

Ballyvolane SHD

Longview Estates

Landscape Architecture
District Park Framework Strategy

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Quality information

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A	30th Oct 2019	for Coordination	Ross Loughnane	Ed Frampton	Regional Director
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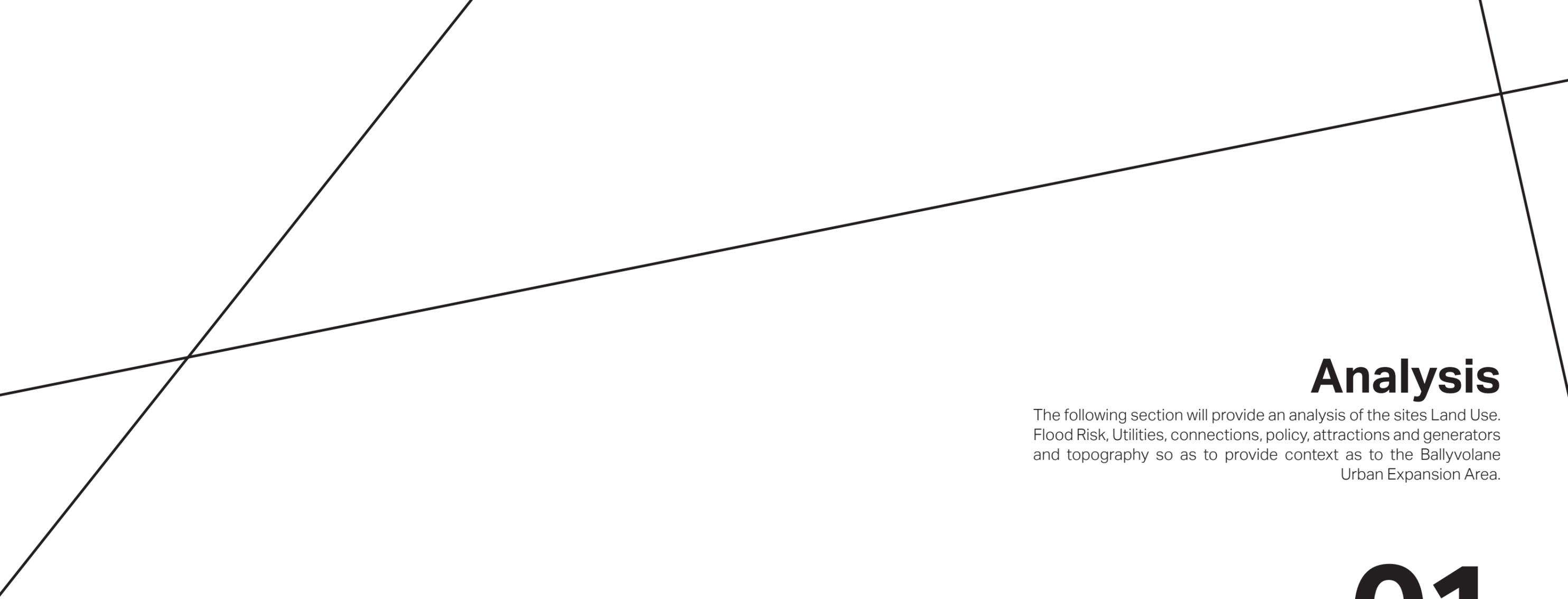
This document has been prepared by AECOM Limited for the sole use of our client (the "Client") and in accordance with generally accepted consultancy principles, the budget for fees and the terms of reference agreed between AECOM Limited and the Client. Any information provided by third parties and referred to herein has not been checked or verified by AECOM Limited, unless otherwise expressly stated in the document. No third party may rely upon this document without the prior and express written agreement of AECOM Limited.

The Cobh MD Local Area Plan states that a Landscape Strategy for the Ballyvolane Urban Expansion Area (UEA) will be prepared.

This document, by AECOM, has been prepared with input from Cork City Council Parks Department inform thinking as to the UEA landscape Strategy. The document seeks to;

1. analyse the UEA landscape, topography and zoning,
2. evaluate opportunities and zonings on the basis of the analysis, and
3. indicate a strategy to allow the City Council to review the detail of zoning in the overall area in the forthcoming Development Plan Review.

In summary, the attached Landscape Strategy finds that the zoning proposed by Cork County Council, as contained in the LAP, is a basis for development consents subject to refinement of designations and the detail design of proposals open space and linkage provisions as they are submitted to the planning process.

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Analysis

The following section will provide an analysis of the sites Land Use, Flood Risk, Utilities, connections, policy, attractions and generators and topography so as to provide context as to the Ballyvolane Urban Expansion Area.

01

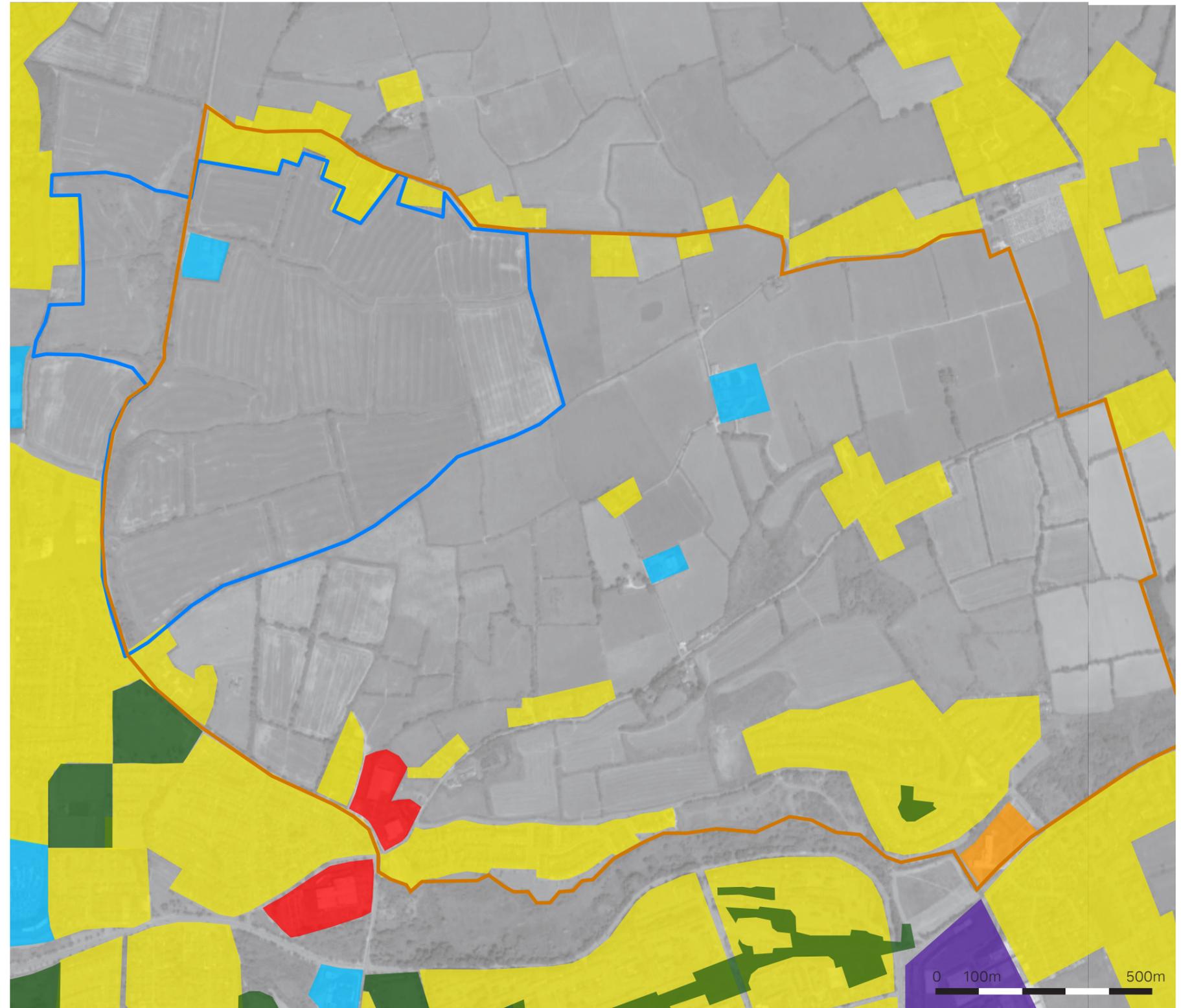
Analysis > Land Use

Currently the dominant land use in the expansion area is agricultural. There is an existing retail node on the south that it identifies in the Local Area Plan as a potential district centre. Individual residential units are spread along roads. A few industrial compounds can be found among the agricultural lands.

Local Area Plan

Provision of an urban park of approximately 20 hectares. This is to be provided in addition to the normal open space requirements provided as part of new housing developments. (LAP 3.4.66)

The Various Open Space – the zoned Passive Amenity Areas – in the Urban Expansion Area amount to 60+ Ha.



- Urban expansion area
- Ownership boundary
- Existing residential zones
- Existing town centre
- Existing business zones
- Existing industry zones
- Existing community zones
- Existing open spaces



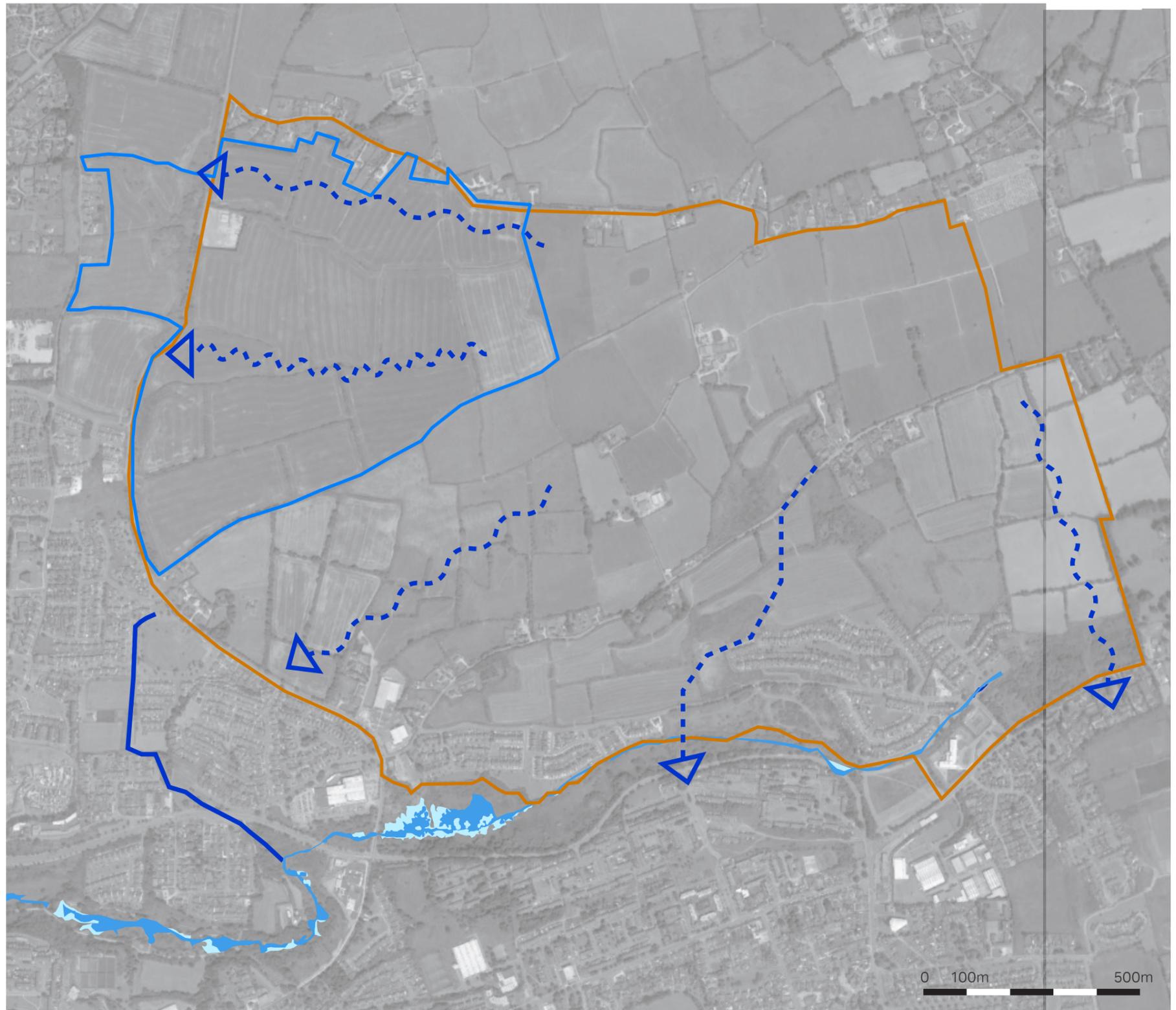
Analysis > Flood Risk

Surface runoffs can occur between ridges and along hedgerows. These are diverted by existing hedgerows and sod and stone walls.

Local Area Plan

The issue of surface water disposal is a significant issue having regard to the steep topography and the capacity issues within the Glenamought catchment. Sufficient level land would be required to attenuate flows before reaching the River. The proposed Blackpool flood relief scheme is sensitive to any increase in flows. The recommendation is that all future developments should attenuate for a 1 in 100 year flood event. (LAP 3.4.77)

The SuDS features will be incorporated into every development proposal. It will be necessary for applications to clearly outline the specific measures, their design capacity and location of such measures. The existing greenfield run off rates and volumes should not be exceeded. Provision should be made for swales /filtration drains, detention basins/ponds along the new SW link road, to ensure no adverse impact on current peak flows in the rivers and streams downstream of the site. The County Development Plan requires all new developments to incorporate SuDS as per Section 11.5 of CDP 2014. A SuDS study of the site will be required prior to development to establish the number, location and range of features to adequately control the run off. The terms of reference shall be determined. (LAP 3.4.101)

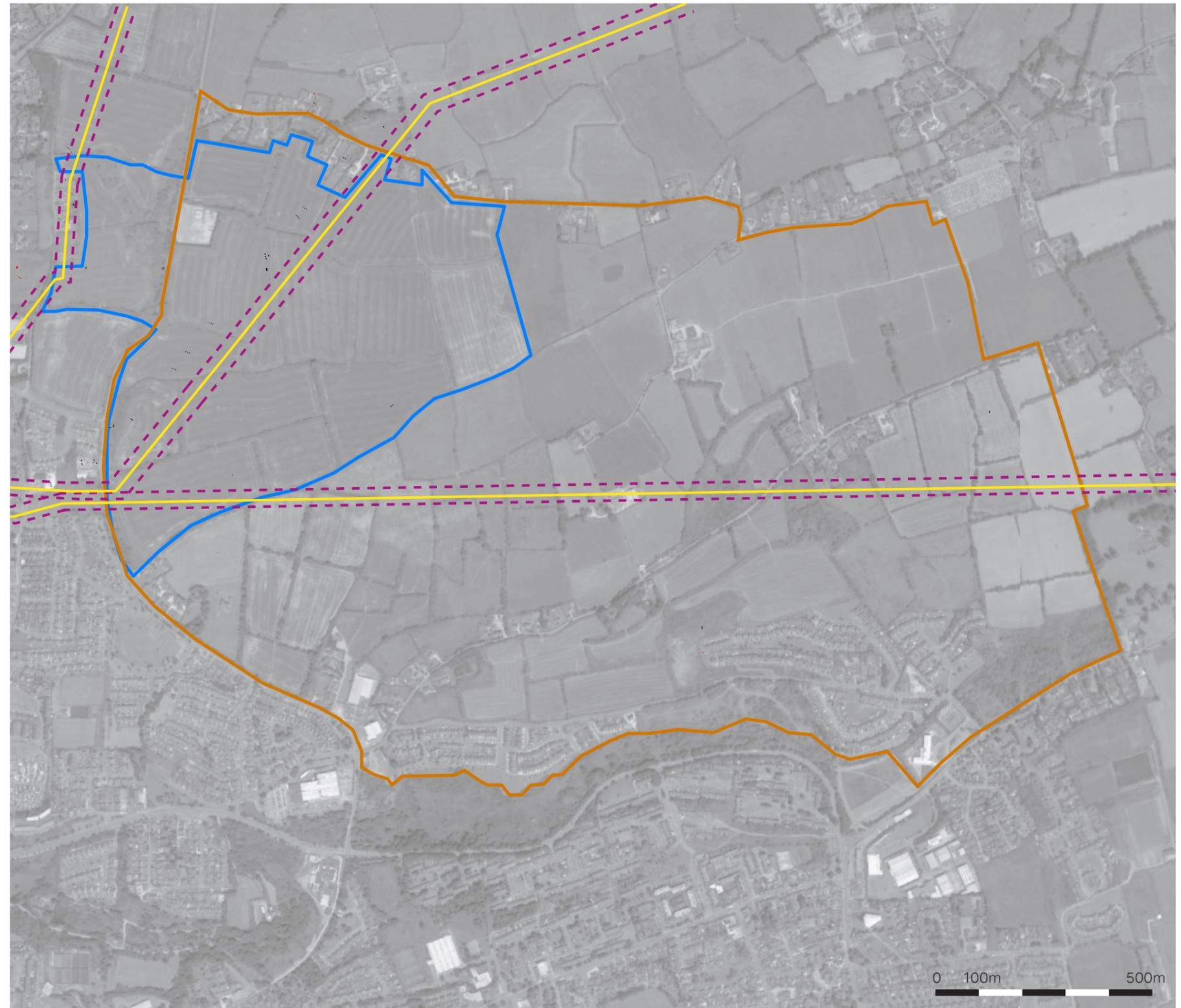


Analysis > Utility

There are a number of high voltage overhead powerlines through the UEA. These typically form a wayleave and could be promoted to form arteries of the green infrastructure network in the expansion area.

Local Area Plan

There are a number of ESB transmission lines crossing the site. The voltage varies from 110 kv to 38Kv. There are two 110 Kv lines, namely the Kilbarry to Knockraha no. 1 line and no. 2 line. The cost of undergrounding these lines back to the facility in Kilbarry is most likely to be prohibitive. A maximum 40 metre wayleave between buildings is required along the route of the 110kv line. (LAP 3.4.80)



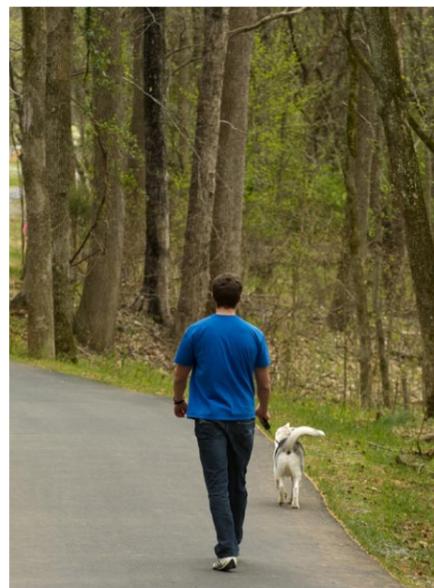
Analysis > Connections

Local Area Plan

Promote permeability within the area and relationship to and linkages with the wider area (LAP 3.4.66)

The existing road infrastructure consists of the Ballyhooley Road, Rathcooney Road, Banduff Road, Arderrow Road and the local road along the Northern site boundary. The delivery of the Northern Ring Road will be important to remove national traffic from the area. (LAP 3.4.90)

The link road proposed in the Cork Northern Environs Transport Assessment produced by Systra will be accommodated in the layout. The proposed road traverses the North Western corner and South Western section of the site, the length of which is approximately 2.2 km. The exact alignment including the bridges etc required to cross the existing roads is needed. The construction of this link road connecting Mayfield to Kilbarry is a critical piece of road infrastructure to alleviate the congestion at the Fox and Hounds and the intersection of Ballyhooley Road and the Northern Relief Road i.e. Ballyvolane Cross Roads. The upgrade of road infrastructure should be linked to phasing to avoid significant congestion and increase capacity on routes into the City centre. (LAP 3.4.92)



- Urban expansion area
- Ownership boundary
- Existing road layout
- Proposed road layout
- Proposed cycle network
- Proposed greenway

Analysis > Policy

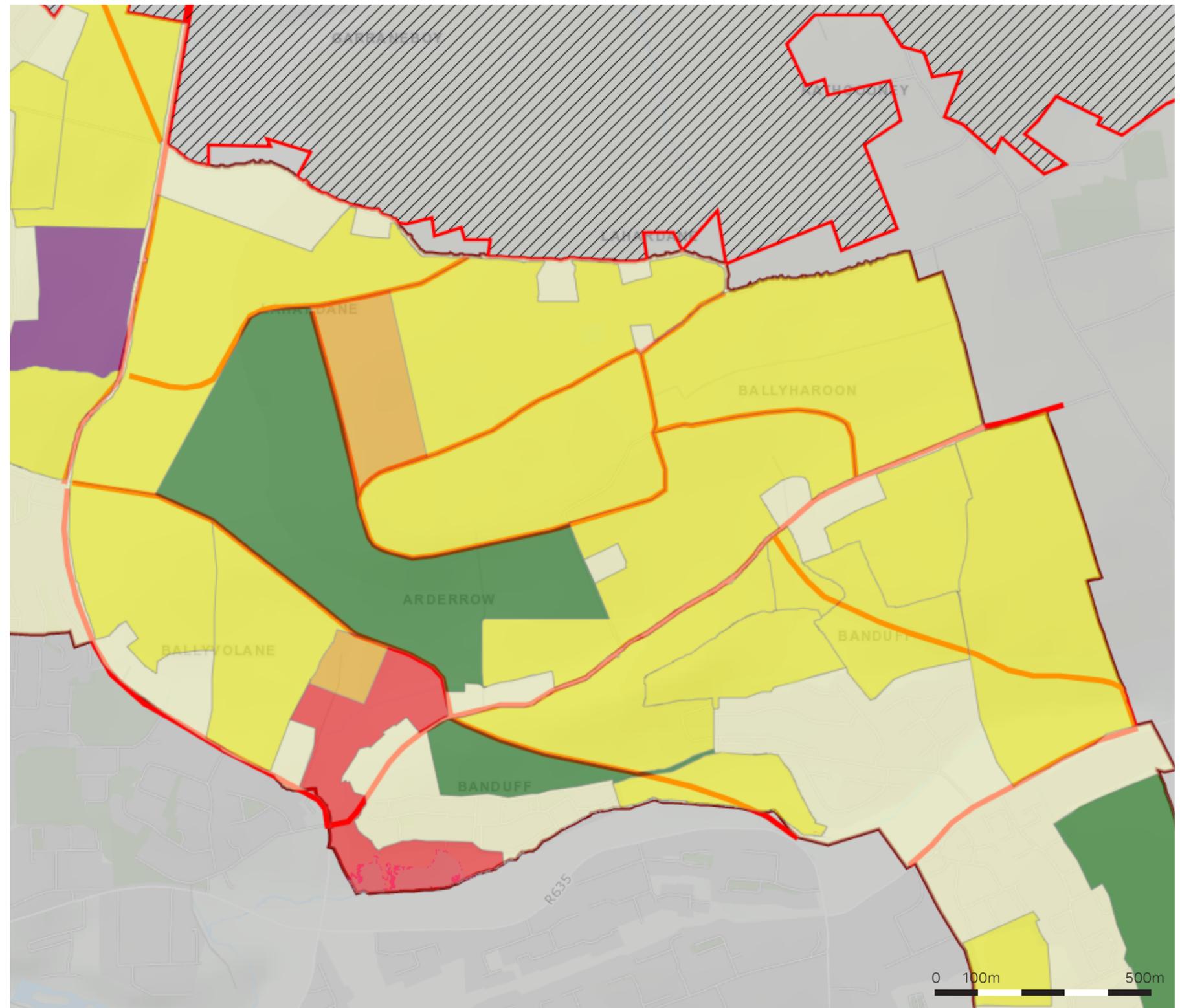
Local Area Plan Objectives

Construct a permeable built form with green routes to facilitate cycling and pedestrian movements within the site, with dedicated routes in locations with a shallower gradient. Routes should be created within the urban park to link phases of development and provide direct access to the educational facilities and improve permeability through the site. The route of the principal cycleway shall link up with the Cork Cycle Network Plan 2017, a joint venture between City and County Councils. (LAP NE-GO-04)

Retain a substantial proportion of existing landscape features including field banks, hedgerows, tree lines and masonry walls. Provide a landscape framework plan for each of the six phases of development as part of a landscape strategy. Provide for advanced mix planting of coniferous and broadleaf trees to ensure year round tree coverage to protect the visual amenity of the area. (LAP NE-GO-05)

Design an integrated approach to surface water management which considers land use, water quality, amenity and habitat enhancements, thereby replicating the current greenfield rate of surface water runoff, post development, to prevent flooding of lands and settlements downstream. A Sustainable Urban Drainage Strategy should be completed for the site prior to development. (LAP NE-GO-06)

Create an ecological network by linking green areas to allow for movement of wildlife. All environmental resources should be incorporated from waterways to woodlands to adopt a green infrastructure approach within the site with links to the surrounding countryside. Open space for public recreation including the provision of playing pitches, amenity walks, children's playground, open parkland, subject to appropriate scaling and siting. (LAP NE-GO-07)

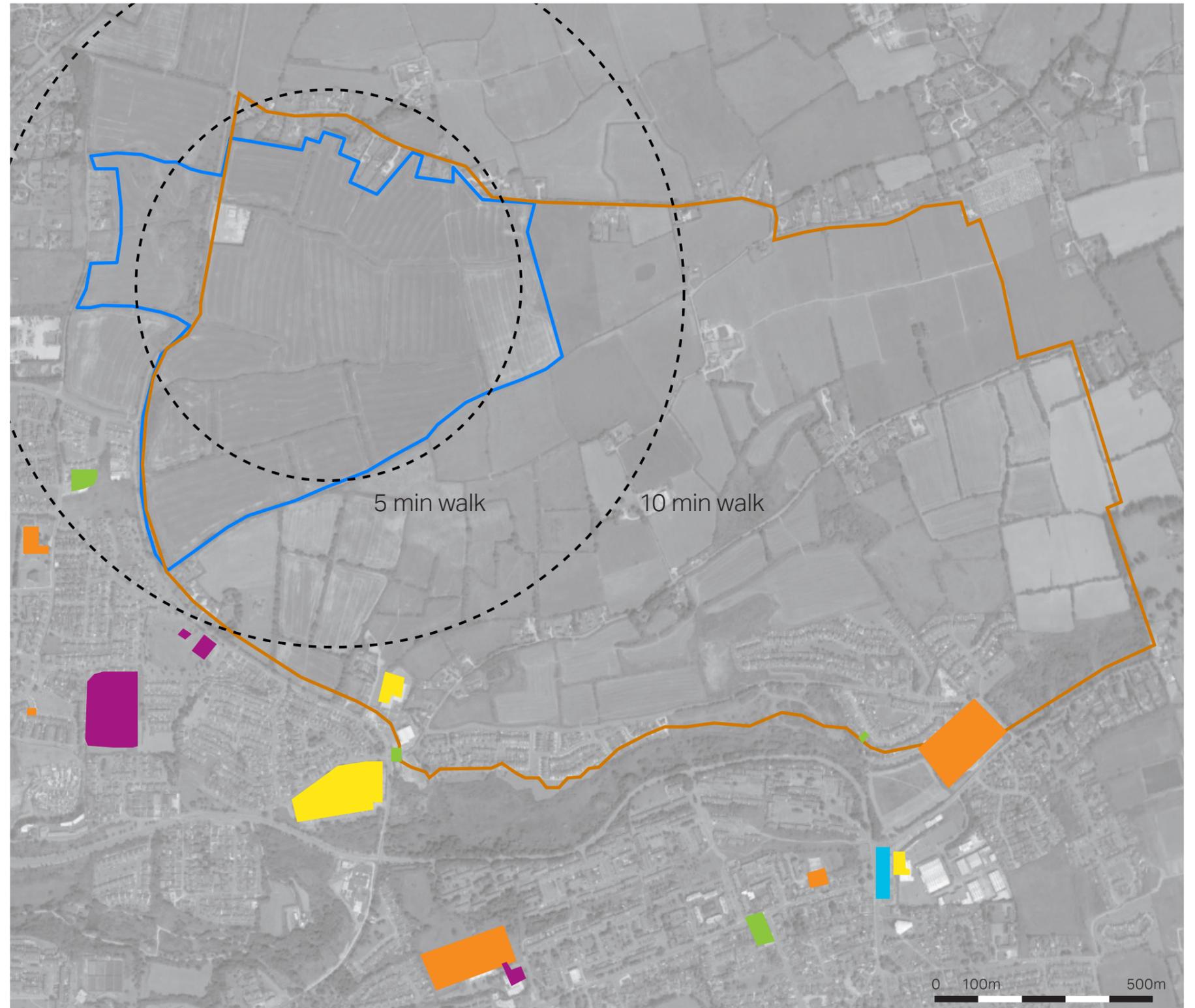


Analysis > Attractions and Generators

Local Area Plan

Proposals (to be made) for the timing and provision of road infrastructure. This is to include provision for safe pedestrian and cycle links to the neighbourhood centre; public transport nodes and wider area. (LAP 3.4.66)

A frequent bus service will be the primary mode of public transport to serve the expanding area. There is a need also for a high quality public transport corridor connecting Kilbarry to Ballyvolane to provide access to employment locations. (LAP 3.4.91)



- Urban expansion area
- Ownership boundary
- Walking distances
- Sports facilities
- Supermarkets
- Schools
- Shopping centres
- Restaurants

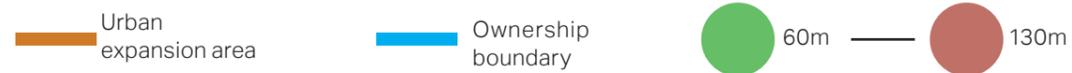
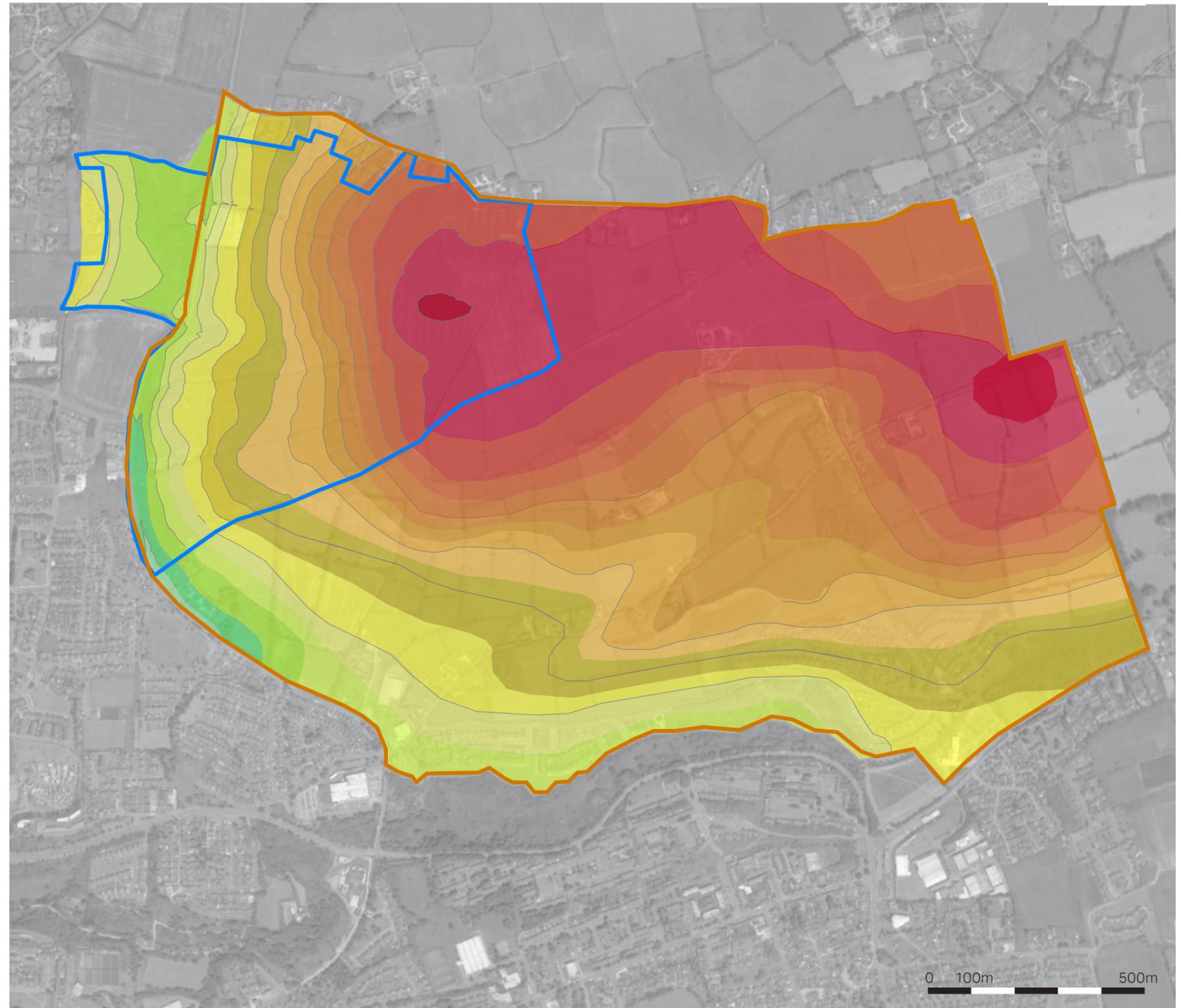


Analysis > Topography

The site rises from levels approximately 60 metres in the South West to the plateau of 130 metres along the northern boundary.

Local Area Plan

Proposals for the creation and treatment of public realm and open space within the area having regard to the topography of the area, in particular the visually prominent ridgeline to the north. (LAP 3.4.66)

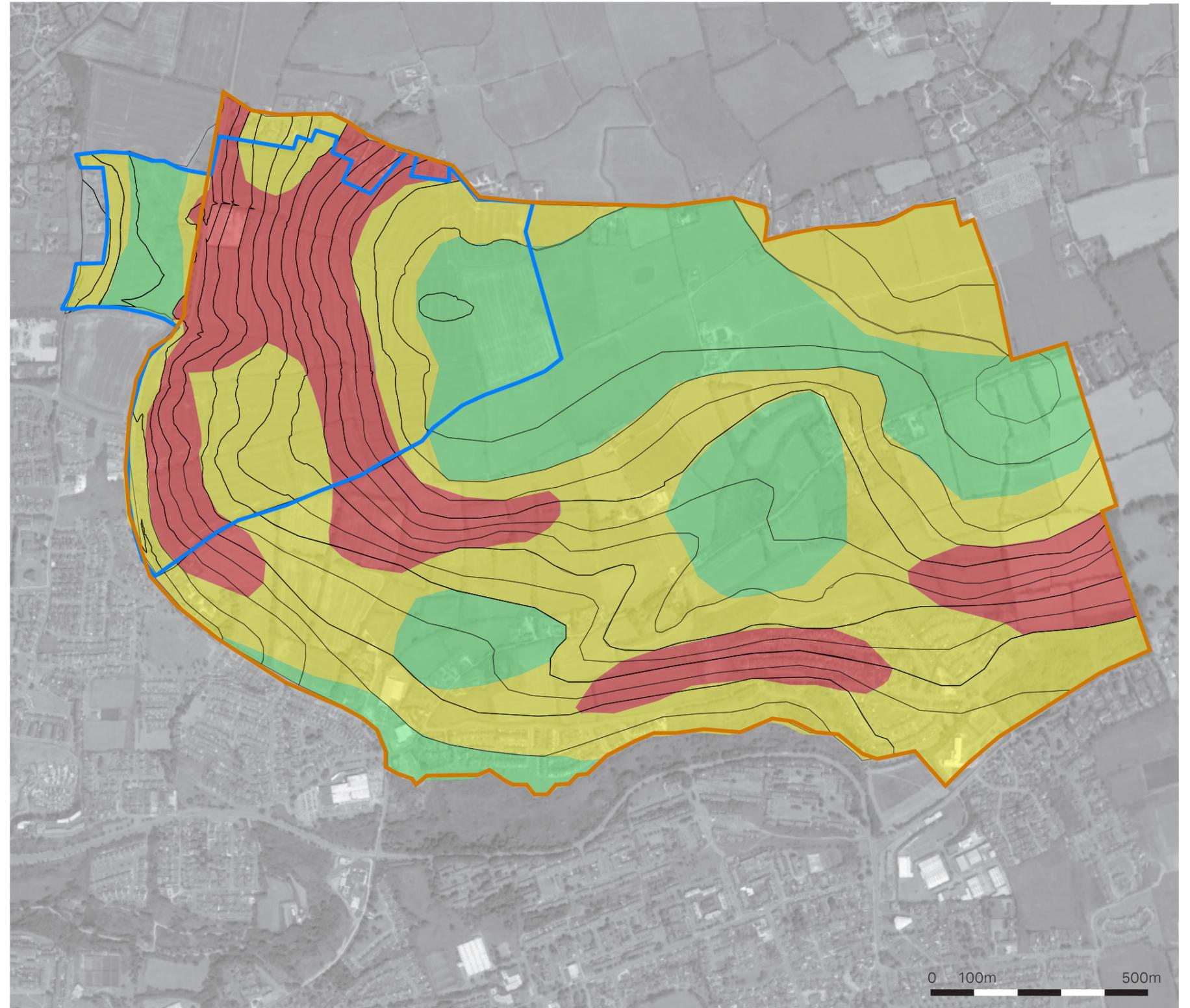


Analysis > Gradient

Local Area Plan

The avoidance of development on the steep Westerly slopes, part of the South Westerly Slopes and on the Southern ridge behind the existing pocket of development will help to reduce the overall impact on landscape. Mitigation measures in the form of extensive planting as part of a landscaping strategy will be required to reduce magnitude of the impact. (LAP 3.4.70)

There is a need to address the topographical constraints of the site and the overall visual impact, which can be achieved in a number of ways. Firstly, the avoidance of development on very steep and prominent slopes particularly when viewed from a distance is the primary measure. Secondly, the creation of a landscape strategy which proposes planting of trees in strategic locations to reduce the overall impact, both on the landscape and the visual impact. The landscape strategy should be completed prior to development and planting should take place in combination with construction. (LAP 3.4.99)



- Urban expansion area
- Ownership boundary
- High impact potential gradient
- Medium impact potential gradient
- Low impact potential gradient



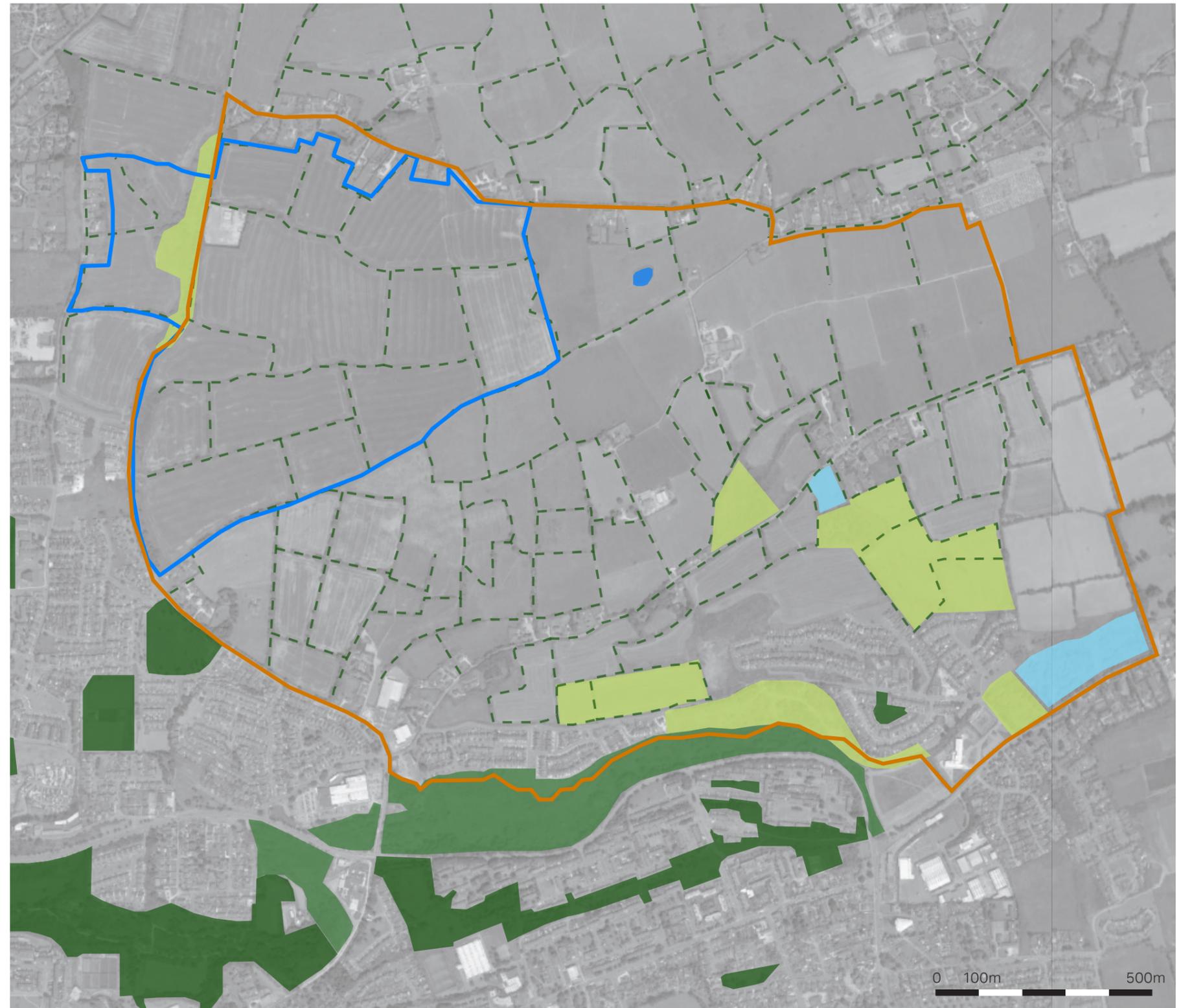
Analysis > Existing Habitats and Landscape Features

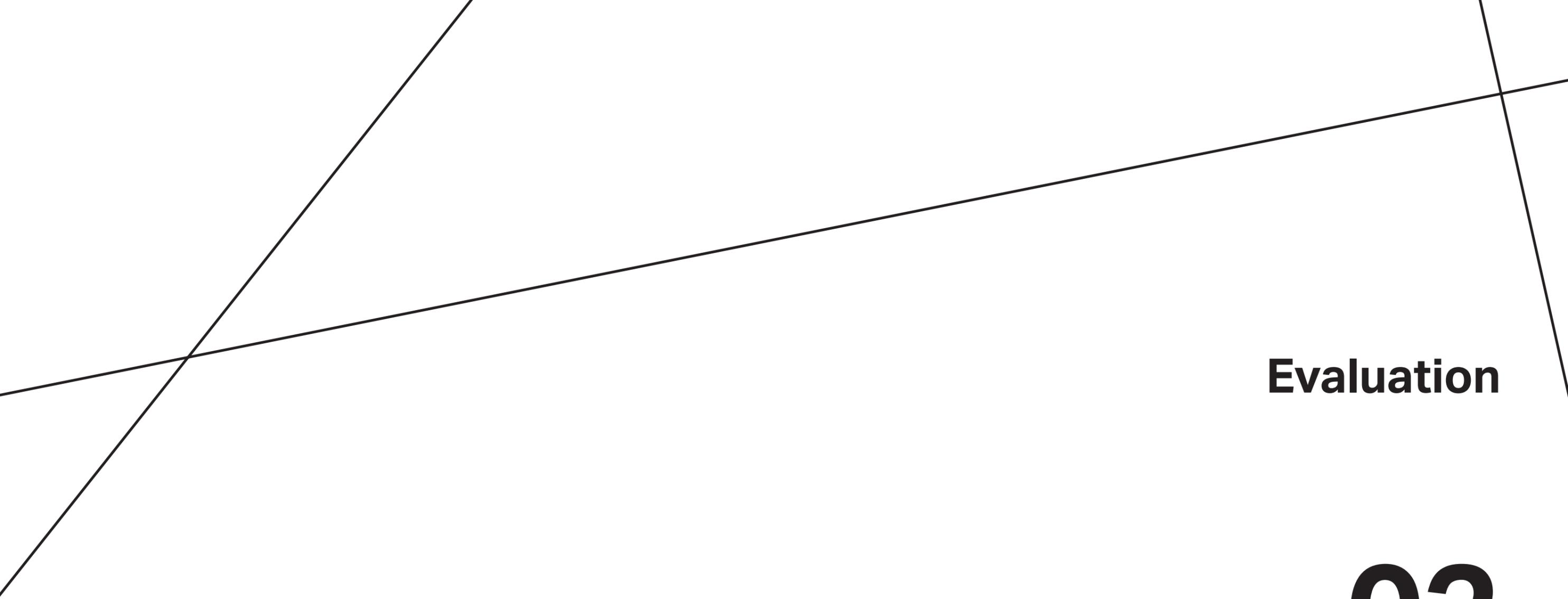
Local Area Plan

Demonstrate how the protection and enhancement of biodiversity will be successfully achieved. (LAP 3.4.66)

Proposals for a detailed landscaping strategy that will outline boundary treatments in sensitive locations within the masterplan area. (LAP 3.4.66)

Habitat mapping was conducted by Atkins Consultants for the electoral areas as an action of the Heritage Plan. The results of the mapping identified the primary habitats as; semi natural grassland, scrub woodland and swamp area. These features should be incorporated into future layouts. There is a large permanently wet area located centrally in a field to the North East of the site which should be accommodated in the layout as a water feature. (LAP 3.4.102)





Evaluation

02

Evaluation > Overlay

The overlay of the previous diagrams shows the designated parkland area is cut through by the proposed carriageway on the west. It is beneficial to treat the area west of the road as an extension of the adjacent neighbourhood rather than parkland. This will create a linear parkland that follows closely the existing contours.

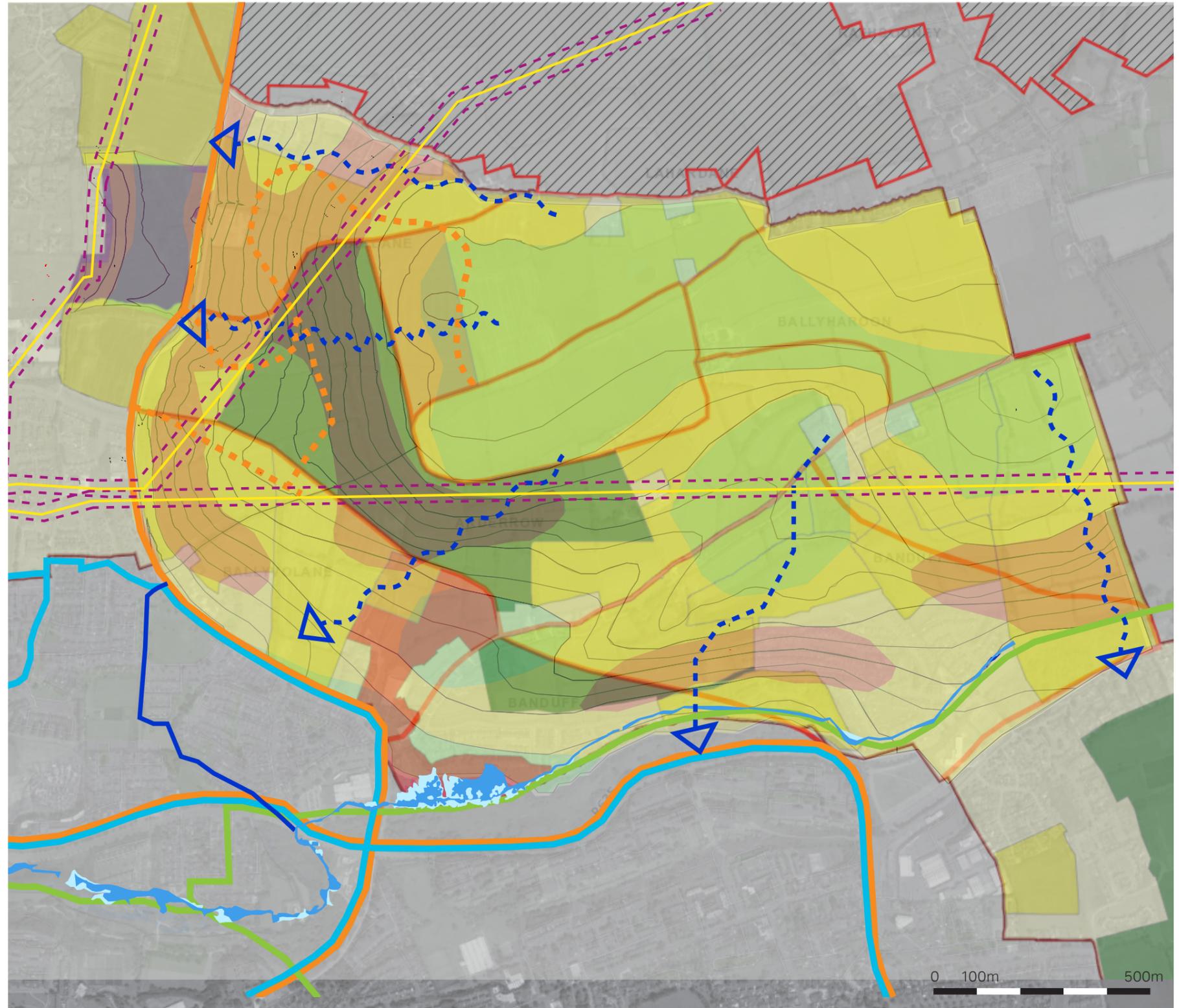
This linear parkland can provide valuable connections between the western and northern residential areas, the proposed schools and neighbour centre in phase 1 and 2 and the core retail centre on the south. Level areas can be carved along the connecting paths to provide usable open spaces that can accommodate various activities.

Land use boundaries might be subject to change in light of the existing topography and landscape features.

Local Area Plan

Provision of an urban park of approximately 20 hectares. This is to be provided in addition to the normal open space requirements provided as part of new housing developments. (LAP 3.4.66)

The Local Area Plan requires that the 20 Ha Park commences delivery in Phase 1 of the UEA development and is completed over time.



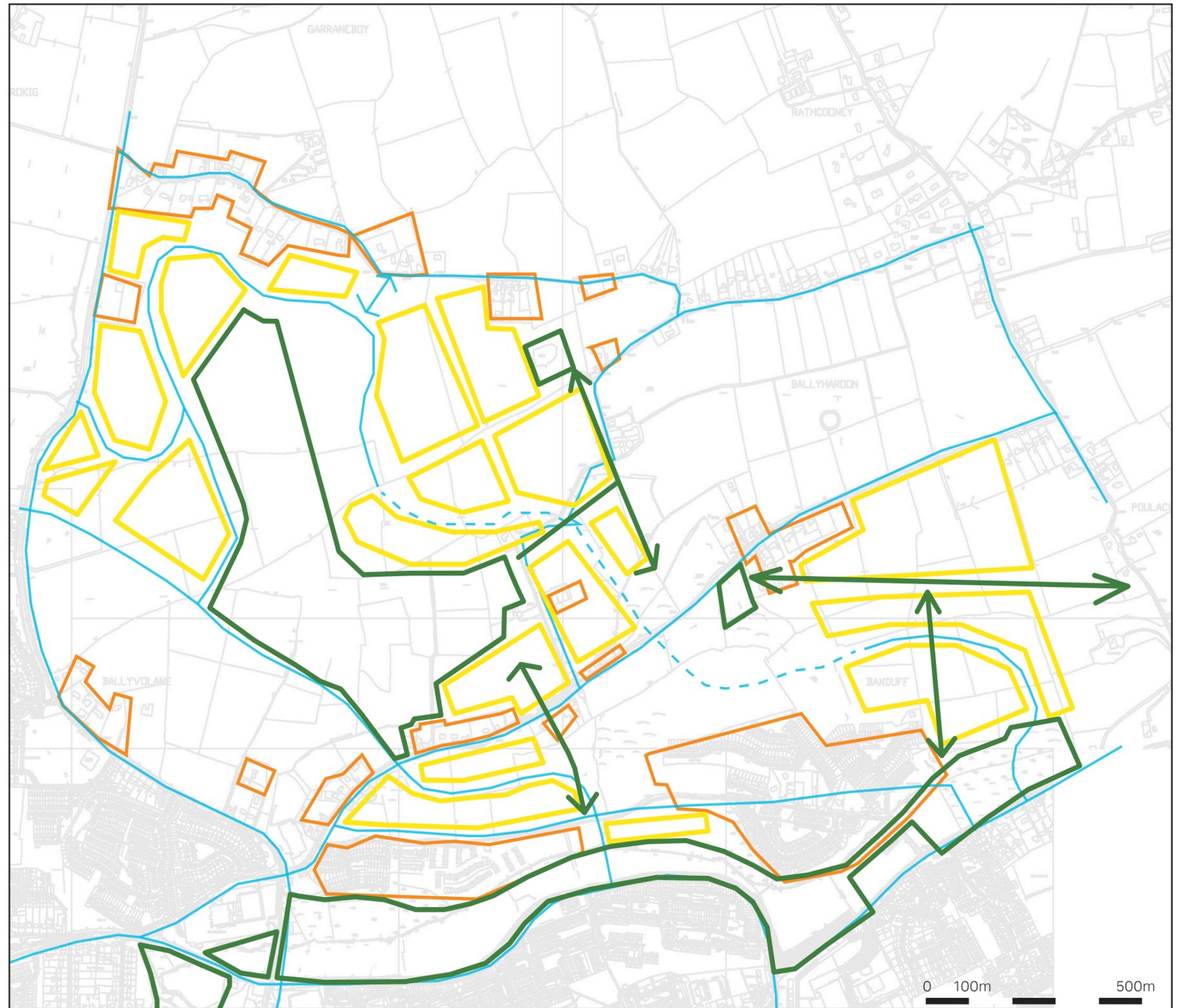
Evaluation > Development Opportunity

Local Area Plan

The existing landscape is a significant consideration in creation of usable open space. A 20ha urban park will provide passive recreational facilities for the area as a whole. The provision of the urban park will be linked to the phasing as there is a shortage of informal recreational areas within the Northern suburbs. There are approximately 60 ha of land reserved for open space in total, a generous open space provision. A large central park will be at the pinnacle of the open space hierarchy with smaller areas of open space peppered throughout the layout. (LAP 3.4.104)

Total area dedicated for urban park in Local Area Plan is 20ha.

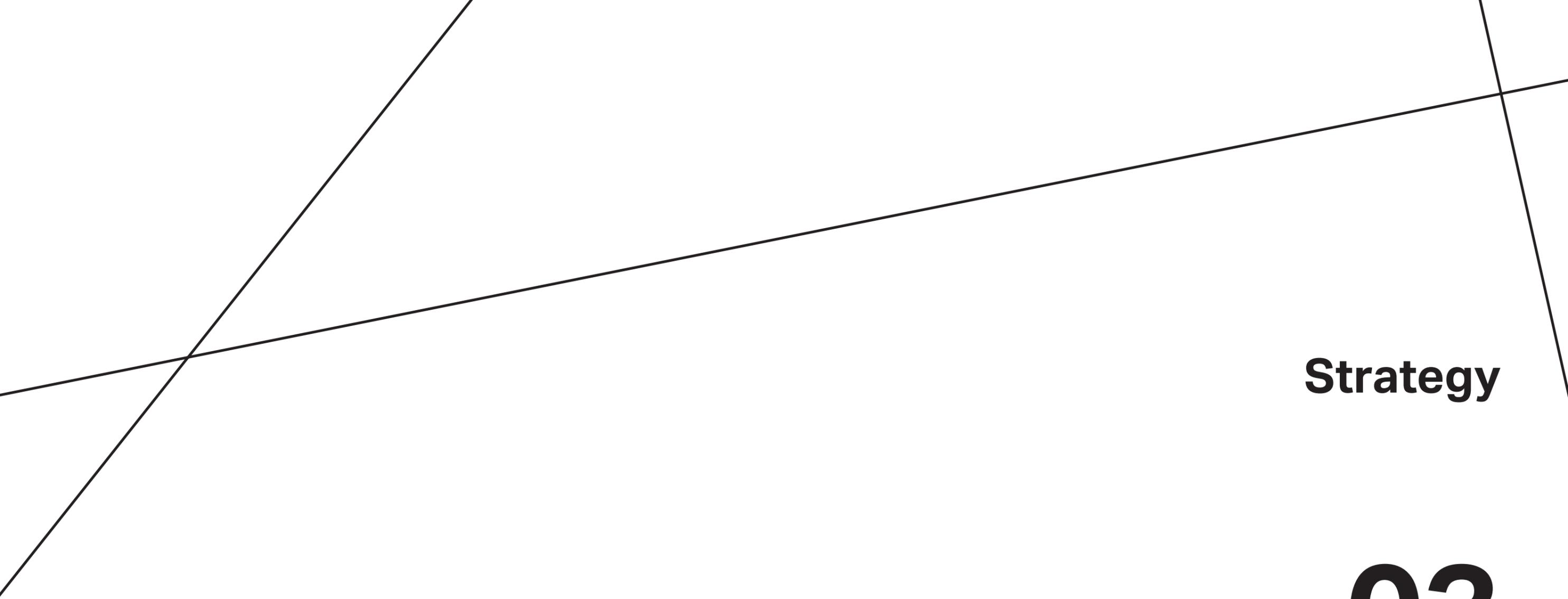
Total Area proposed Amenity Zoned Lands adjacent to application site after analysis: 31 Ha.



— Known Road Structure
 — Proposed Residential Areas
 — Existing Residential Areas
 — Green Infrastructure



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Strategy

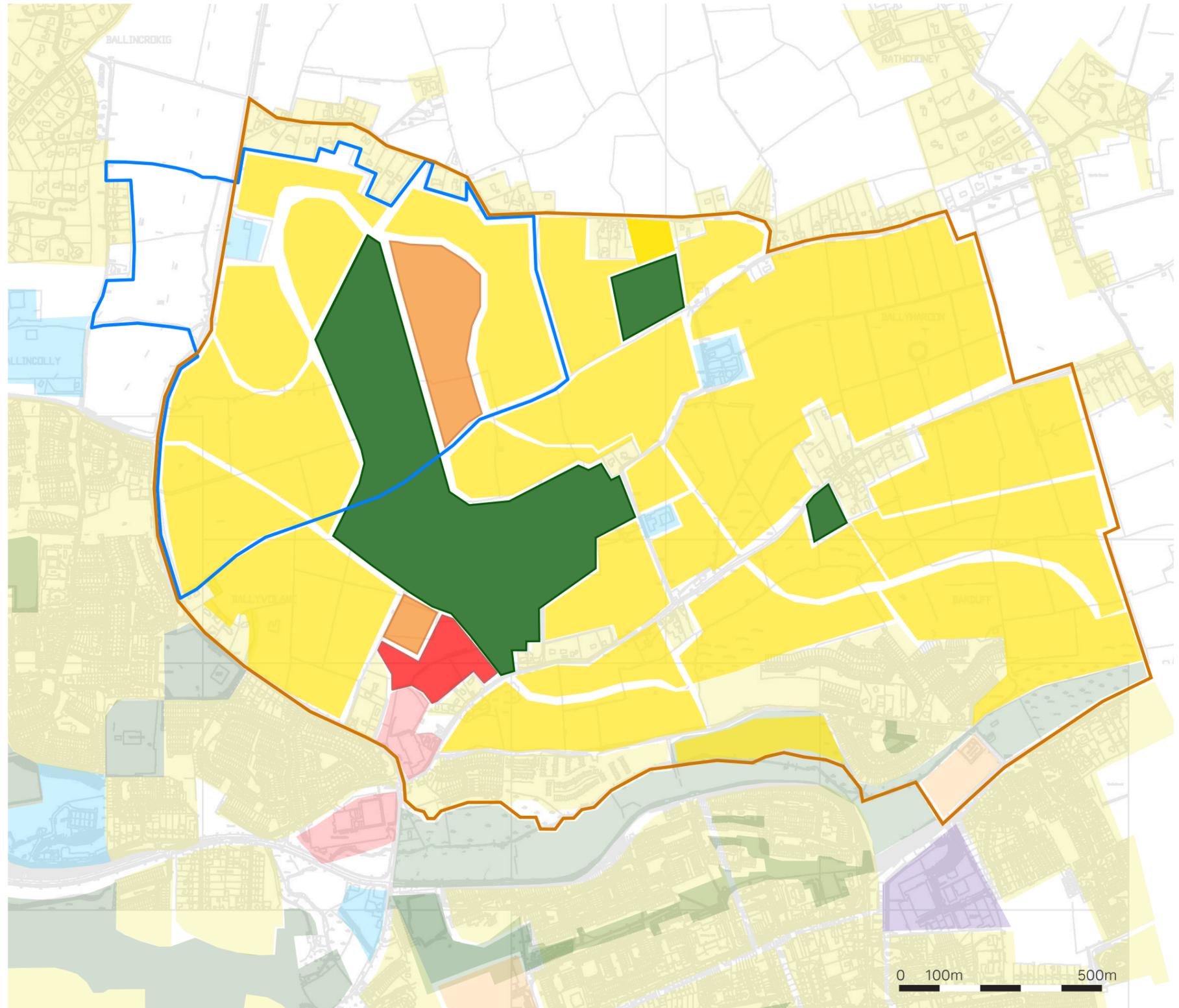
03

Strategy > Land Use Proposal

On a broad scale, sustainable residential development involves settlement patterns that help minimise transport-related energy consumption and encourage energy-efficient housing layouts. (LAP 3.4.103)

Arising from the previous evaluation the following diagram provides a refined extent for the proposed open space provision within the Urban Expansion Area (UEA). Consideration has been given to the movement framework, capacity of resulting residential parcels and a balanced open space hierarchy. This consideration has been reinforced by the constraints of gradient and way-leaves with the context of the district park.

There have been two areas identified to have the potential for supplementary open space within the UEA, subject to statutory planning review, which are positioned around the existing landscape features of the pond and wetlands as identified in the LAP. Additional areas suitable for sports fields may also be necessary with a progressive expansion in population in the area over time as the UEA develops. The need for such additional facilities will be accommodated in future City Development Plan reviews but it is expected that these will be best located in clustered locations and on flatter grounds.

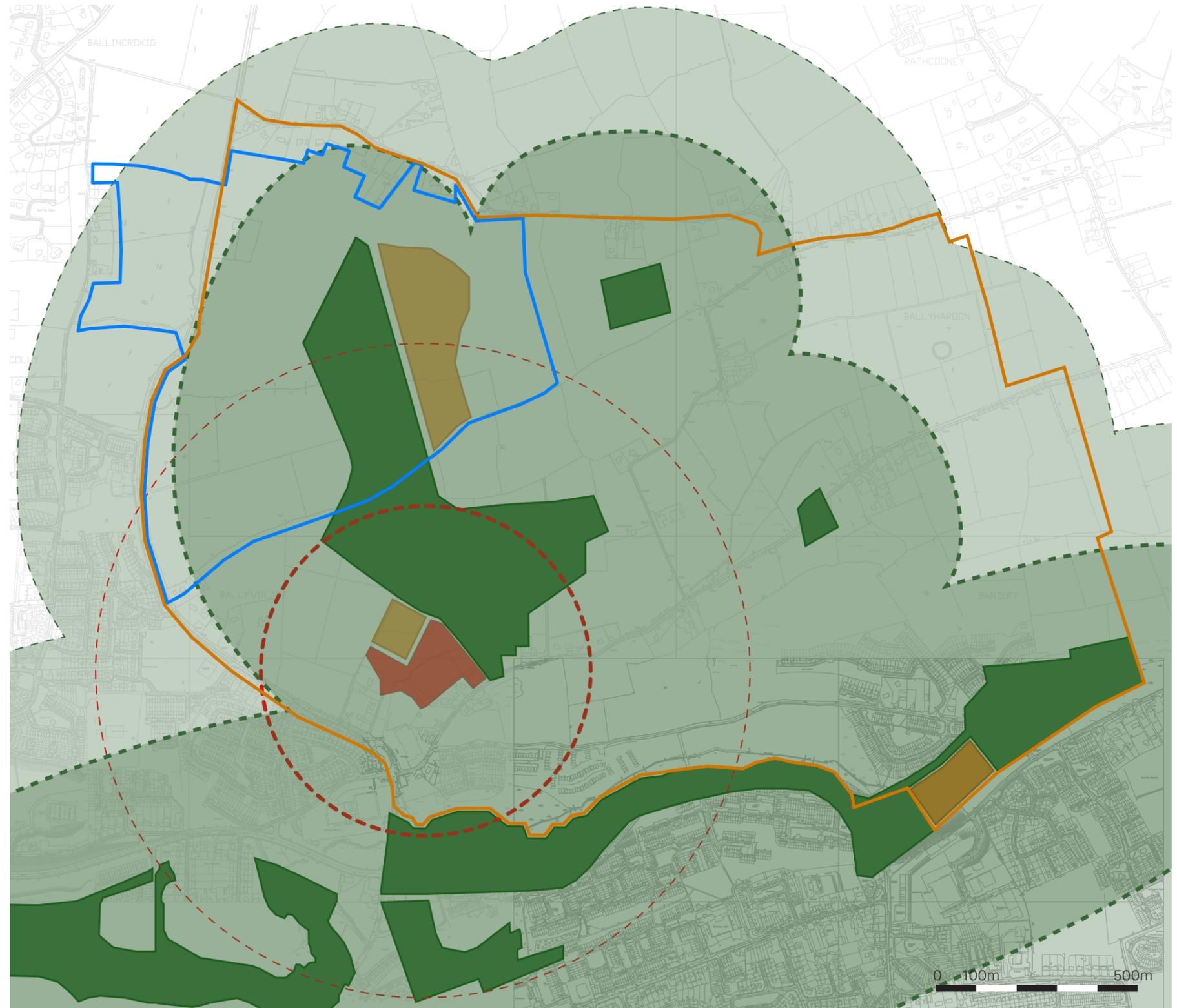


Strategy > Potential Indicative Catchment

A total of 3 indicative development phases are identified. This Local Area Plan specifies for each phase; the number of residential units, open space requirements, educational facilities, social facilities, amenities, physical infrastructure and access strategy required, thereby setting out the enabling works that are required to allow development to commence. (LAP 3.4.111)

Public access to open space is a key consideration to the attractiveness of residential development. While it is acknowledged that each development will have its own quote of open space it is proposed that dedicated local parkland be provided throughout the wider context. To determine provision walking distances have been shown on the adjacent diagram of 5 and 10 minutes from the strategic open spaces.

The district park, local parkland and existing open space provision will provide a 5 minute walk from 80% of the proposed residential areas.



Strategy > Connectivity - Permeability

Ensure that the proposed development provides effective connectivity (walking and cycling) to the town centre, educational and employment centres for the future residents. (LAP 3.4.82)

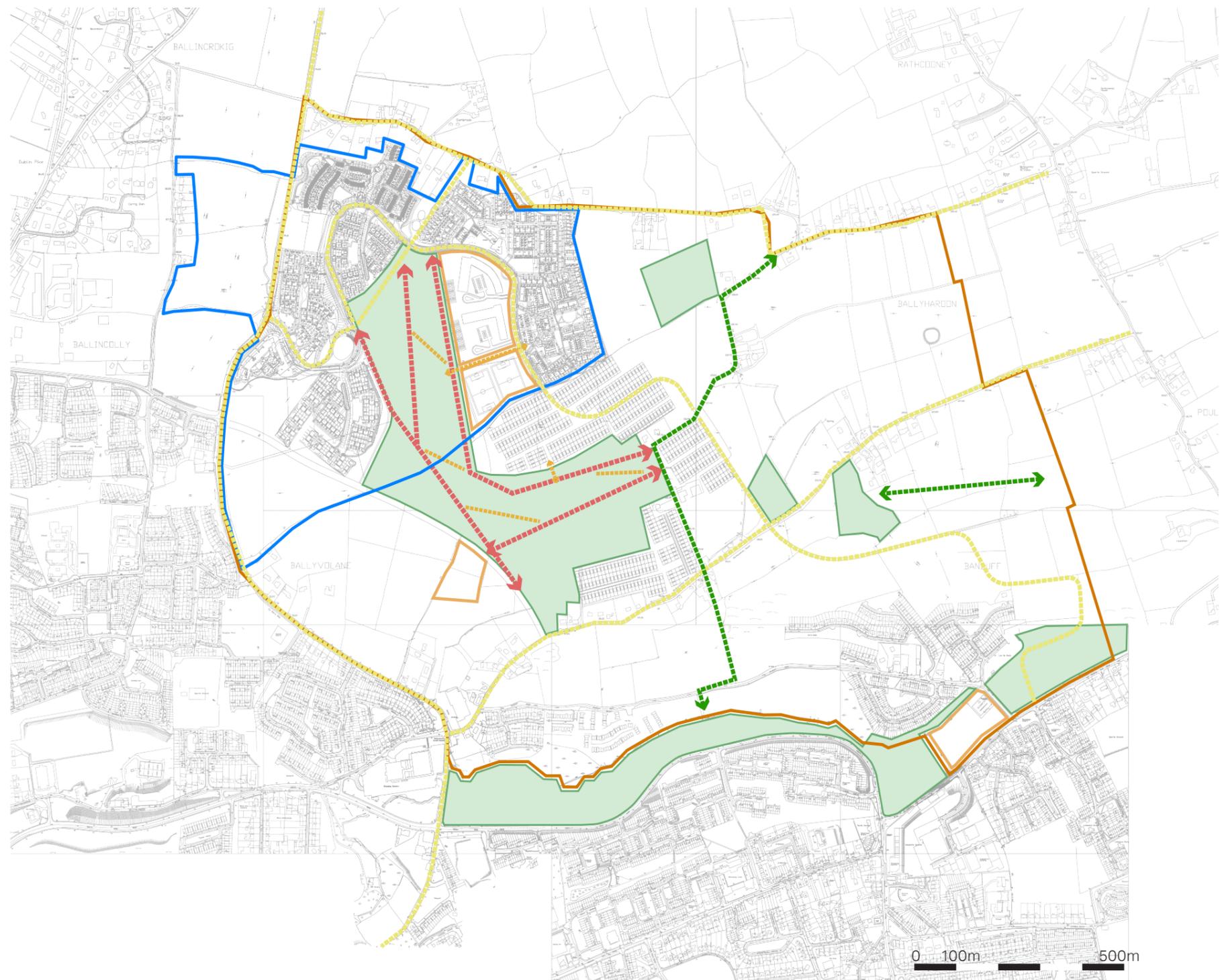
The general road system, as well as dedicated pedestrian and cycle routes, should promote a sense of security by utilising passive surveillance to encourage use of the green routes. (LAP 3.4.88)

The internal site movements will cater for pedestrian and cycleways from the outset to ensure attractive routes are provided in tandem with the development of housing to promote the slower modes of transport particularly for shorter trips. (LAP 3.4.96)

The provision of adequate pedestrian and cycling facilities within the site and connections to the wider area is an important factor especially as there is limited footpath and no cycling lanes on the existing road network. (LAP 3.4.97)

The primary open spaces will provide desire lines from key attractors and generators internally. It is envisaged that the district park will be permeable in nature also with future interfacing residential developments fronting onto these spaces to allow for passive surveillance.

Furthermore it is proposed to utilise some of the site assets and constraints to promote a network of interconnectivity for the Urban Expansion area. As the existing 110kv lines are non-developable it is proposed that these could form the network of continuous greenways for cycle and pedestrian movement. Furthermore the existing country lanes which traverse the site could be developed as greenlanes which allow for a balanced pedestrian, cycle and residential local access. Due to the narrow margin of these lane ways it does not seem viable to retain their character while providing sufficient width for utilities and anticipate future traffic of new residential development. This would enable the character of the receiving environment to be retained which is a key objective of the LAP.

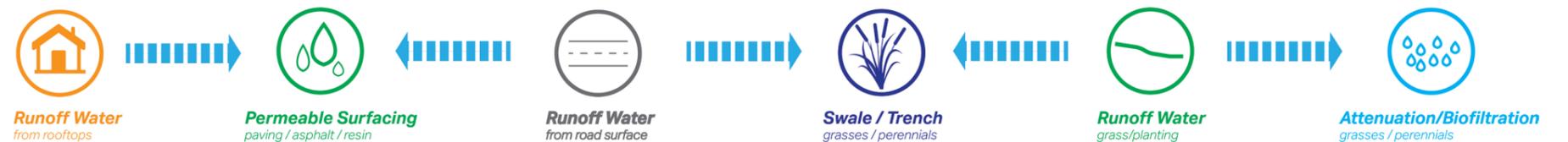
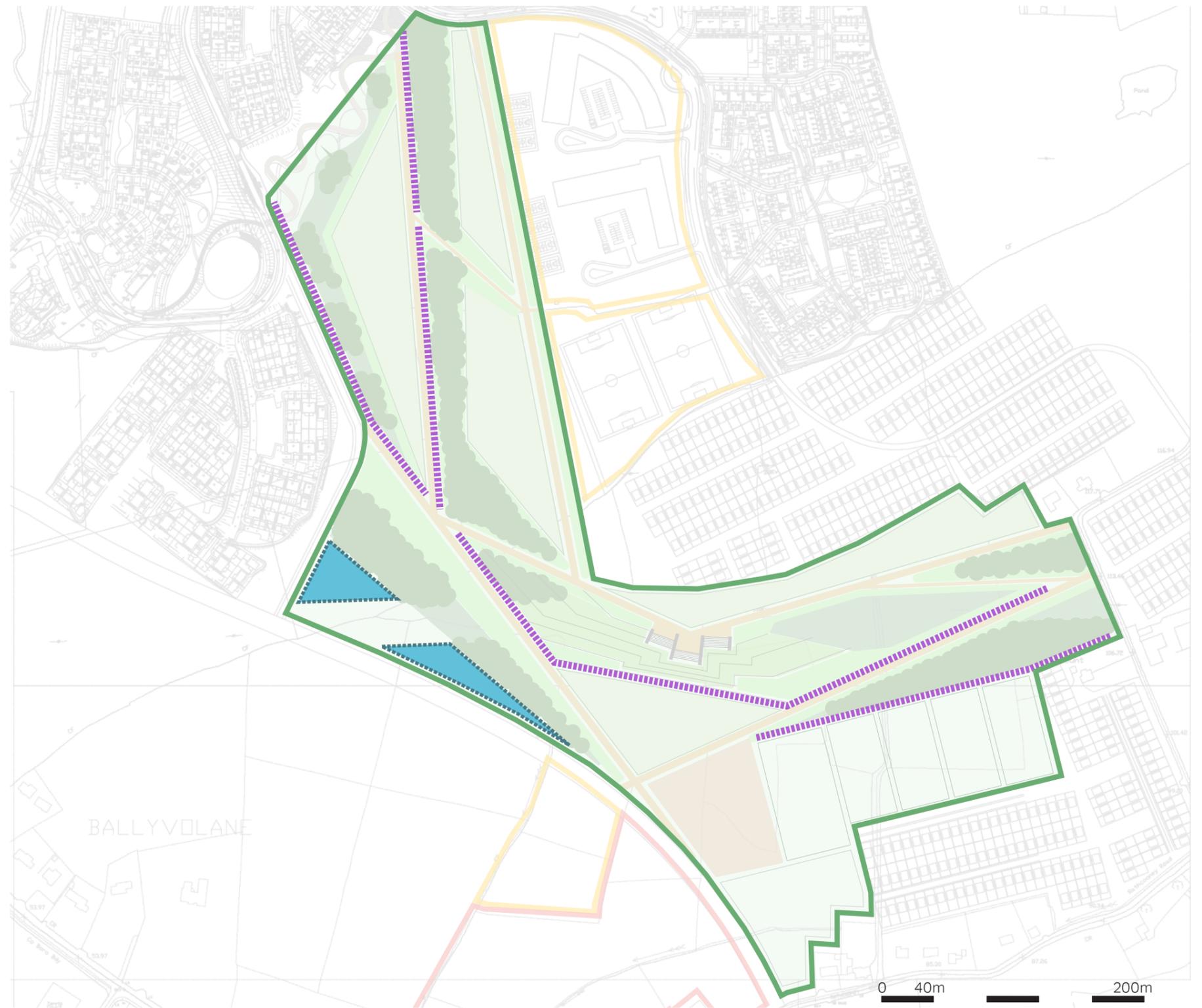


Strategy > **SUDS**

Local Area Plan

There are a number of small watercourses as shown on the constraints map and a riparian buffer should be maintained on either side. These watercourses will become an important feature for the Sustainable Urban Drainage System which will be required to control and manage surface water run-off. Ground water monitoring will be necessitated for the SuDS strategy. (LAP 3.4.71)

The control and management of surface water through the use of Sustainable Urban Drainage will necessitate the reservation of land for SuDS features particularly in the South Western corner of the site. The attenuation measures should ensure that the rate at which run-off enters local water courses does not exceed the corresponding rate prior to the commencement of the new development (year storm events of up to 1-in-100 year frequency). Given the size and topography of the site, a large area will be required for attenuation measures e.g. a number of hectares. (LAP 3.4.100)



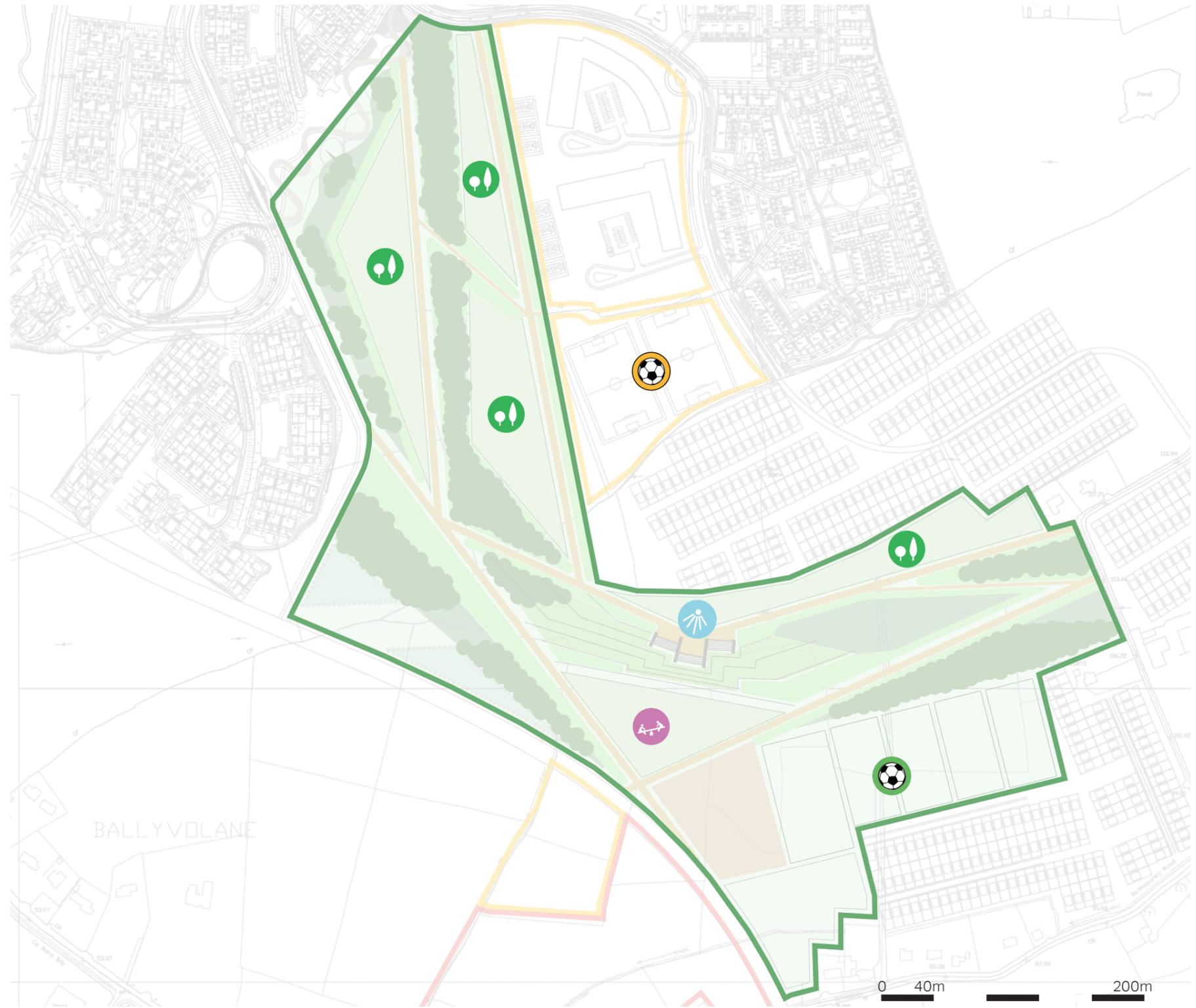
Strategy > Amenity and Recreation

The recreation and amenity strategy remains part of the CDP, therefore applications should comply with the Council's Recreation and Amenity Policy. A community building is also required in the area to serve the existing community and the new population. A community building was proposed in the recently refused mixed use application adjacent to the Fox and Hounds site. (LAP 3.4.106)

To create a resilient solution for the district park it is proposed to provide the framework for a variety of uses and amenity within the scheme. Provision has been made for children's play, nature conservation and sports to develop in a phased basis. This will ensure a range of recreational needs within close proximity of homes and the town centre is created and provide a degree of hierarchy within the setting.

It is envisaged that the initial landscape setting will be a passive landscape with interconnecting routes. This will be supplemented by retention of the valuable site assets and the introduction of a phased planting strategy to promote biodiversity and ecological corridors. Concurrent with this there is an opportunity to introduce a wide range of SuDS measures.

Finally as residential development around the periphery evolves playgrounds, sports pitches and car parking could form the final piece of parkland scheme.



-  Play Opportunity
-  Viewing Point
-  Flexible Amenity Space
-  Potential Pitches
-  Potential Pitches at School

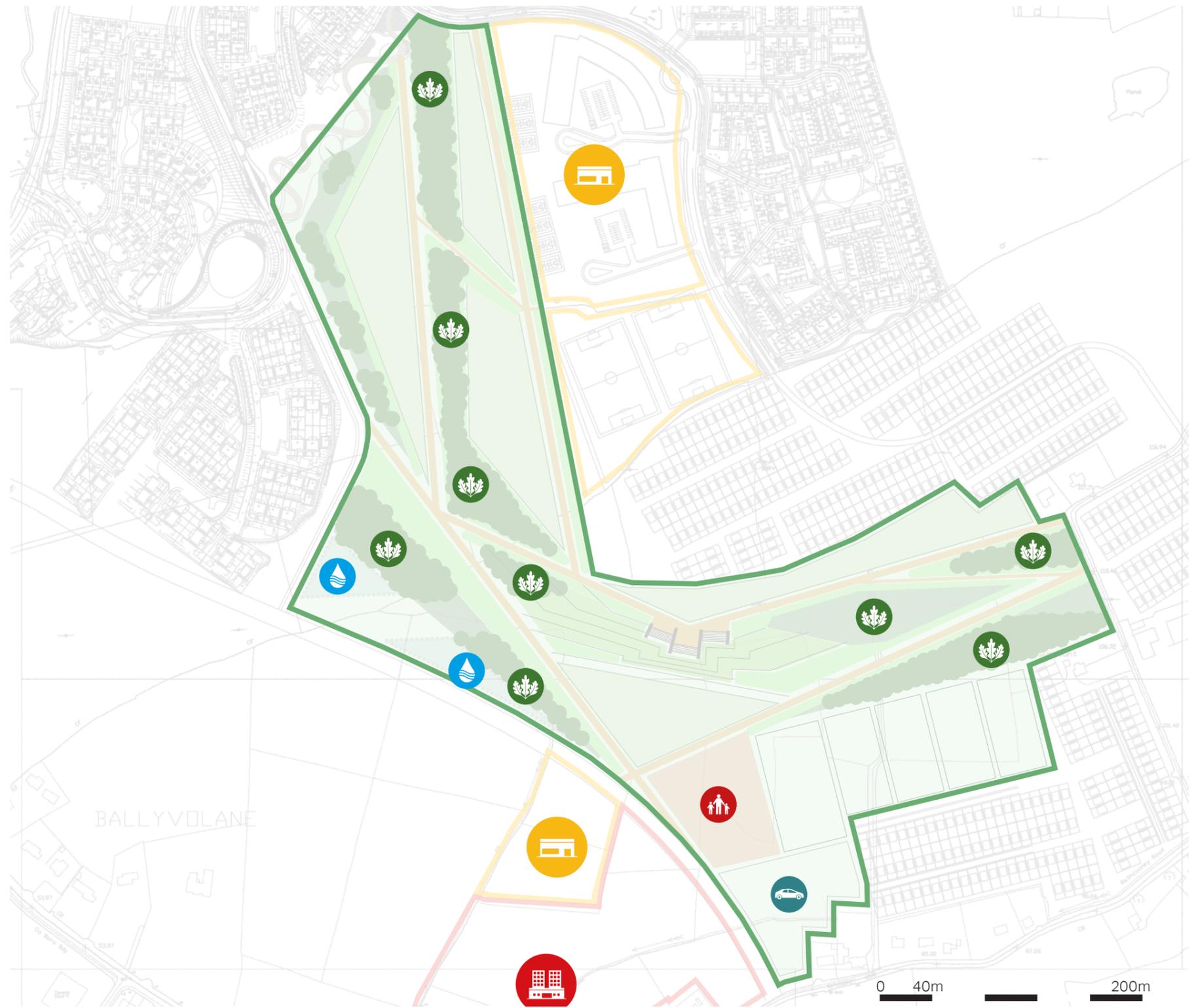


Strategy > Function

There is a need to address the topographical constraints of the site and the overall visual impact, which can be achieved in a number of ways. Firstly, the avoidance of development on very steep and prominent slopes particularly when viewed from a distance is the primary measure. Secondly, the creation of a landscape strategy which proposes planting of trees in strategic locations to reduce the overall impact, both on the landscape and the visual impact. The landscape strategy should be completed prior to development and planting should take place in combination with construction. (LAP 3.4.99)

The framework of the district park has been developed on the basis of the primary constraints of gradient and utility way-leaves. Due to the undulating landscape of the Urban Expansion Area the topography has played a central role in forming the hierarchy of function in the scheme and will create a unique sense of place. The district park is essentially split into two terraces; the lower terrace runs along the south and west of the site while the upper terrace is positioned on the north and eastern edges. The threshold in between will accommodate the predominant level change and assist in carving out usable open space for the park. Concurrently this level change will act as a continuous ecological corridor and soften the wider visual impact of the adjacent residential developments.

It is intended that the cut and fill will be neutral within the site while provide universal access between the town centres, schools and residential neighbourhoods. To further promote a sense of place it is proposed that a central portion of the park could be further developed as a focal point linking the town centre into the parkland with more contemporary ground-works and some retaining structures allowing for a viewing terrace affording panoramic views south towards the city and creating a landmark in the scheme.



- Town Centre
- School
- Sloped Green Corridor
- Mix-use Town Centre Plaza
- Car Park Provision
- Attenuation Areas

Strategy > Framework Plan

Local Area Plan

To achieve development areas with a distinctive character that ensures a unique, innovative and distinctive design of houses with high quality finishes and materials. They should include positive characteristics such as reference to topographical and historical features and the inclusion of individual focal points and a priority for the provision of high quality public realm. (LAP 3.4.82)

As the ownership of this site is fragmented amongst several land owners, one of the challenges faced in implementing these proposals is the need to develop a model for the funding and provision of critical 'on' and 'off' site infrastructure so that the cost is equitably shared by those subsequently carrying out development. The County Council has established a Housing Infrastructure Implementation Team which is currently developing proposals that will secure the delivery of the relevant infrastructure on this site. (LAP 3.4.112)

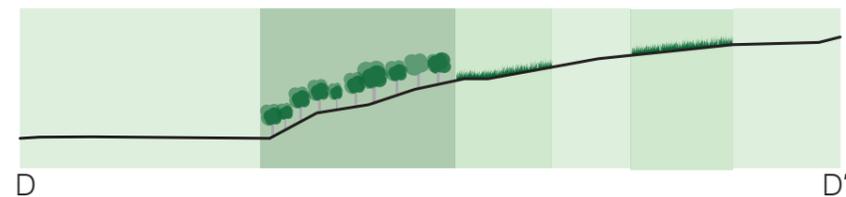
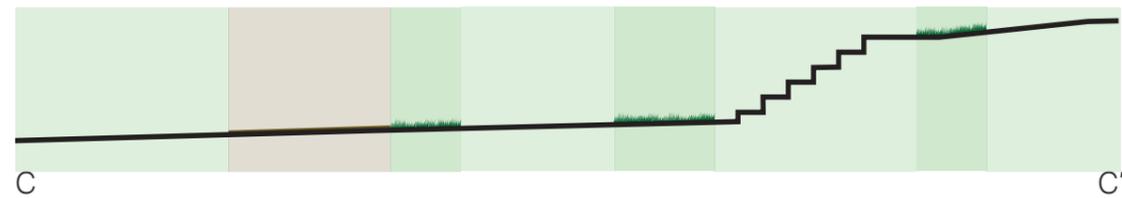
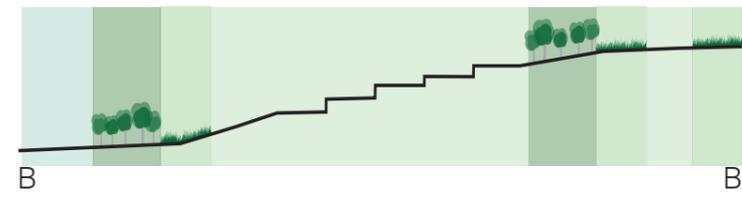
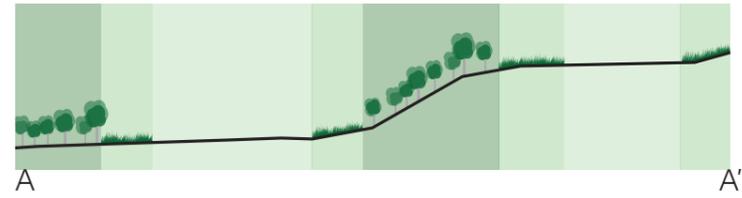
Overall the team have set out to create a landscape strategy that is responsive to the known site constraints while acknowledging the recent developments of scale and density within the Urban Expansion Area.

This framework suggests the provision of space, in the wider context of the anticipate development, needs a variety of typologies in a phased approach. While there are some suggestions in the adjacent diagram there is opportunity for these subspaces to evolve from meadows to greenways and woodland to adventure landscapes. The critical foundation is to earmark a dedicated space for this flexible development to occur on a phased basis to be responsive to the community as they establish in the area. This development will enable the future end users to contribute and shape the future iterations of the district park.

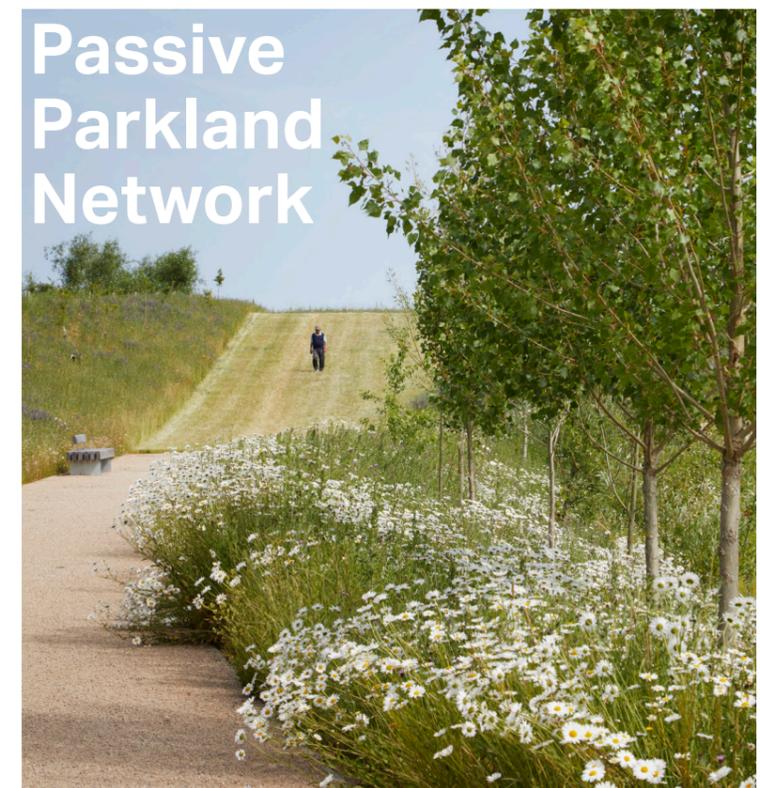
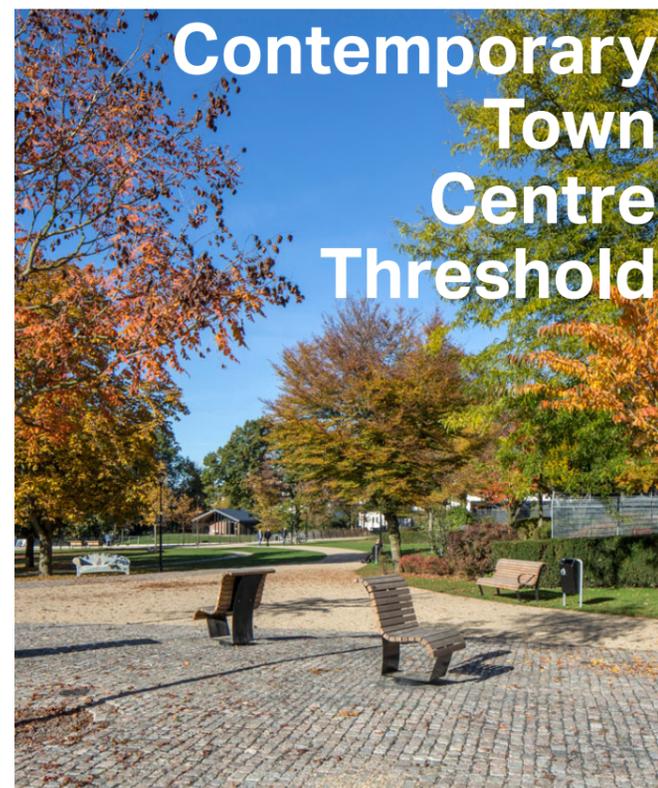
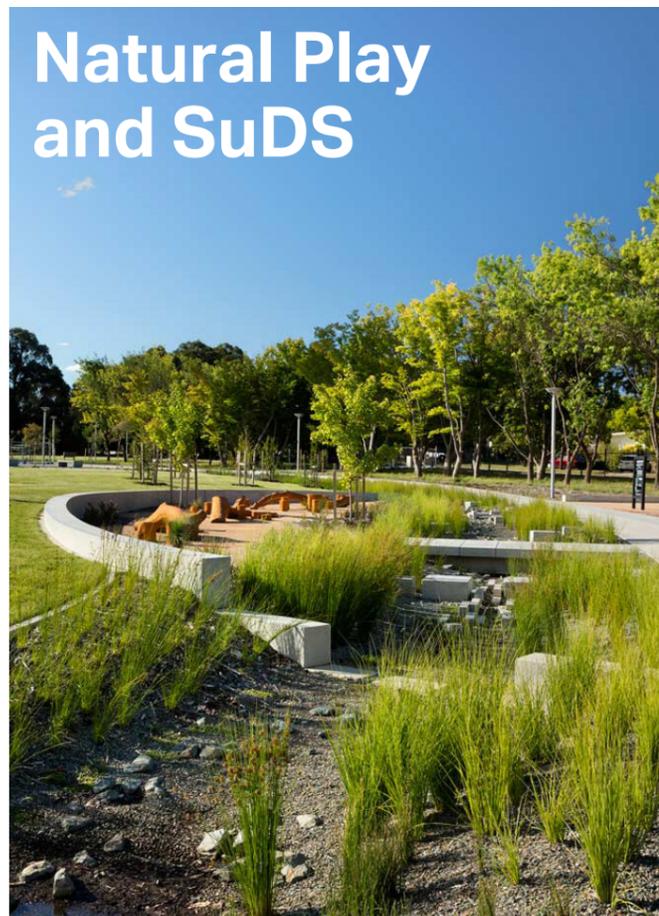


- Path Network
- Low Level Planting
- Wildflower planting
- Lawn
- Woodland
- Sports Facilities
- Plaza Spaces

Strategy > Sections



Strategy > Precedent Images



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