



# **DMURS Statement**

Proposed Large-Scale Residential Development at Rathmullan, Drogheda, Co. Meath.

September 2025

## **Waterman Moylan Consulting Engineers Limited**

Block S, East Point Business Park, Alfie Byrne Road, Dublin D03 H3F4 www.waterman-moylan.ie



**Client Name:** Earlsfort Developments Drogheda Limited

**Document Reference:** 18-014r.402 **Project Number:** 18-014

# Quality Assurance – Approval Status

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

| Issue   | Date     | Prepared by | Checked by   | Approved by  |
|---------|----------|-------------|--------------|--------------|
| No. 1   | Jan 2025 | S. Kurella  | B. Gallagher | B. Gallagher |
| No. 2   | Sep 2025 | L. Song     | B. Gallagher | B. Gallagher |
| Commont |          |             |              |              |

#### Comments

#### Disclaimer

This report has been prepared by Waterman Moylan, with all reasonable skill, care and diligence within the terms of the Contract with the Client, incorporation of our General Terms and Condition of Business and taking account of the resources devoted to us by agreement with the Client.

We disclaim any responsibility to the Client and others in respect of any matters outside the scope of the

This report is confidential to the Client and we accept no responsibility of whatsoever nature to third parties to whom this report, or any part thereof, is made known. Any such party relies on the report at its own risk.

# Content

| 1. | Intro | duction   | 4  |
|----|-------|---|----|
| 2. | Site  | location  | 6  |
| 3. | Crea  | iting a Sense of Place                          | 7  |
|    | 3.1   | Connectivity                                    | 7  |
|    | 3.2   | Enclosure                                       | 10 |
|    | 3.3   | Active Edge                                     | 10 |
|    | 3.4   | Pedestrian Activity / Facilities                | 11 |
| 4. | Key   | Design Principles                               | 13 |
|    | 4.1   | Design Principle 1 – Connected Networks         |    |
|    | 4.2   | Design Principle 2 – Multi-Functional Streets   | 13 |
|    | 4.3   | Design Principle 3 – Pedestrian Focus           | 13 |
|    | 4.4   | Design Principle 4 – Multidisciplinary Approach | 14 |
| 5. | Com   | pliance with DMURS Advice Notes                 | 15 |
| 6  | Cond  | clusion   | 17 |

## 1. Introduction

This report has been prepared by Waterman Moylan Consulting Engineers, on behalf of Earlsfort Developments Drogheda Limited, for a proposed large-scale residential development at Rathmullan, Drogheda, Co. Meath, situated to the west of Drogheda town centre.

The proposed development includes (i) demolition/removal of all existing farm buildings/structures and associated hard standing on site; (ii) construction of a large-scale residential development (LRD) of 249 no. units comprising 170 no. two-storey houses (including 37 no. two-bedroom houses, 111 no. three-bedroom houses and 22 no. four-bedroom houses), 16 no. three-storey duplex buildings (accommodating 16 no. one-bedroom and 16 no. two-bedroom units) and a mix of 8 no. three-storey and 3 no. four-storey apartments blocks accommodating a total of 22 no. one-bedroom and 25 no. two-bedroom apartments); (iii) construction of a new vehicular entrance and access road off Rathmullan Road with associated junction works and associated internal access road network with pedestrian and cyclist infrastructure; (iv) provision of a three-storey creche facility (411sq.m) with external play areas at ground and second floor levels and vehicular/bicycle parking area; and, (v) all ancillary site and infrastructural works, inclusive of removal of existing vehicular entrances, general landscaping and public open space provision, vehicular parking provision (396 no. spaces in total), bicycle parking, boundary treatments, foul/surface water drainage, attenuation areas, provision of a pumping station and provision of an ESB substation, as necessary to facilitate the proposed development. Each house will be served by vehicular parking to the front and private amenity space in the form of a rear garden. Each duplex building will be served by vehicular parking to the front and private amenity space in the form of balcony/terrace spaces to the rear. Each apartment block will have shared access to adjoining car parking bays with communal amenity space and bicycle/bin stores provided to the rear and each apartment will be provided with private amenity space in the form of a balcony or terrace. The development includes provision of a landscaped area of public open space to the north of the site, with 2 no. pedestrian/cyclist connections (via the northern/eastern site boundaries) to Rathmullan Road which will be subsequently ceded to Meath County Council. The application is accompanied by a Natura Impact Statement (NIS) and an Environmental Impact Assessment Report (EIAR).

The application for this development also includes all the necessary associated infrastructure to service the above. This includes the installation of a network of foul water and storm water pipes, watermains, and a network of roads and footpaths.

The proposed estate road levels around the site, range from 19m to 30.20m. Additionally, the proposed finished floor levels for the housing units also range between 19.6m and 30.2m above the OD Malin.

In terms of access to the site, the existing Rathmullan Road will be extended towards the site with the existing road, footpath and cycle path removed and area landscaped. Details can be seen in Waterman Moylan drawing No. RAT-WMX-PH2-00-DR-C-P416 – Rev A. Main point of junction entry will be provided via a newly proposed four-armed signalized junction. This junction will connect the Rathmullan Road (East), the Rathmullan Road (North), the proposed site access and the Oldbridge Road.

The design and layout of the proposal has been prepared to fully comply with the current relevant design standards and specifications applicable to this form of development. The relevant design standards and specifications that the layout has been designed in accordance with but not limited to are as follows:

- DMURS
- Uisce Eireann Code of Practice (CoP) and Standard Details (Water and Wastewater)
- Transport Infrastructure Ireland (TII)
- Cycle Design Manual
- SuDS Manual Ciria C753

Technical Guidance Documents, Section H etc.

The planning application is to be submitted to Meath County Council. Circular PL 17-2013 made it mandatory for local authorities to apply the contents of the Design Manual for Urban Roads and Streets (DMURS) when considering applications for planning permission which relate to or impact roads within the 60km/h urban speed limit zone. Ultimately, DMURS is a guidance document, and its contents do not purport to take account of every possible scenario. DMURS itself states:

"This Manual does not purport to account for every scenario that a designer will encounter, particularly when retrofitting existing streets. Nor can this Manual cover every technical detail. Many matters are left to the professional expertise and judgement of users, while others are covered elsewhere in relevant Irish, British or European standards, in codes of practice and guidelines, many of which are cross-referenced throughout this Manual."

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 go about our 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. The promotion of more green transport modes, such as walking, cycling and public transport will have a positive effect on climate change.

## 2. Site location

The site is located on Rathmullan Road in Drogheda, Co. Meath. The site is situated approximately 2.5 km west of Drogheda town centre. The proposed development is bounded to the south by agricultural land. The site is bound to the east by existing residential development, consisting of two-storey terraced houses and three-storey duplexes. The site is bound to the north by Rathmullan Road, the Boyne Greenway and the Boyne River. To the west the site is bound by agricultural land, and the M1 Motorway is c. 500m away from the vicinity of the site in the same direction. The proposed development will be accessed from Rathmullan Road via a new signal-controlled four-arm junction.

The proposed site area within the proposed red line boundary is approximately 9.20 hectares. The current agricultural lands exhibit a general slope from the south-west to the north-east towards the River Boyne, with existing ground levels ranging from 30 m to 6m OD Malin within the proposed red line boundary. Access to the site is currently facilitated through an existing entrance located off the Rathmullan Road to the east of the overall site.

Please refer to Waterman Moylan drawing No. 18-014-P401 – Rev A for the exact site location and surrounding lands as outlined above..



Figure 1: Site Location

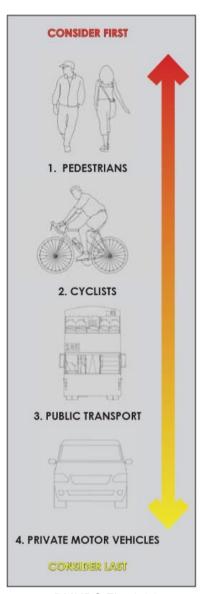
# 3. Creating a Sense of Place

Four characteristics represent the basic measures that should be established in order to create people friendly streets that facilitate more sustainable neighbourhoods. Each of these characteristics are set out below together with a commentary setting out how the proposed residential development complies with each of these characteristics:-

#### 3.1 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. (DMURS Chapter 2.2.1)

In order of importance, DMURS prioritises pedestrians, cyclists, public transport then private cars. This is illustrated in the adjacent image extracted from DMURS (Figure 2.21).



DMURS Fig. 2.21

The proposed development has been designed to prioritise pedestrians' and cyclists' movements over other modes of transport. Pedestrian and cyclist connectivity are provided throughout the development with links to the existing established residential developments, and other facilities such as a community centre, schools, shopping centres and the Drogheda Bus Station; which are accessed via existing footpaths along Rathmullan Road to the east of the subject site.

Local authority currently have proposals to construct a new greenway along Rathmullan Road which will connect the proposed site entrance to the Existing Boyne Greenway. This greenway received planning permission from An Bord Pleanala in May 2024 and is currently under construction. Therefore reasonable assumption can be made that the construction of the greenway is likely to be completed before the construction of the proposed development.

Noted that Road L-16014 to the east of the proposed development is unacceptable for a bicycle lane as the gradient would exceed the design standard limits. According to Cycle Design Manual published by National Transport Authority, section 4.1.5.2, the direable maximum gradient is 3%, 1:33.3. The existing L-16014 has a maximum road gradient of c. 4%, 1:25, which fails to meet the standard limits as stated above. An alternative pedestrian and cycle shared route from within the proposed development is provided and joins the greenway at the north-east of the site.

Cyclist facilities include the provision of internal shared cyclist / pedestrian pathways and a separate off-road cycle-track along the main entrance road to the site.

As illustrated in Figure 2, it shows the pedestrian and cyclist connectivity throughout the overall development including the shared pedestrian and cyclist route connects to the Rathmullan Road to the North.

The nearest public transport is the bus stop opposite Hill View Estate which is served by the No. 173 bus route. The main bus station in Drogheda is located at the corner of the Dublin Road and Donore Road, approximately 2.5km from the site. There is also a frequent private bus service to Dublin run by Matthews Coaches which departs on the hour from Dublin Road/Narrow West Street/Trinity Street junction which is 2.5km from the site. The Drogheda Train Station on

the Dublin Road is located c.3.5km east of the proposed development.

The provision of pedestrian and cycle links throughout the proposed development ensures good connectivity between the site and the aforementioned public transport services.



Figure 2 – Pedestrian and Cycle Connectivity of overall Subject site long with Proposed Development

Pedestrian and Cycle Connectivity is provided throughout the proposed development with links to the existing facilities on Rathmullan Road to the east and the River Boyne walkway to the north. Cycle Design Manual published by National Transport Authority has been studied as part of the review of cycle connectivity. Connectivity throughout the scheme is heavily weighted towards the pedestrian and cyclist, with provisions for future inter-connectivity with future developments in the lands surrounding the subject site.

Pedestrian and cycle links are also shown on Waterman Moylan drawing No. 18-014-P402-Rev A.

The proposed development has been designed so that the private car does not enjoy the level of connectivity afforded to pedestrians and cyclists. In this regard the journey times and routes for car-based transport are considerably longer and more cumbersome in order to make it more attractive for walking and cycling to the local shops and schools. The development however is well connected to the surrounding

road network with road access via a new 4 arm signalised junction with arms linking the Rathmullan Road (East), the Rathmullan Road (North), the proposed site access, and the local access road to the south of the signalised junction.

Upgrades are proposed to Rathmullan Road along the site frontage to the north of the signalised junction. This includes the widening of the existing carriageway to 6m and the provision of a 2m footpath linking the proposed development to the River Boyne Boardwalk. The proposed road and footpath upgrades are shown on Waterman Moylan drawing No. 18-014-P412 Rev A and P416. This section of road down to Oldbridge House currently operates with a stop yield one-way system in place as the River Boyne greenway is intermittently on-road in this area.

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

#### 3.2 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. (DMURS Chapter 2.2.1)

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.

There are a number of shared surface areas and cul-de-sacs which provide enclosed residential communities and give a sense of place to these individual communities. Pedestrian and cyclist linkages have been provided where cul-de-sacs are present to ensure connectivity through the site.

## 3.3 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. (DMURS Chapter 2.2.1)

Residential housing units are all located so that they front directly onto the roads and streets. Entrances to the units are provided directly from the street which will ensure that there is plenty of activity as residents come and go.

Although some of the streets/roads are cul-de-sacs, the pedestrian and cycle links at the end of these cul-de-sacs provide short cuts which will further enhance activity and enliven the streets/roads.

10

Project Number: 18-014 Document Reference: 18-014r.402



Figure 3 –Active Frontage Streets

## 3.4 Pedestrian Activity / 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. (DMURS Chapter 2.2.1)

As outlined in the items above the proposed development includes the provision of suitable pedestrian and cycle facilities. The residential units are all located so that they front directly onto the roads and streets, which will create activity and also provide surveillance to enhance pedestrians feeling of safety and well-being.

The proposed development has been designed to reduce traffic speeds. In this regard a roads hierarchy has been introduced which differentiates shared surfaces / home-zones, local estate roads, link roads and an arterial route. A diagram of the proposed roads hierarchy is shown overleaf on Figure 4 and on Waterman Moylan drawing No. 18-014-P402-Rev A.

Traffic calming measures such as shared surfaces, raised tables, raised crossings, on-street parking, and the strategic control of traffic flow via right-of way and/or stop signage have been provided throughout the proposed development to further encourage low traffic speeds.

Pedestrian crossing points are located at various locations within the development such that unimpeded pedestrian movement along desire lines is facilitated. Footpaths are generally 1.8m wide which allows sufficient space for two people to pass comfortably. Figure 4.34 in Chapter 4.3.1 of DMURS identifies a 1.8m wide footpath as being suitable for areas of low pedestrian activity which would be considered appropriate for the proposed development.

Figure 4 – Roads Hierarchy



# 4. 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 large-scale residential development.

## 4.1 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. (DMURS Chapter 2.2.3 and Chapter 3)

As described above the proposed development has been designed to ensure that the focus on connectivity is centred on pedestrians and cyclists. The provision of the 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 road hierarchy which includes the provision of shared surfaces/homezones, local estate roads, link roads and an arterial route, along with the implementation of strategic open space areas with pedestrian and cycle facilities, creates distinctive character areas within the scheme. This is further enhanced by the landscaping features and the provision of primary and secondary desire lines to encourage permeability for pedestrians and cyclists.

The proposed development is well connected to the surrounding primary roads network with access to Rathmullan Road via the proposed 4 arm signalised junction at the site entrance. The M1 motorway is easily accessible via Marley's Lane and Donore Road.

For pedestrians and cyclists, the community facilities (i.e. St. Oliver's Community College, Drogheda Leisure Park, Drogheda Boys F.C., and St. John's Primary School) can be accessed via links to the existing footpaths along Rathmullan Road to the east. These facilities are located c.950m (12 min walk) to the east of the site. Pedestrian links have also been facilitated between the site and the River Boyne boardwalk/parapet to the north by the provision of a new 2m footpath as part of the Rathmullan Road upgrade works.

#### 4.2 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. (DMURS Chapter 2.2.3 and Chapter 4)

The road, street and housing layout have been designed to include a hierarchical street pattern enhancing the streets use for both pedestrians and vehicles. 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 and create balance. The hierarchical internal road network creates a calm and composed environment by virtue of the number, layout and composition of dwellings and 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 street.

#### 4.3 Design Principle 3 – Pedestrian Focus

The quality of the street is measured by the quality of the pedestrian environment. (DMURS Chapter 2.2.3 and Chapter 4)

The design of the scheme has placed a particular focus on the pedestrian. Connectivity throughout the scheme is heavily weighted towards the pedestrian and away from the private car.

The streetscape has been designed to provide a sense of enclosure and to be active with good passive surveillance in order to enhance pedestrians sense of safety and well-being.

The street design incorporates well thought out pedestrian facilities such as appropriate footpaths, pedestrian crossings, and home-zone/shared surface areas.

High quality materials and finishes are proposed throughout the scheme, both in the buildings and hard and soft landscaping. These will have a positive impact on the local context and streetscape while complementing the historical use of similar materials and make a clear reference to the heritage of the area. The selected materials will provide a collection and palette of colours and textures which will contrast with each other and enhance the streetscape and pedestrian environment while respecting the existing architectural vocabulary locally and at the same time giving it a modern interpretation.

## 4.4 Design Principle 4 – Multidisciplinary Approach

Greater communication and co-operation between design professionals through promotion plan led multidisciplinary approach to design. (DMURS Chapter 2.2.3 and Chapter 5)

The design of the proposed scheme has been developed through the design team working closely together. The proposed development design is led by NDBA Architects working together with Waterman Moylan Consulting Engineers, Hughes Planning and Development Consultants and Cunnane Stratton Reynolds Land Planning and Design

The developer and promoter of the scheme, Earlsfort Developments Ltd., is committed to delivering a high-quality development which complies with the recommendations of DMURS.

# 5. Compliance with DMURS Advice Notes

#### **Footways**

DMURS requires that minimum footway widths should be based on the space need for two wheelchairs to pass each other, 1.8m.

We can confirm the development is consistent with this, in this regard, all footpaths are minimum 2.0m width.

#### **Pedestrian Crossings**

DMURS states that local streets, due to their lightly trafficked/low speed nature, generally do not require the provision of controlled crossings. The provision of dropped kerbs will generally suffice.

DMURS states that pedestrian crossing facilities should be provided at junctions and each arm of the junction. In addition, corner radii should be minimised so that crossing points are located closer to corners on pedestrian desire lines.

We can confirm the development is consistent with this, all crossing points are provided with dropped kerbs and appropriate tactile paving. Corner radii are minimised and crossing is along desired lines as required.

#### Corner Radii

DMURS states that reducing corner radii will significantly improve pedestrian and cyclist safety at junctions by lowering the speed vehicles can turn corners and by increasing intervisibility between users.

On junctions between Arterial and/or link streets, a maximum corner radii of 6m should be applied.

Where design speeds are low and movements by larger vehicles are infrequent, such as on local streets, a maximum corner radii of 1-3m should be applied.

We can confirm the development is consistent with this, all junction radii are minimised as much as possible.

#### Carriageway widths

DMURS states that the standard carriageway widths for arterial and link streets is 6-6.5m and local streets is 5-5.5m

We can confirm the development is consistent with this, all roads widths within the development range from 5.5m to 6m which are in line with DMURS.

#### Forward visibility

DMURS states that the following forward visibility is required along streets for drivers to see. The table of required distances in relation to speed is shown below:

| Design Speed<br>(km/h) | SSD Standard<br>(metres) |
|------------------------|--------------------------|
| 10                     | 7                        |
| 20                     | 14                       |
| 30                     | 23                       |
| 40                     | 33                       |
| 50                     | 45                       |
| 60                     | 59                       |
| Forward                | l Visibility             |

We can confirm the development is consistent with this, all bends on streets have sufficient forward visibility as shown on the attached drawings submitted with this planning application.

#### Visibility splays

DMURS states that the following:

Visibility splays are included at junctions to provide sight lines along the intersected street to ensure that drivers have sufficient reaction time should a vehicle enter their path. Visibility splays are applied to priority junctions where drivers must use their own judgement as to when it is safe to enter the junction. Junction visibility splays are composed of two elements: the X distance and the Y distance.

The X distance is the distance along the minor arm from which visibility is measured. It is normally measured from the continuation of the line of the nearside edge of the major arm, including all hard strips or shoulders.

The Y distance is the distance a driver exiting from the minor road can see to the left and right along the major arm. It is normally measured from the nearside kerb or edge of roadway where no kerb is provided.

The table of required distances in relation to speed is shown below:

| Design Speed<br>(km/h) | SSD Standard<br>(metres) |
|------------------------|--------------------------|
| 10                     | 7                        |
| 20                     | 14                       |
| 30                     | 23                       |
| 40                     | 33                       |
| 50                     | 45                       |
| 60                     | 59                       |

We can confirm the development is consistent with this, all junctions have sufficient sightlines as shown on the attached drawings submitted with this planning application

## 6. Conclusion

- Earlsfort Developments Drogheda Limited, appointed Waterman-Moylan Consulting Engineers to provide consulting Civil Engineering services for the proposed large-scale residetial development at Rathmullan, Drogheda, County Louth.
- The DMURS Compliances statement set out above demonstrates how the proposed development achieves the objective set out in DMURS to achieve better street design to encourage people to choose to walk, cycle or use public transport over using the private car.

With regard to the above, we would be of the opinion that the proposed large-scale residential development is consistent with the requirements for the design of urban roads and streets as set out in DMURS

# UK and Ireland Office Locations

