLUTIONS

Cont. Response

We have provided a comprehensive landscape design combining all elements, roads, and green spaces. A combination of all elements, amenity, suds, and connectivity to create a unique environment.

These areas combine to create a robust Green infrastructure which builds upon the Site's existing natural assets and offers betterment in terms of biodiversity enhancement & public amenity.

The open space will include species rich flowering meadow grasslands & shall be augmented with additional woodland planting and native hedge mix. These spaces will provide for habitat to enhance site wide biodiversity.

The development seeks to enhance hedgerows, trees and woodland blocks with new native broadleaved tree, shrub and hedgerow planting. Proposed new habitat areas include the creation of woodland understorey and transitional edge planting. This diverse mosaic of habitats will bring both biodiversity and public amenity benefits to the wider area.

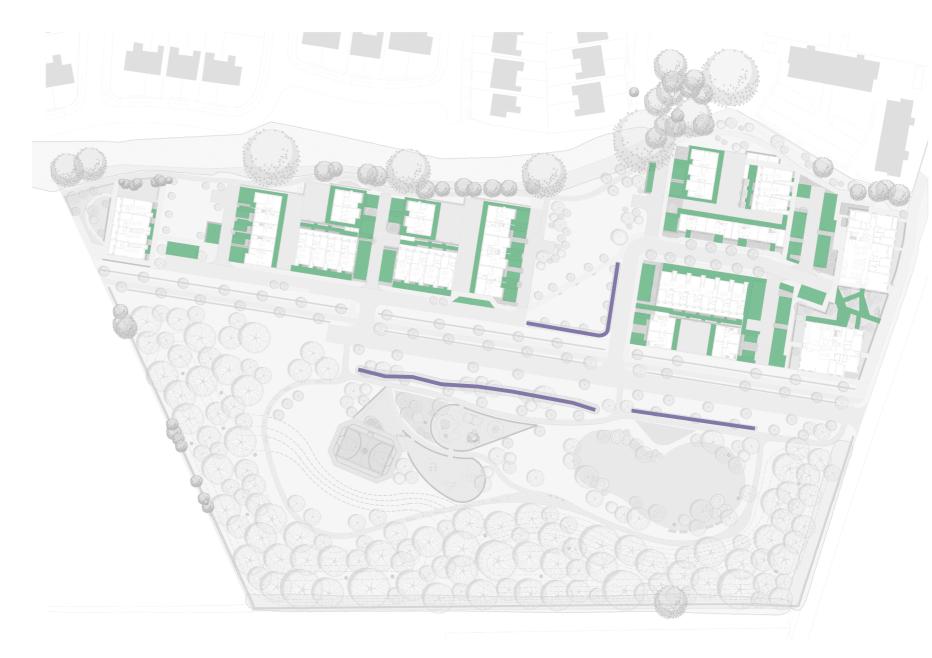
Drainage - Natural SUDS Measures

Proposals have been developed to inform the strategic drainage network across the development.

The SUDs provision comprises of a several swales with supplementary trees and areas that will be sown with a species rich wildflower and grass to maximise the areas floristic diversity and enhance biodiversity.

Permeable paving also provide sustainable solutions throughout the site.

Proposed SUDs Interventions - Overall Site











PROPOSED LANDSCAPE DESIGN - H1 - PROPOSED NATIVE HEDGEROW



Craetagus monogyna

Prunus spinosa





llex aquifolium

Rosa canina



Loniceria periclymenum **Graham Thomas**



H1 - Proposed Native Hedgerow 450mm topsoil dept/100cm Double Staggered Row

Species Name Craetagus monogyna, Prunus spinosa, Ilex aquifolium, Rosa canina, Loniceria periclymenum 'Graham Thomas'

H2 - Beech double hedgerow with post & wire fence between the rows 450mm topsoil dept

Species Name Fagus sylvatica

H3 - Structural/Defensive Hedgerow 450mm topsoil dept/100cm Single Staggered Row Species Name Elaeagnus x ebbingei



Native Hedgerows functionally create habitat links throughout the site which would be beneficial for commuting and foraging for animal specieS





PROPOSED LANDSCAPE DESIGN - H2 -PROPOSED BECH DOUBLE HEDGEROW WITH POST & WIRE FENCE BETWEEN THE ROWS



Fagus sylvatica

PROPOSED LANDSCAPE DESIGN - H3 PROPOSED STRUCTURAL HEDGEROW



Elaeagnus x ebbingei



H1 - Proposed Native Hedgerow 450mm topsoil dept/100cm Double Staggered Row Species Name

Craetagus monogyna, Prunus spinosa, Ilex aquifolium, Rosa canina, Loniceria periclymenum 'Graham Thomas'

H2 - Beech double hedgerow with post & wire fence between the rows 450mm topsoil dept

Species Name Fagus sylvatica



Elaeagnus x ebbingei





PROPOSED LANDSCAPE DESIGN - TREE PLANTING

Proposed Tree Planting - Overall Site

Proposed Tree List

Name

T1 Alnus Glutinosa

T2 Amelanchier grandiflora

T3 Betula pendula

T4 Carpinus betulus 'Fastiagata'
T5 Pinus sylvestris
T6 Prunus avium 'Plena'

Quercus robur **T7**

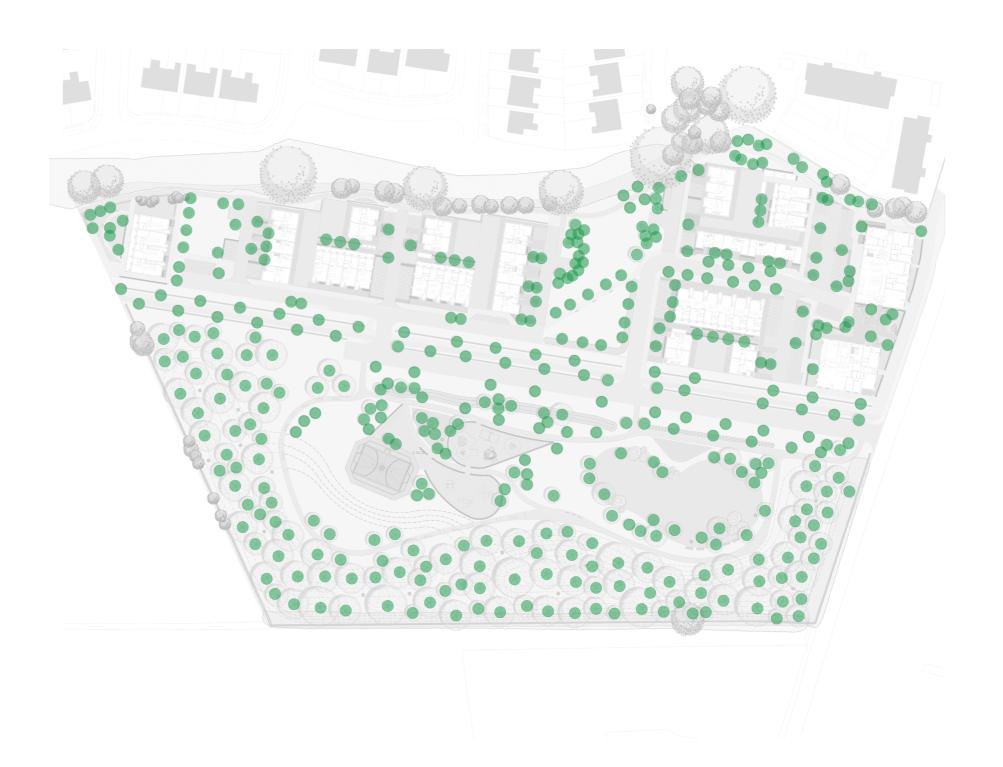
Salix alba

Sorbus aucuparia **T9**

T10 Tilia cordata

Size

16-18cm girt 200cm height 16-18cm girt 16-18cm girt 200cm height 14-16cm girt 16-18cm girt 14-16cm girt 14-16cm girt 16-18cm girt







PROPOSED LANDSCAPE DESIGN - TREE PLANTNG CONT.

Proposed Tree List

Name

- T1 Alnus Glutinosa
- T2 Amelanchier grandiflora
- T3 Betula pendula
- T4 Carpinus betulus 'Fastiagata'
- 75 Pinus sylvestris76 Prunus avium 'Plena'
- **17** Quercus robur
- **T8** Salix alba
- Sorbus aucuparia
- T10 Tilia cordata

Size

16-18cm girt 200cm height 16-18cm girt 16-18cm girt 200cm height 14-16cm girt 16-18cm girt 14-16cm girt 14-16cm girt 16-18cm girt







Amelanchier grandiflora



Salix alba



Sorbus aucuparia



Betula pendula



Carpinus betulus 'Fastigiata'



Pinus sylvestris



Quercus robur





PROPOSED LANDSCAPE DESIGN - SHRUB PLANTING

Proposed Shrubs Planting

Name

- \$1 Cistus corbariensis
- **\$2** Astelia 'Silver Spear'
- \$3 Prunus 'Luyken'
- **S4** Lavandula angustifolia







PROPOSED LANDSCAPE DESIGN - SHRUB PLANTING CONT.

Proposed Shrubs Planting

Name

- \$1 Cistus corbariensis
- **\$2** Astelia 'Silver Spear'
- \$3 Prunus 'Luyken'
- \$4 Lavandula angustifolia









Cistus corbariensis

Astelia silver spear

Prunus luyken

Lavandula angustifolia









Hedera helix hiberica

Persicaria affinis

Bergenia cordiflora

Helleborus niger

