



Bernard Seymour Landscape Architects

HOLLYSTOWN Sites 2 & 3

DN2005 HS 2-3
BSLA_Landscape Design Statement

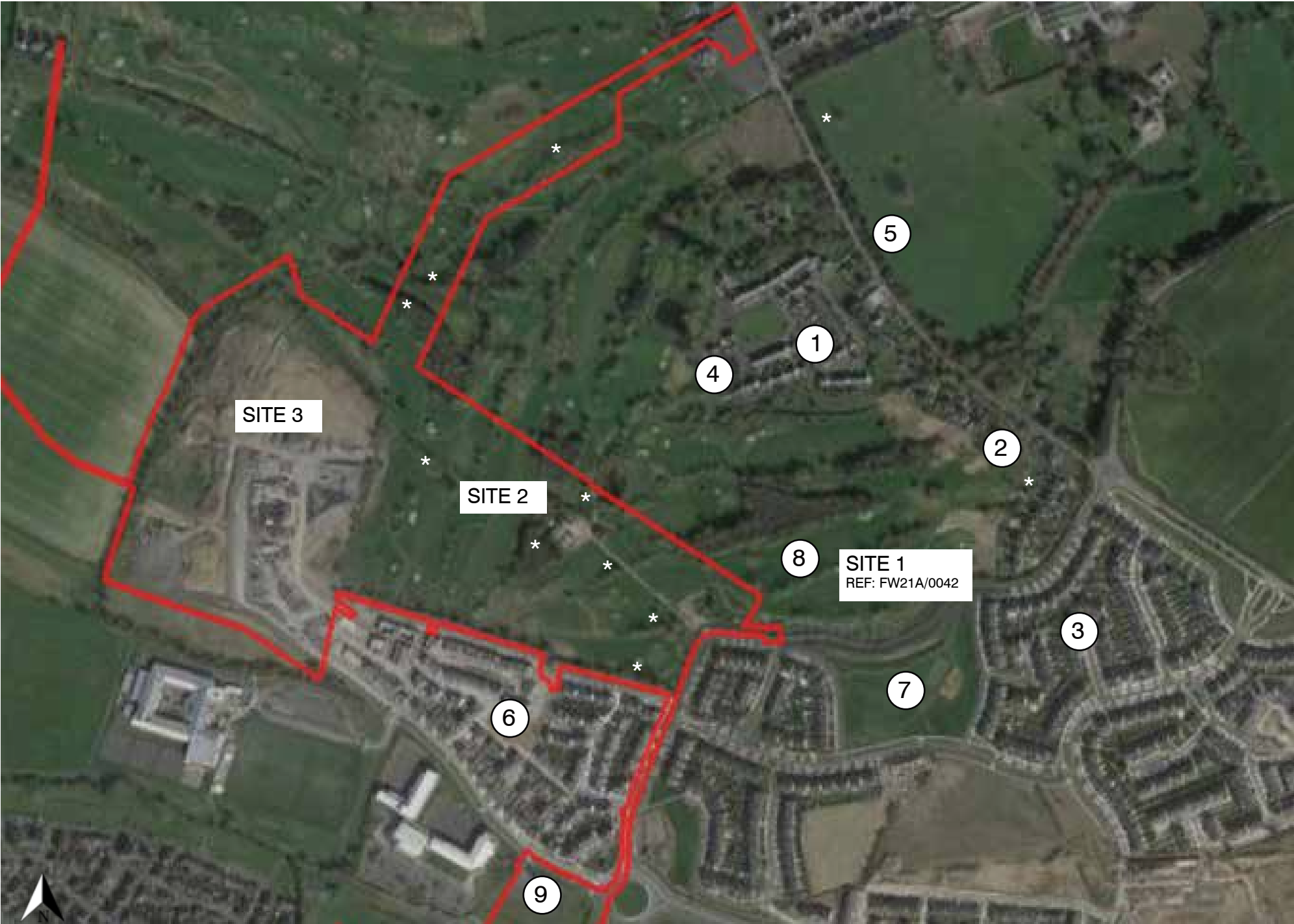
Planning Application Dec 2021

INTRODUCTION AND OVERVIEW

The proposed development relates to at a site of c. 25.3 ha at the townlands of Hollystown, Kilmartin, Hollywoodrath, Cruiserath, Yellow Walls, Powerstown, and Tyrrelstown, Dublin 15, which includes lands in the former Hollystown Golf Course and lands identified under the Kilmartin Local Area Plan 2013 (as extended). The lands are bound by the R121 and Hollywoodrath residential development to the east, the under construction Bellingsmore residential development to the south and north, the former Hollystown Golf Course to the north, Tyrrelstown Educate Together National School, St.Luke’s National School and Tyrrellston Community Centre to the west and south and the existing Tyrrellstown Local Centre to the south.

The proposed development will consist of the development of 548 no. residential units, consisting of 147 apartments/duplexes and 401 houses, ranging in height from 2 to 5 storeys and including retail/café unit, 2 no. crèches, 1 no. Montessori, 1 no. community hub, car and bicycle parking, open space, public realm and site infrastructure over a site area of c. 25.3 ha. On lands to the north of the application site (referred to as Hollystown Sites 2 & 3) the proposed development includes for 428 units consisting of 401 no. 2 and 3 storey houses and 27 no. apartments set out in 9 no. 3-storey blocks. On lands to the south of the application site and north of the Tyrrellstown Local Centre (referred to as Kilmartin Local Centre) the proposed development includes 120 no. apartment/duplex units in 4 no. blocks ranging in height from 3 to 5 storeys. The local centre includes 2 no. crèches (including 1 standalone 2 storey crèche), 1 no. Montessori, a retail/café unit, and 1 no. community hub.

This report is analysing the design approach for the 2 and 3 sites. A separate BSLA report has been prepared for the LC portion of the site and that it is detailed and entitled: DN2010_NDSK_BSLA_Landscape Design Statement.



SITE OVERVIEW

- 1 Redwood development
 - 2 The Oaks development
 - 3 Hollywoodrath development
 - 4 School and Community Centre
 - 5 Former golf course lands
 - 6 Bellingsmore Development
 - 7 Park with play equipment and facilities
 - 8 Site1, permitted development as per Planning Reg. Ref. FW21A/0042
 - 9 Kilmartin - Northern Sector Development part this current application, refer to document: DN2010_NDSK_BSLA_Landscape Design Statement
- * Mature tree groups on site



Existing views to Images examined in detail on page 5

EXISTING CONDITIONS:

The proposed development relates to a site of c. 25.3 ha at the townlands of Hollystown, Kilmartin, Hollywoodrath, Cruiserath, Yellow Walls, Powerstown, and Tyrrelstown, Dublin 15, which includes lands in the former Hollystown Golf Course and lands identified under the Kilmartin Local Area Plan 2013 (as extended). The lands are bound by the R121 and Hollywoodrath residential development to the east, the under construction Bellingsmore residential development to the south and north, the former Hollystown Golf Course to the north, Tyrrellstown Educate Together National School, St. Luke's National School and Tyrrellstown Community Centre to the west and south and the existing Tyrrellstown Local Centre to the south.

Site 2-3 is part of the now former Hollystown Golf Course lands exhibiting park landscape and clusters of mature trees and several shallow depression areas that provide natural attenuation.

The existing trees provide good screening and contribute to the maturity of the site while the existing open attenuation areas provide habitat for a great deal of insects, birds, amphibians and small mammals. An existing golf drainage ditch system also runs in the west of the subject lands and eventually drains to the Pinkeen River further west.

To the north of sites 2 & 3, an overhead high voltage power line marks the development boundary and separates it from the granted Phase 1 development to the north-east. Further north, a modest residential development is located, named Redwood.

The Local Centre area is located to the south of Bellingsmore and to the south-east of two schools. The road R121 runs on its eastern edge. Further south an existing local centre provides shopping and community facilities in Tyrrellstown.

INTRODUCTION AND OVERVIEW - VIEWS



VIEW 1:
Existing view towards southern boundary. Mature trees line the southern boundary and are in good condition and contribute to the maturity and character of the site.



VIEW 2:
Existing view along northern boundary. Mix of evergreen and deciduous species creating dense screening. Natural attenuation occurs here in certain areas.



VIEW 3:
Existing view towards north of site 2. Currently includes natural boundaries and overhead wires. Mature trees under the overhead wires are in good condition.



VIEW 4:
Along north western boundary of site 2. Mature trees and hedgerow line this boundary either side of the overhead wires. The existing vegetation here is very dense.

INTRODUCTION AND OVERVIEW - EXISTING TREE COVER

The development site was formerly under use as a golf course. Although golf course lands are frequently defined as low in value in terms of biodiversity mostly due to the amenity requirements of the playing green, it is agreed that such lands do increase in terms of biodiversity as they age. Of particular value are the existing mature tree stands . The project arborist has carried out extensive assessment of trees on the site and following on from that the proposed landscape design has sought to incorporate Strong green connections as much as is viable into the overall layout creating landscpae buffers site 2 and 3 allowing the development to settle into the overall landscape proposals..

A sample of the species identified include:

Open Space:

Young woodland plantations containing a range of species: planted at 1.5-2m spacing.

Quercus robur (Oak), *Fagus sylvatica* (Beech), *Fraxinus excelsior* (Ash), *Larix* spp. (Larch), *Pseudotsuga menziesii* (Douglas Fir), *Sambucus nigra* (Elder)

Other stands aged at 10+ years

Fraxinus excelsior (Ash), *Tilia cordata* (Small leaved lime), *Acer platanooides* (Norway Maple), *Betula pendula* (Silver Birch)

Predominant conditions of existing plantations is identified as ‘poor to fair’. Many trees outside the plantations have been identified as having root damage and require monitoring. This this is probably due to lack of management in recent years. It is proposed that tree plantations and existing trees will be incorporated into the overall landscape design following management techniques such as overall thinning of dense plantations, crown cleaning and reduction as recommended by the project arborist .

A large tract of open space has been set aside within the design to the north of the site where the most valuable stands are located providing immediate maturity and screening to the scheme. The low value greens associated with a former golf course will be replaced with higher value grasslands increasing the potential of the site.

Within the housing element of the scheme we have identified stands for retention. These will be fully assessed on site prior to construction phase and the intention is that any paths in the vicinity will be built up upon root-friendly systems such as cellular confinement systems to ensure no damage to root systems occurs. This will be carried out in conjunction with full Tree Protection in accordance with the arborist recommendations. The same method of protection and retention will be applied to all trees noted as retained according the Tree Protection and Removal Plans



SITE CONTEXT OVERVIEW

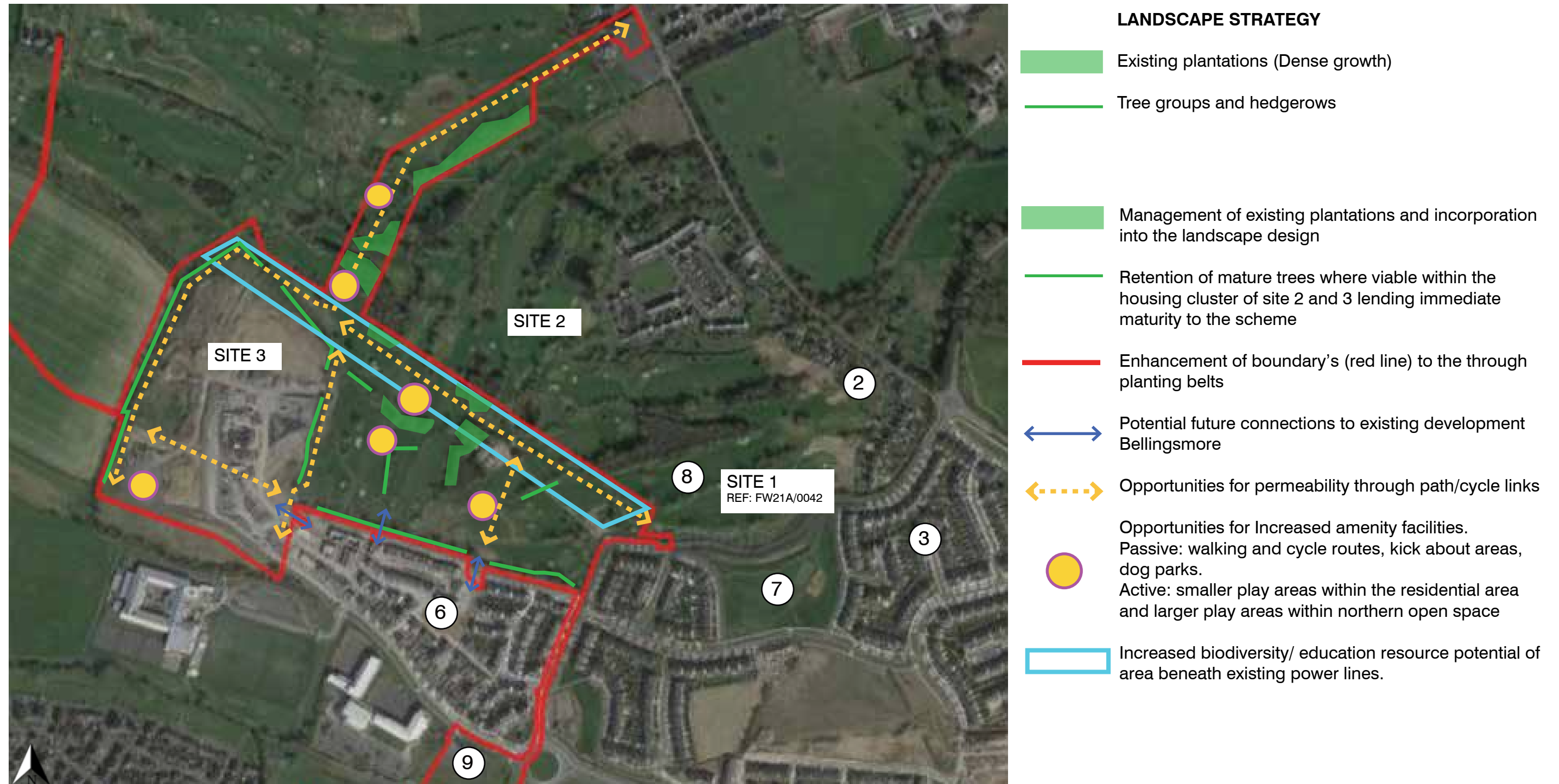
- Existing plantations (Dense growth)
- Tree groups and hedgerows

INTEGRATION OF THE LANDSCAPE CONTEXT

An extensive process was undergone at an early stage taking the Hollystown lands on a wider scale and it identified strong elements of landscape and amenity value as well as the potential for wider connections and linkages in terms of amenity and green infrastructure.

Having identified and understood the wider landscape the design concept seeks to retain and enhance as much of the existing tree and hedgerow cover as is viable allowing the proposed development to settle into the surrounding landscape.

The diagram below illustrates the wider context and the opportunities offered by the former golf lands in creating a canvas into which the proposed development can be sustained. Increased amenity opportunities, permeability and connectivity can be established. Enhancement strategies such as the creation of a low maintenance ecological corridor which will tie into the overall drainage strategy is proposed beneath the power-line zone.



OVERALL MASTERPLAN



LANDSCAPE APPROACH:

The proposed developed site is located in the north west of Co. Dublin close to the border with Co. Meath.

The current sites 2&3 are part of a wider masterplanning at the townlands of Hollystown, Kilmartin, Hollywoodrath, Cruiserath, Dublin 15, which includes lands in the former Hollystown Golf Course and lands identified under the Kilmartin Local Area Plan 2013 (as extended).

The landscape design aims to boost biodiversity on site by retaining as many existing trees and open drains as possible and by providing large areas of wildflower meadows.

The restricted area under the powerlines fortifies the biodiversity strategy and provides good circulation through the sites 1, 2 & 3.

New proposed recreational areas such as playgrounds, dog park, outdoor gyms, walking trails and picnic areas will provide ample activities to the residents and neighbours.

LEGEND

- 1 Proposed detention basin
- 2 Existing open channel/pond to be retained
- 3 Proposed activity space / Seating area
- 4 Proposed play area
- 5 Shared surface
- 6 Future planned GAA grounds
- 7 Proposed dog park
- 8 Connection to Ratoath Road
- 9 Proposed connection to Bellingsmore development
- 10 Access to/from R121, Hollywoodrath Rd
- 11 Buffer zone under ESB pylons

OVERALL MASTERPLAN - CONNECTION TO GAA GROUNDS



- 1 Links
- 2 Play area with natural play equipment
- 3 Proposed activity space / Seating area
- 4 Dog park (370m2)
- 5 Existing plantations
- 6 Future planned GAA grounds
- 7 Future maintenance access

PUBLIC OPEN SPACE STRATEGY

The landscape design aims to create vibrant neighbourhoods that have a well-distributed network of natural areas, as well as walkable and attractive public open spaces. Such spaces allow the community to meet, play, chat, exercise and connect. The mix of public open space can be formal or informal, natural or man-made, sporting or passive but they all help meet a community's recreational, sporting, play and social needs. It is being proved that such open spaces have mood-altering qualities and the rates of hospitalisation are related to easy access to green space.

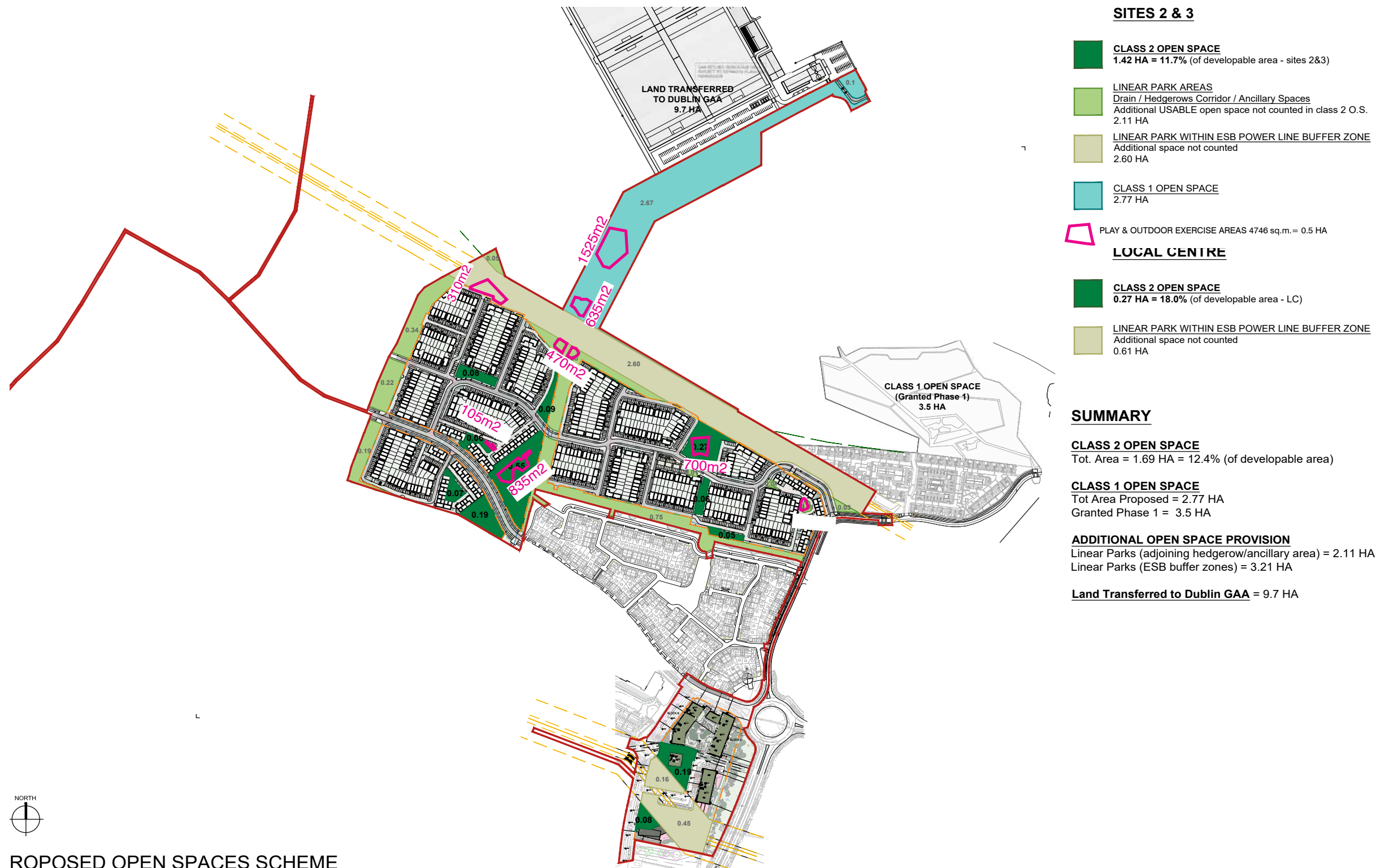
The site plan has been set out by the team to align with key Objectives in the FCC Development Plan, such as:

Objective PM60: *Ensure public open space is accessible, and designed so that passive surveillance is provided.*

Objective PM61: *Ensure permeability and connections between public open spaces including connections between new and existing spaces, in consultation to include residents.*

Objective PM62: *Provide multi functional open spaces at locations deemed appropriate providing for both passive and active uses.*

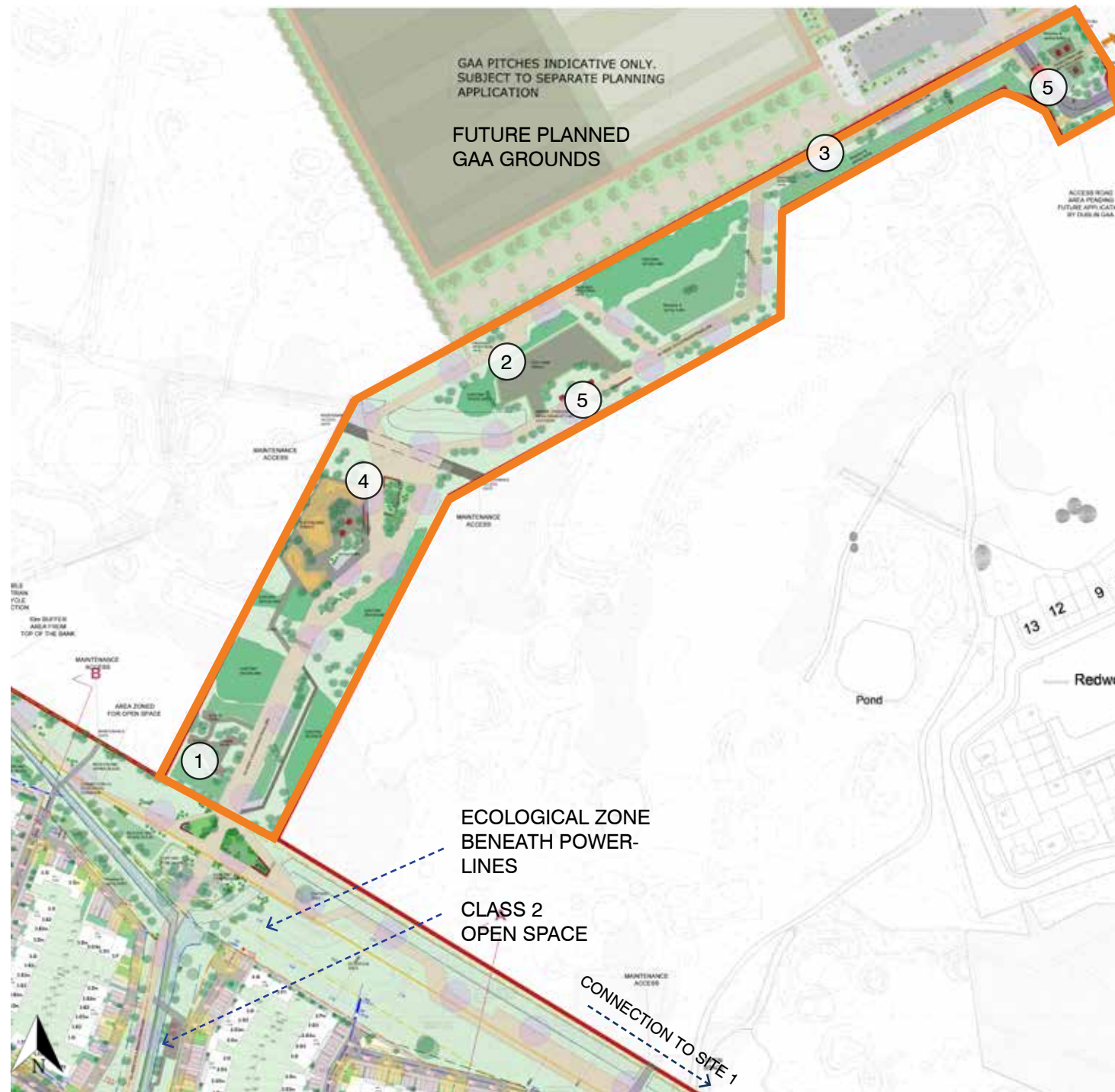
Objective PM63: *Facilitate the provision of appropriately scaled children's playground facilities within new and existing residential development*



ROPOSED OPEN SPACES SCHEME

RECREATION AREAS

North Connection to Planned GAA grounds (Class 1 Open Space)



CLASS 1 OPEN SPACE:

A key aspect of the landscape proposal is the connection of Class 2 open spaces within the residential element of the scheme to the additional open space beneath the power-lines. Further connections are established to the Class 1 Open Space, a linear park extending northwards to the planned GAA pitches and associated carpark and onwards to the Ratoath Road.

The linear park provides substantial buffer and is significant enough in size to provide not only for connectivity for cyclists and pedestrians but provides for a number of different recreational opportunities solidifying it as a valuable open space provision for the proposed development and the wider area. The permeability of the design is created via the main cycle and pedestrian route, a 5m wide route which is composed of buff coloured tarmac surface.

From the ecological area beneath the power lines (see further details on page 12), we pass an arrangement of grass mounds surrounded by wildflower meadow with interconnecting paths that enclose outdoor gym equipment (Image 1,3).

As we continue north through a more naturalised area (Image 4) which is taking advantage of existing planting associated with the former golf course we then encounter a large play area of approximately 1500m² (Image 4) aimed at children 3-12 years. This will include timber play equipment to allow the play area to merge in with the surrounding landscape character. Swings, slides, springers and play huts would form part of the play area.

A generous dog park approximately 1000m² (Image 2) is included to cater for dog owners using the route and who require a cordoned off area for off leash opportunity.

Continuing north from the play area we link to the future planned GAA grounds and associated car park providing connection to Ratoath Road. An entrance feature area is proposed there with picnic tables surrounded by wildflower meadows (Image 5)

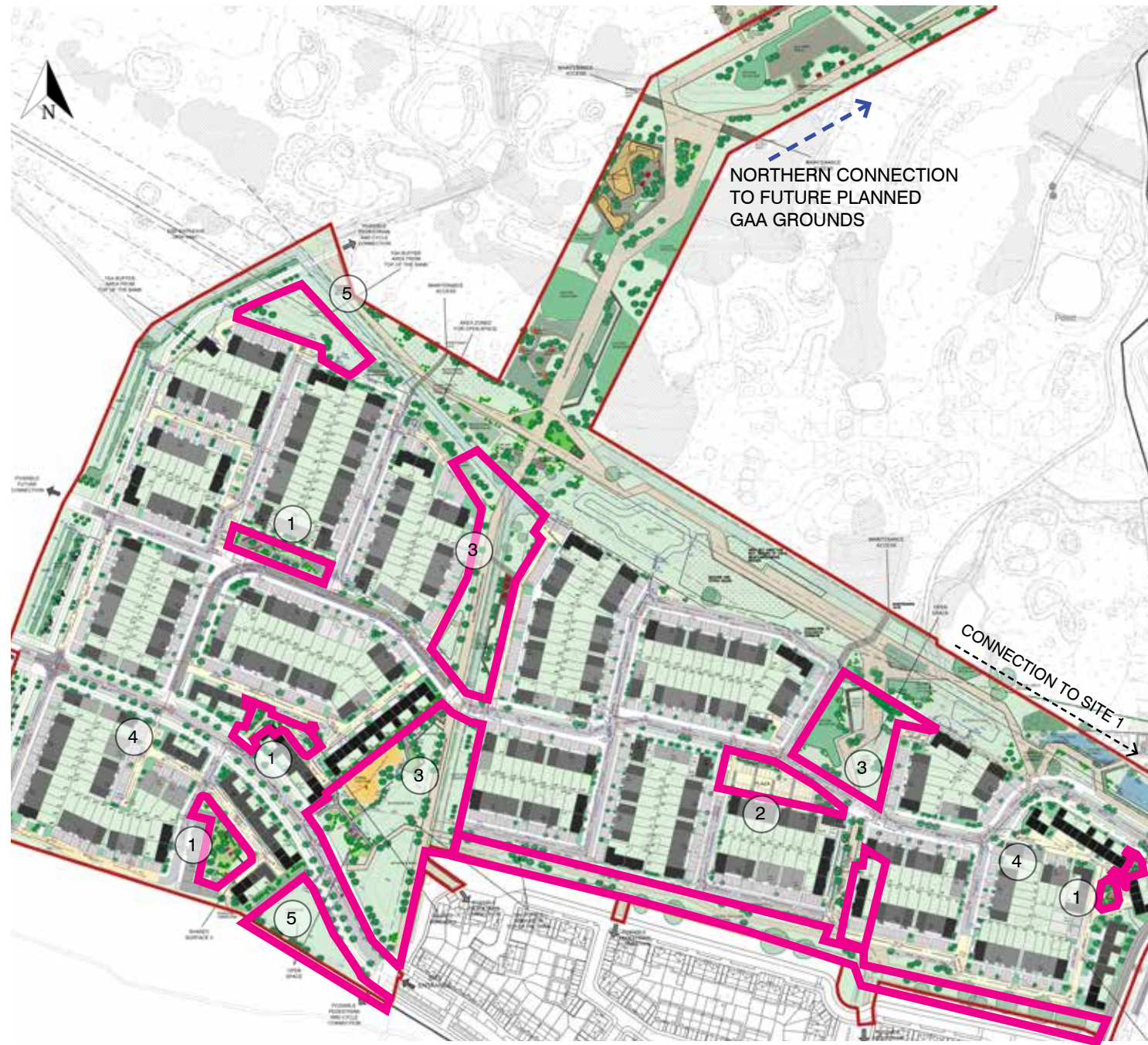
The arborist report is included with this application and the landscape proposal seeks to retain and incorporate existing woodland plantations into the scheme whilst additional planting is proposed to increase age profile diversity.

Bird and bat boxes are also included for to increase nesting opportunities and also the potential for biodiversity within the Class 1 open space. Further details are included in the Biodiversity chapter of the EIAR. NBDC (2021)



RECREATION AREAS

Site 2 and 3 (Class 2 Open Space)



CLASS 2 OPEN SPACE

Incorporated into the overall design of the Class 2 open spaces areas have been set aside for more formal recreational uses. These areas are strategically distributed around Sites 2 & 3 with a variety of different functions which serve to benefit the local residents and community by bringing different users and age groups together to meet and enjoy their surrounding environment. The important need for play in the development has been considered in a number of ways, from the conventional playground approach, to more informal play, and the extensive inclusion of nature for the attendant psychological benefits such as Attention Restoration Theory.

Some key elements/activities include:

- Four pocket parks (two on site 2 and two on site 3) framed by low maintenance planting to provide screening and protection. These pocket parks are threaded through the proposed development to provide a trail of play hubs. These parks incorporate seating with natural play elements, such as trim trails, balance beams, etc.
- A larger park is proposed to the central green space of site 2. A second is located connecting Sites 2 & 3 and forming link to the north of the proposed GAA grounds. These parks are designed to be the main landscaped areas of the development, configured to allow for various activities such as play areas, clusters of seating and areas for outdoor exercise. Planting is proposed to include semi mature parkland trees, large open grassed areas and pockets of wild-flowers and spring bulbs to boost local wildlife. Well defined paths and cycle routes are orientated to provide good connectivity and circulation.
- Urban parks are designed closer to the housing areas to reinforce the public realm of the development. These spaces will have a higher percentage of hard surfaces to allow for varied community events. They are proposed to be planted with semi mature trees that tolerate urban environments and solid-block planting which is more durable and requires very little maintenance.
- Shared surface spaces, designed within the homezone principles to create safer environments for residents and creating small pockets of planting and play areas. These areas are proposed to be framed by street tree planting. The surface is proposed to be a warm coloured tarmac to differentiate from the other streets.
- Kick about areas, these areas are mainly to the North and South of the development and in areas with detention basins. They are proposed to be mostly grassed spaces to allow for ball play and other sport activities.

1 Pocket parks with natural play elements
Screened with low maintenance planting



2 Urban parks with higher hardscape surfaces to
allow for social gatherings, outdoor markets.



3 Larger parks, designed for various activities and planted
to encourage wildlife



4 Shared surface areas, designed
to be pedestrian friendly



5 Kick about areas to be used for
sport activities



SITE 2 - CLASS 2 OPEN SPACE



Low maintenance small orchard, fruit trees and wildflower meadows encouraging residents to interact with the landscape. Nesting boxes and Insect hotels offer an opportunity to encourage birds and insects into the area increasing the overall biodiversity structure.

STREET PLANTING

Each street will have unique planting palette, particularly tree type allowing it to have it's own character within the overall design

PLAZA

A formal hard landscape area that will provide car-parking with tree planting. this space is designed to be used for outdoor community events or weekend markets

CENTRAL PARK

A designated cycle/pedestrian route links to south as well to Bellingsmore and to the proposed Local Centre development and onwards to Tyrrelstown Local Centre, winding through existing woodland connecting to the northern open space. Play areas and seating areas framed by planting

HOME-ZONES:

These spaces are envisaged to be pedestrian friendly with shared surface treatment and small pocket parks enclosing seating, play equipment and planting



SITE 3 - CLASS 2 OPEN SPACE



Examples of pocket parks with seating and pockets with play equipment throughout the site encourage maximum use of the landscape.



- ① Links
- ② Play area with natural play equipment
- ③ Proposed activity space / seating areas
- ④ Homezone
- ⑤ Central park
- ⑥ Pocket Park

LINEAR PARK UNDER THE POWER LINES:

This section of the linear park at site 3 provides connections with sites 1 & 2 and the planned GAA grounds to the North

POCKET PARK

Pocket parks acting as gathering spaces and to offer opportunities for planting and placemaking. All the residential streets are will have division planting with street trees and ground cover as low maintenance planting. A small seating area allows an opportunity to pause and take in the surrounding area.

HOMEZONE:

This space is envisaged to be pedestrian friendly with shared surface treatment and small pocket parks incorporating seating, play equipment (aimed a younger age groups) and diverse planting including fruit bearing species.

CENTRAL PARK

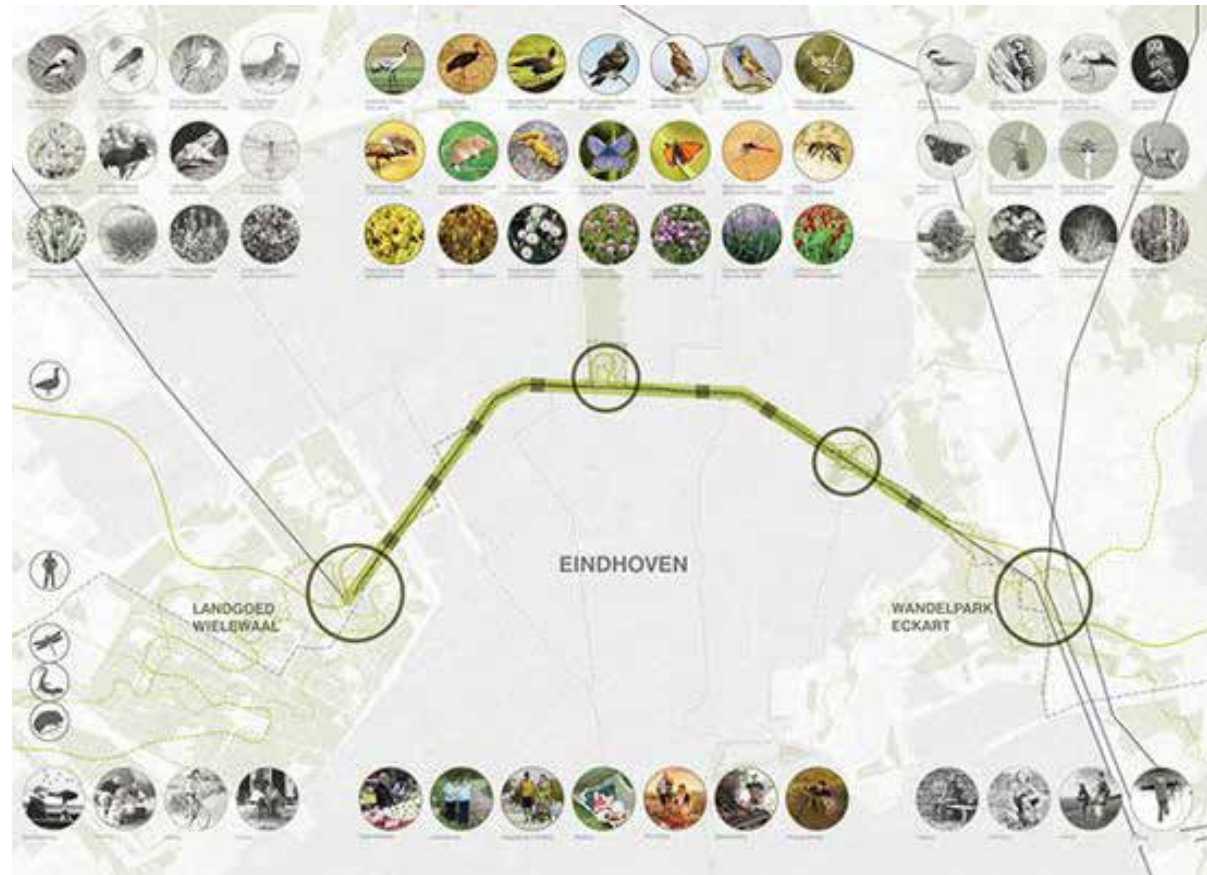
Several new recreational areas, playgrounds, soil mounds for shelter and informal play, meadows and open water attenuation areas as features. The existing hedgerow and open drain to the north of this section of the park to be tidied and retained with a few paths cutting through. This north-south park provides axial linkages between Bellingsmore, Ratoath Road and sites 1-2 through the linear park under the power lines.

ADDITIONAL OPEN SPACE PROVISIONS

ECOLOGICAL CONNECTION UNDER THE POWERLINES

As part of the overall strategy the landscape proposals will take into account existing and proposed drainage strategies as outlined in greater detail by DBFL as part of the overall submission. This creates a unique opportunity to create an ecological corridor tying into the the concepts outline in 'Sustainable Residential Development in Urban Areas, Guidelines for Planning Authorities', published in 2009. The report states that the provision of appropriately designed open space is a key element in defining the quality of the residential environment. 'Area-wide green space strategies facilitate not only the development of a hierarchy of provision – ranging from sub regional parks down to pocket parks – but also the creation of links or green corridors between parks, river valleys and other amenity spaces'. We also see the area beneath the power lines as a valuable resource as an educational trail for the local schools in the area.

The area beneath the power lines is designed to be low maintenance. A bound gravel route threads through areas left to self seed with local species. Simple bench seating is proposed along the route to allow the user to pause and reflect on the landscape. Additional linkages can be provided by inserting mown grass paths at appropriate locations. Gentle depressions contain water run off in accordance to the drainage strategy. Additional areas of sown wildflower meadows appropriate to the soil type and site location will be designed to maximise year round interest and provide a food source to birds and insects.



'Our current landscape does not provide enough food or safe nesting sites for pollinators. A large focus of the Plan is to identify actions to improve the quality and amount of flower-rich habitat. Actions range from creating pollinator highways along our transport routes, to supporting pollinators on farmland, in gardens, businesses, and on public land'. All-Ireland Pollinator Plan (AIPP)

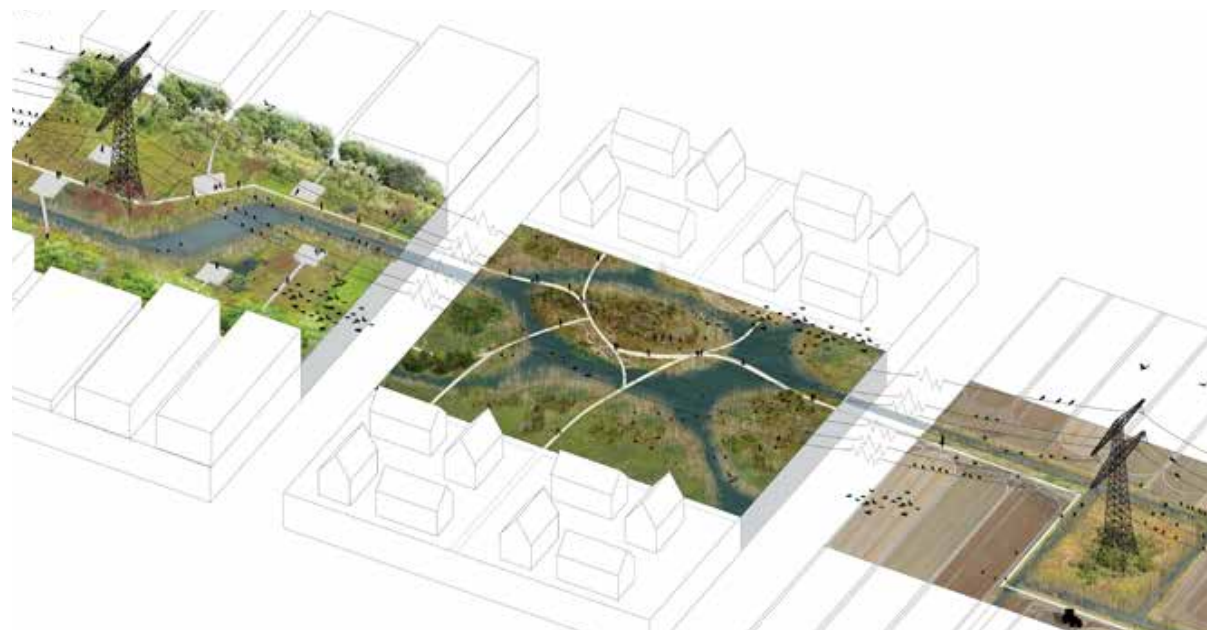
TPOLOGY OF ECOLOGICAL NETWORK - POWER LINES

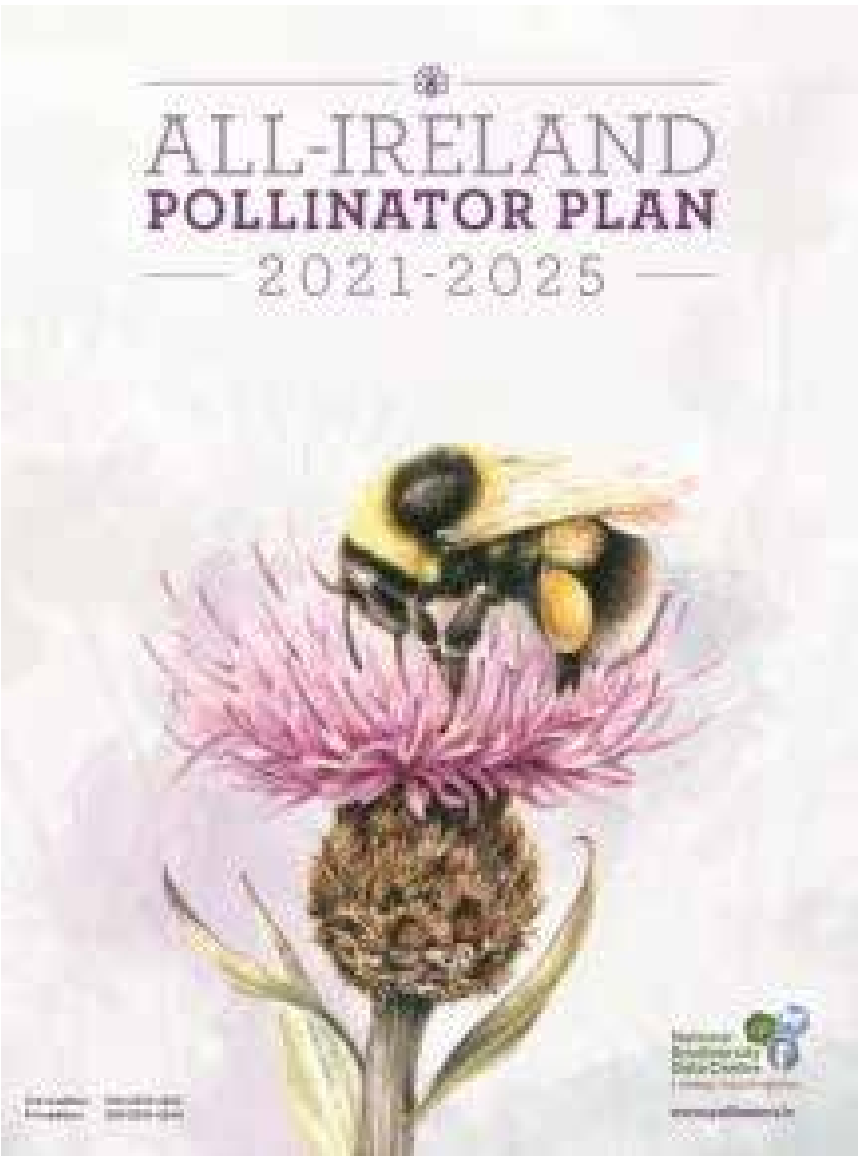
Location: Netherlands

Program: Strategic design for an urban green network

First prize in "The Green Architecture Competition"

The ground level below the electricity grid has the potential to form a coherent ecological network and a valuable recreational structure. The award winning concept in The Netherlands aims to create an interconnected ecological route following the route of power lines. The land beneath being put to various agricultural, recreational uses as well as being set aside as havens for nature. We see this as a valuable case study which can be applied directly to lands at Hollystown.





The proposed planting/landscaping strategy includes a mix of appropriate species, incorporating plants that will attract feeding invertebrates, including moths, butterflies and bees. It takes account of and implements the policies and objectives of the All-Ireland Pollinator Plan (2020 - 2025)[1].

Incorporated into the design is a significant number of bat boxes. Although one box is required to replace a mating perch for a Leisler's bat in a tree that is to be felled, it is proposed to install over 20 high quality bat boxes throughout the development. This is in addition to the bird boxes proposed, which will comprise several different designs and will be suitable for a range of species including robin, blue tit and tree creeper among others. Further details are included in the Biodiversity chapter of the EIAR.

Lighting: The public lighting for the proposed development has been sensitively designed by IN2 Engineering Design Partnership and where practicable includes dark areas and dark corridors to facilitate bat passage throughout the development area and to and from the wider countryside. No flood lighting will be used, and the light fittings will use LEDs, with a warm white spectrum to reduce the blue light component - which can affect bat commuting behaviour.



EXISTING BOUNDARY TREATMENTS

IMAGES LOCATION MAP



1 Existing open space under the powerlines to the north of Bellgree. There are signs that the space is being occupied for sports activities (goal posts).



2 Gated access and sports fencing for security to/from Bellgree to the linear park adjoining the south of the schools



3 Linear park/walkway with wooden post fence and trim trail equipment to north of playing pitches/ west of the southern extent of Site 3



4 Boundary treatment between the linear park/walkway and site4, with 0.5m wooden post – this is timber barrier in front of established hedgerow species mix

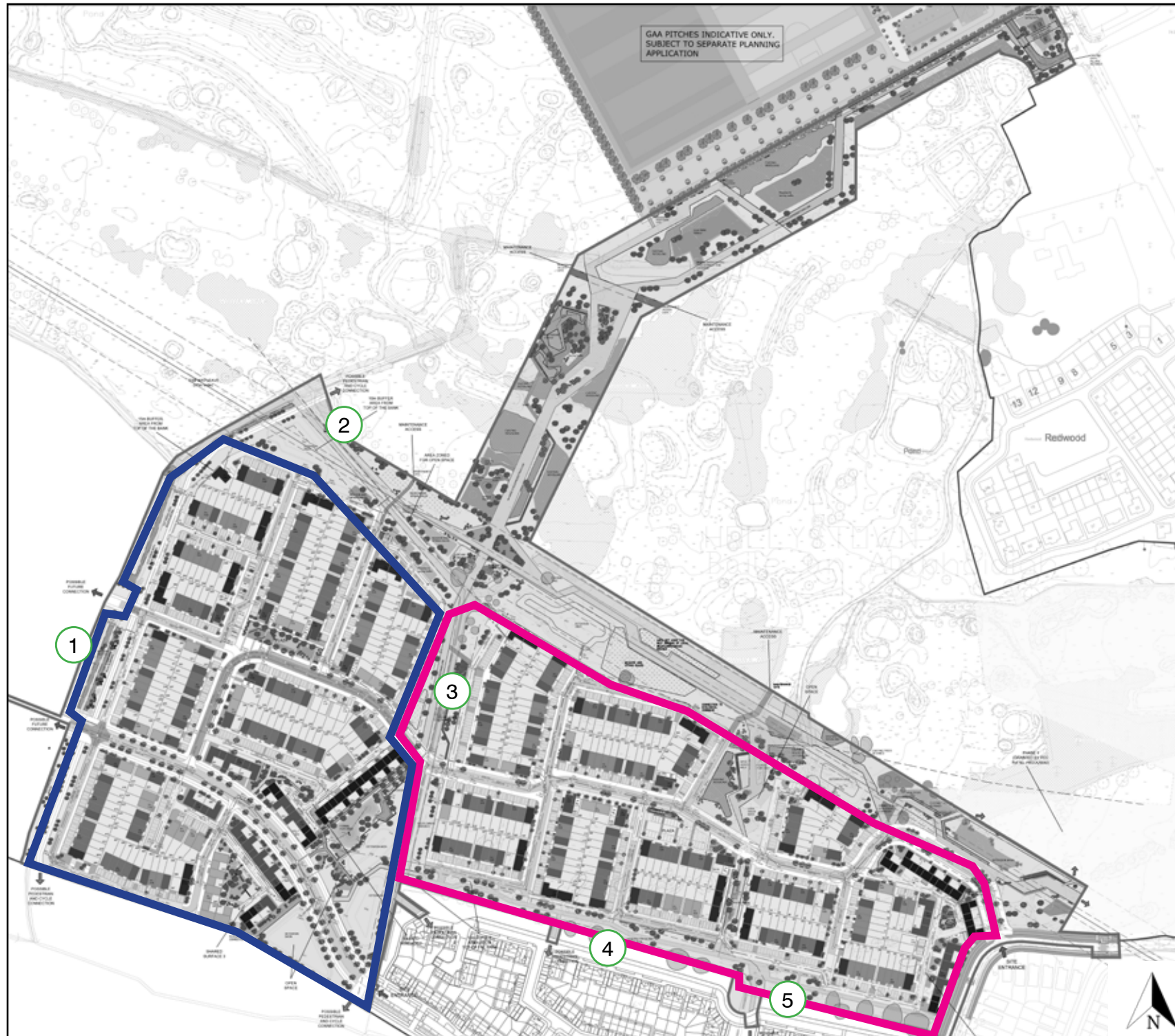


EXISTING BOUNDARIES

Existing boundaries have been examined to provide for the inclusion of the residential enclave into the developed site. These boundaries are being retained to accommodate the new dwellings . Young stock will be planted to reinforce the existing hedgerows where needed and increase the sense of privacy. There are strong hedgerow boundaries with some damage discussed in the Tree Report accompanying this application. The western boundary to Site 3 has a large number of ash trees which have been affected by Ash Die-back disease. Where such damage is evident the proposal will include for clearance of dead/dying trees and a replanting scheme of more durable native species to infill poor sections under the guidance of the project arborist.

An existing hedgerow is located within the additional open space provision, under the power lines. This is related to an open drain and has been retained within the new proposals. A similar situation occurs within the class 2 open space between Site 2 and 3. An existing hedgerow associated with an open drain has been retained, fenced and incorporated into the landscape design . To enhance permeability between site 2 and 3 some hedgerow management (trimming) and small sections (2m width) will be removed to allow for path connection between the two sites. The hedgerow will be examined by the arborist to identify areas where damage is evident or growth poor guiding the location of the break points.

The final strong hedgerow boundary is located to the south of Site 2. This will be retained and managed, trimming to accommodate the proposed cycle path connection and verge. Where gaps or damage has occurred new planting is proposed of native hedgerow species in consultation with the project arborist.

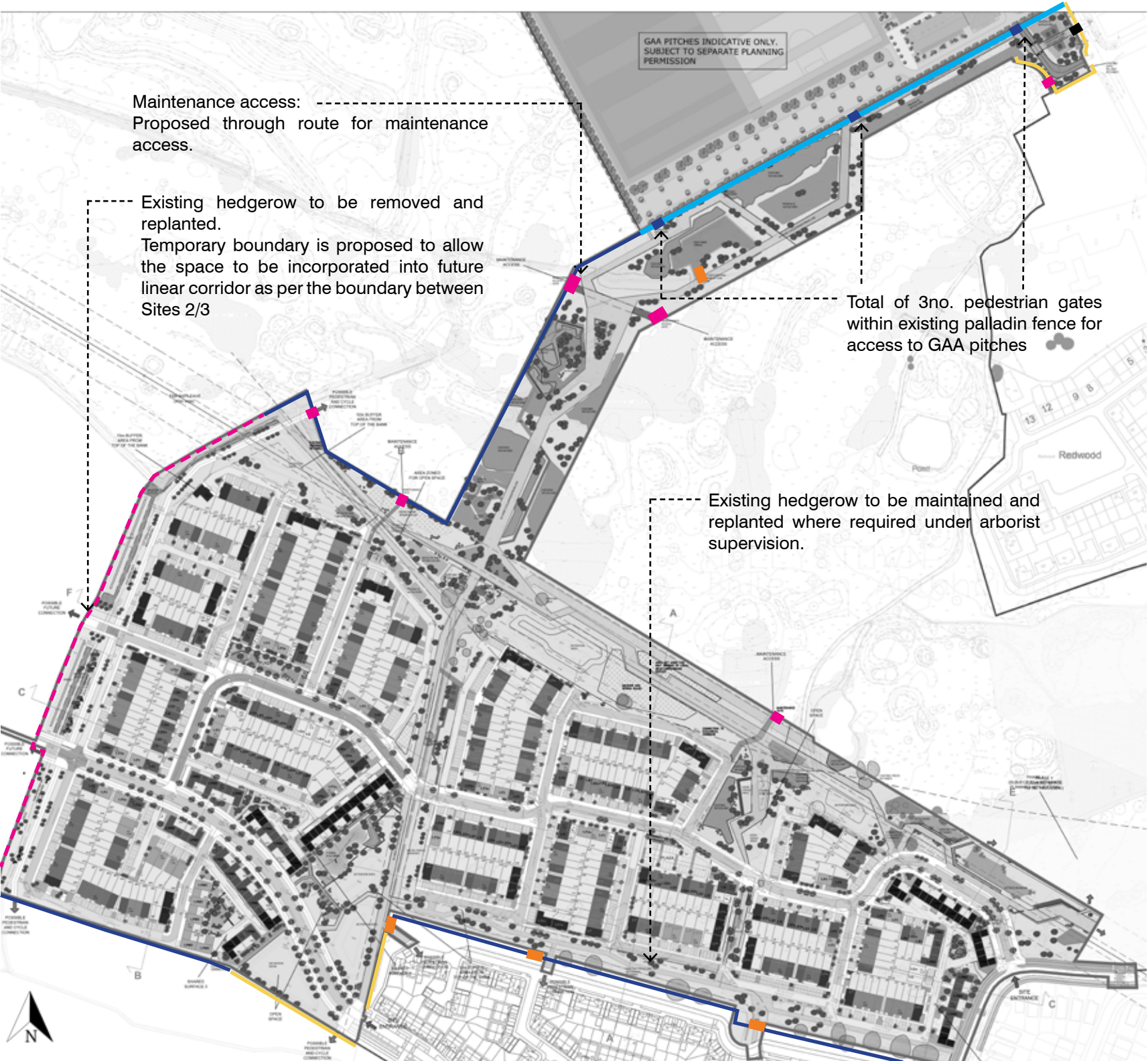


 SITE 2

 SITE 3

- ① Hedgerow associated with western boundary of Site 3
- ② Hedgerow along additional open space under the powerlines
- ③ Hedgerow between Site 2 and 3 associated with open drain
- ④ Hedgerow associated with southern boundary of Site 2
- ⑤ Existing Ash tree infected by Ash Dieback, FCC Parks have suggested removing this tree to allow connection to bellingsmore

PROPOSED BOUNDARIES



1.5m high buff top railing 20mm dia. solid bar, hot dipped galvanized and powder coated black with anti vandal fixings

Beech Hedgerow: Single row planting with three plants per metre, or five plants for a staggered double row with 40cm between plants. For a really dense and fast developing hedge we propose plants per metre in a double row.

Maintenance 1no. trim per year outside of the nesting season.

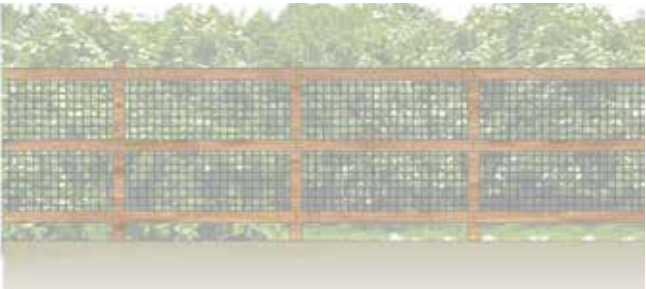


1.5m post and rail fence with 3 horizontal rails and panel mesh, timber to be pressure treated for long life

Native Hedgerow: Single row planting with three plants per metre, or five plants for a staggered double row with 40cm between plants.

Maintenance 1no. trim per year outside of the nesting season.

Species: Hawthorn (Can support about 200 different insect species), Blackthorn, Elder, Wild rose, Guelder rose, Hazel, Willow, Holly, Crabapple, Whitethorn.



1.5m post and rail fence with 3 horizontal rails, timber to be pressure treated for long life

Existing Hedgerow: Trees that are declining to be removed by a tree surgeon and the existing hedgerow to be tidied and replanted where there are gaps.

Species: Hawthorn (Can support about 200 different insect species), Blackthorn, Elder, Wild rose, Guelder rose, Hazel, Willow, Holly, Crabapple, Whitethorn.



Traditional timber field gate

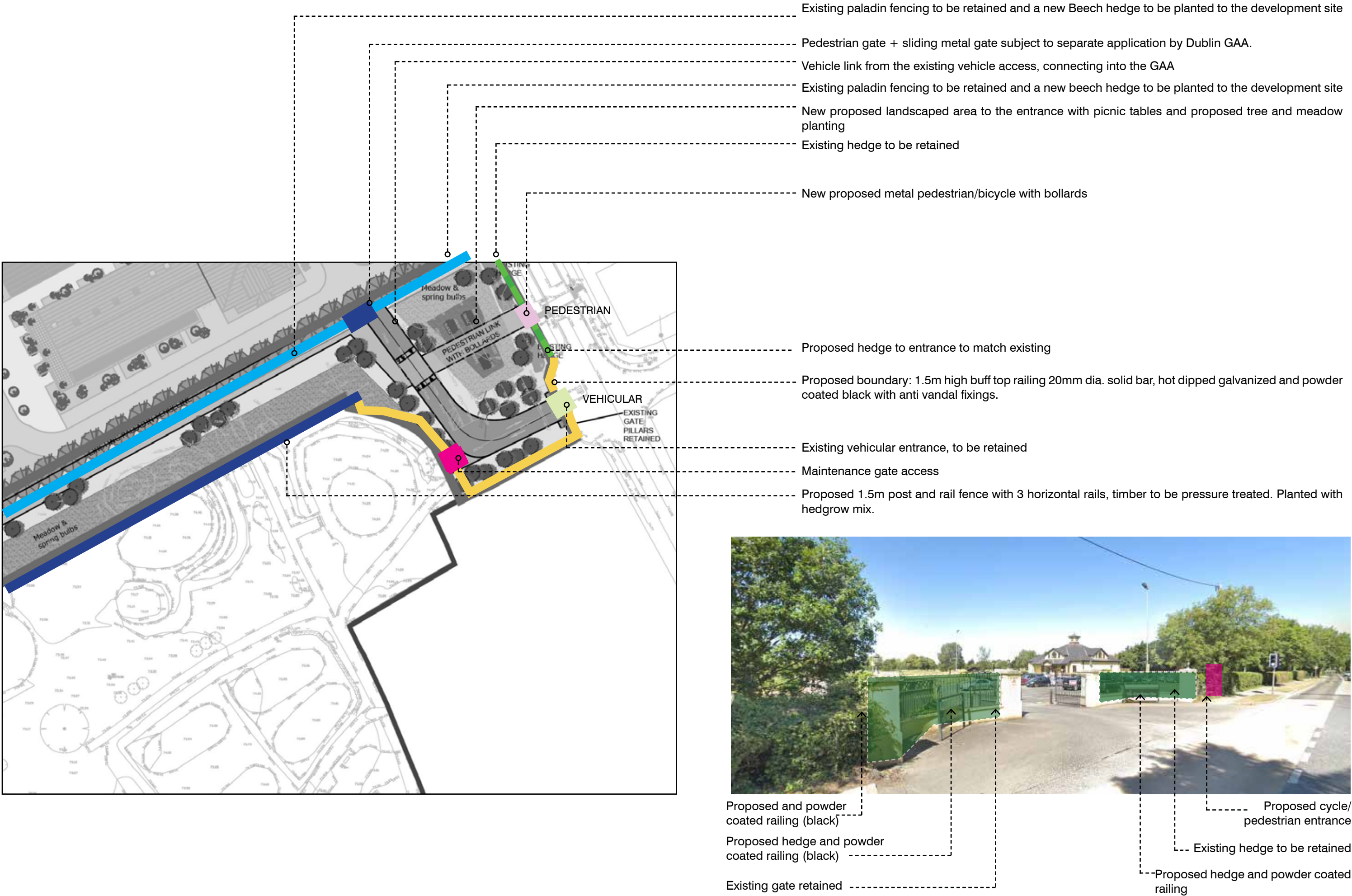


Prefabricated pedestrian bridge



Bollards to pedestrian gate

NORTH CONNECTION, ZOOM-IN PLAN



PROPOSED HARD MATERIALS PALETTE

The proposed material palette is influenced by the tonality of the existing area and is intended to maintain design cohesion throughout Hollystown as as the residential development evolves.



- 1 Concrete footpath, to FCC standards
- 2 Tarmac surface to Homezones and footpaths
Coloured Tarmac in buff warm tone.
- 3 Bark Surface to the dog parks & outdoor gym areas
- 4 Threshold precast concrete paving
- 5 Green Paving: Concrete grass paving to edges of open space

- A Example of privacy buffer planting to front of dwelling
- B Example of prefabricated bench on concrete that could be used on site

PLANTING MATERIALS - RESIDENTIAL

The landscape proposal has taken three planting mixes that require low maintenance (these mixes require less maintenance than the grassed areas after their establishment), dependant on planting location which will be applied to the residential areas including the buffer strip to the front of individual houses. Street trees have been proposed and coordinated with the services and lighting layouts. Where for example a tree falls into clearance zone requirements for lighting we have instead proposed a smaller multi stem in its place.

Mix A:

Mix of planting that thrives in shade conditions. The plants below were selected due to their longevity and low maintenance requirements.

Moreover the plan selection is composed by a mix of native and non native species that promote biodiversity on site and year round interest.

SHRUBS



Aesculus parviflora



Camellia japonica



Hydrangea aspera v.



Fatsia japonica

HERBACEOUS PERENNIAL



Hosta sp.



Carex pendula



Dryopteris filix-mas

GROUND COVERS



Helleborus hybridus



Vinca minor



Gallium



Geranium phaeum

Mix B:

Mix of plants that thrive in part shade conditions.

SHRUBS



Acer osakuzuki



Callicarpa



Cornus kousa



Hamamelis mollis

HERBACEOUS PERENNIAL



Acanthus mollis



Hakonechloa macra



Euphorbia griffithii



Actaea simplex



Digitalis alba



Saxifraga



Fragaria vesca

GROUND COVERS

Mix C:

Mix of plants that thrive in full sun and are drought tolerant.

SHRUBS



Yucca filamentosa



Rhus typhina



Stewartia



Carpenteria

HERBACEOUS PERENNIAL



Amsonia 'Blue ice'



Pennisetum



Iris germanica



Miscanthus sp.



Aster monch



Erigeron



Leptinella

GROUND COVERS

PLANTING MATERIALS - TREES RESIDENTIAL



Acer palmatum species
multi stem, min 2.5m high



Amelanchier lamarckii, multi stem, high.
40L pot



Rhus typhina, multi stem,
30L pot



Liquidambar styraciflua, 20-25cm girth,
min 6m high

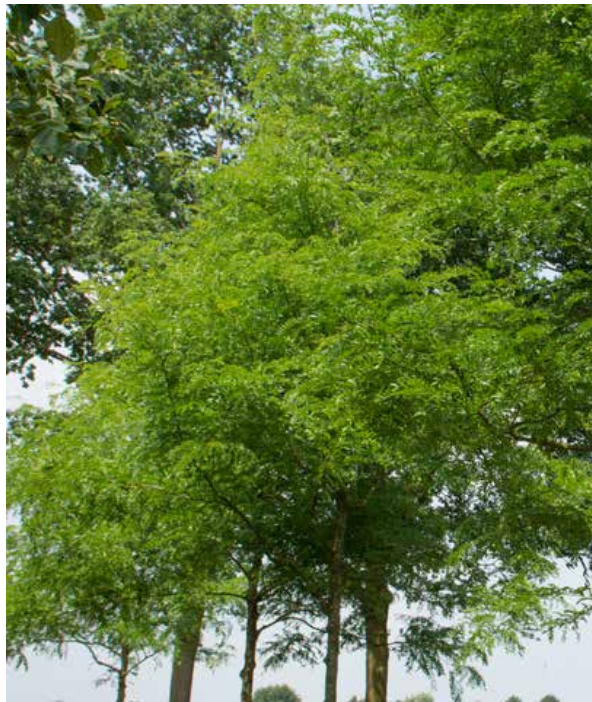


Pyrus chanticleer, 20-25cm girth,
min 5m high,

PLANTING MATERIALS - TREES OPEN SPACE



Liquidambar styraciflua, 20-25cm girth, min
6m high



Gleditsia triacanthos, 20-25cm girth,
min 6m high



Pinus sylvestris
20-25cm girth, min 5m high



Metasequoia glyptostroboides
18-20cm, min 4m high.

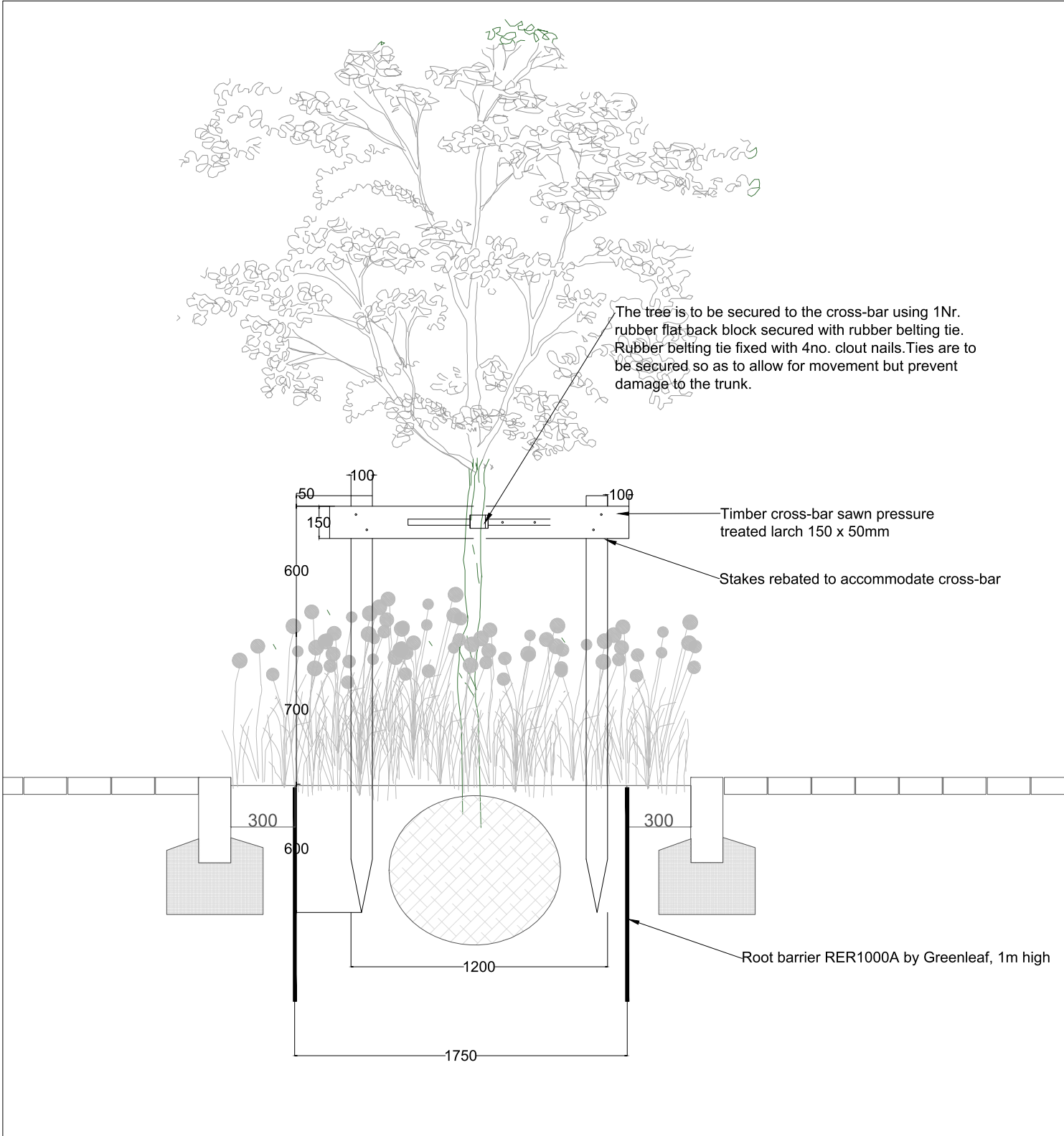


Betula pendula
18-20cm girth, min 4m high

PROPOSED TREE PLANTING - RESIDENTIAL STREETS

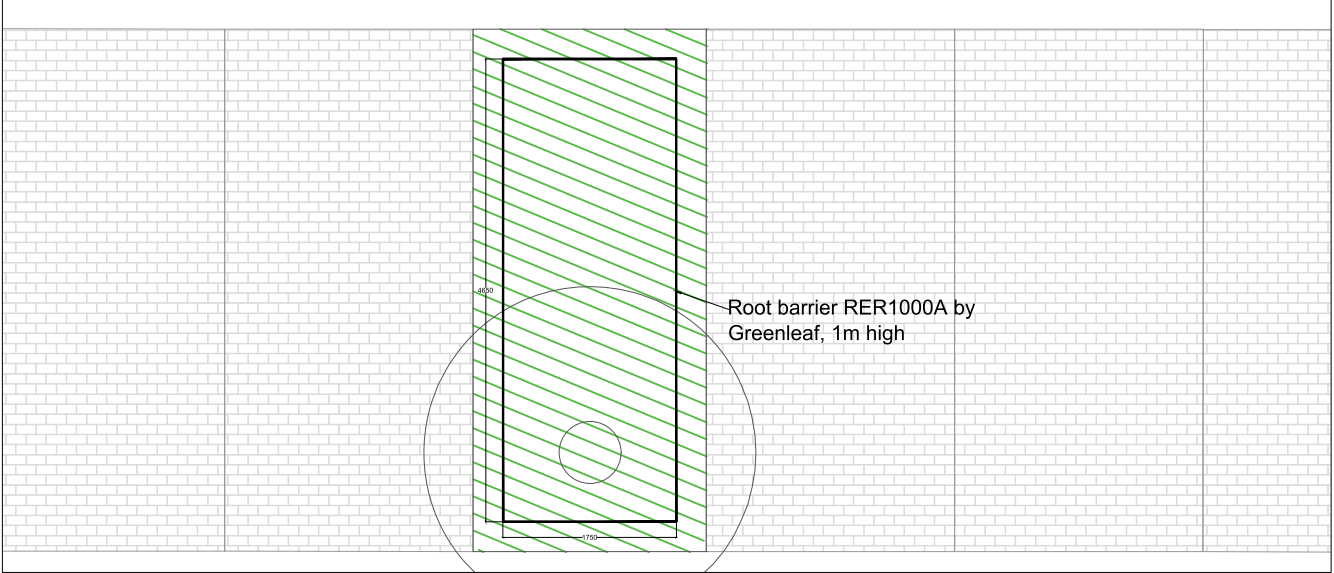
A. TREE PIT MANAGEMENT

Section through tree-pit, Scale:1/25



NOTE: Tree pit sizes to be minimum 16m³ to comply with FCC standards

Tree pit plan, Scale:1/75



Root membrane example

