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TECHNICAL NOTE 170232/04

Subject:	DMURS Design Statement	**Produced by:**	BK
Project:	Development at Scholarstown Road, Dublin 16	**Checked by:**	-
Job No.:	**170232**	**Date:**	26th Sept. 2019

1.0 INTRODUCTION

1.1.1 It is DBFL's opinion that the proposed residential scheme is consistent with both the principles and guidance outlined within the *Design Manual for Urban Roads and Streets* (DMURS) 2013. The scheme proposals are the outcome of an integrated design approach that seeks to implement a sustainable community connected by well-designed streets which deliver safe, convenient and attractive networks.

1.1.2 Section 2.0 of this Technical Note outlines the specific design features that have been incorporated within the proposed residential scheme with the objective of delivering a design that is compliant with DMURS.

2.0 DESIGN ATTRIBUTES

2.1 Development Strategy

2.1.1 The proposed residential scheme delivers mode and route choices along direct, attractive and safe linkages to a range of amenities and local service destinations (refer to DFBL Drawings 170232-9001 and 170232-9002).

2.1.2 The proposed residential scheme incorporates a hierarchy of streets as noted below:

- An existing ***Arterial*** link is located along the southern boundary of the proposed scheme (R113, Scholarstown Road).

- The adopted design philosophy has sought to consider the context / place status of the proposed residential ***Local*** street in terms of level of pedestrian activity and vulnerable users' requirements.

2.1.3 The primary access point for motorised vehicles is located along the proposed scheme's southern boundary (Scholarstown Road).

A secondary site access point is also proposed in the south-west corner of the site (6.0m wide access with adjacent 2.0m wide footpath as agreed with SDCC Roads Department). This access is principally intended to facilitate pedestrian and cyclist permeability between the proposed scheme and Scholarstown Road (particularly the proposed creche which is located in the south-west corner of the site). This access point can also serve as an alternative access and egress point for Emergency Services.

2.1.4 The proposed scheme's layout facilitates high levels of cycle and pedestrian connectivity. In addition to the access points noted above, pedestrian and cycle connectivity is provided at the site's south-eastern corner (adjacent to the proposed commercial / retail units) and north-western corner (potential access point to the existing park adjacent to Dargle Wood for which SDCC have provided a letter of consent). Provision of these access points optimise access to / from public transport and cycle routes as well as prioritising the movement of higher numbers of pedestrians.

2.2 Design Parameters

2.2.1 The implementation of self-regulating streets actively manages movement by offering real modal and route choices in a low speed / high quality residential environment. Specific attributes of the schemes design which contribute to achieving this DMURS objective include;

a) On-street activity is promoted internally along the residential streets e.g. through the adoption of 'own-door' dwellings along the proposed scheme's northern, eastern and western boundaries.

b) The proposed design has sought to specify minimal signage and line markings along the internal ***Local*** streets with such treatments used sensitively throughout and predominately at key nodes and 'transition' areas with the adjoining ***Arterial*** link.

c) Footpaths (2.0m wide) are provided throughout the scheme and with connections / tie-in to existing external pedestrian networks.

d) Well designed and frequently provided pedestrian crossing facilities are provided along key travel desire lines throughout the scheme in addition to those located at street nodes. All courtesy crossings are provided with either dropped kerbs or a raised flat top treatment thereby allowing pedestrians to informally assert a degree of priority (refer to DBFL's Roads Layout Plan).

e) All informal pedestrian crossing facilities are at least 2.0m wide, whilst all controlled pedestrian crossings are at least 4.0 m wide ("Toucan" crossings).

f) Appropriate clear unobstructed visibility splays, as per DMURS requirements; are provided / safeguarded at all internal nodes

g) At the more heavily trafficked site access (***Arterial*** link / ***Local*** street node) formal signalised crossings are provided for the benefit of both pedestrians and cyclists. Such crossings are provided with a single straight direct movement to minimise crossing distance and enhance pedestrian / cyclist convenience and comfort levels.

h) With the objective of encouraging low vehicle speeds and maximising pedestrian safety and convenience, corner radii at (i) ***Arterial*** link / ***Local*** street nodes has been specified as 6m where swept path analysis / traffic signal staging permits, (ii) ***Local*** street nodes have been specified as 4.5m and (iii) basement access / egress have been specified as 3.0m as per DMURS guidance.

i) Along lightly trafficked internal ***Local*** streets, cyclists will share the carriageway with other street users as per the NCM guidance for such situations. These ***Local*** streets connect to the Scholarstown Road (existing ***Arterial*** link) which incorporates dedicated cycle infrastructure.

j) Where perpendicular car parking is proposed additional vehicle manoeuvring requirements are accommodated within the carriageway design width (i.e. 6.0m aisle width). To reinforce the appearance of a narrow carriageway, perpendicular car parking spaces are to be finished in a material that is clearly distinguishable from the main carriageway.

k) Vertical deflections in the form of raised tables have been strategically placed across the internal ***Local*** street network to promote lower design speeds and enable pedestrians to cross the street at-grade. Elsewhere changes to the road's horizontal alignment (i.e. corner locations, change of priority at junctions and local narrowing) are considered sufficient to promote reduced design speeds.

l) At the proposed traffic calming table treatments, different surface material treatments are proposed to alert and subsequently influence driver behaviour and vehicle speeds.

m) Internally within the proposed scheme, carriageway kerb heights have been specified as 80mm in accordance with the objectives of DMURS.

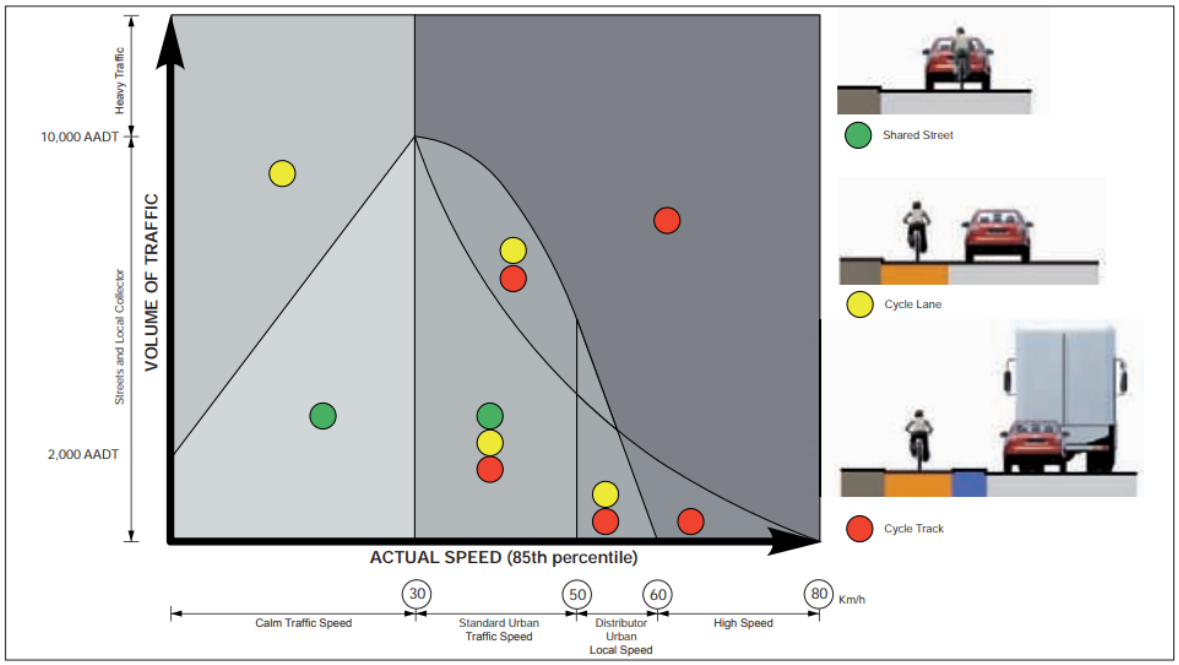
2.3 Cycle Facilities

2.3.1 National Cycle Manual – Compliance of Cycle Facilities

It is proposed to upgrade the cycle facilities along Scholarstown Road within the vicinity of the subject development location as part of the implementation of this mixed use development.

In order to determine the type and width of cycle facilities required in this location, the National Cycle Manual (NCM) was referenced as the design standards guidance.

With regard to the type of cycle facility required, the chart below, extract from the NCM, was referenced. This chart details whether a cycle facility is required to be on a shared street, a cycle lane or a cycle track, and is dependent on the speeds and volume of traffic along the road.



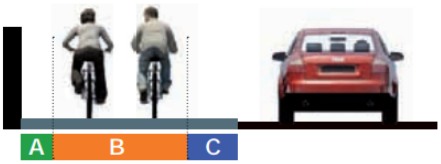
From the traffic surveys undertaken, it was noted that the AADT along the Scholarstown Road is approximately 18,000 vehicles. The speed limit along this road is currently 50km/hr. Therefore, the required cycle facility along Scholarstown Road is a cycle track.

A cycle track has been proposed as part of this application on both sides of the Scholarstown Road in the vicinity of the development. These facilities will tie into the existing facilities along the road either side of the development location.

With regard to the width of the cycle track facilities, these have been based on the width calculator as referenced in the NCM, extract shown below. The width calculator takes into account a range of criteria for assessing the required width of a cycle facility.

From the width calculator, it was determined that a cycle track of 1.75m width was required. This was calculated as follows:

(A) Kerb 0.25m + (B) Single File 0.75m + (C) 50kph 3m lane 0.75m = 1.75m Cycle Track



A Inside Edge		B Cycling Regime		C Outside Edge		D Additional Features	
Kerb	0.25m	Single File	0.75m	30kph, 3.0m wide lane	0.50m	Uphill	0.25m
						Sharp bends	0.25m
Channel Gully	0.25m	Single File + Overtaking, Partially using next lane	1.25m	50kph, 3.0m wide lane	0.75m	Cyclist stacking, Stopping and starting	0.50m
Wall, Fence or Crash Barrier	0.65m	Basic Two-Way	1.75m	Raised kerb, dropped Kerb or physical barrier	0.50m	Around primary schools, Interchanges, or for larger tourist bikes	0.25m
Poles or Bollards	0.50m	Single File + Overtaking, Partially using next lane	2.00m	Kerb to vegetation etc. (ie. cycleway)	0.25m	Taxi ranks, loading, line of parked cars	1.00m (min 0.8m)
		2 Abreast + overtaking (tracks and cycleways)	2.50m			Turning pocket cyclists	0.50m

A minimum of 1.75m cycle track has been proposed on both sides of the Scholarstown Road as part of this planning application.

The scheme proposals are therefore in line with the standards set out within the National Cycle Manual.