

3 URBAN DESIGN RATIONALE





The urban design rationale outlined below identifies the key issues considered in the design process for the proposed residential scheme on the site, with regards to the 4 indicators set out in The Compact Settlement Guidelines, as follows:

3.1 SUSTAINABLE & EFFICIENT MOVEMENT

The overall proposed site layout creates a permeable and pedestrian-friendly built environment with an efficient and balanced urban network that favours linkages across the site and towards proximate areas of interest (Our Lady of the Wayside Church, adjoining residential developments and strategic employment areas such as Carrickmines.)

3.1.1 Strategic connections

The proposed 487-dwelling residential community has a strategic significance due to its proximity to the future GLDR. A new West to East connection (link street) from the Enniskerry Road to the future GLDR is proposed. This link will accommodate all forms of movement, pedestrian, cycling and vehicular. The delivery of the GLDR will lead to a downgrading of Enniskerry Road in terms of its role within the overall road network. It will become a village street promoting slower traffic within the village. The delivery of the GLDR will also benefit the scheme by limiting traffic through the new neighbourhood. The design intent is to provide contained vehicular entrances and internal circulation within the development, in order to discourage outside traffic from circulating across the scheme and encourage most vehicular traffic to use the planned GLDR for journeys to external destinations.

The scheme will be accessed from a number of points to maximise permeability; 3 vehicular entry points and 5 pedestrian points along the Enniskerry Road as well as from Glenamuck Road to the north, a connection to the adjoining Rockville residential scheme and the new GLDR.

The proposed development provides the opportunity for pedestrian and cycling connections through the existing tree lined Open Space, along the proposed Dingle Way across to the eastern lands linking two sites together. The retention, enhancement and integration of existing natural site assets and amenities, including mature trees and hedgerows has informed the final layout. The site strategy will therefore exploit the natural features of the site to deliver a ready made sylvan and nature - integrated setting

3.1.2 Permeable street network

As highlighted opposite in figure 8 and overleaf in figure 10 provided, the proposed development is configured along a North-South Link Street across the site linking to Enniskerry Road in the Southwest and to the future GLDR in the Northeast. This main internal street gives access to the different character areas throughout the site, via local link streets that are designed to optimise sustainable movement, particularly pedestrian and cycling modes. Along with a legible built form, the hierarchical nature of the internal street network, including the Link Street, Local Link Streets contributes to safe, intuitive and inclusive navigation within the site.

3.1.3 Street design (DMURS)

All streets, including carriageways, footpaths and cycle paths, have been designed in accordance with DMURS aiming to calm traffic within the development and enabling safe and comfortable movement of vulnerable users. Please refer to Atkins Engineering Consultants drawings and reports accompanying this planning application for further detail of DMURS compliant street design.

3.1.4 Promotion of sustainable movement

The site strategy facilitates multiple clear and accessible links to the adjacent lands for pedestrians and cyclists, encouraging these modes of making short journeys within Kilternan village. Pedestrian links will be formed within openings in the low new stone wall along Enniskerry Road bounding the scheme. Cycling within the proposed development has been developed in accordance with the National Transport Authority's (NTA) National Cycle Manual (NCM). For the proposed development cycle provision is on street in a shared environment in a low traffic and low speed environment. Dedicated cycle tracks are provided for along the route of the GLDR.

As shown in figure 10, pedestrian movement to external locations will be promoted by means of providing high permeability along all scheme edges. The strategy for the overall masterplan of the lands was taken into consideration in the proposed scheme as illustrated in the diagrams below and adjacent. The scheme is cognisant of maximising pedestrian permeability from within the development out to the primary bus corridor route that will eventually run along the western edge of the lands on Enniskerry Road and along Glenamuck Road to the northern boundary



Figure 9. CGI illustrating detail of accessible pedestrian and cycling path through existing tree lined POS 1. Source: MCORM/3DDB, 2024.

LEGEND

- Proposed Residential Cells
- NC, Commercial/Retail/creche/community
- Village Green
- P.O.S
- Local link streets
- Proposed internal streets
- Pedestrian routes
- Pedestrian footpath & cycling track
- Future GLDR



Figure 10. Schematic of street network layout and pedestrian/cycling main routes. Source: MCORM, 2024.

LEGEND

- Lands in control of applicant
- Site boundary in planning application
- Exclusions**
- Junction 1 - 4
- Drainage works
- Internal Link Street
- Enniskerry Road Works

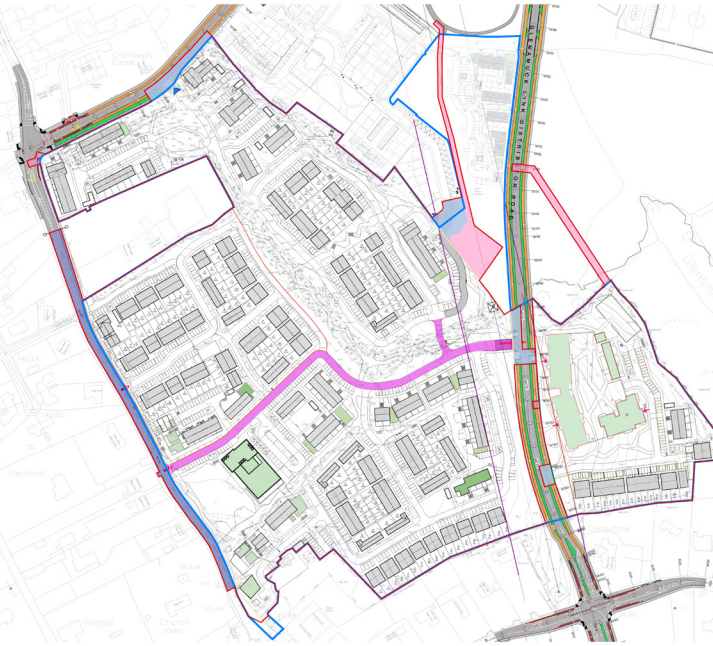


Figure 12. Schematic detailing the exclusions & how residential net density is calculated. Source:MCORM, 2024

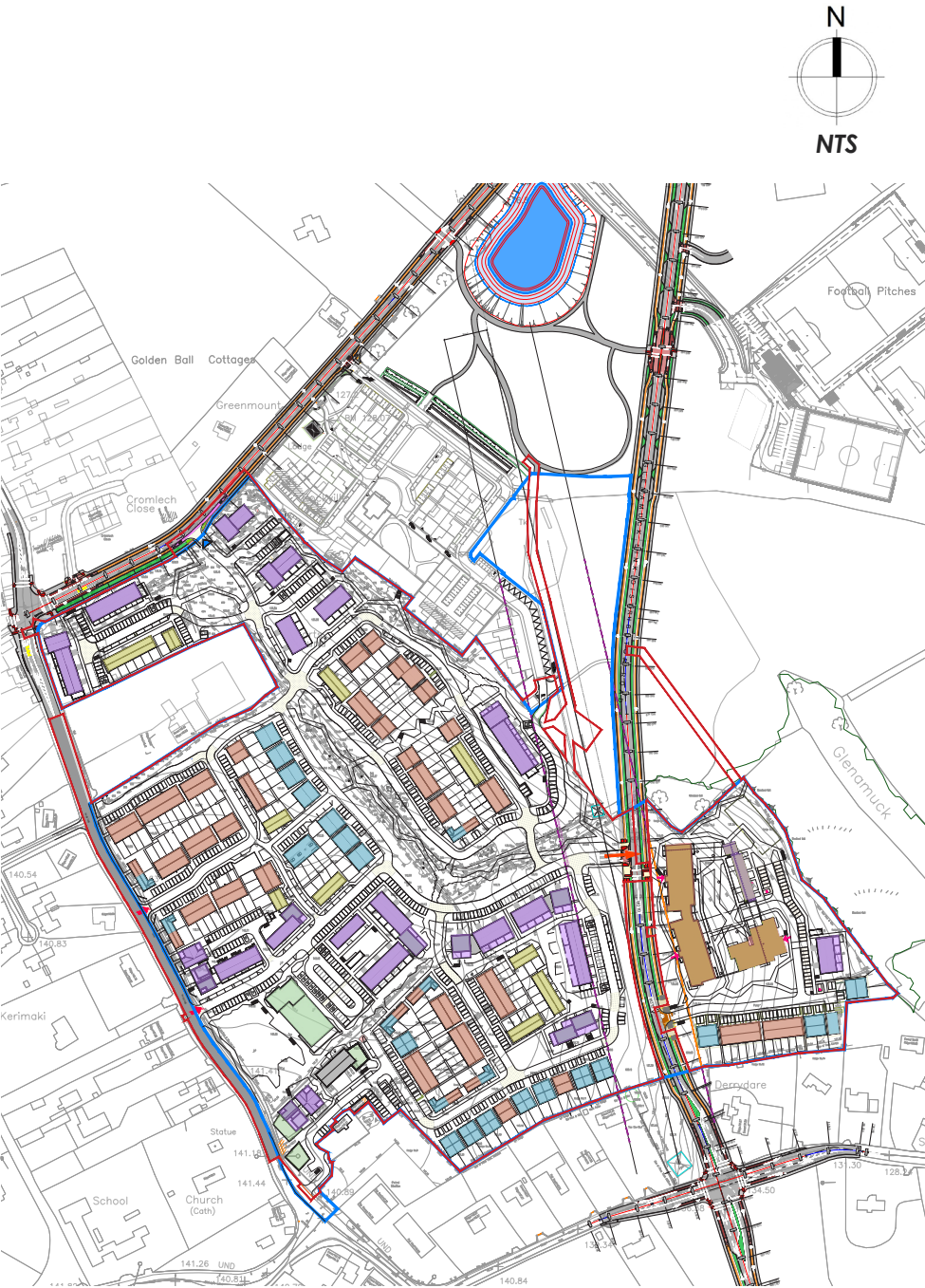


Figure 11. Site layout plan illustrating housing variety. Source:MCORM, 2024

3.2 MIX OF LAND USES

3.2.1 Appropriate mix of uses and intensities

The proposed scheme makes the most of the potential that the site offers, in particular:

- Delivering an appropriate residential density. The proposed scheme delivers 487 units, representing an appropriate net density of c.41.2 dwellings per hectare, which is calculated as illustrated opposite and in accordance to the Sustainable Development and Compact Settlement Guidelines (2024).
- Incorporation of a series of open spaces
- Continuing the link road infrastructure providing connections to the eastern lands. By providing the Dingle way which has widened footpaths this encourages short journeys to be made by foot and bicycle.
- The scheme offers a good mix of different unit sizes and accommodation choices to cater for a range of differing households.
- A significant quantum(6125m2) of Commercial/Retail, Neighbourhood Centre, Community and Creche uses proposed

3.2.2 Housing variety

Within the proposed residential component of the development there is a broad range of dwelling types laid out in a series of neighbourhoods all interconnected with each other within walking distance, and the neighbourhood centre as well as areas of public open space. Higher concentrations of residential density in the form of apartment and duplex blocks are located at prominent locations, such as the immediate vicinity of the neighbourhood centre, the corner of Enniskerry Road and Glenamuck Road and along the alignment of the GLDR in between which cells of housing have been organised.

There are 487 dwelling units being proposed, 196 houses, 201 duplexes and 90 apartments

Throughout the development there are 5 no. principal house types proposed. These vary in form and are terraced & semi-detached. The mix of dwelling type and size will facilitate lifetime housing, providing a variety of accommodation choices for households including singles, couples and families For example should older people need to down size at any stage, they can move within their own development into a small dwelling if and when their space requirements change. Similarly younger owners can trade up to larger units later in life as the need arises.

LEGEND

- | | | |
|-------------|--------------|--------------------|
| 2 BED HOUSE | 4 BED HOUSE | APARTMENTS |
| 3 BED HOUSE | DUPLEX UNITS | COMMERCIAL/ RETAIL |

3.3 GREEN AND BLUE INFRASTRUCTURE

Blue and green infrastructure, constraints and opportunities have informed the development since initial stages of design. The urban design proposed is well-informed by a multidisciplinary design team of consultants and specialists with an essential input on how nature is integrated in the overall layout and on a careful approach addressing sustainable urban drainage in both the public realm and private/semi-private outdoor and indoor areas.

3.3.1 Integration of nature and biodiversity

The topography of the site is predominately flat in nature on the western lands. On the eastern lands the site slopes down steeply towards the eastern boundary. There are existing natural physical features on the site such as the existing tree line that bisects the western lands from north to south, hedgerows and trees are to be retained in so far as possible and integrated in the proposed network of landscaped open spaces, such as the Dingle Way.

Please refer to the arborist and landscape report for further details.

3.3.2 Open Space Network

The Public Open Space provision for this planning application is detailed below:

The most prominent open spaces are as follows:

- **POS 1**, substantial tree clusters and hedgerows form a new linear parkland at the heart of the scheme forming a green spine, easily accessible to the new residential neighbourhoods (5874 sq.m).
- **The Village Green**, a landmark landscaped open space opposite the Lady of the Wayside church, shall provide a community amenity that can be used for a variety of neighbourhood events, in addition to being the main entrance of the scheme. (2722 sq.m).
- **The Dingle Way**, a pedestrian and cycle route that traverses the lands starting at the Enniskerry road, connecting the central spine with the new village green at the western edge of the development to the lands to the east.
- POS 1-9 are detailed in the table below:

Western Lands	The Village Green	2722 sqm
	The Dingle Way	2001 sqm
	P.O.S 1	5874 SQM
	P.O.S 2	2081 sqm
	P.O.S 3	1020 sqm
	P.O.S 4	978 sqm
	P.O.S 5	1892 sqm
	P.O.S 6	2270 sqm
	P.O.S 7	1472 sqm
Eastern Lands	P.O.S 8	947 sqm
	P.O.S 9	2379 sqm
Total Open Space		23636 sqm

Communal semi- private open spaces is provided for apartments and duplex units. These areas are clearly defined by the proper built forms while designed in spatial continuity and integration within the overall network of landscaped open spaces throughout the scheme. These communal amenity areas are provided generously over the minimum requirements established by the Design Standards for New Apartments (2020). A total of 4364 sq.m communal open space has been allocated within this scheme. Please see below diagram for locations.

In summary, Public open space provided for this application is 23636 sq. m (18% of the net developable area). Nature and biodiversity will play an active role in the Village Green, central green spine and all other Public open spaces. They will support a continuity and enhancement of existing ecosystems within the rural context of the scheme. Further detail is set out in the report prepared by the landscaping consultants, NMP, which forms part of this application.



Figure 13. Public Open Space site's concept within this planning application. Source: MCORM, 2024.



INDICATIVE TREE PITS DEALING WITH RUN OFF FROM ROADS AND OTHER HARD-LANDSCAPED PUBLIC REALM AREAS

INDICATIVE BIO RETENTION SYSTEM



INDICATIVE PERMEABLE PAVING AT FRONT GARDENS

3.3.3 Nature-based Urban Drainage (SUDS)

In accordance with the GDSDS it is proposed to use Sustainable Urban Drainage systems (SUDS) for managing storm-water for the proposed development. The aim of the SUDS strategy for the site will be to:

- Attenuate storm-water runoff.
- Reduce storm-water runoff.
- Reduce pollution impact.
- Replicate the natural characteristics of rainfall runoff for the site.
- Recharge the groundwater profile

The SUDS strategy has been carefully designed with an interdisciplinary approach among the consultants involved in the design team, resulting in an integration of nature-based SUDS engineering in the masterplanning, urban design and landscaping of the proposed development.

An assessment of the potential SuDS that could be incorporated within the site was conducted using the SuDS Manual, CIRIA 753. The SuDS elements which were found applicable to the proposed scheme design and layout include the following:

- 1- Permeable Paving for driveways and for on-street parking under the control of the management company of the apartment blocks;
- 2- Swales providing additional storage at source and also providing additional treatment of run off.
- 3- Tree Pits –run-off from roads will be directed towards tree pits where allowable. Additional treatment of run-off and additional storage volume is provided within the stone build-up below the tree pits.
- 4- Bio retention areas –runoff from roads / paths will be directed towards rain gardens where allowable providing treatment and additional storage volume at source.
- 5- Pedestrian/green links to drain to surrounding landscape for reduction and treatment of run-off;
- 6- Underground storage in the form of 'Stormtech' units or similar approved systems to store runoff from a 1 in 100-year event. The storage systems will be designed to maximise water quality.
- 7- A petrol interceptor to be provided before the attenuation area from each catchment of the subject site.
- 8- Hydrobrake flow control will be used.

Please refer Roger Mullarkey and Associates engineering drawings and reports accompanying this application for further detail on the SUDS layout and surface water management specifications.

Figure 14. Indicative images illustrating the measures included in the proposed SUDS strategy across the site Source: MCORM, NMP, RMA , 2024.

3.4 RESPONSIVE BUILT FORM

The envisaged new residential community presents a building fabric suitable for the location, which is a sensible response to its emerging context of proximate residential communities, mix-use areas and key green infrastructure. This section is addressed overleaf.



Figure 15. Photomontages showing a responsive built form . Souce: MCORM/3DDB, 2024.