

Clonburris SDZ- Adamstown Extension
Planning Presentation



Place
Making
**Built
Environment**

Client: Clear Real Estate Holdings Ltd
Date: 30th Jan 2023

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1.0 INTRODUCTION

The development proposed comprises 385no. units comprising 139no. houses, 142 no. duplexes and 104no. apartments in 2no. blocks ranging in height from 1 to 6 storeys. Private rear gardens are provided for all houses. Private patios / terraces and balconies are provided for all duplexes and apartments.

The site forms part of the Clonburris Strategic Development Zone.

Key Principles relating to Green and Blue Infrastructure are outlined in Section 2.3 of the SDZ Planning Scheme:

- *To protect, enhance and develop an interconnected green and blue infrastructure network of parks, open spaces, hedgerows, grasslands, protected areas, rivers and streams for amenity and recreation, biodiversity protection, flood management and adaptation to climate change;*
- *To retain and improve key landscape and ecological features such as hedgerows, the Grand Canal and the Griffen River;*
- *To incorporate new elements of Green and Blue Infrastructure such as tree planting, parks and natural open spaces and sustainable urban drainage systems;*
- *To reduce fragmentation and strengthen ecological links through the retrofitting and or upgrading of the pedestrian bridge over the railway line to a 'green bridge';*
- *To connect parks and areas of open space with ecological and recreational corridors to aid the movement of biodiversity and people and to strengthen the overall Green Infrastructure network;*
- *To support native plant and animal species and encourage corridors for their movement; and*
- *To seek to retain hedgerows, aquatic habitats and established tree lines wherever possible.*

Public open spaces have been designed to maximise the retained biodiversity resource at the site. All plans take full account of the Planning Scheme Green Infrastructure requirements as well as the All-Ireland Pollinator Plan. Local ecological/habitat connections

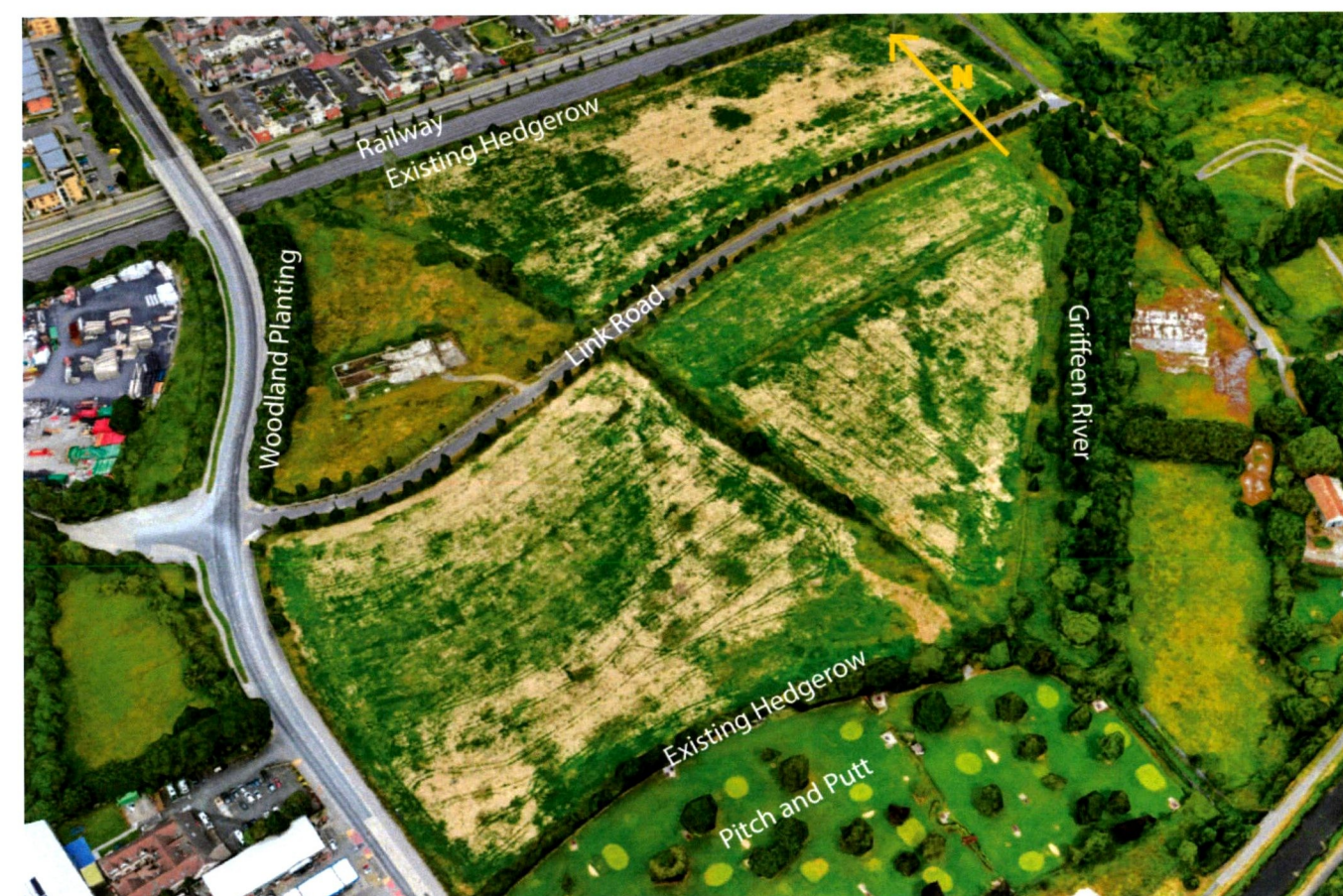
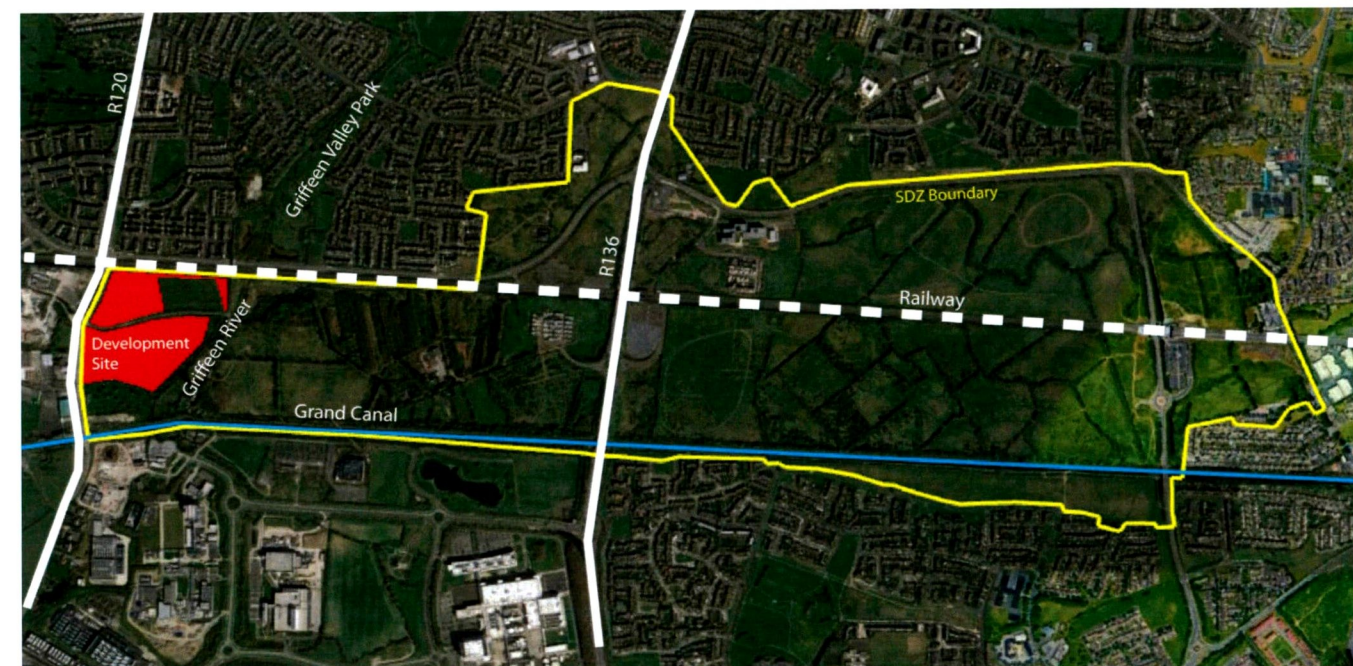
to the wider area have been retained, and will be enhanced. For example, a key habitat consideration in Clonburris is the presence of the River Griffen corridor to the east of the proposed development site. This feature is an important commuting and foraging area for bats, and a critical focus of the Biodiversity Action Plan for Clonburris is to maintain the Griffen Valley as a fully functioning ecosystem. Therefore, as part of the proposed development, bat-friendly lighting will be used throughout, and the lighting has been designed to ensure that dark corridors are maintained throughout the Griffen corridor.

The proposed landscape design includes for enhancement of the green infrastructure and biodiversity of the site through substantial new native tree and shrub planting, including to the Griffen River Corridor. It is necessary to remove some sections of existing hedgerow to comply with the SDZ Planning Scheme, and where feasible, plants from these hedgerows will be trans-located to suitable areas within the site to further enhance the existing and proposed native vegetation.

Public open spaces have been designed to provide for a wide range of active and passive recreational activities, as well as maximising the retained biodiversity resource at the site. All plans take full account of the Planning Scheme Green Infrastructure requirements as well as the All-Ireland Pollinator Plan.

Connections to adjacent green spaces to the east and south will connect the site to the wider green network. The south-eastern part of the site slopes slightly down to the Griffen River. This part of the site is of high ecological value and is to be retained, and enhanced as with planting.

The network of permeable paths and seating areas throughout the open spaces provide high quality connectivity and permeability throughout the site and to the wider area.



1.1 LANDSCAPE VISION

BIODIVERSITY



- A high quality, biodiversity-focused landscape design is proposed for the proposed development. This follows the Green Infrastructure requirements of the Planning Scheme and the SDZ Biodiversity Action Plan;
- Landscaping proposals will prioritise native species, with non-native/naturalised planting provided at appropriate locations within the development. The planting will be based on the recommendations of the All-Ireland Pollinator Plan;
- The River Griffeen corridor will be managed for biodiversity – planting will be enhanced where necessary, and a dark corridor will be maintained for bats; and
- Bat and bird boxes, as well as insect hotels will be incorporated into the overall development, and a wide range of habitats will be retained/created.

MULTI-FUNCTIONAL SPACES



- A range of spaces will be provided to allow opportunities for passive and active recreation;
- Provision of play features for a variety of ages groups, with a mix of both formal and informal natural play;
- Sense of place will be enhanced with use of natural stone, timber and localised variations in topography; and
- A variety of vegetation types will create and enhance spaces through use of structural planting, different

CONNECTIVITY



- Pedestrian connections will be prioritised;
- The design of streets will enhance the experience of pedestrians and modes of active travel;
- The layout will provide for an off-road shared cycle routes across the site where feasible;
- Cycle parking including for cargo bikes will be provided throughout the scheme.

1.2 Proposed Landscape Masterplan



- LEGEND:**
- EXISTING TREES AND VEGETATION TO BE RETAINED AND PROTECTED
 - EXISTING TREES AND VEGETATION TO BE REMOVED
 - PROPOSED AMENITY GRASS
 - PROPOSED LOW MAINTENANCE GRASS SEEDING TO PRIVATE GARDENS
 - PROPOSED HEDGE PLANTING
 - PRIVATE GARDEN AREAS
 - NATIVE SHRUB & TREE PLANTING INCLUDING TRANSLOCATED HEDGE PLANTS FROM REMOVED HEDGEROW WHERE FEASIBLE / APPROPRIATE
 - PROPOSED NATIVE SHRUB PLANTING
 - ORNAMENTAL PLANTING MIX - POLLINATOR FRIENDLY
 - EXISTING GRASSLAND TO BE RETAINED, MOWN ANNUALLY
 - EXISTING GRASSLAND TO BE RETAINED (MOWN REGULARLY)
 - EXISTING GRASSLAND TO BE RETAINED WITH BULB PLANTING
 - PROPOSED WILDFLOWER MEADOW
 - PROPOSED BIOSWALE WITH PLANTING TO ENGINEERS DETAIL
 - EXTENSIVE GREEN ROOF
 - INTENSIVE GREEN ROOF
 - PROPOSED TREE PLANTING
- PROPOSED HARDSCAPE:**
- BUFF COLOURED PERMEABLE BITUMEN MACADAM SURFACE TO PEDESTRIAN AND CYCLE PATHS
 - BUFF COLOURED BITUMEN MACADAM SURFACE TO LOCAL STREET
 - BLOCK PAVING SURFACE TO INTIMATE STREET SHARED SPACE
 - BLOCK PAVING TO STREET FOOTPATHS
 - GRASS PAVING TO ON-STREET PARKING SPACES (HYDROLINEAR OR SIMILAR) SOWN WITH HARD WEARING GRASS AND WILDFLOWER MIX
 - PERMEABLE BLOCK PAVING TO IN-CURTILAGE PARKING SPACES
 - BENCH SEATING
 - OUTDOOR GYM EQUIPMENT
- PROPOSED BOUNDARIES:**
- ESTATE RAILING TO LINK ROAD BOUNDARY WITH PUBLIC OPEN SPACE
 - EXISTING BOUNDARY FENCE RETAINED
 - EXISTING BOUNDARY FENCE RETAINED WITH ADDITION OF BALL STOP NETTING
 - PROPOSED TIMBER POST AND RAIL
- PROPOSED LIGHTING:**
- PROPOSED LIGHTING COLUMN (FOR DETAILS SEE LIGHTING DESIGN DRAWINGS)
- PROPOSED PLAY**
- PROPOSED BARK PLAY SURFACE
 - PROPOSED TIMBER PLAY EQUIPMENT
 - PROPOSED NATURAL PLAY - BOULDERS
 - PROPOSED NATURAL PLAY - FELLED TREE
 - PROPOSED GRASSED MOUNDING

Indicative Layout of future road junctions and pedestrian connections. Green buffer proposed as part of this application. See Drawing 6268-P-004 Site Plan

1.3 Precedent Images



Existing grassland to be retained and integrated where feasible



Existing grassland to be maintained with varying mowing regimes



Bulb planting into existing grassland for key areas



Natural play with ground mounding



Natural play areas



Wildflower meadow sowing to improve biodiversity



Timber play equipment



Shared surfaces



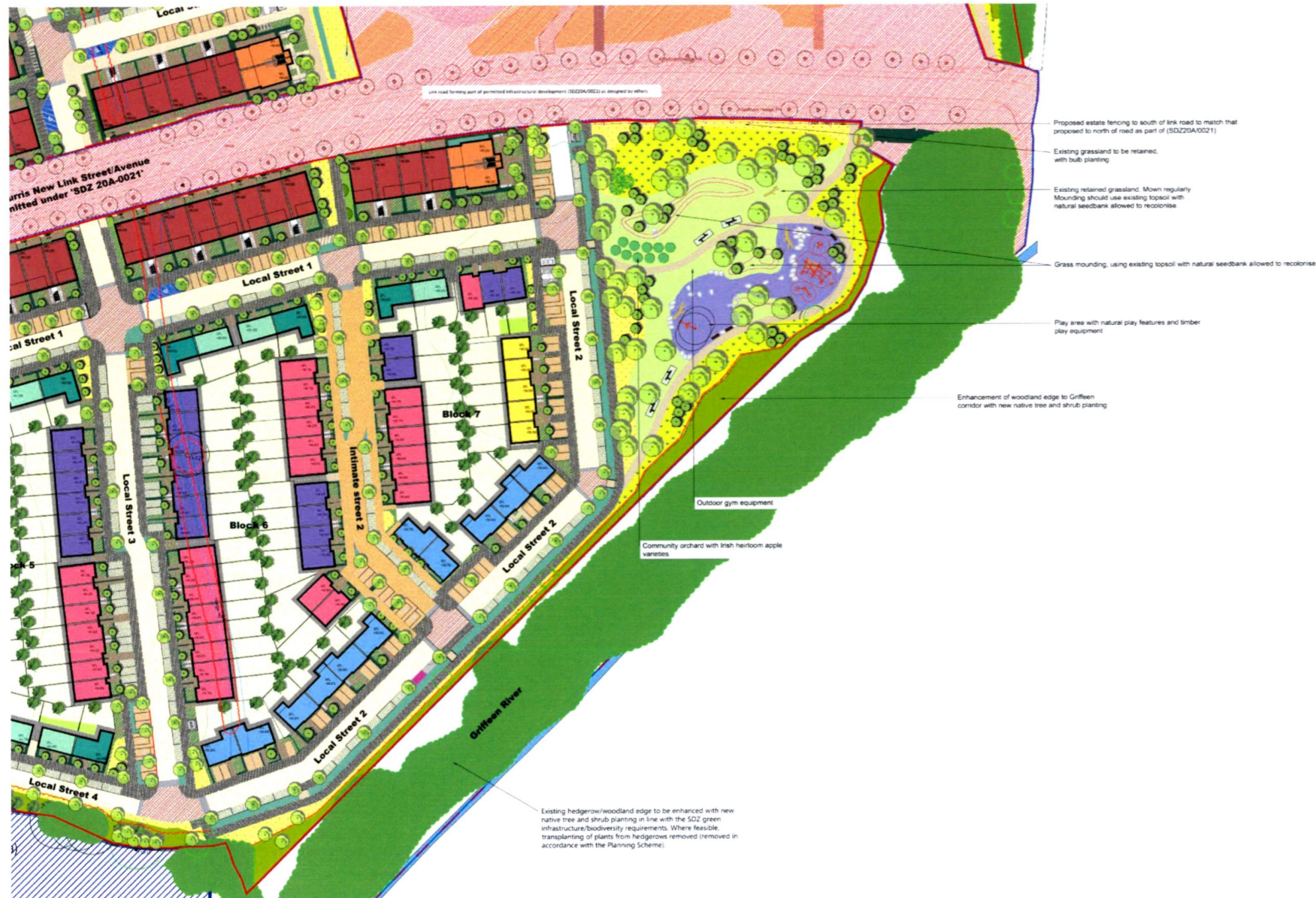
Ample sitting opportunities



Permeable paving where applicable

1.4 Public Open Space

There will be a generous provision of public open space within the Site which will provide seating, access and play opportunities, including natural play. The eastern boundary with the Griffeen River will be enhanced with new tree and shrub planting. The space will form part of the southward extension to the Griffeen Valley Park, a 'stepping stone' in the green infrastructure network as noted in the South Dublin Development Plan. A buffer between non-amenity development and the Griffeen River along with a range of proposed native planting types, will complement the existing habitats along the river corridor.



Community orchard with Irish heritage varieties

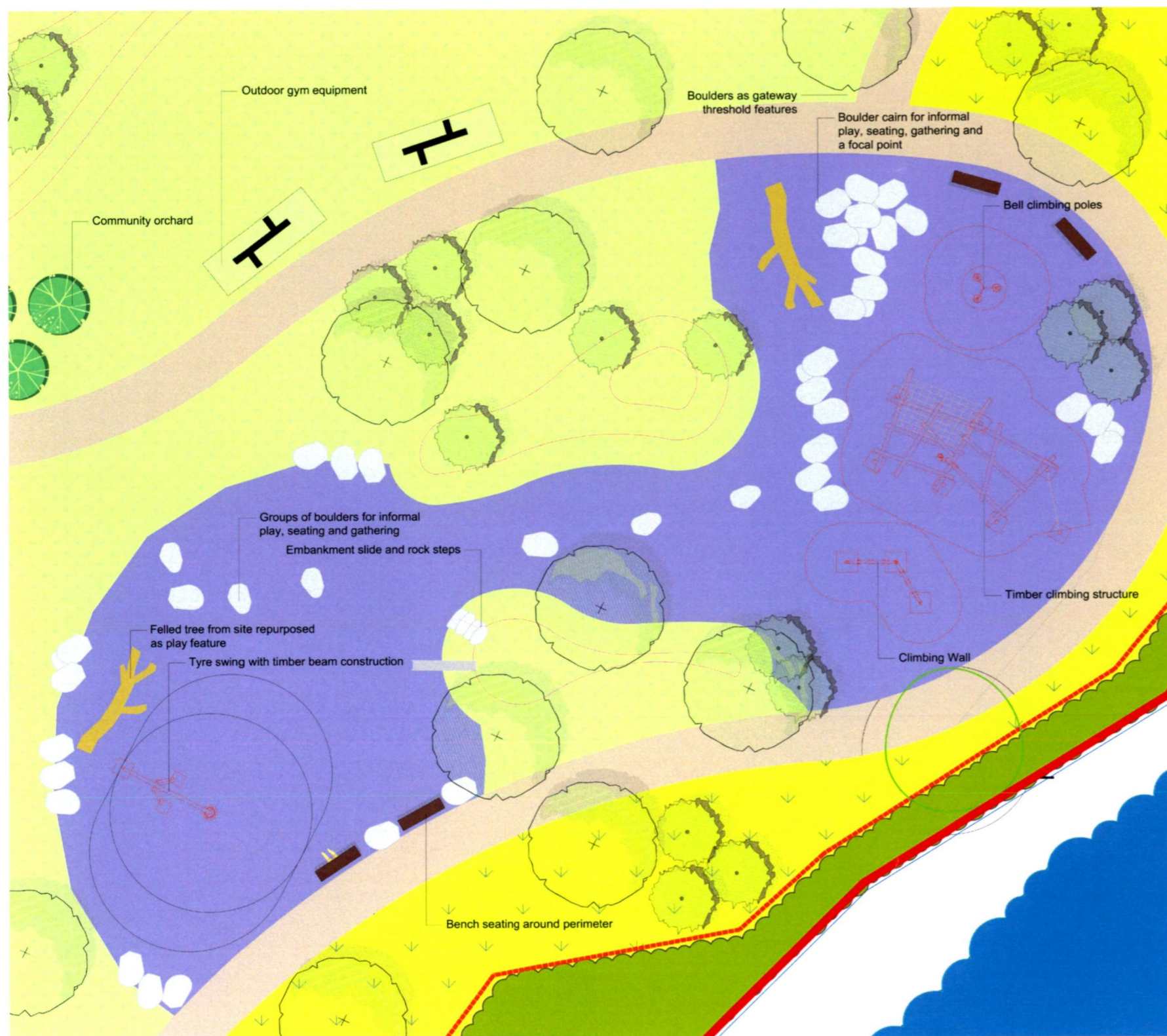


Grass mounding integrated with play features



Outdoor gym equipment

1.5 Public Play Area



A neighbourhood / destination play area is proposed to the east of the site within the Griffen Park Extension. This includes a natural and formal play features set within a landscape of diverse topography and planting. The design uses local variations in topography to enclose and define space whilst still maintaining a degree of passive surveillance.

Natural features such as boulders and felled trees provide focal points, spaces for gathering and opportunities for adventurous play.



Timber climbing structure



Climbing wall



Bell climbing pole

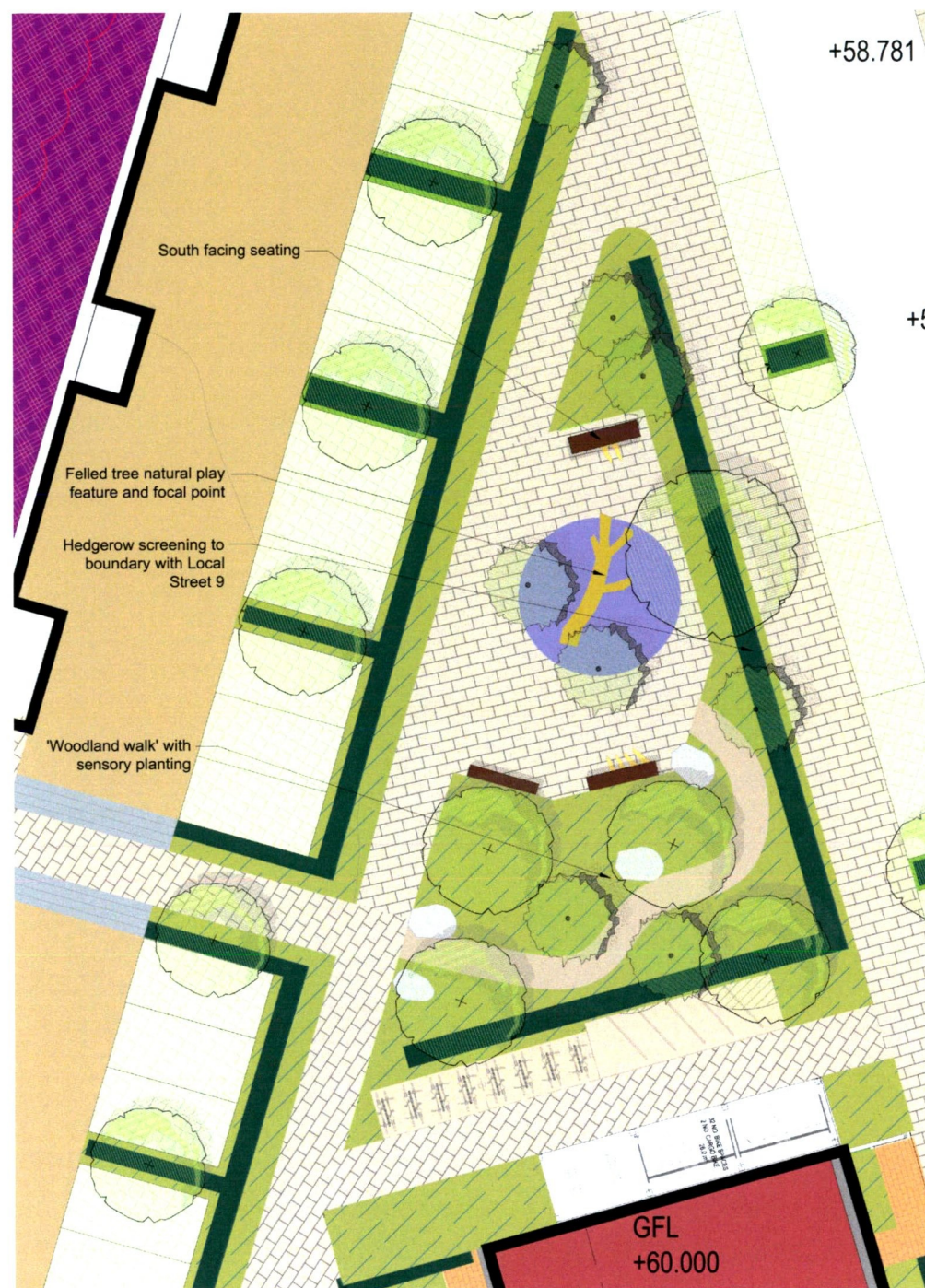


Tyre swing

1.6 Communal Open Spaces

The open Communal Amenity Spaces provide residents with an intimate, human scale open space. The spaces are not gated from the wider development; this is to aid permeability for residents of the whole development. While open access is permitted, the security, privacy and enclosure of the spaces is provided by constricted entrances and the soft division of spaces through structural planting. Change of material to high quality pre-cast concrete block also contribute towards making these spaces feel

intimate. Seating areas are provided within each space along with natural play elements, integrating both active and passive uses. Planting within these spaces is proposed to be of year-round interest, with shrubs giving a strong structural and textural background with drifts of colour provided by perennials from spring into late summer.



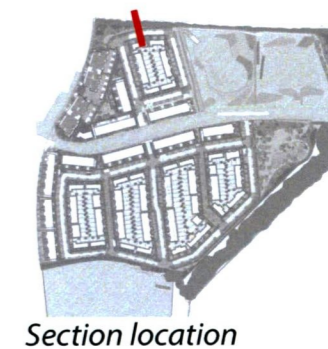
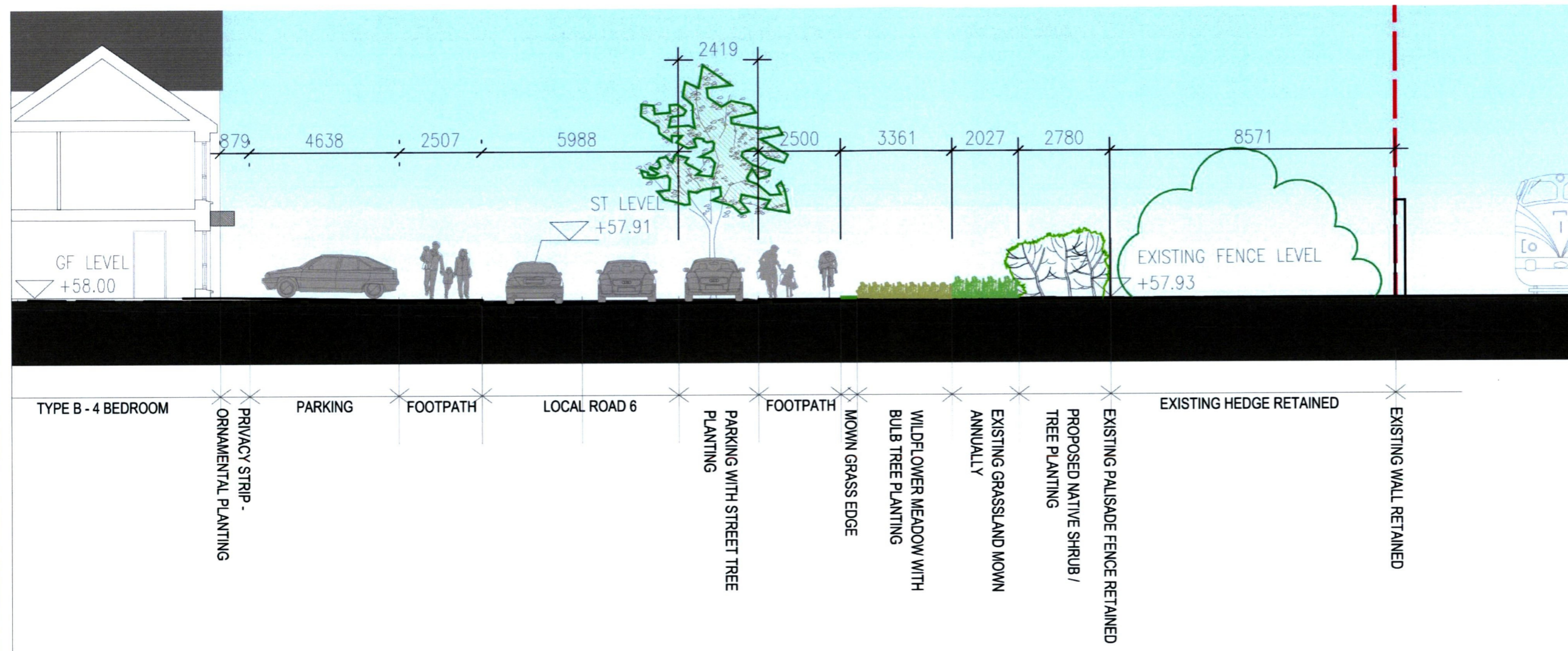
Communal space serving Apartment Block 1



Communal space serving Apartment Block 2



1.7 Northern Boundary Section



The existing hedgerow along the northern boundary will be enhanced with additional native shrub and tree planting to increase the width and further screen the development from the adjacent railway. Existing grassland will be retained and improved through long-season bulb planting to provide colour from late winter to early summer. Tree planting will be provided to the spaces between on road parking bays. The existing boundary fence will remain in place to be screened by the additional planting.



Native hedge



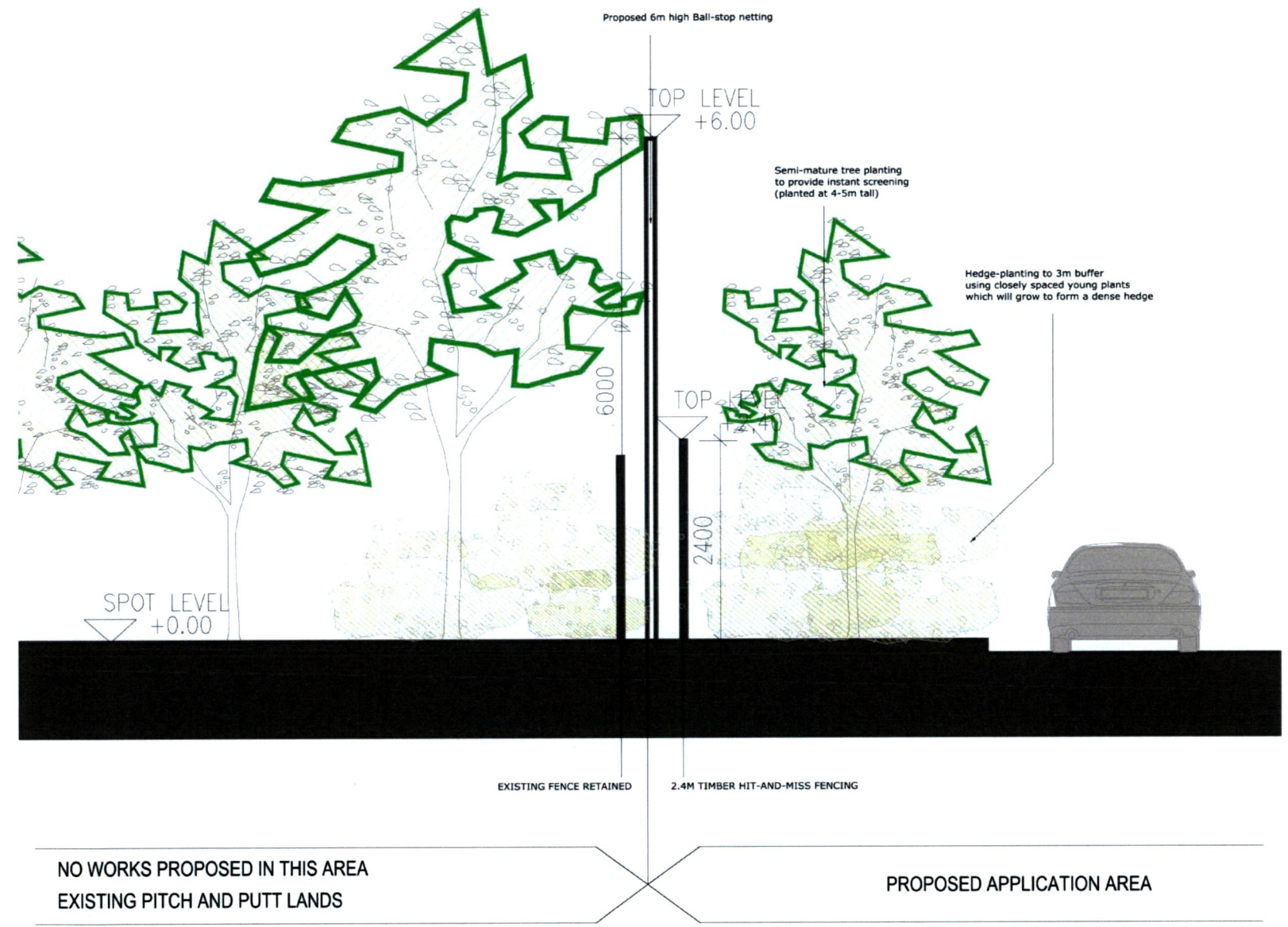
Naturalised bulb planting

1.8 Western and Southern Boundary Sections



WESTERN BOUNDARY SECTION

The houses on the western boundary will have private sunken terraced garden spaces, which will be separated from public open space by native hedgerow. The streetscape will be enhanced through provision of street trees, wildflower meadow and bulb planting.



SOUTHERN BOUNDARY SECTION

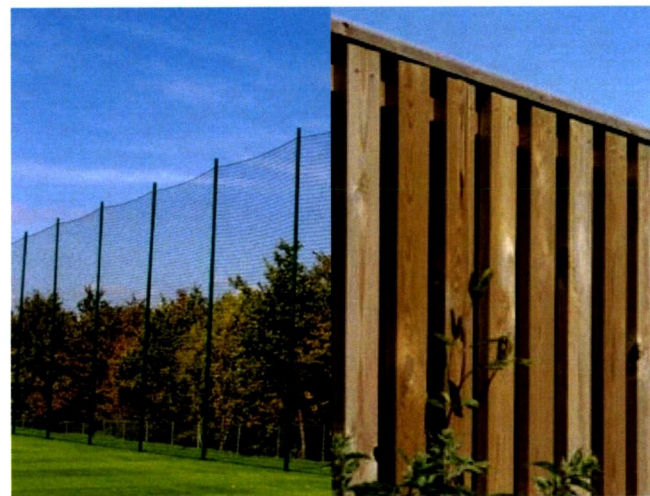
The southern boundary adjoins Lucan Pitch and Putt course. The existing fenceline and security fence will be preserved and ball netting introduced to provide a safety barrier for the development. Some removal of hedge planting will be required but this will be replanted with a diverse native mixture of species.



1.9 Boundary Details



Timber post and rail



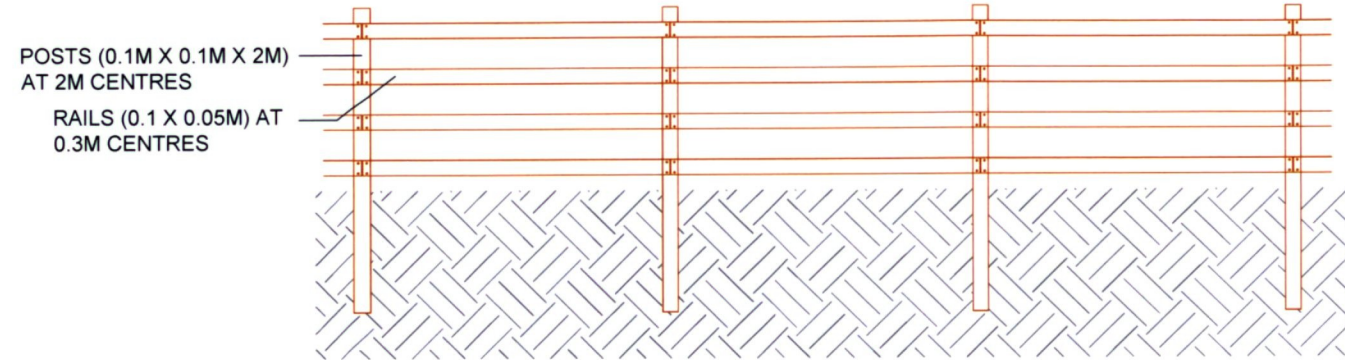
Ball-stop netting

Timber hit-and-miss



Estate railing



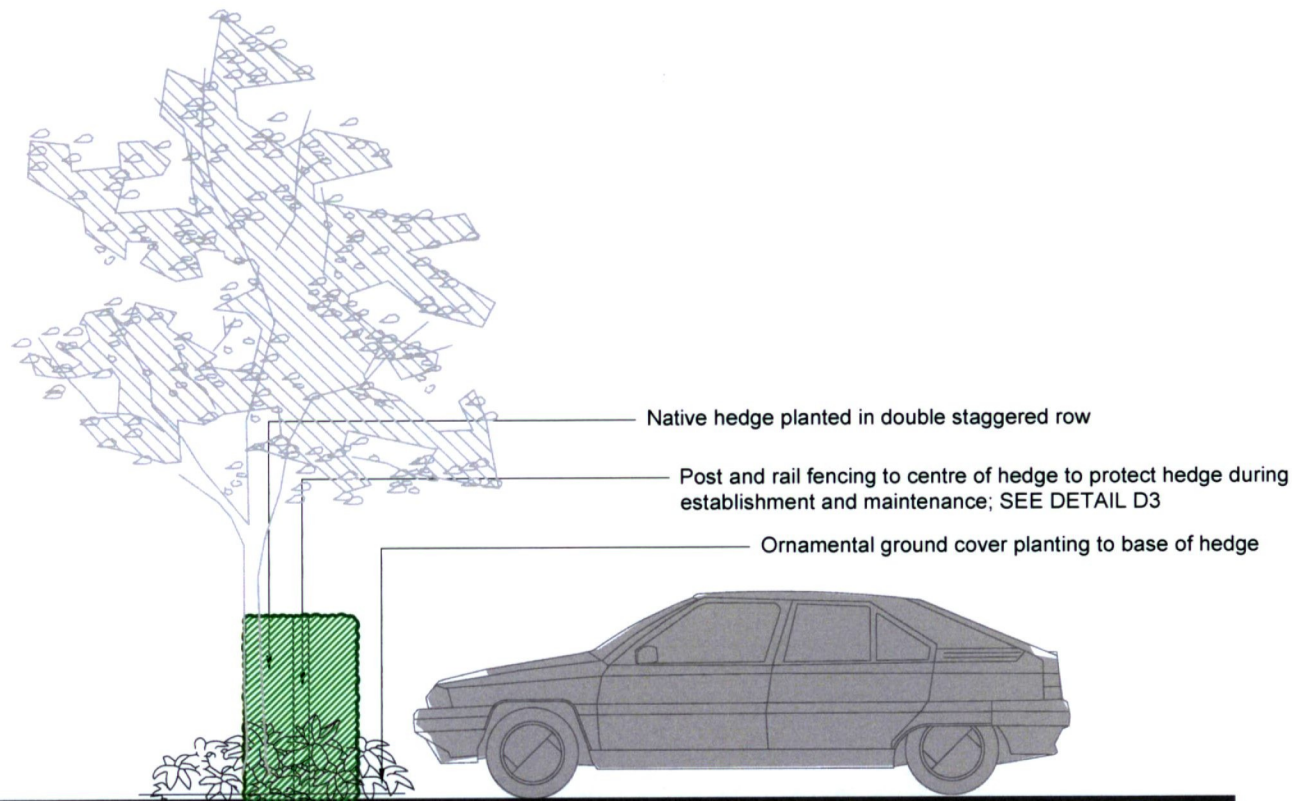


TIMBER POSTS & RAIL
TO BE PRESSURE
TREATED

D1

Timber Post & Rail Fence Detail

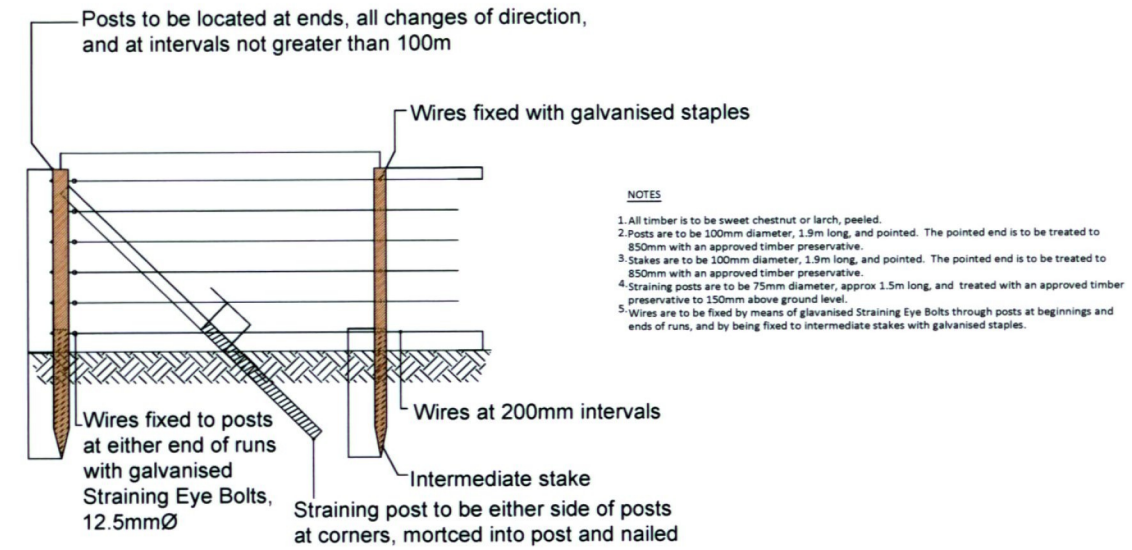
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D2

Typical Hedge Planting Detail

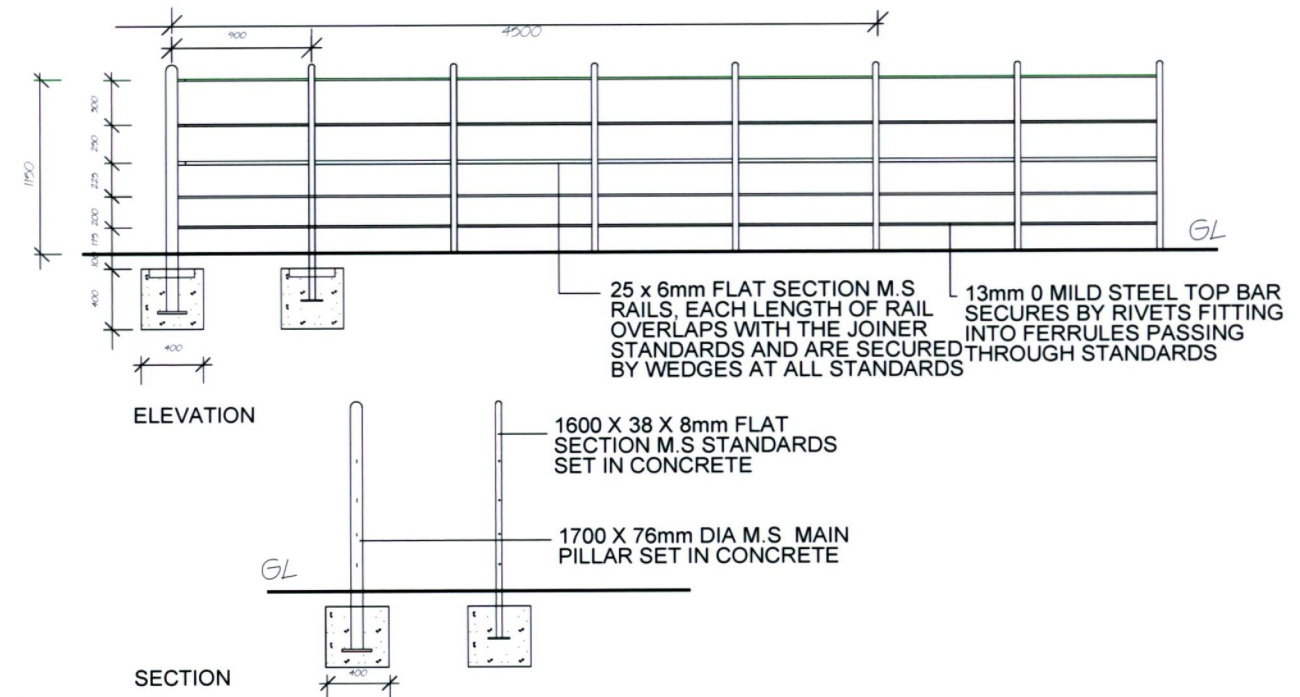
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D3

Timber Post & Wire Fence Detail for Hedgerow Planting

Scale 1:50



D4

Estate Railing

Scale 1:50

1.10 Planting Strategy

Structural planting will form the foundation of this landscape design, creating a sense of structure and form within the landscape. This will be achieved by incorporating various trees and shrubs, that are appropriate for the environment and provide year round colour. Trees, shrubs and perennials create distinct spaces in the landscape that add interest, such as clusters of plants around seating areas or path thresholds.

To ensure there is colour throughout the year, naturalised bulb planting will be provided within retained or proposed wildflower meadows. These will flower in spring and early summer and add a colourful display of flowers that will bring enjoyment to residents and visitors.

To make sure the site has some visual screening from the adjacent railway, the northern hedgerow is enhanced with additional native tree planting to enhance the existing hedgerow. These will be planted close enough together to create a thick hedge which will reduce noise and act as an effective screen from railway traffic.

Green infrastructure elements are enhanced through new planting in order to increase biodiversity and create wildlife corridors between other parts of the landscape context. This will help provide valuable habitats for wildlife, and help increase biodiversity.

In order to minimise the need for mowing, extensive mown grass areas are avoided where possible; meadow areas or wilder, natural open space areas are included in their place. Where mown areas are required they are intended to provide for informal play. Native trees and shrub species are predominantly used throughout the areas where possible, and suited to the micro-climactic conditions.

Ornamental planting will be used within the most built-up areas of the scheme, and plant selection will be defined by the site conditions, particularly the degree of openness or shade. A range of perennials, shrubs and multistem trees will provide a low-maintenance structurally diverse planting with year-round interest.



Link Street Trees
<i>Tilia cordata</i> 'Green Spire'
<i>Pinus sylvestris</i>
Local Street Trees
Rootballed, 18-20cm girth
<i>Corylus colurna</i>
<i>Betula pendula</i>
<i>Malus trilobata</i>
<i>Prunus padus</i> 'Albertii'
<i>Pyrus</i> 'Chanticleer'
Intimate Street Tree
Rootballed, 16-18cm girth
<i>Pyrus</i> 'Chanticleer'
<i>Betula pendula</i>
<i>Corylus colurna</i>
<i>Prunus</i> 'Umineko'
<i>Quercus robur</i> 'Fastigata / Koster'
Front Garden Trees
Rootballed, 8-10cm girth
<i>Betula pendula</i> 'Fastigiata'
<i>Cotoneaster frigidus</i> 'Cornubia'
<i>Cornus kousa</i> 'Claudia'
<i>Malus</i> 'Adirondack'
<i>Malus domestica</i> 'Irish Peach' (or other Irish heritage variety; on m9/m26 rootstock)
<i>Pyrus communis</i> 'Conference'
Parkland Trees
Rootballed, 20-25cm girth
<i>Betula pendula</i> (multistem)
<i>Crateagus monogyna</i> 'Pauls Scarlet'
<i>Crateagus x prunifolia</i> (multistem)
<i>Pinus sylvestris</i>
<i>Populus tremula</i>
<i>Acer rubrum</i> 'October Glory'
Specimen Trees
Rootballed, 30-35cm girth

Species Rich Grassland with Bulb Planting
Native grasses and wildflowers from natural local seedbank
<i>Narcissus</i> spp.
<i>Crocus</i> spp.
<i>Camassia</i> spp.
Hedgerow enhancement
<i>Rosa canina</i>
<i>Ilex aquifolium</i>
<i>Viburnum opulus</i>
<i>Prunus spinosa</i>
<i>Corylus avellana</i>
<i>Crataegus monogyna</i>
Native Tree and Shrub Planting
<i>Acer campestre</i>
<i>Alnus glutinosa</i>
<i>Betula pendula</i>
<i>Betula pubescens</i>
<i>Corylus avellana</i>
<i>Ilex aquifolium</i>
<i>Prunus padus</i>
<i>Rosa canina</i>
<i>Salix cinerea</i>

Ornamental Planting - Open Areas
<i>Carex oshimensis</i> 'Everillo'
<i>Miscanthus sinensis</i> 'Kleine Fontane'
<i>Euphorbia polychroma</i>
<i>Achillea millefolium</i> 'Terracotta'
<i>Achillea millefolium</i> 'Cerise Queen'
<i>Aster</i> 'Little Carlow'
<i>Calamagrostis</i> 'Karl Foerster'
<i>Rudbeckia laciniata</i> 'Herbstsonne'
<i>Euonymus</i> 'Red Cascade'
<i>Kniphofia</i> 'Bees Lemon'
<i>Kniphofia uvaria</i> 'Flamenco'
<i>Geranium</i> 'Rozanne'
Ornamental Planting - Under Trees / Shaded Areas
<i>Luzula nivea</i>
<i>Geranium sylvaticum</i> 'Mayflower'
<i>Euphorbia polychroma</i>
<i>Ajuga</i> 'Caitlin's Giant'
<i>Brunnera macrophylla</i> 'Jack Frost'
<i>Aster macrophyllus</i> 'Twilight'
<i>Anemone japonica</i> 'Honorine Jobert'
<i>Lamium</i> 'Pink Chablis'
<i>Luzula sylvatica</i> 'Aurea'

1.11 Tree Planting

LINK STREET



Tilia cordata



Pinus sylvestris

INTIMATE STREET TREE



Amelanchier lamarckii



Arbutus unedo 'Compacta'



Betula pendula



Betula pendula 'Fastigiata'

FRONT GARDEN TREES



Betula pendula 'Fastigiata'



Cotoneaster frigidus 'Cornubia'



Cornus kousa 'Claudia'



Malus 'Adirondack'



Malus domestica 'Irish Peach'



Pyrus communis 'Conference'

PARKLAND TREES



Betula pendula (multi-stem)



Crataegus 'Paul's Scarlet'



Crataegus x prunifolia
(multi-stem)



Pinus sylvestris



Populus tremula



Acer rubrum 'October Glory'

SPECIMEN TREES



Arbutus unedo (multi-stem)



Parrotia persica 'Bella'

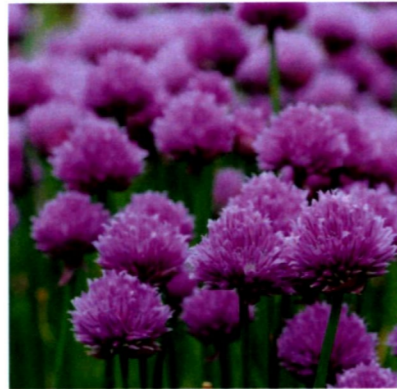


Liriodendron tulipifera

1.12 Ornamental Planting



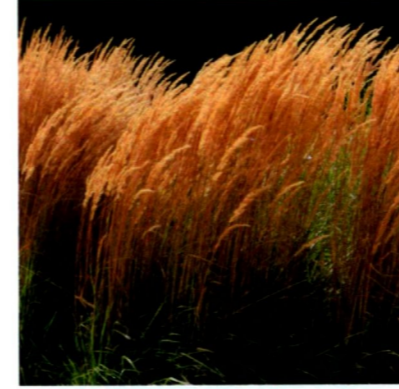
Achillea millefolium



Allium schoenoprasum



Aster 'Little Carlow'



Calamagrostis 'Karl Foerster'



Miscanthus sinensis 'Kleine Fontane'



Euphorbia polychroma



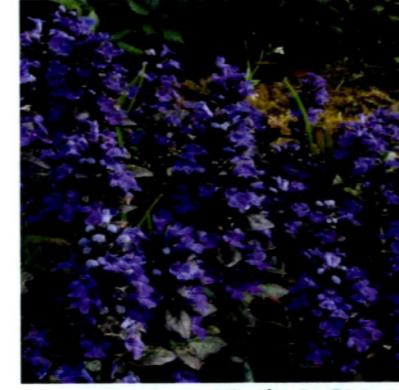
Kniphofia



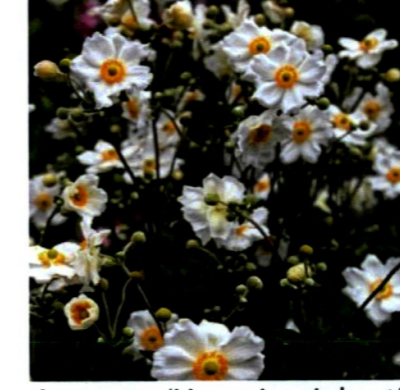
Lamium 'Pink Chablis'



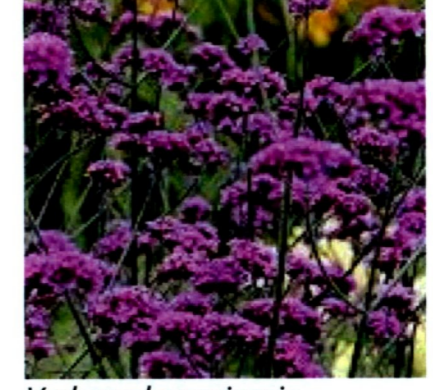
Luzula sylvatica



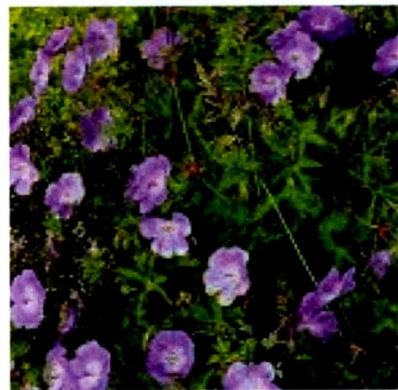
Ajuga reptans 'Catlin's Giant'



Anemone 'Honerine Jobert'



Verbena bonariensis



Geranium 'Rozanne'



Persicaria affinis



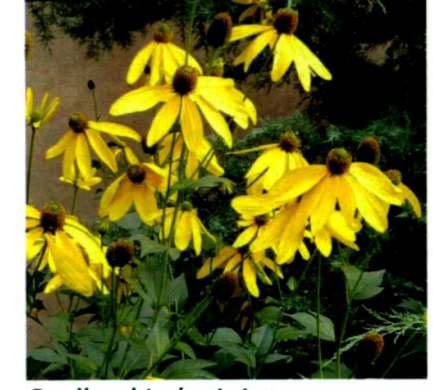
Miscanthus sinensis 'Kleine Fontane'



Symphytum 'Wisley Blue'



Luzula nivea



Rudbeckia laciniata 'Herbstonne'



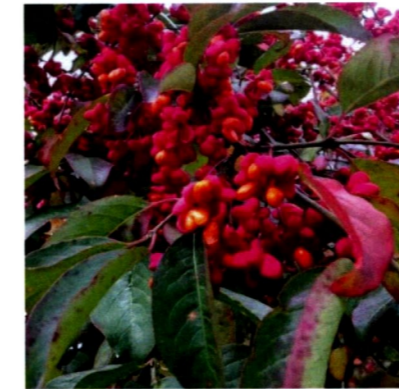
Eranthis hyemalis



Brunnera macrophylla 'Jack Frost'



Native Hedging



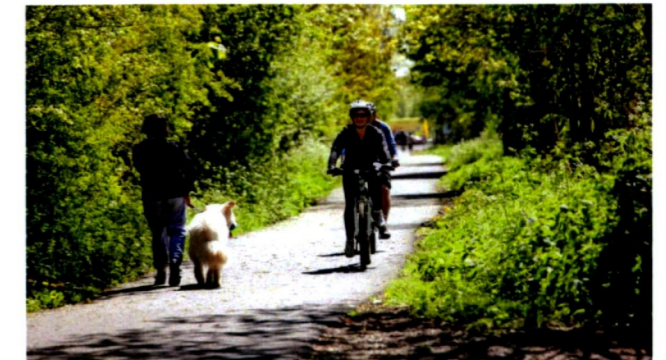
Euonymus 'Red Cascade'




Luzula sylvatica

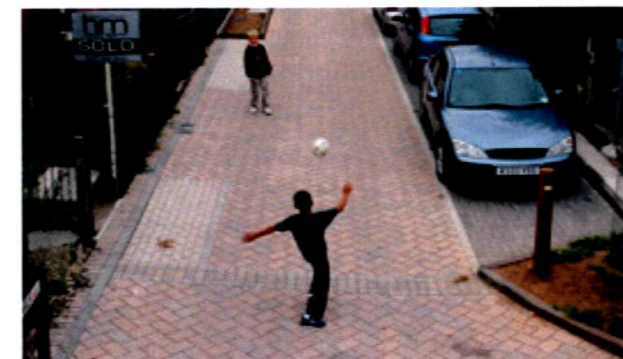
1.13 Connectivity Strategy

An internal network has been developed with the aim of maximising travel by walking, cycling and public transport. The approach to designing the internal road network has been designed as a permeable network, which can be safely and easily navigated by pedestrians. There has also been a focus on providing strong walking and cycling connections to adjoining areas



LEGEND

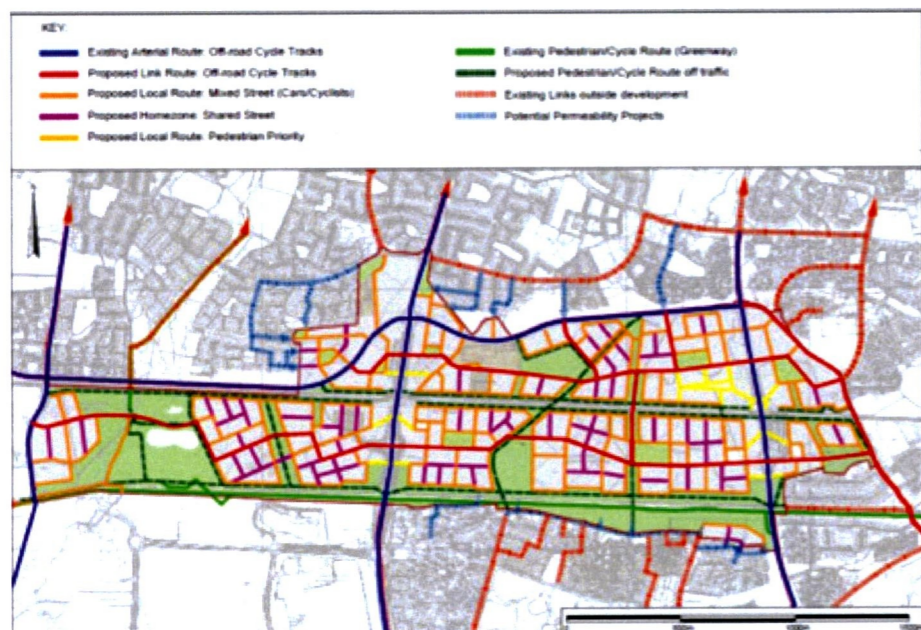
-  Raised table crossing
-  Shared cycle / pedestrian path
-  Pedestrian path
-  Public open space
-  Intimate street - shared space
-  Cycle lane as part of enabling works (designed by others)



1.14 Cycle Connectivity

Following pre-application consultation and feedback from South Dublin County Council it was noted that the feasibility of a cycleway along the northern boundary of the proposed development area, as specified in the SDZ Planning Scheme (hereafter referred to as the Planning Scheme), should be further explored and outlined for inclusion in the planning application.

The Planning Scheme defines an objective for a cycleway to connect along the northern extents of the development area. This is shown in Figure 4.2 of the Transport Assessment & Transport Strategy of the Planning Scheme (shown in Figure below). The off-traffic cycleway connection objective is shown along the north of the development area adjacent to the Dublin to Cork Railway running between a new pedestrian/cycle overbridge to the railway in the east and the R120 to the west.



Transport Strategy of the Planning Scheme



Transport Strategy - enlarged section centred on site

The Proposed Development must correspond to existing and approved permissions forming part of the SDZ. There is an existing permission for infrastructural development (SDZ20A/0021) which includes areas of the Site as well as adjoining open space. The proposed development is constrained by the design of this permission which doesn't accommodate a connection to the overbridge ramp or provide adequate space for a new ramp.

The design includes a 2m wide footpath along the northern edge of the planning area, however, this is of insufficient width to function as a shared cycleway and footpath, which should be 3m minimum. The north-west corner of planning area accommodates SUDS attenuation basin which has defined levels that cannot be modified.

The western end of the off-traffic cycleway connection would require a connection into the R120 at the north-west corner of the site. The height of the road above the site levels would necessitate a ramp with an elevation of approximately 7m and this climb is likely to be unappealing to cyclists. To provide the recommended maximum gradient of 1:20 the length would need to be 140m, which would interfere with the existing infrastructure planning permission and most notably is likely to involve changes to the grading associated with the SUDS attenuation basin. The width of the ramp earthworks would be limited by the proximity of proposed Local Street 6 and the Dublin Cork railway and the associated boundary features including the hedgerow. The Clonburriss SDZ Parks and Landscape Strategy states: "Where possible the retention of hedgerows should be designed into new development in accordance with the principles of the SDZ Planning Scheme. Mitigation and compensatory planting for loss of hedgerows is required as part of the Planning Scheme requirements." Provision of a ramped structure in the north-west corner of the site would result in loss of hedgerow vegetation along the railway, and would leave little room for replanting. The ramp would also necessitate a substantial retaining wall structure in proximity to the railway.

In addition, the proposed point of connection into the R120 would only connect to the eastern side of the road. As no crossing point is present at this point it would be necessary for northbound cyclists to continue southwards to reach the signalised crossing point at the junction with the link road. The lack of a crossing point may create an incentive for pedestrians and cyclists to informally cross the R120, which would be hazardous for both themselves and for other road users.

The eastern end of the off-traffic cycleway connection would require a connection to the new pedestrian/cycle overbridge, or its connecting cycleway. The new pedestrian/cycle overbridge connects into the SDZ land via a linear ramp running north/south and the height of this ramp (approximately 7m above surrounding areas) would necessitate a similar sized ramp structure to that required for the connection to the R120. The connection into this cycle route at the point specified in Figure 4.2 unfeasible, given the necessary length of ramp and the spatial constraints of the existing infrastructural open space permission, as well as the presence of well-established planting to the side slopes of the bridge ramp.

Given both the constraints of the existing site conditions and the layout of the infrastructure planning permission (SDZ20A/0021), it is deemed unfeasible to provide a usable cycle connection between the R120 and the railway overbridge following the alignment as defined in the SDZ Planning Scheme. As an alternative solution it is proposed to provide an off-road cycle connection between the proposed local street network and the southern end of the overbridge ramp. This route will commence at Local Street 6 and will pass along the northern edge of the proposed open space adjacent to the railway boundary before turning south to connecting to the junction of the overbridge ramp and the link road. Cyclist connecting to the R120 can follow a combination of Local Street 9 and segregated cycle lanes along the link road.

1.15 Green Space Factor

In line with GI Objective 4 of the 2022-2028 South Dublin County Development Plan.

“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)”

In line with the scoring set out in SDCC’s Guidance Note on GSF, the proposed development achieves a GSF score of 0.31. As set out in the Guidance note there is a minimum score of 0.5 for SDZ zoning in SDCC. However, the proposed development is constrained by the following factors:

- The requirement for removal of internal hedgerow and trees to facilitate the layout prescribed in the Planning Scheme;
- The design of the proposed houses and duplex units preclude use of green roofs;
- Limitations on tree planting created by underground services;
- Provision car parking as specified in the SDZ.

Given the primary importance of complying with the SDZ planning scheme it is not possible to achieve the full GSF score for the proposed development. There has therefore been a concerted effort by the design team to promote green infrastructure and to enhance both the ecology of the site and overall habitat connectivity to the wider area. Measures include retention of trees and hedgerows as well as the proposed enhancement planting to the Griffeen Corridor and other boundaries, generous provision of trees group ‘stepping stones’ throughout, wildlife factors (provision of bird and bat boxes), SUDS measures, green roofs to apartments, intensive green roof to tenant amenity building, permeable paving to in-curtilage car parking, use of grass paving to on-street parking, and a firm management/ maintenance schedule have all been included as part of the proposed design.

There are a range of GI measures listed on page 5 of the SDCC Guidance Note on GSF. The development team will engage with SDCC in order to achieve the best possible GI solution at the site, and where possible will seek to implement as many of these measures, and others, as possible.

1.16 Site Lighting

The site lighting layout has been prepared by Sabre Electrical Ltd. It has been developed to limit the number of columns across the site while providing the appropriate LUX levels. This layout is included in the landscape masterplan. The lighting layout has been coordinated with the proposed layout of street trees to ensure that no clashes occur. The specification and location of lighting has also taken into account the potential for impact on bats and other wildlife.

1. Enter Development Site Area m ² HERE ▶		89915	
Surface Type (see tab for detailed descriptions)	Factor	Proposed Surface Area m ²	Factor Values
1. Short Lawn	0.3	2248	674.4
2. Tall Lawn (wild, not mown)	0.5	7699	3849.5
Permeable Paving	0.3	5616	1684.8
Vegetation		0	0
4a. Vegetation-Shrub below 3m	0.4	0	0
4b. Vegetation-Shrub / Hedgerow above 3m	0.5	2888	1444
4c. Vegetation-Pollinator friendly perennial planting	0.5	6385	3192.5
4d. Vegetation-Preserved hedgerow	1.2	2332	2798.4
Trees			0
5a. New trees	0.6	19744	11846.4
5b. Preserved trees	1.2	326	391.2
7. SuDS intervention (rain garden, bioswale)	0.6	1541	924.6
Green Roof		0	0
9a. Green Roofs - Intensive green roof (substrate is 200-1200mm in depth)	0.7	192	134.4
9b. Green Roofs - Extensive green roof (substrate is 80-200mm in depth)	0.6	1797	1078.2
10. Green wall	0.4	0	0
11. Retained Open Water	2	0	0
12. New open water	1.5	0	0
Total Equivalent Surface Area of Greening Factors		50,768.00	

Green Factor Numerator	28018.40
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Minumum Required GI score	Final GI score	Result
0.7	0.31	Fail

1.17 Tree Survey and Ecology Assessment

A Tree and Hedgerow survey and associated drawings have been prepared by the Project Arborists John Morgan these have been developed as per BS 5837: 2012. An Ecological Impact Assessment has been prepared by Project Ecologist Matt Hague. Both form part of the planning application, and have informed the landscape design.