Proposed SHD – Lands at Central Mental Hospital, Dundrum, Dublin 14

Client: Land Development Agency

DMURS Compatibility Statement

CMHDund

March 2022

DUNDRUM CENTRAL STRATEGIC HOUSING DEVELOPMENT

Description:

DMURS Compatibility Statement

Author:

Ben Waite

Approved By:

Christy O'Sullivan

23rd March 2022

Distribution:

Reddy Architecture + Urbanism

BMCE Consulting Engineers

TPA Planning Consultants

An Bord Pleanála

ILTP
Head Office:
St. Albert's House
Dunboyne
Co. Meath
tel: 01-8255700
fax: 01-8255730
info@iltp.ie
www.iltp.ie

DUNDRUM CENTRAL STRATEGIC HOUSING DEVELOPMENT

CONTENTS :

FIGURES :

1 STATEMENT ON DMURS COMPATIBILITY

1.1 Overview

1.1.1 The proposed development consists of 977 no. residential units, in addition to non-residential units, creche and community facilities and public open space.

1.1.2 This statement sets out the overall design approach and principles that guided the overall design development process in accordance with the *Design Manual for Urban Roads and Streets* (DMURS) having regard to the location of the proposed development.

1.1.3 The proposed Dundrum SHD layout is illustrated in Figure 1.1.

Figure 1.1 Proposed Dundrum Central SHD Layout (Source: BMCE)

2 APPLICATION OF DMURS PRINCIPLES

2.1 Introduction

2.1.1 The following sets out the overall principles which guided the design approach to the overall proposed scheme.

2.2 Overview

2.2.1 In developing the overall scheme, the design team had regard to the principles as set out in the *Design Manual for Urban Roads and Streets* (DMURS). The final scheme design proposals are an outcome of an integrated design approach that ensures the promotion of sustainable travel modes are integrated into the overall design layout.

2.2.2 The overall design approach sought to firstly ensure that regard was given to user priorities and secondly towards ensuring appropriate legibility for all road users. The orderly integration of the development into the surrounding residential and employment areas, and the wider urban environment, was also promoted through making provision for appropriate pedestrian, cycle and vehicular linkages to adjacent lands and the adjoining transport network.

2.3 Design Approach – User Hierarchy

2.3.1 The overall design approach was informed by the principles as set out in DMURS. Table 2.21 of DMURS, titled *'User hierarchy that promotes and prioritises sustainable forms of transport,* reproduced as Figure 2.1, has significantly informed the design approach, which places the needs of pedestrians and cyclists at the highest order of priority amongst road users.

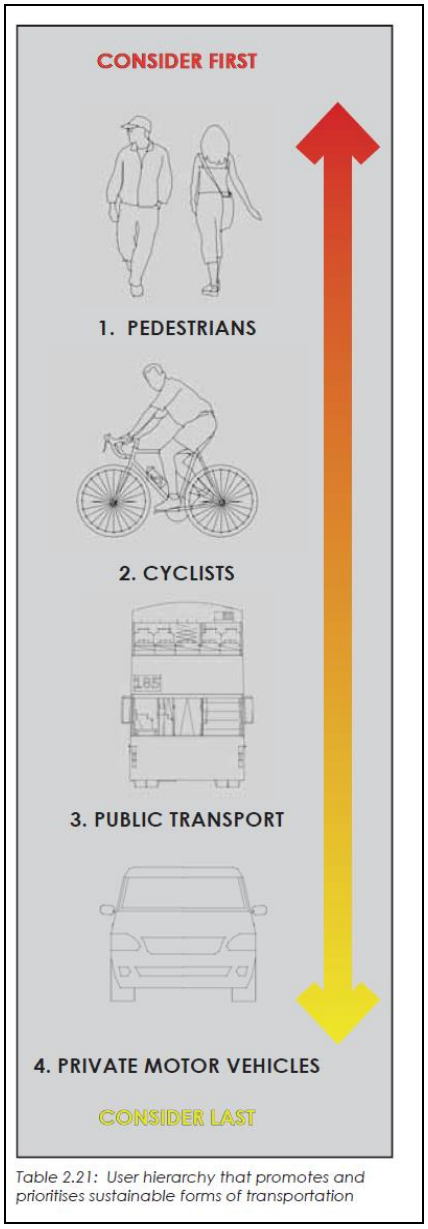

Figure 2.1: User Priorities (Source: DMURS Table 2.21)

2.3.2 The design approach therefore puts pedestrians and cyclists at the top of the user priorities, followed by access to public transport and then access to the wider road network via a street hierarchy consistent with those set out in DMURS.

2.4 National Cycle Manual

2.4.1 The design approach also sought to ensure that the overall design was consistent with the principles as set out in the *National Cycle Manual* and to ensure that appropriate and sufficient cycle parking and facilities were also included in the overall development.

3 APPLICATION OF DESIGN PRINCIPLES TO THE PROPOSED SCHEME

3.1 Overview of Proposed Design Layout

3.1.1 Central to the overall design approach was the need to ensure that pedestrians and cyclists were given higher priority and more direct linkage than the private car.

3.1.2 It is proposed that pedestrians and cyclists can travel to and from the site via 2 the no. proposed accesses on Dundrum Road. In addition, a dedicated pedestrian and cycle route is provided through the site linking Mulvey Park with Rosemount Green, which were designed to ensure that the needs of cyclists and pedestrians were considered ahead of vehicular traffic. The overall internal street, cycle and pedestrian network is illustrated in Figure 3.1 and is summarised as follows:

- Removal of sections of wall adjacent to Dundrum Road, including the provision of a new vehicular, cyclist and pedestrian access.
- Removal of section of perimeter wall adjacent to Mulvey Park to provide a pedestrian and cyclist access.
- Formation of a new opening in perimeter wall at Annaville Grove to provide a pedestrian and cyclist access.
- A dedicated pedestrian and cycle route is proposed to run through the site connecting the existing green areas at Mulvey and Rosemount Green. This will provide a new permeable route that will benefit both existing and further residents of the area.
- This will link with an existing Toucan (pedestrian & cycle) crossing on Dundrum Road which will provide linkage to the LUAS stop at Windy Arbour.
- In addition, a shared pedestrian/cycle route is proposed inside the existing boundary wall along Dundrum Road to provide internal connectivity and a new facility parallel to Dundrum Road.

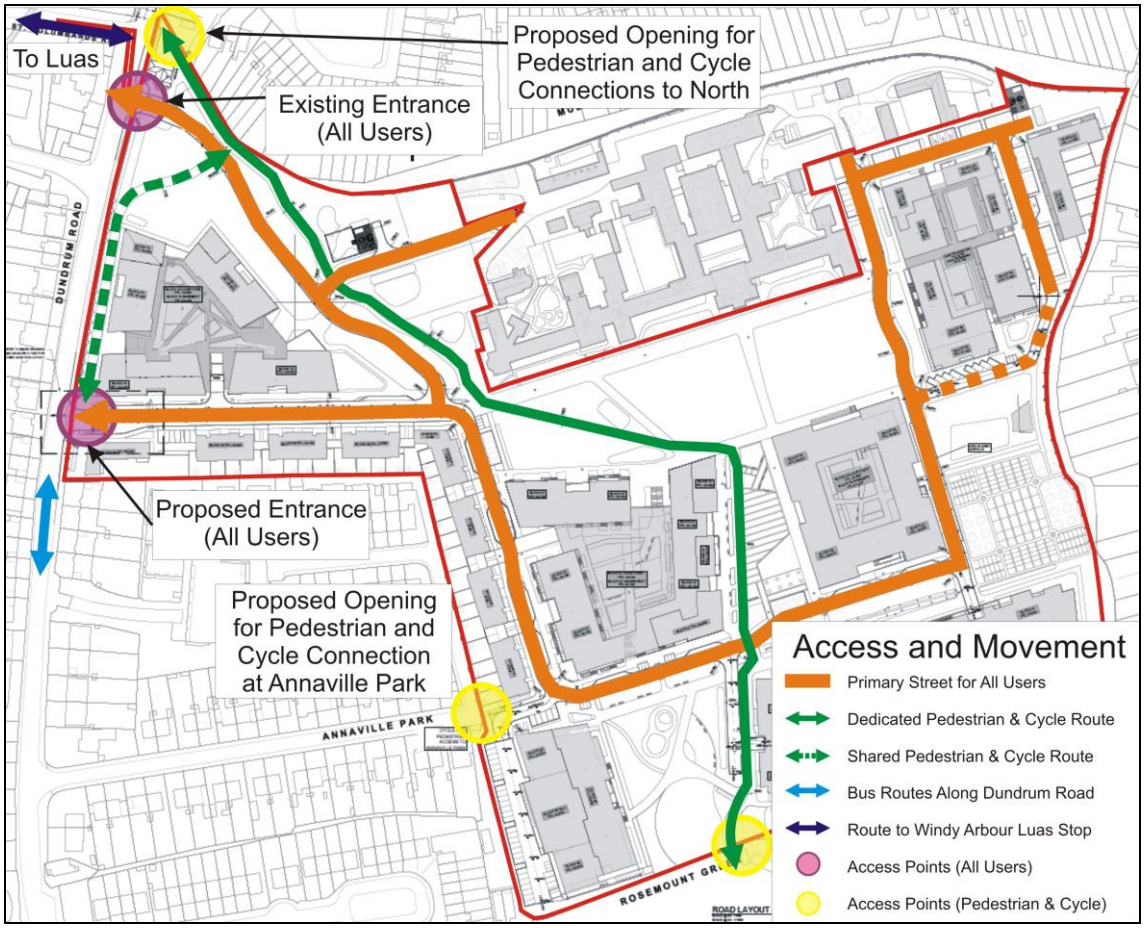

Figure 3.1 Proposed Connectivity (Background Image Source: BMCE)

3.1.3 The proposed development also includes extensive pedestrian-only paved areas and green areas throughout the site to facilitate greater comfort and ease of movement for pedestrians.

3.1.4 The entire SHD development will also be within a 30kph Slow Zone.

3.1.5 Low speed will also be promoted with junction radii designed in accordance with Cl.4.3.3 of DMURS to be between 3 - 6 metres. By providing reduced corner radii this will improve pedestrian and cyclist safety at junctions by lowering the speed at which vehicles can turn corners.

3.1.6 In addition, raised table crossings are used at junctions and other key locations throughout the site to slow the movement of vehicular traffic and afford movement priority to non-motorised users.

3.1.7 The proposed main access junctions off Dundrum Road have also been configured to minimise the traffic impact of the overall development on Dundrum Road. The measures such as providing a pedestrian and cycle route through the site separate from the main junctions off Dundrum Road means that conflicts between more vulnerable road users is reduced.

3.1.8 Detailed designs will be undertaken in accordance with DMURS. A *Stage 1 Road Safety Audit* was undertaken as part of the planning application. *Stage 2 - Detailed Design Stage and Stage 3 - Post Construction* Road Safety Audits will also be undertaken to ensure that road safety remains part of the overall design and delivery process up to scheme completion.

3.2 Street Hierarchy

3.2.1 The proposed road layout is shown in Figure 3.2. This shows the Primary Local Street / Main Access connected to a series of Secondary Local Access Streets and Home Zones. The internal Local Access Streets and Home Zones will accommodate only local traffic and therefore all motorised road users will be very familiar with the internal road and street layouts.

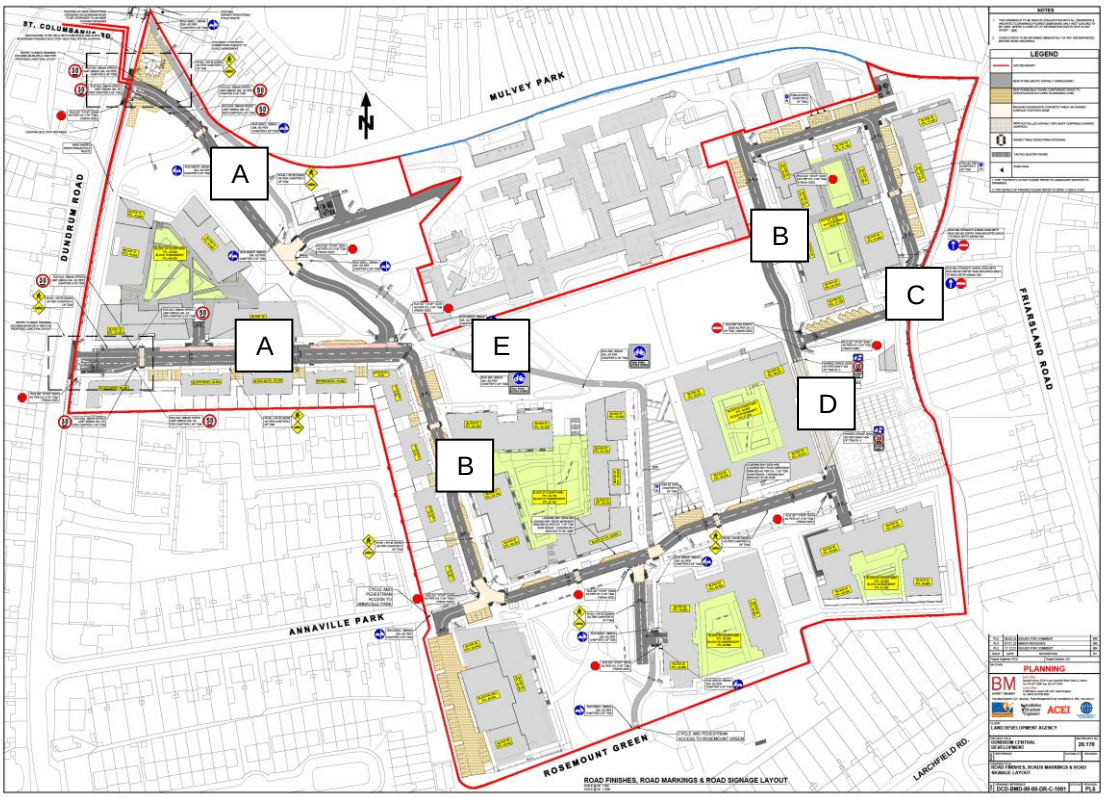

Figure 3.2 Proposed Road and Street Layout (Source: BMCE)

3.2.2 This design approach is in accordance with the principles set out in DMURS, but more importantly will actively promote the use of the more sustainable travel modes.

3.2.3 A fundamental feature of the proposed development is the overlooking of the main external access points by the proposed development and overlooking provided onto all key internal streets and open spaces.

3.3 Proposed Cross Section of Streets - DMURS Compatibility

3.3.1 The proposed cross sections of the various streets within the SHD development are shown in Figure 3.2 are detailed in Figure 3.3.

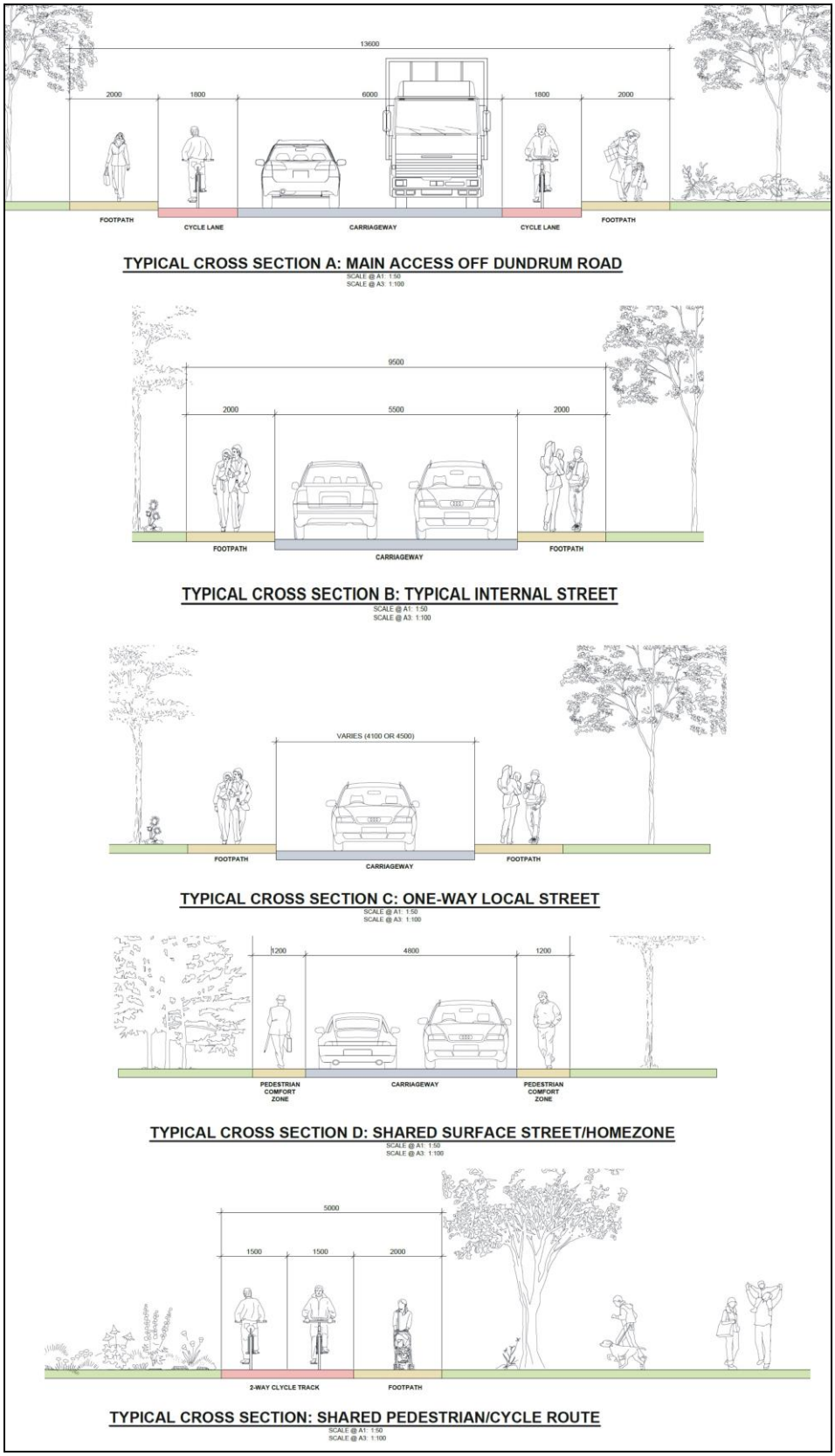

Figure 3.3: Proposed Cross Sections of Various Streets within SHD Development (Source: BMCE & Reddy Architecture + Urbanism)

3.3.2 The proposed street cross sections vary throughout the proposed development and include a range of parallel and perpendicular car parking, but overall, on street parking is kept to a low level with the bulk of the car parking provided under the development blocks. The entire development is proposed to be a 30kph slow zone, which will facilitate a more comfortable cycling environment for cyclists on carriageway.

3.3.3 The proposed street cross sections within the Dundrum Central SHD are designed in accordance with DMURS and included in the planning application in further detail.

3.4 Access to Public Transport

3.4.1 The locations of the existing public transport services relative to the subject lands are shown in Figure 3.4.

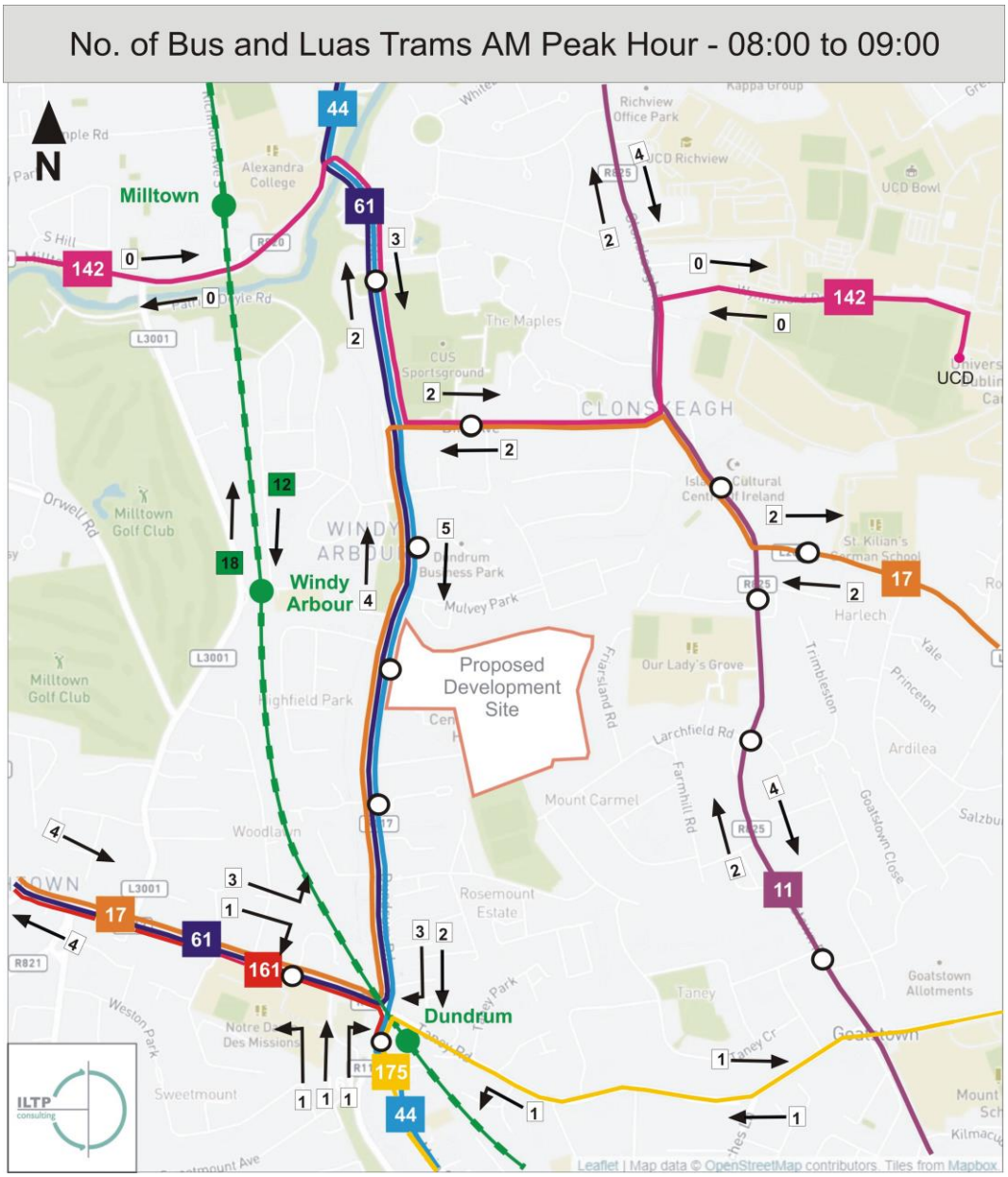

Figure 3.4: Proximity of Subject Lands to Existing Public Transport Services

3.4.2 The existing bus routes in the immediate vicinity of the subject site provide an opportunity for good access from the SHD lands to the existing public transport network, which links to various destinations including Dublin City Centre and to existing employment lands and local services.

3.4.3 The overall proposed development has good linkage to the surrounding locality and to Dublin City Centre. Again, the priority was to provide cycle and pedestrian linkages to and from the site which in turn will connect with existing and planned routes surrounding the SHD lands. The overall design philosophy was to promote sustainable travel modes, by first encouraging and promoting greater use of non-motorised trips, followed by access to existing and future public transport links that serve the site, has been achieved through the design process by having full regard for the DMURS principles.

3.5 National Cycle Manual - Compatibility

3.5.1 In developing the overall scheme, the design team had regard to the principles as set out in the *National Cycle Manual*, 2012. First and foremost, the design proposals acknowledge the vulnerability of cyclists relative to motorised modes of transport as set out in the *National Cycle Manual*. The proposals therefore seek to ensure that cyclists generally have higher priority in accessibility and connectivity throughout the development.

3.5.2 The specific measures proposed to prioritise and facilitate safe, comfortable, and efficient cycle movements in accordance with the *National Cycle Manual* include:

- A low-speed environment is proposed throughout, including 30kph on all roads within the development.
- The internal streets are located to minimise traffic levels within the proposed development and to minimise conflict with vulnerable road users throughout residential areas and reduce speed of motorised traffic.
- Raised pedestrian and cycle platforms are also proposed internally to give greater priority to these more sustainable road users.
- The proposed pedestrian and cycle facilities afford direct linkages to other facilities in the area or connect with low traffic flow routes that can better accommodate these road users. These facilities will also improve pedestrian and cycle facilities by existing residents in the area.
- Full visibility will be maintained at all proposed access points to the site, with road user priority clearly established at potential conflict points.

3.5.3 The proposed new infrastructure set out in accordance with the *National Cycle Manual* is also to be subject to the full Road Safety Audit process. The audit process emphasises safety and accessibility for all road users, particularly for vulnerable road users including pedestrians and cyclists.

3.5.4 Generous cycle parking provision and storage facilities are also proposed which were agreed with DLRCC as part of the pre-planning consultation process, details of which are set out in the Traffic and Transport Assessment (TTA).

3.6 Planned Cycle Linkages

3.6.1 There are significant improvements planned for the bicycle network in the vicinity of the subject lands. The planned improvements are set out in the NTA Greater *Dublin Area Cycle Network Plan.* The planned network in the vicinity of the subject site is shown in Figure 2.6.

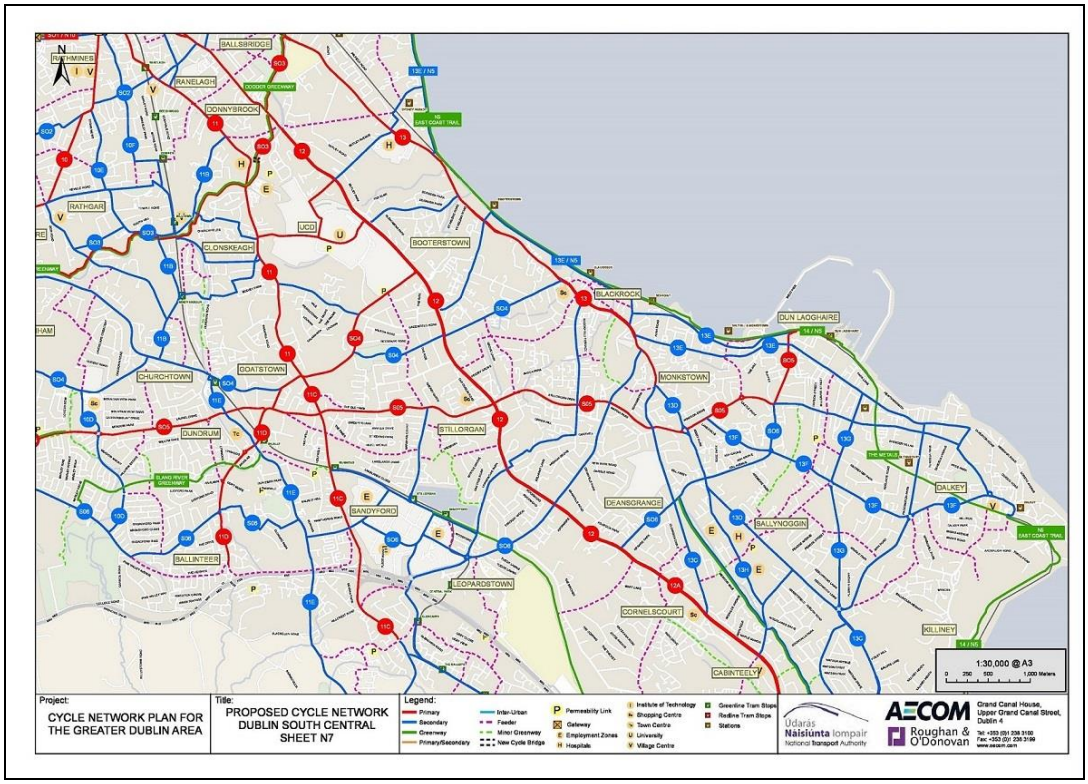

Figure 3.5: Planned Cycle Network (Source: NTA – GDA Cycle Network Plan)

3.6.2 It can be seen that a primary cycle network is planned on Goatstown Road to the east of the subject site and a feeder network is planned on Dundrum Road.

3.6.3 The roll out of the cycle network by DLRCC has already resulted in large increases in cycling.

3.6.4 The proposed development by virtue of its layout will further promote sustainable travel patterns to and from the proposed development over time.

3.7 Complimentary Mobility Management Measures

3.7.1 Establishing sustainable travel patterns from the outset in any new development is preferrable. It is well recognised that achieving subsequent changes to more sustainable travel modes is both difficult and costly to implement and can take years to achieve. The promotion of travel mode changes in favour of sustainable modes such as walking and cycling, and greater public transport usage is a long-standing policy objective at national and local levels. The proposed SHD development is also fortunate to be able to link into the public transport services already available and will also avail of future public transport upgrades planned in the area.

3.7.2 Mobility Management Plans (MMP) are a transport demand management mechanism that aim to provide for the transport needs of people and goods. Mobility Management Plans seek to lessen the demand for the use of cars by increasing the attractiveness and practicality of other modes of transport.

3.7.3 The MMP included as part of a separate report, sets out the complimentary measures that will support the DMURS design philosophy that underpins the overall design of the development.

3.8 Summary

3.8.1 The proposed Dundrum Central SHD fully promotes the sustainable transport principles as set out in DMURS. The design process commenced with establishing User Priorities in accordance with DMURS. This was followed by developing a permeable and legible street layout and street hierarchy that minimises car traffic movements in the new residential areas and prioritises pedestrian and cycle linkages to the wider area.

3.8.2 ILTP would commend the overall design approach as one that is in keeping with the DMURS principles and is a residential development that is appropriately integrated into the existing and planned urban fabric of Dundrum and the wider area. The proposed pedestrian and cycle route through the proposed development will benefit both the new and existing residents of the area.

3.8.3 The above compatibility statements set out the rationale and principles of the design for the internal streets, access, and linkages through the lands within the applicant's ownership. The proposed layout adheres to the design principles as set out in the *Design Manual for Urban Roads and Streets* (DMURS) and the *National Cycle Manual*.