



**Waterman Moylan**  
Engineering Consultants

## **DMURS Statement of Consistency**

Dunshaughlin West / Phase 2 SHD, County Meath.

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## Quality Assurance – Approval Status

This document has been prepared and checked in accordance with Waterman Group's IMS (BS EN ISO 9001: 2015, BS EN ISO 14001: 2015)

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# Content

- 1. DMURS Statement of Consistency ..... 1**
- 2. Creating a Sense of Place ..... 2**
  - 2.1 Connectivity ..... 3
  - 2.2 Enclosure ..... 5
  - 2.3 Active Edge..... 6
  - 2.4 Pedestrian Activities/Facilities..... 7
- 3. Key Design Principles ..... 9**
  - 3.1 Design Principle 1 (Connected Networks)..... 9
  - 3.2 Design Principle 2 (Multi-Functional Streets)..... 10
  - 3.3 Design Principle 3 (Pedestrian Focus) ..... 10
  - 3.4 Design Principal 4 (Multi-disciplinary Approach)..... 11
- 4. Conclusion ..... 12**

# Table of Figures

- Figure 1: Site Location and General Layout.....2
- Figure 2: Site Access Locations and Types .....4
- Figure 3: Architects CGI showing a sense of Enclosure within a home zone area. ....5
- Figure 4: Architects CGI showing a sense of Enclosure within a street view of the development. ....5
- Figure 5: Excerpt Landscape Architects Layout .....6
- Figure 6: Landscape Section A-A from Landscape Architect.....7
- Figure 7: Cycle & Pedestrian Routes.....8
- Figure 8: DMURS Image Extract 1 .....9
- Figure 9: DMURS Image Extract 2 ..... 10

## 1. DMURS Statement of Consistency

This statement of consistency has been prepared to accompany a planning application to An Bord Pleanála for a proposed Strategic Housing Development (SHD) at Dunshaughlin, Co. Meath.

It is proposed to construct 415 no. residential units comprised of 106 no. apartments, 55 no. duplex units, 254 no. dwelling houses and a Crèche to accommodate approximately 16 staff and 80 children on site. The developer will construct all associated infrastructure to service the development including a network of foul water and surface water drains, watermain and a realigned access road and footpaths.

It is a requirement of the regulations that the proposed housing development is compliant with the requirements of the Design Manual for Urban Roads and Streets (**DMURS**).

The stated objective of DMURS 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. The implementation of DMURS is intended to enhance how we travel to and from business; enhance how we interact with each other and have a positive impact on our enjoyment of the places to and through which we travel.

## 2. 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 as follows:-

- 1) Connectivity;
- 2) Enclosure;
- 3) Active Edge;
- 4) Pedestrian Activity/Facilities.

Each of these characteristics are set out in the respective sections below with incorporated commentary describing the proposed residential development compliance. The proposed development consists of two portions, one portion located northwest of Drumree Road, and one south.

Figure 1 below shows the proposed Phase 2 Dunshaughlin site location and general layout in relation to Phase 1 and the existing surrounding environs within Dunshaughlin Town Centre.

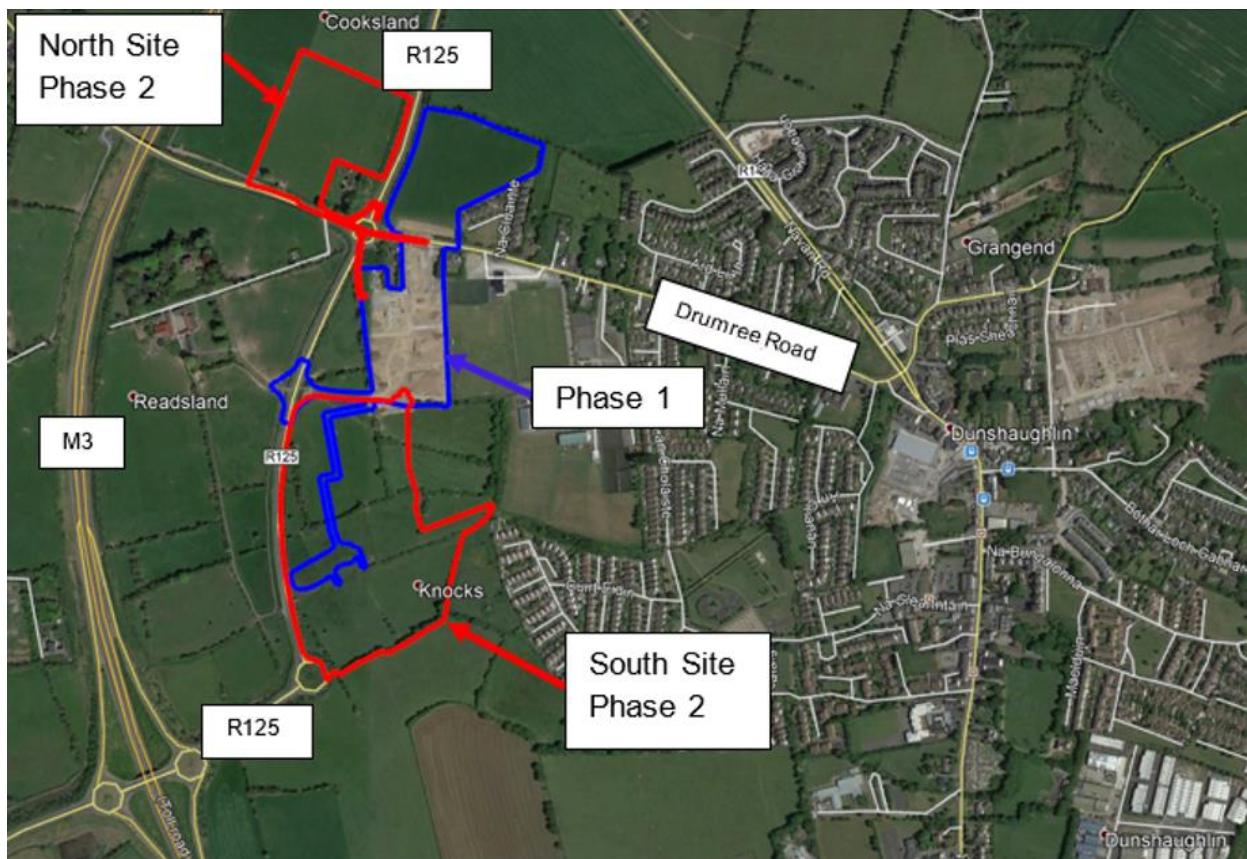
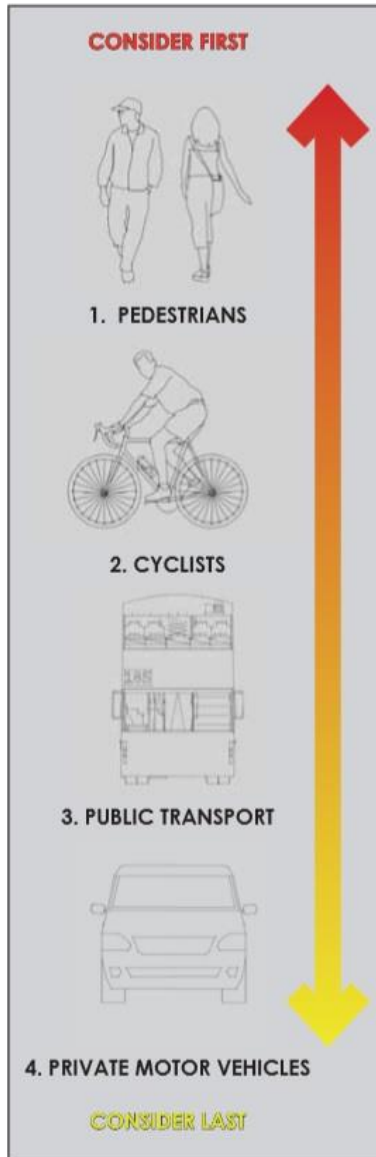


Figure 1: Site Location and General Layout

## 2.1 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 then private cars.

This is illustrated in the adjacent image extracted from DMURS guidelines.

- The proposed development has been designed with pedestrians and cyclists taking precedence over other modes of transport where possible. Pedestrian and cyclist connectivity is provided throughout the proposed development and along the Drumree Road interface and the R125 with links to the existing established residential developments and Dunshaughlin Main Street.
- The proposed development provides pedestrian and cyclist links to Phase 1, Drumree Road, the R125 and to the future Greenlink to Dunshaughlin Park and Main Street. The connection locations and type are illustrated in Figure 2 below.
- Several existing public transport services are available within proximity of the subject site. The Bus Eirean service routes 109, 109A and 109B are all located within a c.12 minute walk to the subject site via Drumree Road and an approx. c .9 minute walk from the bus service via the planned Skane River Greenway.
- The proposed development has been carefully designed to promote strong levels of connectivity in favour of pedestrians and cyclists with vehicular movement taking a secondary role in line with the objectives of DMURS. Connectivity throughout the scheme is heavily weighted towards the pedestrian. There are two cycle/pedestrian bridges crossing the River Skane promoting pedestrian and cycle movement within the development.

It is considered that the proposed development is fully compliant with the connectivity objectives of DMURS

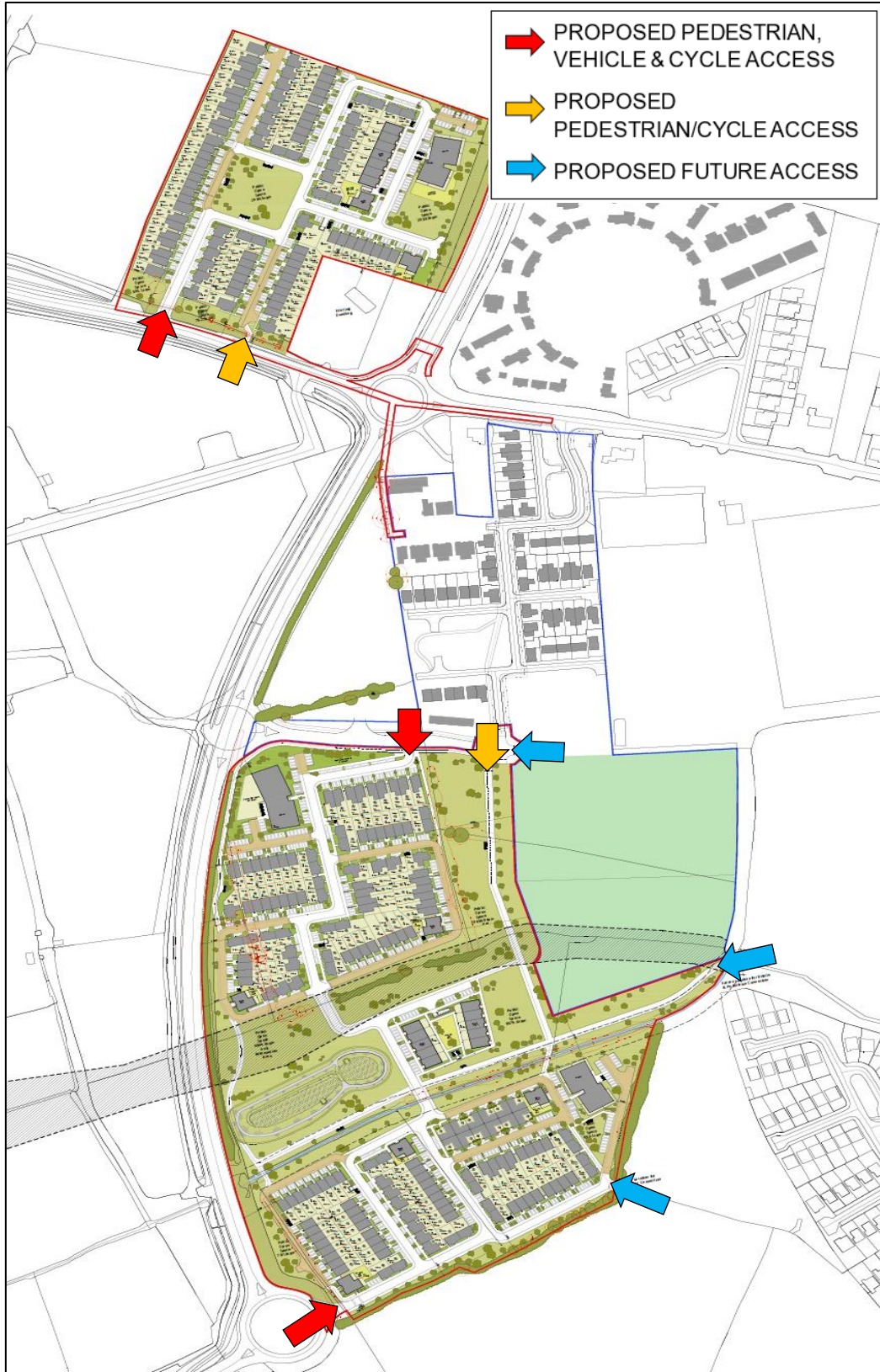


Figure 2: Site Access Locations and Types

**2.2 Enclosure**

*“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 so that the residential units are overlooking streets and public open spaces which provide passive surveillance. Landscaping and tree planting are provided along the roads/streets which assist in providing a sense of enclosure.

As seen in Figure 3 and Figure 4 below, which are excerpts from the architects CGI drawings, the houses within the proposed Phase 2 development overlook the streets and public open space with the tree line promoting the feeling of enclosure along the public open space.



Figure 3: Architects CGI showing a sense of Enclosure within a home zone area.



Figure 4: Architects CGI showing a sense of Enclosure within a street view of the development.



The site layout comprises of a hierarchy of streets, from avenues, side streets and shared surface home zones predominantly laid out as a series of looped and interconnected streets. Where cul-de-sacs are provided they are linked by cycle and pedestrian connections to follow natural desire lines through the scheme.” An excerpt from the Landscape Architects plan layout of the site can be seen below in Figure 5 below, this figure shows an overall view of part of the Phase 2 North Site and the previously mentioned housing units overlooking the streets and public open spaces with tree lines throughout the site, all of which, promotes the sense of Enclosure within the development.



Figure 5: Excerpt Landscape Architects Layout

### 2.3 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.”*

Residential housing units are positioned to ensure front facing homes onto the roads and streets, as seen in Figure 6 above. Access to each unit is directly from the street, which will ensure that there is plenty of activity as residents come and go.

Although some of the internal streets terminate in cul-de-sacs, pedestrian and cycle links exist at the end of these cul-de-sacs providing short cuts through the development and offering further enhanced activity and enlivenment the to the street network.

These links are promoted with a 3.75m wide shared cycle/pedestrian link along the western boundary of the Phase 2 South Site (R125 boundary) illustrated in Figure 6 below as well as Figure 7, and a 5.5m wide cycle/pedestrian link along the eastern boundary of the Phase 2 South Site, both of which cross over the river with a pedestrian/bicycle bridge.

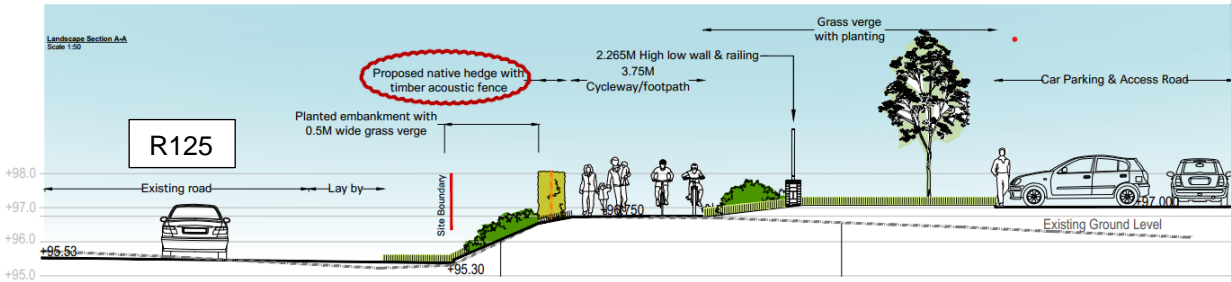


Figure 6: Landscape Section A-A from Landscape Architect

**2.4 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 good pedestrian and cycle connectivity. Figure 7 below, an extract from the Waterman Moylan Drawing No. 12-081A-P160, illustrates the existing Phase 1 pedestrian/cycle routes and the proposed Phase 2 pedestrian/cycle routes for the development.

As mentioned previously, the residential housing units are positioned to ensure front facing homes onto the roads and streets which will create activity and provide passive surveillance which in turn enhances pedestrians’ feeling of safety and wellbeing. Direct frontage also helps to slow and calm traffic speeds.

The proposed development has been designed to reduce traffic speeds. In this regard, long straight sections of road which encourage higher traffic speeds have, where possible, been avoided. Where straight lengths of street longer than 70m occur, traffic calming measures in the form of raised tables, sections of home-zone / shared surfaces, and on street parking has been proposed.

DMURS identifies a 1.8 wide footpath as being suitable to pass for areas of low pedestrian activity. The primary pedestrian routes through the site are 2.2m wide along all the roads which is wider than the minimum space for two people to pass one another comfortably. Shared cycle/pedestrian routes are at a minimum of 3.75m wide along the western boundary of the Phase 2 South Site (R125 boundary) and along the River Skane and a minimum of 3.0m wide along the Drumree Road boundary.

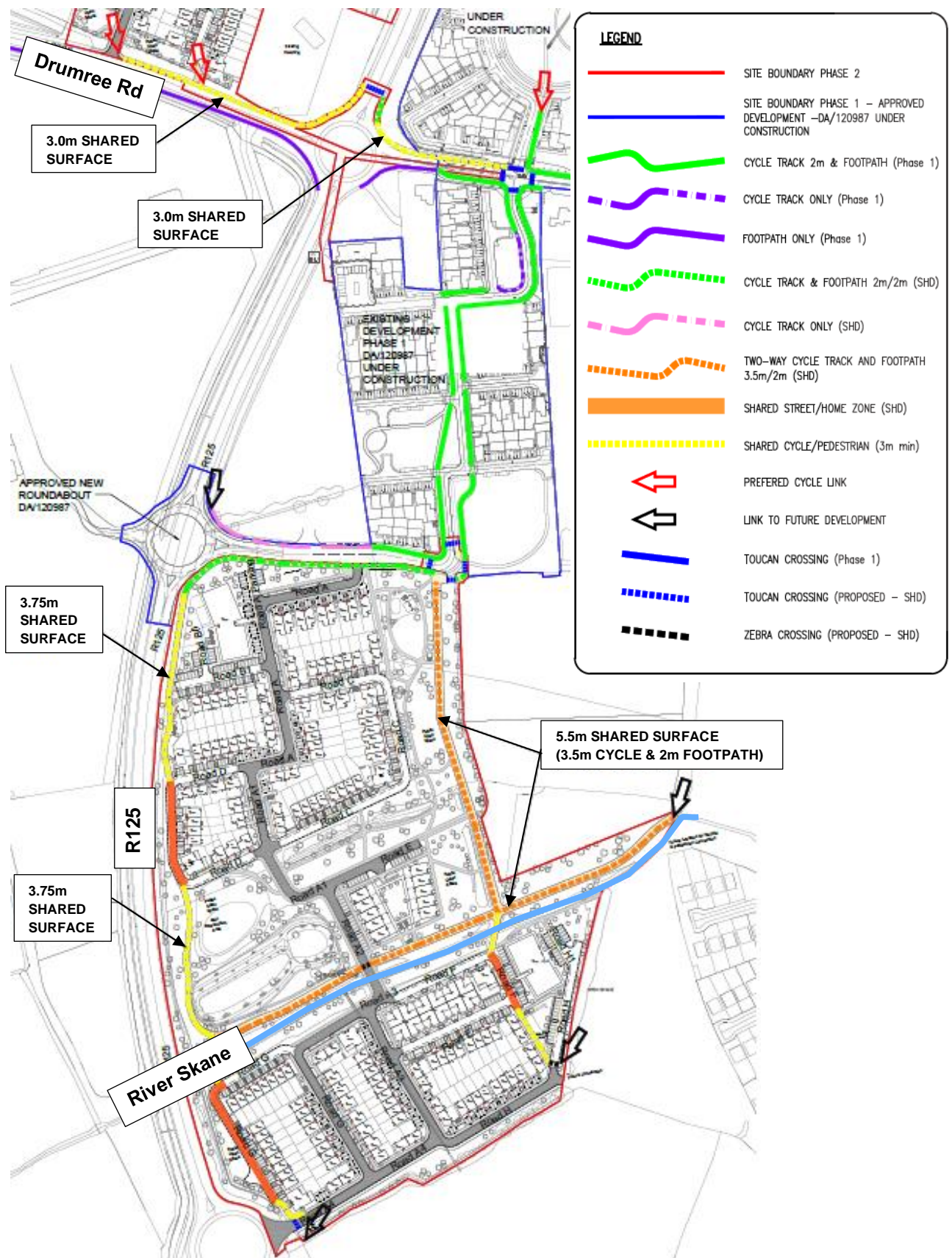


Figure 7: Cycle & Pedestrian Routes

### 3. Key Design Principles

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

#### 3.1 Design Principle 1 (Connected Networks)

*“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.”*

As described previously the proposed development has been carefully designed to ensure the focus on connectivity is centred around pedestrians and cyclists. The provision of high levels of connectivity for pedestrians and cyclists are intended to promote walking and cycling by making them a more attractive option to the private car.

The proposed development is well connected to the surrounding streets and includes proposed pedestrian/cycle link along the River Skane to Dunshaughlin Main Street.

As part of the development it is proposed to provide strong pedestrian and cycle connections alongside the permitted distributor road connecting the existing Phase 1 and proposed Phase 2 to Drumree Road and the R125.

Figure 7 above shows the existing and proposed pedestrian/cycle and shared routes throughout the development and along Drumree road to the north site

These pedestrian and cycle link proposals serve as promotion of sustainable modes of transport and interconnectivity between the sites and surrounding environs.

Within the development, the western cycle/pedestrian path links' cul-de-sac's and home zones to the public open spaces promote the movement of people along the edge with the R125 within the development.

An extract from the DMURS document as seen in Figure 8 adjacent shows an example of cul-de-sacs promoting clear sightlines and passive surveillance.



*Figure 3.23: Examples of vehicular cul-de-sacs in Adamstown, Co. Dublin, which allows for through pedestrian and cyclist access only and has incorporated design measures to ensure that it is safe (i.e. clear sightlines and passive surveillance).*

Figure 8: DMURS Image Extract 1

### 3.2 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 road, street and housing layout has been designed to include new connections within the proposed development to the existing adjoining lands, and as a hierarchical street pattern enhancing the streets use for both pedestrians and vehicles alike.

Open space proposals have been designed to complement and enhance this hierarchy. Cycle paths and walkways are incorporated into the road network with numerous cross site directions which will encourage this multi-functional use within the development.



Figure 4.13: Privacy strip to the front of residential development. The strip provides a buffer and clearly define the private domain from the public.

The hierarchical internal road network creates a calm and composed environment by virtue of the number, layout and composition of dwellings.

The design will contribute a positive urban response to the local context, place making and identity of the area and in the process promote the multi-functional, place-based streets.

Street trees and active street edges form part of the multi-function streets design.

An excerpt from the DMURS document can be seen in Figure 9 adjacent, illustrating the importance of privacy strips to the front of residential developments.

As seen in Figure 3, this aspect of the *Design Principle 2* has been incorporated into the development.

Figure 9: DMURS Image Extract 2

### 3.3 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 pedestrian/cycle movement. In this regard, connectivity throughout the scheme is heavily weighted towards the pedestrian and away from the private car. This is promoted by providing footpaths of 2.2m (1.8m required by DMURS) along all roads, and shared bicycle and pedestrian paths throughout the site, connecting public open spaces and home zones across the site as well as integrating the River Skane into the pedestrian focus within the subject site.

Home zones are promoted to generate intimate housing clusters, to inform the clear hierarchy of public realm. The streetscape has been designed to provide a sense of enclosure with good passive surveillance to enhance pedestrians sense of safety and wellbeing.

The internal streets within the development are characterised by a compact and highly efficient layout, arranged to facilitate pedestrian permeability throughout the scheme and nearby areas.

Well-designed neighbourhoods and landscapes contribute to an overall sense of well-being by providing places for people to meet up for a walk, for collaboration or just to chat.

### **3.4 Design Principal 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 O’Mahony Pike Architects working together with Waterman Moylan Consulting Engineers and Doyle + O’troithigh Landscape Architecture Ltd.

The developer and promoter of the scheme, Castlethorn Construction is a well-established design driven residential developer and have a proven track record in delivering high quality residential developments. The Multi-disciplinary team are committed to delivering a high-quality development which complies with the recommendations of DMURS.

## 4. Conclusion

- This statement of consistency sets out how the proposed development has been designed to achieve and exceed the objective set out in DMURS.
- The proposed development is a design-led layout based on a legible hierarchy of active and enclosed streets grounded in DMURS guidance with pedestrians and cyclists taking priority over the private vehicle in terms of accessibility and ease of movement within and around the proposed scheme.
- Having regard to the above we would be of the opinion that the proposed development is consistent with the requirements for the design of urban roads and streets as set out in DMURS.

# UK and Ireland Office Locations

