DMURS COMPLIANCE STATEMENT

ST. VINCENT'S HOSPITAL FAIRVIEW REDEVELOPMENT

OCSC
O'CONNOR | SUTTON | CRONIN
Multidisciplinary
Consulting Engineers

St. Vincent's Hospital Fairview
R517
30 March 2023

DMURS COMPLIANCE STATEMENT

ST. VINCENT'S HOSPITAL FAIRVIEW REDEVELOPMENT

NOTICE

This document has been produced by O'Connor Sutton Cronin & Associates for its client, St. Vincent's Hospital Fairview. It may not be used for any purpose other than that specified by any other person without the written permission of the authors.

DOCUMENT CONTROL & HISTORY

OCSC Job No: R517	Project Code	Originator	Zone Volume	Level	File Type	Role Type	Number	Status / Suitability Code	Revision
	R517	OCSC	XX	XX	RP	C	0007	S4	P05

Rev.	Status	Authors	Checked	Authorised	Issue Date
P01	S4	W Marais	P Raggett	A Horan	18/10/2022
P02	S4	W Marais	P Raggett	A Horan	13/02/2023
P03	S4	W Marais	P Raggett	A Horan	3/03/2023
P04	S4	W Marais	P Raggett	A Horan	23/03/2023
P05	S4	W Marais	P Raggett	A Horan	30/03/2023

DMURS STATEMENT OF CONSISTENCY

ST. VINCENT'S HOSPITAL FAIRVIEW REDEVELOPMENT, RICHMOND ROAD AND CONVENT AVENUE, FAIRVIEW, DUBLIN 3

O'Connor Sutton Cronin & Associates (OCSC) have been appointed by St. Vincent's Hospital Fairview to carry out the design of the civil engineering services associated with the proposed development of a site at St. Vincent's Hospital, Richmond Road and Convent Avenue, Fairview, Dublin 3. The location of the proposed development can be seen in the figure below:

Figure 1: Locality Plan

A **ten-year planning permission** is sought for the proposed development comprising of the following (see public notices for the detailed description):

- Provision of a new part two and part three storey hospital building, providing mental health services, accommodating 73 no. beds, associated facilities, a single storey facilities management building, plant rooms and service areas, associated car and cycle parking, access roads, and open space, all on a proposed hospital site of c. 2.67 ha.
- Refurbishment and repurposing of existing buildings on site including Brooklawn (RPS Ref.: 8789), Richmond House, including chapel and outbuildings (RPS Ref.: 8788), the Laundry building and Rose Cottage for ancillary uses associated with the new hospital. The existing gate lodge building will remain in residential use and used by visiting members of staff to the new hospital.
- Change of use, refurbishment, alterations and extensions, to the existing hospital building (part protected structure under RPS Ref.: 2032), to provide residential amenity areas, a gym, a café, co-working space, a library, a childcare facility, and a community hall (referred to as Block K).
- The proposal includes the demolition of existing structures on site with a GFA of 5,872 sq.m, including the (1) westernmost range of the hospital building, which includes St. Teresa's and the Freeman Wing, (2) extensions to the south and north of the main hospital building, including the conservatory extension, toilet block extension, an external corridor, toilet core, lift core, and stair core (which are all part of / within the curtilage of RPS Ref.: 2032), (3) hospital buildings and outbuildings located to the north of the existing main hospital building, (4) St. Joseph's Adolescent School located in the southeast of the site, (5) Crannog Day Hospital located in the southwest of the site, and (6) extensions to the Old Laundry Building and Rose Cottage.
- Provision of 9 no. residential buildings (Blocks A, B, C, D-E, F, G, H, J, and L) providing a total of 811 no. residential units, including 494 no. standard designed apartments (in Blocks A, B, C, G, H, J, and L) and 317 no. Build to Rent apartments (in Blocks D-E and F). Residential amenities and facilities are proposed in Block C, D-E, J and K. A retail unit is proposed in Block A and a café in Block F. Block J is proposed as an extension of the existing hospital buildings (protected structure RPS Ref.: 2032- referred to as Block K).
- The building heights of the proposed residential blocks range from part 2 to part 13 storeys. A proposed basement / lower ground level, containing car and cycle parking and plant areas, is located below and accessed via Blocks C, D-E and F.
- Access to the new hospital and associated grounds is provided from Richmond Road and Convent Avenue, with separate internal access points. A separate vehicular access to the residential development is provided from Richmond Road. The development includes a

proposed pedestrian / cycle connection to Griffith Court, requiring alterations to the service yard of the Fairview Community Unit, pedestrian / cycle connections to the Fairview Community Unit campus to the north (providing an onward connection to Griffith Court), a pedestrian / cycle connection to Grace Park Wood, and makes provision internally within the site for a potential future connection to Lomond Avenue / Inverness Road.

- The proposal includes public open space, including allotments, children's play areas, a central park, a linear park and an entrance plaza, with a set down area at Richmond Road, and communal open space at surface level. The proposal includes communal roof terraces on Block C and Blocks D-E and private balconies / terraces for the apartments.
- The proposal also includes provision of internal access roads, car and cycle parking, pedestrian and cycle infrastructure, associated set down areas, alterations to existing landscape features, landscaping, boundary treatments, lighting, telecommunications infrastructure at roof level of Block B, green roofs, lift overruns and plant at roof level, site services, including a watermain connection / upgrade via Griffith Court, Philipsburgh Avenue and Griffith Avenue, site clearance, and all associated site works.

The proposed link roads and streets together with the junctions, footpaths and cycle facilities have been designed in accordance with the requirements of the Design Manual for Urban Roads and Streets (DMURS) and the National Cycle Manual (NCM). DMURS is the design philosophy used in the design of all new residential roads and urban streets and the key objective of DMURS is to achieve safe, attractive, and vibrant streets by balancing the needs of all users and prioritising alternatives to car journeys. The subject site is fully consistent with this recommended approach and achieves a sense of place and residential amenity whilst also facilitating efficient and secure internal movement. The site layout encourages permeability through the site, connecting to the wider area via pedestrian links and cycleways and seeks to prioritise pedestrians and cyclists in accordance with the policies set out in DMURS. All aspects of the proposed roads design have been designed in accordance with the appropriate sections of the following:

- The Design Manual for Urban Roads & Streets (DMURS);
- The Traffic Signs Manual (TSM);
- Dublin City Development Plan 2022 – 2028.

In terms of transportation, the key features of the proposed development, and in particular how they comply with DMURS, are as set out in the following. This report should be read in conjunction with the full set of roads drawings submitted as part of this planning application which includes:

- R517-OCSC-XX-XX-DR-C-0110 (General Arrangement Sheet 1 of 3)
- R517-OCSC-XX-XX-DR-C-0111 (General Arrangement Sheet 2 of 3)
- R517-OCSC-XX-XX-DR-C-0112 (General Arrangement Sheet 3 of 3)
- R517-OCSC-XX-XX-DR-C-0115 (Visibility Splay at Junctions)
- R517-OCSC-XX-XX-DR-C-0130 (Proposed Road Profiles Sheet 1 of 5)
- R517-OCSC-XX-XX-DR-C-0131 (Proposed Road Profiles Sheet 2 of 5)
- R517-OCSC-XX-XX-DR-C-0132 (Proposed Road Profiles Sheet 3 of 5)
- R517-OCSC-XX-XX-DR-C-0133 (Proposed Road Profiles Sheet 4 of 5)
- R517-OCSC-XX-XX-DR-C-0134 (Proposed Road Profiles Sheet 5 of 5)
- R517-OCSC-XX-XX-DR-C-0145 (Typical Cross Sections)
- R517-OCSC-XX-XX-DR-C-0150 (Swept Path Analysis – Fire Tender Access – Sheet 1 of 8)
- R517-OCSC-XX-XX-DR-C-0151 (Swept Path Analysis – Fire Tender Access – Sheet 2 of 8)
- R517-OCSC-XX-XX-DR-C-0152 (Swept Path Analysis – Fire Tender Access – Sheet 3 of 8)
- R517-OCSC-XX-XX-DR-C-0153 (Swept Path Analysis – Fire Tender Access – Sheet 4 of 8)
- R517-OCSC-XX-XX-DR-C-0154 (Swept Path Analysis – Fire Tender Access – Sheet 5 of 8)
- R517-OCSC-XX-XX-DR-C-0155 (Swept Path Analysis – Fire Tender Access – Sheet 6 of 8)
- R517-OCSC-XX-XX-DR-C-0156 (Swept Path Analysis – Fire Tender Access – Sheet 7 of 8)
- R517-OCSC-XX-XX-DR-C-0157 (Swept Path Analysis – Fire Tender Access – Sheet 8 of 8)
- R517-OCSC-XX-XX-DR-C-0160 (Swept Path Analysis – Refuse Vehicle Access – Sheet 1 of 2)
- R517-OCSC-XX-XX-DR-C-0161 (Swept Path Analysis – Refuse Vehicle Access – Sheet 2 of 2)
- R517-OCSC-XX-XX-DR-C-0162 (Swept Path Analysis – Delivery Van Access – Sheet 1 of 2)
- R517-OCSC-XX-XX-DR-C-0163 (Swept Path Analysis – Delivery Van Access – Sheet 1 of 2)
- R517-OCSC-XX-XX-DR-C-0170 (Swept Path Analysis – Large Car Ingress – Sheet 1 of 2)
- R517-OCSC-XX-XX-DR-C-0171 (Swept Path Analysis – Large Car Ingress – Sheet 2 of 2)
- R517-OCSC-XX-XX-DR-C-0172 (Swept Path Analysis – Large Car Egress – Sheet 1 of 2)
- R517-OCSC-XX-XX-DR-C-0173 (Swept Path Analysis – Large Car Egress – Sheet 2 of 2)

ROAD SAFETY AUDIT RESPONSE

A road safety audit was conducted for this scheme by Bruton Consulting Engineers (submitted as part of this application under separate cover - *1787 OCSC St Vincents - Stage 1 RSA - FINAL*). In order to address the findings of this audit, a set of supplementary drawings were prepared. These drawings are supplementary to those listed above, and highlight the proposed changes required to address the audit findings. These drawings are included in the submission under the following drawing numbers:

- R517-OCSC-XX-XX-DR-C-0210 (Road Safety Audit Response Sheet 1 of 3)
- R517-OCSC-XX-XX-DR-C-0211 (Road Safety Audit Response Sheet 2 of 3)
- R517-OCSC-XX-XX-DR-C-0212 (Road Safety Audit Response Sheet 3 of 3)

SUMMARY OF ROADS STRATEGY & DESIGN

A key aspect of the overall development design has been to create a high-quality neighbourhood-type setting which is complemented by all aspects of the design. This in turn will lead to a higher quality of living for all residents. In this regard, the road layout has sought to maximise the priority of movement for vulnerable road users such as pedestrians and cyclists to give them a greater sense of place and a better living environment suitable for all types of residents and families. The full proposed site plan, which was extracted from the architect drawing SVRD-STW-ST-00-DR-A-022004_Proposed Site Plan, can be seen in the figure overleaf. This figure also indicates the road hierarchy proposed for the development, which is discussed in the next chapter.

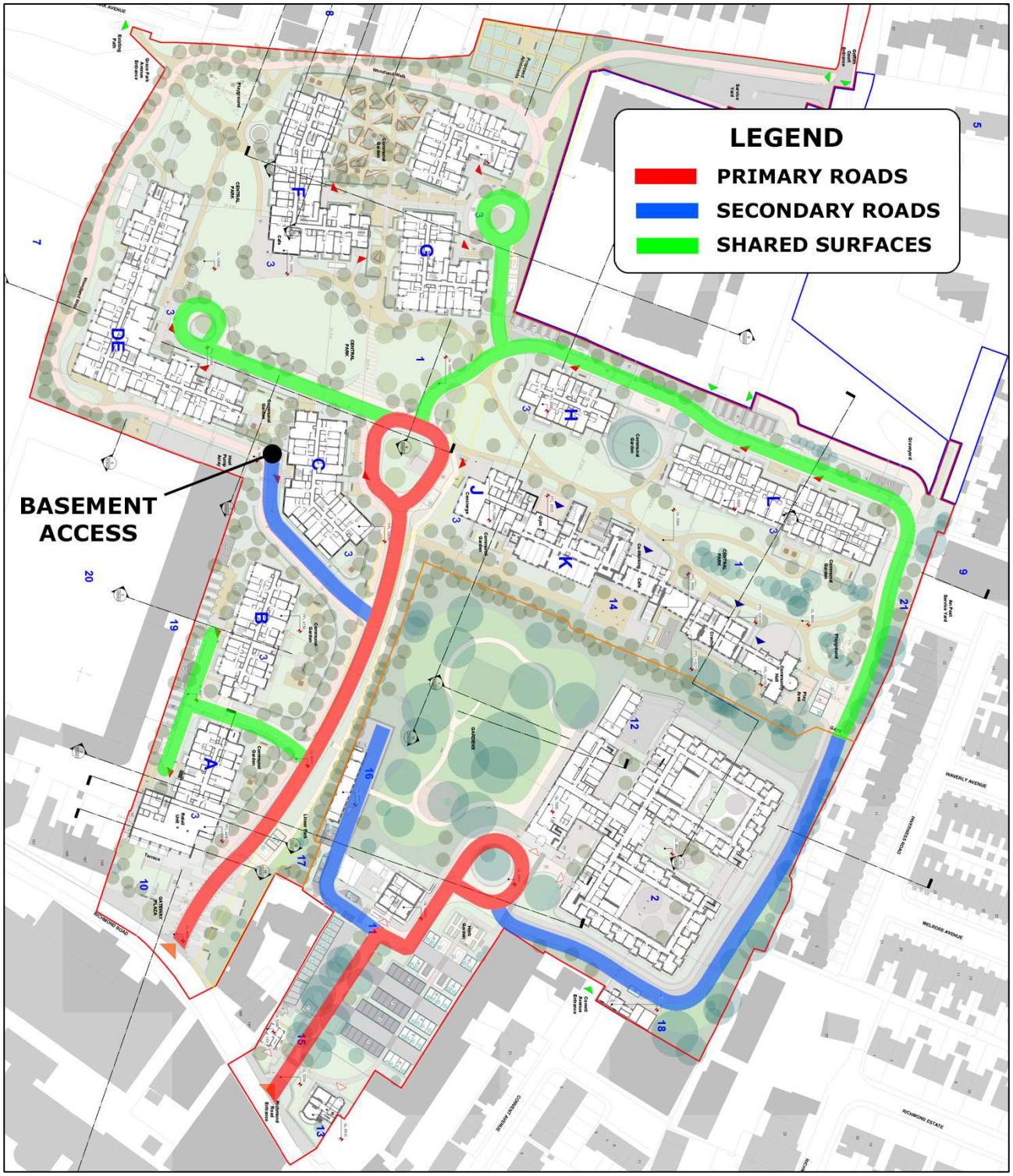

Figure 2: Proposed Site Plan (SVRD-STW-ST-00-DR-A-022003_Proposed Site Plan - Level 00)

ROAD HIERARCHY & SHARED SPACES

In terms of road hierarchy, the primary route will be from the residential access up to the roundabout in the centre of the residential site, and the hospital access up to the roundabout adjacent to the hospital building (shown in red in the figure above). All other internal roads will be classified as local access roads and shared surfaces. The objective in this regard has been to create the highest quality living space possible and to reduce the priority of vehicle movements and roadways over residential space and the movement of pedestrians and cyclists. On this basis, the local access roads are proposed as shared streets based on the limited number of units each will serve, thereby promoting the use of space by pedestrians and cyclists over cars as well as slower vehicle speeds. These classifications are in line with Section 3.2 and Figure 3.3 of DMURS.

The proposed use of shared space is very much in keeping with the core principles of DMURS which ultimately seeks to facilitate the necessary movement of vehicles but not at the expense of a higher quality environment as well as sustainable and active modes of transport. This is further complimented by the maximisation of permeability for cyclists and pedestrians throughout the scheme where road connectivity is more limited, in line with the guidance set out in Section 3.4.1 of DMURS, with particular focus given as part of the design to ensure that pedestrians and cycle links are not perceived as 'anti-social spaces'.

The use of shared spaces is discussed in Section 4.3.4 of DMURS and notes that such spaces are appropriate where:

- Movement priorities are low and there is a high place value in promoting more liveable streets (i.e. home zones), such as on Local streets within Neighbourhoods and Suburbs;
- Pedestrian activities are high and vehicle movements are only required for lower-level access or circulatory purposes.

The emphasis on shared spaces and legibility will be achieved through the introduction of alternating material types and integrated landscaping elements as set out in the landscape plan and as per Section 4.3.4 of DMURS. It is also in accordance with Section 4.4.2 of DMURS which seeks to avoid the use of typical road materials such as macadam and asphalt in locations such as this. In this instance, Colour Finished Stone Mastic Asphalt is proposed to be used in line with Section 4.2.6 of DMURS.

Planting of appropriate scale and type is proposed throughout the development in line with Section 4.2.7 of DMURS which suggests the use of planting to promote softer landscapes and a green living character.

On that basis, the proposals are entirely compliant with the DMURS guidance.

As can be seen, the road layout avoids the creation of long straight stretches of road to further complement the overall strategy.

CARRIAGEWAY WIDTHS

Guidance on carriageway widths is set out in Section 4.4.1 and Figure 4.55 of DMURS, with an extract of same recreated following.

In line with this, the primary links through the site are proposed as a 6.0m wide carriageway while the secondary links and shared surfaces are proposed as 5.0m in width. In some localised areas, additional width has been provided to facilitate the manoeuvring of vehicles to and from parking spaces, but this has been integrated into the design to prevent an overall widening through the use of buildouts and alternative materials. Full swept path analysis has been carried out for this as well as all emergency and refuse collection vehicles. The different crossing sections throughout the development are shown in the figures following:

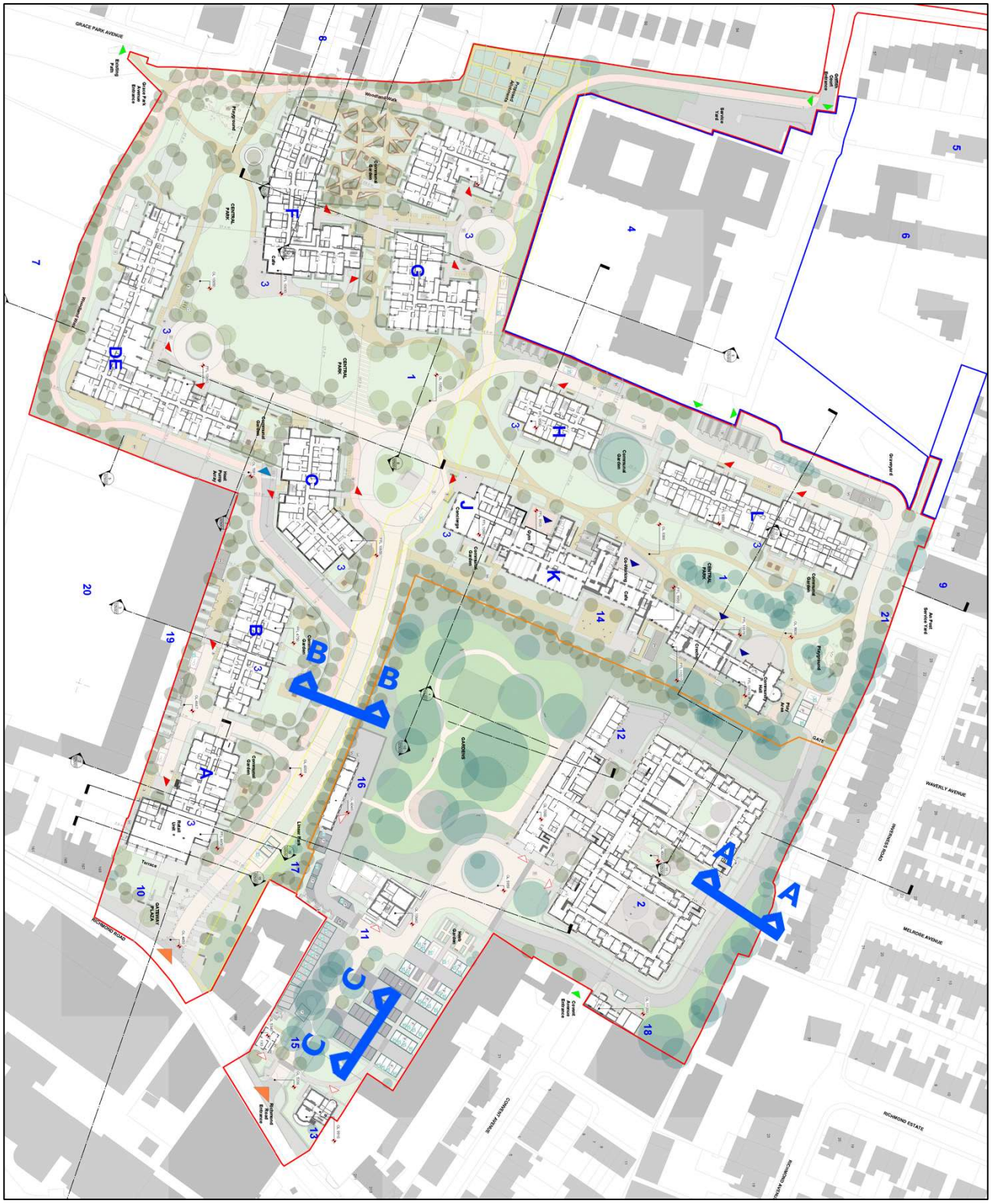

Figure 3: Cross Sections Key Plan

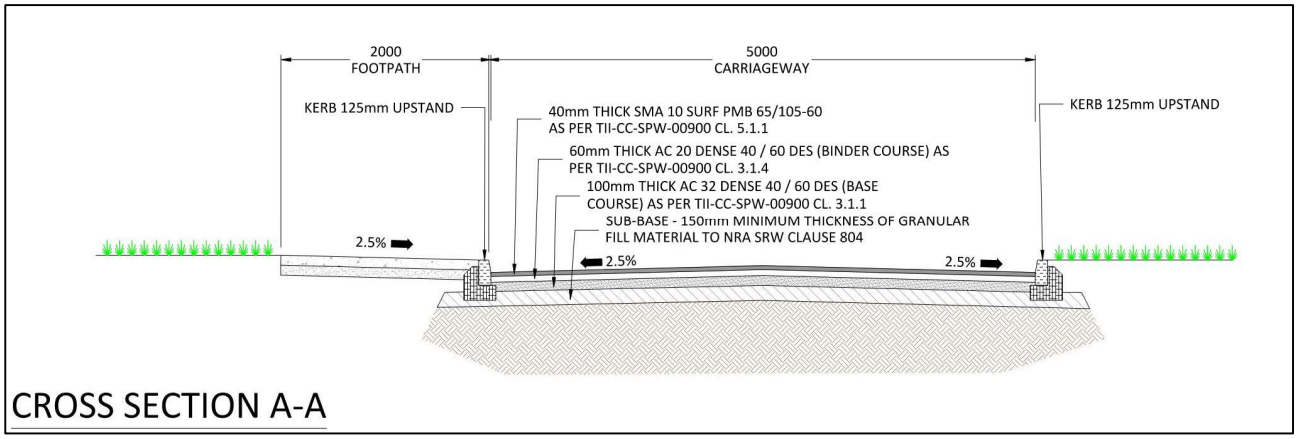

Figure 4: Secondary Link Cross Section A-A

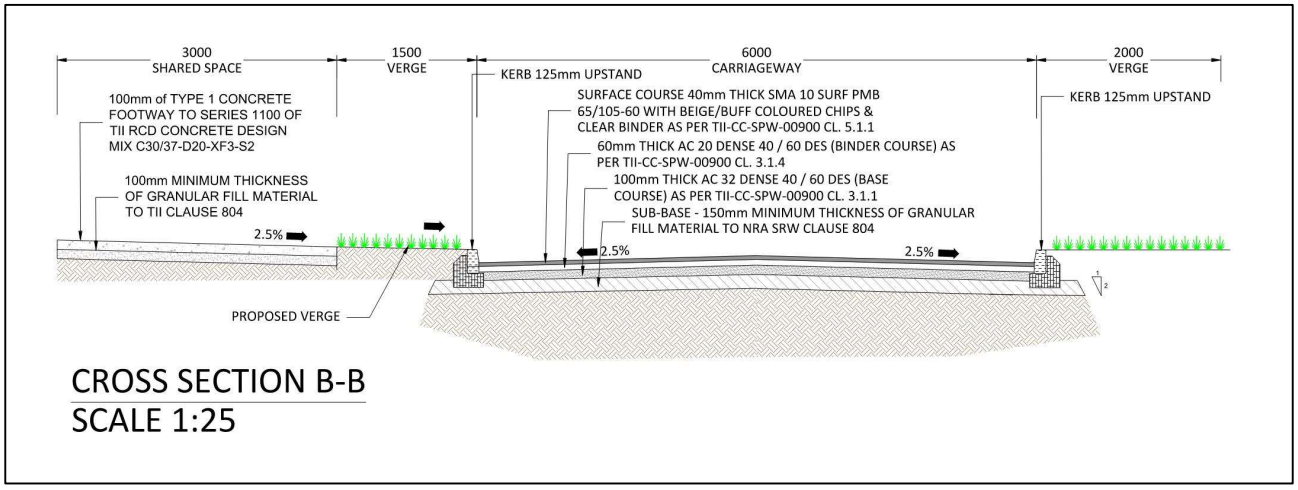

Figure 5: Primary Link Cross Section B-B

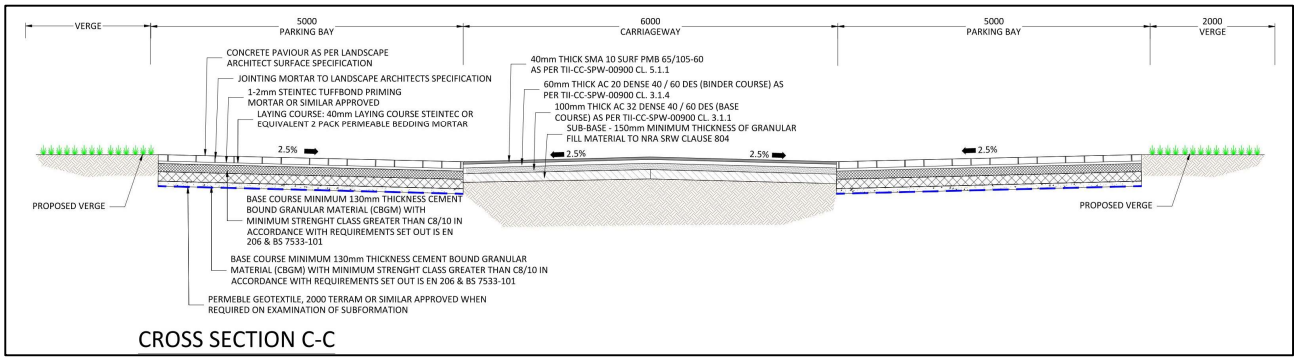

Figure 6: Hospital Car Parking Cross Section C-C

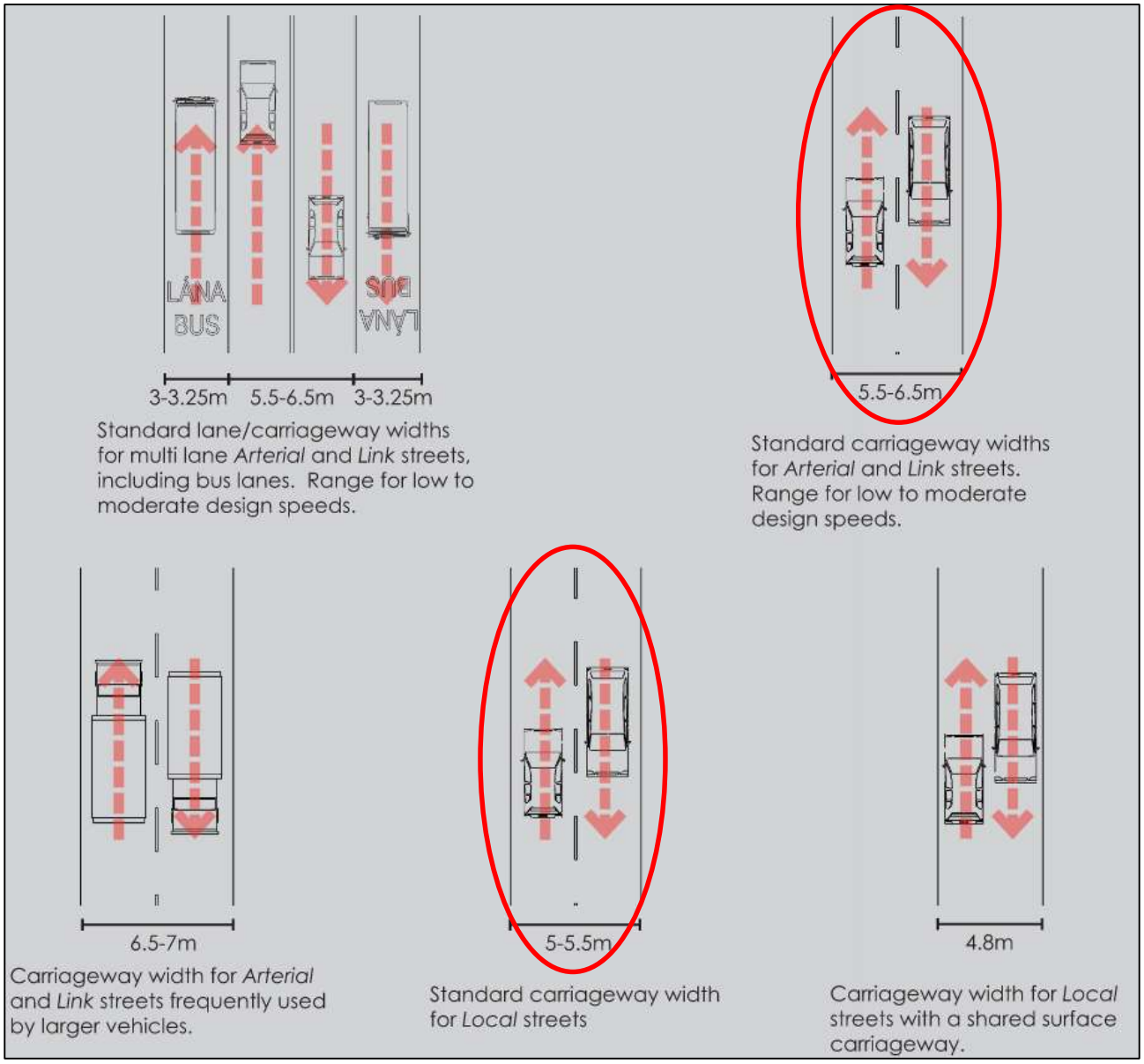

Figure 7: Extract of DMURS Carriageway Width Guidance

PEDESTRIANS & CYCLISTS

As noted, the development design has placed a significant focus on facilitating and prioritising the movement of pedestrians and cyclists. A key aspect of this is the proposed shared streets throughout the residential areas which maintain full pedestrian and cycle permeability to ensure appropriate desire lines are allowed for in line with Section 4.3 of DMURS.

Pedestrian and cyclist linkages will also be created to Grace Park and Griffith Court with a proposed future connection via Lomond Avenue. These are in addition to the accesses via

Richmond Road, with some of these subject to third-party agreements. These accesses are shown in the figure below and are in line with Section 3.3 of DMURS.

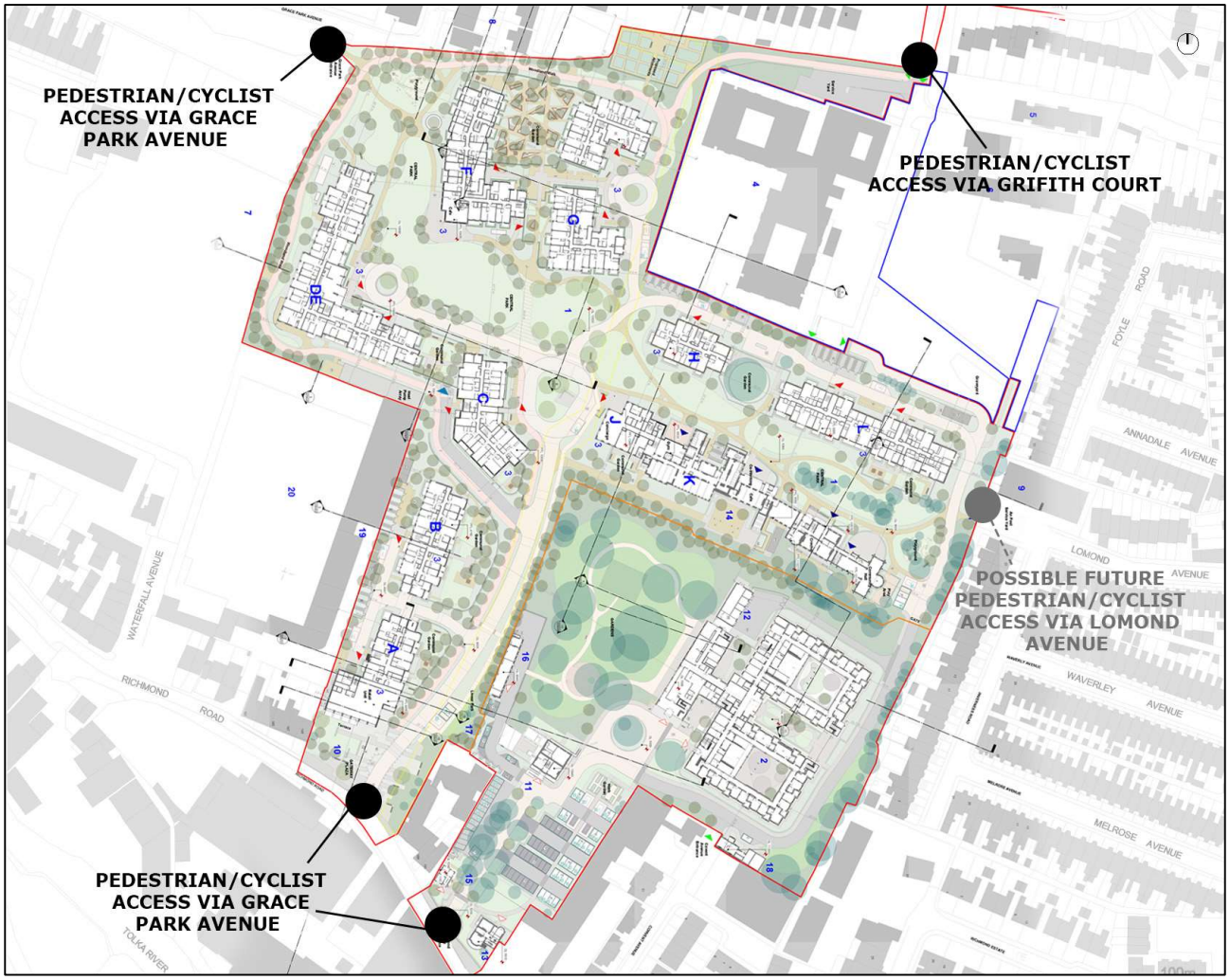

Figure 8: Pedestrian and Cyclist Permeability

In addition to this, 3m footpaths with 3m cycle tracks are proposed along the primary roads through the site and 2m footpaths along the secondary roads which will provide shared usage with cyclists, which is in excess of the minimum value noted in Section 4.3.1 of DMURS and as per the following extract from same. See Figure 2 for Road Hierarchy.

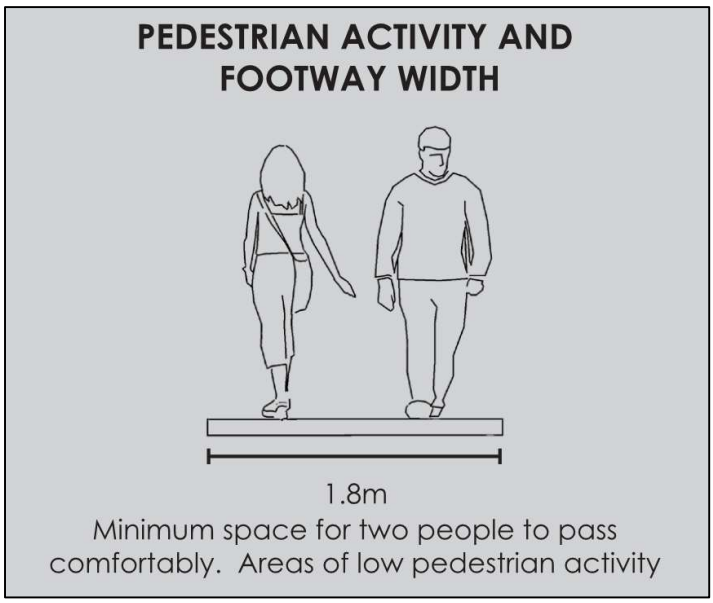

Figure 9: DMURS Extract of Figure 4.34

Segregated cycle facilities are not considered necessary on the local streets based on the estimated traffic volumes and design speeds. This is in accordance with Section 4.3.5 of DMURS which states:

"On lightly-trafficked/low-speed streets, designers are generally directed to create Shared Streets where cyclists and motor vehicles share the carriageway"

This is further in compliance with Chapter 7.1 of the National Cycle Manual which provides guidance on the type of cycle infrastructure that is appropriate. Application of the guidance from this document using the following graph clearly indicates that shared use of streets is appropriate in this instance.

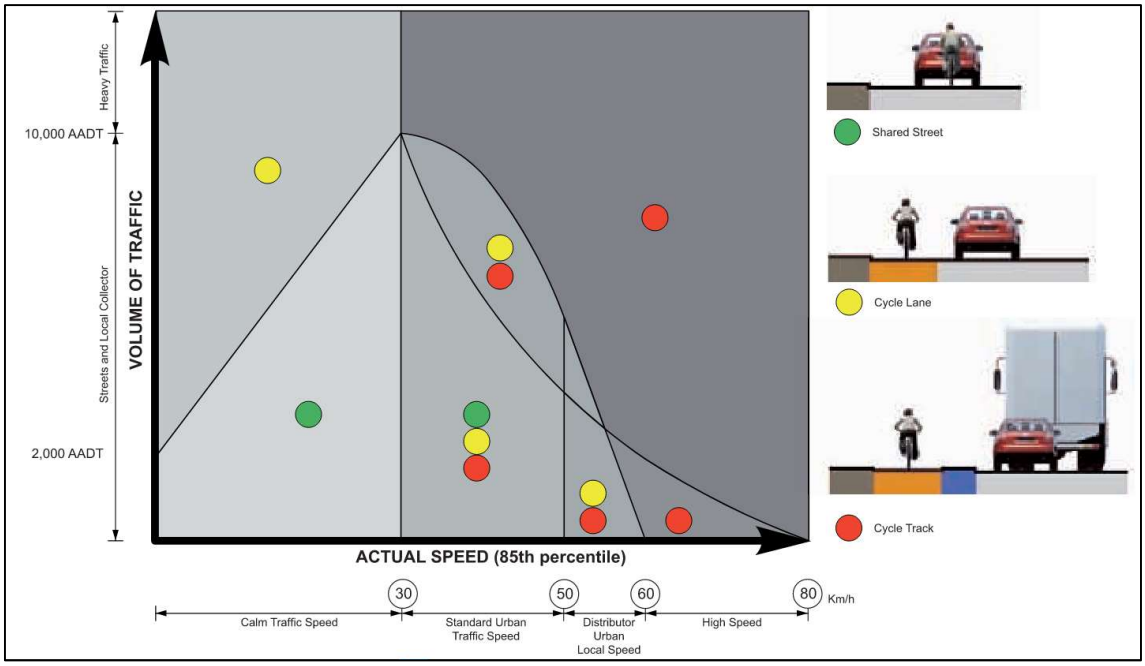

Figure 10: National Cycle Manual Guidance on Appropriate Cycle Infrastructure

A crossing facility will be provided in front of the basement parking access to allow cyclists to cross the road. From there, cyclists are able to access the basement via a ramp which is physically segregated from vehicular traffic as indicated in the figure below.

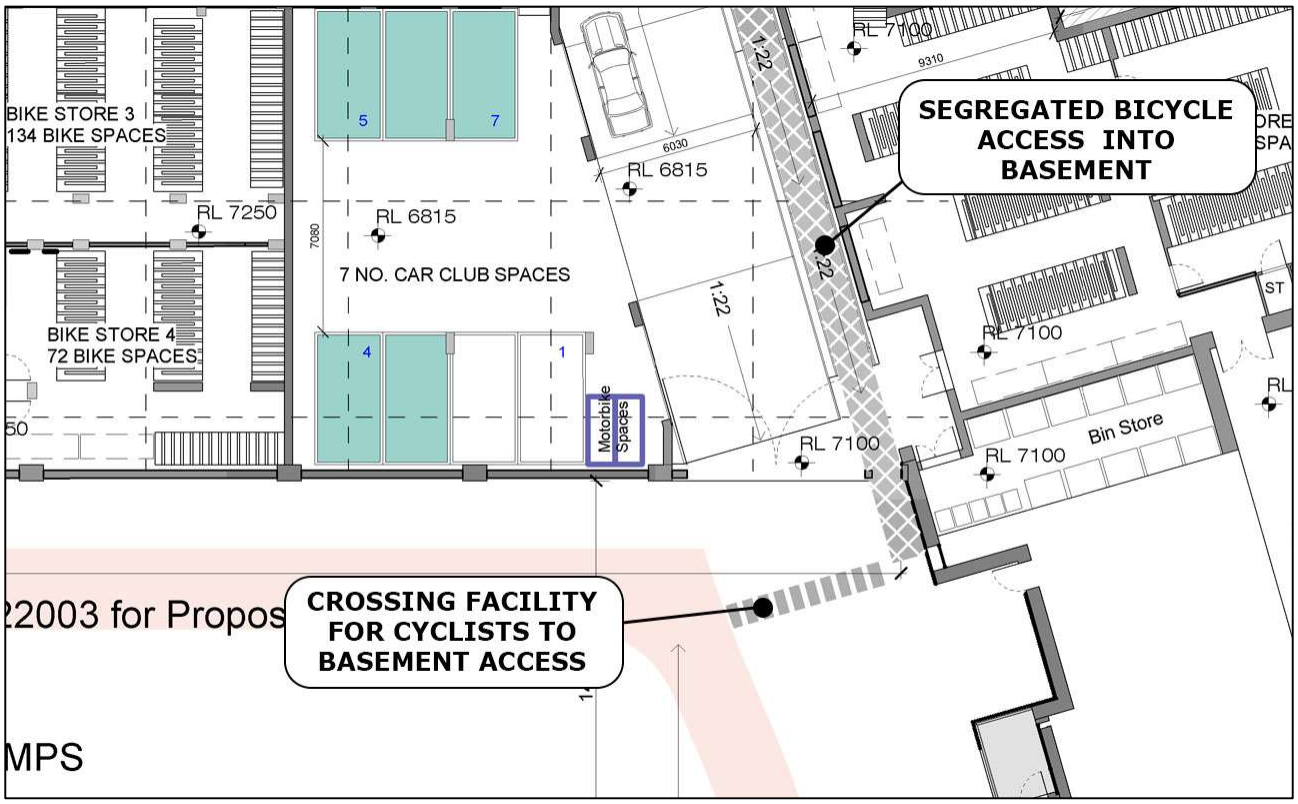

Figure 11: Cyclist Access in Basement

Raised table crossings are also provided throughout the site. The purpose of these crossings is to reduce vehicle speeds throughout the development, which will improve pedestrian and cyclist safety and accessibility. The location of these crossings is shown in the figure below.

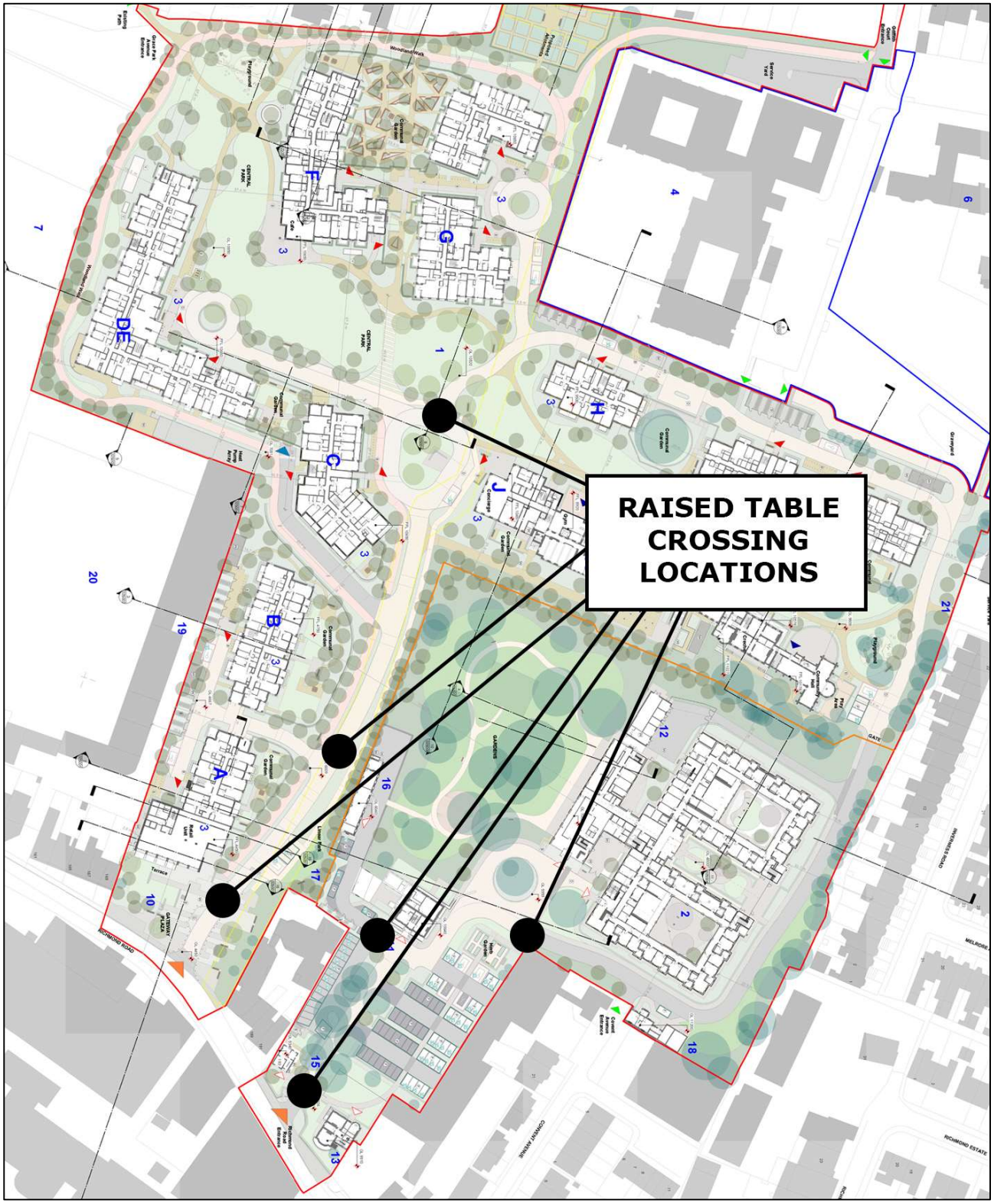

Figure 12: Location of Raised Table Crossings

SITE ACCESS

Both site entrances are located on Richmond Road. The required 45m visibility splay is achievable as per Table 4.2 of DMURS for a road with a 50 kph speed. Refer to OCSC Drawing R517-OCSC-XX-XX-DR-C-0115.

ROAD MARKINGS & SIGNAGE

Road markings are proposed to be kept to a minimum in accordance with Section 4.2.4 of DMURS, creating a self-regulating street environment with DMURS specifically stating:

"*Minimal signage is required on Local streets due to their low-speed nature and low movement function. The generally lightly trafficked nature of these streets means that the use of signage can be minimised, and in some cases eliminated altogether*".

Refer to OCSC Drawings R517-OCSC-XX-XX-DR-C-0110, R517-OCSC-XX-XX-DR-C-0111 and R517-OCSC-XX-XX-DR-C-0112 for further detail.

CONCLUSION

Taking the above into consideration, the proposed development has incorporated a series of design measures to promote more sustainable modes of transport and support vulnerable road users which are in line with the core principles of DMURS and all other relevant guidance.

VERIFICATION

This report was compiled and verified by:

Wian Marais BE (US), BE (Hons) (UP), Professional Engineer (ECSA)
Civil Engineer
O'Connor Sutton Cronin & Associates

OCSC

O'CONNOR | SUTTON | CRONIN

Multidisciplinary
Consulting Engineers

9 Prussia Street
Dublin 7
Ireland

T | +353 (0)1 8682000
W | www.ocsc.ie

Dublin | Belfast | Birmingham | Cork | Galway | London