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Green Infrastructure Report

for

Warehousing / Logistics and Office Development
Calmount Road & Ballymount Avenue, Dublin 12

CLIENT:
Blackwin Ltd.

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Planning Reg. Ref. SD22A/0099

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1. Introduction

Murray & Associates, Landscape Architecture were commissioned by Blackwin Ltd. as Landscape Architect for the proposed development of this site at Calmount Road / Ballymount Avenue, Dublin 12. This report has been prepared in response to the Request for Further Information (RFI) on planning application Reg. Ref. SD22A/0099 and should be read in conjunction with the landscape plans and drawings, as follows:

1878_PL_P_00	Landscape Masterplan
1878_PL_P_01	Soft Landscape Plan and Details
1878_PL_P_02	Hard Landscape Plan and Details
1878_PL_S_01	Landscape Sections Sheet 1 of 4
1878_PL_S_02	Landscape Sections Sheet 2 of 2
1878_PL_S_03	Landscape Sections Sheet 3 of 4
1878_PL_S_04	Landscape Sections Sheet 4 of 4

The following drawings have not been updated and remain valid from the original planning submission:

1878_PL_D_01	Landscape Details Sheet 1 of 3
1878_PL_D_02	Landscape Details Sheet 2 of 3
1878_PL_D_03	Landscape Details Sheet 3 of 3

In the RFI, the Planning Authority requested that the applicant review the current South Dublin County Development Plan 2022-28 (SDCDP) which was adopted since the lodgement of the planning application. In the review of the SDCDP it was noted that the policies on Green Infrastructure have been updated and it is required to provide a Green Infrastructure Plan with planning applications of this type. This report aims to address Gren Infrastructure policy and the design interpretation of GI in this proposed development.

This report utilises elements of the Landscape Architect's Report submitted with the original planning application and effectively supersedes the main body of that report. Please note that the outline landscape management plan and specification for the proposed development as appended to the original report remains valid and has not been re-submitted.

For specific response to other landscape related FI items, or FI items landscape has inputted to, such as DMURS / Street Design Statement, please refer to the Overall FI Response Report.

2. Description of Site and Context

The site of the proposed development has a total application area of 7.45 hectares. It is located c.3km northeast of Tallaght town centre at the intersection of Calmount Road with Ballymount Avenue.

The site is currently greenfield but is clear of vegetation or landscape features of note. There is one small Ash tree on the southern boundary and some patches of Blackberry (*Rubus*) scrub, which are not considered to be of value. It is zoned '*EE To provide for enterprise and employment related uses*' and has extensive road frontage on the eastern and southern boundaries with Ballymount Avenue and Calmount Road, respectively.

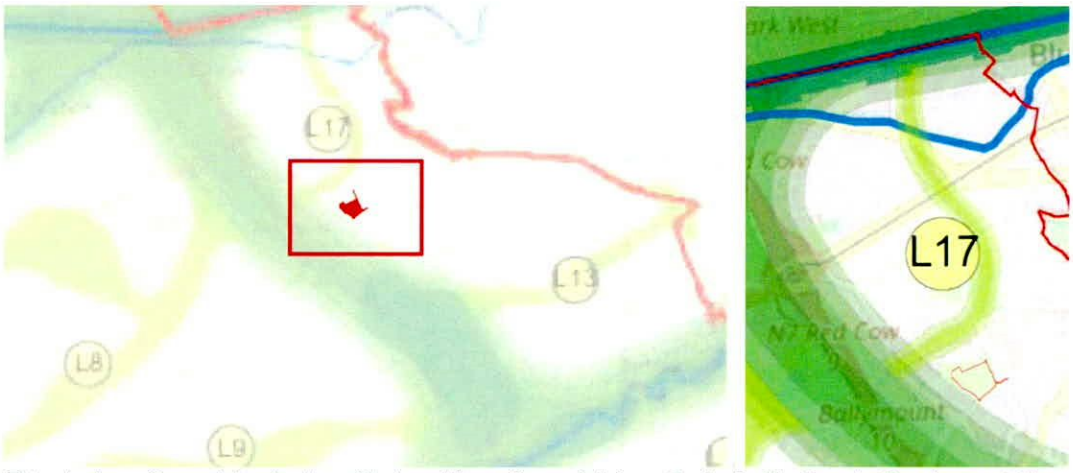
Aerial photo of the site, showing the grassed surface, devoid of trees, hedges or other landscape features.

The land-use immediately surrounding the site is almost entirely industrial, warehousing and commercial, comprising buildings with large footprints in campus settings or serviced sites. The quality of the landscape and visual setting would be considered low.

Site Survey and Analysis Plan, showing the grassed surface, devoid of trees, hedges or other landscape features; Topography: Site is almost flat with average gradient of 1:40 (2.5%)

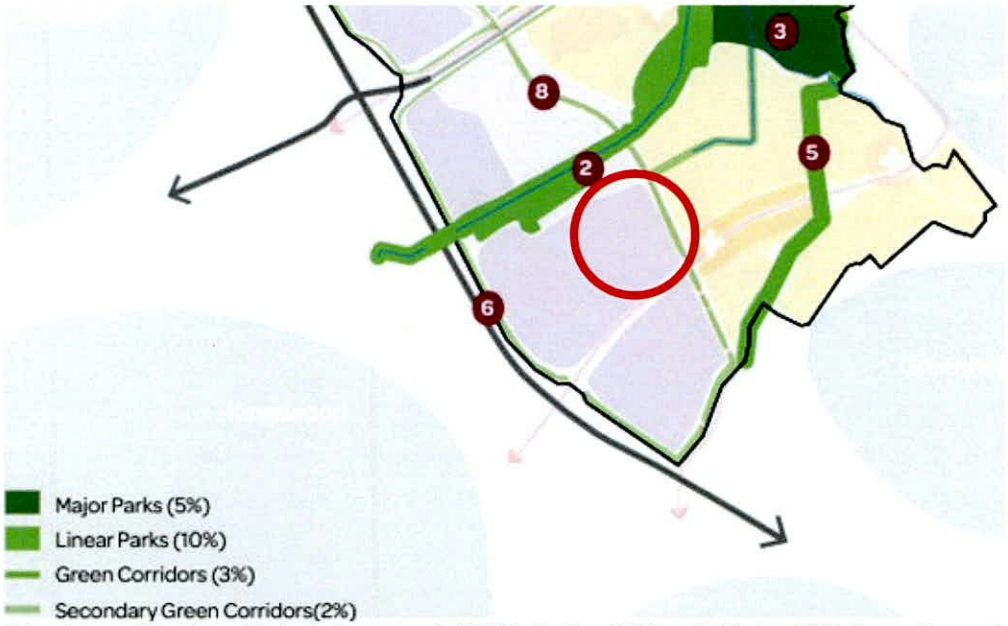
2.1 Green Infrastructure Context & Strategic Links to wider Green Infrastructure

With reference to the Green Infrastructure Strategy as outlined in the South Dublin County Development Plan 2022-28 – Chapter 4 Green Infrastructure & Appendix 4 Appendix 4: Green Infrastructure: Local Objectives and Case Studies – there are no specific objectives for the site. With reference to the Green Infrastructure Strategy Map (Figure 4.4 from South Dublin County Development Plan), the site is c.200m south of the L17 Ballymount-Grand Canal Link.

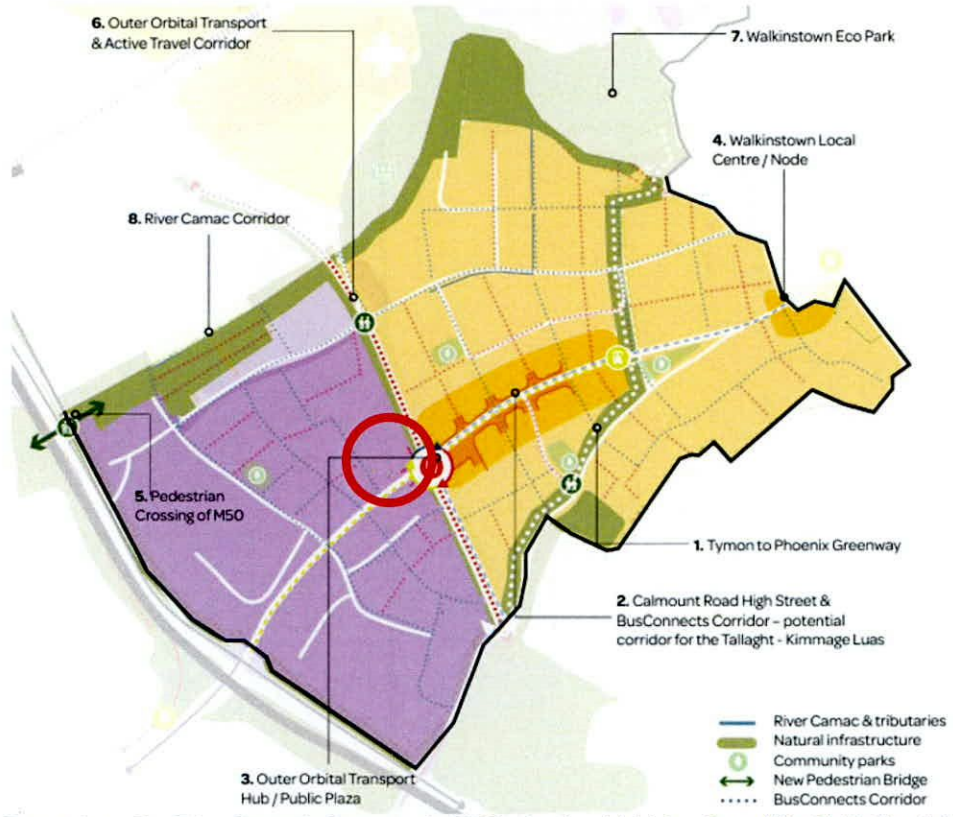


Extracts from Green Infrastructure Strategy Map - figure 4.4 from South Dublin County Development Plan showing proposed site in the wider GI context

With reference to the City Edge Strategic Framework (2022), the site is in the Greenhills Character Area and is noted in Chapter 9 *Natural Infrastructure* as a grassland site. Whilst this is the case, the site has been managed as improved grassland and has little value in biodiversity or ecological terms and is zoned for 'Urban Industry' in the plan. Along the eastern edge of the site – and north & south from the site along Ballymount Avenue – is a secondary green corridor which is envisaged to link to the River Camac Linear Park.



Extract from City Edge Strategic Framework (2022), Section 9.3.2 – Achieving 50% Green Cover showing the site location with secondary green corridor along eastern site edge.



Extract from City Edge Strategic Framework (2022), Section 11.11.3 – Greenhills District Spatial Layout showing the site location with secondary natural infrastructure along eastern site edge.

3. Brief Description of the Proposed Development

The proposed development comprises the provision of 5 no. warehousing / logistics units including ancillary office floorspace, 3 no. own-door office buildings, 1 no. café / restaurant unit, associated access roads, car and cycle parking, service yards, landscaping, ESB substations and all associated development. Please see the Planning Consultants' reports for further details of the proposed development.

The remainder of this report is concerned with describing and explaining the rationale behind the landscape proposals, which includes considerations related to site layout and urban design, biodiversity and ecology, sustainable drainage (SuDS), hard and soft landscape materials and the sustainable management and maintenance of the landscape.

4. Green Infrastructure & Landscape Architectural Proposals

For details of landscape proposals, please refer to the landscape drawings as listed in the introduction.

4.1 Introduction

The landscape design proposals for this development aims to achieve the following:

- Incorporate high-level strategic Green Infrastructure policies and objectives as outlined in the South Dublin County Development Plan (2022-28) – *Please see Appendix 1 for CDP policy analysis and design response.*
- Create a strongly vegetated boundary with the public realm to enclose the site and screen or soften the proposed buildings
- Create public space and positive public realm interfaces along the external road boundaries
- Develop a strong internal infrastructure planting which creates new tree-lined avenues
- Contribute to sustainable drainage by including SuDS measures integrated into the landscape scheme, contributing to positive place-making, climate resilience and biodiversity as well as water management.
- Enhance the biodiversity value of the development site through pollinator and tree planting where possible
- Create spaces which enhance the working environment
- Form a garden space around the proposed café unit
- Provide human-scale and visually interesting spaces for the future workers and visitors to the site
- All planting proposed will have pollinator value, unless unavoidable for some functional reason (not currently foreseen) and will be in accordance with the County Pollinator Strategy and All Ireland Pollinator Plan

The landscape architectural proposals include a series of innovative and best practice concepts with regard to spatial planning, SuDS and boundary treatments in particular.

4.2 Public Realm and Boundary Treatments

The primary intervention in the public realm is a new civic space proposed at the junction of Calmount Road and Ballymount Avenue. This responds to the office units in that location and planned infrastructural improvements in the area, as well as addressing the corner with a positive usable space. The space is simple, with patterned resin-bound aggregate surfacing and seating and planting elements, as well as street trees. It also addresses the strategic aim in the City Edge Strategic Framework (CESF) to have an 'Outer Orbital Transport Hub / Public Plaza' here in the future

(see diagram earlier in this document and section 11.11.3 of the CESF); it establishes this as an important space in the public realm and gives it an identity.

Landscape / GI Plan for the proposed development – extract from Drawing no. 1878_PL_P_00

Key to primary landscape areas, and main Green Infrastructure proposals:

1. *Civic Space at junction and entrance to office area*
2. *Site Vehicular Entrances with feature surfacing and signage; shared surfaces for pedestrian / cycle routes*
3. *Site Roads – designed with consideration of potential long-term future contextual change; design includes SuDS measures – swales and integrated tree pits*
4. *Café with SuDS Garden, outdoor seating*
5. *Roof Gardens (Intensive); note that roof gardens are not possible for the logistics buildings due to roof spans but are proposed on all other buildings and over the office areas of Units 3 and 6;*
   Green Wall panels have been proposed on every logistics building, with a total area of 650sq.m
6. *Native Mini-Woodlands – 'Miyawaki' Style (120-280sq.m; c. 750sq.m total)*
7. *Other SuDS bioattenuation areas*

For full details of landscape treatments, please see landscape drawings as listed in the introduction.

Aerial CGI View by others showing office units on corner of Calmount Road and Ballymount Avenue, showing civic space, and boundary structure, as well as intensive green (brown) roofs to the office buildings
(Please note this is an Artists' Impression; planting proposals are not accurate as per the species proposed, but show an overall impression in spatial and visual terms)

The public realm boundary of the site with Calmount Road and Ballymount Avenue will be open and soft, with any necessary security integrated or minimised so that there is a positive engagement with the public realm, and the landscape proposals enhance the public area. The boundary edge is defined by a series of linear bands, which are terraced where there is a level difference along Ballymount Avenue, and flat where the site is level, but the same language of distinctive planted bands, defined by edging is continued. The outer band is groundcover pollinator shrubs, while the second band is a native hedgerow (diverse mix including Hawthorn, Blackthorn, etc.) with Oak trees behind, defining a strongly planted street edge.

CGI View by others showing entrance from Calmount Road with subtle signage and boundary treatment; green roof.
(Please note this is an Artists' Impression; planting proposals are not accurate as per the species proposed, but show an overall impression in spatial and visual terms)

The planting mix will include the following native species at a minimum: Blackthorn (*Prunus spinosa*), Hawthorn (*Crataegus monogyna*), Holly (*Ilex aquifolium*), Dogwood (*Cornus sanguinea*), Guelder Rose (*Viburnum opulus*) and Spindle (*Euonymus europaeus*). Trees on this boundary are proposed to be Oak (*Quercus robur* 'Regal Prince' or similar).

Mixed native hedgerow / Upright Oak street tree - Quercus robur *'Regal Prince' – to form boundary with site*

Internal streets will be planted with street trees and swales in the verges and evergreen hedging set behind the footpaths to define a consistent streetscape edge. 2.4m bar railings for security where needed will be concealed with the evergreen hedging of native and naturalised species, including Holly (*Ilex aquifolium*), Yew (*Taxus baccata*), Privet (*Ligustrum ovalifolium*) and Beech (*Fagus sylvatica*), is proposed to enclose yards and screen truck movements, loading activities, etc. from the public/semi-public realm. Street trees are proposed as a select form of the native Alder – *Alnus glutinosa* 'Imperialis' – which has a particularly graceful, pyramidal, weeping form and will create a distinctive aesthetic. Alders are also compatible with SuDS and bioretention. The swales will be planted with native wildflowers and integrated tree pits for the trees will also be included. Planting has been coordinated with car park lighting to ensure that the site is adequately lit and the trees do not impede the light coverage and don't impact on personal safety.

CGI View by others showing internal street, and relationship of buildings to street with minimal visible security measures and soft verges (swale), street trees and hedging.
(Please note this is an Artists' Impression; planting proposals are not accurate as per the species proposed, but show an overall impression in spatial and visual terms)

New cycle routes are proposed along the road edges of Calmount Road and Ballymount Avenue, to connect in with the existing on Ballymount Avenue. The site design layout allows for a vehicular entrance for the office units off Calmount Road with a separate vehicular entrance from Ballymount Avenue. There is no vehicular connection between these two roads, but cycleways and footways are provided, demonstrating the emphasis on cycle and pedestrian priority inherent in the site layout. These routes are planted with native trees and wildflower verges.


Indicative images of proposed street trees: Alnus glutinosa *'Imperialis' – tree and leaf detail*



Indicative images of street trees in swales with wildflowers

As noted elsewhere, boundary treatments are intended to be as minimal as possible in visual terms, with the buildings acting as the primary line of defence. The boundary treatment details are shown on 1878_PL_P02. Signage is minimal, with a small sign at each of the entrances into the site off Calmount Road and Ballymount Avenue.

The proposed car parks are surrounded by planting and vegetation. Car parking will be in permeable paving. At the front entrance to the buildings, feature spaces are proposed with specimen planting.

Around the building frontage areas and car parking areas, additional native and ornamental pollinator planting is proposed to break up the car parking spaces, with additional native trees in the islands where feasible – including diverse native trees and shrubs. Bioretention areas are integrated with a specific planting mix capable of withstanding occasional

standing water. Footpaths are generally functional and practical concrete or reinforced gravel from emergency exits, with gravel areas along building edges and reinforced grass (e.g. grasscrete) where necessary for fire access.

4.3 Internal Green Infrastructure, SuDS and Biodiversity

The design aims to maximise opportunities for environmentally friendly measures and greening wherever possible. This includes extensive boundary planting, natural SuDS features planted with appropriate wetland species, trees, green roofs to the office and café elements of the scheme and a living walls to all large units.

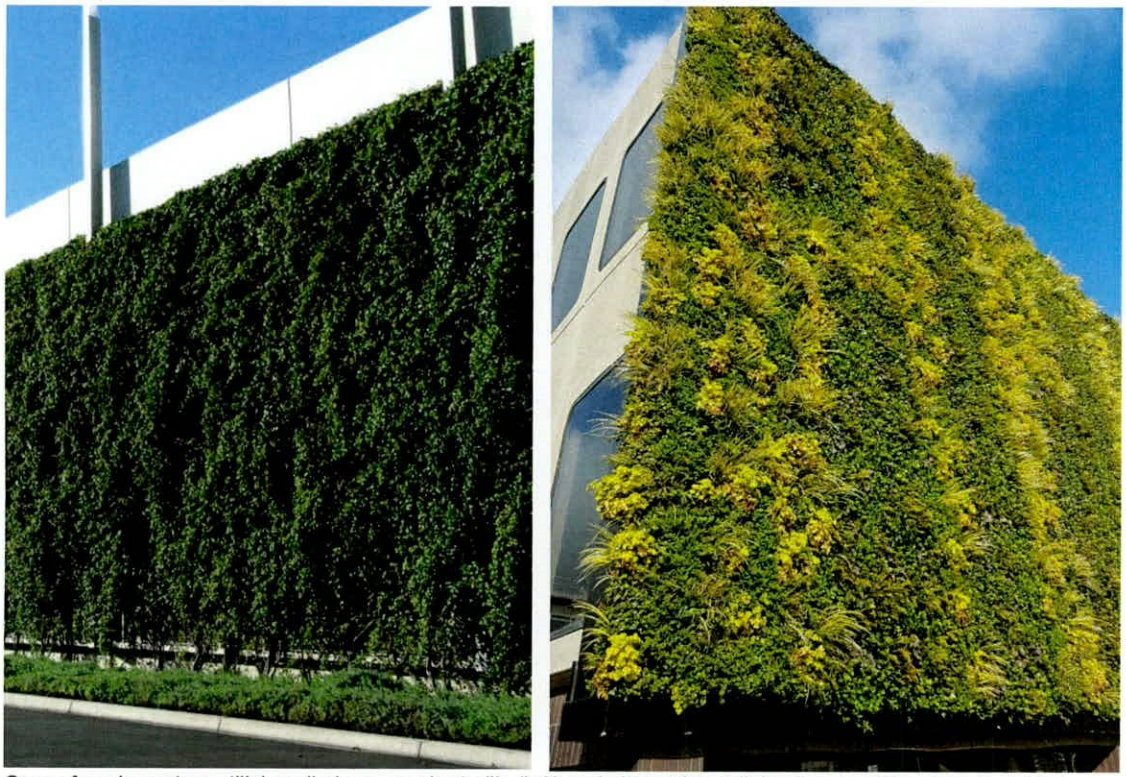
The green roofs proposed are not the standard sedum blanket type. Deep soil buildups (c.500mm) are proposed on the office and café buildings to support diverse habitat, with native shrubby plants and climbers such as Wild Rose, Blackthorn, Honeysuckle, Guelder Rose, Dogwood, Foxglove, Yarrow, etc. as well as wild flora ground layer – effectively an intensive brown roof. A 'brown roof' re-uses existing soil / subsoil from the site and is proposed to be undulating to create niche habitats with different native plants favouring different substrates and / or rooting depths available.

Native Plant Selection for Roof Gardens - Wild Rose, Blackthorn, Honeysuckle, Guelder Rose, Dogwood

Extract from Aerial CGI View by others showing office units on Ballymount Avenue, with intensive green (brown) roofs to the office buildings. As described here, sufficient soil depth is proposed to allow for biodiverse planting on the roofs. (Please note this is an Artists' Impression; planting proposals are not accurate as per the species proposed, but show an overall impression in spatial and visual terms)

The warehouse buildings have – by necessity for this type of building – wide span lightweight roofs so green roofs are not feasible for structural reasons and in terms of embedded carbon, but the architectural proposals have extended the office elements of the buildings to allow for green roof planting to at least a component of most of the buildings, where possible. For the office and café elements, the percentage of green cover is c.50%. Some roof space is also required for photocells, which will further improve the carbon footprint of the proposed development.

There is also a green facade facing onto Calmount Road which will help to break down and soften the façade. Details of the green wall façade system will be agreed post-planning, if granted. The selection of an appropriate type of green façade requires detailed structural and façade analysis. The green façade will either be a cellular system with native and non-native ferns, grasses and perennials or a steel wire trellis-type system which will utilise native and non-native climbers with biodiversity value. Such a feature will create a biodiverse and meaningful contribution to local biodiversity. Collected rainwater will be used for irrigation.



Green façade system utilising climbers on wire trellis (left) and alternative cellular 'living wall' system to right

Considering the extensive planting, public realm civic spaces, green roofs to the stand-alone offices and café, green façade and roofs to the office components of the warehouse buildings, and the lack of visible security fencing or measures, the impression of the site from the road will be far from a typical logistics or business park. There will be a strong sense of ecological design, and genuine biodiversity gains compared with the current site of improved grassland, which has no trees, hedges or landscape features of note.

As described in more detail in the Coordinated Design Response Document submitted with the RFI response, the internal road has been designed to adapt in the future to a different type of streetscape, as envisaged in the City Edge plan, and to reflect the relevant policies and objectives of the 2022-28 Development Plan. The wide verges can be adapted to include on-street parking, 'parklets' or other streetscape elements and the trees are planted at centres which will be compatible with such uses, all based on DMURS street design guidance. The tree pits will be detailed with root directors and structural soil tree pits which will allow the trees to mature and develop and then be retained in a future streetscape.

The SuDS details have been coordinated with DBFL Engineers and comply with the requirements of 'South Dublin Co. Council SuDS Explanatory, Design and Evaluation Guide 2022'. The specific SuDS measures proposed include:

- Green roofs / green walls
- Rain gardens
- Swales
- Bioretention areas
- Permeable paving.

Please see drawing no. 1878_PL_D_03 (submitted with the original planning application) for full details. Maintenance specifications for SuDS elements are included in the Landscape Management Plan (please see Part B of the Landscape Architect's Report submitted with the original planning application). The cafe unit incorporates a biodiverse, SuDS 'garden' area and will be accessible from the public realm as well as from the interior of the site. It will also have a green roof (not drawn yet) with native shrubs. Outdoor tables are included at the café and where feasible in the internal units to create break-out spaces for the future workers.

Extract from Aerial CGI View by others showing café unit off Calmount Road, with intensive green (brown) roofs and SuDS Garden with Bioretention areas and swales to the road verges.
(Please note this is an Artists' Impression; planting proposals are not accurate as per the species proposed, but show an overall impression in spatial and visual terms)

5. Green Infrastructure – Appraisal

5.1 Introduction

Green Infrastructure is a term that is used to describe the interconnected networks of land and water that sustain environmental quality and enhance the quality of our lives. The European Union's Biodiversity Strategy recognises the application of Green Infrastructure policies as a way to maintain biodiversity and ecosystems in the wider landscape. Green Infrastructure networks operate on many scales, from the national to local, and the protection and enhancement of these networks has the ability to positively affect communities into the future, especially in terms of climate change, sustainable development and spatial planning.

Chapter 4 of South Dublin County Development Plan 2022-2028 has as a stated aims of creating an integrated and coherent green infrastructure for the County which will:

> *Promote the development of an integrated GI network for South Dublin County working with and enhancing existing biodiversity and natural heritage, improving our resilience to climate change and enabling the role of GI in delivering sustainable communities to provide environmental, economic and social benefits.*

For a full response to all relevant polices please see Appendix 1.

The site plan on the following page provides a simplified graphic indicating all green cover proposed in the development proposals, and indicates the following percentages of site coverage:

- Green Infrastructure – Planting, Green Roofs, Green Walls 22.5%
- Permeable GI – Car parking, Public realm paving 12.5%
    - **TOTAL** **35%**

The Green Space Factor (GSF) has also been calculated for the site, in accordance with Policy GI5, Objective 4. The zoning for the site is EE and requires a GSF of 0.5. The GSF score achieved is 0.18 (see GSF Calculator in Appendix 2). The nature of this type of development for logistics which requires buildings with wide spans unsuitable for green roofs and yards with large footprints means that the design has been developed to maximise the value and richness of the boundaries and spaces between buildings. The context has been considered and the site is visually screened and contained by the extensive boundary planting of 6-25m in plan width. In terms of Green Infrastructure, all of the GI policies relevant to the site in the SDCDP have been implemented and integrated into the landscape, architecture and engineering design to maximise the value of the landscape and Green Infrastructure.

Thus, whilst not achieving the ambitious GSF for this proposed development, as set out in this Report the proposal can be considered to be consistent with the relevant policies and objectives of the new CDP in respect to Green Infrastructure.

Simplified site plan indicating all green infrastructure measures proposed [Light Green = Permeable Paving; Green = Soft Landscape, Green Roofs, Green Walls]

(Extract from TOT Architects Drawing no. PA-153 Proposed Site Plan – Green Space Coverage)

5.2 Green Infrastructure Themes

The five main themes from the South Dublin County Development Plan (SDCDP) considering Green Infrastructure are as follows:

The landscape design aims to present a unified landscape proposal where elements are often multifunctional, serving more than one aspect or theme of GI.

5.2.1 Biodiversity

Biodiversity refers to the variety of all life, habitats, plants and animals, where they live and the diversity of ecosystems. In any given place, the response of living organisms to the environs (geology, soils, climate and other conditions) creates an ecosystem which not only provides habitat for wildlife, but contributes to our quality of life and sense of place. Our

landscapes and the biodiversity within must be protected and enhanced through sensitive and sustainable management now and in the future in the interest of preserving habitats and adapting to climate change scenarios.

In the wider context, the closest designated landscapes are the Grand Canal pNHA (c.2km north) and Dodder Valley pNHA (c.3km south). There are no direct connections to these landscapes and there is no likelihood of any impact arising from the current proposed development.

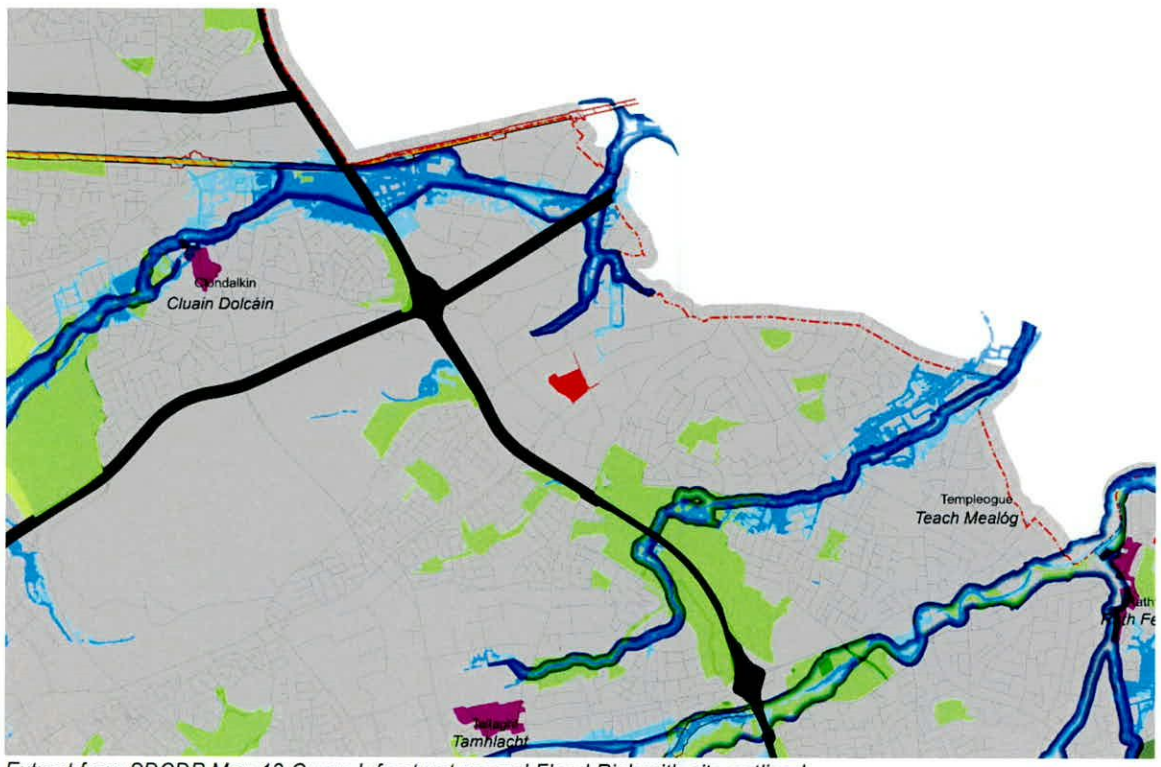
The proposed development includes several measures aimed at improving local biodiversity and integrating these with other GI themes. At present the site is improved grassland and the landscape proposals seek to introduce as much green, planted space as possible, with a clear hierarchy of intervention including native mini-woodlands (Miyawaki-style), street tree planting, hedgerow & native tree & shrub boundary planting, groundcover shrub and pollinator planting and wildflower / wild grass planting at ground level. The site is criss-crossed with planting so all areas are linked with green-blue corridors.

5.2.2 Sustainable Water Management

The SuDS details have been coordinated with DBFL Engineers and comply with the requirements of 'South Dublin Co. Council SuDS Explanatory, Design and Evaluation Guide 2022'. The specific SuDS measures proposed include:

- Green roofs (intensive, with 500mm soil min.)
- Rain gardens
- Swales
- Bioretention areas
- Permeable paving to all car parking and substantial parts of the public realm

Please see DBFL Engineers submission for further technical details.



Extract from SDCDP Map 13 Green Infrastructure and Flood Risk with site outlined.

5.2.3 Climate Resilience

The proposed GI measures will enhance local biodiversity and contribute to mitigation of climate change impacts, by absorbing excess flood water, providing a buffer against extreme weather events, absorbing carbon emissions and filtering pollution. Such measures include roof gardens & green walls, permeable paving, swales, bioattenuation areas & other SuDS measures, planting measures including street trees, hedgerow, shrub, mini-woodlands, etc.

5.2.4 Recreation and Amenity

The proposed development is zoned EE for Employment so there is no requirement for open space. However, ot will provide some improvements to the existing amenity value of the area. The development includes a café set in a SuDS garden which will be accessible to the public and a new plaza and streetscape improvements with significant tree and shrub planting, enhancing the 'everyday landscape' for people walking, cycling or commuting. The café terrace and SuDS garden is further enhanced with a Miyawaki-style native Mini-Woodland and other native planting, which will attract wildlife such as birds and butterflies which will make the café terrace area a small oasis of intensive green space in what is currently a peri-urban and generally inhospitable environment. New cycleways and pedestrian paths with substantial planting creating green corridors will also enhance the recreation and amenity value of the area. These will be lit for safety, and the planting along the site boundary will make them attractive. As the site is relatively flat the routes will be fully accessible with no steep areas or barriers.

5.2.5 Landscape, Natural, Cultural and Built Heritage

There are no existing landscape, natural, cultural and built heritage features of note on the site. The proposed development will enhance the site in terms of landscape and natural heritage.

5.3 Site Summary Quantifying and Detailing the Site Vegetation:

As required on Table 12.27 Key Principles for Development within Enterprise and Employment Zones of the SDCDP, following is a summary of the site vegetation:

- **Tree and Hedgerow Removal** There are no trees or hedgerows of significance on the site which would require survey. Along the southern site boundary is one insignificant small, early mature Ash tree and some small patches of Rubus scrub to be removed (c.100sq.m).
- **Tree and Hedgerow Retention:** There are no trees or hedgerows on the site to be retained
- **New Tree and Hedgerow Planting:** 7,560sq.m including the following:
    - 800sq.m of Miyawaki style mini-woodland
    - 5,160sq.m of general native tree, shrub, hedgerow
    - 1,600sq.m intensive roof planting of native shrubs

Additionally, there is c.3,000sq.m of pollinator shrub and perennial planting, 4,000sq.m wildflower and 3,300sq.m of grass.

5.4 Proposals for identification and control of invasive species

It is an objective of this plan to control and prevent the spread of invasive species in order to protect the biodiversity of the landscape and the assets of the landowner. None of these or any other known invasive species have been identified on the site to date.

With regard to plant selection at design stage wherever possible native vegetation is proposed and where needed for functional or aesthetic reasons non-native plants are specified, with due care. Any non-native plants are chosen to be non-invasive (i.e. the planting selection avoids the use of all known invasive species, with reference to the latest lists of invasive species published by the National Biodiversity Data Centre) and for their value to insect and other fauna as pollinators or suitable habitat.

Prior to site development works commencing, a detailed site survey will be undertaken to identify if any invasive plants are present. If they are, a specialist contractor will be engaged to plan and carry out the control measures, as may be appropriate to the site and the particular weeds present.

During the maintenance phase, invasive weeds of any kind, most particularly Japanese Knotweed, Winter Heliotrope, Giant Hogweed and Himalayan Balsam shall not be allowed to establish in any area of the site. It will be the responsibility of the maintenance contractor and / or management company to be able to identify same and treat at first sign of emergence. The site will be monitored on an ongoing basis for any invasive weeds. Any occurrence will be reported to management and control strategies engaged.

Noxious weeds (primarily Dock, Thistle and Ragwort) are to be controlled as required by the Noxious Weeds Act 1936 (as amended).

6. Planning Considerations & Consistency with South Dublin County Development Plan

In developing the proposed landscape design, careful regard has been had to the South Dublin County Development Plan 2022-28 (SDCDP) and other relevant planning policies, including the recently published South Dublin Co. Council *SuDS Explanatory, Design and Evaluation Guide 2022, City Edge Strategic Framework (2022)* and taking in charge guidance. A pre—planning meeting was held on held on the 25th January and advice and guidance from the Parks and Planning Officers has been taken into account, including further consultations undertaken following the pre-planning meeting. This report and the accompanying coordinated FI Response documentation address the various items raised by the Planning Authority, and should further specific items of detail be required, these are most appropriately addressed through a planning condition

The most relevant policies to the landscape design of the site are from Chapter 12 Implementation and Chapter 4 Green Infrastructure. For a full breakdown of the relevant policies, please see Appendix 1. For the Green Space Factor Table, see Appendix 2.

APPENDIX 1

SOUTH DUBLIN COUNTY DEVELOPMENT PLAN 2022-28
LANDSCAPE POLICIES / DESIGN RESPONSE TABLES

Please note that as this site has no natural, cultural or built heritage features to be protected, the policies of CHAPTER 3 – Natural, Cultural and Built Heritage are not considered to be relevant.

CDP Policy / Objective	*Response*
CHAPTER 4 – GREEN INFRASTRUCTURE	
Policy GI1: Overarching **Protect, enhance and further develop a multifunctional GI network, using an ecosystem services approach, protecting, enhancing and further developing the identified interconnected network of parks, open spaces, natural features, protected areas, and rivers and streams that provide a shared space for amenity and recreation, biodiversity protection, water quality, flood management and adaptation to climate change.**	*This proposed development seeks to enhance and further develop a multifunctional GI network, using an ecosystem services approach by providing intensive areas of biodiverse native mini-woodlands, pollinator shrub and perennial planting, areas of native wildflower and native hedgerows. The scheme provides space for amenity and recreation, biodiversity enhancement, flood management (SuDS) and adaptation to climate change.*
GI1 Objective 1: To establish a coherent, integrated and evolving GI Network across South Dublin County with parks, open spaces, hedgerows, trees including public street trees and native mini woodlands (Miyawaki-Style), grasslands, protected areas and rivers and streams and other green and blue assets forming strategic links and to integrate and incorporate the objectives of the GI Strategy throughout all relevant land use plans and development in the County.	*This proposed development includes hedgerows, trees including semi-public street trees and native mini woodlands (Miyawaki-Style), grasslands and other green and blue assets forming a corridor along the edges of the site, which may facilitate other objectives of the GI Strategy in the wider area, now or in the future. The L17 Ballymount-Grand Canal Link is less than 200m to the north of the north-eastern corner of the site, along Ballymount Avenue. If the adjacent site is redeveloped, a corridor could be reserved to complete the connection in the future.* *For instance, the tree, hedgerow and pollinator planting along the eastern edge of the site is in accordance with the City Edge Natural Infrastructure proposal for this site, which will connect to the River Camac Corridor in the future.*
GI1 Objective 2: To implement and monitor the South Dublin County GI Strategy during the lifetime of this plan and develop a fit for purpose GI scoring for the County which will support ongoing identification, protection, enhancement and management of GI in the County and which will enable the assessment and monitoring of GI interventions in the County.	*NA*
GI1 Objective 3: To facilitate the development and enhancement of sensitive access to and connectivity between areas of interest for residents, wildlife and biodiversity, and other distinctive landscapes as focal features for linkages between natural, semi natural and formalised green spaces where feasible and ensuring that there is no adverse impact (directly, indirectly or cumulatively) on the conservation objectives of Natura 2000 sites and protected habitats outside of Natura 2000 sites.	*NA*
GI1 Objective 4: To require development to incorporate GI as an integral part of the design and layout concept for all development in the County including but not restricted to residential, commercial and mixed use through the explicit identification of GI as part of a landscape plan, identifying environmental assets and including proposals which protect, manage and enhance GI resources providing links to local and countywide GI networks.	*GI is an integral part of the design and layout concept of this proposed development and is clearly shown on the landscape plans accompanying this report, including proposals which enhance GI resources in this area of the county which is currently low in GI and facilitating links from the site to local and countywide GI networks.*
GI1 Objective 5: Continue to liaise with adjoining local authorities to ensure the protection and enhancement of cross county GI corridors.	*NA*
GI1 Objective 6: To collaborate with Kildare County Council to identify a common approach to a greenbelt / green spaces between the growing settlements within South Dublin and Kildare	*NA*

County Councils within the lifetime of the Development Plan and to advise the councillors of any such collaboration and proposed study or approach.	
GI1 Objective 7: To develop linked corridors of small urban 'Miyawaki' native mini-woodlands, a minimum of 100 sq m in size, to capture carbon and encourage biodiversity in suitable existing built-up areas, in low grade parkland, and other areas of zoned lands where deemed suitable and appropriate.	*Four areas of 'Miyawaki' native mini-woodlands are proposed, each of which is 120-300 sq m in size. They are located where space is available along the boundary and in buffer spaces. These will be managed as they mature to generate high value native mini-woodlands.*
GI1 Objective 8: Green Infrastructure (GI) To increase over the lifetime of this plan the percentage of land in the County, including residential, managed for biodiversity including supporting the delivery of the objectives of the County Pollinator Plan and to continue to investigate the potential for the use of low-mow methods during the lifetime of the Plan.	*The green areas of this site will be managed for biodiversity in accordance with the objectives of the County Pollinator Plan and All-Ireland Pollinator Plan. All grass areas are proposed as meadow with low-mow methods of maintenance proposed.*
Policy GI2: Biodiversity **Strengthen the existing Green Infrastructure (GI) network and ensure all new developments contribute towards GI, in order to protect and enhance biodiversity across the County as part of South Dublin County Council's commitment to the National Biodiversity Action Plan 2021-2025 and the South Dublin County Council Biodiversity Action Plan, 2020-2026, the National Planning Framework (NPF) and the Eastern and Midlands Region Spatial and Economic Strategy (RSES).**	***This development proposes enhanced biodiversity value over the current improved grassland on the site, and the intent is to use the available spaces in the development to maximise biodiversity and GI value, including Miyawaki-style woodlands, pollinator planting, native hedgerow planting, street trees, etc.***
GI2 Objective 1: To reduce fragmentation and enhance South Dublin County's GI network by strengthening ecological links between urban areas, Natura 2000 sites, proposed Natural Heritage Areas, parks and open spaces and the wider regional network by connecting all new developments into the wider GI Network.	*This proposed development includes hedgerows, trees including semi-public street trees, native mini woodlands (Miyawaki-Style), grasslands and other green and blue assets forming a corridor along the edges of the site, which may facilitate other objectives of the GI Strategy in the wider area, now or in the future.*
GI2 Objective 2: To protect and enhance the biodiversity and ecological value of the existing GI network by protecting where feasible (and mitigating where removal is unavoidable) existing ecological features including tree stands, woodlands, hedgerows and watercourses in all new developments as an essential part of the design and construction process, such proactive approach to include provision to inspect development sites post construction to ensure hedgerow coverage has been protected as per the plan.	*There are no existing features of ecological value on the site at present.*
GI2 Objective 3: To retrospectively repair habitat fragmentation and provide for regeneration of flora and fauna where weaknesses are identified in the network through the implementation of new GI interventions.	*The proposed green infrastructure measures described above will provide an opportunity for future connectivity and habitat creation.*
GI2 Objective 4: To integrate GI, and include areas to be managed for biodiversity, as an essential component of all new developments in accordance with the requirements set out in Chapter 12: Implementation and Monitoring and the policies and objectives of this chapter.	*NA*
GI2 Objective 5: To protect and enhance the County's hedgerow network, in particular hedgerows that form townland, parish and barony boundaries recognising their historic and cultural importance in addition to their ecological importance and increase hedgerow coverage using locally native species including a commitment for no net loss of hedgerows on any development site and to take a proactive approach to protection and enforcement.	*NA*
GI2 Objective 6: To continue to support and expand the County Pollinator Plan through the management and monitoring of the County's pollinator protection sites as part of the Council's commitment to the provisions of the National Pollinator Plan 2021-2025.	*The proposed green infrastructure measures described above will provide an enhancement of the pollinator coverage in the local area.*

GI2 Objective 7: To enhance the biodiversity value of publicly owned hard infrastructure areas by incorporating the planting of new trees, grasses and other species, thereby integrating this infrastructure into the overall GI network.	*NA*
GI2 Objective 8: To take all possible steps to mitigate the impacts on biodiversity of increased recreation within the GI network, bearing in mind the effects of scramblers, dogs, drones, littering and illegal dumping.	*NA*
GI2 Objective 9: To examine where appropriate the full potential of landfill sites and quarries as well as existing underutilised perimeter and border park spaces through the augmentation of wild grasses and other naturally occurring vegetation that enhance local area biodiversity and habitats in support of the National Pollinator Plan and to consider wildflower meadows where beneficial to biodiversity.	*NA*
GI2 Objective 10: To enhance biodiversity and the health of pollinator species by banning the use of glyphosphate in or close to public parks, public playgrounds, community gardens / allotments and within residential estates, whether by directly employed Local Authority staff or private contractors.	*Management of the site can be carried out without glyphosates.*
Policy GI3: Sustainable Water Management **Protect and enhance the natural, historical, amenity and biodiversity value of the County's watercourses. Require the long-term management and protection of these watercourses as significant elements of the County's and Region's Green Infrastructure Network and liaise with relevant Prescribed Bodies where appropriate. Accommodate flood waters as far as possible during extreme flooding events and enhance biodiversity and amenity through the designation of riparian corridors and the application of appropriate restrictions to development within these corridors.**	***There are no watercourses on or near the site.***
GI3 Objective 1: To ensure that hydromorphical assessments are undertaken where proposed development is within lands which are partially or wholly within the Riparian Corridors identified as part of this Development Plan.	*NA*
GI3 Objective 2: To require development proposals that are within riparian corridors to demonstrate how the integrity of the riparian corridor can be maintained and enhanced having regard to flood risk management, biodiversity, ecosystem service provision, water quality and hydromorphology.	*NA*
GI3 Objective 3: To promote and protect native riparian vegetation along all watercourses and ensure that a minimum 10m vegetated riparian buffer from the top of the riverbank is maintained / reinstated along all watercourses within any development site.	*NA*
GI3 Objective 4: To uncover existing culverts where appropriate and in accordance with relevant river catchment proposals to restore the watercourse to acceptable ecological standards for biodiversity wherever possible improving habitat connection and strengthening the County's GI network.	*NA*
Policy GI4: Sustainable Drainage Systems Green Infrastructure (GI) **Require the provision of Sustainable Drainage Systems (SuDS) in the County and maximise the amenity and biodiversity value of these systems**	***Several measures are proposed to integrate SuDS with Landscape GI measures, including integrated tree pits, rain gardens, swales, bioretention areas and permeable paving.*** ***Please see DBFL Engineers' submission for further technical details.***

GI4 Objective 1: To limit surface water run-off from new developments through the use of Sustainable Drainage Systems (SuDS) using surface water and nature-based solutions and ensure that SuDS is integrated into all new development in the County and designed in accordance with South Dublin County Council's Sustainable Drainage Explanatory Design and Evaluation Guide, 2022.	*Several measures are proposed to integrate SuDS with Landscape GI measures, including integrated tree pits, rain gardens, swales, bioretention areas and permeable paving, in accordance with South Dublin County Council's Sustainable Drainage Explanatory Design and Evaluation Guide, 2022.*
GI4 Objective 2: To incorporate a SuDS management train during the design stage whereby surface water is managed locally in small sub-catchments rather than being conveyed to and managed in large systems further down the catchment.	*Please see DBFL Engineers' submission for further technical details.*
GI4 Objective 3: To require multifunctional open space provision within new developments to include provision for ecology and sustainable water management.	*No requirement for open space on this site. All buffer and perimeter planter areas incorporate provision for ecology and sustainable water management.*
GI4 Objective 4: To require that all SuDS measures are completed to a taking in charge standard.	*Please see DBFL Engineers' submission for further technical details.*
GI4 Objective 5: To promote SuDS features as part of the greening of urban and rural streets to restrict or delay runoff from streets entering the storm drainage network.	*The proposed streets are designed with street trees / integrated tree pits and swales.*
GI4 Objective 6: To maintain and enhance existing surface water drainage systems in the County and promote and facilitate the development of Sustainable Drainage Systems (SuDS), including integrated constructed wetlands, at a local, district and County level, to control surface water outfall and protect water quality.	*Several measures are proposed to integrate SuDS with Landscape GI measures, including integrated tree pits, rain gardens, swales, bioretention areas and permeable paving, to control surface water outfall and protect water quality.*
Policy GI5: Climate Resilience **Strengthen the County's GI in both urban and rural areas to improve resilience against future shocks and disruptions arising from a changing climate.**	***The GI measures included in this development will contribute to resilience against future shocks and disruptions arising from a changing climate.***
GI5 Objective 1: To protect and enhance the rich biodiversity and ecosystems in accordance with the ecosystem services approach to development enabling mitigation of climate change impacts, by absorbing excess flood water, providing a buffer against extreme weather events, absorbing carbon emissions and filtering pollution.	*The proposed GI measures will enhance local biodiversity and contribute to mitigation of climate change impacts, by absorbing excess flood water, providing a buffer against extreme weather events, absorbing carbon emissions and filtering pollution. Such measures include roof gardens & green walls, permeable paving, swales, bioattenuation areas & other SuDS measures, planting measures including street trees, hedgerow, shrub, mini-woodlands, etc.*
GI5 Objective 2: To protect and enhance the natural regime of the watercourses of the County to more efficiently capture their flood resilience value.	*NA*
GI5 Objective 3: To ensure compliance with the South Dublin Climate Change Action Plan and the provisions of the Council's Tree Management Strategy. > Increase the County's tree canopy cover by promoting annual planting, maintenance preservation and enhancement of trees, woodlands and hedgerows within the County using locally native species and supporting their integration into new development. > Identify suitable sites for new urban trees including Miyawaki style mini woodlands, where feasible. > Support the implementation of a co-ordinated regional approach to the maintenance of trees and support the work of the Regional Steering Group on Tree Management to which South Dublin County Council is a participant. > Promote the establishment of tree trails in public parks across the County.	*This development will increase the County's tree canopy cover, with more than 450 new trees proposed and almost 5000sq.m of native and pollinator planting.* *Four Miyawaki mini-woodlands are proposed on this site.* *NA*

> Promote the planting of new woodlands and forestry within appropriate open space and park locations within the County. > To plant "pocket forests" in tracts of open grassland to act as an oasis for biodiversity. > To recognise the value of mature trees in terms of carbon sequestration and amenity over saplings.	*NA* *NA* *Mini-woodlands are proposed on the site.* *The tree planting on this site will include c.450 trees as well as c.2400 trees planted in the Miyawaki method. A significant proportion of the trees will be planted as standards or greater, including semi-mature trees along the streets.*
GI5 Objective 4: To implement the Green Space Factor (GSF) for all qualifying development comprising 2 or more residential units and any development with a floor area in excess of 500 sq m. Developers will be required to demonstrate how they can achieve a minimum Green Space Factor (GSF) scoring requirement based on best international standards and the unique features of the County's GI network. Compliance will be demonstrated through the submission of a Green Space Factor (GSF) Worksheet (see Chapter 12: Implementation and Monitoring, Section 12.4.2).	*The Green Space Factor has been calculated for this site. Please see Appendix 2 for the GSF calculator and Section 5.1 of the report for further details.*
GI5 Objective 5: To promote positive land and soil protection measures to avoid degradation or loss of natural soil resources, to minimise sealing of soils and to remediate contaminated land.	*Soils will be reused on site to the greatest possible extent, including in the proposed intensive roof gardens with a minimum soil depth of 500mm.*
GI5 Objective 6: To provide more tree cover across the county, in particular to areas that are lacking trees, with an emphasis on planting native Irish trees as appropriate.	*The proposed development includes planting of thousands of native trees, hedgerow species and shrubs.*
GI5 Objective 7: To require the provision of green roofs and green walls, providing benefits for biodiversity and as an integrated part of Sustainable Drainage Systems (SuDS) and Green Infrastructure, in apartment, commercial, leisure and educational buildings, wherever possible and develop an evidence base for specific green roof requirements as part of the Council's ongoing SuDS strategy development.	*Green roofs and green walls are proposed in this development as an integrated part of Sustainable Drainage Systems (SuDS) and Green Infrastructure. Green roofs are considered to be intensive standard with a minimum soil depth of 500mm.*
GI5 Objective 8: To complete a flood risk assessment for Saggart with a view to restoring and protecting existing biodiversity, ecosystems and drain systems.	*NA*
Policy GI6: Human Health and Wellbeing **Improve the accessibility and recreational amenity of the County's GI in order to enhance human health and wellbeing while protecting the natural environment within which the recreation occurs.**	***The proposed development includes a café set in a SuDS garden which will be accessible to the public and a new plaza and streetscape improvements with significant tree and shrub planting, enhancing the 'everyday landscape' for people walking, cycling or commuting.***
GI6 Objective 1: To support a hierarchy of accessible open spaces and recreational facilities, appropriate for neighbourhood size and catchment area, which are adaptable and capable of accommodating multiple uses (See Chapter 8: Community and Open Space).	*NA*
GI6 Objective 2: To maximise the leisure and amenity resource offered by the County's parks through the promotion of Management Plans that provide for the continued improvement of the park setting, biodiversity and recreational facilities.	*NA*

GI6 Objective 3: To provide accessible, attractive and safe routes linking settlements to the GI network of the County.	*Street improvements to Calmount Road and Ballymount Avenue are proposed, including new cycle lanes and footpaths. These will be lit for safety, and the planting along the site boundary will make them attractive. As the site is relatively flat the routes will be fully accessible with no steep areas or barriers.*
GI6 Objective 4: To ensure that all new residential development provides access to multifunctional green open space, in accordance with the provisions of Chapter 8: Community and Open Space of this Development Plan and South Dublin County's Parks and Open Space Strategy.	*NA*
GI6 Objective 5: To support the provision of new walkways and cycleways in suitable locations to improve the recreational amenity of GI corridors in a manner that does not compromise the ecological functions of the corridors.	*New walkways and cycleways are proposed along the site edges and through the site.*
GI6 Objective 6: To minimise the environmental impact of external lighting within the GI network to achieve a sustainable balance between the recreational needs of an area, the safety of walking and cycling routes and the protection of light sensitive species such as bats (See Chapter 3: Natural, Cultural and Built Heritage and Chapter 12: Implementation and Monitoring).	*Lighting will be kept to the minimum required for safe access around the site.*
GI6 Objective 7: To enhance publicly owned open spaces with further appropriate GI including nature-based interventions to improve and diversify the services they provide.	*NA*
GI6 Objective 8: To support, in agreement with the delivery authority, the provision of outdoor public water drinking fountains along all new and future dedicated cycleways, promoting reusables and actively incentivising transition from single use plastic.	*NA*
GI6 Objective 9: To investigate the potential to plant hedgerows along roads to help mitigate noise and air pollution, and to increase visual amenity and enhance biodiversity.	*New planting and hedgerows are proposed along the roads Calmount Road and Ballymount Avenue.*
GI6 Objective 10: To continue to protect and promote existing allotments and provide for new allotments where feasible in accordance with a review of the provision and management of allotments across the County.	*NA*
GI6 Objective 11: To support appropriate human engagement including the sensory experience of rivers and waterways, through access to viewing points and fishing spots, having regard to the primary need for environmental and biodiversity protection.	*NA*
Policy GI7: Landscape, Natural, Cultural and Built Heritage **Protect, conserve and enhance landscape, natural, cultural and built heritage features, and support the objectives and actions of the County Heritage Plan.**	***There are no existing landscape, natural, cultural and built heritage features on the site.***
GI7 Objective 1: To protect, conserve and enhance natural, built and cultural heritage features and restrict development that would have a negative impact on these assets in accordance with the provisions of Chapter 3: Natural, Cultural and Built Heritage of this Development Plan.	*NA*
GI7 Objective 2: To protect and enhance the landscape character of the County by ensuring that development retains, protects and, where necessary, enhances the appearance and character of the landscape, in accordance with the provisions of South Dublin's Landscape Character Assessment and the provisions of Chapter 3: Natural, Cultural and Built Heritage of this Development Plan.	*NA*

GI7 Objective 3: To work in collaboration with the owners of lands along the perimeter of Rathcoole Woodlands for its protection and that of the wildlife using it and the ecological services it provides.	*NA*
GI7 Objective 4: To develop Rathcoole Woodlands as part of a wider nature / walking trail from Saggart to Lugg Woods subject to the protection of its biodiversity, wildlife and ecological value which is of primary importance.	*NA*

CHAPTER 12 Implementation and Monitoring

Of most relevance to this site is Table 12.27 which sets out the key principles for development within enterprise and employment zones, several of which are relevant to landscape design. The following table sets out the text of the table from the SDCDP and includes the design response adjacent.

Table 12.27: Key Principles for Development within Enterprise and Employment Zones

SDCDP Theme	SDCDP Requirement	Design Response
Access and Movement	Major links to and through a site are provided as identified within the County Development Plan or relevant Local Area Plan, Masterplan and / or as determined by a site analysis process and / consultation with the planning authority.	Road layout based on consultation between Roads Dept. and DBFL Engineers, providing for future links to lands to the north.
	The street network is easy to navigate with a clear hierarchy of streets identifying the function of each street.	The street network comprises of two streets and is simple to navigate, with clear hierarchy. Note there is no through-road for vehicles, only for pedestrians and cyclists.
	Individual streets are designed in accordance with the requirements of the (DMURS) *Design Manual for Urban Roads and Streets*	Streets have been designed in accordance with the requirements of the Design Manual for Urban Roads and Streets, with the aim of creating a sustainable, adaptable streetscape that can adapt to future changes in context, in the Development Plan, and longer term under the published City Edge Strategic Framework proposals. Please see the Coordinated Design Team Response document submitted with the RFI submission for full details of the DMURS design, including Street Design Statement.
	Large areas of parking (in particular staff parking) is located to the rear of buildings and screened from the street. Smaller areas of parking may be located to the front of buildings provided they are well designed (including areas of planting) and do not result in excessive setbacks from the street.	Parking areas are relatively small and are screened from views from the public realm, with shrub and hedge planting. Service and logistics yards are larger and to the rear of units.
	The design and layout of new business parks shall promote walking, cycling and the use of public transport, including adequate provision of cycle and pedestrian linkages.	Cycling and walking are clearly prioritised with paths, cycleways, crossing points and dedicated through-routes proposed. Cycle parking provision is also provided.
Open Space and Landscape	Provision of a detailed landscape plan showing site appropriate open space which may include a hierarchy of spaces suited to a variety of functions and activities. The landscape plan will also incorporate GI elements (see GI below).	Several open spaces are proposed, particularly along the public realm, addressing Calmount Road and the roundabout, and at the entrance to the café and site entrances generally. The public realm, includes a public plaza space at Calmount Road / Ballymount Avenue of 700sq.m and a café garden and terrace of 800sq.m in total, including integrated SuDS and mini-woodland areas.
	Important natural features of the site such as trees, hedgerows and watercourses are retained, integrated within the landscape plan and reinforced with the planting of native species.	The site is greenfield but has no trees, hedgerows, watercourses or any landscape features of note. *Ecological review is ongoing.*
	Natural buffer zones and defensive planting are used to define private space and the use of fencing to the front of buildings is minimised.	In order to create a positive relationship with the public realm, fencing is avoided along the main site frontages with Calmount Road and Ballymount Avenue through the proposed

	Where fences interface with the public domain they should be of a high quality and incorporate elements of landscaping (for screening).	planting and the line of security is effectively the building line. Internal fencing will be planted with hedging to screen and soften.
	Development within business parks shall maintain and promote a parkland-like setting with high quality landscaping.	Street and internal planting will create an urban parkland environment with pockets or diverse trees and woods throughout, as well as the more structured urban planting along the streets. The site will have approximately 37% coverage of green and SuDS finishes (includes permeable paving). If the buildings are excluded, this figure is 49% of the ground surface of the proposed development site. Visible fencing and security measures typical of these sites have been designed out along the public realm boundaries, to give a more open and accessible character. Significant depths of planting on the Ballymount Avenue and Calmount Road boundaries will have a strong modern parkland character, with extensive tree planting. Planting spaces are a minimum of 6m wide on all public boundaries and often up to 25m in depth, with buildings set back and screened.
Green Infrastructure (GI)	All development proposals shall be accompanied by a GI Infrastructure Plan, which will normally be submitted as part of the suite of Landscape Plans that are required for a development. Plans shall include the following: • Site location plan showing the development site in the context of the wider GI as shown on the GI Strategy for the County • Site survey and analysis, identifying existing GI and key assets within the site • Indicate how the development proposals link to and enhance the wider GI network of the County • Proposed GI protection, enhancement and restoration proposals as part of the landscape plan, where appropriate, for the site • Proposals for identification and control of invasive species	Please see main report for Green Infrastructure Report and landscape drawings, including 1878_PL_P_00, Rev. A for full details
	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; • 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.*	Please see Section 5.3 of the foregoing report. The information can be submitted in a digital format upon request.
Built Form & Corporate Identity	*See Architect's Submissions*	

APPENDIX 2

SOUTH DUBLIN COUNTY DEVELOPMENT PLAN 2022-28
GREEN SPACE FACTOR CALCULATOR SHEET - COMPLETED

Green Space Factor Tool

South Dublin County Council

Comhairle Contae
Átha Cliath Theas
South Dublin County Council

User input indicated by Orange fields

User Input	
Zoning lookup	Minimum GI Score
EE	0.5

1. Enter Development Site Area m² HERE▶		71092	
Surface Type (see tab for detailed descriptions)	**Factor**	**Proposed Surface Area m²**	**Factor Values**
1. Short Lawn	0.3	3320	996
2. Tall Lawn (wild, not mown)	0.5	4000	2000
Permeable Paving	0.3	8944	2683.2
Vegetation			0
4a. Vegetation-Shrub below 3cm	0.4	2248	899.2
4b. Vegetation-Shrub / Hedgerow above 3cm	0.5	2630	1315
4c. Vegetation-Pollinator friendly perennial planting	0.5	852	426
4d. Vegetation-Preserved hedgerow	1.2	0	0
Trees		0	0
5a. New trees	0.6	3000	1800
5b. Preserved trees	1.2	0	0
7. SuDS intervention (rain garden, bioswale)	0.6	2210	1326
Green Roof		0	0
9a. Green Roofs- Intensive green roof (substrate is 1 metre or greater in depth)	0.7	1664	1164.8
9b. Green Roofs - Extensive green roof (less than 1 metre in depth)	0.6	0	0
10. Green wall	0.4	650	260
11. Retained Open Water	2	0	0
12. New open water	1.5	0	0
Total Equivalent Surface Area of Greening Factors		29,518.00	

Green Factor Numerator	12870.20

Minumum Required GI score	Final GI score	Result
0.5	0.18	Fail