

Design Manual for Urban Roads and Streets

The Design Manual for Urban Roads and Streets

Significant change in planning within Ireland occurred in the mid 1990s with a focus on creating sustainable communities. Since this time planning and transport policies have become increasingly focused on the creation of a more compact urban form, the integration of land use and transportation and the creation of well connected and walkable neighbourhoods. The shift in planning policy was not however matched by a shift in road design standards. This has resulted in a gap between planning aspirations and road design outcomes. The Design Manual for Urban Roads and Streets (DMURS) fills this policy gap and offers designers the rationale and tools to enact the change required by broader government policies, including:

- Smarter Travel (2009)
- Sustainable Residential Development in Urban Areas (2009)
- Retail Planning Guidelines (2012)
- Planning Guidelines: Local Area Plans (2013)

DMURS is a joint initiative of the Department of Transport, Tourism and Sport (DTTAS) and the Department of Environment, Community and Local Government (DECLG). DMURS was produced by a multidisciplinary project team, consisting of staff from Cork City, Fingal, Kildare and South Dublin County Councils.

DMURS was launched on 25th March 2013 by Mr. Leo Varadkar T.D., Minister for Transport Tourism and Sport and by Ms. Jan O'Sullivan T.D., Minister for Housing and Planning at the Department of the Environment, Community and Local Government. DMURS replaces existing national design standards for use throughout all urban areas in Ireland when designing/upgrading roads and streets.

DMURS is now mandatory for all Local Authorities on all urban roads and streets within the 60 km/h urban speed limit zone except for

- Motorways
- In exceptional circumstances, certain urban roads and streets with the written consent of the relevant Sanctioning Authority*

* Relevant sanctioning authorities include the National Roads Authority (NRA) in respect of urban national roads, the National Transport Authority (NTA) and the Department of Transport, Tourism and Sport.

Challenging Convention

In recent times the car has been the dominant force in determining how street networks and streets are designed in Ireland. This approach has often had a negative impact on more vulnerable users (such as pedestrians and cyclists) as well as how streets are perceived as places. DMURS highlights the many issues associated with conventional design approaches that seek to minimise risk and delay for motor vehicles by creating wider and larger roads that place heavy restrictions on the movement of more vulnerable users. Such streets often have the effect of substantially increasing walking distances, severing communities and encouraging inappropriate speeds and more aggressive driver behaviour. The street environment itself is often characterised by fast moving traffic, a lack of surveillance, inadequate pedestrian and cycle facilities, physical barriers and complex crossing arrangements.

These factors can all lead to pedestrians and cyclists deserting the street and retreating to the safety of their cars. DMURS seeks to address these issues by:

- Broadening the scope of issues that are considered throughout the design process for roads and streets.
- Encourage more sustainable travel patterns and safer streets by placing pedestrians at the top of the user hierarchy.

Place as Part of the Design Equation

DMURS recognises that the establishment of a 'sense of place' is of core significance to high quality outcomes. A greater emphasis on the value of place will promote:

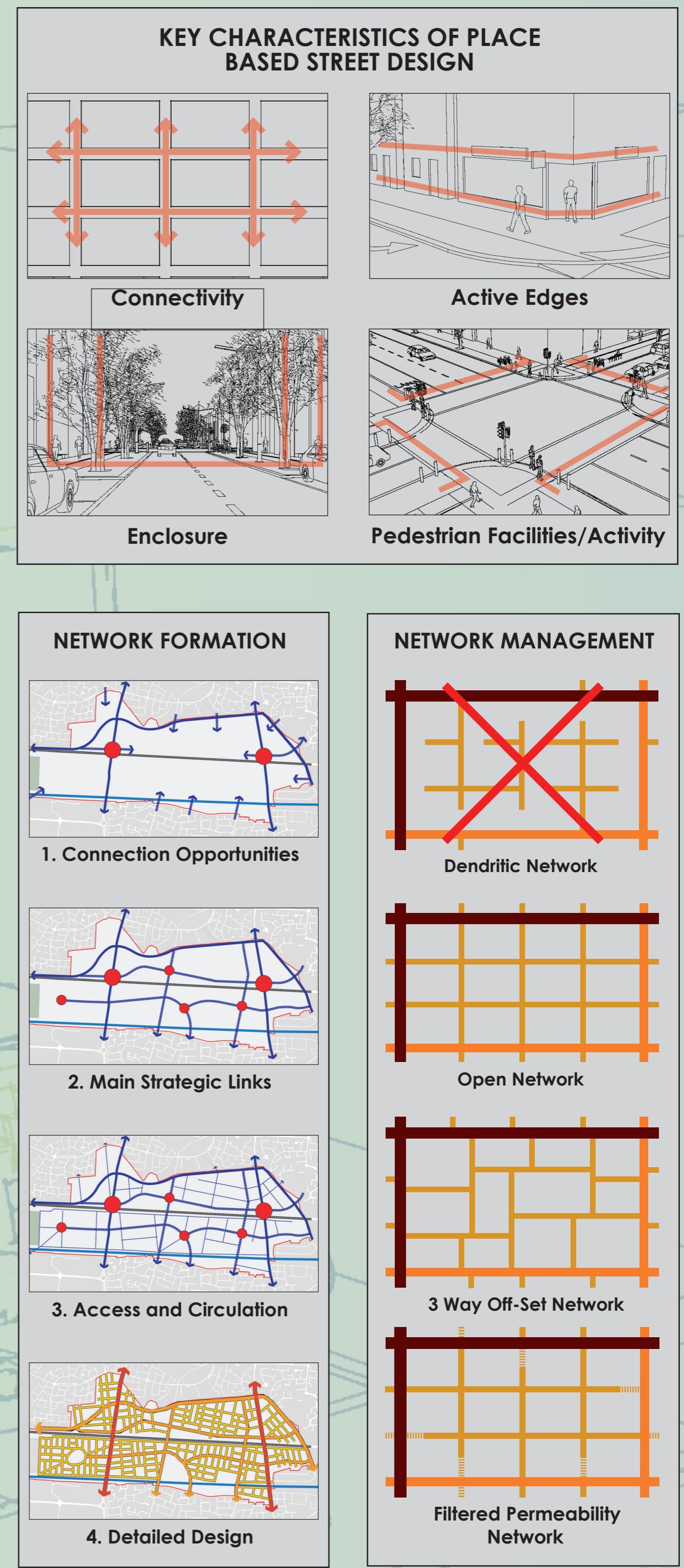
- Local identity.
- Increased use by pedestrians and cyclists.
- Attractive environments that contributes to the social and economic vitality of communities.

To achieve this DMURS requires the creation of streets that are:

- Highly connected with all streets leading to other streets.
- Enclosed with buildings to define them as urban places and promotes pedestrian friendly spaces that are overlooked.
- Directly fronted with active edges that generate pedestrian activity, maximise pedestrian activity/surveillance and animate the public domain.
- Have high quality pedestrian facilities to make walking a more convenient and pleasurable experience that will further encourage pedestrian activity.

DMURS also recognises the importance of getting the details right. DMURS seeks to promote the use of high quality planting, lighting, materials and finishes, particularly in locations where the place value is greatest (such as within city, town and village centres). DMURS also seeks to reduce clutter by recommending a reduction in the number size and number of regulatory signs used within streets and applying a coordinated approach to the placement of street furniture.

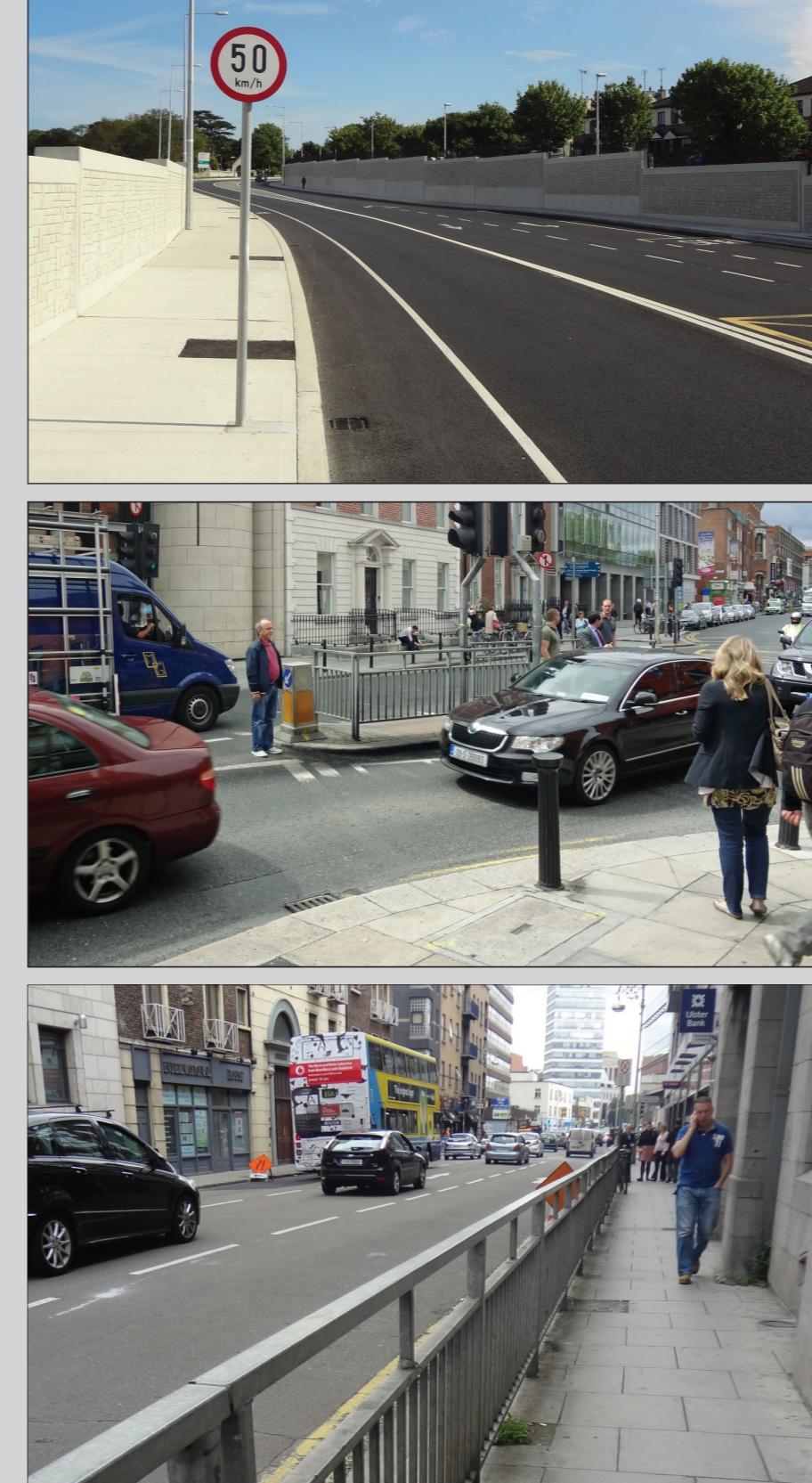
Significantly, DMURS recognises that 'place' plays a vital role in creating safer, more user friendly streets. DMURS introduces a range of 'place based' measures and re-evaluates the effectiveness of more conventional measures in order to create streets that are self-regulating. DMURS draws upon research to demonstrate that by using a combination of place based and more conventional measures a 'win win' scenario can be achieved where traffic is calmed, place enhanced and a more sustainable outcome achieved.



Illustrations of the creation of a structured, connected and permeable street network as a multi-layered process.



POOR INTEGRATION OF PLACE AND MOVEMENT



BETTER INTEGRATION OF PLACE AND MOVEMENT



DMURS shifts the emphasis to sustainable approaches concerned with multi-modal movement and streets as places.

The creation of a sustainable street network requires designers to recognise that streets have both a place and movement function, so that streets are overlooked, traffic calmed and pedestrian and cyclist friendly.