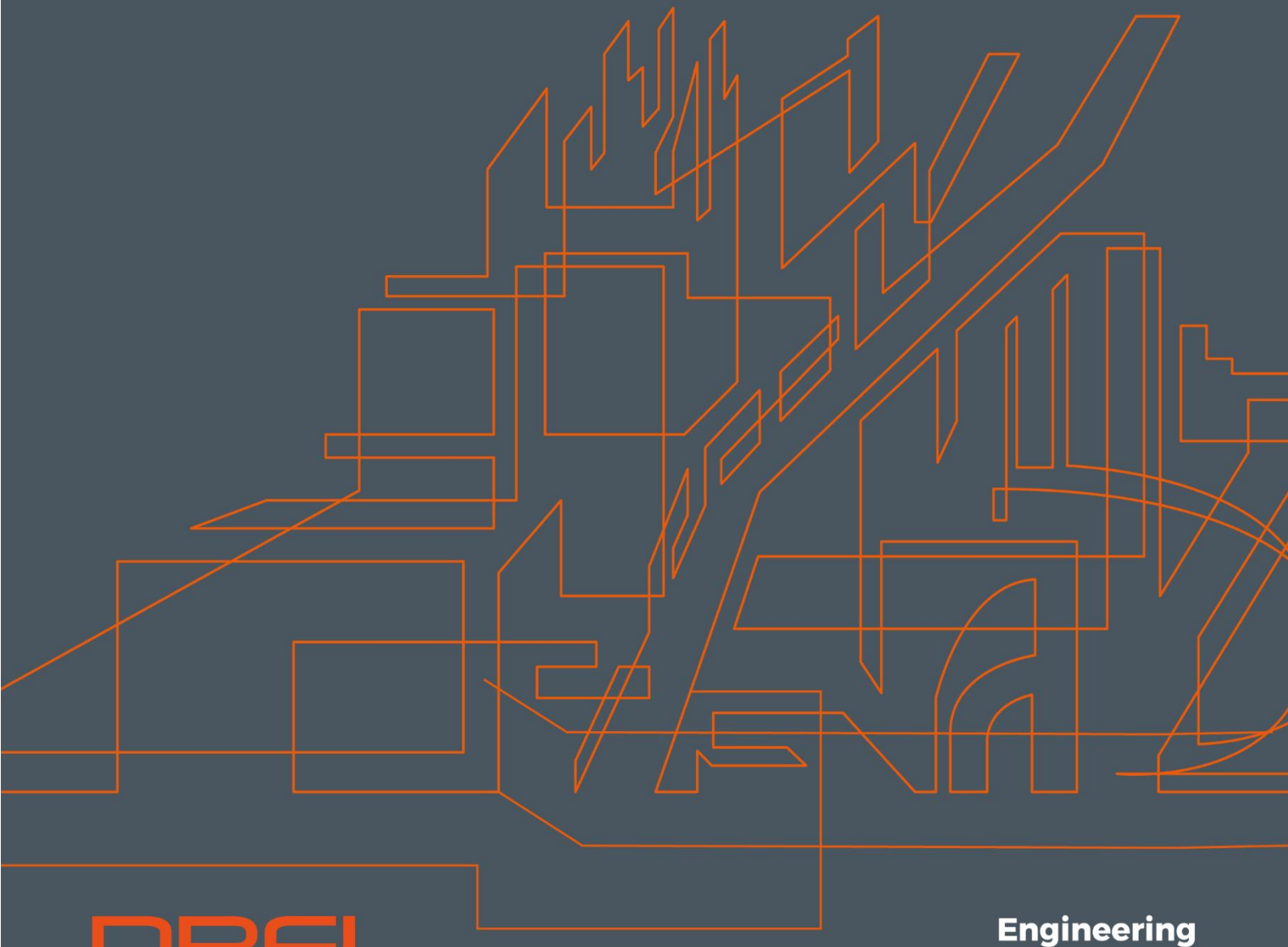
Ford Site, Cork City, Co. Cork

DMURS Design Statement

240002-X-90-X-XXX-RP-DBFL-CE-0002

November 2024



DBFL CONSULTING ENGINEERS

Engineering Sustainable Futures

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P3	0	19/06/24	Issued for Section 32B	VJ	TJ	TJ
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1 INTRODUCTION

It is DBFL's opinion that the proposed development layout is consistent with both the principles and guidance outlined within the Design Manual for Urban Roads and Streets (DMURS) 2019. The scheme proposals are the outcome of an integrated design approach that seeks to implement a sustainable community which promotes a real and viable alternative to car-based journeys. DBFL along with the wider design team have interrogated the DMURS principles to ensure that the final layout provides for a package of self-regulating design measures providing a high-quality layout to accommodate all road users.

The street network includes the **Arterial Street** link which includes the N27 road corridor located to the west of the subject site while the Central Park Road to the northwest and Marquee Road to southwest can be classified as a **Local Street**. Vehicular access to the subject development basement car park will be provided directly from Local Street (Central Park Road) as illustrated in **Figure 1-1** below.

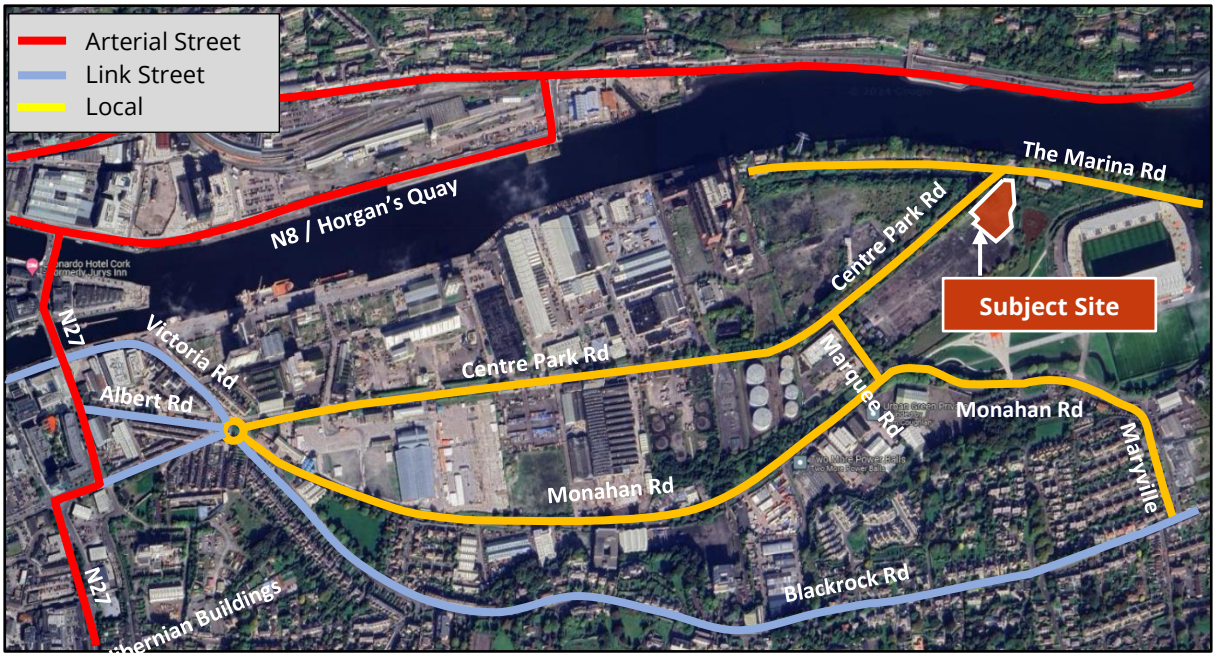

Figure 1-1: Road Heirarchy

The following section of the report seek to demonstrate how the scheme proposals comply with the guidance detailed within DMURS (2019).

2 DMURS OBJECTIVES

2.1 OVERVIEW

DMURS seeks to balance the needs of all users, creating well designed streets at the heart of sustainable 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 streets which are attractive places and encourage designs appropriate to context, character and location that can be used safely and enjoyably by the public.

2.2 THE DMURS USER HIERARCHY

DMURS set outs a clear user hierarchy which promotes and prioritises sustainable forms of transport that designers must follow when preparing schemes.

2.3 DMURS DESIGN PRINCIPLES

At the heart of DMURS is a place-based, integrated approach to road and street design with the following four overarching design principals to be applied to the design of all urban roads and streets:

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

The ways in which the proposed development complies and adheres to the design principles of DMURS is described in the following sections, with details of how the various design elements will be implemented throughout the scheme.

3 DMURS DESIGN ATTRIBUTES

Design Element	DMURS Guidance	Proposed Development Adopted Design Approach
Movement Function	DMURS encourages designers to consider the movement function of a street / street network and develop a street hierarchy reflective of the levels of connectively required and volumes of traffic	The proposed developments street hierarchy is composed of ***Local Streets*** (Shared Street along Street C) and ***Traffic free Active Travel*** areas. The overall network design has sought to optimise connectivity to/from both external off-site networks and public transport and linkages in addition to providing high quality areas for pedestrians and cyclists. The adopted design philosophy has also sought to consider the context / place status of each street and open space area in terms of level of connectivity and permeability provided, quality of the proposed design, level of pedestrian/cyclist activity and vulnerable users requirements whilst identifying appropriate 'transition' solutions between the different street types and levels(eg.gradients).
Place Function	The '*Place Function*' essentially distinguishes a street from a road, achieved largely by creating a relationship between the street and the buildings and spaces that frame it, ultimately resulting in a richer and more fulfilling environment	The adopted design philosophy has sought to achieve a very high quality '*sense of place*' by incorporating several large green open space areas to encourage social activity including a podium level that connects Centre Park Road to the central plaza area. These provide recreational paths, seating areas and play spaces. There are also several smaller landscaped areas provided between the blocks, along with landscaped buildouts throughout Pedestrian focused podium plaza area which contributes to an aesthetically pleasing and accessible streetscape. Furthermore, the type of surface materials, landscaping and street furniture have been chosen with consideration of both their aesthetic qualities and context of the existing surrounding environment. The design has also sought to minimise the impact of highway features by avoiding excessive signing, road markings and street furniture. The vehicles to/from basement area is formed by the application of shared street along Street C. All of these area benefit from excellent passive surveillance.

Design Element	DMURS Guidance	Proposed Development Adopted Design Approach
Street Layout	DMURS looks to encourage street layouts where "*all streets lead to other streets, limiting the number of cul-de-sacs that provide no through access*" and maximise the number of walkable / cyclable routes between destinations	The development proposals do not include internal streets the central plaza area at podium level benefits from through access for pedestrians. A short length of vehicle access is provided along street C part of which functions as a 'shared' surface treatment.
Block Sizes	DMURS state the following optimal block dimensions: • 60-80m for local centres • 100m in neighbourhoods or suburbs	The block sizes within the proposed Ford's Site development are optimised in line with density being between 60m-80m and thereby comply with the requirements of DMURS. These compact block sizes within the development maximise accessibility and permeability between the development two blocks particularly for those travelling on foot or by bicycle.
Wayfinding	DMURS states that in general "*the more the orthogonal street layout the more legible it will be (as well as being the most connected)*"	The external legible street pattern has been adopted for the proposed development in accordance with DMURS through creating defined footpath connections either side of the ***Local Street***, whilst central pedestrian plaza area defined by changes in materials and landscaping. A network of footpaths throughout the central open space areas provide further permeability throughout the internal layout and with through connection between external streets current and future.
Street Trees, Planting & Street Furniture	DMURS primarily considers street trees in terms of enclosure and suggests that for ratios of building height and street width within this development that supplementary street trees are desirable	A comprehensive landscape masterplan for the proposed development has been prepared by Áit Urbanism + Landscape. The landscape masterplan reinforces a sense of street enclosure through the areas of planting, landscaped buildouts and street trees with appropriate canopy spreads best suited to ***Local Streets*** and ***Pedestrian Areas*** for optimal compliance with DMURS.

Design Element	DMURS Guidance	Proposed Development Adopted Design Approach
Signage & Line Marking	DMURS notes that designers should use discretion with regard to the self-regulating characteristics of streets and the impact of signs / line marking on the value of place	In recognition of the low speed nature at the site access and combined movement and place making function of the ***Internal Surface*** areas, the proposed design has sought to minimise signage and line marking. It is considered that the street design, together with the proposed landscaping and surfacing material will provide an environment which is both intuitive for motorists and self-regulating. 'Stop' signage and line markings are proposed at the Site Access priority junction with the Centre Park Road to reinforce the requirement for motorists to stop when exiting the site, with priority given to the Centre Park.
Materials & Finishes	DMURS states 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 with the ***Local Streets*** being formed using standard macadam / asphalt finishes. The use of tactile paving has been applied throughout in accordance with the guidance contained within the Traffic Management Guidelines (2003) and the UK Guidance on the use of Tactile Paving Surfaces to ensure a logical and navigable pedestrian environment is delivered for those with visual impairments.
Pedestrian Crossings	DMURS considers 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*".	Crossings are provided with raised flat top treatment thereby allowing pedestrians to informally assert a degree of priority. They are provided at the key crossing points over the proposed site access junction with the Centre Park Road where the new cycle track extends southwest.
Cycling Facilities	DMURS refers to the National Cycle Manual (NCM) as the principle form of	Along the site frontage segregated cyclist facilities are provided along one side of the ***Link Street*** (Centre Park Road), which will in future (following connection with future 1st and 3rd party

Design Element	DMURS Guidance	Proposed Development Adopted Design Approach
	guidance in relation to guidance on the design and provision of appropriate cycle facilities.	infrastructure proposals) be a integrated, well connected and moderate speed environment, designed in accordance with the CDM. This will include a 1.8m wide cycle track. Raised crossings are provided over the access junctions to the subject site. These high-quality segregated facilities will encourage and promote cycling not only for the proposed residential development, but for existing and future residents in the wider lands.
Carriageway Surfaces	Where low design speeds are desirable DMURS states that changes in colour and/or texture should be used periodically such as at crossings or where shared carriageways are proposed (i.e. 10-20km/h) applied to the full length of the street	The ***Local*** off-site network adjoining the subject site will be primarily formed using standard macadam / asphalt finishes. To reinforce narrower carriageways (particularly when parking spaces are empty), each parking space at surface level is finished so that it is clearly distinguishable from the main carriageway, i.e. paved versus black top/buff finish. Internally along the 'shared' street C, high quality materials are specified to highlights its intended function and balance Place and Movement demands.
Junction Design	DMURS notes that junction design is large determined by volumes of traffic and that designers should take a more balanced approach to junction design catering for all users	Access to Site will be via the ***Local Street (Street C)*** which will be a priority-controlled arrangement, capable of catering for the projected modest volumes of development traffic. The design of the priority junction incorporates a raised crossing enabling pedestrian/cyclists to assert priority over vehicles travelling into and from the subject residential development.
Forward Visibility & Visibility Splays	DMURS provides SSD Standards in relation to forward visibility requirements at junctions to ensure drivers have sufficient reaction time	Appropriate clear unobstructed visibility splays is provided on both the horizontal and vertical planes. This adheres to DMURS's requirements; is being provided / safeguarded at all internal nodes and at the site access junctions to the external road network. The proposed Fords Site access achieves a recommended visibility splay of 2.4m x 45m onto the Centre Park Road for speed zone of 50km/h.

Design Element	DMURS Guidance	Proposed Development Adopted Design Approach
Multi-disciplinary Design Team	DMURS advocates multi-disciplinary input into the development of a scheme to ensure a holistic design approach is implemented	In accordance with design philosophy of DMURS, the Ford's Site scheme has been prepared by a multi-disciplinary design team including McCutcheon Halley Chartered Planning Consultants (Planning), John Fleming Architects, DBFL Consulting Engineers (Civil & Transport Engineering) and Áit Urbanism + Landscape Architect (Landscape Architects).

4 SUMMARY AND CONCLUSION

4.1 SUMMARY

DBFL Consulting Engineers (DBFL) has been commissioned by Marina Quarter Limited to compile a Design Manual for Urban Roads and Streets (DMURS) Design Statement in regards to a proposed Development at The Former Ford Distribution Site, fronting onto Centre Park Road, Ballintemple, Cork.

The development layout has been prepared with careful consideration of optimising connectivity between key local areas through the provision of a high degree of permeability and legibility for all network users and particularly prioritising sustainable forms of travel.

The place status of each Local Street and the internal pedestrian plaza area was also considered in terms of the level of connectivity provided, level of pedestrian/cyclist activity and vulnerable users requirements, whilst identifying appropriate 'transition' solutions between different street types.

Appropriately sized blocks, together with filtered permeability delivers an overall street network that is highly permeable, legible and accessible in nature for all road users.

4.2 CONCLUSION

The preceding sections of this report outline the specific Ford's Site scheme attributes which contribute to achieving the DMURS design objectives. The overall design approach successfully achieves an appropriate balance between the functional requirements of different network users, whilst also providing for an enhanced sense of place. The implementation of a self-regulating street network will actively manage movement by offering real modal and route choices in a low speed, high quality residential environment.

Consequently, the proposed residential development is the outcome of an integrated design approach which will ultimately deliver safe, convenient and attractive networks in addition to promoting real and viable alternatives to car-based journeys.

ENVIRONMENT ISO 14001:2015 NSAI Certified

HEALTH & SAFETY ISO 45001:2018 NSAI Certified

QUALITY I.S. EN ISO 9001:2015 NSAI Certified

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