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Castlemartyr
Landscape Planning Report
11.24

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Castlemartyr Overview of Site

The subject lands extend to approximately 6.88 ha and 4 ha developable area and are subject to three separate zoning objectives: (i) Existing Residential/Mixed Residential and Other Uses (ER); (ii) Residential (R); (iii) Residential Additional Provision (RAP). The site is located to the east of Castlemartyr's village centre and is approximately 1.2km east of Castlemartyr Resort. The northern boundary of the subject site fronts on to the 'Killeagh Road' section of the N25. The site slopes down from the public road before rising again. The low-lying areas fall within the areas identified as having a potential risk of flooding (zoned ER).

The area surrounding the site is characterised by a mix of uses comprising mostly of residential and agricultural use with the lands to north, west and southwest having all been developed for residential use. The mix of housing type in the area varies. Lands to the south, east and north-east of the site are undeveloped, agricultural land. An existing dwelling and farmyard are located to the northeast of the site boundary.

Development Description

The proposed site is a total of 6.88 ha with 4 ha being considered developable within the context of the prevailing planning policy and flood mapping. The outline scheme proposes 150 no. units, ranging from 1-4 bed no. units at a density of 37.5 units/ha. The scheme is accessed from the Killeagh Road to the north. Provision has been made for potential future access to the Castlemore Crescent to the west. Open space is provided in 5 areas at approx. 15.2%. A 68no. child Creche, with associated parking, is proposed at SW corner of the ER zoned land. It is noted that the wastewater treatment plant serving the village has limited but sufficient capacity to accommodate growth. Castlemartyr is on the Irish Water Investment Plan for an upgrade of the Wastewater Treatment facilities, due for completion inside 2024.



SITE SETTING



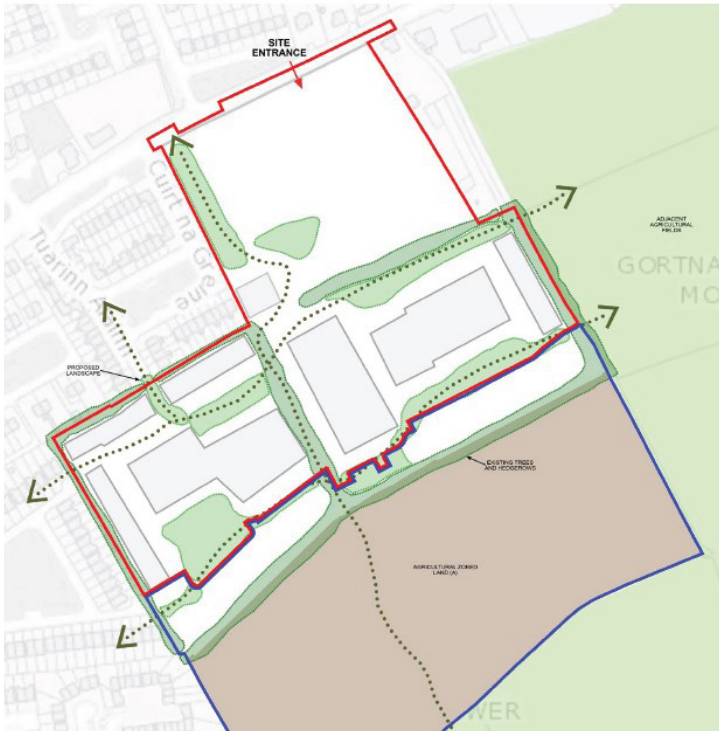
Legend

- Site Boundary
- Proposed Natural Heritage Area
- Castlemartyr Forest Recreation Area

GREEN INFRASTRUCTURE STATEMENT

Great care has been taken to ensure the strong ecological connections currently present on the site are retained and integrated into the layout of the scheme. This helps ensure wider green networks area retained, which provide links to Castlemartyr recreational forest to the west and a proposed natural heritage area (pNHA) to the East through the existing hedgerow network. The open spaces are positioned in order to provide strong natural linkages to preserve the ecological corridors on the site and in the surrounding areas, with new native planting proposed to further bolster these green links (ie hedgerows). The hedgerows are a central part of the landscape strategy.

More information can be found on the Hedgrows section of the report, which refers to the arborists assessment of the hedgerows. The proposed layout integrates a number of nature based solutions to drainage, which SUDs feature integrates throughout the scheme. These are planted with largely native planting, complimenting the retained hedgerows and the unique setting. A variety of habitat types are provided including new native woodland planting pockets, self seeded meadow areas, rain gardens and areas proposed for reduced mowing. See Landscape Concept for more information.



- Site Boundary
- Existing Green Corridors
- Proposed Natural Heritage Area
- Castlemartyr Forest Recreation Area

HEDGEROWS: ARBORIST REPORT/NOTES

Charles McCorkell Arbicultural Consultancy undertook an assessment of the trees and hedgrows on the site in April 2024. The following landscape observations have been made from the tree survey in conjunction with the proposed development

Tree Removal due to low quality:

- Trees 32, 33, 34, 43, 44, 45, 49, 51 are to be removed due to low quality.

Removal due to development:

- A portion of hedgerow 2, 36, 38 as indicated on the map is to be removed due to the development.
- The Willow area W59 is to be largely removed , with the area remaining to be used as an amenity area.

Retention of existing Hedgerows and Trees:

- All hedgerows and trees to be retained are highlighted in the diagram.

Note: A coherent approach was undertaken by the design team to facilitate the retention of the hedgerows and trees throughout the site development

CONCLUSION

Where possible hedgerows will be brought back into a manageable height. Notably the southern, western and northern sections of hedgerows behind rear gardens will need to be topped to an agreed height (approx. 3m).

This will help with sun/daylight levels into rear gardens and properties. A similar management approach could be adopted with the eastern boundary hedgerow that is adjacent to the rear gardens, but this could not be undertaken with the trees on the eastern side of the track, as these are more mature.

There are some minor level changes on the site. Where hedgerows are to be retained adjacent to rear gardens, it is important that the levels within the rear gardens are kept similar to existing.

Along the western boundary, a post and mesh panel fence will be positioned, as a wall in this area would be detrimental to the trees.

All other gardens backing onto hedgerows should aim to have a mesh panel fence to allow light levels into the hedgerow.



AERIAL SITE PHOTOS



HEDGEROWS: PHOTOGRAPHS

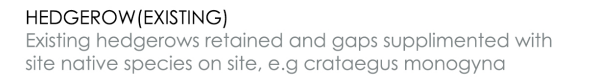


HEDGEROWS: PHOTOGRAPHS LOCATIONS



KEYMAP

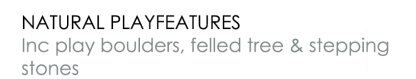
SOFT LANDSCAPE



PATHWAYS
Brushed concrete, build up to engineers spec.



FORMAL PLAY (indicative)
Robinia wood structures with woodchip
safety surface



LANDSCAPE CONCEPT

The Landscape masterplan has been developed with a strong emphasis on the importance of the application site within the Green infrastructure network. The existing hedgerows form a strong component of the overall plan, helping to bed the development in the existing environment. The open space is mainly consolidated to 4 zones to give maximum park frontage for the dwellings. The allocated communal space within that includes informal and formal play provision dotted throughout as well as some flexible spaces for amenity activities like exercise as well as quieter areas with seating. Routes through the open spaces offer pleasant & accessible access throughout the site, creating a variety of experiences throughout, including semi-formal 'manicured' spaces, wilder areas with reduced mowing & pockets of wooded areas. Future pedestrian connections to the existing estates to the North & West form a pedestrian street typology with the opportunity for additional greening and seating.

A strong boundary condition is proposed to set the development to create a suitable link to the main road and improve the quality of the road edge. A pedestrian link with a cycleway, planting and play features is proposed to link the development to the main road. The current willow area/wayleave is proposed as a native woodland area, with potential to act as amenity space for future development.



- ① ROAD BOUNDARY
- ② FUTURE DEVELOPMENT
- ③ PEDESTRIAN CONNECTIONS
- ④ PROPOSED NATIVE WOODLAND
- ⑤ HEDGEROWS RETAINED
- ⑥ OPEN SPACE A
- ⑦ OPEN SPACE B
- ⑧ OPEN SPACE C
- ⑨ OPEN SPACE D
- ⑩ FUTURE DEVELOPMENT CAR PARKING



OPEN SPACE



Four accessible and usable public open spaces with excellent passive surveillance will be provided within the proposed development. The open space proposed constitutes approx 15.2% of the developable area. It is considered that the quantum of open space being provided complies with the requirements of the CCDP.

Open Space A: 1560m²
Open Space B: 2075m²
Open Space C: 1575m²
Open Space D: 870m²
Total: 6,080m²

Open space is **6080m² /15.2%** of developable area (40,000m²)
Further breakdown of the quality of these spaces follow in this report.

In addition to this, within the developable area, incidental open space is also provided. This includes the areas around the central retained hedgerow where informal access is provided, and insidental green space not large enough or usable enough to be considered open space, but are valuable as part of the landscape as a whole.
Incidental open space: 1320m² (not included in any open space calculation)

Additional lands outside developable area:
Proposed route pedestrian link to be delivered in this application but allocated for future development and is not included in public open space calculation:

Proposed pedestrian link: **1700m²**
Proposed native woodland amenity : **6600m²**
Addition to open Space A: **700m²**

The current scrub area (proposed as accessible native woodland) and the lands to the north of the proposed creche would constitute an additional 10% of open space within the site. It is envisioned that this over provision will potentially provide for part of the open space provision for the future development of the lands within the northern portion of the site.

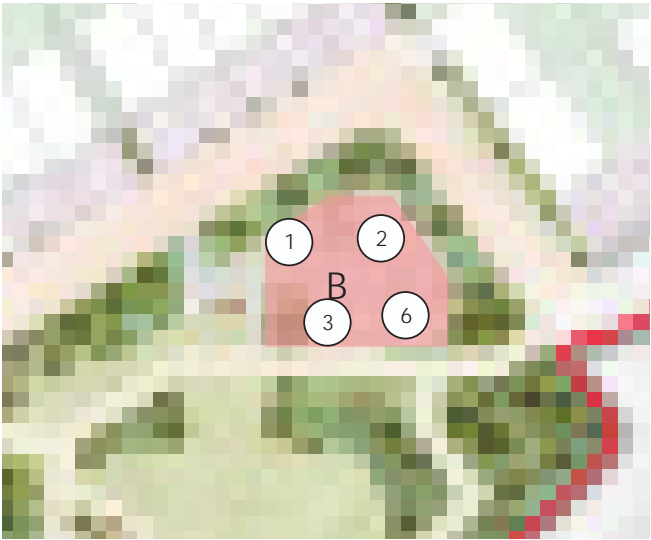
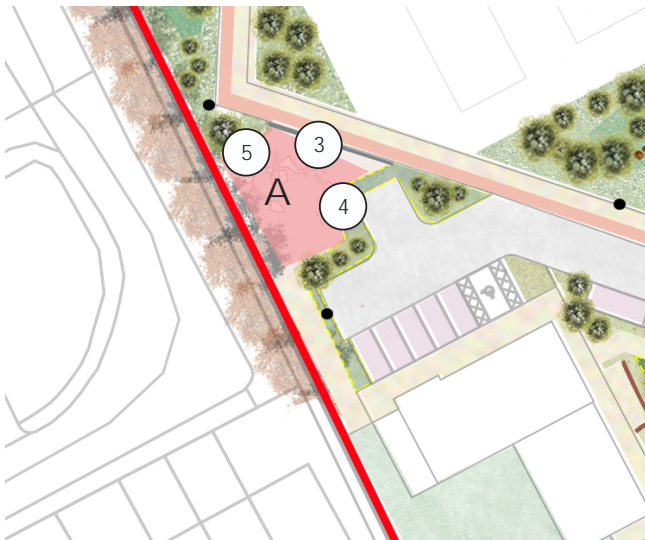
Total Open Space in res. zoned lands: 15,080m²/18.5%
This included usable public open space & additional lands. This is of lands within the Red Line Boundary & the RAP zoned lands to the south, which totals 8.10Ha. Refer to Arch Masterplan Drawing No.:23069_P_016 for schedule.

- USUABLE OPEN SPACE : Approx 15.2%
- Incidental open spaces within developable area
- - - Additional lands outside developable area
- RAP zoned lands
- Developable area

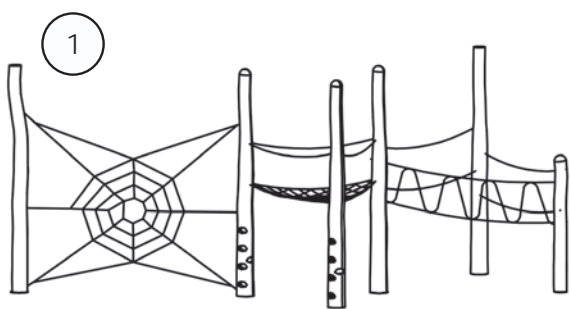
PLAY STRATEGY



Formal Play: Robinia Wood play equipment on woodchip safety surface. Play equipment for younger children (0-6) adjacent to proposed creche. Play equipment for older children (4-12) proposed for large open space, surrounded by trees in a woodland-like setting.



Richter spielgeräte 'Climbing Forest - Type 02,' of Robinia Wood & Rope



Richter spielgeräte J'umping Disc'



Richter spielgeräte 'Cradle Nest'



Richter spielgeräte Play Sculpture



Richter spielgeräte J'umping Disc'



Richter spielgeräte Wobble Dish



Woodchip Safety Surface

PLAY STRATEGY

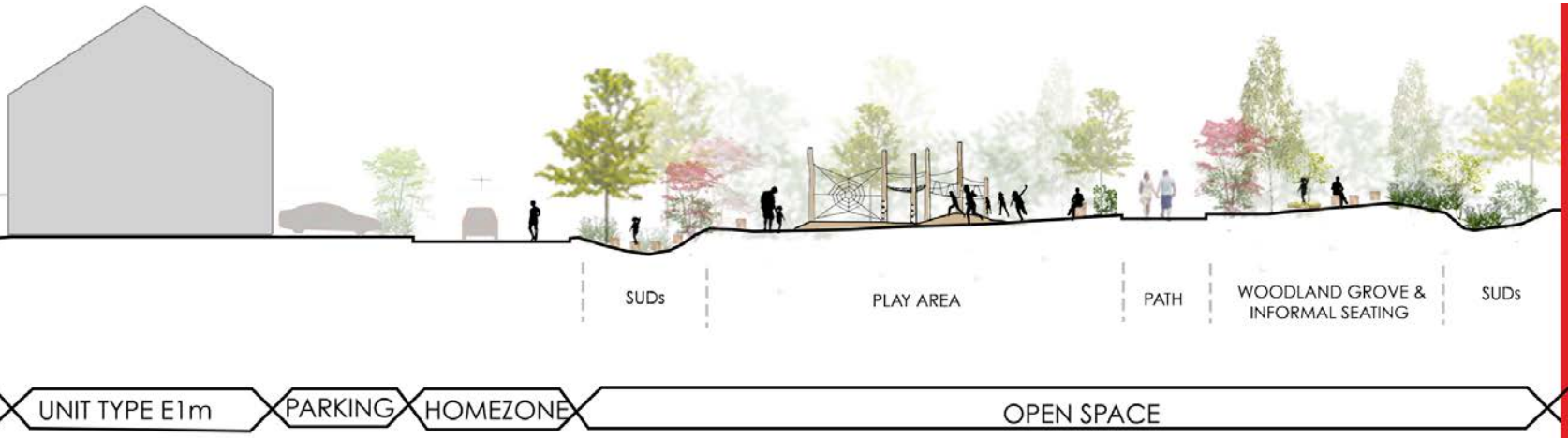


The green infrastructure strategy & informal planting strategy allows for the integration of a multitude of natural informal nature play elements to be successfully integrated throughout the scheme. These can include balancing elements from logs (potentially from felled ash trees on site), boulders and other natural play elements.



OPEN SPACE A: ACTIVE RECREATION

The largest open space is to consist of a formal play area, wooded pockets, a large kickabout and a number of seating nodes within the site and at the entrances. The space is enclosed within a large herbaceous border and SUDS swale, to help attenuate water within the site. Trees within the borders will serve to enclose the space and offer the site of trees for the resident's properties adjacent to the green. Pathways are aligned with the site layout to offer alternative short cuts through the park area when walking through the estate, as well as offer circularity with the space. Ballylusk gravel is proposed at the path surface.



Robinia Wood play elements in a woodlanand -like setting



Seating in a planted environment



SUDS drainage rain garden.

OPEN SPACE B: ECOLOGICAL CORRIDOR

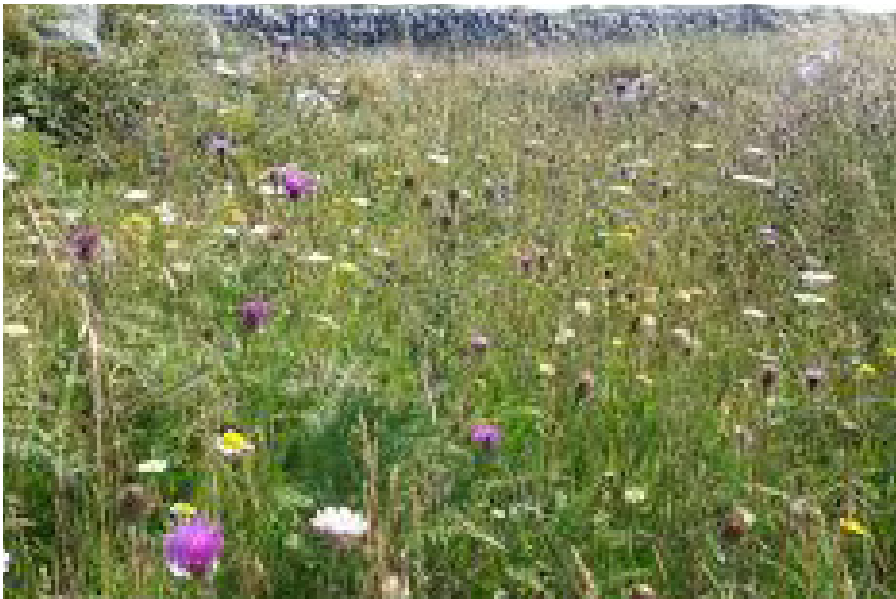
The ground treatment here is proposed as an area of naturalised grassland using topsoil salvaged from the site, enabling the native residual seed stock to gradually re-emerge. At installation, the salvaged soil will be seeded with native red/white clover to enable quick soil stabilisation and immediate pollinator benefits, while allowing future growth of the native seed stock, which often takes several seasons to re-emerge. A number of Informal play elements as well as suds features are also proposed here.



Seating/ balacing



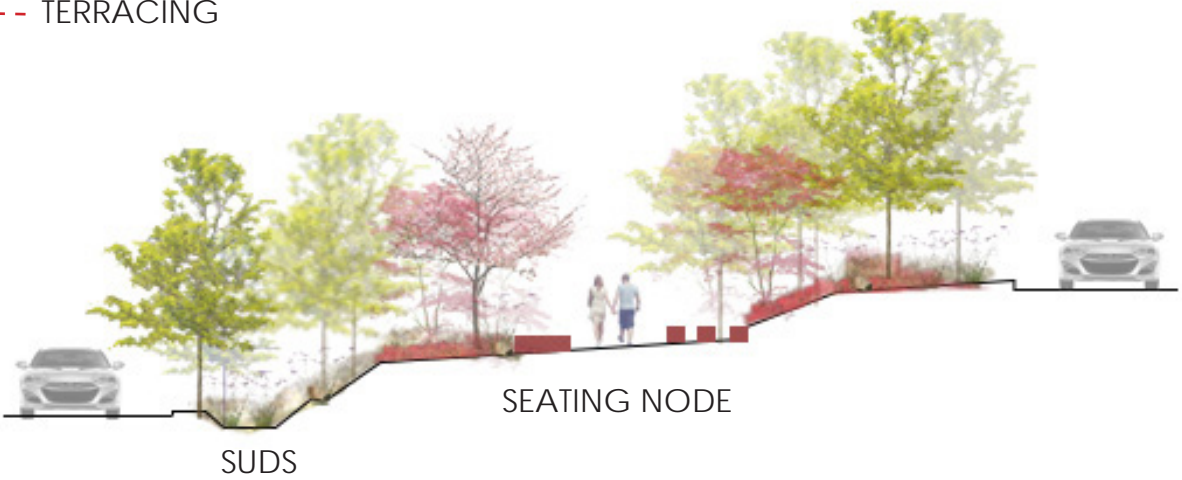
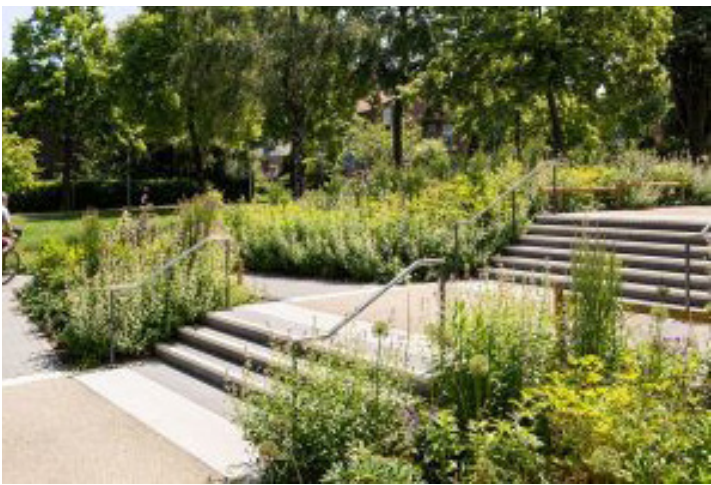
Informal Seating/ balacing



Self seeding meadow

OPEN SPACE C: TERRACED PARKLAND

To create usable space, terracing is proposed to deal with levels changes to the level changes, (See section below) A flatter area in the center will offer a seating node for gathering and a lawn space surrounded in herbaceous planting. Access will be provided via steps and 1:21 access paths, to help circulation throughout the site. SUDs features will help attenuate water at the bottom of the slope. Natural play features are also proposed in this space.



FUTURE CONNECTIONS

Future potential pedestrian routes are proposed to provide access to existing estates. As these streets are pedestrian, there is the opportunity to provide a change in surface material. Car ccess is maintained for emergency vehicles. A number of specimen street trees are proposed here, e.g. *Gleditsia triacanthos*.



NATIVE WOODLAND AREA



SECTION

This area is to be left as a throughway for flood waters in the event of a rare flood (please see engineering report for details). Current scrubland is approximately 10-15 years old, and has sprung up over spoil left over on the site. Currently there is builders rubble amongst the willow scrubland, which needs to be removed.

Compared to a single-species stand of willow, native mixed woodlands offer significantly greater ecological diversity, stability, and resilience - we propose to largely replace the scrubland with a mix species native woodland. This will also allow for the removal of the builders spoil and plan out some usable open space 'glades' within the future woodland. In terms of amenity, residents will be provided with a good local resource for dog walking, play etc. Open Glade spaces with natural play (from felled trees) are proposed, which will be connected with resinbound pathways. 1:21 access is proposed from the west, connecting to the main roadway and the pedestrian route out of the scheme. An additional connection is proposed through the existing hedgerow to the south.

The native planting strategy will include a mix of standards size trees, underplanted with whips to introduce woodland heterogeneity. (See woodland mix in Masterplan legend) A retention of a band of willow scrub adjacent to the existing hedgerow is proposed, to help maintain the existing wildlife corridor.



Native woodland species & glade spaces (proposed)



Scrubland (present)



BEE ORCHID NEW LOCATIONS

Bee Orchids are growing on this site, as recorded by the project ecologist. As these are a protected species, they needed to be moved to a suitable location. We were advised to locate the Bee Orchids in a south facing position, in an area with no competition from other plants or trees. See righthandside image ' Bee Orchid Locations'



Bee Orchid Existing Locations



Bee Orchid New Locations

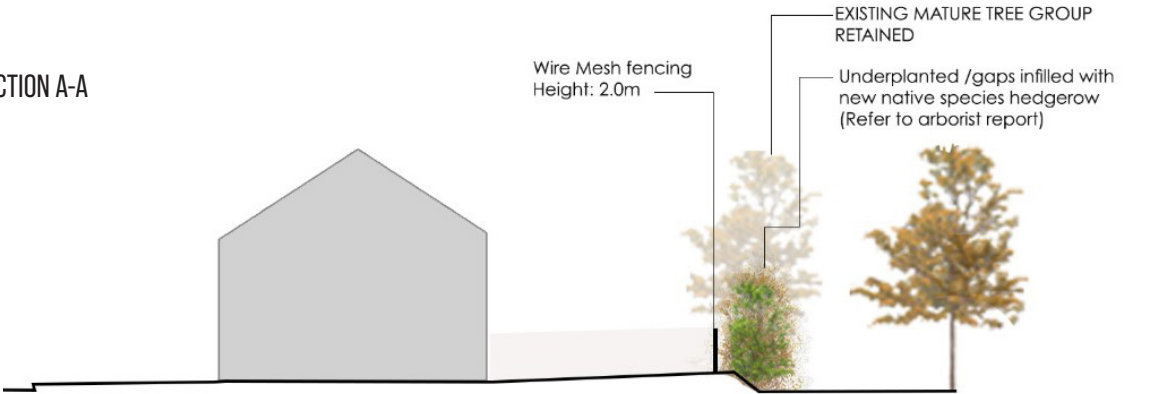
BOUNDARY TREATMENT



- Stone clad half wall & Railing top, with Native planting tree line
- Existing fencing , Existing hedgerow managed, gaps infilled, additional wiremesh fence
- Exisitng condition retained
- Existing Tree group managed, Hedgerow planting & wiremesh fencing
- Native hedgerow planting & mesh fence
- 1.2m Timber 'play' fencing, with self closing gate

Existing hedgerows make up the majority of the existing boundary condition, in order to make the boundary secure, additional infill with native species into gaps is proposed, aswell as wiremesh fencing, which allows light to the existing hedgerow. See Page 22 of this report ' Hedgerow management' for further details.

SECTION A-A



SECTION B-B



BOUNDARY TREATMENT: NORTH BOUNDARY



- Boundary Treatment for Northern Boundary
- Kilkenny limestone Cladding, granite cap and metal railing top
- Planting Species: Mature specimen tree.Eg. Tilia Cordata ,Quercus robur
- Underplanted with herbaceous planting



Kilkenny Limestone Cladding



Contemporary metal railing



Elevation A-A, view from outside the development with trees reaching maturity, including back-lit entrance signage

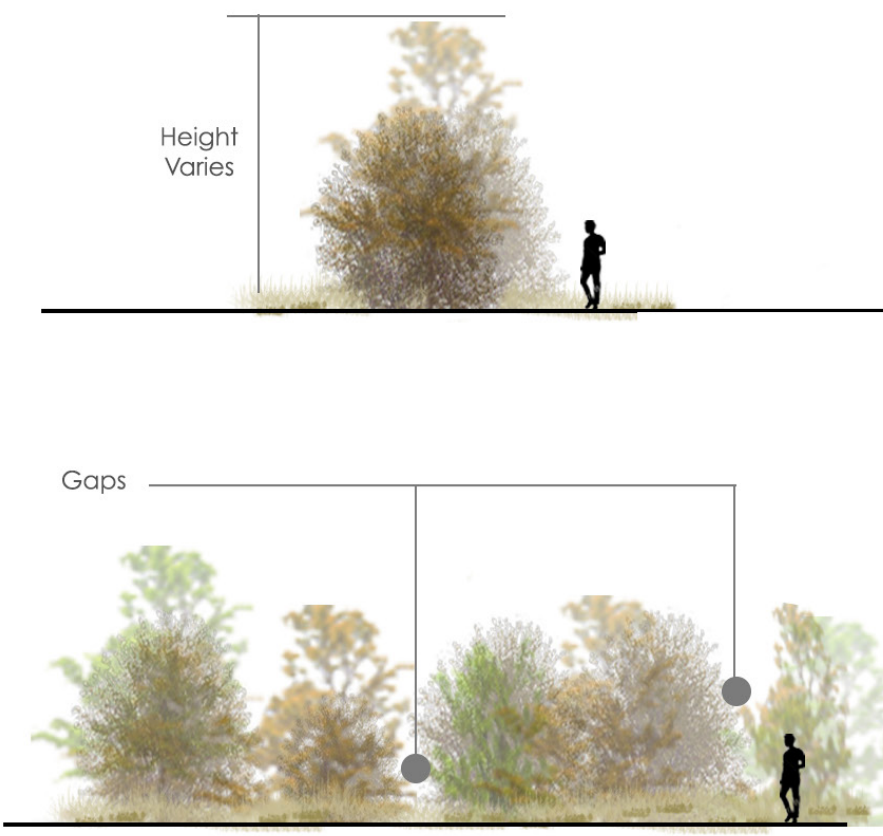


Section B-B

HEDGEROW MANAGEMENT

As per arborist recommendations, topping is needed on many of the hedgerows. Additionally planting of suitable smaller hedgerows species is also proposed to fill gaps in the hedge. Flowering native species are proposed such as *Viburnum opulus*, *Rosa canina*, *Cornus sanguinea* & *Euonymus europaeus*. Mature trees within the hedgerow will be retained as per arborist report

TYPICAL EXISTING CONDITION:



PROPOSED TREATMENT



PROVIDE EXCELLENT HABITAT VALUE FOR WILDLIFE



NATIVE SHRUB SPECIES WHICH PRODUCE BLOOMS RICH WITH NECTAR, FRUITS AND NUTS.



WILDLIFE HEDGES TO FORM PYRAMIDS OF VEGETATION WITH MEADOW LIKE VEGETATION AT THE BASE. THIS PROVIDES DENSE COVER WITH PLENTY OF PLANT SPECIES DIVERSITY.



SUSTAINABLE URBAN DRAINAGE SYSTEM

PROPOSED SUDS MANAGEMENT TRAIN

In line with Cork County Council Policy approach, SUDs drainage is integrated into the development with the aim of integrating it into the Amenity & biodiversity measures on site. The SuDs proposal for phase 1 development will utilise the SuDs management train of collection, conveyance and treatment. Please refer to Engineers plans for further details and additional drainage treatments.

The proposed SuDs elements for Phase 1 are as follows;

1. Permeable Paving
2. Raingardens/Bio-Retention



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 addition to this a number of multistems will provide light screening at strategic locations. A base layer of perennial and meadow planting in the form of rain gardens will create a seasonal interest and provide a strong sense of identity to the scheme. A largely native planting palette is proposed at all structural levels, from trees to herbaceous layer. Species from the All-Ireland Pollinator plan are proposed, offering a variety of nectar and pollen sources across different seasons. To further support Ireland's native pollinators, incorporated are a mix of non-native plants, many of which are also referenced by the All Ireland Pollinator plan to provide year round food sources and habitat. Refer to Materplan for more detail.

Open Space Trees

Native and naturalised tree species are to be planted within the public open space to increase opportunities for native wildlife. These will ultimately be large scale trees to designate a parkland character like native *Quercus Robur*, aswell as smaller mature trees like *Betula Pendula* & *Prunus*. In Some parts of open space, a woodland mix of biodiverse whip planting with a copse of standard and semi mature trees will form pockets of woodland planting throughout. (see Woodand Mix in Masterplan legend)

Street Trees

Street tree planting will consist of species with fastigiate or neat forms suitable to the scale of the streetscape and those which will thrive in a streetscape environment. Street tree planting is designed together with the street lighting to avoid shading. Street trees will be planted into a minimum of 7cu.m. topsoil, with the use of urban tree soils, root barriers to protect water utilities and topsoil loaded rootcells to increase rooting areas outside the main tree pit area as necessary.

Meadow Planting

Meadow or 'wildflower' should be considered as "an area of naturalised grassland using topsoil salvaged from the site, enabling the native residual seed stock to gradually re-emerge. At installation, the salvaged soil will be seeded with native red/white clover to enable quick soil stabilisation and immediate pollinator benefits, while allowing future growth of the native seed stock, which often takes several seasons to re-emerge.

Shrubs (Privacy Strips)

Low level shrub and groundcover planting will be in single species blocks taken from an overall palette of species throughout the scheme with flowers and fruits attractive to wildlife such as bees and butterflies. E.g. *carpinus betulus*

Bioretention planting /Rain gardens

A mix of structure grasses and perennial planting form the overall planting palette for the raingardens throughout the scheme. Proposed species will respond to the location of beds in terms of shading/aspect, with a maximum of 7 species proposed per node. This planting palette will provide biodiverse corridors throughout the scheme and create a strong sense of identity to the development. The planting beds will be filled with engineered soils, see engineer's spec. A 50mm mulch layer of sandstone aggregate is to be spread over this creating a weed free and easily maintained surface.

Herbaceous Planting

Herbaceous planting mix will follow a similar structure of grasses & perennial planting to the Rain gardens, to create a seamless palette throughout the scheme. Species mix will vary to location, with a maximum of 7 species proposed per node. Additional soil manufactured to B.S. 3882:2015 topsoil standard.

Landscape Implementation Programme

Planting on the site will commence with the completion of each stage of the works and as a result the programme is closely tied to building works. Ground preparation will precede planting and will include weed clearance and amelioration where necessary. Planting of species will be carried out in the dormant period from November – March, this will ensure ample opportunity for planting to establish properly, omit and reduce casualties during the maintenance period.



PLANTING STRATEGY - TYPICAL MIXES

A mix of native and non-native species have been proposed, typical species here, including grasses & sedges, perennial plants, semi-aquatic plants and bulbs.

Rain Gardens

Dechampsia Cespitosa
Carex divulsa
Succisa pratensis
Centurea Nigra
Molinia Caerulea
Luzula sylvatica 'Bromel
Festuca pratensis
Caltha palustris
Lunaria annua
Juncus patens 'Carman's Gray
Filipendula ulmaria
Knautia arvensis
Aquilegia formosa
Succisa pratensis
Festuca altissima
Lychnis flos-cuculi
Rodgersia
Iris ensata
Angelica sylvestris
Iris sibirica
Mentha aquatica
osmunda regalis
Leucanthemum vulgare
Fritillaria meleagris

Herbaceous Planting

Alchemilla vulgaris
Ajuga reptans
teucrium scorodonia *stachys sylvaticaliu*
Francoa sonchifolia
Vinca minor alba
Dryopteris filix-mas
Athyrium filix-femina
Aster frikartii monch
Myosotis sylvatica
Fragaria vesca
Aquilegia white form
Convallaria majalis
Helleborus × hybridus harvington
Calycanthus occidentalis
Galium odoratum
Azalea mandarin lights
Sanguisorba officinalis
Cirsium rivulare
Lunaria annua
Aquilegia formosa
Silene dioca
Primula veris
Geranium robertainum



Mixed herbaceous planting, BSLA