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# PROPOSED CREAGH STRATEGIC HOUSING RESIDENTIAL DEVELOPMENT AT BALLOWEN/RAMSFORTPARK, GOREY, CO. WEXFORD FOR AMIL PROPERTIES LTD. DMURS COMPLIANCE STATEMENT

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## 1. Introduction

This document is a report following a review of the proposed development with regard to compliance with the guidelines set out in the Design Manual for Urban Roads and Streets (DMURS). The overarching principals of DMURS are addressed initially, and followed by compliance with specific DMURS-related design elements

The following documents, which are included with the Planning submission, were reviewed among others:

- The site layout general arrangement – Strutec drawing PL2-010;
- The site sections and elevations – Strutec drawings PL2-020 to PL2-025;
- Site circulation diagram – Strutec drawing PL2-060;
- The landscape masterplan – Murray & Associates drawing 1706\_PL\_P\_01;
- The Transport and Traffic Assessment – Roadplan Consulting document “Transportation and Traffic Assessment”; and,
- The Road Safety Audit – TTRSA document “Stage 1 Road Safety Audit”.

## 2. DMURS Objectives

DMURS seeks to balance the needs of all users, creating well-designed streets at the heart of communities. It states that “Well designed streets can create connected physical, social and transport networks that promote real alternatives to car journeys, namely walking, cycling or public transport”. DMURS also seeks to create sustainable neighbourhoods: “compact and energy efficient development ... prioritising sustainable modes of transport ... [and] provision of a good range of amenities and services within easy and safe walking distance of homes”.

### Interaction between People and Vehicles

DMURS outlines four distinct models for interaction between cars and people, where:

- Traffic and people are segregated and the car is dominant;
- The car and people are segregated from each other;
- Traffic and people mix, although on a more equitable basis; and,
- The car is excluded altogether.

In the proposed development, the third model predominates, with all roads having shared surfaces except the east-west road from the site access and the north-south central spine road.

## The DMURS User Hierarchy

DMURS outlines a user hierarchy that designers must follow when preparing schemes. The Site Circulation Diagram is consistent with applying a user hierarchy.

## DMURS Design Principles

DMURS includes four overarching design principals which are implemented through adherence to recommendations in relation to individual design elements. Compliance with these elements is summarised in the table below.

The four overarching design principals are as follows:

1. “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;
2. The promotion of multi-functional, place-based streets that balance the needs of all users within a self-regulating environment;
3. The quality of the street is measured by the quality of the pedestrian environment; and,
4. Greater communication and co-operation between design professionals through the promotion of a plan-led, multidisciplinary approach to design.”

## 3. DMURS Design Elements

Design Element	DMURS Review
Movement Function	The majority of the vehicular routes throughout the site align with the “local streets” category in DMURS, the main function of the routes being to provide access within the development. The route identified as a bus route is considered to be a “link street” because the geometry of “local streets” specified by DMURS is not recommended for public transport services. The “local streets” category is appropriate in terms of the shared-space and placemaking elements of the design strategy.
Place Function	DMURS asks, “does the design of residential streets strike the right balance between the different functions of the street, including a sense of place?”. The development will include “measures to ensure satisfactory standards of personal safety and traffic safety”, subject to the implementation of the Road Safety Audit, including frequent crossing points and junctions, vertical and horizontal deflections, narrow carriageways, minimised signage and road markings, reduced visibility splays, on-street parking, tighter corner radii and shared surfaces.
Street Layout	DMURS looks to encourage: “layouts where all streets lead to other streets, limiting the use of cul-de-sacs that provide no through access; [and] maximise the number of walkable/cycleable routes between destinations’. The proposed development adopts an orthogonal layout with through access throughout which complies with DMURS.

Block Sizes	DMURS states that a “block dimension of 60-80m is optimal for pedestrian movement” whilst also acknowledging that ‘block dimension of up to 100m will enable a reasonable level of permeability for pedestrians and may also be used in Neighbourhoods and Suburbs”. It continues to state that “all efforts should be made to ensure the maximum block dimension does not exceed 120m”. The blocks sizes in the proposed development are optimised in line with density and broadly comply with the requirements of DMURS.
Wayfinding	DMURS promotes the previously identified orthogonal street pattern as being generally legible in terms of wayfinding.
Permeability	In the context of DMURS, the development has been designed with a largely “open network” providing few restrictions on permeability for users. The design also considers permeability between phases of the development and network connections to future neighbouring developments. The approach complies with the requirements of DMURS.
Traffic Congestion	The traffic modelling contained within the TTA associated with this development has shown that the development is not predicted to result in congestion. DMURS commends the use of permeable traffic-calmed networks, as “the most balanced way of addressing traffic congestion ... enabling greater vehicular permeability, albeit at slower speeds”. A permeable traffic-calmed strategy has been adopted for the proposed development.
Approach to Speed	The design speed within the proposed development is 30km/h. This approach is consistent with DMURS which specifies that “where vehicle movement priorities are low, such as on local streets, lower speed limits should be applied (30km/h)”. Speed limit and slow zone signing will be addressed within the detailed design and Stage 2 Road Safety Audit.
Street Trees, Planting and Street Furniture	A comprehensive landscape masterplan has been prepared for the development by Murray and Associates, landscape architects. DMURS primarily considers street trees in terms of enclosure, which would suggest that for ratios of building height and street width within this development that supplementary street trees are desirable. The width of the streets would restrict any planting to smaller species “with a canopy spread of 2-6m”, for example, to break up the shared surface to slow vehicles, or mixed with the proposed shrub planting in front gardens in phases. The landscaping has been designed with these measures in mind for optimal compliance with DMURS. Likewise, the street furniture shall comply with the requirements of DMURS and be further addressed in the detailed design and Stage 2 Road Safety Audit.
Active Street Edges	DMURS promotes the use of minimal setbacks between the edge of the carriageway, back of the footway and building line. The setbacks along the central “spine” road, to the apartments and facing the public amenity spaces are reduced to increase a sense of urban enclosure and strengthen the block corners.
Signage and Line Marking	DMURS notes that minimal signage is required on local streets due to their low speed nature and low movement function. Signing and line markings will be addressed within the detailed design and Stage 2 Road Safety Audit. The

	Stage 1 Road Safety Audit also makes recommendations in terms of signage and road markings.
Lighting	The lighting guidelines in DMURS have been superseded due to the rapid development of LED lighting technology. The DW Windsor Kirium Pro Mini luminaire proposed for the development is typical of such LED lighting. The lighting will be provided in accordance with the current Wexford County Council Public Lighting Specification.
Materials and Finishes	The landscape masterplan shows a typical materials palette with a range of materials including asphalt roadways, in-situ-concrete footways, granite sett ramps and tegula open spaces and private driveways. DMURS provides limited guidance on the use of different materials and finishes for local streets however, it does state that designers should use ‘contrasting materials and textures to inform pedestrians of changes to the function of space (i.e. to demarcate verges, footway, strips, cycle paths and driveways) and in particular to guide the visually impaired’. The range of proposed materials is in line with the requirements of DMURS.
Footways	The typical footway width applied within the development is 2.0m, meeting the requirements of DMURS.
Pedestrian Crossings	DMURS considers pedestrian crossings to be “one of the most important aspects of street design as it is at this location that most interactions between pedestrians, cyclists and motor vehicles occur”. The pedestrian crossing points will comply with the requirements of the Wexford County Council Accessibility Guidelines and are provided at all junctions and intermediate points where appropriate for circulation and to reinforce traffic calming and sense of shared space.
Corner Radii	Corner radii of “local streets” within the development are typically shown as 1m, increasing to 4.5m on the “link street” where increased radii are required to accommodate the movements of larger vehicles. These radii comply with the requirements of DMURS.
Pedestrian and Shared Surfaces	Shared surface streets and junctions are integrated spaces where pedestrians, cyclists and vehicles share the main carriageway. In the context of the proposed development, DMURS recognises the use of shared surfaces where “movement priorities are low and there is a high place value in promoting more liveable streets such as on local streets within neighbourhood”. Shared surfaces are used extensively within the development. DMURS recommends a number of design features that should be incorporated to ensure that drivers recognise that they are in a shared space and therefore to drive slowly, including: the “use [of] a variety of materials and finishes”; “sections of tactile paving that direct movement along the street or across spaces”; “the creation of distinct zones that delineate pedestrian only space from shared space”; and, continuous or frequent zones “allowing pedestrians to step on and off the carriageway to let cars pass”. The design features listed have been incorporated into the proposed development to encourage the sharing of space.
Cycling Facilities	DMURS references the National Cycle Manual (NCM) in terms of the provision of cycling facilities. The site plan indicates a number of cycle links with additional facilities being shown on the landscape masterplan. The proposed width of the off-road cycle tracks complies with the requirements of the NCM. The majority of the cycle provision within the development will be on-road shared use with other vehicles, the traffic flows and vehicle speeds being consistent with this type of cycle use within the NCM. Safe access

	will be provided at tie-in points between the off-road cycle tracks and highway network until the off-road cycle tracks are extended to link to adjacent areas.
Carriageway Width	The width of the majority of the “local streets” within the development is 4.8m with car parking being separated from the street by a footpath, providing the additional width required for access and egress from car parking spaces. The potential north-south through route and “link streets” have a typical width of 6.0m which also facilities perpendicular car parking immediately adjacent to the street. The carriageway widths are broadly compliant with DMURS.
Carriageway Surfaces	The landscape masterplan identifies the carriageway surface material as asphalt, with granite setts being used on the ramps associated with the proposed junction tables. DMURS states that “where lower design speeds (i.e. 30km/h or less) are desirable, changes in the colour and/or texture of the carriageway should be used, either periodically (30km/h) or for the full length of the street (below 30km/h)”. Finishes in line with these requirements of DMURS are proposed and will be further developed in detail design and a Stage 2 Road Safety Audit.
Junction Design	The design team has confirmed that all of the junctions within the development will be priority (stop) controlled. This approach is consistent with the proposed traffic flows and complies with the requirement of DMURS for junctions between local streets, and between local streets with link streets.
Forward Visibility and Visibility Splays	Please refer also to the Roadplan Consulting document “Transportation and Traffic Assessment” and the TTRSA document “Stage 1 Road Safety Audit”. Clear adequate visibility splays on both the horizontal and vertical planes of all internal and external junctions shall be maintained.
Horizontal and Vertical Deflection (Traffic Calming)	DMURS highlights that traffic calming features should be provided “on longer straights where there is more than 70m between junctions”. The proposed development includes junction tables (vertical deflection) at the majority of junctions within the site, and additional speed tables linking areas of neighbourhood open space. The proposed traffic calming is broadly in compliance with DMURS.
Kerbs	DMURS provides indicative kerbs heights of 125mm for the link street and between 50-75mm or less for local streets with lower design speeds. The kerb height on the link streets will be 125mm and flush kerbs will be provided for all other streets, including the shared surfaces, both complying with the requirements of DMURS.
On-street Parking and Loading	In providing the required number of parking spaces adjacent to dwellings, a number of DMURS measures have been adopted: <ul style="list-style-type: none"> <li>▪ Parallel street-side parking on the primary route with perpendicular parking primarily confined to lower-speed zones;</li> <li>▪ Breaking continuous runs of parking into smaller groups along with planting and crossing areas to break the visual continuity of the parking;</li> <li>▪ Street-side parking mixed with in-curtilage parking.</li> </ul>
Multi-disciplinary Design Team	In accordance with the requirement in DMURS, the design of the development has been prepared by a multi-disciplinary design team, including but not limited to: architects; civil engineers; landscape architects; and, transport planners.

Road Safety Audit	A road safety audit of the proposed design of the site has been prepared under separate cover – see TTRSA document “Stage 1 Road Safety Audit”.
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