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MAY 2023

Gerard Gannon Properties



BRIEF DESCRIPTION

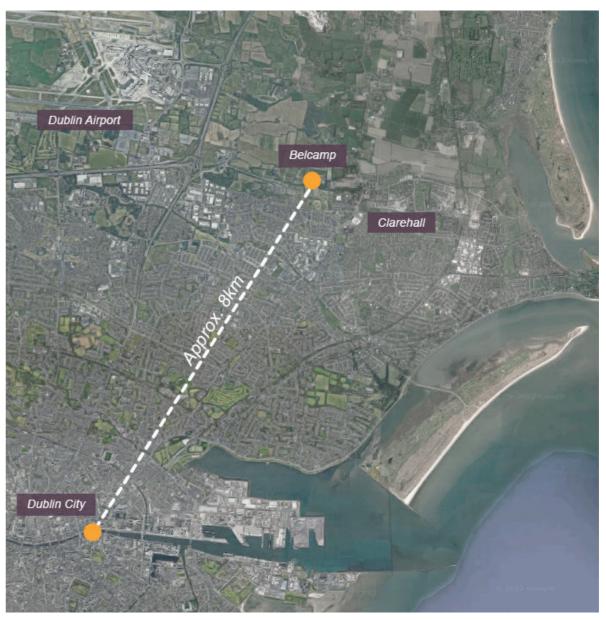
Belcamp is situated approximately 8km north-east of Dublin city centre and straddles the boundary between the Dublin City and County Fingal administrative areas. This Design Strategy document presents a vision for these lands as a new vibrant neighbourhood, rich in biodiversity and amenity, that celebrates the built heritage of Belcamp Hall and offers a high-quality living environment for future residents.

This design strategy relates specifically to lands at the former Belcamp College, Dublin 17, bounded by the Malahide Road to the east, the R139 to the south and Clonshaugh to the west. The 87ha site combines lands within both Fingal and Dublin City on either side of the Mayne river boundary between these areas, with the greater Fingal portion containing the protected structure of Belcamp Hall (RPS 463).

This document sets out holistic strategies for the development of Belcamp and informs the preparation of individual planning applications within the subject lands. It has been prepared with the input of a multi-disciplinary design team and has developed as design and planning stages progress.

Land Ownership

Belcamp was acquired by Gannon Properties, in 2003. It consists of c.87ha (215 acres) primarily in Fingal but with c. 17.5ha (43 acres) in Dublin city fronting the R139. The lands in Fingal are zoned RA, OS and GB, with development plan objectives for a protected structure and strategic road infrastructure. The lands are also identified as the subject of a Local Area Plan; however this plan has not been prepared. The lands in Dublin City are zoned mixed use, and form part of the last undeveloped portion of SDRA 1, the North Fringe LAP.

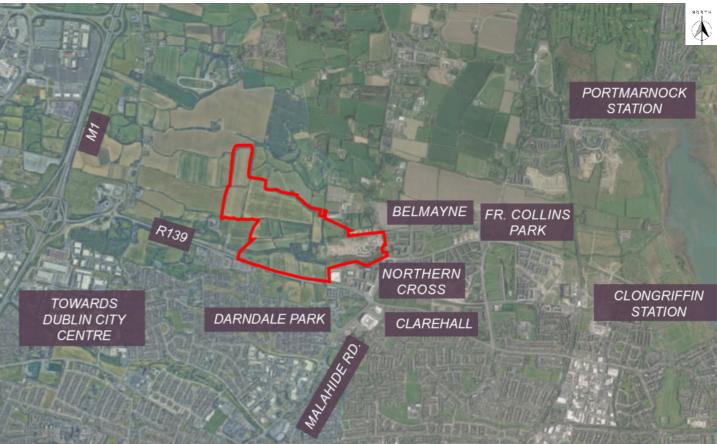


Site location



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CONROY CROWE KELLY Architects & Urban Designers

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Proposed Development

Location context

The development of the Belcamp lands will comprise an estimated total of 2,935 dwellings comprising several phases and delivering a new neighbourhood complete with local retail and commercial offering. The SHD component of the development comprises 2,527 dwellings, with the other 408 units at various stages of planning application, approval and delivery within the initial phases - Phase 1 and 1B - of the site. The SHD development is proposed in three phases, with approximately equal numbers to be delivered in the FCC and DCC areas.

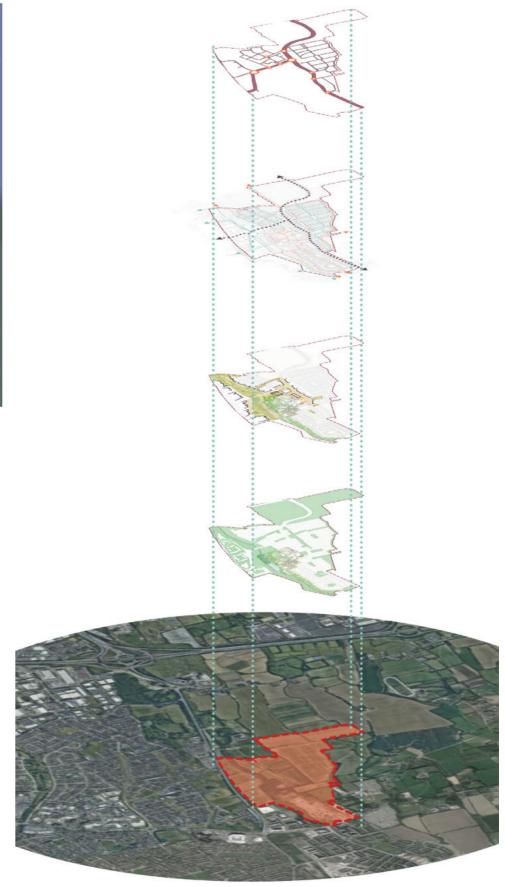
Location Context

The former Belcamp College lands are situated at the north edge of the built city with green-belt lands immediately north separating the city from Malahide. Approximately 3.5km east is the coastline at Baldoyle and the Baldoyle Portmarnock Greenway. A linear green route for pedestrian and cycle amenity runs inland from the coast along the Mayne river, linking various parks and spaces before arriving at the Malahide Road and the Belcamp Lands. The subject site has the potential to extend this green route further west along the Mayne river, to connect to lands at Clonshaugh and south of the R139 to Darndale Park and Belcamp Park.

The site is accessible by road from the R139 along its south boundary and the Malahide Road along the east, both roads served by regular bus services. To the east, Clongriffin Dart station is within a 10-15 minute cycle, while to the south-east Clarehall shopping centre and retail facilities at the northern cross are easily accessible on foot. Employment zoned lands lie to the west of the site, and two GAA clubs are within walking distance. Innisfail's to the north on Carr's Lane and Craobh Chiaráin immediately west of the Belcamp lands.

Five-Strand Theme

The Belcamp site is special and unique in its abundance of natural, built, and historic heritage, and presents a wonderful opportunity to create a new neighbourhood of distinct character and identity. The unique quality of this site will inform the design of all aspects of its development to preserve its special nature and historic heritage. The design approach is based on five principal themes, arising from the existing features and development plan objectives of the Belcamp lands. These themes inform the design strategy of the overall site and are described briefly in the following paragraphs.



Road, Dublin 17

at Belcamp, Malahide

Development

INTRODUCTION



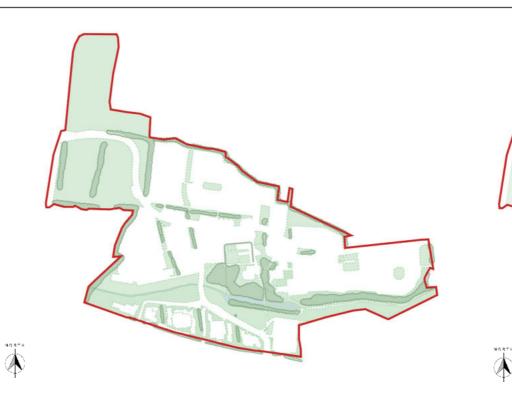
Belcamp hall c. 2004



Walled garden from northwest



Old carriage route to Belcamp hall



NATURAL HERITAGE AND BIODIVERSITY

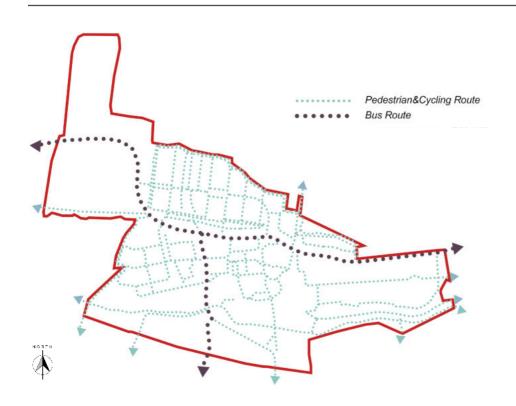
The Belcamp lands are rich in biodiversity and natural features, with extensive woodland, a river valley and mature hedgerows marking historic field and townland boundaries. The Mayne river flows west to east across the site, and this riparian zone establishes a broad green spine as a principal organising element of the site layout. Existing hedgerows run north and south from this green spine along a network of old field and townland boundaries. These hedgerows form the basis for green links and biodiversity corridors through the site, with street grid patterns emerging from their alignments.

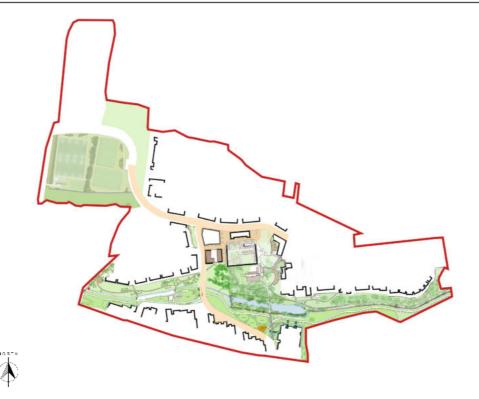
ARCHITECTURAL HERITAGE

Belcamp Hall, a Georgian mansion built in the late 1700s for Sir Edward Newenham, is a protected structure (RPS 463) and its scale, form and materiality will be respected in the design of the new buildings. The new development will grow outwards from the historic core of the site, with the protected structures remaining as the primary focus for the overall scheme and the centre of the new neighbourhood. The protected structure complex includes a stone folly, the Washington Monument, built by Newenham to honour American president George Washington, as well as an ice house, two ornamental lakes, a causeway, and a weir on the lower lake. An attractive walled garden with curved corners, to the north-west of the house, is also included in the register. By the early twentieth century the building had become a school, and a chapel wing was added to the north side of Belcamp Hall by the Oblate Fathers. The chapel includes stained glass windows by Harry Clarke. This fine architectural legacy offers superb landmarks and features within the scheme, and proposed buildings are arranged to frame and preserve views and create vistas that showcase these historic elements of Belcamp.









CONNECTIVITY AND MOVEMENT

The Belcamp site has the potential to improve permeability in the local area by creating new routes through the site. By increasing the number of site access points, pedestrian and cycle movement in the locality can be expanded with new connections crossing the Belcamp lands, from Carr's Lane in the north to the R139 and Darndale in the south, and from the existing settlements of Belmayne and Clongriffin in the east to lands zoned for employment uses in Clonshaugh to the west. The extension of the Mayne river green route through the site will connect these different areas to each other and to open space zoned lands within the Belcamp site.

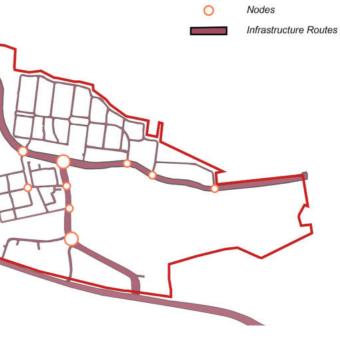
PLACEMAKING

Belcamp benefits from an existing built heritage that provides cues for making places in the new neighbourhood. With Belcamp Hall as a central focus, buildings and urban spaces can be arranged around it to create enclosure and frame views. The walled garden offers an opportunity for a formal garden space within the new urban environment, and a key public space linking to the woodland in the south-west and Belcamp Hall in the south-east. The result is a sequence of overlapping spaces providing variety and amenity as one moves through the scheme, with desire lines crossing spaces and delineating path routes.

STRATEGIC INFRASTRUCTURE

The lands are subject to a development plan roads objective, which has potential to expand public transport routes from the south and east of the site to the west and facilitate future connections to Dublin Airport and its associated employment activities. A Specific Objective for a road proposal is indicated on Development Plan Map Sheet No. 9 of the current Fingal Development Plan 2017-2023. The road proposal comprises two routes crossing the Belcamp lands from east to west to the north of the protected structures, and from south to north to the west of the walled garden. These roads can be incorporated into the scheme as tree-lined avenues with active street frontage, creating street hierarchy and public spaces for commercial activity to serve the new community.

INTRODUCTION



SECTION 1 RECEIVING ENVIRONMENT





Aerial view showing local context

1.1 SITE LOCATION

Belcamp is located at the boundary between Fingal and Dublin City administrative areas, to the northeast of the city centre. To the south and east of Belcamp are the settlements of Darndale and Belmayne, while to the north and west are the townlands of Balgriffin and Clonshaugh. To the east, Clongriffin Dart station is within a 10-15 minute cycle, while to the south-east Clarehall shopping centre and retail facilities at the northern cross are easily accessible on foot. Lands at the northern cross have been the subject of the recent Draft Belcamp Lane and Belmayne Masterplan(2020), prepared by Dublin City Council, and proposals include a new town square approximately 350m south of the Malahide Road entrance to Belcamp. Lands to the west of Belcamp at Clonshaugh are zoned for employment uses, while two GAA grounds are within walking distance of the site: Innisfail's GAA club is on Carr's Lane to the north of the site, and Craobh Chiaráin GAA club have playing pitches immediately west of the Belcamp lands.

Approximately 3.5km east is the coastline at Baldoyle and the Baldoyle Portmarnock Greenway. A linear green route for pedestrian and cycle amenity runs inland from the coast along the Mayne river, linking various parks and spaces before arriving at the Malahide Road and the Belcamp Lands. The subject site has the potential to extend this green route further west along the Mayne river, to connect to the GAA grounds, as well as lands at Clonshaugh and south of the R139 to Darndale Park and Belcamp Park.

1.0 SITE ANALYSIS

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1.2 NATURAL HERITAGE

1.2.1 Natural Heritage

The Mayne River is a continuous changing feature in the landscape of Belcamp, it defines the river valley between the lands in Fingal County Council and Dublin City Council. The associated vegetation which has developed over many years has resulted in a diverse range of habitats being created ,complemented by trees and shrub vegetation its forms a matrix of experiences which can be developed for passive recreation, walking routes for exercise and for appreciation of nature . The potential to create complementary linkages for nature and people is a rare opportunity which can be developed to enhance the overall biodiversity both at Belcamp.

1.2.2 Topography

The site is of irregular shape because of its being a composite of preexisting landscape features of equally irregular shapes. Much of the site appears to be broadly level, however the site area is divided by the Mayne River, the course of which see a substantial step in levels between the main site to the north of the river and the adjoining lands to the south. Note is made that some topographical features of the site and particularly those associated with the Mayne River and the adjoining ponds suggest substantial historical landscaping and modification of an earlier landscape. Equally, the broader site and particularly that having been agricultural at history, have seen extensive intervention in respect of drainage. Many fields are edged by often deep and wide ditches, many of which support current drainage functions. The banks of these ditches often coincide with the hedges noted in the tree survey.

The site area includes the original environs of Belcamp House as well as large amounts of adjoining agricultural land. While the agricultural elements support few trees, other than those that arise from field demarcation hedges and belts, by comparison, the Belcamp House area supports substantial woodlands to the west and north-west and wooded areas associated with the Mayne River and what was the historic access drive to the old house.

Across the site, the cumulative effect is to see a highly variable landscape, ranging from broadly clear arable agricultural land, to heavy woodland and a substantial variety between these two contexts, including large elements of natural regeneration and the development of scrub thicket.

1.2.3 Woodland and Hedgerows

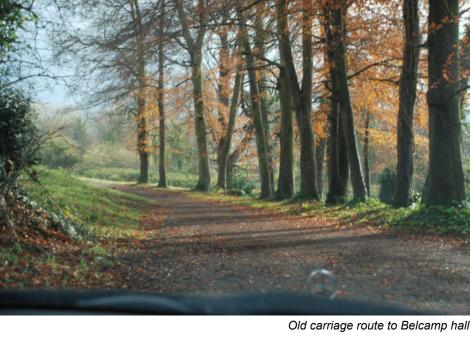
To fully appreciate the extent and impact of the woodlands at Belcamp a bird's eye view is needed, recent drone footage shows that the wooded areas at Belcamp are very significant and make a very important contribution to the overall environmental of the entire surrounding area. The woodlands have not been managed for a long time, parts are overgrown, parts have been colonized by invasive tree species, all areas need interventions. It is the view of the Ecologists, Andy Worsnop and the Agricultural Horticulturist, Peter Cuthbert, that a light touch approach to the woodland management is the best way to proceed.

The Arboricultural review of the Belcamp site illustrates a hugely diverse tree population. It includes substantial elements of artificial and historic planted landscapes, as well as large elements of natural regeneration, and other elements that relate to agricultural management over time. The earlier development of Belcamp includes the main house, the now partially demolished school, the agricultural facilities to the west and north-west of the main buildings and a substantial walled garden area.

Belcamp House and the associated school buildings are adjoined to the west by substantial elements of woodland. Part of this appears to have been planted with the specific intention of providing screening between what was the original residential buildings and the utilitarian and agricultural outbuildings and farmyards. Much of this planted material remains today however, the survey has shown that much comprises poor quality material, commonly including Leyland and Monterey Cypress that in many instances, already exhibits evidence of mechanical failure and deterioration. Much of this material offers minimal sustainability and should be regarded as low priority for retention within the scope of any new development. Nonetheless, it is equally appreciated that a small number of trees exist in conjunction with this lower quality material, including some broadleaves, many of which were found to be of broadly good condition and may be suitable for retention.

The agricultural buildings and farmyard area support no evidence of deliberate planting, but nonetheless support a developing number of trees, including naturally regenerating weed species, typically dominated by Sycamore. While many of these trees are young and vigorous, many are of poor quality and as such, are considered and ill-suited to retention.

To the west of the house and south-west of the walled garden, we find the site's main woodland area. The tree population here suggests at least two phases of planting. The central and northern sectors support older trees, suggesting that the central and northern woodland was established prior to, or during the development of the earthworks associated with the ponds and the altered Mayne River course. While



this area supports a notable tree population to date, they are notably younger than their counterpart to the north. Nonetheless, both areas support large and visually significant trees many of which remain in good health. Though relatively few, note is made of the fact that this area does support several particularly large and aged specimens that may even be suggestive of a site context prior to the current landscape.

Within the main woodland area, tree losses, failure and deterioration are commonplace, and many specimens have been lost. The space provided by such failures has often seen widespread natural redevelopment, typically dominated by which Elm, Sycamore and Ash. In many instances, these three species are dominating regeneration to the point where the historically planted woodland context is now interrupted and is at risk of becoming dominated if management and controls are not adopted.

The artificial woodland context continues to the south and south-west of the main house where stands of Lime and Beech as well as slightly more open woodland areas create a notable visual context. This woodland tends to follow to the easternmost pond, thereby providing a visual link between the woodland enveloped western pond and that to the east.

evelopment at

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The Phase 1 area of the development is limited to what was arable agricultural land, between Belcamp House and the Malahide Road. This area is broadly level and appears historically to have been devoid of trees however, note is made that the perimeters of this area have supported vegetation. To the north of the main site-area, much of the tree belt, originally referred to as "Woodland Area 1" has been cleared in relation to the development of the adjoining lands to the north. This area was dominated by regenerative Ash, Sycamore and Elm together with other thicket species, presumed to have been associated with a historic hedge line.

As a result of ongoing development and road amendments on the Malahide Road, the vegetation to the east of the site has been removed.

To the south, within what might be regarded as the Mayne River corridor, note is made of extensive natural regeneration. Unfortunately, apart from small elements of Hawthorne, Goat Willow, Holly and Wych Elm, the dominant species is undoubtedly Ash and Sycamore to the almost total exclusion of all other species. Whilst many of the specimens are young and of good condition, concern exists about the limited diversity within the woodland spectrum. Therefore and to increase both sustainability and biodiversity it is advisable to consider a phased and partial culling of these trees, to increase species diversity by way of new planting.

A similar scenario exists to the south of the Mayne River. In this area, substantial dereliction related regeneration has occurred, with massive thicket development that prevents ingress at this time. However, excepting a small number of larger, more mature trees, near the southern boundary, much of this area is dominated by young Ash and Sycamore. Therefore, and considering the comments above a similar management input would be envisaged.

Elsewhere about the broader site, note is made that to the south, southwest, west and northwest of the ponds and woodland areas, the site area is made up of broadly open agricultural land, including individual fields, divided by ditches and hedgerows. In some instances, the hedgerows

support broader woodland belts that might suggest artificial input and deliberate planting. Many are made up of typical Thorn based agricultural hedges, that now support substantial regrowth typically dominated by Sycamore, Ash and Elm. Many such hedges are dilapidated and suppressed, having lacked management for some decades. Many hedges now consist of mixed thicket material and have developed spreading habits where the original Thorn hedge is now little more than a vestigial element. Equally, such vegetation is intrinsically linked to the ditch and embankment features from which they arise, effectively requiring that the earthwork be conserved if the vegetation is to be kept.

1.2.4 Watercourses and Riparian Corridor

Water courses, riparian corridors and biodiversity are interlinked, the river forms the conduit along which nature interacts. Improving the quality of the water by appropriate reed beds will encourage population by water fowl, adapting pond vegetation and pond side planting will encourage insects, will foster resources for bats and fish, helping to restore the ponds to areas of beauty and sustainability. It's true to say that the riverside biodiversity at Belcamp represents the last remaining unspoilt section. With this comes opportunity and responsibility. Opportunity to create a vibrant and sustainable environment. Responsibility to take some difficult decisions in terms of layout to make this happen.

1.2.5 Biodiversity

Early in 2014 the buzz of bumblebees and hoverflies was noticeable in the fields at Belcamp on the wildflowers which had self-seeded. Gannon Homes became the first Property Company to support the All-Ireland Pollinator Plan in 2018. Just recently Working Together for Biodiversity was published by the National Biodiversity Data Centre to highlight the achievements of 2015-2020. Gannon Homes were given specific mention as supporters of pollinators. There is a real opportunity to foster ecology on these lands, develop resources which will enhance the ecological framework be it in terms of opportunity for bats, badgers, kingfishers and even otters. Belcamp can be become something special for nature.





View over lower lake at Belcamp



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1.0 SITE ANALYSIS

1.3 ECOLOGY

A range of studies have been carried out at these lands and are being carried out by Padraic Fogarty, Brian Keeley and Peter Cuthbert on Breeding Birds, Winter Birds, Bats, Badgers and Pollinating insects Along the Mayne River corridor the area is being examined to see if habitat can be improved to make it more attractive to Kingfishers and for Otters. While water quality in the river is very much dependent on upstream discharges we are examining if interventions i.e. Reed beds can be provided to help filter possibly pollutants. If water quality can be improved in the river and ponds, then we should be able to create resources for fish to breed. Consideration is being given to incorporating Bat, Skylark and Swift blocks into buildings. Ensuring that Invasive Alien Species are not allowed to develop on the lands and along the river is important and a regular scheme of monitoring has been put in place. Measures to make the overall development attractive to pollinating insects and support the objectives of the All Ireland Pollinator Plan will be given high priority throughout the development. Vegetation interventions by using native species in the biological corridors and woodlands will help to increase the insect populations which will be of benefit to bats. The extension of ecological studies to examine the hedgehog population at Belcamp is under active consideration.



View over lower lake from causeway



Curved brick corner of walled garden

1.5 EXISTING INTERVENTIONS

1.5.1 Protected Structures

The subject site is the former estate of Belcamp Hall, a Georgian house set in a designed landscape, with man-made lakes, causeway, and weirs as features of the grounds. Original structures also include the Washington Monument, icehouse, and walled garden. These historic structures, together with the later 20th century chapel comprise the protected structure complex identified as Belcamp College (RPS 463) in Appendix 2 Record of Protected Structures of the Fingal Development Plan 2017-2023.

1.5.2 Site boundaries

The site abuts the public road at two locations. To the south the boundary to the R139 within the DCC lands, extends for approximately 910m and comprises a thick hedge, with the original Belcamp College entrance gates sited towards the east end and south of Belcamp Hall. To the east, the boundary to Malahide Road extends for approximately 124m southwards from the Balgriffin Inn (formerly Campions pub), with the original Georgian estate entrance at the southern end. A second short boundary abuts the Malahide Road where the bridge over the Mayne river occurs. To the north and west are existing ditch and hedge boundaries to adjoining fields, and in the south-east steel fences and hedges bound on to adjoining developed lands.

1.5.3 Surrounding land uses

Belcamp is surrounded by a varied mix of land uses. To the northwest and to the east across the Malahide road are residential uses at Belcamp Manor and Belmayne, with mixed use to the south-east at Clarehall. To the south across the R139 is Darndale Park with established housing beyond. To the west and north are the GAA grounds of Craobh Chiarain and Innisfails respectively. The remaining surrounding lands to the west and north are currently in agricultural use.

1.5.4 Wayleaves and Rights of Way

Existing wayleaves run through the DCC portion of the lands in two bands parallel to the Mayne river, serving public drainage infrastructure, and utilities. A right of way through the Malahide Road entrance to the rear of the adjoining property is maintained in the Phase 1 layout of Belcamp, currently under construction.

1.4 ARCHAEOLOGY

Archaeological testing has been carried out in recent years over parts of the Belcamp lands by Courtney Deery Heritage Consultancy. In May 2016, during the Further Information stage of the Phase 1 planning application (F15A/0609), archaeological testing concluded, as a result of test trenching, that two previous recorded sites, a ringfort and ring-ditch located to the east and north-east of Belcamp Hall, were shown to be early modern landscape design features. Current construction works to the approved Phase 1 of the development are being monitored by the archaeologists.

1.5.5 Overhead lines, utilities

The site has been serviced with modern utilities during its time as a school. An electricity substation, previously located among the 20th century school buildings has been demolished, and an overhead cable remains running north towards Carr's Lane. Overhead cables cross the site at two other locations, one in the south east portion of the site running parallel to the Mayne river for a stretch before connecting south into the adjacent lands; and one that crosses the site from a pylon located outside the site entrance on the R139, crossing the DCC lands and into the FCC lands towards the north-west.

1.5.6 Current Development

The eastern portion of the Belcamp lands, between Belcamp Hall and the Malahide Road comprises the initial phases of the development, Phases 1 and 1B, which are outside the SHD lands. Under Phase 1, 181 dwellings have been permitted to date, consisting of 138 houses and 43 apartments, including renovation works to Belcamp Hall and Chapel. Planning permission applications, in compliance with a condition of the original permission, for 117 apartments within Phase 1 are currently pending, and pre-planning consultation has taken place for a further 32 dwellings in Phase 1. Construction is under way on the 138 houses, open space areas and supporting infrastructure, to the east of Belcamp Hall, extending to the Malahide Road, with approximately 64% of the houses now completed. Conservation and refurbishment works to Belcamp Hall and Chapel are also under way.

An extension of duration of the original permission has recently been approved. At the north-east of the site a planning permission is currently under appeal for Phase 1B, comprising 78 dwellings in a mix of 20 duplex units and 58 two storey houses, and approximately 337m of strategic road infrastructure, the East West Link Road.







Houses at Belcamp phase 1 (Ref. F15A/0609 & F19A/0220)

1.0 SITE ANALYSIS

1.0 SITE ANALYSIS

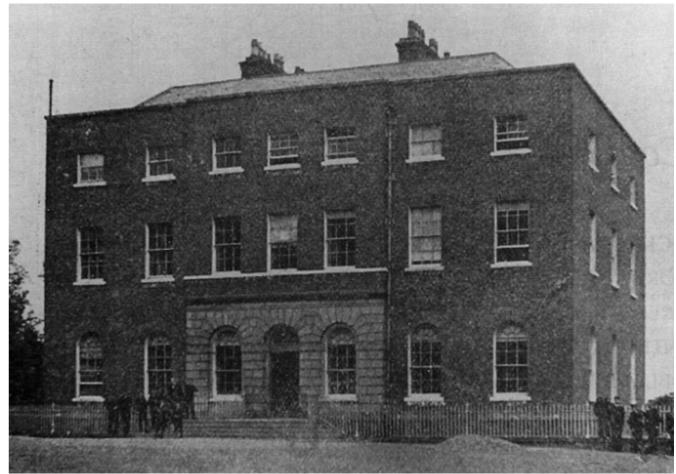
1.6 BUILT HERITAGE

Belcamp Hall was constructed in the later half of the 18th century by the aspiring politician Sir Edward Newenham. Attributions for the date of construction vary with some sources noting it as early as the 1760s. However, James Kelly in his biography of Newenham records that due to various financial restrictions, the house did not undergo significant construction work until the early 1780s with the family being able to become resident by 1784.

What is clear however is that Belcamp was a house of considerable architectural ambition with fine quality brick and stonework and with interiors of particular refinement. It was constructed as a 7 bay free standing villa with a central bow facing east to the rear with distant views towards Howth and the Irish Sea.

The west facing entrance elevation has a shallow 3 bay central breakfront with rusticated granite ashlar at the ground floor. This leads via a set of granite steps to a large entrance hallway from which is accessed several large reception rooms. Plasterwork ceiling decoration of low relief was contained in most rooms with an unusual brick vaulted room to the right also and a fine cantilevered stone staircase below enriched coving. On axis with the entrance hall, an oval room brought comparison with Lucan House of the 1770s and Mount Kennedy House built contemporaneously with Belcamp. Contrary to belief, the oval room within the main part of the White House was not an influence as its construction postdates that of Belcamp.

The quality of the exterior construction and internal decoration at Belcamp Hall was ambitious and refined. The substantial damage caused by various incidents represents a significant challenge. However it is proposed that careful and appropriate conservation and restoration work will reinstate the character of this structure and the adjoining chapel and reinforce its position at the centre of this historic landscape.



Historic view of Belcamp hall, prior to its use as a school



Belcamp hall as Belcamp college c.2004

Historic image of main stairs

In 1884 Belcamp was purchased by the Oblate Order, who sold it in 1888 and repurchased it in 1893. In 1903 they built the Chapel, attached to the north side of Belcamp Hall, and a residential wing, an eleven bay two-storey over basement building for students, attached to the south side of Belcamp Hall. In 1925 a second college wing was added to the south of the 1903 wing, an attached thirteen-bay three-storey red brick structure with dormer attic. A third college extension was built in 1953, a two-storey modern construction red-brick building for student accommodation. These later buildings have been mostly removed simplifying the structures back to the original villa with the early 20th century chapel attached. These, together with the associated landscape features and structures such as the walled garden, form an important complex and a heritage resource for the wider development.

The chapel is a significant structure in its own right. Windows commissioned from the Harry Clarke studio were fortunately removed as a precautionary measure and it is hoped to reinstate these together with a careful examination of how best the context of the chapel may be best reinstated in an agreed and appropriate form.

A second and more devastating fire occurred in 2020 in spite of 24 hour security. A disaster plan outlining how to assess fire damage and recover salvageable historic fabric is currently being compiled. The appropriate conservation strategy will develop a design proposal for a sustainable re-use of both building structures. The works will include the stabilization of both protected structures, including brick repair and re-pointing, a new roof to the Chapel and a revised roof to Belcamp Hall, and the re-instatement of the historic windows. The main objective for the Chapel is to re-instate the decorative internal elements, with the main focus on the most valuable Harry Clarke stained-glass windows. For Belcamp Hall the main objective is to faithfully restore the elaborate interior decorative scheme at Ground Floor level where possible. These works are being carried out under separate consents from Fingal County Council.



Interior view of chapel c.2004





Detail of stained glass window by Henry Clarke in the chapel

The Planning Context section provides a high-level overview of the relevant planning policies and objectives contained in the various national, regional and local plans and guidance documents as they relate to the subject lands. For a detailed assessment of the proposal's consistency with these, the reader is referred to the Statement of Consistency with Planning Policy and Material Contravention Statement, which have been prepared by Downey and are submitted under separate cover as part of the planning application. The reader should also refer to Traffic and Transport Assessment, Engineering Assessment Report, Flood Risk Assessment, DMURS Statement, Car Parking Strategy (all prepared by Waterman Moylan Consulting Engineers) as well as the Sustainable Transport Strategy (prepared by SYSTRA) and Public Transport Capacity Report (prepared by Derry O'Leary), which are submitted under separate cover as part of the application for further details of compliance with these plans and strategies.

2.1 NATIONAL CONTEXT

2.1.1 National Planning Framework

The National Planning Framework (NPF) is the Government's high-level strategic plan for shaping the future growth and development of Ireland up to the year 2040. The NPF outlines a number of strategies and policy objectives pertaining to town centre consolidation and to urban development in general. There is a major new policy emphasis on compact growth and urban consolidation.

The NPF sets a target that at least 50% of all new homes targeted for Dublin City and suburbs are delivered within/adjacent its existing built-up footprint (NPO 3b). It specifically seeks the progression of the sustainable development of new greenfield areas on public transport corridors for housing.

Further to this, NPO 11 states: "In meeting urban development requirements, there will be a presumption in favour of development that can encourage more people and generate more jobs and activity within existing cities, towns and villages, subject to development meeting appropriate planning standards and achieving targeted growth."

The lands at Belcamp are ideally suited for a medium density residential development in accordance with the NPF.

2.1.2 Housing for All

Housing for All, is a plan to increase the supply of housing to an average of 33,000 per year over the next decade. The plan provides for an optimal mix of social, affordable, and private housing for sale and rent. These measures are supported by over \in 4 billion in guaranteed State funding every year, the highest ever level of government investment in building social and affordable housing. The plan also includes measures to support availability of the land, workforce, funding, and capacity to enable both the public and private sectors to meet the targets. The plan is based on four pathways, leading to a more sustainable housing system:

- Support home ownership and increase affordability;
- Eradicate homelessness, increase social housing delivery, and support social inclusion;
- · Increase new housing supply and;
- · Address vacancy and make efficient use of existing stock.

Overall, the supply will have to increase to 33,000 new units, on average, per annum up to and including 2030. This will include, on average, 10,000 social housing units, 4,000 homes for Affordable Purchase, 2,000 Cost Rental homes and 17,000 private homes over the lifetime of the plan (to the end of 2030) the 300,000 required homes are expected to consist of: 90,000 social homes; 36,000 Affordable Purchase homes, 18,000 'Cost Rental' homes and approximately 156,000 private homes. One of the key measures in achieving this is to use vacant and underutilised land.

2.1.3 The Climate Action Plan 2021

The Climate Action Plan, 2021, in seeking to address issues of climate change, sets out decarbonization targets for sectors including Electricity, Transport, Built Environment and Industry. It states that land use planning must take account of the need to transition to a low-carbon and climate resilient society, and the requirement for compact growth, retrofit program and sustainable mobility in the development of lands/land use plans.

2.1.4 Transport Strategy for the Greater Dublin Area 2016-2035

The NTA's Transport Strategy for the Greater Dublin Area (GDA) provides a framework for the planning and delivery of transport infrastructure and services over the period 2016-2035, this includes road, rail, walking and cycling. The strategy seeks the integration of land use planning and transport planning and it particularly seeks the consolidation of Dublin City. In terms of the Clongriffin-Belmayne area, within which the Belcamp South lands are located, transport proposals include:

•DART Expansion (electrified services) on the Dublin/Belfast Railway Line;

•BusConnects - Core Bus Corridor 1 from Clongriffin to the City Centre;

•Implementation of the Greater Dublin Area Cycle Network Plan 2013.

2.1.5 Design Manual for Urban Roads and Streets (DMURS) 2013

The Design Manual for Urban Roads and Streets (DMURS) 2013, updated in 2019, sets out the manner in which roads and streets in urban and suburban areas should be designed, ameliorating the historic dominance of the private car and other motorised forms of transport.

Its aim is to put well-designed streets at the heart of sustainable communities. The key issues addressed include the provision of transport networks that promote real alternatives to car journeys and the encouragement of lower vehicular speeds in urban areas with a view to making streets safer and more attractive places.

2.1.6 Sustainable Urban Housing: Design Standards for New Apartments, 2020 (DoHPLG)

These guidelines set out internal space and amenity space standards for apartments; address the emerging 'build to rent' and 'shared accommodation' sectors and remove car parking requirements at certain locations under certain circumstances. Locations suitable for large scale high density apartment developments include 'Central and/or Accessible Urban Locations'. The Masterplan lands are served by a high-quality bus corridor connecting the city centre and Clongriffin Railway station, within close proximity of the subject lands, and as such the lands would be classified as an 'Accessible Urban Location' and therefore an appropriate location for large scale high density development.

2.1.7 Urban Development and Building Height Guidelines (2018)

The Urban Development and Building Height Guidelines (2018) set out national planning policy on building heights in relation to urban areas. The Guidelines draw from the strategic policy framework set out in Project Ireland 2040 and the National Planning Framework, with a view to creating more compact and integrated communities. Specific Planning Policy Requirement 1 (SPPR1) of the Guidelines looks for: increased building height and density at highly accessible locations; it requires Planning Authorities to identify locations for height in land use plans; and, it prevents Planning Authorities from applying blanket numerical limits on building height in statutory land use plans.

In the Guidelines, the Government is recognising the need for Local Authorities to allow for taller buildings and increased density in urban areas as way of reducing urban sprawl and creating the necessary densities to support public services, amenities and public transport. Any new planning application for Belcamp would be assessed having regard to these Guidelines and as such an increase in building heights for apartments could be provided for.

2.2 REGIONAL CONTEXT

2.2.1 Regional Spatial and Economic Strategy

The 'Regional Spatial and Economic Strategy' (RSES) for the Eastern and Midland Regional Assembly identifies regional assets, opportunities, pressures and constraints and provides a framework for investment to better manage spatial planning and economic development throughout the Eastern & Midland Region. The RSES is tasked with the development of planning policy for future housing needs in the region upon consideration of the availability of land, resources, environment and infrastructure capacity. It also includes a Metropolitan Area Strategic Plan (MASP) for the Dublin metropolitan area.

The MASP identifies strategic residential and employment corridors along key public transport corridors existing and planned, that contain development opportunities. The RSES notes that such corridors include the large-scale urban expansion on the North Fringe of the city.

In order to combat and provide for compact residential development, the RSES outlines a number of key Regional Policy Objectives that pertain to the NPF targets. The key Regional Policy Objectives applicable to the development proposal are the following:

Regional Policy Objective (RPO) 4.3 – "Support the consolidation and re-intensification of infill/brownfield sites to provide high density and people intensive uses within the existing built up area of Dublin city and suburbs and ensure that the development of future development areas is co-ordinated with the delivery of key water infrastructure and public transport projects."

Regional Policy Objective (RPO) 5.4 – "Future development of strategic residential development areas within the Dublin Metropolitan area shall provide for higher densities and qualitative standards as set out in the 'Sustainable Residential Development in Urban Areas', 'Sustainable Urban Housing; Design Standards for New Apartments' Guidelines, and 'Urban Development and Building Heights Guidelines for Planning Authorities'."

Regional Policy Objective (RPO) 5.5 – "Future residential development supporting the right housing and tenure mix within the Dublin Metropolitan Area shall follow a clear sequential approach, with a primary focus on the consolidation of Dublin and suburbs, and the development of Key Metropolitan Towns, as set out in the Metropolitan Area Strategic Plan (MASP) and in line with the overall Settlement Strategy for the RSES. Identification of suitable residential development sites shall be supported by a quality site selection process that addresses environmental concerns."

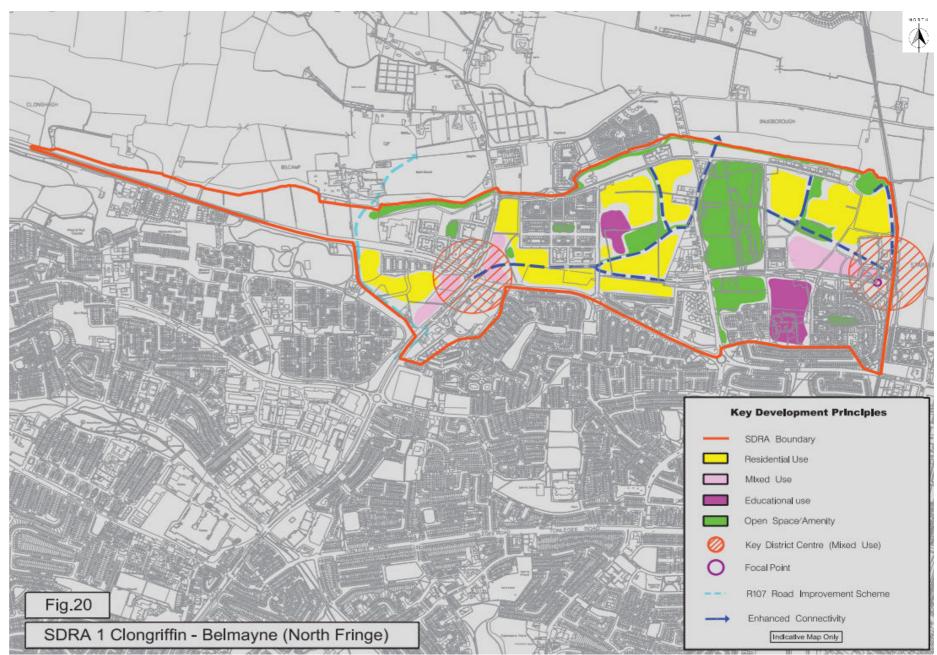


Figure 2.1 SDRA area 1 (Clongriffin-Belmayne) (Dublin City Development Plan 2016-2022)

2.0 PLANNING CONTEXT

2.3 LOCAL CONTEXT

The Dublin City Development Plan 2016-2022 and Fingal County Development Plan 2017-2023 are the statutory development plans in force at the time of submission of this application. While both plans are set to be replaced by new development plans in 2022 (Dublin City Council) and 2023 (Fingal County Council) and a draft development plan has been published in respect of Dublin City Council (Draft Dublin City Development Plan 2022 to 2028), this draft plan is not yet in force. The Design Strategy was prepared to be consistent with these spatial plans.

2.3.1 Dublin City Development Plan 2016-2022

The lands at Belcamp south are located within the administrative boundary of Dublin City Council and thus are subject to the policies and objectives of the Dublin City Development Plan 2016-2022. These lands are zoned as a Strategic Development Regeneration Area (SDRA) under the current Development Plan.

The lands form part of the SDRA 1 'North Fringe Clongriffin-Belmayne', with an estimated capacity of 7,100 residential units. SDRA 1 'North Fringe Clongriffin-Belmayne' contains objectives/guiding principles for the lands, these include:

> 1. To create a highly sustainable, mixed use urban district, based around high quality public transport nodes, with a strong sense of place.

> 2. To achieve a sufficient density of development to sustain efficient public transport networks and a viable mix of uses and community facilities.

3. To establish a coherent urban structure, based on urban design principles, as a focus for a new community and its integration with the established community.

The subject lands also form part of the Clongriffin-Belmayne Local Area Plan and are subject to Development Principles as set out in Section 15.1 of the Development Plan.

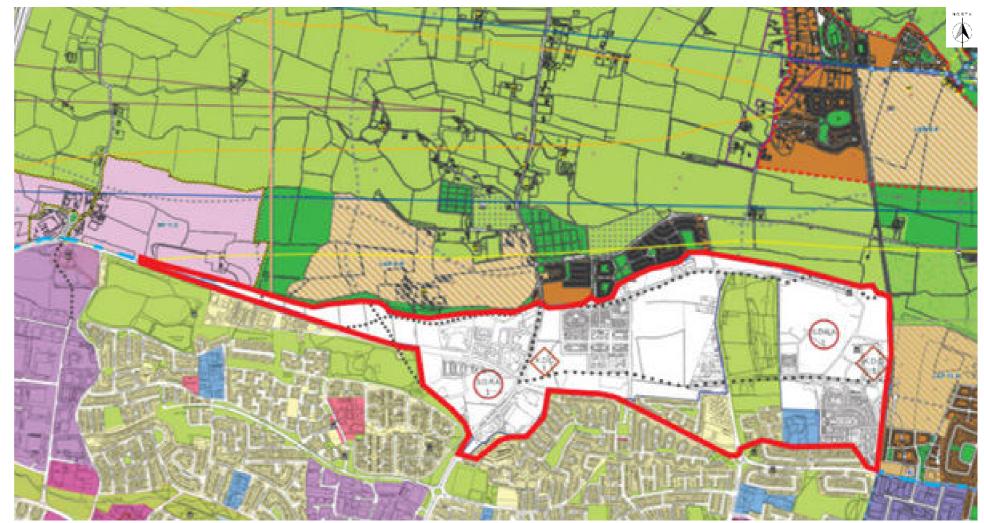


Figure 2.2 Land Use Zoning maps B & C of the Dublin City Development Plan 2016-2022 shown with the Fingal County Development Plan 2017-2023; site outlined in black. (Dublin City Council)

2.3.2 Fingal County Development Plan 2017-2023

The lands at Belcamp north are located within the administrative boundary of Fingal County Council and thus are subject to the policies and objectives of the Fingal County Development Plan 2017-2023. Under the current Development, the lands are also subject to the following Objectives:

Objective Balgriffin/Belcamp 3 seeks to:

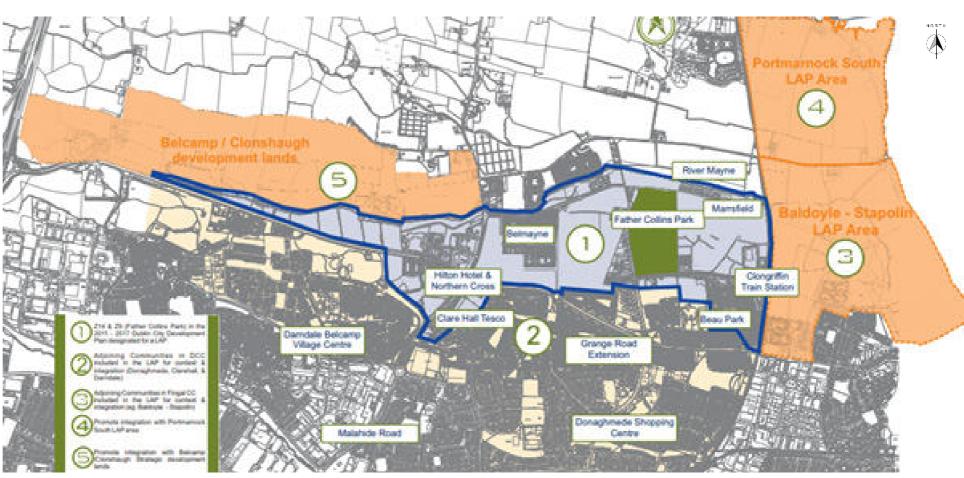
"Facilitate the protection of Belcamp House and ensure that new development respects the historic character and setting of Belcamp House, including both its natural and built heritage, and biodiversity assets."

Objective Balgriffin/Belcamp 5 seeks to:

"Consider a limited quantum of development on the Belcamp LAP lands to facilitate the rehabilitation and preservation of Belcamp House prior to the adoption of Belcamp LAP. A design brief including the guantum and location of any such development, which shall not prejudice any future road requirements, shall be agreed with the Planning Authority prior to a planning application being lodged. Not more than 50% of any residential units permitted shall be sold or occupied pending the full re-instatement of Belcamp House to the satisfaction of the Planning Authority."

Objective Balgriffin/Belcamp 6 seeks to:

"Prepare a Local Area Plan for lands at Belcamp (see Map Sheet 9, LAP 9.B) to provide for a sustainable mixed use urban district including residential, community and recreational facilities subject to the delivery of the necessary infrastructure and rehabilitation and restoration of Belcamp House."



2.3.3 Clongriffin-Belmayne Local Area Plan

The Clongriffin-Belmayne Local Area Plan 2012-2018 (extended until 2023) provides a framework for the proper planning and sustainable development of the Clongriffin-Belmayne area. The lands at Belcamp South are within the boundaries of this LAP.

There is an evolving commercial character in the area particularly on the western end at Northern Cross where the Hilton Hotel, Meadows and Byrne and Euro Spar are located at street level. The Northern Cross development is also located close to Clarehall Shopping Centre where major convenience shopping and other services are located. The LAP states that what is notable about the retail facilities at the western end of the area is they are accessible to both the local population and passing customers on the Malahide Road and R139.

The Northern Cross development is also notable for its office accommodation suitable for both smaller firms and larger companies. The office park in turn adjoins an industrial park which includes the Bewley's factory. This is an important existing employment zone and is an opportunity for

the area for future local employment. The Northern Cross development also includes the Northern Cross Medical Centre, CareChoice Malahide nursing home, dental practice, and pharmacy.

2.3.4 Clongriffin-Belmayne Economic and Retail Study 2018

The 'Clongriffin-Belmayne Economic and Retail Study, 2018' was prepared by AECOM Ltd., and provides an independent, evidence-based assessment of the retail and economic potential for the area having regard to relevant planning policy, the extent and nature of existing services, vacancy and likely market demand. The Report identifies how much economic and retail floorspace can be developed and where this should be located. The study recommendations have been incorporated into the Design Strategy.

Figure 2.3 Clongriffin-Belmayne LAP Map (Dublin City Council LAP)

2.3.5 Land Use Zoning

Belcamp South – Dublin City Council

The lands at Belcamp are zoned as a Strategic Development Regeneration Area (SDRA) under the current Dublin City Development Plan 2016-2022. The majority of SDRAs relate to a zoning objective which seeks the social, economic, physical development or rejuvenation of an area with residential, employment and mixed-uses (Z14). These SDRAs have substantial development capacity, not only for residential uses.

The zoning objective for Z14 lands states:

'Zoning Objective Z14 – 'To seek the social, economic and physical development and/or rejuvenation of an area with mixed use, of which residential and 'Z6' would be the predominant uses.'

Residential development, childcare facility and retail uses are 'permitted in principle' uses under the Z14 zoning designation pertaining to the subject lands at Belcamp.

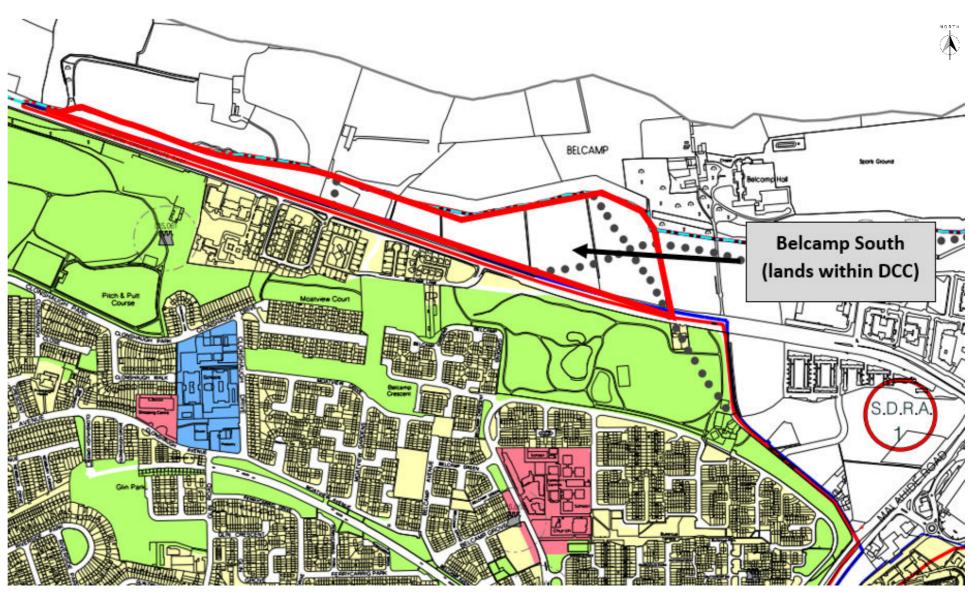


Figure 2.4 Dublin City Development Plan 2016-2022; site outlined in red

Belcamp North - Fingal County Council

The lands at Belcamp north are located within the administrative boundary of Fingal County Council and thus are subject to the policies and objectives of the Fingal County Development Plan 2017-2023. Under the current Fingal County Development Plan 2017-2023, there are three land use zonings pertaining to the Belcamp lands - objective 'RA - new residential', objective 'OS - open space' and objective 'GB - Greenbelt'.

Zoning objective 'RA' seeks to: "Provide for new residential communities subject to the provision of the necessary social and physical infrastructure."

The Vision for the RA zoning is to:

"Ensure the provision of high quality new residential environments with good layout and design, with adequate public transport and cycle links and within walking distance of community facilities. Provide an appropriate mix of house sizes, types and tenures in order to meet household needs and to promote balanced communities."

Zoning objective 'OS' seeks to: "Preserve and provide for open space and recreational amenities."

The Vision for the 'OS' zoning is to:

"Provide recreational and amenity resources for urban and rural populations subject to strict development controls. Only community facilities and other recreational uses will be considered and encouraged by the Planning Authority."

Zoning objective 'GB' seeks to: "Protect and provide for a greenbelt."

The Vision for the 'GB' zoning is to:

"Create a rural/urban Greenbelt zone that permanently demarcates the boundary (i) between the rural and urban areas, or (ii) between urban and urban areas. The role of the Greenbelt is to check unrestricted sprawl of urban areas, to prevent coalescence of settlements, to prevent countryside encroachment and to protect the setting of towns and/ or villages. The Greenbelt is attractive and multifunctional, serves the needs of both the urban and rural communities, and strengthens the links between urban and rural areas in a sustainable manner. The Greenbelt will provide opportunities for countryside access and for recreation, retain attractive landscapes, improve derelict land within and around towns, secure lands with a nature conservation interest, and retain land in agricultural use. The zoning objective will have the consequence of achieving the regeneration of undeveloped town areas by ensuring that urban development is directed towards these areas."

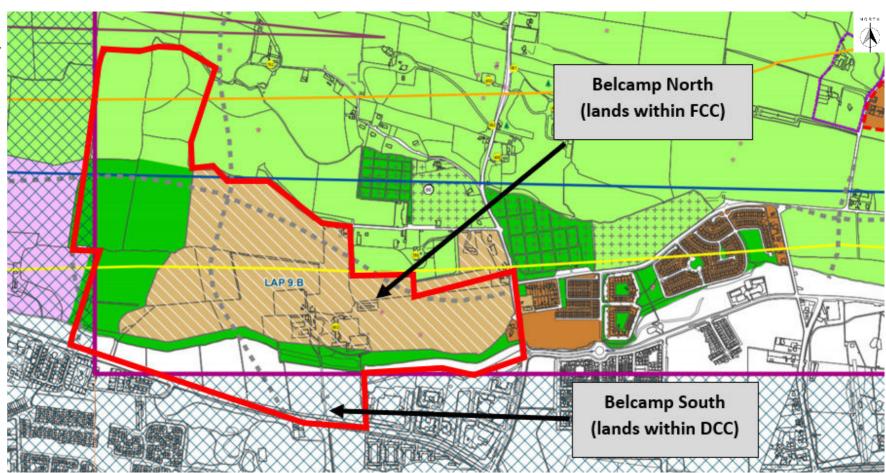


Figure 2.5 Fingal County Development Plan 2017-2023; Land Use Zoning with Belcamp lands outline in red (Belcamp North)

2.0 PLANNING CONTEXT

3.0 SITE CONTEXT



3.1 GREEN AND BLUE NETWORKS

3.1.1 Green Links

The Belcamp lands are a natural extension to the Mayne River Linear Park which runs westwards from the future Racecourse Regional Park beside Baldoyle Bay. The linear park forms a green route that connects Fr Collins Park and Balgriffin Park to Belcamp, with the potential to continue along the river valley within the Belcamp lands and connect to the woodland and walled garden, to the OS zoned lands to the west, and south through the DCC lands to Darndale Park.

3.1.2 Waterways

Mayne river

The Mayne River traverses the site from west to east, forming the border between the portions of the site within Dublin City Council (DCC) and Fingal County Council (FCC) jurisdictions. There are two existing attenuation lakes, an upper and a lower lake, adjacent to the Mayne River. These lakes discharge to the river via an existing weir.

Ditches Through Site

There are several ditches throughout the site, conveying varying amounts of water. South of the Mayne River, ditches fall from south to north, draining surface water to the river. A walk-through of the site following prolonged wet weather on 28 January 2021, revealed that the four ditches traversing the site do not receive any inflow of surface water from areas upstream of the subject site. These ditches drain only the green fields adjacent to them and as such are dry static ditches. The ditch at the western boundary of the DCC site does receive surface water draining from upstream catchment areas before discharging to the river. The ditch at the eastern boundary of the southern site, adjacent to the existing neighbouring mixed-use development, may receive some minor inflows from lands outside the site boundary.

North of the Mayne River, ditches convey flows as part of two separate catchments. The majority of the site drains in a southerly direction towards the Mayne River, with a portion of the lands to the north-east draining in an east / north-easterly direction towards a ditch and culvert at the north-eastern boundary of the site. This existing culvert carries flows beneath the Malahide Road and eastwards via a 450mm sewer through the graveyard, ultimately discharging to the Mayne River via a headwall east of the site.

Please refer to accompanying Existing Water Courses drawing that was completed following site walk of the ditches across the site in January 2021.

Figure 3.1 Green and blue network map

3.1.3 Assessment Methodology

This Flood Risk Assessment follows the guidelines set out in the DEHLG/OPW Guidelines on the Planning Process and Flood Risk Management published in November 2009. The components to be considered in the identification and assessment of flood risk are as per Table A1 of the above guidelines:

- Tidal flooding from high sea levels
- Fluvial flooding from water courses
- Pluvial flooding from rainfall / surface water
- Groundwater flooding from springs / raised groundwater
- Human/mechanical error flooding due to human or mechanical error

Each component will be investigated from a Source, Pathway and Receptor perspective, followed by an assessment of the likelihood of a flood occurring and the possible consequences.

3.1.4 Assessing Likelihood

The likelihood of flooding falls into three categories of low, moderate and high, which are described in the OPW Guidelines as follows:

Flood Risk	Likelihood: % chance of occurring in a year			
Components	Low	Moderate	High	
Tidal	Probability <	0.5% > Probability >	Probability >	
	0.1%	0.1%	0.5%	
Fluvial	Probability <	1% > Probability >	Probability >	
	0.1%	0.1%	1%	
Pluvial	Probability <	1% > Probability >	Probability >	
	0.1%	0.1%	1%	

Table 3.1 | Likelihood of flooding (from Table A1 of DEHLG/OPW Guidelines)

For groundwater and human/mechanical error, the limits of probability are not defined and therefore professional judgment is used. However, the likelihood of flooding is still categorized as low, moderate, and high for these components.

From consideration of the likelihoods and the possible consequences a risk is evaluated. Should such a risk exist, mitigation measures will be explored, and the residual risks assessed.

3.1.5 Assessing Consequence

There is not a defined method used to quantify a value for the consequences of a flooding event. Therefore, in order to determine a value for the consequences of a flooding event, the elements likely to be adversely affected by such flooding will be assessed, with the likely damage being stated, and professional judgement will be used in order to determine a value for consequences. Consequences will also be categorized as low, moderate, and high.

3.1.6 Assessing Risk

Based on the determined 'likelihood' and 'consequences' values of a flood event, the following 3x3 Risk Matrix will then be referenced to determine the overall risk of a flood event.

		Consequences			
		Low	Moderate	High	
Likelihood	Low	Extremely Low Risk	V Low Risk Moderate Ris		
	Moderate	Low Risk	Moderate Risk	High Risk	
	High	Moderate Risk	High Risk	Extremely High Risk	

Table 3.2 | 3x3 Risk matrix

3.0 SITE CONTEXT



3.1.7 TIDAL FLOODING

Tidal flooding occurs when normally dry, low-lying land is flooded by seawater. The extent of tidal flooding is a function of the elevation inland flood waters penetrate, which is controlled by the topography of the coastal land exposed to flooding.

The site is approximately 3.3km west of the nearest coastline at Baldoyle Bay. The Dublin Coastal Protection Project indicated that the 2002 high tide event reached 2.95m OD Malin. The lowest existing ground level on the site is 17.80m OD Malin, well above the historic high tide event.

The Fingal East Meath Flood Risk Assessment and Management Study (FEM FRAMS) maps available on the OPW's National Flood Information Portal have been consulted as part of this assessment. These maps include tidal flood mapping, which outlines existing and potential flood hazard and risk areas which are being incorporated into a Flood Risk Management Plan. The site location, as indicated by the red x as per the extract in Figure 2 below, shows that the site is not at risk from flooding for even up to the 1-in-1,000 year tidal flood event.

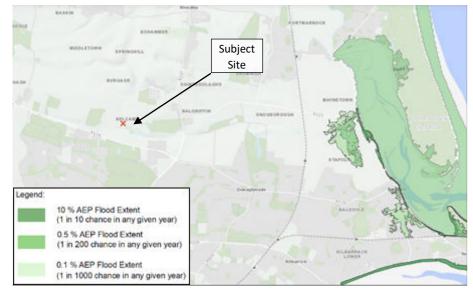


Figure 3.2 Extract from the FEM FRAMS tidal flood extents map

High probability flood events, as shown in the above map, are defined as having approximately a 1-in-10 chance of occurring or being exceeded in any given year (10% Annual Exceedance Probability), medium probability flood events are defined as having an AEP of 0.5% (1-in-200 year storm), while low probability events are defined having an AEP of 0.1% (1-in-1,000 year storm). The map indicates that the subject development is not at risk of flooding for the 1-in-1,000 year event.

Given that the site is located 3.3 kilometres inland from the Irish Sea, that there is at least a 14.85m level difference between the lowest existing ground level and the high tide, and given that the site is outside of the 1-in-1,000 year flood plain, it is evident that a pathway does not exist between the source and the receptor. The risk from tidal flooding is therefore extremely low and no flood mitigation measures need to be implemented.

3.1.8 FLUVIAL FLOODING

Fluvial flooding occurs when a river / water course's flow exceeds its capacity, typically following excessive rainfall, though it can also result from other causes such as heavy snow melt and ice jams.

The subject site is located within the Mayne River catchment. The Mayne River traverses the subject site.

A review of the historic records, available through the OPW's National Flood Hazard Maps, indicate that the closest historic flood event occurred 0.7km east from the boundary of the subject site on the Mayne River downstream of the subject site. This flood event occurred in June 1993 at Balgriffin Park, due to heavy rainfall experienced by the Mayne River catchment. The local authority has since placed defence assets to alleviate the issue and no flooding has been recorded since. There is recurring flooding further downstream, at the Mayne River's outfall to Baldoyle Bay. A Flood Relief Scheme was completed in 2001, and no instances of flooding have been recorded at this location since.



Figure 3.3 Historic flood event map

The Fingal East Meath Flood Risk Assessment and Management Study (FEM FRAMS) maps, available on the OPW's National Flood Information Portal and extracted in Figure 4 overleaf, indicate that small sections of the site along the route of the Mayne River may be subject to fluvial flooding.

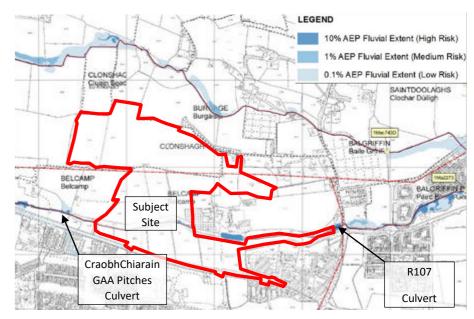


Figure 3.4 Extract from exfcd_f1_42)

The nearest downstream node point is shown as 1Ma2273, this node point shows calculated flood water heights for the various flood event ranges. Unfortunately, the Mayne River is culverted under the R107, between the subject site and node point. This culvert would affect the calculated flood heights internal to the subject site, and the flood maps even indicate a small area of flooding for the 1-in-10 year flood event which can be attributed to the culvert. Therefore, the node point data available cannot be considered applicable to the subject site. Similarly, immediately upstream of the western site boundary there is another culvert, this one serving the access road for CraobhChiarain GAA Pitches from the R139, thus it is considered no accurate flood level heights are available for the subject site via the flood maps.

Given that the majority of the site is outside of the 1-in-1,000 year flood plain, and that no properties are proposed within the small pockets identified as flood plains, the likelihood of fluvial flooding is low. The consequence of fluvial flooding would be some minor inundation to open spaces. Therefore, the consequences of fluvial flooding occurring at the proposed development is considered low. Thus, there is an extremely low risk of fluvial flooding as the likelihood is low and the consequence is low.

Figure 3.4 Extract from the FEM FRAMS fluvial flood extents map (Ref: e09bel_

3.1.9 PLUVIAL FLOODING

Pluvial flooding occurs when heavy rainfall creates a flood event independent of an overflowing water body. Pluvial flooding can happen in any urban area, including higher elevation areas that lie above coastal and river floodplains.

During periods of extreme prolonged rainfall, pluvial flooding may occur through the following pathways:

	Pathway	Receptor
1	Surcharging of the proposed internal drainage systems during heavy rain events leading to internal flooding	Proposed development – properties and roads
2	Surcharging from the existing surround- ing drainage system leading to flooding within the subject site by surcharging surface water pipes	Proposed development – properties and roads
3	Surface water discharging from the sub- ject site to the existing drainage network leading to downstream flooding	Downstream properties and roads
4	Overland flooding from surrounding areas flowing onto the subject site	Proposed development – properties and roads
5	Overland flooding from the subject site flowing onto surrounding areas	Downstream properties and roads

Table 3.5 Pathways and receptors

The likelihood of each of the 5 pathway types are addressed individually as follows:

- Surcharging of the proposed on-site drainage systems: The proposed on-site surface water drainage sewers have been designed to accommodate flows from a 5-year return event, which indicates that on average the internal system may surcharge during rainfall events with a return period in excess of five years. Therefore, the likelihood surcharging of the on-site drainage system is considered high.
- Surcharging from the existing surrounding drainage system: The OPW's National Flood Hazard Maps, as discussed in section 3.2, does not indicate any history of flood events immediately upstream of the subject site (the nearest historic upstream flood was during 2002, west of the M50 and 2.8km away from the subject site at Dardistown).

With no history of flooding in the area due to surcharging, the likelihood of such flooding occurring is considered low.

Surface water discharge from the subject site: Due to the increase in hard standing area as a result of the proposed development, there is an increased likelihood of surface water discharge from the site leading to downstream flooding. As such, the likelihood can be considered moderate.

- Overland flooding from surrounding areas: With no recorded flood events in the immediate area that could have an impact on the subject site, as per the OPW records referred to above, it is considered that there is a low likelihood of flooding from surrounding areas.
- Overland flooding from the subject site: Due to the increase in hard • standing area as a result of the proposed development, there is an increased likelihood of overland flooding from the site leading to downstream flooding. As such, the likelihood can be considered moderate.

Surface water flooding would result in damage to roads and landscaped areas and could impact the ground floor levels of buildings. The consequences of pluvial flooding are considered moderate.

The risk of each of the 5 pathway types is addressed individually as follows:

- Surcharging of the proposed on-site drainage systems: With a high likelihood and moderate consequence of flooding the site from surcharging the on-site drainage system, the resultant risk is high.
- Surcharging from the existing surrounding drainage system: With a low likelihood and moderate consequence of flooding the site from the existing surface water network, the resultant risk is low.
- Surface water discharge from the subject site: With a moderate likelihood and moderate consequence of surface water discharge from the subject site, the resultant risk is moderate.
- Overland flooding from surrounding areas: With a low likelihood and moderate consequence of overland flooding from the surrounding areas, the resultant risk is low.
- Overland flooding from the subject site: With a moderate likelihood • and moderate consequence of overland flooding from the subject site, the resultant risk is moderate.

The following are flood risk management strategies proposed to minimise the risk of pluvial flooding for each risk:

• Surcharging of the proposed on-site drainage systems: The risk of flooding is minimised with adequate sizing of the on-site surface water network and SuDS devices. Open grassed areas with low level planting and green sedum roofing on apartment blocks will ensure that these areas act as soft scape and will significantly slow down and reduce the amount of surface water runoff from the site. Permeable paving in private driveways and parking courts and filter drains around the perimeter of the apartment blocks will provide some treatment volume, with underlying perforated pipes connecting to the storm water sewer network.

These proposed source and site control devices will intercept and slow down the rate of runoff from the site to the on-site drainage system, reducing the risk of surcharging.

Furthermore, a hydro-brake for each catchment will limit runoff to the equivalent greenfield rate. Excess storm water from the main catchment is to be attenuated, with sufficient volume for the 1-in-100 year storm (accounting for a 20% increase due to climate change), to limit the runoff from the site and minimise the discharge rate into receiving waters. Several smaller catchments for the apartments will be attenuated privately, with sufficient volume also for the 1-in-100 year storm and climate change factor.

As a result of the design measures detailed above, there is a low residual risk of flooding from each of the surface water risks.

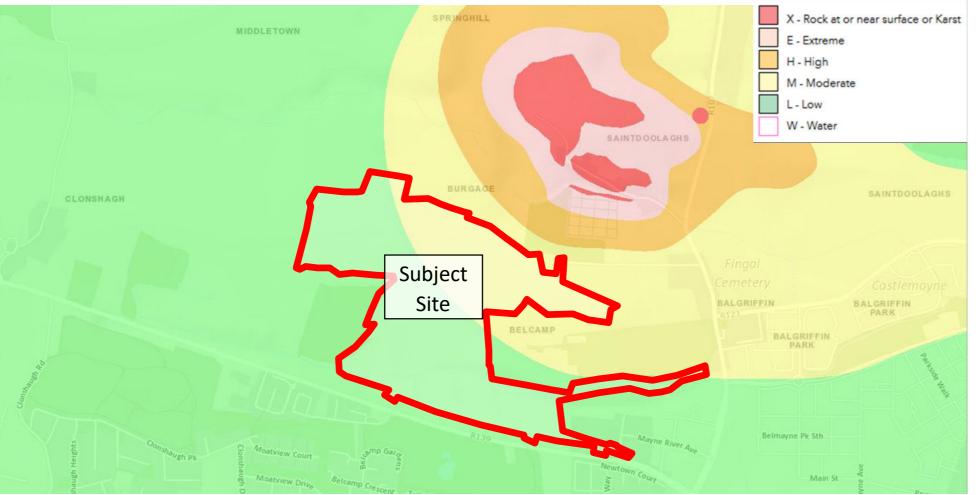
Surcharging from the existing surrounding drainage system: The risk of flooding due to surcharging of the existing surface water network is minimised with overland flood routing (refer to the Overland Flood Routing as discussed in Section 3.6 above) towards the Mayne River and open spaces. The risk to the surrounding buildings is mitigated by setting finished floor levels at least 200mm above the adjacent road channel line.

Surcharging from the existing surrounding drainage system: Surface water discharge from the subject site is intercepted and slowed down through the use of source control devices, as described in Section 4.6.1 above, minimising the risk of pluvial flooding from the subject site. Sufficient attenuation storage is provided for the 1-in-100 year storm, accounting for a 20% increase due to climate change. Outflow volumes are limited to existing greenfield levels by use of a Hydrobrake.

Overland flooding from surrounding areas: Overland flood routing and raised finished floor levels will provide protection for the proposed buildings, as described in Section 4.6.2 above.

Overland flooding from the subject site: The risk of overland flooding from the subject site is minimised by providing SuDS features to intercept and slow down the rate of runoff from the site to the existing surface water sewer system, as described in Section 4.6.1 above. Sufficient attenuation is provided for the 1-in-100 year storm, accounting for a 20% increase due to climate change. Thus, even under extreme storm conditions, the surface water can be attenuated without causing flooding downstream.

3.0 SITE CONTEXT



3.1.10 GROUNDWATER FLOODING

Groundwater flooding occurs when the water table rises above the ground surface. This typically happens during periods with prolonged rainfall which exceeds the natural underground drainage system's capacity.

The pathway for groundwater flooding is from the ground. Note that although groundwater flooding is typically considered to be when the water table rises above the ground surface, underground services and building foundations could also be affected by high water tables that do not reach the ground surface.

The receptors for ground water flooding would be underground services, roads, and the ground floor of buildings.

Geological Survey Ireland (GSI) produces a wide range of datasets, including groundwater vulnerability mapping. From the GSI groundwater vulnerability map, extracted below, the site lies within an area with low to moderate groundwater vulnerability.

With the site falling within an area with low to moderate groundwater vulnerability, the likelihood of groundwater rising through the ground and causing potential flooding on site during prolonged wet periods is moderate.

Figure 3.5 Groundwater vulnerability map

The consequence of ground water flooding would be some minor temporary seepage of ground water through the ground around the proposed buildings. Underground services could be inundated from high water tables. Therefore, the consequence of ground water flooding occurring at the proposed development is considered moderate.

With a moderate likelihood and moderate consequences of flooding due to groundwater, the risk is considered moderate.

Finished floor levels have been set above the road levels, as described in Section 3.6, to ensure that any seepage of ground water onto the development does not flood into the buildings. In the event of ground water flooding on site, this water can escape from the site via the overland flood routing, also described in Section 3.6.

The buildings' design will incorporate suitable damp-proof membranes to protect against damp and water ingress from below ground level.

There is a low residual risk of flooding from ground water.

3.1.11 HUMAN/ MECHANICAL ERROR

The subject site will be drained by an internal private storm water drainage system, which discharges to the existing natural surface water network, the Mayne River, which outfalls to Baldoyle Bay.

The internal surface water network is a source of possible flooding were it to become blocked.

If the proposed private drainage system blocks this could lead to possible flooding within the private and public areas.

The receptors for flooding due to human/mechanical error would be the ground floor levels of buildings, the roads and the open landscaped areas around the site.

There is a high likelihood of flooding on the subject site if the surface water network were to become blocked.

The surface water network would surcharge and overflow through gullies and manhole lids. It is, therefore, considered that the consequences of such flooding are moderate.

With a high likelihood and moderate consequence, there is a high risk of surface water flooding should the surface water network block.

As described in Section 3.6, finished floor levels have been designed to be above the adjacent road network, which will reduce the risk of flooding if the surface water network were to block. In the event of the surface water system surcharging, the surface water can still escape from the site by overland flood routing, as also described in Section 3.6, without causing damage to the proposed buildings.

The surface water network (drains, gullies, manholes, AJs, attenuation system) will need to be regularly maintained and where required cleaned out. A suitable maintenance regime of inspection and cleaning should be incorporated into the safety file/maintenance manual for the development.

As a result of the flood risk management outlined above, there is a low residual risk of overland flooding from human / mechanical error.

3.2 MOVEMENT

3.2.1 EXISTING PEDESTRIAN INFRASTRUCTURE

The existing pedestrian facilities in the surrounding area comprise an inter-connected network of footways linking the various neighbourhoods to each other, to the existing schools, to the Clongriffin train station, to public parks and to the surrounding public network.

3.2.2 EXISTING CYCLE INFRASTRUCTURE

Cyclists benefit from the provision of dedicated cycle lanes along both sides of the carriageway on Belmayne,Hole in the Wall Road and Main Street (Clongriffin).Belmayne includes cycle lanes along both sides of the road up until Marrsfield Avenue. These cycle lanes are separated from the carriageway by a grass verge. No cycle lanes are provided along Marrsfield Avenue.

Although there isn't a continuous cycle lane on the Malahide Road, there are sporadic stretches with cycle lanes. Cycle lanes (shared with the bus lane) are only provided on the R139 to the east of the Malahide Road (R107), continuing along Temple View Avenue, with no cycle lanes along the R139 south of the subject site.

These cycle lanes facilitate access to Clongriffin train station, Malahide Road Industrial Park and Dublin City Centre. The cycle journey from the site to Clongriffin train station takes approximately 10 minutes, and the cycle journey from the site to Malahide Road Industrial Park also takes approximately 10 minutes. The cycle journey from the site to the GPO on O'Connell Street in Dublin City Centre takes approximately 33 minutes.

Covered public cycle parking with 112 stands is provided in Clongriffin at Station Square. This public cycle parking currently provides the opportunity for residents living in the surrounding area to commute to their final destination (place of work, school, college, etc.) by cycle-train combined travel.



3.2.3 EXISTING BUS NETWORK

The subject site is directly served by public bus services. The closest bus stops are located on Malahide Road (R107) immediately east of the proposed development site. These bus stops are served by Dublin Bus Routes 42 and Route 43. Route 42 operates between Talbot Street in Dublin City Centre and Sand's Hotel in Portmarnock. Route 43 operates between Talbot Street in Dublin City Centre and Swords Business Park.

Travel time from the bus stop on Malahide Road (R107) to Talbot Street in Dublin City Centre is approximately 16 minutes. In the opposite direction, the travel time from the subject bus stop on Malahide Road (R107) to Malahide is approximately 16 minutes, and to Swords Business Park is approx. 20 minutes.

In addition to the aforementioned Bus Routes 42 and 43, the surrounding area is also served by Dublin Bus Routes 15 and 27. The closest bus stops served by these routes are located on the R139, south-east of the proposed development site, east of the Malahide Road junction.

Access from the subject site to the bus stops on R139 is via Malahide Road (R107), and is approximately a 10 minute-walk. A network of footpaths is provided on both sides of Malahide Road (R107) and the R139, with dedicated pedestrian crossings at each road crossing point along the route to the bus stops. These footpaths are separated from the carriageway by a grass verge for the majority of the route, with all pedestrian crossings including dropped kerbs and tactile pavement.

3.0 SITE CONTEXT

Figure 3.6 Existing connections



3.2.4 EXISTING RAIL NETWORK

The closest train station is Clongriffin Station, located approximately 2.5km (31-minute walk; 9-minute cycle) east of the subject site. Walking and cycling access from the subject site to the Clongriffin Station is via Belmayne/ Marrsfield Avenue. A good network of footpaths is provided on Belmayne and Marrsfield Avenue along the route to the station. Belmayne includes cycle lanes along both sides of the road up until Marrsfield Avenue. These cycle lanes are separated from the carriageway by a grass verge. No cycle lanes are provided along Marrsfield Avenue.

The Clongriffin Station is served by Commuter Rail and DART services. The Commuter Rail service through Clongriffin Station serves all stations from Dundalk through Dublin City Centre to Gorey. The service operates at 3-4 trains per hour in both direction on weekdays.

The DART service through Clongriffin Station serves all stations from Malahide through Dublin City Centre to Bray and Greystones. On weekdays, this service operates at a 20-minute frequency in both directions.

3.2.5 EXISTING INFRASTRUCTURE

The subject site will be drained by an internal private storm water drainage The Belcamp development site is bounded by the R139 to the south and extends into Fingal to the north, with access onto the Malahide Road (R107).

R139 is a regional road running east-west along the southern boundary of the subject site. Approximately 3.2km west of the junction with Malahide Road (R107), the R139 provides connection to M1 and M50 motorways (M1 Exit 1 and M50 Exit 3). Along this section, R139 comprises two lanes on both sides with dedicated right-turning pocket lanes, which currently facilitate access to some residential and commercial developments. There is an existing right turning lane into the development site, and there is a signal controlled pedestrian crossing adjacent to the site.

The Malahide Road (R107) is a regional road running south-north to the east of the site, at the boundary of the proposed greenway. This road extends from Fairview, approximately 6km south of the subject site, to Malahide, approximately 4.5km north of the subject site. The carriageway of the Malahide Road adjacent to the proposed development site (between Belmayne and R123 Balgriffin Road) is approximately 9.0m wide.

The Balgriffin Road (R123) forms a junction with the Malahide Road immediately east of the subject site and continues east towards Baldoyle Bay.

A portion of the Malahide Road is currently being upgraded as part of the Phase 1 works. The upgrades extend from the Parkside Boulevard/Belmayne Junction and continue north approximately 170m. The upgrades include a new entrance to serve the Phase 1 site, new footway construction, planning and relaying of a portion of the carriageway, wearing course and base course replacement and new landscaping. Access to Phase 1, which is currently under construction, is provided via College Avenue, a new east-west road accessed via a new junction with the Malahide Road.



Figure 3.7 Location of Nearby primary junctions

3.2.6 PRIMARY EXISTING JUNCTIONS

Lands are: -

- R139 / Priorswood.

The primary junctions surrounding the subject Belcamp

• Junction A (Existing Signalised T-junction): Malahide Road (R107) / Balgriffin Road (R123).

Junction B (Existing T-junction): Malahide Road (R107) with access to Belcamp Phase 1.

Junction C (Existing Signalised T-junction): Malahide Road (R107) / Belmayne.

Junction D (Existing Signalised Crossroads): Malahide Road (R107) / R139 (Clarehall Junction).

Junction E (Existing Signalised T-junction): R139 / Access Road to Bewley's Tea and Coffee.

Junction F (Existing T-junction with pedestrian signals): R139 / Access Road to Belcamp Lands.

• Junction G (Existing T-junction):

Junction H (Existing T-junction): R139 with access to a residential estate.

Junction A is an existing signal-controlled T-junction located immediately east of the subject Belcamp lands as illustrated in Figure 4. This T-junction currently comprises an additional minor arm (western approach) which is not incorporated into the existing signal system and provides access to a single property only. The southern approach (Malahide Road) currently comprises a straight/left turning lane and a dedicated right turning lane with capacity to accommodate approximately 10 vehicles. This lane configuration provides easier access for those wishing to ingress the Balgriffin Road (R123) by segregating them from the straight/left turning movements. The Balgriffin Road (E) currently comprises a single typical lane which diverges into one straight/left turning lane and one dedicated right turning pocket lane just before approaching the junction. The northern approach (Malahide Road (R107)) comprises one typical lane with no provision of dedicated right turning or left slip lane. Dedicated pedestrian crossings are provided on the eastern and northern approaches of the junction. These pedestrian crossings are incorporated into the traffic system for the junction.

Junction B is an existing priority-controlled T-junction located to the east of subject Belcamp lands as illustrated in Figure 4. All approaches of the junction comprise one single lane with no dedicated turning lanes provided. The eastern approach is an access road to a residential development and comprises a dedicated pedestrian crossing (unsignalised) with dropped kerbs and tactile paving. An upgraded layout for Junction B was approved under Belcamp Phase 1 development (Reg. Ref. F15A/0609). The new layout comprises of the signalisation of the junction and the inclusion of the western approach (College Avenue). Details of the approved layout is provided later in this report.

Junction C is an existing signal-controlled T-junction located to the east of the subject Belcamp lands as illustrated in Figure 4. The southern approach (Malahide Road) currently comprises a straight through lane and a dedicated right turning lane with capacity to accommodate approximately 7 vehicles. As for Junction A, this lane configuration on the southern approach of Junction C provides easier access for those wishing to ingress the Belmayne by segregating them from the heavier straight through movement. The eastern approach (Belmayne) currently comprises one lane dedicated for right turns and one lane dedicated for left turns. The northern approach (Malahide Road) comprises a single lane which diverges left slip lane just before approaching the junction. Dedicated pedestrian crossings are provided on the eastern and southern approaches and are incorporated into the traffic system for the junction. Floor painting on this junction is relatively new and well-delineated. This condition helps with the desirable day-to-day functionality of the junction and helps minimising the occurrence of any potential incidents.

Junction D is an existing signal-controlled crossroads located southeast of the subject Belcamp lands as illustrated in Figure 4. The southern approach (Malahide Road) currently comprises two straight through lanes, one left turning slip lane and one dedicated right turning lane with capacity to accommodate approximately 10 vehicles. The northern approach (Malahide Road) currently comprises two straight through lanes, one left turning slip lane and one dedicated right turning lane with capacity to accommodate approximately 11 vehicles. The western approach (R139) currently comprises to straight through lanes, one left slip lane and one dedicated right turning lane with capacity to accommodate approximately 18 vehicles. The eastern approach (R139) currently comprises one straight through lane, one straight through/right turning lane and one left turning slip lane. Dedicated staggered pedestrian crossings are provided on the southern, eastern and western approaches. These pedestrian crossings are incorporated into the traffic signal system for the junction. Advanced stop lines for cyclists are provided on all approaches which currently provide a safe area for cyclists in front of vehicular queues and help them position themselves correctly for their turning movements. Floor painting on this junction is relatively new and well-delineated.

Junction E is an existing signal-controlled T-junction located to the southeast of the subject Belcamp lands as illustrated in Figure 4. The eastern approach (R139) currently comprises two straight through lanes and a dedicated right turning lane with capacity to accommodate approximately 17 vehicles. This lane configuration on the eastern approach provides easier access for those wishing to ingress the commercial developments at Northern Cross by segregating them from the heavier straight through movement. The western approach (R139) currently comprises of two lanes, one for straight through/left turn movements and one dedicated for straight through. The northern approach comprises a single normal lane and an exit lane. A dedicated pedestrian crossing with dropped kerbs and tactile paving is provided on the northern **Junction F** is an existing priority-controlled T-junction located immediately south of the subject Belcamp lands as illustrated in Figure 4. The eastern and western approaches of the junction (R139) comprise of two lanes on both direction with a dedicated right turning lane – with capacity to accommodate 9 vehicles, provided on the eastern approach for those wishing to access the subject Belcamp lands. The northern approach is gated for private access only. A dedicated staggered signalised pedestrian crossing is provided on the western approach to the junction.

Junction G is an existing priority-controlled T-junction located immediately south of the subject Belcamp lands as illustrated in Figure 4. The eastern and western approaches of the junction (R139) comprise of two lanes on both direction with a dedicated right turning lane – with capacity to accommodate 13 vehicles, provided on the western approach for those wishing to access the existing Tara Lawns halting site to the south. The southern approach comprises of a single normal lane and an exit lane.

Junction H is an existing priority-controlled T-junction located to the southwest of the subject Belcamp lands as illustrated in Figure 4. The eastern and western approaches of the junction (R139) comprise of two lanes on both direction with a dedicated right turning lane – with capacity to accommodate 7 vehicles, provided on the western approach for those wishing to access the road to the south. The southern approach comprises of a single normal lane and an exit lane.



3.0 SITE CONTEXT

3.3 SOCIAL & COMMUNITY INFRASTRUCTURE



Figure 3.8 – Location of childcare facilities within 2km of the subject lands; lands marked in red.

The reader is referred to the Community & Infrastructure Audit, Childcare Demand Assessment Report and School Demand Assessment Report, which have been prepared by Downey under separate cover as part of the planning application.

3.3.1 SCHOOLS

There are a number of Primary and Post-Primary schools within the area surrounding the subject lands, these include:

Primary Schools:

•	Our Lady Immaculate Senior NS	•	St. Malachy's BNS
•	Darndale NS	•	Scoil Bhride Junior NS
•	Darndale National School Junior	•	Scoil Naomh Colmcille
•	St. Paul's Junior NS	•	Holy Trinity Senior NS
•	St. Paul's Senior NS	•	St. Francis of Assisi Primary
•	Saint Francis Junior NS		School
•	Saint Francis Senior NS	•	Belmayne Educate Together NS
•	St. Joseph NS	•	St. Kevin's Junior NS
•	St. Eithnes Senior Girls NS	•	Stapolin Educate Together NS
Po	st-Primary Schools:	•	Grange Community College
•	The Donahies Community School	•	Gaelscholaiste Reachrainn

 Colaiste Dhulaigh Ardscoil La Salle

In relation to Primary and Post-Primary schools, the proposed scheme is projected to generate a demand of 1,039 no. spaces for Primary schools and 782 no. spaces for Post-primary schools, which is intended to be catered by the existing and planned schools provision.

Notwithstanding the existing schools in the area, provision is being made within the application for the reservation of a school site, which would be reserved during the 10-year lifespan of the planning permission.

3.3.2 CHILDCARE

There are a number of childcare facilities within the Belcamp area, which include:

- Giraffe Childcare Northern Cross
- · Coraline's Playschool
- Children's Choice
- Darndale Belcamp New Life Centre Ltd
- Darndale/Belcamp Integrated Childcare Service
- Lovable Me Montessori
- Bumblebee Montessori and Childcare -Belmayne
- Tigers Childcare
- First Steps Academy Creche & Montessori Limited
- Little Jesters Playschool
- Little Blossoms Creche

The proposed development on the Belcamp SHD lands is projected to generate a demand of c.172 no. childcare spaces, and it is recommended that 2 no. childcare facilities are proposed as part of the overall scheme for the lands. Furthermore, childcare facilities have already been permitted on earlier phases of Belcamp North lands.

3.3.3 PARKS, PLAY SPACES

A number of parks, playing fields and facilities are located in close proximity which are located further away but still within reach of the subject site. There are also a number of pocket parks and open spaces in the immediate vicinity of the subject site which are associated with existing residential developments.

es, playground, and tree planted boundaries and leisure walks.

• Belcamp Park: 25-hectare public park comprising leisure walks, playing pitches, Pitch & Putt, tennis courts and children's playground.

 Father Collins Park: 26-hectare natural woodland, includes: a 1.5 km peripheral running/ cycling track, 6 playing pitches, 6 fitness stations, 2 playgrounds, a skate park, a promenade, a concert amphitheatre and picnic areas with outdoor chess/draughts boards.

- Donaghmede Park: Recreational park and playing pitches.
- Grangemore Park: Recreational park.

Garden of Eden

An Cuan D'or

Little Rainbows

Stepping Stones

Pipalong Childcare

Naíonra Leanai Oga

Mead Day Care Centre

• Darndale Park: 13.1-hectare neighbourhood park comprising water feature, playing pitch-

- Edenmore Early Education Centre
- Little Footprints Montessori
- Moatview Early Education Centre
- · Bonnybrook Early Education Centre
- Sherpa Kids Kinsealy
- Nzone
- Clever Kidz Preschool and Montessori
- Drumnigh Montessori Primary School
- Fizzy Fingers Playgroup Limited
- The Learning Circle Childcare

Learn and Play Preschool and Afterschool

3.3.4 SPORT FACILITIES

There are a number of existing sports and recreational facilities that are within a convenient distance of the site. It includes parks, playing fields, community centres and gyms, such as:

Name	Location	Туре
Donahies Playing Fields	Donahies Fields, Kilfenora Drive and Millbrook Avenue, Dublin 13	Playing pitches
Trinity Sports and Leisure Centre	Father Collins Park, Hole in the Wall Rd, Dublin 13	Sports club with associated leisure facilities and swimming pool
Inisfail GAA	Carr's Lane, Balgriffin, Dublin 17	GAA Club
Craobh Chiaran GAA	R139, Belcamp, Dublin 17	Hurling and Gaelic Football Club
O'Toole's GAA Club	Blundell Drive, Coolock, Dublin 13	GAA Club
Hot Yoga Dublin	Mayne River St, Northern Cross, Dublin 17	Yoga classes
Funky Monkeys Clarehall	Clarehall Shopping Centre, Malahide Rd, Dublin 17	Children's indoor play centre
Donaghmede Library	Donaghmede Shopping Centre, Donaghmede Rd, Donaghmede, Dublin 13	Public library
Leisureplex Coolock	Malahide Rd, Ayrfield, Dublin 17	Indoor leisure and recreational facility
Odeon Coolock	Malahide Rd, Ayrfield, Dublin 17	Cinema

3.3.5 RETAIL PROVISION

The retail provision ranges from large convenience food supermarkets to traditional corner shops within a short distance of the lands, as well as comparable good facilities within a 15-minute drive of the site.

Retail Facilities				
Name	Address	Туре		
Donaghmede Shopping Centre	Donaghmede Rd, Donaghmede, Dublin 13	Dunnes Stores supermarket, comparison and convenience retail shops, pharmacy, post office, restaurants, services, petrol station		
Clarehall Shopping Centre	Clarehall Shopping Centre, Malahide Rd, Coolock, Dublin 17	Tesco supermarket, comparison and convenience retail shops		
Clarehall Retail Park	Grange, Dublin 17	Dealz store, comparison and convenience retail, services, gym		
Northern Cross Shopping	Malahide Rd and R139, Dublin 17	Rangeoflocalconvenienceandcomparisonretail,services and restaurants		
Coolock Retail Park Malahide Rd, Priorswood, Dublin 17		Aldi supermarket, comparison and convenience retail shops, services		

3.3.6 COMMUNITY AND SOCIAL INFRASTRUCTURE FOR THE WIDER AREA

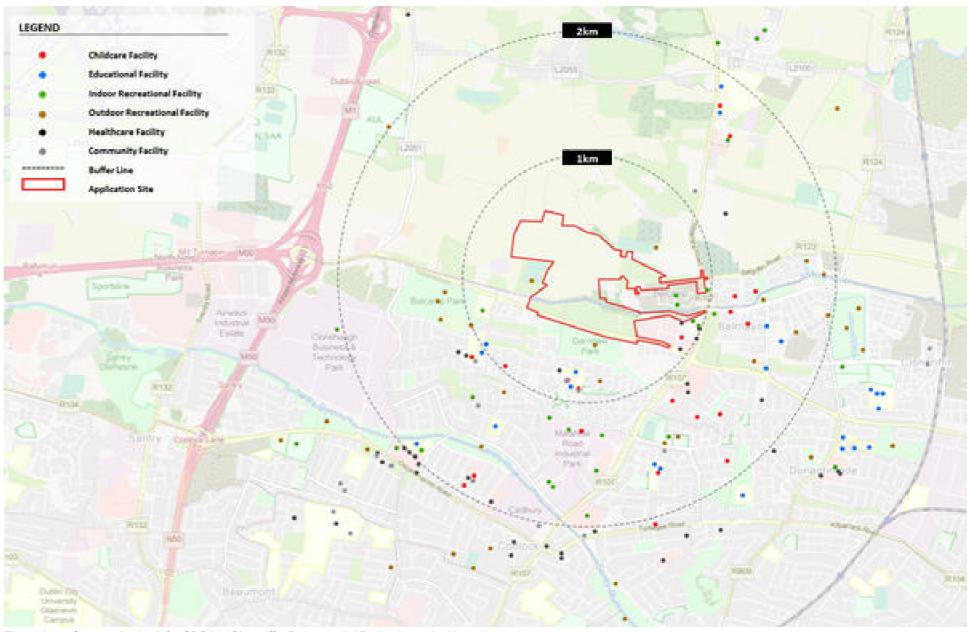


Figure 3.9 – Community Audit for SDRA1 (Clongriffin-Belmayne LAP), lands marked in red

3.0 SITE CONTEXT

3.4 BUILT FORM

3.4.1 URBAN DESIGN AND DENSITY

The surrounding built context of Belcamp is increasingly urban. Development of the DCC northern fringe is ongoing as the neighbourhoods of Belmayne, Clongriffin and Baldoyle are completed. Low-rise housing surrounds mixed use urban nodes, with streets and spaces forming sustainable densities of development. The green spaces and road network are expanding to support these neighbourhoods and can be expanded further through Belcamp under the objectives of the development plan. The existing urban form comprises larger apartment blocks at central nodes, with commercial uses and active street frontage at ground floor level. Street hierarchy is presented by varying road width and building heights, with larger buildings lining the main spine routes and spaces and lower rise to the smaller streets and mews courts. Principal corners are defined by higher building form and appropriate street grain is maintained with regular door and window rhythms.

The housing portion of Phase 1 at Belcamp is nearing completion with two storey terraces lining a network of streets in the eastern portion of the Belcamp lands. College Avenue, the central spine, runs west along the axis of Belcamp Hall with cross streets connecting to a secondary east-west route, Washington Drive, along the south of the site and overlooking the Mayne river park. The houses provide a built edge and enclosure to the green spaces.





















3.4.2 PREVAILING HEIGHTS

Building heights in the surrounding area vary from single storey cottages adjacent to the site and at Balgriffin Cottages to six and seven storeys at Clarehall. Building height is used to define corners and provide strong edge definition to parks and spaces. For the urban nodes of Clarehall and Clongriffin, the established height averages at six storeys, with similar heights to apartment blocks at The Hermitage and Belmayne. Building heights step down to four storeys moving away from centres, and to two and three storeys on housing streets.

3.4.3 MATERIALS AND FINISHES

Prevailing finishes in the local area are predominantly red and buff coloured brick and smooth pale or coloured render. Zinc or similar metal cladding is employed at penthouse level on apartment blocks or to bay or dormer windows on houses. Non-residential buildings are clad in various panel materials, including stone finishes.

Belcamp Phase 1 housing comprises two storey terraces with a mix of red brick and smooth light-coloured render. College Avenue is the principal street through this area and all houses have full brick facades, while the cross streets and Washington Drive overlooking the woodland to the south have a mix of brick and render finishes. Corner houses are designed to avoid blank gables and form bookends to the terraces with full brick facades to the public sides, while projecting bays are also finished in brick.







3.0 SITE CONTEXT







3.0 SITE CONTEXT

3.5 PLANNING HISTORY

3.5.1 PERMITTED DEVELOPMENT ON SUBJECT LANDS

BELCAMP NORTH

There have been several planning applications made on the Belcamp north lands as follows, the relevant planning permissions granted to date are as follows:

- Reg. Ref. F05A/1388 Planning permission was granted for alterations to and change of use of Belcamp Hall complex to residential use.
- Reg. Ref. F15A/0609 (ABP Ref. PL06F. 248052) Planning permission was granted by An Bord Pleanála and Fingal County Council for a residential development at Belcamp. Permission was granted for 175 residential dwellings and apartment units.
- Reg. Ref. F15/0609-E1 An Extension of Duration permission has been granted in respect of the original Phase 1 permission.
- Reg. Ref. F18A/0058 Planning permission was granted by Fingal County Council for amendments to permitted development Reg. Ref. F15A/0609, PL06F.248052, at Belcamp, a protected structure (RPS No. 463), to replace 9 no. three storey three-bedroom houses with 8 no. two storey three-bedroom houses, on a 0.19ha portion of the lands, with access from Malahide Road.
- Reg. Ref. F19A/0220 Planning permission was granted by Fingal County Council for amendments to permitted development Reg. Ref. F15A/0609, PL06F.248052 at Amendments to permitted developments Reg. Ref. F15A/0609, PL06F.248052 and F18A/0058 (a protected structure, RPS No. 463) to replace 83 no. two storey houses comprising 1 no. 2-bedroom house, 44 no. 3-bedroom houses and 38 no. 4-bedroom houses, with 89 no. two storey houses comprising 58 no. 3-bedroom houses and 31 no. 4-bedroom houses, on a 2.27ha portion of the lands, with access from Malahide Road. The development includes 178 no. on-curtilage car parking spaces and all associated and ancillary site works.
- Reg. Ref. F19A/0221 Planning permission was granted by Fingal County Council for amendments to permitted development Reg. Ref. F15A/0609, PL06F.248052 at Belcamp, a Protected Structure (RPS No. 463), comprising revisions to layout and house types of 49 no. two storey houses comprising 37 no. 3-bedroom houses and 12 no. 4-bedroom houses on a 1.21ha



CGI view of Belcamp Hall from east

portion of the lands, with access from the Malahide Road. The development includes 98 no. on-curtilage car parking spaces and all associated and ancillary site works.

Reg. Ref F21A/0401 – Planning permission was granted by Fingal County Council for a development on lands at Belcamp, Malahide Road, Dublin 17, comprising of the construction of 78 no. residential units comprising 58 no. houses (41 no. two storey 3-beds, 12 no. two storey 4-beds and 5 no. three storey 4-beds, all with associated car parking, and one no. three storey multi-dwelling block consisting of 10 no. own-door duplex units (6 no. 2-beds and 4 no. 3-beds), 2 no. 2-beds own-door triplex units, and 8 no. apartments (6 no. 1-beds and 2 no. 2-beds), all provided with private balconies/terraces and associated car parking and bicycle parking; landscaping; boundary treatments; public lighting; and all associated site infrastructure and engineering works necessary to facilitate the development. An appeal was subsequently lodged on 26th November 2021 and is now under consideration by An Bord Pleanála.

Reg. Ref F21A/0488 – Planning permission was granted by Fingal County Council for a development on lands at Belcamp, Malahide Road, Dublin 17, consisting of the construction of 77 no. residential units across 2 no. apartment blocks as follows; Block 1, a part 3 and part 4 storey apartment block comprising 51 no. units (16 no. 1 bedrooms; 33 no. 2 bedrooms and 2 no. 3 bedroom units) with balconies/terraces to all units. Block 2, a part 3 and part 4 storey apartment block comprising 26 no. units (4 no. 1 bedrooms and 22 no. 2 bedroom units) with balconies/terraces to all units. The development also to include 65 no. surface level parking spaces, 184 no. bicycle parking spaces, bin stores, landscaping and boundary treatments. An appeal has subsequently been lodged on 23rd February 2022 and is now under consideration by An Bord Pleanála. It is important to note that Blocks 1 & 2 also form part of the site that was previously omitted by way of Condition No. 2 that was attached to the parent planning permission granted under Reg. Ref. F15A/0609; ABP Ref. PL06F.248052.

Whilst there are several additional planning applications in the wider area, there are no other relevant granted planning permissions pertaining to the subject lands at Belcamp North. There are however four planning applications currently in the live application process and pending decision with Fingal County Council. These include the Phase 1B development, and two concurrent applications within Phase 1 in compliance with Condition 2 of the original permission: Blocks 1 and 2, described above; and Block 3 (including a creche) and walled garden with café (Reg. Ref. F22A/0136).

BELCAMP SOUTH

There is one planning application pertaining to the lands on Belcamp South which was lodged by Gannon Homes in 2004 and was subsequently withdrawn under Reg. Ref. 6249/04. To our knowledge, there are no other planning applications pertaining to these lands.

3.5.2 PERMITTED DEVELOPMENT ON ADJACENT LANDS

design.

• **Campions site, Balgriffin.** The adjoining site at Campions has planning permission for a total of 54 no. residential units. This was granted by Fingal County Council under Reg. Ref. F18A/0167, which amends the parent permission (43 no. units granted under Reg. Ref. F15A/0093; ABP Ref. PL06F.245710). This amendment application represents a 25% increase in the number of units and density being granted in the area as a result of an amendment application that utilises a more efficient site layout and house type

- **Parkside (Shannon Homes).** The residential development on the eastern side of the Malahide Road, known as 'Parkside' provides for approximately 185 no. residential units on a site extending to c.3.1 hectares, which provides a density of 59 units per hectare.
- Belmayne Main Street & Belmayne Avenue, Dublin 13. A critical piece of road infrastructure which was approved by Dublin City Council under the Part 8 planning process (Reg. Ref. 4214/18). The provision of this road (along with cycle lanes, a number of junction upgrades and a bus gate at the Malahide Road) will open up Belmayne for Town Centre and residential development. The approved scheme has been designed to incorporate the BusConnects Core Bus Corridor No. 1 from the City Centre to Clongriffin Railway Station.
- Malahide Road, Churchwell Avenue and Belmayne Road, Ayrfield, Dublin 13. This development comprises 150 apartment units approved under Part VIII procedures, on lands at Belmayne under Reg. Ref. 3238/17. This development is currently under construction.
- Schools provision. Permission has been granted for 2 no. schools – a temporary post primary and primary school at Belmayne Avenue, under Reg. Ref. 3009/19. Also, 1 no. additional permanent 1,000 pupil post-primary school has been granted by Dublin City Council at Belmayne Avenue (Reg. Ref. 2600/20). Thus, a total of 3 no. schools have been granted planning permission recently.
- Northern Cross SHD. An Bord Pleanála recently granted a Strategic Housing Development under ABP-307887-20 for 191 no. apartments and associated site works, on lands at Site 2, Mayne River Avenue, Northern Cross, Malahide Road, Dublin 17
- Grid Stabilisation Facility. A 10 year planning permission is sought for the development of a Synchronous Compensator Development (Grid Stabilisation Facility) on the site of c. 1.65 ha at lands south of Belcamp 220kV Substation, Belcamp, Dublin 17. A request for additional information was requested by Fingal County Council on the 17th February 2022.

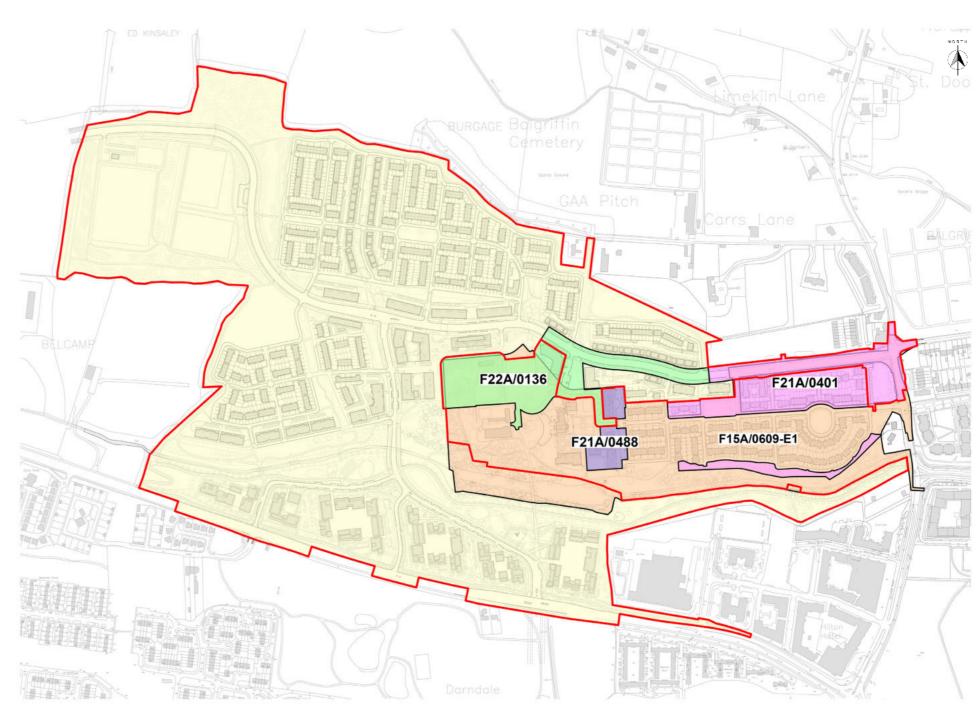


Figure 3.10 Planning history map

SECTION 2 DESIGN STRATEGY



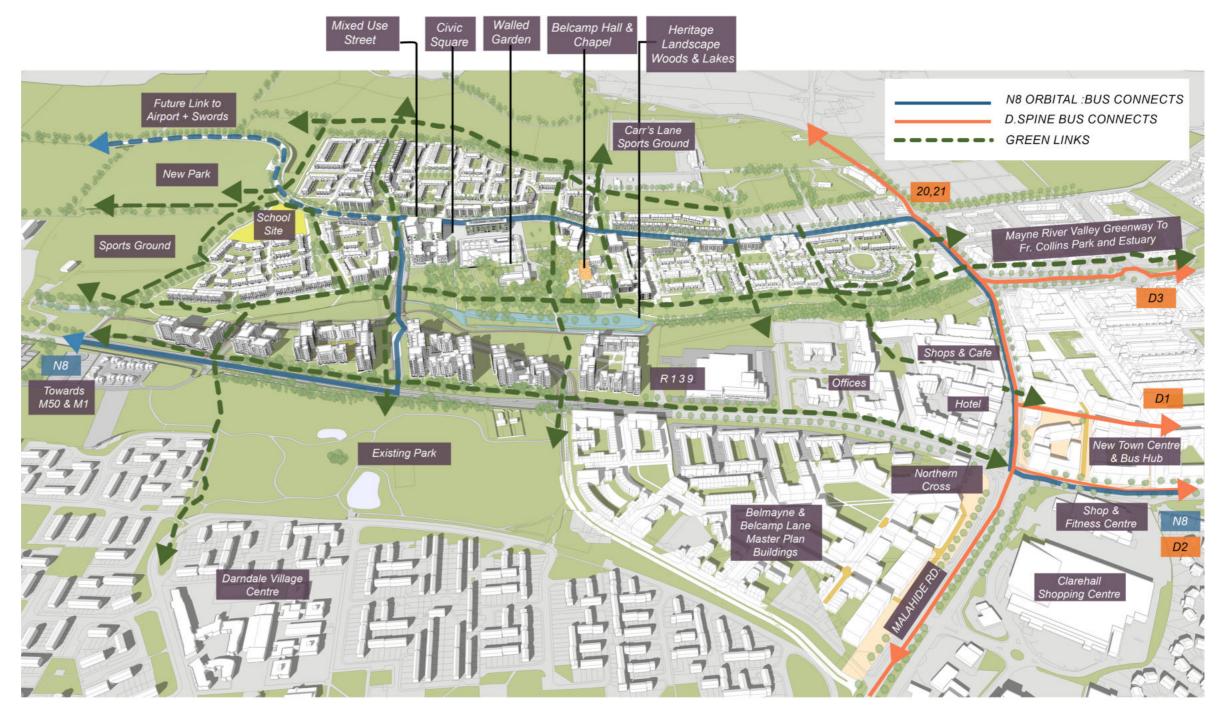
4.1 NEW DEVELOPMENT IN EXISTING CONTEXT

The development of Belcamp will create a new neighbourhood between the Malahide Road and the R139, consolidating the urban nature of the local area, and opening the lands to public amenity use. The proposed masterplan takes cues from the existing natural and historic fabric to create a series of streets and spaces giving a distinct sense of place to the new neighbourhood. The new residential district will be supported by an appropriate mix and quantum of community, retail, and commercial uses, as well as high amenity public open spaces. A mix of building types and scales will complement the historic buildings and respect the setting of the protected structure.

The development of the Belcamp lands will open new east to west and south to west connections, linking the Belmayne, Clongriffin and the Malahide Road areas to the west, and facilitating future links to the airport and associated employment areas.

The Mayne River Linear Park can extend through Belcamp to connect the open space lands at the west of the site to Father Collins Park and onwards to Racecourse Regional Park in Baldoyle.

Pedestrian and cycle connections are facilitated by routes crossing the Belcamp lands from Carr's Lane in the north to the R139 in the south, and from lands zoned from employment at the west to Clarehall at the south-east.



Proposed development in Context with DCC Draft Belmayne & Belcamp Lane Masterplan

4.0 DESIGN OVERVIEW

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4.0 DESIGN OVERVIEW

The Belcamp site is special and unique in its abundance of natural, built, and historic heritage, and presents a wonderful opportunity to create a new neighbourhood of distinct character and identity. The unique quality of this site will inform the design of all aspects of its development to preserve its special natural and historic heritage. The design approach is based on five principal themes, arising from the existing features and development plan objectives of the Belcamp lands. These themes inform the design strategy of the overall site and are introduced briefly in the following paragraphs.

4.2 RIPARIAN ZONE AND BIODIVERSITY CORRIDORS

The Belcamp lands are rich in natural features with the Mayne river, mature woodland and existing hedgerow boundaries, as well as man-made interventions such as the lakes, weir, ice house and Washington Monument that add interest and focal points to the natural setting. The principal organising elements for the proposed layout at Belcamp that emerge from the natural heritage are the Mayne river valley park, the green hedgerow corridors and a biodiversity loop that runs around the development perimeter.

Mayne River Park

The Mayne flows through the site from west to east for the most part in a green wooded valley. A broad park is proposed straddling the river and extending the length of the site from Malahide Road to the west boundary, as an expansion of the existing greenway that runs from the coast at Baldoyle through Clongriffin and Belmayne to Belcamp. The eastern portion of the park is overlooked by housing and contains cycle and footpaths on both sides. The park broadens out towards the centre of the site, expanding into the woodlands and walled garden areas north of the river and on to a landscaped park on the south side with kickabout areas and a play space, and overlooked by high density apartment buildings. The entrance road from the south bounds the edge of the space where views across the park towards the historic core can be appreciated on arrival into the development. The park incorporates the existing lakes and weir with a pedestrian and cycle route running over the causeway linking the south side directly to the protected structures and walled garden, while the weir is both visible and audible on approach along the river walks from the east. The ice house and Washington Monument feature on either side of the river, creating focal points of interest within the wider park. To the west of the south entrance road, the park continues with more play and MUGA facilities and is enclosed and overlooked on both sides by Duplex and Apartment blocks.

Hedgerows

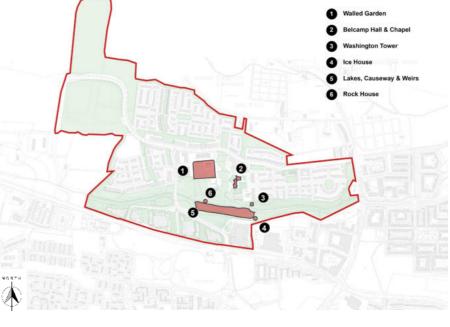
The Belcamp lands contain several old field boundaries comprising ditches and mature hedgerows that cross the site, mostly in a north-south alignment. Where possible these hedgerows are retained as biodiversity corridors linking the green spaces and supporting the movement of wildlife through the site. The hedgerows run north and south away from the main green spine, linking the riparian zone to the open space lands in the



north-west and to the R139 and Darndale Park in the south. Pedestrian main green spine, linking the riparian zone to the open space lands in the north-west and to the R139 and Darndale Park in the south. Pedestrian green routes along the hedgerows connect the housing areas to pocket parks, the open space lands and the school site. In the northern quarter, an east-west hedgerow runs along a townland boundary, linking housing districts in the east to the school site and open space lands. The hedge-rows set the alignment of street grids within the housing areas, in the west the grid aligns with the north-south hedgerows, and in the north with the townland boundary. Within the DCC lands, south of the river, the hedge-rows occupy the public spaces between the buildings, linking the Mayne river park to the R139 and across to Darndale Park.

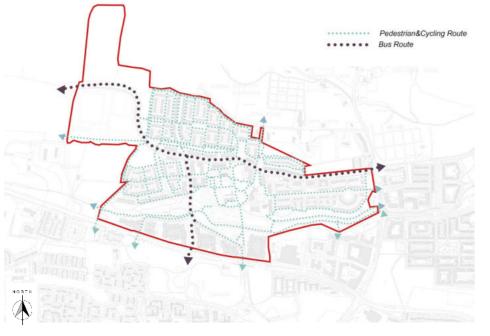
Biodiversity Loop

The west and north site boundaries comprise ditches with mature planting, with one section of the north boundary densely planted with mature trees where an old avenue approach to Springhill house to the north of Belcamp runs parallel. The west and north boundaries are enhanced by a wide margin of new planting to maintain biodiversity corridors along the boundaries and create a continuous greenway amenity, or biodiversity loop, that runs around the perimeter of the development. Rather than backing on to the boundaries, the houses face the greenway providing continuous passive surveillance. This biodiversity loop begins in the south-west corner of the site at the R139, runs north along the west boundary crossing the Mayne river and continuing north to pass the school site, cross the EWLR and run along the east edge of the open space lands to the north boundary, then eastwards along the boundary, south-east and eventually turning south to meet the EWLR at the east end of the site. Continuing across the EWLR the route can link south through the housing streets to the Mayne river park. Several green links cross the site linking the biodiversity loop to the historic core and the Mayne river park. Pocket parks and clearings occur at points along the loop with seating, exercise or play equipment to add interest and aid site legibility.



4.3 PROTECTED STRUCTURES

Belcamp Hall and Chapel, together with the other structures listed as protected (RPS 463) except for the Ice House, have been included in planning applications for the first phase of development at Belcamp. Planning approval has been granted for the renovation of the buildings, and their conversion into community, commercial and residential uses. Proposals for a formal garden and pavilion café structure have been submitted for the walled garden. The protected structures are located at the heart of the scheme and commercial and community uses are appropriate in this location, readily accessible from the Mayne river park to the south and the EWLR to the north. The site layout reinforces the destination guality of this historic guarter, with open views towards the walled garden, Belcamp Hall and Chapel on the principal approach roads from the east, west and south, as well as glimpses between buildings from smaller streets towards the built heritage. Views and vistas are facilitated by the arrangement of new buildings within the curtilage of Belcamp Hall. Paths and spaces along the green spine of the Mayne river valley lead towards the walled garden and the collegiate spaces surrounding Belcamp Hall and Chapel. North-south pedestrian and cycle routes pass through these spaces, linking Carr's Lane to the R139. These measures provide identity and legibility to the scheme in such a way that most visitors to the development would encounter at least one element of the historic built heritage during a visit, whether by passing the ice house, weir or Washington Monument on an east-west route along the Mayne river park, or by crossing the causeway between the lakes on a north-south route that could also lead past the walled garden or Belcamp Hall, or by passing through along the main roads where spaces open out to frame views towards the historic structures.



4.4 MOVEMENT

Pedestrian and cycle permeability are key components of the Belcamp scheme, with green links and pedestrian routes crossing the site from east to west and north to south. Permeable street grids allow for alternative route options and anticipated desire lines are accommodated in the layout, while green links and shared surface areas reinforce pedestrian priority. The historic core is accessible from all parts of the scheme within a few minutes' walk, with vistas along streets towards the walled garden and Belcamp Hall. Pedestrian and cycle priority are maintained throughout the site with several new bridges on the Mayne river to connect north to south. and broad raised crossing points on the principal roads. Segregated cycle lanes are also provided to the principal roads to facilitate easier cycle movement through the site. In the broader environs, the development at Belcamp will improve the existing movement patterns in the locality, facilitating routes that cross through the site, both pedestrian/cycle routes, and vehicular routes. The principal roads facilitate the future provision of bus routes into and through the site, enabling future expansion of these routes to employment zoned lands in the west and to Dublin Airport. The Mayne river greenway from Baldoyle can expand west through the site, bringing pedestrian and cycle connectivity to the walled garden, open space lands, GAA grounds and employment lands to the west.

4.5 CORES, EDGES, LINKS

Cores

The existing built heritage in Belcamp provides cues for making places in the new neighbourhood. With Belcamp Hall as a central focus, buildings and urban spaces are arranged around it to create enclosure and frame views. The main core of the FCC lands extends from Belcamp Square, on the east side of Belcamp Hall, to the town square and includes the walled garden at its centre. Community and some commercial uses are proposed in a collegiate series of overlapping spaces surround the protected structure. The sequence extends out from here to the north and west, allowing



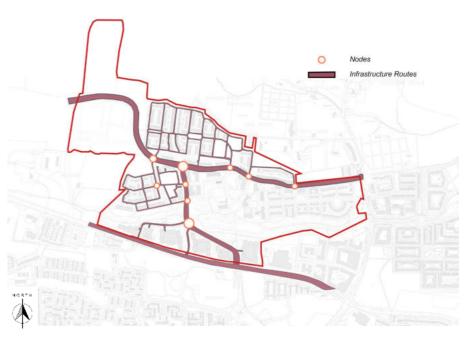
visual links back to the historic core. A broad green corridor sweeps down from the north to the west of Belcamp Hall maintaining links along tree stands to the Mayne river valley, and forms an ante-space to the walled garden entrance. The spatial sequence continues west with the walled garden enclosure as a public garden with pavilion cafe, which in turn overlaps the town square at its northwest corner. The town square and adjacent streets are enclosed by four and five storey buildings with ground floor retail and café uses spilling out on to the public realm. To the south of the river a plaza with café and retail uses at Block 3 faces towards the historic core and serves the local needs within the DCC lands. These cores are supplemented and connected by the large Mayne river park, which extends the length of the site and is enclosed along the north and south by built edges. Breaks in the built edge allow links to the principal places.

Edges

The built edges within the scheme define the places, and principal routes through the scheme have higher edges. Along the south boundary of the site a continuous built edge defines the enclosure of the R139 road and overlooks Darndale Park to the south. Within the lower rise housing quarters, the taller three storey house types are used to define the edges of the larger green spaces.

Links

All the places and spaces within the scheme are linked by a network of green routes, streets, bridges and raised pedestrian crossings that crisscross the scheme, providing a choice of routes to connect different spaces. The links extend outwards to the surrounding environs, with new connections through the Belcamp lands. The layout also facilitates a potential pedestrian and cycle link at the south-east to the proposed urban hub at Clarehall, identified in DCC's draft masterplan for the area. This link would run through the existing streets at Mayne River Street to the urban and transport hub.



4.6 STRATEGIC INFRASTRUCTURE

The lands are subject to a development plan roads objective, indicated on Map Sheet 9 of the Fingal Development Plan 2017-2023. These two routes have been incorporated into the scheme as treelined avenues with active street frontage, creating street hierarchy and public spaces for commercial activity to serve the new community. The East West Link Road (EWLR) runs from Malahide Road across the centre of the site to the north-west corner, facilitating its continuation along the north edge of adjacent employment zoned lands to the west as far as Stockhole Lane. The buildings lining this route step up in scale along the central stretch, and broad gaps in the building line allow views towards the historic core. The northsouth route runs from the R139 through the DCC lands, sweeping west upon entry to the site and affording open views over parkland towards the walled garden and Belcamp Hall environs. The road runs north over the river to meet the EWLR at a T-junction. It is indicated on Map Sheet 9 that this road continues north towards Kinsealy, however it is not anticipated that this leg will ultimately be implemented. In the meantime, a road reservation has been retained north of the EWLR to continue this route north should it be required in the future. This portion of land is proposed as a linear green space overlooked by Duplex Blocks and with no off-street parking proposed that might conflict with a future strategic road. The EWLR is a 4-lane road with bus lanes in both directions, flanked on each side by tree margins, dedicated cycle lanes and public footpaths. The north-south road has a similar arrangement, but without dedicated bus lanes. Bus stops are proposed along both routes, with a bus gate proposed at the southern end of the N-S road, to facilitate direct access on to the R139. These strategic roads will form part of Phase 1 of the development, allowing the establishment of public transport routes from the outset to serve the site, reducing reliance on private cars for residents.

4.0 DESIGN OVERVIEW

5.1 WALLED GARDEN

The Walled Garden is located north-west of Belcamp Hall and is a common feature of the historic stately house. The walled garden was once known as 'the Kitchen Garden' as vegetable and fruit trees were grown to keep the family kitchen well stocked. The tall perimeter wall had a strong aesthetic value but also provided a very valuable function: to raise the temperature of the garden to provide a more productive environment for the plants within. The walls would absorb the heat of the sun during the day and release the heat slowly during the evening and throughout the night.

The wall, with its curved corners to the northern side, is constructed in red brick laid in English garden wall bond with flush pointing. The projecting brick coping and corbeling is rounded off with a mortar top. The walled garden has three entrances, each with a pediment above; a pedestrian entrance in the west and north wall respectively, and a vehicular entrance flanked with a pedestrian gate either side in the east wall. The north and west entrances are currently blocked up with brick masonry. The south wall has a few window sized openings, currently blocked up with blockwork masonry, and a breach within its eastern end. The western end of the south wall has largely collapsed; albeit there is no definite indication for the historic make-up, or indeed its existence, of this part of the wall between garden and woodland.

It is proposed to make the walled garden accessible for the public, the surrounding residential development and the wider area respectively, as a continuation from the woodland walks as well as respite within the residential surrounding.

As part of the proposed development the walls will be repaired and conserved in accordance with good conservation practice. The existing entrance gates are proposed to be restored, with the main entrance located at the eastern wall. Metal gates are to be re-instated within the historic entry gates to provided glimpses into the landscaped garden and to break the solidity of the walls.

The provision of a small café, with an indoor pantry shop area and an outdoor seating area, inside the walled garden is proposed with the woodland backdrop adding to the experience of outdoor seating.

In order to foster biodiversity and remain in keeping with the existing woodland and Mayne river banks a meadow garden landscape design is proposed. To strengthen the sense of community and provide some form of entertainment the provision of a sensory garden design is proposed, incorporated in the wider garden design, or within a dedicated section. These work are all subject to pending planning approval under F22A/0136"





View of walled garden from northwest



Internal view of walled garden looking north



West entrance of walled garden



Original north entrance to walled garden



Proposed cafe within walled garden

5.0 CONSERVATION STRATEGY

5.2 BELCAMP HALL AND CHAPEL

A seven-bay three-storey over basement red brick residential building, constructed as a freestanding historic country house of the Georgian period. It is believed that Belcamp Hall was constructed in the early 1780's and finished in 1784 by Edward Newenham, a popular politician at the time with strong connections to the American Independence movement.

The building exterior comprises a red brick elevation, laid to Flemish bond. Originally the building was pitched roof, finished with natural slates and presumably lead valleys, gutter etc. Following its loss in the 1921 fire, an asphalted concrete flat roof on steel beams was constructed in its place. The main entrance, west elevation, is fronted with a central rusticated Ashlar granite breakfront. The east elevation, which is the rear elevation overlooking the Irish Sea and Ireland's Eye is fronted with a three-bay full height central bow housing one of Ireland's few oval rooms. The window openings are round headed at ground floor, and square headed to all other floor with decreasing window height to the upper storeys.

Originally each floor was subdivided into four main rooms, including the oval room facing east, a vestibule on each floor, a secondary staircase rising from the basement to the top floor and a representative stair hall connecting the main entry level at First Floor with the Second Floor. The impressive interior decoration to the First Floor included a vaulted ceiling, a ceiling rose depicting the zodiac signs, a coved ceiling including frieze and cornice to the main stairhall, nieches for statues within the vestibule and elaborate internal joinery including door pediments and lugged architraves.

The chapel was built in 1903 for the Oblate brother, for their religious worship on the college campus and designed by the famous Irish architect George Coppinger Ashlin. The cruciform plan has a north-south orientation, with the liturgical east, the sanctuary, facing north. The main entrance is located to the south west, a single-bay projecting porch.

The exterior of the chapel comprises of red brick, laid mainly in English garden bond and a Flemish bond at plinth level. Simply carved limestone elements have been decoratively applied as a plinth string course, circumventive window cill run, window tracery and hood mouldings, barge stones and crucifix finials. The roof cladding comprised alternating bands of heather blue and heather grey natural slates. The ridge was finished with decorative three-hole crested clay tiles. Parapet gutter, soakers and flashings were lined with lead. The cast-iron raingear comprised rectangular ornamental hopper heads, ogee gutter and round downpipes, painted lead white.



Belcamp College before the top floor was remodelled after fire

The interior comprised of the roof timber structure exposed, which therefore was part of the interior design elements. The roof structure comprised timber scissor trusses and wooden panels to the roof soffit. The trusses 'rested' on half columns, more of a design feature than structural requirement.

The nave contained carved timber wall panels, small plagues depicting the stations of the cross fitted between the windows and a timber organ loft structure with a castiron spiralling stairs, all of which have been removed and securely stored. The highly valuable Harry Clarke stained glass windows have also been removed previously and stored. The sanctuary and crossing walls are decorated with mosaics, the original 1921 re-modelling scheme by Joshua Clarke studios. The suspended timber floors were finished with wide timber floor boards with a central floor runner.

In spring 2020 a fire destroyed the interior of Belcamp Hall and Capel's timber roof and floor structure. As the chapel's decorative timber elements and stained glass windows were removed in the early 2010's, they have survived the fire.

Following the devastating 2020 fire, a disaster plan outlining how to assess fire damage and recover salvageable historic fabric is currently being compiled. The appropriate conservation strategy will be developed based on the finalized disaster plan and the development of a design proposal for a sustainable re-use of both building structures. The works will include the stabilization of both protected structures, including brick repair and re-pointing, a new roof to the Chapel and a revised roof to Belcamp Hall, appropriate yet upgraded floor constructions, and the reinstatement of the historic windows.

The main objective for the Chapel is to reinstate the decorative internal elements, with the main focus on reinstating the high quality series of Harry Clarke stained glass windows. For Belcamp Hall the main objective is to conserve and restore surviving material and to faithfully restore the damaged interior decorative scheme at Ground Floor Level & Main Staircase, based on recovered material and photographic evidence where possible.



West face of Belcamp Hall following 2020 fire



Ceiling detail following fire



View of chapel following fire



Details of stained glass window





Internal damage following fire



Original ceiling detail



Internal view of chapel before fire





5.0 CONSERVATION STRATEGY

5.3 WASHINGTON TOWER

One of the historic Belcamp landscape features is the Washington Tower monument, in the form of a folly, constructed as a memorial to the strong ties between George Washington, the first President of the United States, and Edward Newenham, as well as Newenham's appreciation for the American Independence movement.

The monument, constructed in 1778, is located to the north side of the lakes, and the south-east of Belcamp Hall. The square tower has a height of approx.. 10m and 6m side lengths. It is a square plan with star shaped corner. The structure is of brick construction with a rough cast render and seabed rock around window and door openings, and castellated parapets.

The interior, like the intermediate ceiling and fireplace surrounds & hearths, has been mostly lost and inappropriately repaired, like concrete door lintels & spiral stair and cementitious plaster.

It is not proposed to restore the monument, or to re-open it for a use, but to undertake works preserving the character of the structure and preventing deterioration of its historic fabric.

5.4 LAKES, CAUSEWAY AND WEIRS

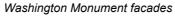
The woodland which is still intact and the adjacent lakes are special features and essential to the setting of the house. The woodland screens the courtyard and the walled garden and provide (potentially) charming walkways with special areas such as the Rock House which is a small harbour for relaxing looking out on the banks of the lake.

It is also proposed that the woodland and Mayne River valley will form a significant new public amenity within the area, incorporating woodland walks within the Belcamp lands.

The proposed development includes for the restoration of the Mayne River and bridge. The Mayne River and associated weirs and ponds have become choked by vegetation and fallen trees and debris. A proposed river restoration program will see the river and ponds returned to their former glory and will become a significant amenity within the area. As well as the river restoration works, the arched bridge over the ponds will be restored, enhancing the architectural heritage and provide views along the course of the Mayne River. The lakes themselves will be restored to their additional function of SUDs for the wider development.



Lake views



5.5 ICE HOUSE

The ice house is located outside the site of the planning application and within the functional area of Dublin City Council. To the south of Belcamp House, on the far side of the River Mayne, in a wooded area. The exterior is covered by earth and is somewhat overgrown. The interior is domed and egg shaped and is constructed of red brick . The entrance feature was possibly longer and more extended at one stage, but now the dome-shaped arch leads immediately to the interior. Under the earthen cover, the ice house is covered with slate. The structure remained intact and is in a good state of preservation, which is still the case today. It is the intention to conserve the ice house as part of the overall conservation of the house and grounds.

5.6 ROCK HOUSE

The Rock House is set within the designed woodland landscape and was originally designed as a romantic stone structure for repose and views of the ornamental lakes. The intent is to

conserve and stablize the surviving elements of the Rock House so that they are safe and that the conserved remnant of the structure forms part of the heritage and interest of the landscape.







Ice House

5.7 OVERVIEW

The lands in which the SHD development is proposed share a relationship with the Protected Structures already established and acknowledged within the previously approved development. These approvals were for lands wherein the Protected Structures were contained ie. Belcamp Hall and Chapel, the Washington Tower, the Walled Garden, the bridge (causeway) between the lakes, original entrance gates, rock house and ice house. The lands pertinent to the SHD application contain some of these structures listed within the currently applicable Fingal County Development Plan 2017-2023, namely, the lakes and causeway, ice house and rock house. The SHD lands represent an extension of the context and setting of protected structures.

In particular the walled garden with its extensive and historic brick walls forms a key element and will be set within a changed context. The design of the new structures has therefore properly taken careful account of the setting and has developed accordingly. Certain key principles were adopted and developed as the design progressed. The walled garden retains a separation and set back from adjacent proposed structures allowing it to be clearly read as a unified architectural element. The curved corners of the garden are a rare feature and have been highlighted with views towards them framed by the positioning of adjacent structures. It is noted that the new 'town square' forms a relationship with the north west corner of the Walled Garden and that this acts to form a set-piece allowing the form of the old brick enclosing wall to become a key element within a new civic context. The fabric of the walled garden is acknowledged and although the context will change from rural to urban there is sufficient distance and consideration for place making to allow this key element to retain historic interest and validity. The design places the location of busy traffic circulation routes sufficiently far away from this key element such that it does not become a defining characteristic.

The urban design ethos that informed the design of the previously approved phases of development was based on an acknowledgement of both the Protected Structures and the surviving original landscape elements. Views of the protected structures and a certain formality of form and hierarchy act to shape the new context. This approach has been carried through to the SHD lands so that the new structures continue this formal discipline. The lands that form the SHD application were not historically part of a designed landscape. Those lands were relatively modest and located primarily to the south where the picturesque devices of adjoining lakes with connecting weirs and woodland planting will be retained and rejuvenated as an amenity for residents. In the lands to the north and north-west of the house, Edward Newenham never realised the implied extent of his original ambition as manifested in the managed landscape to the south.

However, the placement and hierarchy of the proposed layout and the design and connectivity of the landscaping proposals extends the principle into these lands. It acknowledges that, in this changed context, the surviving characteristics of the Belcamp estate inform the new proposals and connect to the amenity created by restoring the historic landscape features. The emphasis on the restored historic complex of the house, chapel, walled garden and tower as the core assets of the overall development is acknowledged and responded to in the proposed layout.



5.8 NEWENHAM AND WASHINGTON

Sheehan and Barry also researched the connection between Edward Newenham and George Washington and their respective gardens to consider was there a design influence. A report is attached separately.

We are of the opinion that, while the two estates share a common landscape tradition there is no particular evidence that there was any active co-ordination of designs. It is evident from their communication that both men shared the philosophies and ideals of English landscape design intend. Yet, due to their different standing in their respective political societies, their respective financial means, the varying sizes of lands and, most importantly, their geographical locations the implementation and emphasizes of these principles varies widely.

The two estates implemented English landscape characteristics like highlighting and accentuating their respective vistas towards large bodies of water, the Irish Sea at Belcamp and the Potomac River at Mount Vernon. The natural yet romanticised landscape favoured at the time was implemented in both estates via balanced and deliberate tree-planting, stone walls, lawns and fields. Belcamp Hall achieved more of a naturalistic experience across the entire estate, whereas Mount Vernon displays memories of earlier traditions of axiality and formality, as well as a strict subdivision of service and pleasure gardens.



Refurbishment of Chapel Roof

6.1 SITE CONTEXT

6.1.1 EXISTING LANDSCAPE, CONSTRAINTS, WOODLANDS ETC.

Overview

The site is both extensive and variable, with a range of different landscapes. The main body of the site area comprises broadly open, agricultural land, it also supports significant areas of woodland and hedgerows, notably along the River Mayne, which supports a riparian strip, river and associated ecology & biodiversity. The third type of landscape is associated with the historic house in the form of walled & formal gardens. The layout, format and extent of woodland and hedges appears to relate to the historic context of Belcamp House. Particularly, there is evidence to suggest an original intent to create an ornamental woodland effect between Belcamp House and the Malahide Road and also regarding the substantial wooded area to the south-west of Belcamp House and about the ponds. agricultural context of the site is also well defined by a number of substantial hedgerows both at boundaries and also dividing fields, typically west of Belcamp House.

Existing Vegetation

The tree survey has noted a particularly diverse tree population. The basis of the tree population is historic, comprising the remnants of planted woodlands, hedgerows and tree lines. Unfortunately however, many of these trees are now old and in poor condition. The review period since the Belcamp state was first reviewed in 2015, has seen much deterioration and natural tree loss. This has created further repercussions, typically relating to exposure and shelter loss that in turn is resulting in increased rates of tree failure.

There are requirements within the remaining landscape to provide for access and connectivity, which the Landscape Architects have used as Greenway Corridors to activate and envigorate these tree hedgerows and tree line. As connectivity is required through or beside trees and hedges, it corresponds with the need to preserve these lines of biodiversity and keep them connected. Where hedgerows are removed, it is due, primarily to necessary roadway connections, which are offset by the preservation and augmentation of the hedgerows with native planting.

Furthermore the use of paths associated with hedgrows, activates these spaces and ensures long term survival in a built environment.

Constraints



Woodland Along River Mayne - Existing Natural Path

There are a number of elements that may viewed as Constraints in development terms, hedgerows, trees and the River Mayne. However they have been utilised to create a unique and dynamic landscape. The constraints, therefore were positive in the development of the landscape design. In the landscape plans, the existing hedgerows, trees and riparian corridor were utilised as part of the Green Infrastructure, providing connections on paths and bicycles for active and passive recreation. By using these elements, it provided a foil for further amenity development, such as playgrounds, congregation spaces and seating. The constraints were used as positive, utilising them ensures the protection and management for future generations.

Ecology

The thrust of the landscape development of the site was to maintain the hedgerows and trees as biodiversity corridors. These corridors were promoted as connections not only in Green Infrastructure terms, ie paths and amenity spaces, but also vital biodiversity linkages. These links provide important ecological reserves in the preservation and development of important flora and fauna.

The River Mayne provides a rich and diverse habita, from which the hedgerows and green infrastructure stems from. An elevated boardwalk along a wetland portion has been proposed to reduce the impact upon this rich ecological corridor.

The existing hedgrows and trees are being preserved and augmented by native tree and hedge planting. It is further developed with the use of wildflower planting for each type of habitat.



City Side.



Existing Woodland and Grassland on Dublin

6.1.2 EXISTING VEGETATION & RIVER HABITAT



6.1.3 HISTORIC LANDSCAPE REPORT

Belcamp Hall is situated on Dublin's north side approximately 15km from the city centre. Once an area widely populated with the historic country houses of the Georgian period, unfortunately many of these houses have been lost over time while Belcamp Hall has remained, albeit changed significantly in both character and purpose.

The Georgian period extended from 1714 to 1830, and in Dublin was a period of prosperity and unrivalled growth. Belcamp Hall has its origins in the 17th century but the existing structure was built in 1763 as stated on a plague on the house itself, however it's believed to have actually been completed in 1784 by Edward Newenham. Newenham was a popular politician and a strong supporter of American Independence, with ties to Franklin, Washington and Lafayette.

Belcamp Hall is a unique house that stands aside from many other Georgian properties of the time as it was designed to include oval rooms. Other examples include Lucan House, Farmleigh House and Mount Kennedy Co. Wicklow.

In 1884 Belcamp Hall was taken over by the Oblate brothers. The house then over the years transformed with a series of extensions to facilitate its new purpose from a stately home to a school for boys (Belcamp College). In 1903 a Gothic style chapel and a residential wing for students was constructed. Additional wings and blocks were added to the house again in the mid and late 20th century. The original footprint of Belcamp Hall was 370sqm which increased to approximately 4,400sqm when in use as Belcamp College, dwarfing the original house and eliminating the curtilage surrounding Belcamp Hall.

The landscape heritage design and influence

Georgian architecture is based on a more refrained design style, with straight edges and often square symmetrical shapes predominating. Many of the houses were also placed in grand landscapes and the landscape architectural movement of the time however couldn't have been more different. The inspiration for the design of the landscape at Belcamp Hall and many of the large houses throughout Ireland and the UK came from the English landscape garden. The philosophy behind the English landscape garden was Naturalism, favouring curved lines, gentle slopes, lakes and woodlands moving away from the strict formal geometric gardens of the Baroque period. These gardens were designed to look natural and be a place for meditation and relaxation, encouraging visitors to wander throughout the landscape finding hidden ornamentation in nature to give a sense of mystery to the landscape.

Lancelot 'Capability' Brown was the most successful practitioner of this approach in the second half of the 18th century. He was responsible for the design of over 200 parklands across England, at least 150 of which had as one of their principle features a newly created lake. Brown's materials could scarcely have been simpler, utilising earth, water and trees, all of which were employed at Belcamp Hall. Employing the English garden design principles were popular as they were much cheaper to construct than the formal gardens of the past.

- Vistas
- Drive

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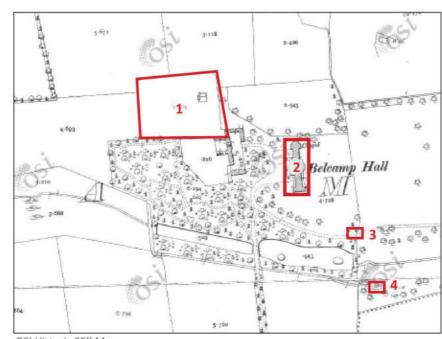
- Parkland setting .
- Woodland ٠ ٠ Waterways
- .
- Walled garden

development

The primary design philosophy for the proposed development is based on the principle of retaining and enhancing the historic fabric of Belcamp Hall and ensure its successful integration within the proposed development.

Belcamp Hall and lands have, over a period of time, suffered from vandalism and more damaging from fire on a number of occasions and the current proposals allow for the restoration of the original building (refer to Conservation Architect Report). Similarly, the proposed development seeks to retain and restore the historic cultural landscape and setting of Belcamp Hall by retaining and enhancing the character of the grand English landscape garden, allowing the original design principles define the character of the proposed development.





OSI Historic 25" Map



Current Masterplan

Characteristics of the English Landscape Garden included:

- Sculpture, recreational architecture/ruins/follies
- Rock House and Ice House
- All of the above features are present at Belcamp.
- Conservation and Mitigation Measures within the proposed

The primary aim of the landscape strategy is to identify the important elements within the Belcamp lands to expose the aspects of the approach to its space, character and consequent proposal. The primary landscape components within the masterplan lands include:

Belcamp Hall and setting/views/entrance gates

Red bricked house c.1785 designed by James Hoban. Further additions include chapel and residential accommodation. Extensive fire damage and vandalism has occurred to the buildings within the last 5-10 years and a programme of restoration work is currently being prepared (Refer to Sheehan Barry Design Report).

Walled Garden

The walls of the garden remain intact and enclose a significant space (110x80m approx). The future proposals for the walled garden have been prepared by TBS. It is noted that the high enclosing walls and potential lack of passive supervision may encourage anti-social ac-tivity within a new residential community. As such, it was considered appropriate that the walled garden contain a well designed building with an agreed use, that would overcome this problem and allow residents to take greater 'ownership' of the space.

Washington Monument

Washington Tower was built in honour of the first president of the US (George Washington) and built during his lifetime (1778). It was restored in 1984 but has suffered from recent vandalism and general neglect. Intention to refurbish and allow for public access to and around within the public realm.

Mayne River and upper and lower ponds

The Mayne River flows through the site from west to east into Baldoyle Bay. Within the lands the river flows within a wooded valley. 2no. historic amenity ponds are located within the valley south of the house (level of lower pond approx. 1m below upper pond) with the re-aligned Mayne river located within deep ditch to the south of ponds. The perimeter trees around the ponds are younger than the original woodland trees, suggesting that the ponds were constructed after the original house.

The main aims of the ponds include:

- Provide greater 'visual' connection to the ponds
- Utilise the ponds to assist in the SuDs train process
- Provide public access along the river valley
- •FCC preference is to avoid use of fencing around perimeter of ponds and to utilize planting to provide 'natural' barrier to water's edge.

Mayne River valley woodland (refer to Tree Survey Report prepared by The Tree File)

The Tree File undertook a tree survey of the lands including the Mayne river valley during late Summer/Autumn 2015 and is currently being updated. In summary, the original primarily Beech trees located on the upper slopes of the Mayne River valley as identified in the 1837 OSi historic map, are in decline with tree fall occurring regularly. The greatest problem appears to be natural loss and resulting exposure and shelter loss. Whilst the site supports a huge number of trees (primarily within the Mayne river valley), it's the younger Sycamore, Ash and Elm that dominate numerically. These trees are relatively small (typically 5 to 14 metres) and young, most being less than 35-40 years old. The original and mature population (primarily Beech) are deteriorating rapidly, with only a fraction remaining from the original population. Accordingly, these trees are becoming more and more exposed and are subject to increasing rates of mechanical failure, regardless of health. It is possible that, as part of the proposed development of the Belcamp Hall lands, a desire to retain larger, older (and more visually significant) trees will incur contextual and safety/ management issues.

Minimal re-generation of the planted Beech has occurred and very few other species have generated any sustainable seedlings (excepting possibly poplar) over and above the ubiquitous Ash, Sycamore and Elm. The combination of these three tree species in combination with bramble thickets tend to dominate the natural re-generation. Without intervention, it would appear that the Ash and Sycamore will dominate the tree population as the existing mature population is lost.

Woodland Management Plan

It is evident that in the absence of a long term management plan, the original woodland may be entirely lost. The process of population culling and augmentation of a more diverse species profile appears well founded.

On this basis, The Tree File were engaged to prepare a Woodland Management Plan for the Belcamp lands. The aim of the Plan is to devise a strategy to provide for the future long term management of the woodland, including:

- To provide a sustainable woodland through the management of existing and new planting.

- erally

The Plan identifies a number of different areas and that are addressed by the Woodland Management Plan, including:

- Field edges

- derelict outbuildings to west)
- exit to Malahide Road)

The Plan also considers short, medium and long term management measures/objectives. In addition, there is the potential to provide future public access within the valley through the provision of a pedestrian footpath, as a recreational amenity. The potential to provide activity equipment along this route which could be used by a mixed age group, is also being considered.

- •To maximise the amenity value of the site
- •To address biodiversity and ecological issue
- •To address the existing age profile asymmetries
- •To regularly review and monitor tree population
- •To provide passive surveillance of the river valley lands gen-

Main woodland (north of upper pond)

- •Ornamental tree planting (between old school buildings and
- •Embankment woodland (between lower pond and stream

6.2 PUBLIC REALM

6.2.1 CONCEPT VISION

The design approach of the public realm within the masterplan lands was to produce a scheme with a strong identity and distinctive sense of place. This has been achieved through careful design considerations including:

- Well defined and overlooked public spaces
- Usable spaces with varying character, dynamics and emphasis
- Retention of existing hedgerows where possible

Provision of passive and active recreational opportunities for a variety of age groups and abilities

Connectivity and permeability providing pedestrian (and cycle pathways) that link the various strategic spaces and pocket parks within the scheme and to the wider environment, the existing schools, civic plaza, as well as to the adjoining residential developments

Provision of cycle/pedestrian access - providing pedestrian and cycle routes within and through the Masterplan lands

To create a legible environment for people to live within and move through, a hierarchy of materials (paving, street furniture etc.) and planting will be employed to create different zones and provide visual cues to how people may move through or use these spaces. While different paving materials and textures will be used to demarcate changes in levels, verges, pedestrian priority zones, cycle paths and to guide the visually impaired, it is proposed that materials including paving, lighting, street furniture and tree planting will be chosen from a limited palette to encourage visual cohesion within the scheme. Focal points, such as sculptural elements, specimen tree planting and plazas, will also be incorporated at appropriate locations within the lands to enhance this sense of place and to assist with way-finding through this scheme.

In order to create a highly legible and therefore self-regulating environment, signage and barriers will be kept to a minimum, thereby reducing physically intrusive measures, enhancing pedestrian and cyclist movement and creating a more attractive public realm.

A key objective of the landscape strategy for the proposed scheme is to provide opportunities for passive and active recreation, by way of fitness areas/exercise stations, kick-about areas, play facilities and pathways through the public spaces. These proposed spaces in addition to providing recreational opportunities, will also promote connectivity within the overall lands and adjoining areas.

The proposed layout successfully utilises the existing landscape elements including the topography where achievable. The primary design consideration within the landscape was to consider the requirements of the future residents, through the provision of high quality public spaces with a strong landscape character. The proposed landscape strategy forms part of the overall public space network within the overall development. The public spaces are distributed throughout the development to complement and enhance the site layout plan, with the main public spaces located within the centre of the development. The proposed public spaces contain a number of elements including:

• The retention of key field hedgerows incorporated into proposed GI corridors

- Pedestrian/cycle routes
- Informal play space
- Natural play facility

• High quality paving materials and furniture to streets/spaces/ squares

- Surface water attenuation wetland features and SuDs components
- Native trees/hedgerow enhancement/wildflower meadow







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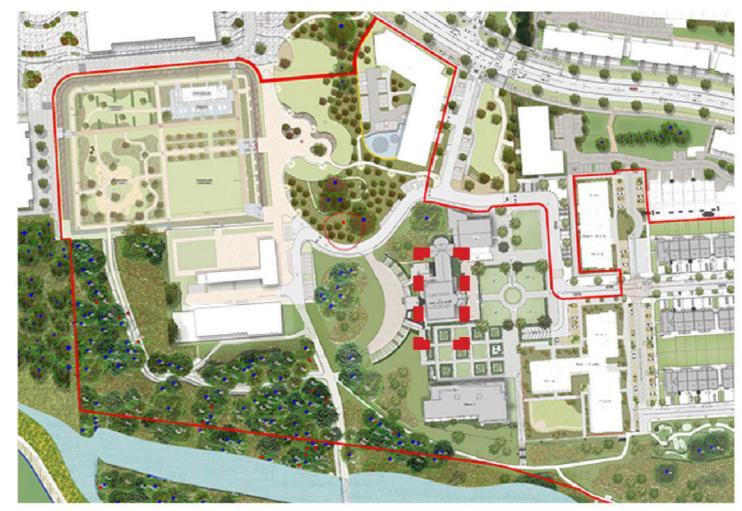
6.2.2 BELCAMP HALL ENVIRONS

Belcamp Hall is situated broadly in the centre of the holding. The historic context of Belcamp Hall and its designed landscape are key drivers of the design and layout of the new neighbourhood. This is the heart of the place and important spatial sequences; green routes and vistas are designed to celebrate the heritage context as memorable and emblematic of the neighbourhood as a whole.

There is a north-south green lung of woodland and lawns to the west of Belcamp Hall's entrance front including historic woodland forming a green connection to the walled garden to the west and the lakes and causeway to the south.

There is also a north-south connection to the east of the house, forming a sequence of enclosed urban spaces and collegiate squares leading down to the lakes and the Washington monument. Belcamp Hall faces the central square with an axial view east towards Ireland's Eye.

The river valley with lakes and woodlands becomes a primary east-west desire line for pedestrian and cycle movement to the expanding town centre, Belmayne Square and transport hub to the east



Belcamp Hall



Context Map

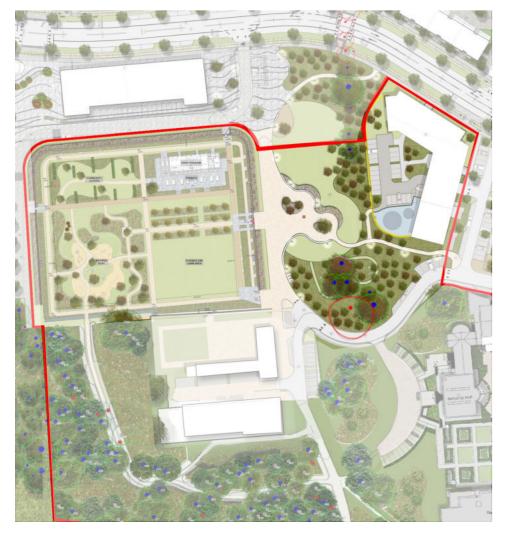


6.2.3 WALLED GARDEN & COURTYARD

Walled Garden

It is located north-west of Belcamp Hall and was a common feature of the historic stately houses of the past. The walls of the garden remain intact and enclose a significant space (110x80m approx). A historic report and future proposals for the Walled Garden has been prepared by TBS and include: Café / Pavilion, Community garden (required size and specification to be con-firmed by FCC), Natural play facility, Wild-flower meadow, perimeter boundaries and entrance gates, seating areas and quality lighting provision.

WALLED GARDEN & COURTYARD



Walled Garden Courtyard

The primary design consideration within the courtyard was to consider the requirements of the future residents through the provision of a high quality 'shared surface' type space within a courtyard character reflecting the historical setting adjacent to Belcamp Hall and the Walled Garden. The courtyard design allows for flexible use areas including carparking which incorporate passive supervision from apartments which overlook the spaces. The courtyard design provides for the

- •Car parking and service access
- •SuDs as designed by engineers
- •Semi secure space for informal play
- •Natural Play
- •Pedestrian access to the walled garden
- •Sitting areas in sheltered sunny locations around the existing mature trees
- •Quality lighting provision to ensure safe night time environment

The existing trees to the south of the courtyard are retained within a lawn area and provide both a strong visual reference and a strong enclosing element to the courtyard. Paved surfaces for access and parking have been kept to a minimum with the proposed carparking located away from the main building elevations.





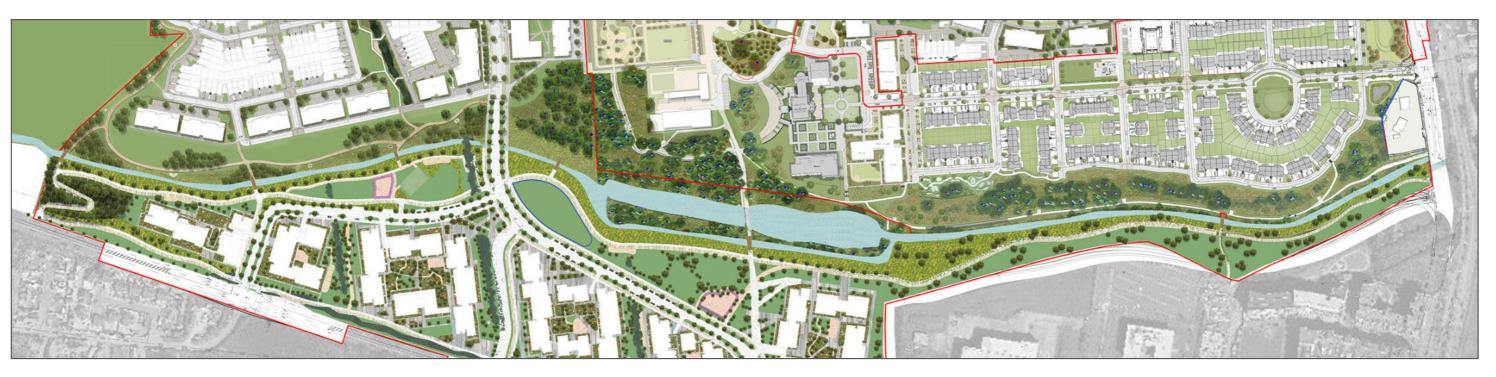








6.2.4 MAYNE RIVER GREENWAY



The Mayne River Greenway will provide a strategic new multi functional recreational amenity incorporating GI, which will also provide a setting for biodiversity and water management. The key components of the greenway include:

> Retention and enhancement of existing woodland
> Network of new pedestrian/cycle routes connecting the Masterplan lands with the existing public space network
> Incorporation of SuDs measures including a SW detention basin to engineer's design details

> •A range of active and passive recreation uses. A natural play facility is proposed, which is overlooked by proposed residential properties for the purpose of passive surveillance.









6.2.5 BELCAMP GI CORRIDOR

BELCAMP GI CORRIDOR



GREEN INFRASTRUCTURE

A key element of the Belcamp Masterplan has been the incorporation of existing and new GI into the Plan. The principal GI elements existing within the Plan area include the hedgerows and drainage ditches. The new GI elements will comprise the provision of high quality public spaces, creation of key linkages to existing parkland, new tree lines and SuDs (SW detention basins, swales and integrated construction wetlands). The GI Objectives of the Masterplan are as follows:

•To create high quality public spaces that respond to their environment, are well designed, allow for a mix of active and passive recreation, facilitate ease of maintenance and are visually attractive.

•To create multi-functional public spaces that provide a setting for amenity, biodiversity and water management

•To retain existing hedgerows (where achievable) and create new corridors that will encourage biodiversity and informal recreational use (refer to arborist hedgerow survey as prepared by The Tree File)

•To create surface water elements based on the sites natural drainage that function as semi-natural spaces and sustainable drainage management (refer to engineers dwgs).

The intention is to connect each of the SuDs elements along public space corridors within the Masterplan where existing topography allows. Retained hedgerows will also be incorporated within the public space corridors.

The **Belcamp GI corridor** provides for the retention of the hedgerow trees and drainage ditch along the northern boundary and extends around the perimeter of the masterplan lands. The new GI element will comprise the provision of a high quality linear route and the creation of key linkages to other proposed new public spaces within the masterplan lands. The GI corridor will provide for enhanced biodiversity and water management, and may contain exercise equipment as part of the Belcamp active recreation strategy.

SuDs (refer to engineers dwgs)

The masterplan identifies SuDs proposals within the masterplan lands. The proposed SuDs design measures provides for filtration of all surface water run off from the site into existing/proposed surface water networks incorporating integrated constructed wetlands. SW attenuation may also be considered including 'Stormtech', oversized pipes, green and blue roofs and constructed tree pits. Surface water conveyance systems should utilise existing drainage ditches where possible.







6.2.6 LOCAL GI CORRIDORS

LOCAL GI COORIDORS



Local GI Corridors

These spaces provide a strategic new multi functional recreational amenity incorporating GI and which will also provide a setting for biodiversity and water management. The key components of the spaces include:

- •A range of active and passive recreation uses including natural play
- •A pedestrian route connecting Belcamp GI corridor to the Mayne River Greenway
- •Incorporation of SuDs measures including roadside SW swales to engineers design details
- •Enhancement of existing hedgerows with the provision of new areas of native urban forestry Natural play is proposed within these spaces, which is overlooked by proposed residential dwellings for the purpose of passive surveillance.





6.2.7 LOCAL PUBLIC SPACES

LOCAL PUBLIC SPACES





The masterplan identifies a number of smaller 'pocket' type spaces providing a new local amenity incorporating GI and which will also provide a setting for biodiversity and water management. The key components of the spaces include:

- •Enhancement of existing hedgerows where retained
- •Incorporation of SuDs measures to engineers design details
- •Provision of enhanced pedestrian/cycle connection to existing public spaces
- •Informal/natural play

Communal Courtyards

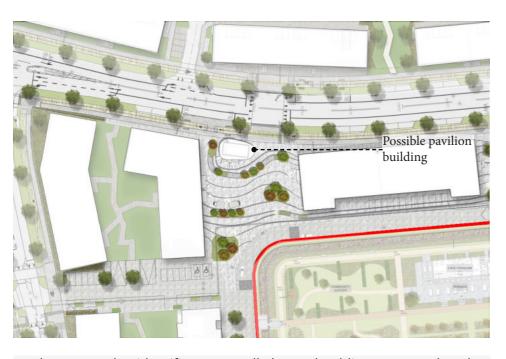
The primary design consideration within the courtyards was to consider the requirements of the future residents through the provision of high quality semi-private spaces. The courtyard designs allow for flexible multi-use areas which incorporate passive supervision from duplexes which overlook the spaces. The courtyard designs provide for the following uses:

- •Secure space for children's play with formal and informal play areas
- •Sitting areas in sheltered sunny locations
- •Opportunity for growing herbs in raised planters
- •Potential 'green composting' areas
- •Quality lighting to ensure safe night time environment





6.2.8 TOWN SQUARE



The masterplan identifies a centrally located public square enclosed by residential blocks and human scale streets that relate strongly to the urban layout. The design philosophy of the public realm was to provide bold, contemporary but above all else a robust public space that has the potential to provide a main focus both within the development as well as the immediate surrounding area.

The new square is located immediately adjacent to the proposed local centre and walled garden and forms one of the main spaces within the masterplan lands. The square is enclosed by 3/4 storey buildings of high architectural quality accommodating retail and offices. A pavilion building may also be located along the northern edge separating the square from the EWLR.

The proposed square provides a strong identity and distinctive sense of place, as well as providing a flexible use space incorporating high quality materials.

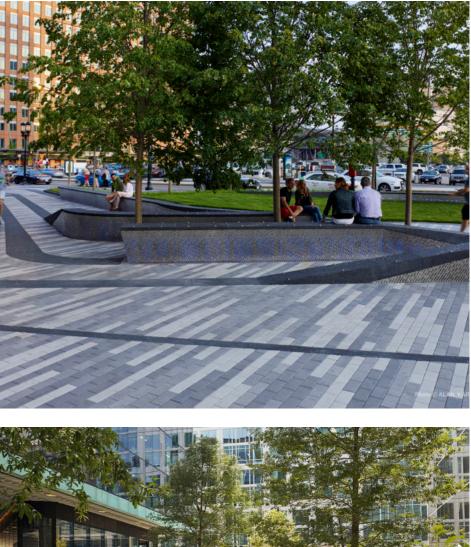
The design of the square provides for the following uses:

- •Meeting place with seating areas in sheltered sunny locations
- •Opportunity for weekend market/special local events
- •Quality lighting to ensure safe night time environment

Level changes were also a major consideration in the design of the square. The design successfully creates usable spaces while accommodating the surrounding the varying road levels. It was considered "enough landscape" to incorporate light, native trees and contemporary paving materials and furniture, to ensure that the spaces are of the highest design quality.









6.2.9 FRONTAGE ALONG R139







Suggested treatment to street frontage along R139









6.2.10 CLASS 1 OS ACTIVE RECREATION

• Proposed pitches of multiple sizes

- •Club House , Changing Rooms & Gym
- Proposed parking areas including overflow parking over reinforced grass area

• Proposed flood lighting





LEGEND

- Site boundary
 - Existing vegetation
 - Proposed Turf pitch (large)
 - Proposed All-Weather Pitch (large)
 - Proposed Small Pitch
 - Proposed Grass Public Area
- Proposed Boundary Vegetation
- Proposed Tree Planting
- Proposed Lighting
 - Proposed Road
 - Proposed Sidewalk
 - Proposed Building



6.3 DESIGN PROPOSAL

6.3.1 GREEN MOVEMENT





6.3.2 PLAY AMENITY - STRUCTURED SPACE

Movement

Tree planting and gentle grass mounding are ideal places to hide. These changes in levels are suitable for jumping and running down gentle hills. Some Wooden seating areas could be suitable for climbing. Proposed playground located in open space will accommodate climbing.

Stimulation of the five senses

Natural elements throughout open space provide quiet places, dark and bright areas that appeals to a child senses. Sensory and textured plants planted throughout the space will appeal to the senses.

Experiencing change in the natural and built environment. Experiencing the seasons The contrast between open space and paving provides opportunities to learn and play. Natural elements in open space such as trees will allow Children to experience changes in seasons.

Social interactions

Meeting points and a number of seating areas will encourage social interaction. Kick about spaces also encourage interaction

Playing with identity Role play, Places to hide in the natural elements of open space.

Experiencing a range of emotions This bespoke designed open space will appeal and evoke children's emotions.

Capabilities of play such as tumble ,chase game. Extensive grass areas throughout the open space are ideal for kickabout and chasing games.

Varied and interesting physical environment.

A bespoke designed space that has gentle grass mounding thus providing a change in levels. This provides a varied and interesting physical play environment.

We are proposing a natural playground.

Natural playgrounds help children to develop other beneficial behaviours in addition to physical skills. These behaviours include social skills, cooperation, and the ability to solve problems. In addition, natural playgrounds stimulate a child's imagination and creativity more than a traditional playground More sustainable Blend in with natural environment – slopes etc











Please find drawings with proposed Play space, we have developed the play space as per the Sustainable Urban Housing: Design Standards for New Apartments, Guidelines for Planning Authorities. In this we have provided for approximately 100 sq. metres of play space per communal open space.

We are proposing two large public play areas within the parkland. Its intend to provide between 15-20 items of play. We have taken the quantum from 4.13 of the Guidelines.

Within small play spaces (about 85 – 100 sq. metres) for the specific needs of toddlers and children up to the age of six, with suitable play equipment, seating for parents/guardians, and within sight of the apartment building, in a scheme that includes 25 or more units with two or more bedrooms; and Within play areas (200–400 sq. metres) for older children and young teenagers, in a scheme that includes 100 or more apartments with two or more bedrooms.

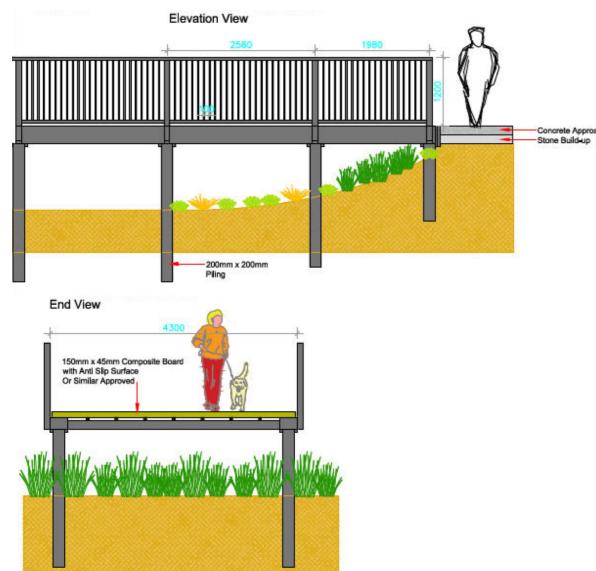


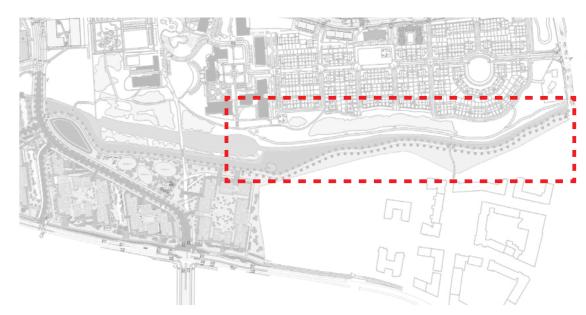
6.3.3 LANDSCAPE TREATMENTS - WETLAND WALKWAY





STEEL REINFORCED BRIDGE SECTION











Indicative Images

6.0 LANDSCAPE STRATEGY

Location Plan

7.0 URBAN DESIGN STRATEGY

7.1 PLACEMAKING





Proposed view towards Belcamp Hall from College Avenue



Figure 7.1 Proposed Placemaking

The urban design strategy for Belcamp is centred on the historic building of Belcamp Hall. Collegiate squares surround the protected structure, and vistas and pedestrian routes radiate out from here to connect to all parts of the site. Three and four storey blocks are positioned carefully around Belcamp Hall and share a common language in elevational treatment and finishes. In a similar way, the other two main spaces, the walled garden and Town Square are surrounded by set pieces that identify each place.

The planning applications immediate to Belcamp Hall are being made directly to Fingal County Council. Some are granted and already under construction and others are in or pending the planning process. This includes lands immediately east, north and west of Belcamp Hall including the walled garden, historic woodlands and lakes.

Within the different housing quarters, placemaking is achieved in how the buildings address each other and the green spaces they enclose. Materials and finishes are used to distinguish shared surface areas from roads, while tree lined margins identify green routes connecting pocket parks and larger areas. Pedestrian and cycle links between streets provide informal shared areas overlooked by short terraces. Street sections demonstrate the differing scale and hierarchy of the streets and spaces.

Proposed Block 1 within S.34 planning ref. F21A/0488

7.2 MOVEMENT

Movement through the Belcamp lands is facilitated in the green routes, the permeable street grids, the strategic roads, and the informal links between places. The historic core is accessible from all directions within the site, and from the wider area along the east-west greenway from Baldoyle, or through the DCC lands from Darndale and the R139, or from the north via Carr's Lane. Vehicular and public transport access from the wider area is accessible through the new principal roads, allowing onward connections to Clonshaugh in the west, Belmayne and Clongriffin in the east and Dublin city to the south.

Pedestrian and cycle priority is maintained throughout the site with green links, shared surface areas, bridges over the river and broad raised pedestrian crossings where desire lines cross the principal roads. Pedestrian and cycle movement is facilitated along the principal green spine of the Mayne river park, as well as along the biodiversity corridors through and around the site. Through movement is provided with links from Carr's Lane to the R139 and beyond to Darndale Park via new road crossings, and along the EWLR from east of the Malahide Road to employment zoned lands in Clonshaugh. Connections to Clarehall and the northern cross are proposed with new footpaths and cycling infrastructure along the north side of the R139, as well as a potential link through Mayne River Street from the east portion of the lands.

The open space lands in the western portion of the site are accessible via pedestrian and cycle green links, with direct access from the school site without the requirement to cross a road. Vehicular access is via the EWLR. Access to the school site from the development is easily done on foot along the green links.

Public transport links currently run along the south and east boundaries of the site with bus stops located along these boundaries. New bus stops and bus lanes are proposed within the Belcamp scheme, allowing buses to serve the centre of the development. A bus gate is also proposed to facilitate easy access to and from the R139.

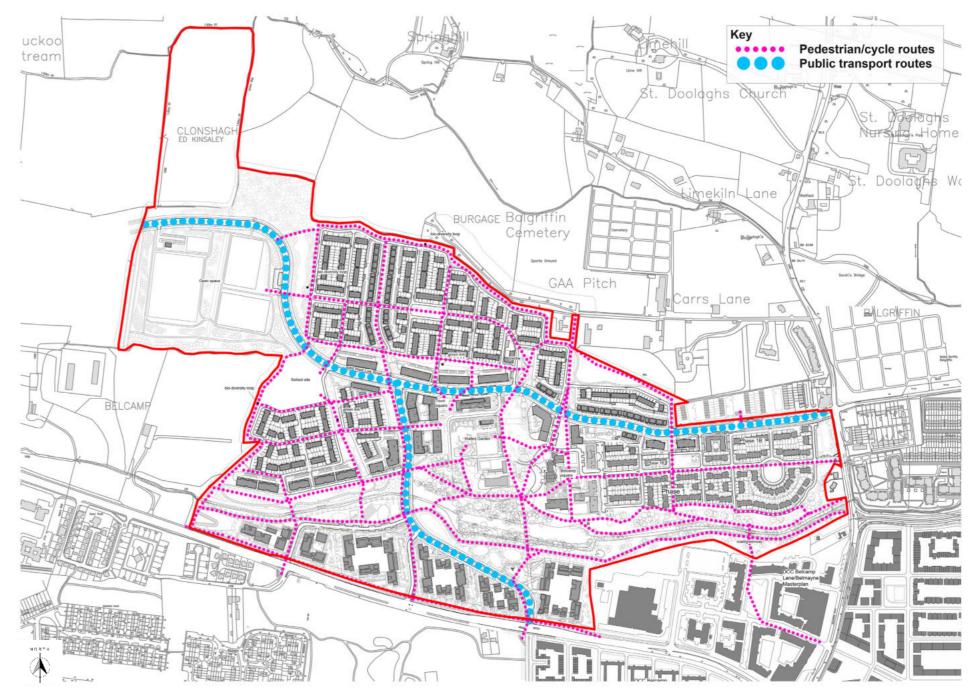


Figure 7.2 Proposed Movement Plan

7.0 URBAN DESIGN STRATEGY

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7.0 URBAN DESIGN STRATEGY

7.3 PUBLIC OPEN SPACE

7.3.1 OPEN SPACE STRATEGY

The Belcamp lands contain a rich natural heritage, with established mature woodland, lakes, weirs and watercourses, as well as historic structures that create landmarks of interest. The open space strategy exploits the natural beauty and history of the site to create a distinct place for residents to identify with, as well as a public amenity for the district. Natural landscape features are retained and enhanced to be enjoyed by new generations, ensuring a high-quality environment that encourages active lifestyles and general wellbeing. Walkways, paths, and new planting will open the woodlands and connect parks and spaces. The paths of existing hedgerows and ditches will be reinvigorated with fresh planting, to connect green spaces and accommodate biodiversity corridors.



View to the open space in DCC lands

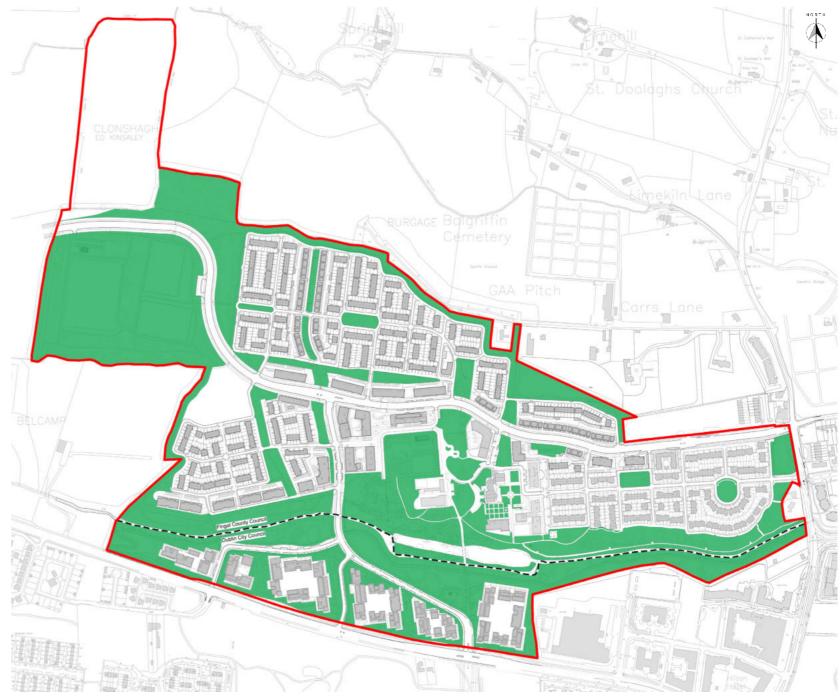


Figure 7.3 Proposed Green Open Spaces

7.3.2 PUBLIC OPEN SPACE PROVISION

A whole site approach has been taken for the provision of public open space at Belcamp. The rich diversity of available green spaces allows for a varied experience as one moves through the site. The flat open field a varied experience as one moves through the site. The flat open field to the west of the site contrasts with the dense woodland, while the calm quality of the walled garden differs from the busy flow of the weirs and river. Approximately 37.23ha of public open space is provided across the entire Belcamp lands, 42.8% of the total site area. In the Fingal lands the total POS is 28.44ha, while in the DCC lands the provision is 8.79ha. Much of the public open space on the Fingal portion is located on OS and GB zoned lands, while the net development area for the SHD lands only (27.08ha) has 5.43ha of POS, or 20%.



View over Pedestrian Greenway from southwest

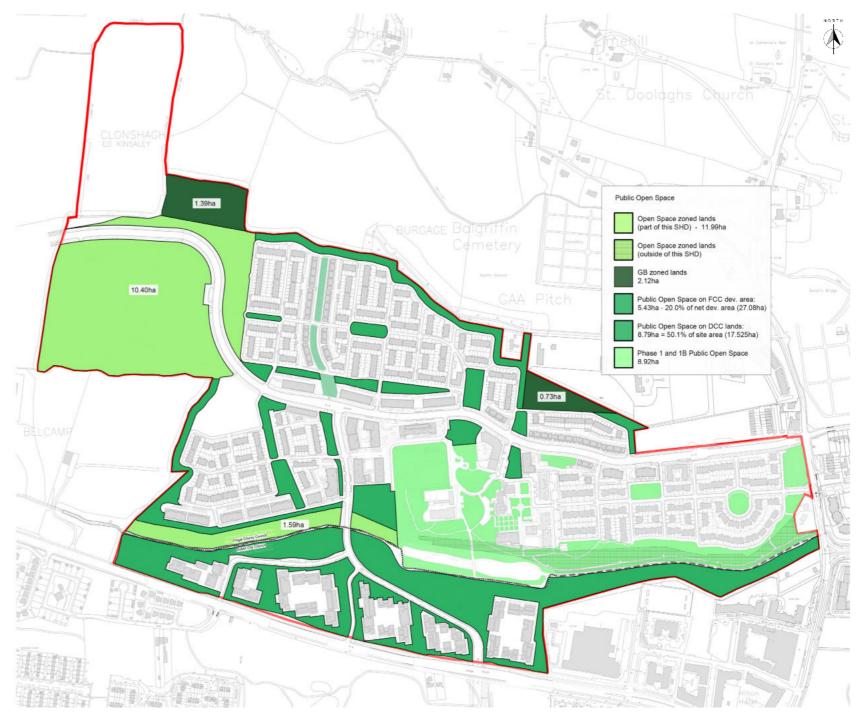


Figure 7.4 Proposed Public Open Spaces

7.0 URBAN DESIGN STRATEGY

7.3.3 STREETS

The main Arterial Streets in the wider neighbourhood are the Malahide Road linking to the city and the R139 linking to western orbital routes. Two principal Link Roads within the development have a locally arterial function, the EWLR continues Mayne Road west from Malahide Road towards Stockhole Lane and Belcamp Parkway is new road proposed in Belcamp Lane / Belmayne masterplan linking from Malahide Road south of Clarehall crossroads west to cross the R139 into Belcamp to join the EWLR. Within the proposed developments these two roads are treated as DMURS compliant link roads.

The EWLR consists of two bus lanes flanking two general traffic lanes. Street trees are planted in a verge with bicycle lanes and footpaths behind. This road gives priority to green modes and public transport and the road section is urban with boulevard planting. Bus stops are located along the route and at the civic square. Buildings are generally four storeys and are close to the back of the footpath giving good enclosure and passive surveillance, Verge planted trees provide a consistent rhythm and scale. This road is part of the place and displays different characters as it progresses through the site.

From the east, it is bounded by existing development under construction to its north and to its south by the emerging first phase of Belcamp, also under construction and subject to separate planning permissions and applications. The road has a strong built edge interspersed with gaps for retained trees. The edges intensify in scale to four and then five storeys and a gentle bend signals a transition to the central area where frontages become active with retail use and wider footpaths extend back to the edge of the buildings. The verge zone now accommodates parallel parking. The bend enhances enclosure by closing forward vision, while proximate car parking, bus stops, textured crossings, active footpaths with retail frontages all signal a more urban context and a slower speed. The street planting carries through with unifying effect. Emerging to the west, a gentle S bend swings north and then west framing views of the park leaving the urban area, and in the opposite direction serves to contain forward vision, slow speed and announces the arrival of the urban context.

The development along the R139 extends up to 9 storeys forming an appropriately strong urban edge to an arterial city route coming from the M1 and M50. Belcamp Parkway enters the site through this frontage. It is a 2 lane road with very wide verges future proofing the road section for future bus lanes. It arrives from the south on the axis of the original southern approach to Belcamp Hall and provides a framed view of the heritage woodland of the original demesne. It then gently curves around the woodland suggesting the enclosure of the heritage landscape within before reentering the urban section defined by flanking 5 storey apartment blocks and meets the EWLR as a T junction. This junction defines the western extent of the Main Street. Like the EWLR, it too is boulevard planted.

Local streets provide good permeability and legibility within the various character areas, with varying degrees of enclosure according to place. The housing enclave north of the civic area has a parallel grid of streets and local squares; hedgerows defining greenways grid the housing south and east of the school.

Green routes for pedestrians and cycles prevail throughout the scheme picking up the main desire lines to transport to the east, and to the various amenities within and surrounding the neighbourhood.

Legibility and sense of place is proportionate - from the intimate experiences and spatial sequences of pedestrian movement through the heritage landscape, to the city scale landmark of the southern edge marking an entrance into the city from the motorway via the R139.



Site section through townland boundary, EWLR, town square and walled garden

Town Square

Walled Garden

Street Sections:



Parking court, duplex block and green linear park



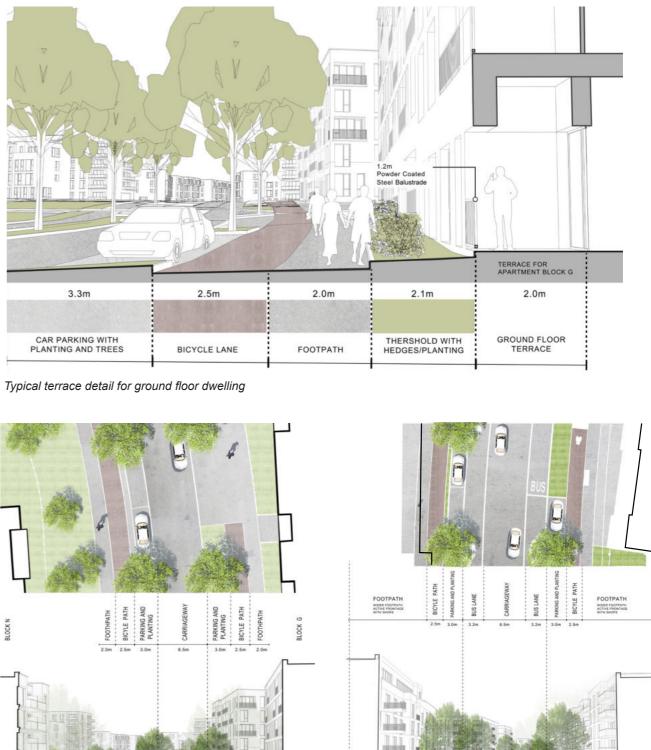
Green Link with houses

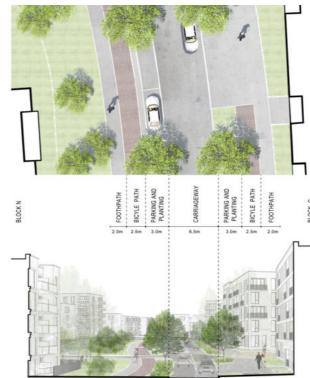


Carriageway and houses

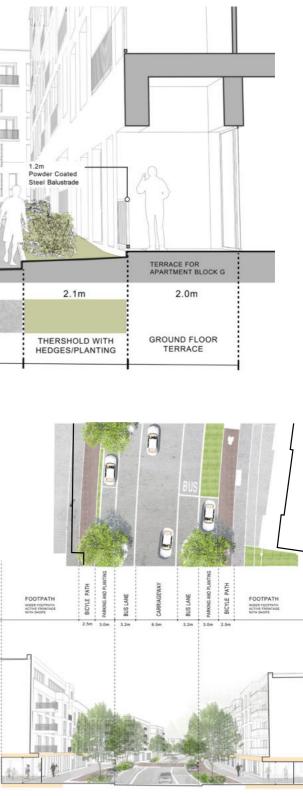


EWLR and duplex blocks





Belcamp Parkway and apartment blocks



7.0 URBAN DESIGN STRATEGY

Active retail frontage and parking

7.0 URBAN DESIGN STRATEGY



CA3 - View east along townland boundary



CA2 - View east along linear green park



CA1 - Houses



CA4 -View to the duplex blocks from main river park



CA6 - Proposed Public Plaza

7.4 CHARACTER AREAS

The scheme is divided into several character areas, each relating to its place on the site, informed by its existing site characteristics and external relationships, and within the scheme by its housing mix, density and height, and its place in the network and sequencing of routes, edges, spaces and landmarks. Building detail, materials, colours and finishes, as well as building form will reinforce these identities, distinguishing the character areas from each other.

The central and driving character area within Belcamp includes Belcamp Hall, the walled garden, estate woodlands and lakes and the wooded Mayne River valley. Planning permission has already been granted in this area and construction is underway east of Belcamp Hall. Further planning applications have also been submitted in response to conditions of the original permission for new buildings within the curtilage of the protected structure.

Belcamp Hall and its imprint on the landscape are key drivers in the design development of the site plan. Vistas to and from the house, the mature woodland setting with lakes and follies, historic tree lines and boundaries all influence design decisions for the surrounding development lands.

All of this also relates to the emerging town centre planned by Dublin City Council just north of the Clarehall junction. This will be a transport hub interfacing the Malahide Road QBC, the Dart at Clongriffin, the ongoing routes to Malahide, and the emerging east-west routes to employment areas in the west including Dublin Airport.

The individual character areas within the Belcamp development are described in the following paragraphs, numbered 0 to 7 and sequenced generally in an anti-clockwise direction starting with the initial phases of the scheme in the east portion.

Emerging Character Area 0 comprises the early phases at Belcamp, including the central focal point of Belcamp Hall and its surrounding curtilage, the walled garden, and the eastern housing quarter and Mayne river park abutting the Malahide Road. College Avenue is the main street within this area and runs from the Malahide Road entrance, westwards to Belcamp Square along the central axis of Belcamp Hall, with the bowed bay of its east facade terminating the vista. The avenue is lined with two storey brick houses between regular junctions with secondary cross streets linking south to the Mayne river. A second east-west route follows the old carriage route along the woodland edge lined with houses that overlook the river valley. Along the north boundary the initial stretch of the East West Link Road interfaces with adjacent housing to the north. Belcamp Hall and Chapel are surrounded by overlapping public spaces enclosed by new buildings which frame views to and from the protected structures. A common material palette is employed to unify the new buildings as a set piece surrounding Belcamp Hall. Character Area 0 proposes a total of 408 dwellings, currently at various stages of planning approval and construction.

Character Area 1 encloses a section of the new East West Link Road (EWLR) that runs west from the Malahide Road. This is the main vehicular thoroughfare, a busy local link route. It has two traffic lanes and two bus lanes, flanked by boulevard tree planting, cycle lanes and footpaths. The street section is contained by strong built edges. The southern portion interfaces with the permitted development under construction. The northern portion provides for a green space relating to Belcamp-Hutchinson to its northeast, and a portion of the biodiversity loop, an ecology greenway, runs along the northern boundary as it turns south as far as the EWLR, where the route can continue south via a pedestrian crossing. An old access to Carr's Lane on the north boundary will become a pedestrian and cycle green route, opening up links to Innisfails GAA club, and creating a new north to south link from Carr's Lane to the Belcamp Hall precinct, and onwards to the DCC lands and the R139. A total figure of 215 dwellings is proposed within Character Area 1.

Character Area 2 comprises a grid of streets parallel to the townland boundary forming its southern edge. An east-west central spine runs through a sequence of local green spaces connecting Character Area 1 in the east with the Class 1 open space and active recreational areas in the west. Meanwhile a linear green space crosses from south to north, enclosed by 3 storey duplex blocks, as part of a broader green route crossing the site. Character Area 2 is bounded to the north by mature trees edging the old avenue to Spring Hill house. This boundary is enhanced by the proposed biodiversity loop that runs around the site perimeter and interfaces with the proposed parkland to the west. Development in this area comprises 369 dwellings.

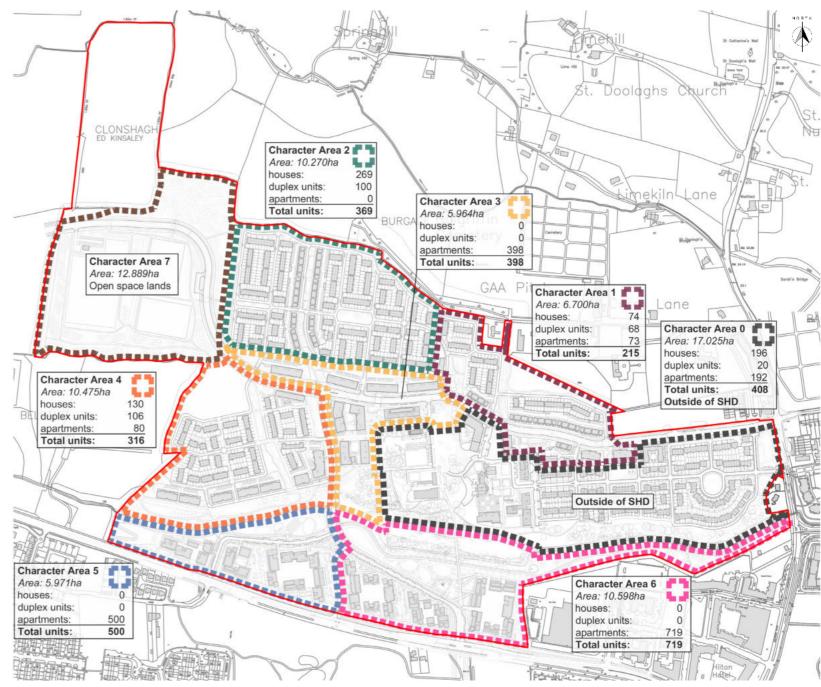
Character Area 3 comprises a portion of the central area of the development that includes Belcamp Hall and the walled garden. The East West Link Road runs west through this area as a tree lined boulevard, passing the north side of the town square which permits views to the walled garden. A second boulevard runs north from the DCC lands along the western edge of this urban quarter to meet the EWLR. The town square thus becomes a pivot in the scheme, a local focus of activity and an important connection with the walled garden and historic wooded landscape beyond. Shops, services cafes etc are located here spilling out onto the square. Buildings here surround the walled garden and overlook the woodland in the south. Buildings on the north side of the main avenue form a strong sunlit edge and overlook the townland boundary to the north, which is to be replanted and will provide a cycle/pedestrian link to the park in the west. Mixed use accommodation in this area includes commercial uses and 397 apartments.

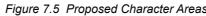
Character Area 4 occupies the mid-west portion of the Belcamp lands and includes the reserved site for a school. A school at this location can avail of the active sports facilities in the park, with direct access from the school grounds. This character area is bounded on the western edge by the biodiversity pedestrian and cycle perimeter route, which in this area connects the Mayne river park at the south to the park in the north-west. Hedgerows run north-south through this area providing further green links, biodiversity corridors and pocket parks. connecting the DCC lands to the school site and park. This development area comprises low rise family housing for the most part with four and five storey blocks and to the southern edge overlooking the Mayne river park. This area comprises 315 dwellings and a reserved school site of 1.08Ha.

Character Area 5 comprises the south western corner of the site, between the Mayne river and the R139. Part of the Mayne river park occupies the northern portion, with high density apartment blocks along its southern edge. The park straddles the Mayne river and two character areas, with buildings on both north and south edges providing good containment and passive surveillance. The principal edge of this character area faces south over the R139, giving a robust response to the heavily trafficked road and availing of southerly views over parkland at Darndale and beyond to the rim of the Dublin Mountains. There are linkages south to Darndale and west to the GAA grounds. The densely planted southwest corner of the site will form the beginning of the biodiversity loop, which crosses the river at the west boundary providing links to the north. 500 apartments are proposed in Character Area 5.

Character Area 6 comprises an increasingly urban edge to the R139 leading into the new town centre to the east. As with Character Area 5, there is a strong edge to the R139 and a new local link road connects from the R139 northwards to the East West Link Road. This urban portal off the R139 opens into an expansive view of the demesne woods giving a strong sense of place and entry into the neighbourhood from the south. This area is within a five-minute walk of the proposed transport interchange and town centre close to the Clarehall Cross. 730 apartments are proposed in this character area.

Character Area 7 comprises a local park with active sports facilities. This flat area compliments the various green routes and trim trails that link through the site, many of them having this park as a final destination.







7.0 URBAN DESIGN STRATEGY

7.5 LAND USES

7.5.1 COMMERCIAL USES

Commercial accommodation is provided to both the Fingal and DCC lands, with the main retail offering concentrated in the town square area. The buildings surrounding the square and walled garden are mixed use, with commercial activity occupying some or all of the ground floor areas, opening out to the public spaces, with residential uses overhead. Blocks D, F and J face on to the town square with retail and cafe/restaurant uses spilling out. Block G has a retail unit in the north-east corner, facing both the town square to the north and the west entrance to the walled garden to the east. Block D has a cafe/restaurant use facing west on to the town square and south to the walled garden with potential for pleasant outdoor terraces on these sides. Retail units in Blocks D, F and J also provide active frontage to the EWLR.

The town square is located to the northwest of Belcamp Hall and is separated from the historic complex by the walled garden. The Belcamp complex has planning approval for community use in the chapel, as well as a restaurant and creche in the north wing. The walled garden will be the focal point of the landscape strategy for Belcamp and its position between Belcamp Hall and the town square, will ensure its viability as a destination within the scheme. A café use associated with the walled garden is the subject of a current planning application to Fingal County Council (Reg. Ref. D22A/0136).

Commercial uses are also proposed within the high-density blocks in the DCC lands at the south of the site along the R139. Retail, creche and café uses are in Block 3 off the primary road and adjacent to the park, while community facilities for residents' use within apartment blocks are spread across the site.

7.5.2 CHILDCARE FACILITIES

Three new creche buildings are proposed within the Belcamp Lands. As part of the SHD application, a creche of c. 508m² is proposed in Block 3 within Character Area 6 on the DCC lands, beside open space. To the north of the EWLR a second creche of 606m² is proposed as a standalone building within Character Area 2 overlooking a small park. A third new creche of 573m² is proposed as part a pending planning application to Fingal Co Co within Phase 1 of the Belcamp lands (Reg. Ref. F22A/0136). In addition to the proposed creches facilities, a separate creche of 254m² has previously been approved under the original Phase 1 permission and is located in the north wing of the Belcamp Hall complex.



Proposed Block 3 with outdoor Cafe and Plaza



Proposed Block D ground retail units in Town Square





Proposed Crèche Building

Proposed cafe in Walled Garden, subject to planning approval ref. F22A/0136 (Pending)

7.5.3 SCHOOL

A site of c.1.08ha has been reserved for the provision of a primary school in Belcamp. It is located in Character Area 4 in an area of predominantly family housing adjacent to the Class 1 active recreation area. The site is at the convergence of a number of green routes, the perimeter biodiversity loop, the east-west townland boundary greenway and a north-south route from the south-east following a retained hedgerow that links to the Mayne river greenway and residential development to the south. The bus route runs along its northern boundary.



Sketch of potential school site layout

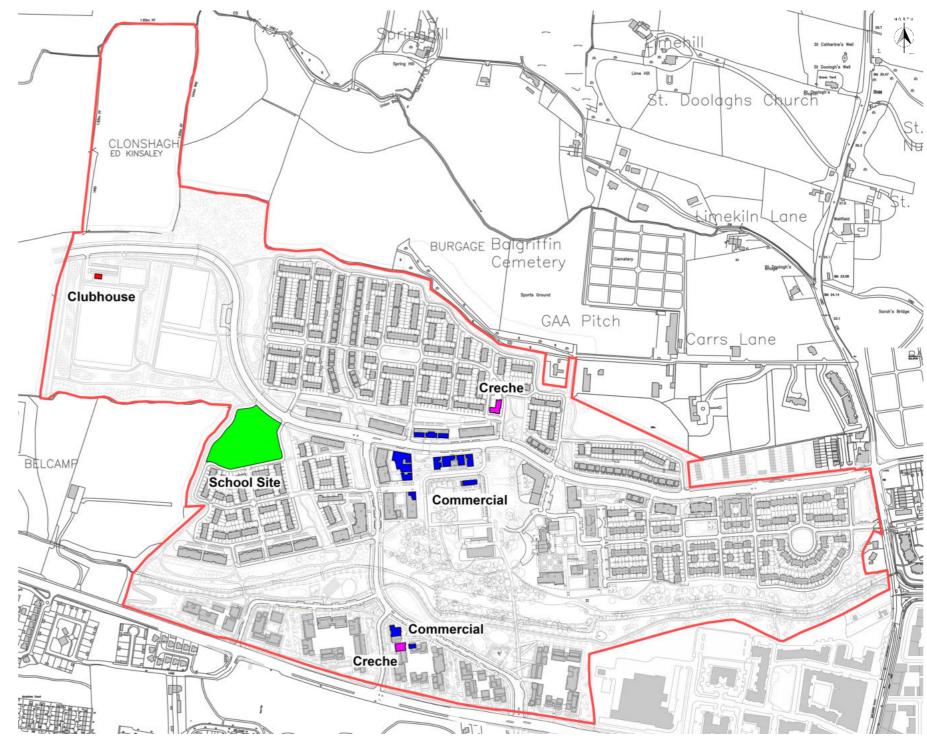


Figure 7.6 Proposed Land uses

7.0 URBAN DESIGN STRATEGY

7.0 URBAN DESIGN STRATEGY

7.6 BUILDING DESIGN

7.6.1 BUILDING TYPES

A range of building types is proposed. In the DCC lands perimeter blocks of between 6 and 9 storeys surround internal podium courtyards with parking hidden within the block. 4 to 6 storey linear blocks line the town square and east west link road, with up to 12 units per floor in the larger blocks over ground floor retail uses. Parking for these blocks is to the rear under first floor podiums. Five storey corner blocks are provided at important junctions or as landmark buildings on the approach from the south and west.

Four storey duplex blocks are proposed along the EWLR and help the transition in scale and height between the apartment blocks and houses. Own-door duplex units at ground and first floor level provide active frontages to the street.

A variety of two and three storey house types are proposed, with plans in terraces, semi-detached, widefronted or corner configurations.









7.6.2 SCALE AND HEIGHTS STRATEGY

Buildings are used throughout the site to enclose streets and spaces, to provide edges to parks and to ensure passive supervision of public places. Landmark corners and architectural features aid orientation and way finding, while scale and height inform the hierarchy of spaces. The proposed development varies in scale and massing depending on location, with higher scale buildings along primary roads and central nodes, and lower rise housing to lesser streets and spaces. Belcamp has three hubs within the scheme. Belcamp Hall is the focal point of the initial development and is surrounded by three and four storey apartment blocks with two storey houses further east. Construction has commenced here. The new Town Square is located to the northwest of Belcamp Hall and separated from it by the walled garden. Five storey blocks, line the square with ground floor commercial uses creating active frontages. In the DCC lands the buildings vary between six and ten storeys, with the higher blocks facing the R139. Outside of the three hubs, the building heights step down to two storey housing at the centre of the character areas. Three storey houses provide a continuous edge to open space lands, while smaller pocket parks are addressed by two storey houses.

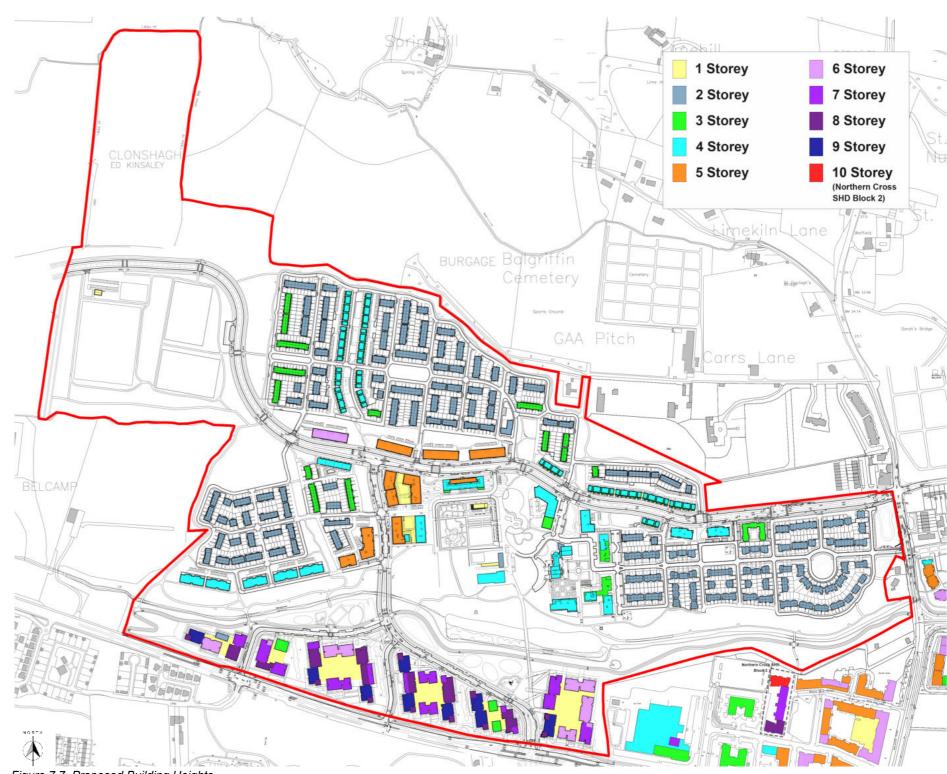


Figure 7.7 Proposed Building Heights

7.0 URBAN DESIGN STRATEGY

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7.7 URBAN DESIGN CRITERIA

7.7.1 Context

The development is seen as the natural evolution of the site from agricultural use to a residential precinct. The design cues stem from the existing architectural heritage and from the designed and existing landscape. Neighbouring uses are enhanced as the amenities of the site become available to all, and a new neighbourhood with a character based on its historic and landscape context is added to the district. Density ranges across the site are appropriate to adjoining lands and boundaries, mainly to parkland or public roads, are designed to address the public realm with passive supervision.

7.7.2 Connections

The Mayne River Linear Park is extended through the site to connect to the historic walled garden and woodland and open space lands to the west, and providing green links east from Belcamp to Clongriffin Dart station. The layout is permeable to pedestrian and cycle routes providing scenic links between Carr's Lane and Darndale Park, and from Belcamp Hall and town square to the mixed-use primary node of Clarehall. These same links allow the wider neighbourhood to enjoy the newly restored parks, lakes and walks in Belcamp. Existing axes, views and vistas are used to generate secondary routes within the site.

Public transport is prioritised with bus lanes on the direct route west. The primary road infrastructure is part of a development plan roads objective and accommodates through traffic efficiently as well as local access. Higher density development lines the primary roads and the dual hubs of Belcamp Hall and the town square, while the lower density surrounding housing addresses the adjoining lands.



7.7.3 Inclusivity

There is a full range of new homes proposed: one-, two- and threebedroom apartments are located along main roads and surrounding the principal urban spaces within the site. Two-, three- and four-bedroom houses predominate in the wider guarters, in distinct character areas. Mixed tenure will include social housing under Part V, some BTR apartments as well as apartments and houses for owner occupation. The layout provides for universal access and has a diverse range of open spaces and amenities for the use of residents of all ages and stages. Open spaces are sited to enhance the existing natural heritage and are well defined and contribute to sense of place in themselves and as parts of wider sequences of squares, parks and walks. Green spaces and pocket parks are used to link the larger open spaces as green links on quieter streets, encouraging biodiversity corridors through the site.

7.7.4 Variety

A strong mix of activities is promoted by the scheme, with local retail and other commercial activity focused on the town square, while community and office uses are located at Belcamp Hall. Creches are proposed beside open spaces, and a school site is located next to the wider Class 1 open space lands. The bus route passes the school site, with several pedestrian and cycle links converging there too. The large park at the west will be a welcome counterbalance to Father Collins Park which is located a 1km east of the Belcamp entrance, the two parks being linked by the Mayne River linear park. The mix of houses and apartments proposed enhances the choice of homes in the wider neighbourhood, while the Belcamp population will further support existing commercial facilities in the urban context of the Malahide Road and also provide a more intimate local urban village within the scheme.

7.7.5 Efficiency

The proposal balances density with the setting. Houses and apartments are proposed which provide efficient net densities while the strategy of the application is to rehabilitate the historic woodland, riparian corridor, walled garden and hedges and to re-use these features as the setting for a new neighbourhood and high-quality public amenity. Secure and overlooked cycle and pedestrian linkages are provided to the Malahide Road to avail of the QBC to the city centre. The scheme is designed to protect the redundant historic buildings and landscape and incorporates naturalised sustainable urban drainage systems. Buildings are designed to avail of good orientation.

7.7.6 Distinctiveness

The scheme will contribute strongly to the sense of place in the locality bringing an emblematic series of buildings and landscape settings into the public realm. The form of the layout is derived from the existing sense of place with a very deliberate policy that the old shall be fully integrated into the new urban grain and not left in aspic to one side. Views in and out of the site are an organising element in the scheme with the historic complex as the obvious focal point of the neighbourhood.

7.7.7 Layout

The permeable layout aligns pedestrian and cycle routes through the site along desire lines, with the routes converging on the dual hub of town square and Belcamp Hall. A north-south route links the Inisfails GAA grounds on Carr's lane, along a south-bound axis through Belcamp Square and the lakes and woodland to the R139 and Darndale Park. East-west desire lines are accommodated along the Mayne river valley, with potential link south-east into to Mayne River Avenue and the future Clarehall town square.

Active frontages are encouraged, with ground floor commercial uses lining the town square and passive surveillance from apartments overhead. Duplex blocks along the EWLR have own-door units accessed directly from the street, while fine-grained streets of housing interconnect via pedestrian and cycle only links, encouraging walking or cycling for errands thus increasing on-street activity and casual encounters. A clear hierarchy of main and minor streets and restricting forward visibility with curving roads will discourage high traffic speeds.

A strong urban edge along the R139 announces the entry into the city from the M50/M1 junction to the west. Here higher buildings mediate between the busy urban arterial route into the city and the calmer Belcamp Demesne neighbourhood contained within the site. Both new cycle lanes along the R139 and a green route along the Maybe River park provide direct connectivity to the new town centre emerging to the east.

7.7.8 Public Realm

The public realm is clearly defined in the scheme, with buildings used to create enclosure to squares and streets. The public spaces are linked and overlap to create a sequence of places as one moves through the scheme. The linear park is defined and overlooked by a continuous urban edge of three storey houses or apartment buildings. Smaller pocket parks are lined with housing terraces providing passive supervision to the space and visual amenity to the houses. The individual spaces are distinct from each other and offer variety and identity to the residents.

The public realm is the structure of the development, its bones, a hierarchy of usable, safe streets, civic spaces and parks arranged to be experienced in sequences that enhance the qualities of each place. Children's play areas are overlooked, the public and private realms are clear, and streets are considered an integral part of the place and of the spatial experience. There are no streets without active frontages.

7.7.9 Adaptability

A varied mix of dwelling types is proposed. Houses are adaptable in various ways and can be expanded into the roof for bedrooms, or into the back garden for additional living area. Space to work at home has been provided in some dwelling types, while a ground floor extension could also accommodate a bedroom for an elderly person wishing to adapt their home. All dwellings have been designed to be energy efficient with external walls sized to accommodate insulation for A rating.

7.7.10 Privacy/Amenity

Each home has access to outdoor private amenity space, with dual aspect enjoyed by over 70% of apartments and all houses. Balconies are semi or fully recessed where possible for privacy, and are generally south, west or east facing. All dwellings are designed to avoid sound transmission and meet the required standards of acoustic insulation. Adequate internal storage is provided to all homes, with bin storage accommodated internally for apartments and externally for houses.

7.7.11 Parking

Car parking is provided on curtilage for all houses, and in a grouped arrangement in parking courts or on minor roads for apartments. Parallel parking or group parking is used where appropriate for urban design reasons such as traffic calming and to avoid relentless front garden parking on the main approach. Parking is always close to the dwelling entrance and in view from the house. Parking bays in private areas will be permeable paving. Materials used for parking in the public realm will be as allowed for taking in charge. Secure and covered bicycle parking is provided for all apartments at ground floor level within the footprint of the building. Bicycle parking for houses can be accommodated on curtilage, or in rear gardens.

7.7.12 Detailed Design

Materials and finishes proposed will vary with character area. The finishes to the buildings in the vicinity of the protected structure will complement the historic buildings and form a set piece. A similar strategy will be used for other important spaces, e.g. the blocks surrounding walled garden will be consistent in elevational treatment. The landscape design is integrated with the use of the public spaces and movement through the site. Durable maintenance free materials, mainly brick, are proposed for the public faces of buildings. Parking, streets and movement are all considered together in how the scheme is used.



Perimeter Biodiversity Loop

8.0 MOVEMENT STRATEGY

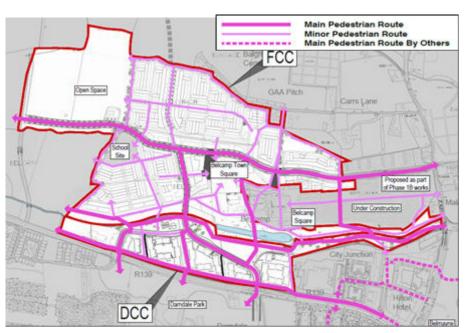


Figure 8.1 Main Pedestrian Routes Overview

8.1 Permeability and Accessibility

The Belcamp Lands will be developed specifically to avoid a car dominated environment and to optimise pedestrian and cyclist links. In order to achieve this, the design team has placed significant emphasis on providing high-quality, extensive pedestrian and cyclist facilities.

This strategy is in accordance with the Design Manual for Urban Roads and Streets (DMURS), which prioritises, in order of importance, pedestrians, cyclists and public transport, with private cars the least important. Refer also to the DMURS Statement of Design Consistency, which accompanies this submission under separate cover, for further discussion of specific design features that have been incorporated within the proposed scheme with the objective of delivering a design that is in compliance with DMURS.

Waterman Moylan engaged with Breen Doris from the Active Travel section of FCC, who stated that FCC welcome the design team's approach to specifically avoid a car dominated environment.

8.2 Proposed Pedestrian Infrastructure

The proposed development will include a network of footpaths throughout the site and connecting with the surrounding infrastructure providing efficient, high-quality routes along desire lines to destinations within and surrounding the development area.

An active frontage along routes within the development is achieved with frequent entrances and openings that ensure the street is overlooked and that generate pedestrian activity as people come and go from buildings.

High quality pedestrian linkages will be provided to connect to Malahide Road (R107), the Mayne River, City Junction and to the R139, linking the development with the existing Clarehall Junction shopping and commercial area and to the future Belmayne Square.

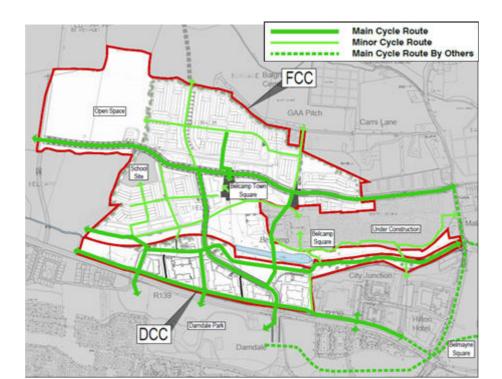


Figure 8.2 Main Cycle Routes Overview

Particular attention will be paid at detail design stage to the quality of the pedestrian routes and to the facilities at pedestrian destinations. These destinations include the Belcamp Town Square, the Walled Garden, Belcamp Square, local school and crèche facilities, connections to the public bus network, the green route along the Mayne River and the route along the R139 to Clarehall Junction.

Junctions will be designed with raised pedestrian tables/crossings at main pedestrian desire lines, allowing pedestrians to cross at grade. In addition to pedestrian and toucan facilities at signal-controlled junctions, on-call pedestrian signals will be provided at key desire lines.

8.3 Proposed Cycle Infrastructure

The proposed development will include dedicated cycle facilities, including an off road cycle track along the East–West Link Road and along the R139, separated from the vehicular carriageway by a verge. The proposed junction upgrade at the site entrance from Malahide Road includes new cycle stopping areas and new cycle lanes along the Malahide Road.

High quality cycle linkages will be provided to connect to Malahide Road (R107), the Mayne River, City Junction and to the R139 linking the development the existing Clarehall Junction shopping and commercial area and to the future Belmayne Square.

Particular attention will be paid at detail design stage to the quality of the cycle routes and to the facilities at cycle destinations. These destinations include the Belcamp Town Square, the Walled Garden, Belcamp Square, local school and crèche facilities, connections to the public bus network, the green route along the Mayne River and the route along the R139 to Clarehall Junction.

8.4 Public Transport Network

The subject site is directly served by public bus services. The closest bus stops are located on Malahide Road (R107) immediately east of the proposed development site. These bus stops are served by Dublin Bus Routes 42 and Route 43. Route 42 operates between Talbot Street in Dublin City Centre and Sand's Hotel in Portmarnock. Route 43 operates between Talbot Street in Dublin City Centre and Swords Business Park.

Travel time from the bus stop on Malahide Road (R107) to Talbot Street in Dublin City Centre is approximately 16 minutes. In the opposite direction, the travel time from the subject bus stop on Malahide Road (R107) to Malahide is approximately 16 minutes, and to Swords Business Park is approx. 20 minutes.

In addition to the aforementioned Bus Routes 42 and 43, the surrounding area is also served by Dublin Bus Routes 15 and 27. The closest bus stops served by these routes are located on the R139, south-east of the proposed development site, east of the Malahide Road junction.

Access from the subject site to the bus stops on R139 is via Malahide Road (R107). The walking time varies from approximately 12 minutes from the portion of the site within DCC to 25 minutes from the units at the north-west of the development. A network of footpaths is provided on both sides of Malahide Road (R107) and the R139, with dedicated pedestrian crossings at each road crossing point along the route to the bus stops. These footpaths are separated from the carriageway by a grass verge for the majority of the route, with all pedestrian crossings including dropped kerbs and tactile pavement.

The closest train station is Clongriffin Station, located approximately 2.5km (31-minute walk; 15-minute cycle) east of Belcamp Town Square, near the centre of the subject site. Walking and cycling access from the subject site to the Clongriffin Station is via Belmayne/Marrsfield Avenue. A good network of footpaths is provided on Belmayne and Marrsfield Avenue along the route to the station. Belmayne includes cycle lanes along both sides of the road up until Marrsfield Avenue. These cycle lanes are separated from the carriageway by a grass verge. No cycle lanes are provided along Marrsfield Avenue.

The Clongriffin Station is served by Commuter Rail and DART services. The Commuter Rail service through Clongriffin Station serves all stations from Dundalk through Dublin City Centre to Gorey. The service operates at 3–4 trains per hour in both direction on weekdays. The DART service through Clongriffin Station serves all stations from Malahide through Dublin City Centre to Bray and Greystones. On weekdays, this service operates at a 20-minute frequency in both directions.

Waterman Moylan met with representatives from the NTA, FCC and DCC in March 2022 to discuss the transport requirements of the proposed Belcamp SHD development.

The current N8 BusConnects route departs from Clongriffin train station, continuing along Main Street before turning south onto the

Hole in the Wall Road and then continuing west along the R139. At the meeting, the NTA advised that they require the N8 BusConnects Route to be altered to run through the subject development along the East-West Link Road (EWLR) into Belcamp town square and then, preferably, directly south onto the R139.

The proposed road layout was amended following this meeting, to ensure that the requirements of the NTA are met, with the introduction of a Bus Gate directly south from Belcamp Town Square onto the R139. This will assist with the legibility of the route through the site while also giving buses priority over cars. As suggested by the NTA, the new route proposed will still depart from Clongriffin train station, but will continue along Main Street rather than turning south at Hole in the Wall Road. The bus route will then turn north onto Malahide Road, turning west at the new proposed junction between Malahide Road, Balgriffin Road and the proposed EWLR.

The N8 route will continue westwards passing through Belcamp town square before turning Southwards on to Belcamp Parkway. The N8 route will then benefit from a newly proposed bus gate providing a bus-only route onto the R139, with signal control on demand. The N8 will then continue westwards along the R139 as per its current alignment.

During the meeting with the NTA, FCC and DCC, the NTA noted that they would welcome the use of bus gates to prioritise public transport ahead of cars and to ensure that buses do not get stuck in traffic. This proposed altered route provides several benefits:

The new route would avoid the Clarehall junction between R107 and R139, which is currently above capacity and suffers from long queues and delays.

The East–West Link Road is envisaged as a core bus route, and accordingly, this road is designed to comply with the principles of a Core Bus Corridor, including dedicated bus lanes, new bus stops, and segregated cycle lanes.

The inclusion of a Bus Gate at the south of the site ensures that the bus route will follow a direct path and will avoid a meandering route through the site.

The Bus Gate also avoids any traffic, given that it provides busonly access, and on-demand signal controls will ensure efficient wait times before turning onto the R139.

The new route will serve a large population in Belcamp.

The NTA advised that there are currently no proposals to bring one of the D routes through the Belcamp development. However, BusConnects routes are subject to future change depending on demand and future development. As such, emphasis has been placed on providing a robust design that can facilitate various future bus routes through the site.

Belcamp Parkway has therefore been designed to accommodate a possible future route for one of the D routes and has been designed with a 3.25m wide verge that can facilitate future bus lanes. This route would divert buses from the Malahide Road onto Belcamp Lane through the DCC Masterplan lands, south of the R139, through a signalised junction on the R139. This D route would not use the proposed Bus Gate, which is part of the N8 route. This will ensure a straight-through crossing of the R139.

This proposed bus route through the subject lands can also facilitate possible future routes from DCC to the Airport, while avoiding the congested Clarehall junction. The Belcamp Parkway route from the Malahide Road to the EWLR follows the alignment provided in FCC / DCC Development Plans, the Belcamp / Belmayne Masterplan and the South Fingal Transportation Study.

A bus terminus/turning area is provided along the EWLR, within the open space at the west of the proposed Belcamp Development. This again allows for a robust design of bus routes that can come into Belcamp, turn around and travel back along the same route alignment.

Belcamp Town Square Transport Hub 8.5

It is proposed to provide a transport hub at Belcamp Town Square, where most of the commercial units will be centred. This Transport Hub will have new bus stops for the N8 BusConnects route, as discussed with the NTA.

E-Bike charging stations and bicycle racks are to be provided at the transport hub, to encourage active travel to the town square. Waterman Moylan have engaged with Fingal County Council's Active Travel section regarding their requirements for E-Bike charging stations, who confirmed that there is no particular preference for any specific E-Bike charging station, but that FCC welcomes the approach in design with regard to the provision of bike parking in the public areas and E-Bike charging.



Figure 8.3 Typical E-bike Charging Station and Bicycle Racks

The Transport Hub will include E-Car charging points and multiple designated car-share fleet parking spaces. A new bus terminus/turning area is provided along the East–West Link Road, within the open space at the west of the proposed Belcamp Development. This allows for a robust design of bus routes that can come into Belcamp Town Square, turn around and travel back along the same route alignment.

Proposed Road Infrastructure 8.6

The proposed road network provides a legible road hierarchy and has been designed to closely align with the Fingal County Council and Dublin City Council Development Plans, the South Fingal Transportation Study (SFTS) and DCC Draft Belmayne Belcamp Masterplan, to meet the emerging transportation demand.

The proposed road hierarchy will comprise of two new arterial roads (the East-West Link Road and the Belcamp Parkway), several new link streets, and a series of new local access roads, including shared surface/ homezones.

The East-West Link Road (EWLR) traverses the portion of the Belcamp lands within FCC's jurisdiction, extending from the Malahide Road (R107) at the east as far as the western boundary of the Applicant's lands.

The Phase 1B submission, which has received a notification of decision to grant planning permission, includes the first c.350m of the East-West Link Road and upgrade works at the Malahide Road/Balgriffin Cottages junction. The junction is proposed to be upgraded to form a new 4-way signalised junction, with the EWLR forming the western arm of the new junction. The proposed junction includes new right-turning lanes and cycle facilities. The upgrade works will extend south on the Malahide Road to connect with the upgrades currently being carried out as part of the Phase 1 development. The Phase 1C application, which has been submitted to Fingal County Council for planning, includes portions of the EWLR to provide access to the Phase 1C Blocks.

Although these portions of the EWLR have already been applied for, the subject application includes the entire length of the East-West Link Road from the Malahide Road junction at the east of the site as far as the IDA Lands to the west, and includes the proposed upgrade works at the junction with Malahide Road. The works proposed under this subject application are in accordance with those already applied for under Phases 1B and 1C, but are nonetheless included as part of this submission to ensure this application can stand alone with connections from the site to the Malahide Road.

The EWLR is designed to facilitate continuation west beyond Belcamp, in accordance with the Fingal Development Plan and the South Fingal Transportation Study. This street has been designed to incorporate high quality public transport facilities including a dedicated bus lane in both directions and high-quality bus stops strategically located to serve the proposed development. The road also includes provision for active forms of transport, with separated cycle tracks on both sides of the carriageway and continuous footpaths with pedestrian crossings provided at anticipated desire lines.



Figure 8.4 View of the Proposed East–West Link Road

Belcamp Parkway is an extension of the DCC Belcamp/Belmayne Master Plan, linking the R107 Malahide Road to the R139 and forming a Boulevard style street through the DCC development linking to the Belcamp SHD development. It is a north-south arterial road and will form a new junction with the R139, in DCC, where there is currently a private gated access. The proposed alignment of Belcamp Parkway follows the Dublin City Council Development Plan and the South Fingal Transportation Study alignment.

8.0 MOVEMENT STRATEGY

8.0 MOVEMENT STRATEGY



Figure 8.5 View of the Proposed Belcamp Parkway

8.7 Proposed Junctions

Several new junctions and junction upgrades are proposed as part of the subject development. Some of the main junctions are briefly described below.

8.7.1 R139 Link Road / R139

A new R139 Link Road is proposed to connect between the Belcamp Parkway and the R139, forming a new 4-way junction with the R139 adjacent to the existing Tara Lawns halting site access. A new dedicated cycle track is to be introduced along the R139. The new Link Road will feature dedicated cycle tracks on both sides of the carriageway. The new intersection will incorporate pedestrian crossing facilities, with a raised table at the Link Road to allow pedestrians to cross at grade.

8.7.2 R139 / Bus Gate

As noted above, a new Bus Gate will provide bus access to the R139 between the R139 Link Road and the Belcamp Parkway intersections. This junction will be signal controlled, with on-demand traffic lights ensuring priority for buses, without delaying traffic on the R139 when no bus is present.

It is also proposed to introduce a new toucan crossing at the bus gate junction. This crossing provides a direct link from the R139 northwards towards the Belcamp Town Centre, and is in accordance with the DMURS emphasis on provision of high quality cycle and pedestrian links, allowing full permeability to active road users.

8.7.3 Belcamp Parkway / R139

The proposed Belcamp Parkway will cross the R139 at a signalcontrolled junction, complete with pedestrian and toucan facilities. The new junction will include right-turning lanes. A new dedicated cycle track will be introduced along the R139, and Belcamp Parkway will include cycle lanes from this junction north to the junction with the East-West Link Road at Belcamp Town Square.

8.7.4 R139 Link Road / Belcamp Parkway

The proposed new R139 Link Road and Belcamp Parkway will form a new intersection. Both roads are designed to include comprehensive cycle and pedestrian infrastructure.

8.7.5 East-West Link Road / Belcamp Parkway

The East-West Link Road and Belcamp Parkway will form a new junction at the centre of the subject development, at Belcamp Town Square. Both of these new roads will include cycle lanes. At the junction, there will be at-grade pedestrian crossing facilities.

The East-West Link Road is designed to include bus lanes on both sides of the carriageway. The west-bound bus lane will also serve as a leftturning lane for vehicles at this junction.

8.7.6 Mayne River Road / Malahide Road

A new access link for pedestrians and cyclists will be provided from the Malahide Road, south of the Mayne River and adjacent to Belmayne.

8.8 Design Manual for Urban Roads and Streets (DMURS)

The proposed development has been designed to meet the stated objective of DMURS, which is to achieve better street design in urban areas. This will encourage more people to choose to walk, cycle or use public transport by making the experience safer and more pleasant. It will lower traffic speeds, reduce unnecessary car use and create a built environment that promotes healthy lifestyles and responds more sympathetically to the distinctive nature of individual communities and places.

Outlined below are some of the specific design features that have been incorporated within the proposed scheme to ensure that the design is in compliance with DMURS.

8.8.1 Creating a Sense of Place

Four characteristics represent the basic measures that should be established in order to create people friendly streets that facilitate more sustainable neighbourhoods. These characteristics are connectivity, enclosure, active edge and pedestrian activities/facilities.

Connectivity

"The creation of vibrant and active places requires pedestrian activity. This in turn requires walkable street networks that can be easily navigated and are well connected."

In order of importance, DMURS prioritises pedestrians, cyclists, public transport and private cars, and notes that the number of walkable/cyclable routes between destinations should be maximised.

The Belcamp Lands will be developed specifically to avoid a car dominated environment and to optimise pedestrian and cyclist links. The proposed development has been designed with pedestrians and cyclists taking precedence over other modes of transport. In this regard, footpaths are provided throughout the development with regular pedestrian crossings along anticipated desire lines. There is a dedicated pedestrian/ cyclist green route proposed between the DCC portion of the site and the Malahide Road, parallel to the Mayne River. There are several access points to the DCC portion of the site from the R139 reserved exclusively for pedestrians and cyclists.

As noted above, high quality pedestrian linkages will be provided to connect to Malahide Road (R107), the Mayne River, City Junction and to the R139, linking the development with the existing Clarehall Junction shopping and commercial area and to the future Belmayne Square. Junctions will be designed with raised pedestrian tables/crossings at main pedestrian desire lines, allowing pedestrians to cross at grade. In addition to pedestrian and toucan facilities at signal-controlled junctions, on-call pedestrian signals will be provided at key desire lines.

The proposed development will include dedicated cycle facilities, including an off-road cycle track along the East-West Link Road and along the R139, separated from the vehicular carriageway by a verge. The proposed junction upgrade at the site entrance from Malahide Road includes new cycle stopping areas and new cycle lanes along the Malahide Road. High quality cycle linkages will be provided to connect to Malahide Road (R107), the Mayne River, City Junction and to the R139 linking the development the existing Clarehall Junction shopping and commercial area and to the future Belmayne Square.

<u>Enclosure</u>

"A sense of enclosure spatially defines streets and creates a more intimate and supervised environment. A sense of enclosure is achieved by orientating buildings towards the street and placing them along its edge. The use of street trees can also enhance the feeling of enclosure."

The proposed development has been designed with residential units overlooking streets and pedestrian routes. High quality landscaping and tree planting are proposed throughout the scheme which creates a definitive sense of place. Road widths of generally 5.5m throughout the development ensure that a strong sense of enclosure is achieved on residential roads.

Active Edge

"An active frontage enlivens the edge of the street creating a more interesting and engaging environment. An active frontage is achieved with frequent entrances and openings that ensure the street is overlooked and generate pedestrian activity as people come and go from buildings."

As stated in Section 2.2.1 of DMURS, an active frontage enlivens the edge of the street, creating a more interesting and engaging environment. Section 3.4.1 of DMURS further notes that designers should avoid the creation of Dendritic networks, which place heavy restrictions on movement.

An active frontage along routes within the development is achieved with frequent entrances and openings that ensure the street is overlooked and that generate pedestrian activity as people come and go from buildings.

The road layout is highly interconnected, with few cul-de-sacs. DMURS notes that cul-de-sacs should not dominate residential layouts, and their use should be limited. In particular, the number of walkable/ cyclable routes between destinations should be maximised. In the few

locations where cul-de-sacs are proposed, they are short roads serving a small number of dwellings, and in all instances pedestrian and cyclist connectivity are provided to the wider public realm, with connectivity only limited for road vehicles. The proposed cul-de-sacs are safe, with clear, open sightlines and passive surveillance.

There are a number of advantages to more permeable networks in regard to the management of traffic and vehicle speeds. Drivers are more likely to maintain lower speeds over shorter distances than over longer ones. Since drivers are able to access individual properties more directly from Access/Link streets (where speeds are more moderate), they are more likely to comply with lower speed limits on Local streets, as stated in Section 3.4.1 of DMURS.

Suitable sightlines have been provided throughout the development, ensuring that localised planting does not obscure visibility as cars make turning manoeuvres, improving the pedestrian safety at crossing points. Turning radii throughout the site are between 3m and 6m.

Pedestrian Activities/Facilities

"The sense of intimacy, interest and overlooking that is created by a street that is enclosed and lined with active frontages enhances a pedestrian's feeling of security and well-being. Good pedestrian facilities (such as wide footpaths and well-designed crossings) also makes walking a more convenient and pleasurable experience that will further encourage pedestrian activity."

As outlined in the items above, the proposed development has been designed to provide excellent pedestrian connectivity, with a network of inter-connecting footpaths providing permeability throughout the site and to the surrounding area.

Throughout the site, pedestrian routes are generally 2m wide or greater which provides adequate space for two wheelchairs to pass one another. DMURS identifies a 1.8m wide footpath as being suitable for areas of low pedestrian activity and a 2.5m footpath as being suitable for low to moderate pedestrian activity. It is considered that a 2m wide footpath is appropriate for the majority of the proposed development.

8.8.2 Key Design Principles

DMURS sets out four core design principles which designers must have regard to when designing roads and streets. These four core principles are set out below together with a commentary establishing how these design principles have been incorporated into the design of the proposed development.

Design Principle 1: Pedestrian Activity/Facilities

"To support the creation of integrated street networks which promote higher levels of permeability and legibility for all users and in particular more sustainable forms of transport."

Streets have been designed in accordance with the alignment and curvature recommendations set out in DMURS Section 4.4.6. The road layout is generally orthogonal. Section 3.3.1 of DMURS notes that street networks that are generally orthogonal in nature are the most effective in terms of permeability (and legibility). Regular junctions along with raised pedestrian tables/crossings at main pedestrian desire lines will encourage reduced driving speeds.

Design Principle 2: Multi-Functional Streets

"The promotion of multi-functional, place-based streets that balance the needs of all users within a self-regulating environment."

The proposed road hierarchy will comprise of two new arterial roads (the East-West Link Road and the Belcamp Parkway), several new link streets, and a series of new local access roads, including shared surface/ homezones. The development will include residential units as well as a town square with commercial elements. This mix of street types and uses is in accordance with the objectives of DMURS.

The proposed "home-zones" are designed primarily to meet the needs of pedestrians, cyclists, children and residents and where the speed and dominance of cars will be reduced. The home-zone comprises of a shared-surface carriageway. Entry treatment to the home-zones is provided in the form of a ramp up, which helps announce that a driver is entering into a home-zone, and it is proposed to utilise a buff coloured chipping / macadam at the home-zones, subject to Roads and Transportation approval from the relevant Local Authority. The ramp up and narrowing of the road width is to be in accordance with Figure 4.44 in Section 4.3.3 of DMURS.

It is stated in Section 4.3.4 of DMURS that shared surface streets and junctions are highly desirable where movement priorities are low and there is a high place value in promoting more liveable streets (i.e. homezones), such as on Local streets within Neighbourhood and Suburbs.

Design Principle 3: Pedestrian Focus

"The quality of the street is measured by the quality of the pedestrian environment."

The design of the scheme has placed a particular focus on the pedestrian. Connectivity throughout the scheme is heavily weighted towards the pedestrian. There are excellent pedestrian links to the surrounding road networks, public transport services and amenities for both residents of the development and the wider public.

Raised tables are provided at several junctions, which allow pedestrians to continue at grade. Raised tables also promotes lower vehicle speeds. Stop signs and road markings are provided prior to the raised tables.

Design Principle 4: Multi-Disciplinary Approach

"Greater communication and co-operation between design professionals through promotion plan led multidisciplinary approach to design."

The design of the proposed scheme has been developed through the design team working closely together. The proposed development design is led by Conroy Crowe Kelly Architects working together with multiple disciplines including Wilson Architecture, Waterman Moylan Consulting Engineers, SYSTRA Ireland Consulting Engineers, Ronan Mac Diarmada & Associates Landscape Architects and Downey Planning Consultants.

Public areas fronting and within the proposed development will be designed by a multidisciplinary design team to accommodate pedestrians and cyclists in accordance with the appropriate principles and guidelines set out in DMURS. In particular the vehicular access and public footways within the remit of the development will incorporate the relevant DMURS

In particular the vehicular access and public footways within the remit of the development will incorporate the relevant DMURS requirements and quidelines as set out above.

The design team has engaged with various relevant sections of Fingal County Council and Dublin City Council as part of Section 247 consultations prior to the pre-application consultation with An Bord Pleanála, including consultations with FCC and DCC Transport Divisions. Furthermore, Waterman Moylan engaged with Breen Doris from the Active Travel section of FCC, who stated that FCC welcome the design team's approach to specifically avoid a car dominated environment.

Related Reports 8.9

This Section provides an overview of the proposed movement strategy for the Belcamp Lands. The specific features and proposals are set out in detail in several accompanying reports:

Engineering Assessment Report

through the site itself.

Traffic and Transport Assessment

A Traffic and Transport Assessment has been prepared by Waterman Moylan and accompanies this submission under separate cover. The Traffic and Transport Assessment provides a comprehensive review of all the potential transport impacts of the development, including a detailed assessment of the transportation systems provided and the impact of the proposed development on the surrounding environment and transportation network.

Travel Plan

A Travel Plan has been prepared by Waterman Moylan and accompanies this submission under separate cover. This Travel Plan is intended to deal with the typical day-to-day operational conditions at the site to assess, examine and manage the typical traffic that will be generated by the residential units during the operational phase of the development, and to propose measures to encourage residents to avail of public transport by improving awareness of public transport options and providing information on bus and train routes and frequencies.

DMURS Report and Statement of Design Consistency

A DMURS Statement of Design Consistency has been prepared by Waterman Moylan, in collaboration with other members of the multidisciplinary design team, and accompanies this submission under separate cover. This report outlines specific design features that have been incorporated within the proposed scheme with the objective of delivering a design that is in compliance with the Design Manual for Urban Roads and Streets (DMURS).

Car Parking Strategy

A Car Parking Strategy has been prepared by Waterman Moylan and accompanies this submission under separate cover. This report assesses the car parking requirements for the development and sets out the car parking rationale and strategy to be employed at the site.

8.0 MOVEMENT STRATEGY

Section 5 of the accompanying Engineering Assessment Report, prepared by Waterman Moylan, assesses in detail the existing and the proposed road and transportation networks in the vicinity of the site and

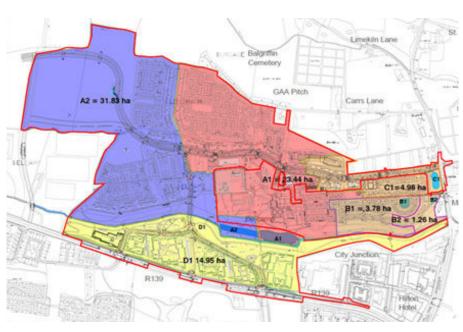


Figure 9.1 Proposed Surface Water Catchments

9.1 General Drainage Strategy

It is proposed to drain the site as three separate catchments: one to the south of the Mayne River (Catchment D1) and two to the north (Catchment A1 & A2), as indicated on the Figure below. There are a number of other catchments within the overall Belcamp Lands which overlap with the red line for the SHD. Catchment B1 and B2 are serving Phase 1, already granted and substantially built. Catchment C1 serves, for the most part, the proposed Phase 1B site, submitted for planning in late July 2021.

9.1.1 Proposed Catchment South of Mayne River

South of the Mayne River, it is proposed to utilise the existing ditches that run south to north along the existing hedge-lines as open surface water features, but these are not needed or desirable for attenuation as there are trees lining both sides of the ditch. Each proposed block will drain to a ditch via underground surface water drains. The ditches will, in turn, each flow into a headwall before culverting under the road and ultimately discharging to the Mayne River. Steps will be provided into/out of each of the ditches as a health and safety feature. The main regional attenuation will be provided in the open space adjacent to the Mayne River, east of the main road in a dry detention format. A Downstream Defender unit is proposed upstream of the basin to remove pollutants and debris and protect the hydrobrake outfall chamber from siltation.

In developing the drainage proposals for the portion of the site within DCC's jurisdiction, Waterman Moylan have liaised with Maria Treacy of the DCC Drainage Division, who provided feedback and commentary on the emerging strategy.

9.1.2 Proposed Catchments North of Mayne River

Fingal County Council identified capacity constraints in the culvert at the north-east of the site that discharges under the existing access of the Balgriffin Inn (formerly Campions Pub). It is proposed to redirect a significant portion of the catchment from this culvert to maintain its capacity for the C1 catchment (Belcamp Phase 1B). This diverted catchment will flow to the lower lake south of Belcamp Hall adjacent to the Mayne River. The C1 catchment is to be attenuated in the Phase 1B lands (subject to permission being granted by FCC under F20A/0379). Attenuation within the Phase 1B site includes a small area of the SHD lands as indicated Figure 2. All flows that originate from outside the Belcamp lands will be factored into the attenuation of the lake so that only the catchment that is on the Gannon Lands will be attenuated. FCC will need to ensure that any future development upstream of the Belcamp site, to the north west, that wishes to discharge to the Belcamp network is attenuated upstream to greenfield rates, unless an alternative outfall is found, which is preferable.

All of the lands east of the proposed Belcamp Parkway (main road that runs north/south through the DCC and FCC sites) will drain to the lower eastern lake (Catchment A1), while all lands to the west of the proposed Belcamp Parkway will drain to the upper western lake (Catchment A2). Drainage for the eastern sub-catchment, to the lower lake, will discharge through a new surface water sewer under construction as part of the Phase 1 works. This sewer has been designed to cater for flows from the subject development.

Utilising the natural treatment and storage potential of the existing lakes is an environmentally and ecologically sound solution that will benefit the receiving waters of the Mayne River.

Proposed SuDS Strategy 9.2

The proposed development has been designed to incorporate best drainage practice. Section 9.3, below, sets out the methodology used in determining the existing greenfield runoff rates and calculating attenuation storage requirements for each catchment. The relevant calculations are included in full as part of the accompanying Engineering Assessment Report.

It is proposed to incorporate a Storm Water Management Plan through the use of various SuDS techniques to treat and minimise surface water runoff from the site. The methodology involved in developing a Storm Water Management Plan for the subject site is based on recommendations set out in the Greater Dublin Strategic Drainage Study (GDSDS) and in the SuDS Manual (Ciria C753). Based on three key elements - Water Quantity, Water Quality and Amenity - the targets of the SuDS train concept have been implemented in the design, providing SuDS devices for each of the following:

- Source Control 0
- Site Control 0
- **Regional Control** 0

9.2.1 Source Control

Permeable Paving:

It is proposed to introduce permeable paving in private courtyard areas throughout the development. Downpipes from the roofs of the blocks will drain to filter drains beneath the permeable paving to facilitate maximum infiltration of surface water from paved and roof areas. The goal of permeable paving is to control stormwater at the source to reduce runoff. In addition to reducing surface runoff, permeable paving has the dual benefit of improving water quality by trapping suspended solids and filtering pollutants in the substrata layers.



Figure 9.2 Permeable Paving

Green Roof:

It is proposed to introduce green roofing as a source control device. Each block will have green roofing introduced on at least 60% of the roof area.

The substrate and the plant layers in a green roof absorb large amounts of rainwater and release it back into the atmosphere by transpiration and evaporation. They also filter water as it passes through the layers, so the run-off, when it is produced, has fewer pollutants. Rainfall not retained by green roofs is detained, effectively increasing the time to peak and slowing peak flows.

A green roof can reduce annual percentage runoff by between 40% and 80% through this retention and evapotranspiration, with the impact dependent on a range of factors including the depth of substrate, the saturation of substrate at the onset of a rain event, the angle of the roof, the range of vegetation growing, intensity of rainfall and the time of year.



Figure 9.3 Typical Green Roof

Planted Areas:

It is proposed to provide open grassed areas with low level planting at the ground floor around each apartment block. This will act as soft scape and will significantly slow down and reduce the amount of surface water runoff from the open spaces. Planter boxes and planted areas will also take surface water runoff from the downpipes from buildings before draining to filter drains beneath the permeable paving.



Figure 9.4 Typical Planter Box

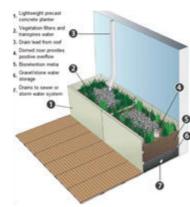


Figure 9.5 Typical Planter Box



Figure 9.6 Typical Planter Box



Figure 9.7 Typical Bioretention Garden



9.2.2 Site Control

Roadside Bioretention Tree Pits:

It is proposed to provide roadside trees along the main access road. Trees can help control and treat storm water runoff from the surrounding road / footpath because their leaves, stems, and roots slow rain from reaching the ground and capture and store rainfall to be released later. Tree pits help to attenuate flows, trap silts and pollutants, promote infiltration and prevent erosion. Incorporating tree planting offers multiple benefits, including attractive planting features, improved air quality and increased biodiversity whilst helping to ensure adaptation to climate change.



Figure 9.8 Typical Roadside Tree Pit

Downstream Defender:

flows that are to be stored in the basin.

9.2.3 Regional Control Attenuation Lakes:

The two existing lakes, parallel to the Mayne River, will be used to attenuate the development north of the Mayne. These lakes have natural reeds and lake vegetation assisting with pollution and hydrocarbon removal. Excess surface water runoff, over and above the greenfield runoff, will be attenuated within the lakes above the permanent water level.

A downstream defender (trade name for a large chamber that retains solids and hydrocarbons) is intended for the DCC lands that will treat the

Regional Flow Control:

For Catchment A1, a new hydrobrake or similar approved flow control device will be provided on the lower lake weir to the river to regulate the discharge rate, limiting flows to the greenfield equivalent runoff rate. This flow control has been designed and provided for under phase 1.

Flows to the upper lake, from Catchment A2, will be through the existing ditch immediately east of the distributor road over the Mayne. This ditch flows into the upper lake which in turn flows into the lower lake and over the weir into the Mayne. The flows in the upper lake will be attenuated by means of a hydrobrake in a manhole installed in the causeway that splits the lakes. It may not be possible to utilise the existing culvert between the two lakes that is under the causeway, but it is intended to keep this in place for historical and conservation reasons.

The DCC catchment is split by the main distributor road, but it is intended to amalgamate the attenuation into one offline dry detention basin east of the distributor road where levels are most suitable. A hydrobrake at the outfall will limit flows to the greenfield equivalent rate, with excess surface water attenuated at the dry detention basin.

Interception or Treatment Storage&Attenuation Storage 9.3

As noted above, the methodology involved in developing the Storm Water Management Plan for the subject site is based on recommendations set out in the Greater Dublin Strategic Drainage Study (GDSDS) and in the SuDS Manual. Appendix E of the Greater Dublin Strategic Drainage Study (GDSDS) sets out criteria for determining the provision of interception or treatment storage, attenuation storage and long term storage at a development site. These calculations are summarised below (note that the full calculations are included as an Appendix to the accompanying Engineering Assessment Report):

9.3.1 Criterion 1: River Water Quality Protection

The GDSDS states that approximately 30% to 40% of rainfall events are sufficiently small that there is no measurable runoff from greenfield areas into the receiving waters. These events are generally considered as the first 5mm of rainfall.

For events larger than 5mm, and in situations where interception storage cannot be provided, surface water runoff treatment is provided in accordance with the CIRIA design manual C521.

The required interception volume and treatment storage for each of the three catchments are set out in the table below. The calculated volumes assume 100% runoff from paved surfaces and 0% from pervious surfaces for the first 15mm of rainfall.

Catchment	Interception Storage	Treatment Volume
A1 Catchment	254.34m ³	763.02m ³
A2 Catchment	282.15m ³	846.45m ³
Southern Catchment	244.50m ³	733.50m³

Table 9.1 Interception Storage and Treatment Volume Requirements

The interception and treatment storage volume requirements will be met through the introduction of various SuDS features (which have been described in Section 3.3, above). The SuDS features will be assessed and sized to meet these requirements.

9.3.2 Criterion 2: River Regime Protection

Attenuation storage is provided to limit the discharge rate from the site into receiving waters. As per the GDSDS, the required attenuation volume is calculated assuming 100% runoff from paved areas, and has been calculated for the 1-year, 30-year and 100-year return periods, identifying the critical storm for each.

The required attenuation volume for each catchment is tabulated below, alongside the calculated greenfield runoff rate for each catchment and the actual attenuation volume to be provided:

Catchment	Area	Hard Standing %	Attenuation Location
North-Eastern Catchment A1 (*)	31.83 ha	49 %	Attenuation Lakes (Discharging to Lower Lake)
North-Western Catchment A2 (*)	23.44 ha	30 %	Attenuation Lakes (Discharging to Upper Lake)
Southern Catchment DCC1&DCC2	14.95 ha	32 %	Dry Detention Basin

Table 9.2 Attenuation Volume Requirements

Catchment	Allowable outflow(**)	Hard Standing %	Attenuation Location
North-Eastern Catchment A1 (*)	161 l/s	4898 m³	Attenuation Lakes (Discharging to Lower Lake)
North-Western Catchment A2 (*)	219 l/s	3347 m³	Attenuation Lakes (Discharging to Upper Lake)
Southern Catchment DCC1&DCC2	103l/s	1701 m³	Dry Detention Basin

Table 9.3 Attenuation Volume Requirements

(*) Denotes figures subject to refined calculation of hard and soft areas.

(**) All outflow rates to be agreed with the Council.

The North-Western and North-Eastern Catchments will be attenuated in the lakes, discharging to the Upper Lake and Lower Lake respectively. The Upper Lake has a surface area of c.2,822m2, while the Lower Lakehas a surface area of c.4,244m2.

Each of the two lakes will provide 1.6m of additional storage depth over and above the revised permanent water level. The volumes of storage will be further refined to ensure that the appropriate amounts of storage are applied to each lake's carrying capacity.

The southern catchment will be attenuated in the dry detention basin along the southern bank of the Mayne River.

9.3.3 Criterion 3: Levels of Service

Criterion 3.1: No external flooding except where specifically planned (30-year high intensity rainfall event).

event).

Criterion 3.3: No internal flooding (100-year river event and critical duration for site storage).

Criterion 3.4: No flood routing off site except where specifically planned (100-year high intensity rainfall event).

Both internal and external flooding have been assessed in the Flood Risk Assessment report which accompanies this Engineering Assessment report. The Flood Risk Assessment has been carried out in accordance with the DEHLG/OPW Guidelines on the Planning Process and Flood Risk Management published in November 2009.

The assessment identifies the risk of both internal and external flooding at the site from various sources and sets out mitigation measures against the potential risks of flooding. The sources of possible flooding assessed in the report include coastal, fluvial, pluvial (direct heavy rain), groundwater and human/mechanical errors.

As a result of the flood risk management and mitigation measures proposed, the residual risk of internal or external flooding for the 30-year and 100-year flood events is low, and accordingly all four of the above criteria have been met. Please refer to the accompanying Flood Risk Assessment report for the full analysis of the flood risk at the subject site.

9.3.4 Criterion 4: River Flood Protection

The long-term storage volume is a comparison of pre- and postdevelopment runoff volumes. The objective is to limit the runoff discharged after development to the same as that which occurred prior to development.

Of the three methods described in the GDSDS for establishing River Flood Protection by comparison of the pre- and post-development runoff volumes, (Criteria 4.1, 4.2 and 4.3 respectively), Criteria 4.3 is selected for use as the most practical criteria at this stage in the design.

The Criteria 4.3 approach is for all runoff to be limited to either QBAR or to 2 I/s/Ha, whichever is the greater. The proposed drainage system includes flow control devices at each outfall to ensure that the discharge rate is limited to the greenfield equivalent and ample attenuation is provided for the 1-in-100-year storm, accounting for a 20% increase due to climate change.

There are four criteria for levels of service. These are:

Criterion 3.2: No internal flooding (100-year high intensity rainfall

Related Reports 9.4

This Section provides an overview of the proposed movement strategy for the Belcamp Lands. The specific features and proposals are set out in detail in several accompanying reports:

Engineering Assessment Report

An Engineering Assessment Report has been prepared by Waterman Moylan and accompanies this submission under separate cover. Section 3 of this report assesses in detail the existing and the proposed surface water network, and the interception/treatment volume and attenuation volume calculations are included in full as an Appendix to the Engineering Assessment Report.

Flood Risk Assessment

A Flood Risk Assessment has been prepared by Waterman Moylan and accompanies this submission under separate cover. This Flood Risk Assessment report follows the guidelines set out in the DEHLG/OPW Guidelines on the Planning Process and Flood Risk Management, and assesses the flood risk at the site from various sources, including tidal, fluvial, pluvial, groundwater and human/ mechanical errors. Each of these components is investigated from a Source, Pathway and Receptor perspective, followed by an assessment of the likelihood of a flood occurring and the possible consequences. Appropriate mitigation measures are set out, with the residual risk then assessed.

9.0 PROPOSED SUDS AND DRAINAGE STRATEGY

10.1 SCHEDULE OF UNITS

Belcamp Lands

Fingal	Co Co -	Non SI	HD Lan	ds

Fingal Co Co –	Non SHD Lands								
Phase	Character Area/	Туре	1 bed unit	2 bed unit	3 bed unit	4 bed unit	Total	Total	Total
	Sub-phase						Туре	Phase	Phase
	Phase 1A	Houses	0	0	42	28	70		
	Phase 1.3	Houses	0	0	29	9	38		
Phase 1	Phase 1.4	Houses	0	0	24	6	30	330	330
	Phase 1.5	Apartments	15	22	5	1	43		
	Phase 1.6	Apartments	36	109	4	0	149		
		Houses	0	0	41	17	58		
Phase 1B		Duplex/Triplex units	0	8	4	0	12	78	78
		Apartments	6	2	0	0	8		
						Total for FC	C non-SHD lands:	408	408

* Figure based on S.34 planning submissions and pre-planning consultations final figure subject to planning approval

Phasing of units

Houses Duplex units Apartments Houses Duplex units Apartments Apartments Apartments Houses Duplex units Apartments Houses Duplex units Apartments Houses Houses	0 4 174 0 0 261 0 261 0 0 55 0	9 0 233 0 0 388 7 0 75 0	194 112 8 0 0 81 117 68 5 0	40 0 0 0 0 0 0 18 0 0 0	243 116 415 0 0 730 142 68 135	Phase 774 730 345	Phase 1504
Duplex units Apartments Houses Duplex units Apartments Houses Duplex units Apartments Houses Duplex units Houses Houses Duplex units Houses Houses	4 174 0 0 261 0 0 55 0	0 233 0 0 388 7 0 75	112 8 0 0 81 117 68 5	0 0 0 0 0 18 0 0	116 415 0 0 730 142 68 135	730	
Apartments Houses Duplex units Apartments Houses Units Apartments Apartments Apartments Apartments Houses Houses	174 0 0 261 0 0 55 0	233 0 388 7 0 75	8 0 81 117 68 5	0 0 0 18 0 0	415 0 0 730 142 68 135	730	
Houses Duplex units Apartments Houses Duplex units Apartments Houses Houses Houses Houses	0 0 261 0 0 55 0	0 0 388 7 0 75	0 0 81 117 68 5	0 0 0 18 0 0	0 0 730 142 68 135	-	
Duplex units Apartments Houses Duplex units Apartments Houses Houses	0 261 0 0 55 0	0 388 7 0 75	0 81 117 68 5	0 0 18 0 0	0 730 142 68 135	-	
Apartments Houses Duplex units Apartments Houses	261 0 0 55 0	388 7 0 75	81 117 68 5	0 18 0 0	730 142 68 135	-	630
Houses Duplex units Apartments Houses	0 0 55 0	7 0 75	117 68 5	18 0 0	142 68 135	345	630
Duplex units Apartments Houses	0 55 0	0 75	68 5	0	68 135	345	630
Apartments Houses	55	75	5	0	135	345	630
Houses	0						630
		0	0				
Duplay usite			-	0	0		050
Duplex units	0	0	0	0	0	285	
Apartments	70	178	37	0	285		
Houses	0	0	74	14	88		
Duplex units	20	40	30	0	90	178	
Apartments	0	0	0	0	0]	
Houses	0	0	0	0	0		393
Duplex units	0	0	0	0	0	215	
Apartments	56	131	28	0	215		
				Total fo	or all SHD Phases	: 2	527
	Apartments Houses Duplex units	Apartments 0 Houses 0 Duplex units 0	Apartments 0 0 Houses 0 0 Duplex units 0 0	Apartments 0 0 0 Houses 0 0 0 Duplex units 0 0 0	Apartments 0 0 0 0 Houses 0 0 0 0 Duplex units 0 0 0 0 Apartments 56 131 28 0	Apartments 0	Apartments 0 215 </td

10.2 PART V

Of the proposed dwellings, 20% will be Part V units for transfer to the local authority or designated AHB. Part V units will be provided pro-rata for each phase of development within that phase, or as agreed with the Housing department in due course. The mix of units proposed for Part V will be based either on current need or will reflect the mix of the phase in which they occur. Where apartments are provided, each circulation core will be of one tenure, either Part V or private and not a mix of both, for ease of operation and maintenance by local authority/AHB or private management company. Where houses are provided as Part V units, these will not visibly differ from adjacent private units in materials and finishes.

Separately, the SHD lands are divided into seven character areas, CA1 to CA7. Each character area will form a distinct place within the development. CA1-4 and CA7 are located within the Fingal lands while CA5 and CA6 are south of the river in the DCC lands.

10.3 PARKING

Cycle Parking

Secure and covered cycle parking is proposed for all apartment and duplex blocks in compliance with the standards set out in Sustainable Urban Housing: Design Standards for New Apartments, 2020. Cycle parking is proposed as Sheffield stands or semi-vertical racks at a rate of one space per bedroom for residents and at a rate of one space for every two dwellings for visitors. Residents' spaces are in secure and covered bicycle stores, either within the footprint of the building they serve at ground floor level, or in separate single storey detached stores within the shared parking court on the building curtilage. Visitor cycle spaces are provided adjacent to building entrances and around the building the town square environs and adjacent to the changing rooms block in the active recreation areas at the west of the site.

Car Parking

Car parking is provided throughout the site at an average ratio of 0.88 spaces per unit. Within the Fingal lands parking is provided for houses on curtilage with space for two cars for 3 and 4 bedroom houses and for one car for 2 bedroom houses. Duplex units are provided with one car space per dwelling, either in parking courts including some under-croft parking or on-street adjacent to the block. Parking for apartments in the Fingal lands varies from a ratio of 0.3 (Block D) to 0.9 (Block F) spaces per dwelling, with most blocks at a ratio of 0.7. The parking ratio for the DCC lands averages at 0.4 spaces per dwelling. Apartments car parking is provided at basement, under-podium, in parking courts or on-street throughout the site. Additional public parking is provided adjacent to the civic spaces and in the open space lands to the west adjacent to the playing pitches.

10.4 PHASING & IMPLEMENTATION

The site is divided into several phases and character areas. The eastern portion of the lands, between Belcamp Hall and Malahide Road, are the subject of several approved and pending applications. This area comprises Phases 1 and 1B, with mainly two storey housing to the east and 3-4 storey apartment blocks surrounding Belcamp Hall, and forms one character area in the overall Belcamp lands. The remainder of the site contains the SHD application lands which are divided into seven character areas over three phases. Phase SHD 1, Phase SHD 2 and Phase SHD 3.

Phase 1 occupies the eastern portion of the site where construction is under way. 181 dwellings have been approved to date, and planning applications for a further 117 apartments in blocks surrounding Belcamp Hall are under consideration at both planning and appeal stages. Meanwhile, a separate planning application, Phase 1B, comprises 78 dwellings, the approval of which is also under appeal.

Construction of the houses in Phase 1 is nearing completion, while restoration works to the protected structure are ongoing. Planning permission for 77 apartments in 2 blocks is pending, currently on appeal following a decision to grant from Fingal Co Co. A planning application for 40 dwellings, a creche and landscaping works to the walled garden including a pavilion café, has been submitted and is pending. The final portion of Phase 1 lands, the former farmvard to the south of the walled garden was the subject of a recent Section 34 pre-application consultation and a planning application is intended to be submitted to Fingal Co Co in the coming weeks for c. 32 dwellings and a small amount of retail space.

Planning permission for Phase 1B, comprising 20 duplex units and 58 houses is currently on appeal following a decision to grant from Fingal Co Co.

The SHD lands are divided into three phases, with the easternmost development, including the central areas, and the principal roads infrastructure forming the first phase, Phase SHD 1. Phases SHD 2 and SHD 3 will complete the development from east to west.

Separately, the SHD lands are divided into seven character areas, CA1 to CA7. Each character area will form a distinct place within the development. CA1 to CA4 and CA7 are located within the Fingal lands while CA5 and CA6 are south of the river in the DCC lands.

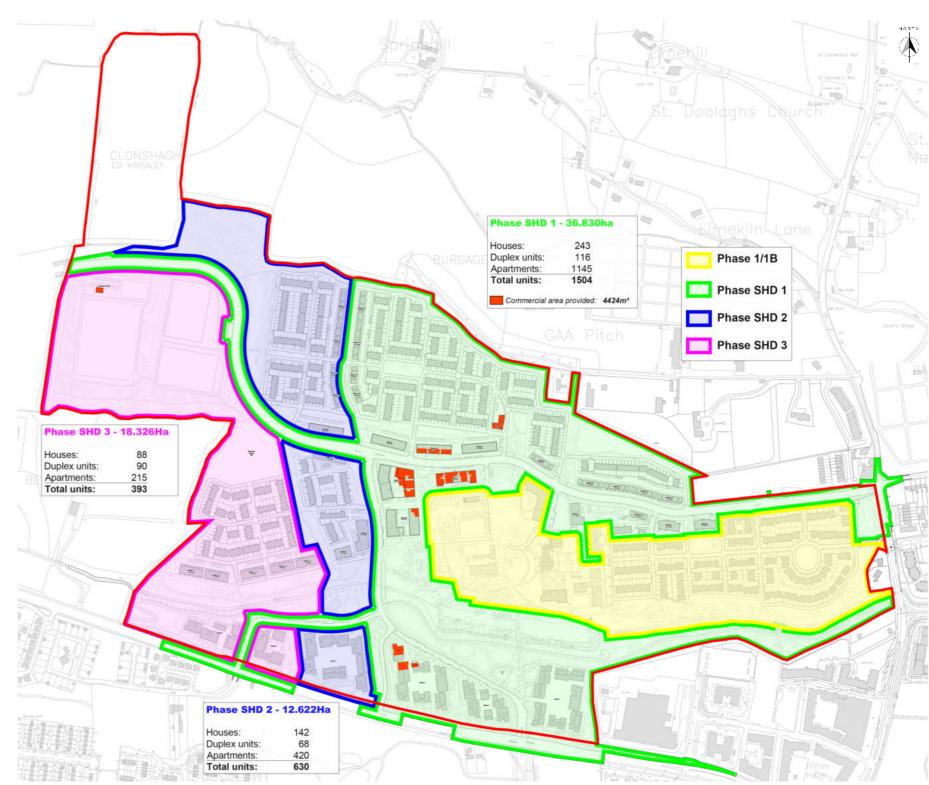


Figure 10.1 Proposed Phasing Plan

10.0 DEVELOPMENT STRATEGY

Road, Dublin 17 at Belcamp, Malahide **Development**



The development of Belcamp will provide a vibrant new neighbourhood to the existing district of Clarehall and Belmayne, consolidating the urban fabric of the area and expanding green links to the west. The development of Belcamp will be sensitive to its rich natural landscape and respectful of its historic context and will offer a high quality public amenity to the local area. The proposed masterplan takes cues from the existing natural and historic fabric to create a series of streets and spaces giving a distinct sense of place to the new neighbourhood. The scheme will be supported by an appropriate mix of community, retail, and commercial uses, as well as high amenity public open spaces. A mix of building types and scales will complement the historic buildings and respect the setting of the protected structure.

The development of Belcamp lands will open new east to west and south to west connections, linking the Belmayne, Clongriffin and the Malahide Road areas to the west, and facilitating future links to the airport and associated employment areas. While pedestrian and cycle connections are facilitated by routes crossing the Belcamp lands.

