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Mobility Management Plan Framework

Proposed Strategic Housing Development, Waterfront South Central

North Wall Quay, Dublin 1

ABP Ref: 306158-19

Client: Waterside Block 9 Developments Limited

Job No. R064

January 2021

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MOBILITY MANAGEMENT PLAN FRAMEWORK

PROPOSED STRATEGIC HOUSING DEVELOPMENT, WATERFRONT SOUTH CENTRAL NORTH WALL QUAY, DUBLIN 1

ABP Ref. 306158-19

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1.0 INTRODUCTION

1.1 Cronin & Sutton Consulting (CS Consulting) have been commissioned by Waterside Block 9 Developments Limited to prepare a Mobility Management Plan Framework for a proposed Strategic Housing Development at North Wall Quay, Dublin 1, within City Block 9 as identified in the *North Lotts and Grand Canal Dock Planning Scheme 2014*.

1.2 The site of the proposed development occupies the north-eastern section of City Block 9 within the North Lotts and Grand Canal Dock Strategic Development Zone. It is principally bounded by Mayor Street Upper to the north, by North Wall Quay to the south, by North Wall Avenue to the east, and by the residual City Block 9 lands to the west.

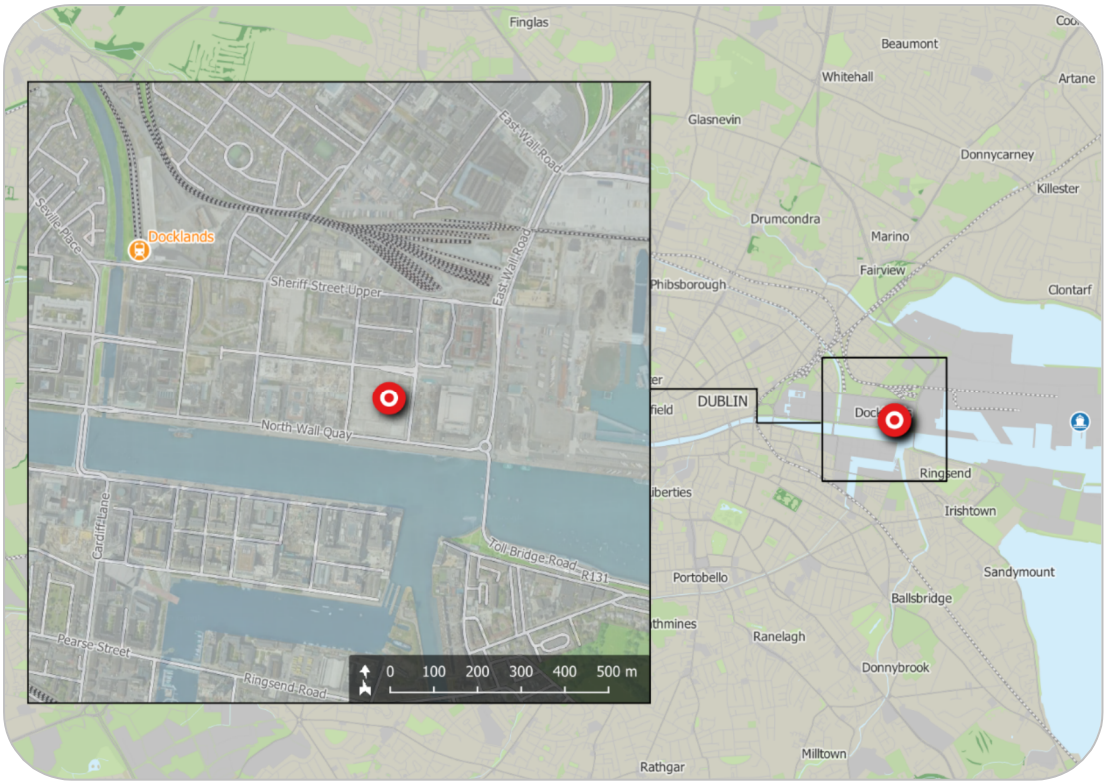


Figure 1 – Location of proposed development site
(map data: EPA, NTA, OSi, OSM Contributors, Google)

City Block 9 has a total area of approx. 1.95ha and is located in the administrative jurisdiction of Dublin City Council. The area subject to the present application extends to 1.10ha. The location of the proposed development site is shown in Figure 1; the indicative extents of the development site, as well as relevant elements of the surrounding street network, are shown in more detail in Figure 2.

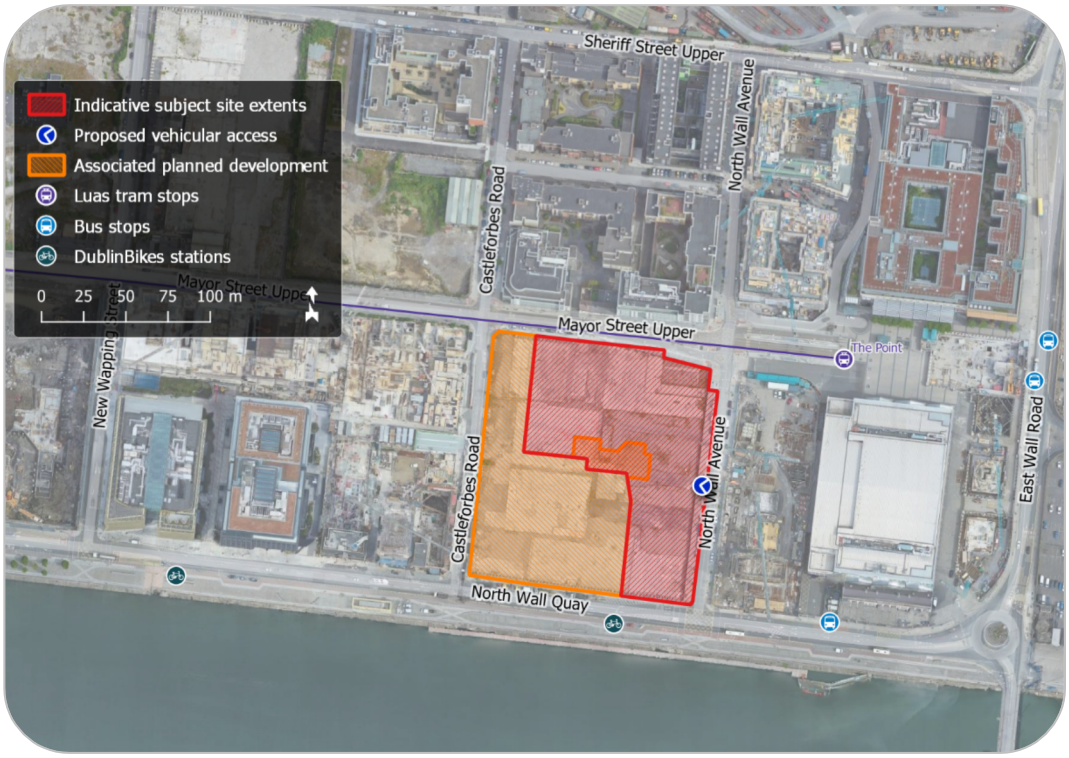


Figure 2 – Elements of surrounding street network
(map data & imagery: NTA, DCC, OSM Contributors, Google)

1.3 The proposed development is supported by an MMP as a suitable mechanism by which the future development can maintain a low rate of private car use and support the objectives of sustainable development.

1.4 The present document is intended to serve as a template for the implementation of a Mobility Management Plan once the proposed development is completed and operational. The implementation of the final version of the MMP shall be the responsibility of the Mobility Manager

for the development, who shall also monitor its performance and review the Plan at regular intervals.

2.0 PROPOSED DEVELOPMENT

The scheme, totalling 125,388 sq m, provides 22,499 sq m at basement levels, with 102,889 sq m from ground upwards. The development will consist of the:

1. Construction of 1,005 No. residential units (with balconies and winter gardens) arranged in 3 No. blocks ranging in height from 8 No. storeys to 45 No. storeys over a triple-level basement, the former comprising: Block A (8-14 No. storeys (with extended core to access roof level); with an apartment mix of: 116 No. 1-bed; and 92 No. 2-bed; with landscaped terraces at Level 1 (south east elevation), Level 8 (south west elevation), Level 11 (south west elevation) and Level 14 (north east elevation)); Block B (8-41 No. storeys (with extended core to access roof terrace); with an apartment mix of: 172 No. 1-bed; and 247 No. 2-bed; with landscaped terraces at Level 5 (south west levation), Level 8 (north west elevation and south west elevation), Level 11 (north elevation), Level 12 (west elevation), Level 13 (east elevation), Level 14 (east elevation), and at Level 41 (roof level)); and Block C (11-45 No. storeys (with extended core to access roof level); with an apartment mix of: 207 No. 1-bed; 168 No. 2-bed; and 3 No. 3-bed units; with landscaped terraces at Level 11 (north elevation), Level 24 (south elevation), Level 32 (south elevation), and Level 45 (roof level), incorporating a public viewing deck at Levels 44 and 45).

2. Provision of ancillary residential amenities and support facilities including: live/work suites (321 sq m), a gym/spa reception (52 sq m), a residents' games room (91 sq m), a residents' common room (110 sq m), a residents-only social space (193 sq m), a management office (96 sq m), a security office (50 sq m), concierge spaces (GFA of c. 381 sq m) all located at ground floor level; a residents' games room (90 sq m) located at Level 1 of Block B; a residents' common room (86 sq m) located at Level 14 of Block

B; a residents' wellness club and common room (408 sq m) located at Level 24 of Block C;

3. Construction of triple height basement which will comprise double basement with mezzanine plant level (total basement area 22,499 sq m), accommodating: waste storage areas (659 sq m), plant rooms (4,228 sq m), maintenance / management offices (GFA of 92 sq m), residents' courier / parcel rooms (GFA of 210 sq m), residents' laundry rooms (GFA of 138 sq m), ancillary residential storage (GFA of 291 sq m), residents' WCs (65 sq m), a residents' gym / spa (1,529 sq m) and ancillary gym storage room (100 sq m), residents' screening rooms (240 sq m), a residents' indoor plant cultivation room (356 sq m), 176 No. car parking spaces, 10 No. motorcycle parking spaces and 1,693 No. bicycle parking spaces, with vehicular access provided by ramp from North Wall Avenue.

4. Provision of "other uses" as defined by the Planning and Development (Housing) and Residential Tenancies Act 2016, comprising: a childcare facility (450 sq m), a restaurant (110 sq m), an indoor Farmer's Market/foodhall (299 sq m), an external market area, a winter garden/seating area (130 sq m), and 3 No. café units (110 sq m, 167 sq m and 261 sq m, respectively), all located at ground floor level; a restaurant (609 sq m) located at Level 32 of Block C; office use (1,894 sq m) from Floor Level 41 to 43 inclusive at Block C; and a public bar / function room (407 sq m) located at Level 44 of Block C. The total area of "other uses" provided is 4,307 sq m.

5. Provision of a pocket park and new pedestrian lanes from North Wall Quay, North Wall Avenue and Mayor Street Upper to the center of the site.

6. All enabling and site development works, landscaping (including living walls), lighting, services and connections, waste management and all other ancillary works above and below ground including the use of existing

secant piling permitted under Reg. Ref. DSDZ3779/17 and DSDZ3780/17 (as amended by DSDZ3042/19

3.0 CAR PARKING PROVISION

The proposed development shall include a total of 176no. internal car parking spaces located at basement level -3, all of which shall be allocated for the use of residents. This equates to a mean average of 0.18 car parking spaces per residential unit, which does not exceed the maximum provision of 1 parking space per unit that is permitted by the *Dublin City Development Plan 2016–2022*.

The *Dublin City Development Plan 2016–2022* specifies the following in relation to residential car parking in apartment developments:

> *"Car parking standards are maximum in nature and may be reduced in specific, mainly inner city locations where it is demonstrated that other modes of transport are sufficient for the needs of residents."*

In addition, the policy document *Sustainable Urban Housing: Design Standards for New Apartments (Guidelines for Planning Authorities)*, published by the Department of Housing, Planning and Local Government in March 2018, gives the following guidance on the provision of residential car parking:

> *"In larger scale and higher density developments, comprising wholly of apartments in more central locations that are well served by public transport, the default policy is for car parking provision to be minimised, substantially reduced or wholly eliminated in certain circumstances. The policies above would be particularly applicable in highly accessible areas such as in or adjoining city cores or at a confluence of public transport systems such [as] rail and bus stations located in close proximity.*
>
> *"These locations are most likely to be in cities, especially in or adjacent to (i.e. within 15 minutes walking distance of) city centres or centrally located employment locations. This includes 10 minutes walking*

distance of DART, commuter rail or Luas stops or within 5 minutes walking distance of high frequency (min 10 minute peak hour frequency) bus services."

As detailed in Section 5 of this document, the development site is situated in proximity to existing high-quality bus, rail and light rail services through Dublin City, as well as proposed future transport infrastructure. The site benefits from a location close to numerous amenities and centres of employment and is within approximately 25 minutes' walk of O'Connell Bridge, at the heart of the city centre.

The proposed development is therefore considered an appropriate candidate for a limited car parking provision, in accordance with the standards and guidelines set out by Dublin City Council and the Department of Housing, Planning and Local Government.

Figure 3 – Mean average number of cars per household, by Small Area
(map data and imagery: CSO, Google)

CSO data drawn from the 2016 census indicate that car ownership rates in the census Small Areas surrounding the subject development site are relatively low, ranging between 0.29 and 0.61 cars per household (see Figure 3). This would support the feasibility of residents in the proposed development eschewing private car use in favour of public and shared transport and/or cycling. In these same Small Areas, the 2016 census data also show that between 38% and 54% of households do not own a car; this is illustrated in Figure 4.

Figure 4 – Proportion of households owning no car, by Small Area
(map data and imagery: CSO, Google)

4.0 MOBILITY MANAGEMENT PLAN PURPOSE

4.1 MMPs are developed for the purpose of promoting and enhancing travel via more sustainable modes of transport. MMPs are conducted to identify travel demand strategies that reduce single occupancy private car travel, which in turn reduces traffic congestion, noise pollution and environmental impacts. Occupants of and visitors to the development are informed of existing alternatives to the private car and are given the required advice, support, and encouragement to travel in a sustainable way. The MMP will also include proposed future improvements to those transport options already available.

4.2 The aim for the plan is to provide more sustainable transport choices which lead to a reduction in the need for vehicular journeys, especially by private car. The MMP recognises that not all trips can be taken by sustainable modes and that some motor vehicle trips will still be necessary.

4.3 The MMP should be considered as a dynamic process, wherein a package of measures and campaigns are identified, piloted, and then monitored on an ongoing basis. The nature of the plan therefore changes during its implementation: measures that prove successful are retained, while those that are not supported are discarded. It is important that the plan retains the support of users and receives continuous monitoring. Feedback and active management of the plan are required for it to continue to be successful.

5.0 EXISTING SITE CONDITIONS

1.5 Existing pedestrian facilities in the vicinity of the development site are extensive and of good quality. Raised footpaths and public lighting are in place along all nearby streets, including North Wall Avenue, Mayor Street Upper, North Wall Quay, and Catleforbes Road. Existing signalised pedestrian crossings of North Wall Avenue, Mayor Street Upper, North Wall Quay, and Catleforbes Road are provided adjacent to the development site.

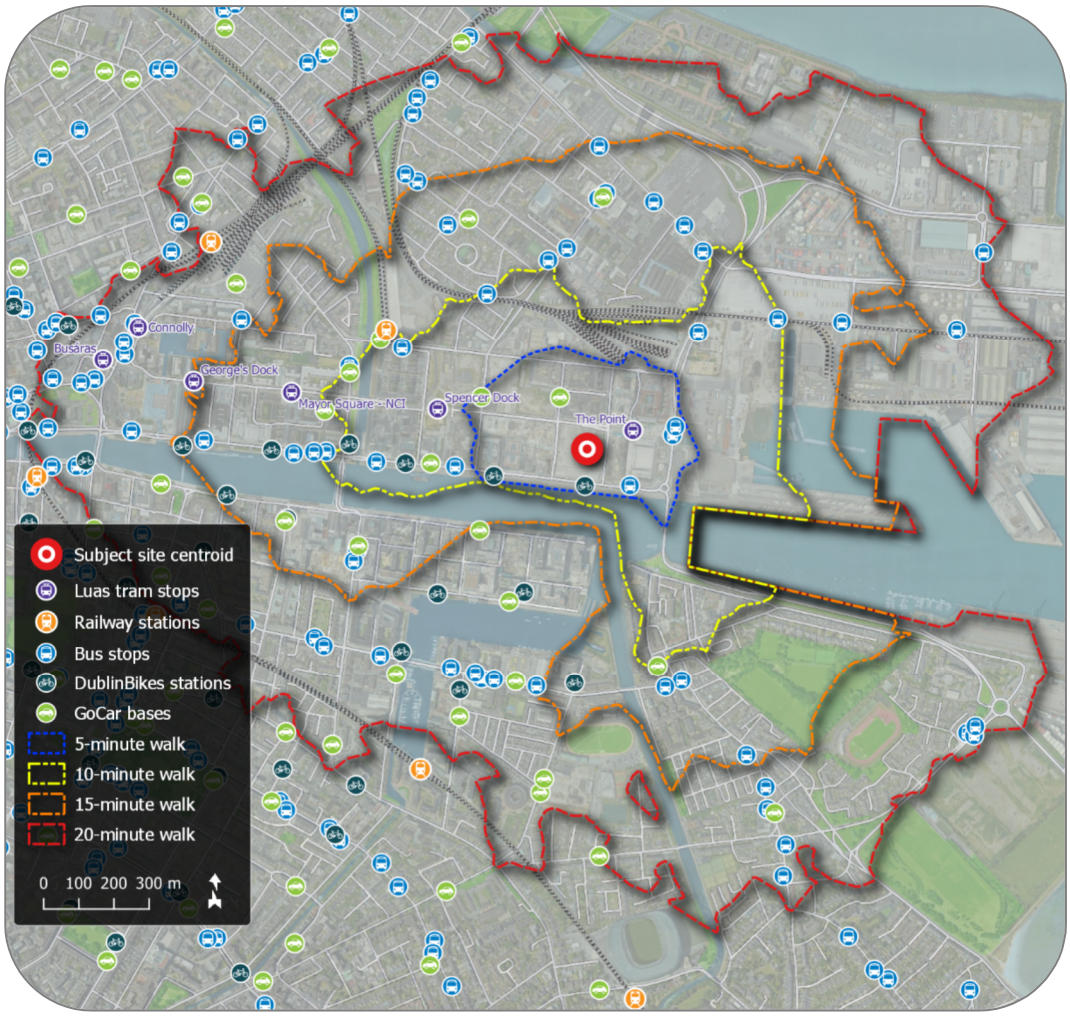


Figure 5 – Walking times and public/shared transport accessibility
(map data and imagery: NTA, GoCar, DCC, OSM Contributors, Google)

5.1 Existing Public Transport Services

5.3.1 Light Rail Services

The Luas light rail network consists of two principal lines, which until recently did not connect with one another:

- LUAS Red Line (E-W) Dublin Docklands to Tallaght/Saggart
- LUAS Green Line (N-S) St. Stephen's Green to Bride's Glen

The Point stop, at the eastern terminus of the Luas Red Line, is located 30m from the subject site. Light rail services operating via this stop connect the Dublin Docklands to the city centre, continuing on to Tallaght and Saggart in the southwest. Trams run at intervals of approximately 5 minutes at peak times. The main railway stations of Connolly and Heuston are also located on the Luas Red line.

Table 1 – Luas Tram Services to/from The Point

Direction	Weekday Services [1]	Peak Interval
Westbound - to Tallaght/Saggart	137	3 min
Eastbound - from Tallaght/Saggart	91	3 min

The recently completed Luas Cross City project has extended the Luas Green Line northward from St. Stephen's Green, running as far as Broombridge on the Royal Canal, and created an interchange with the Luas Red Line at Abbey Street (5 stops west of The Point); this has provided a significant further improvement to the public transport provision at the subject development site.

5.3.2 Bus Services

Bus stops on North Wall Quay and East Wall Road, within a 5-minute walk of the subject site, are served by 20no. regular bus routes

[1] Average number of services per day in given direction, Monday-Friday

operated by Dublin Bus, Bus Éireann, and other NTA-licenced operators. Details of these bus routes are given below in Table 2.

Table 2 – Bus Services within a 5-minute Walk of Site

Route No.	Operator	Destinations	Weekday Services [2]	Peak Interval
22	Bus Éireann	Dublin Airport / Ballina	6	n/a
23	Bus Éireann	Dublin Airport / Sligo	5	n/a
33b	Go-Ahead	Portrane / Swords	30	25
33d	Dublin Bus	Portrane / City Centre	1	n/a
33x	Dublin Bus	Skerries / City Centre	5	n/a
41x	Dublin Bus	Knocksedan / UCD	3	n/a
100X	Bus Éireann	Dublin / Dundalk	20	60
101X	Bus Éireann	Dublin / Drogheda	5	n/a
109A	Bus Éireann	Dublin / Kells	24	60
133	Bus Éireann	Dublin Airport / Wicklow	23	30
142	Dublin Bus	UCD / Portmarnock	10	10
151	Dublin Bus	Foxborough / Docklands	49	20
191	Carolan	Dublin / Balbriggan	4	n/a
500/500X/ 501/503	Swords Express	Dublin / Swords	60	10
702	Aircoach	Greystones / Dub. Airport	24	60
703	Aircoach	Killiney / Dublin Airport	24	60
747	Dublin Bus	Airport / Heuston Station	71	15
757	Dublin Bus	Airport / City Centre	38	30
902/903	Matthews	Dublin / Dundalk	3	n/a
912	Matthews	Dublin / Bettystown	1	n/a

In addition to the above-listed services, a frequent shuttle bus service to and from the East Point Business Campus also serves bus stops within a 5-minute walk of the subject site. A further 3no. regular bus routes also serve other bus stops within a 10-minute walk of the subject site, details of which are given in Table 3.

[2] Average number of services per day in each direction, Monday-Friday

Table 3 – Further Bus Services within a 10-minute Walk of Site

Route No.	Operator	Destinations	Weekday Services [3]	Peak Interval
53	Dublin Bus	Ferryport / City Centre	13	60
501X/502/504/ 505/507	Swords Express	Dublin / Swords	11	18
910	Matthews	UCD / Bettystown	27	30

The main bus station at Busáras is located approx. 1.3km from the subject site and is connected to it by the Luas light rail line. This gives access to the wider network of interurban and long-distance bus routes operated by Bus Éireann.

5.3.3 Rail Services

The subject site is located approx. 550m east of the Docklands railway station, which is within a 10-minute walk. Services from this station operate towards Sligo, serving commuter towns in Meath and Kildare.

Pearse Street railway station is approx. 1.2km to the southwest of the subject site; Connolly Railway station, to which the subject site is connected by the Luas light rail line, is approx. 1.2km to the west (within a 20-minute walk). Intercity rail services from these stations operate towards Belfast, Sligo and Rosslare, serving commuter towns in counties Dublin, Meath, Louth, Kildare, Wicklow and Wexford. Frequent DART rail services also operate via these stations, between Malahide/Howth in the north and Greystones in the south. A limited number of commuter rail services also operate from these stations to Newbridge in southern Kildare, via the recently reopened Phoenix Park rail tunnel.

[3] Average number of services per day in each direction, Monday-Friday

Heuston Station, 4km to the west, is within a 16-minute cycle of the subject site and is connected to it by both the Luas Red Line and Dublin Bus route 747. This is the terminus for intercity and commuter rail services on the Mayo, Galway, Limerick, Cork, and Waterford lines.

Figure 6 shows the reach of public transport journeys from the development site by total travel time (including walking to and between stops), based upon a departure time of 08:00 on a typical weekday.

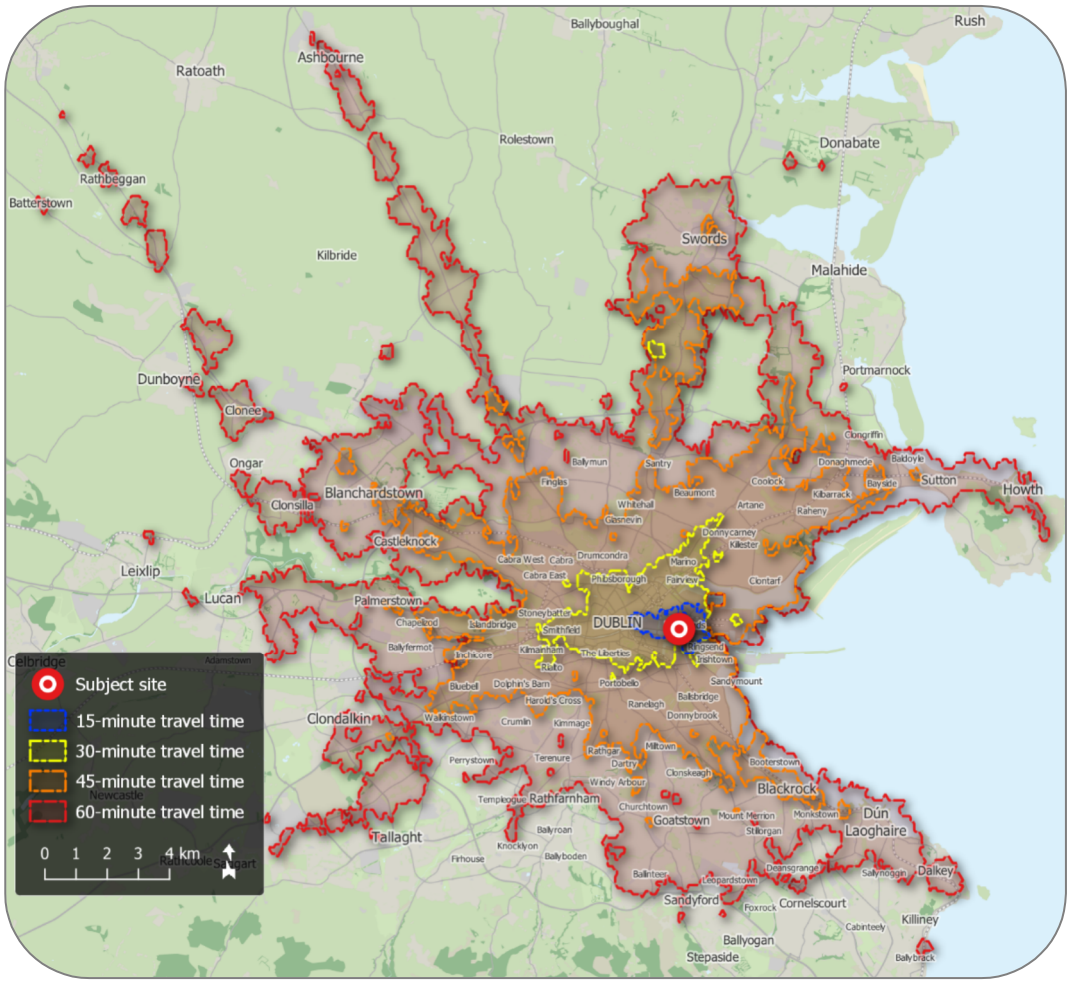


Figure 6 – Public transport travel time reaches from development location
(map data sources: NTA, OSi, OSM Contributors, TravelTime platform)

5.2 Bicycle Infrastructure

Segregated eastbound and westbound cycle lanes are present along the North Quays in the vicinity of the subject site. As shown in Figure 5, two DublinBikes bicycle sharing stations, with spaces for 80no. bicycles in total, are located on North Wall Quay within a 5-minute walk of the subject site.

As shown in Figure 7, the entirety of Dublin city centre is easily accessible by bicycle from the development site, as are most inner suburbs. Docklands, Connolly, and Pearse Street railway stations are within a 5-minute cycle, as are numerous Luas tram stops, and Heuston railway station is within approximately 16 minutes' cycle.

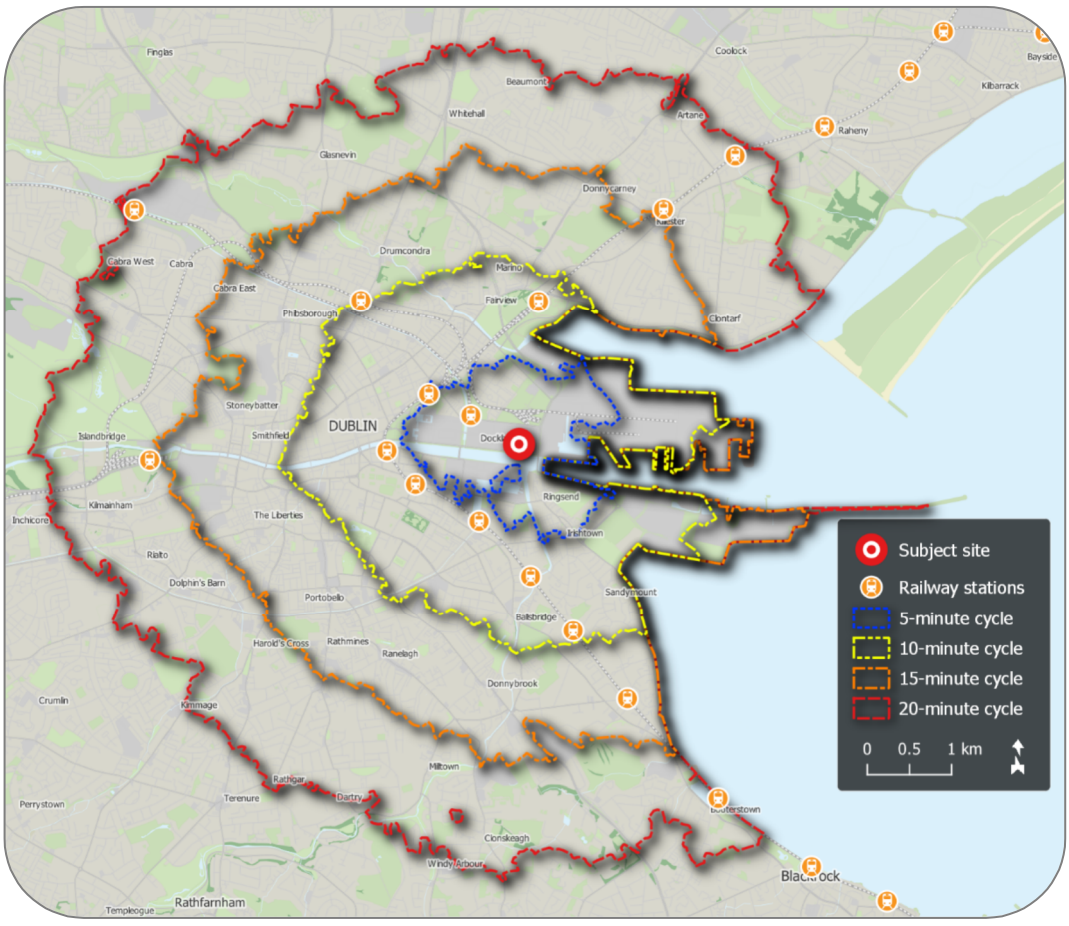


Figure 7 – Cycling isochrones from development location
(map data sources: NTA, OSi, OSM Contributors, openrouteservice)

6.0 PROPOSED FUTURE TRANSPORT IMPROVEMENTS

6.1 MetroLink

The TII/NTA MetroLink project, which is now entering a second phase of public consultation, provides for the construction of a metro line between Dublin city and Swords by the year 2027, much of which shall be underground. It is proposed to locate future MetroLink stations at Tara Street, within 25 minutes' walk of the development site, and at O'Connell Street, within a 30-minute walk and connected to the development site by the Luas network. The development shall therefore benefit in future from the availability of a further high-frequency direct rail connection to Dublin Airport. See Appendix A for details.

6.2 BusConnects

The NTA BusConnects project, which is currently undergoing public consultation processes, proposes to improve dedicated bus facilities and to reorganise the Dublin Bus network in order to improve its flexibility and performance. Radial Core Bus Corridors shall be created, primarily along the routes of the existing Quality Bus Corridors; bus lanes and cycle facilities are to be improved along these corridors, which will reduce bus journey times and improve cyclist safety. In addition, it is proposed to create new Orbital Bus Corridors, which shall link the radial corridors around the city. Details of the scope of these proposals are included in Appendix A. Core Bus Corridor no. 16 is proposed to run along North Wall Quay and Sir John Rogerson's Quay; the existing preferred route drawings for this route (included in Appendix A) do not require any changes to the development site boundary.

6.3 Bus Rapid Transit

Swiftway Bus Rapid Transit (BRT) proposals include a route between Clongriffin and Tallaght; a proposed future BRT stop on this route is located at Connolly Station. See Appendix A for details of this proposed BRT route.

6.4 Cycle Network Improvements

The Greater Dublin Area Cycle Network Plan provides for the consolidation of existing cycling infrastructure in the vicinity of the development site: an east-west primary cycle route (no. 5) is proposed along North Wall Quay, connecting to a north-south primary cycle route (no. NO1) along Guild Street. In addition, new secondary cycle routes are proposed to run along East Wall Road, New Wapping Street, and East Road. Maps of existing and proposed cycling facilities are included in Appendix A. No further information is available at present regarding the delivery timeframe or detailed design for these proposed cycle network improvements.

6.5 DART Underground

The expansion of the DART to the greater Dublin region, possibly including DART Underground, has been allocated funding in the new National Development Plan.

The DART Underground scheme originally envisaged the construction of a 7.5km tunnel from Inchicore in the southwest to the Docklands in the northeast, with new underground stations at Christchurch, St. Stephen's Green and Spencer Dock, as well as underground interchanges at the existing Heuston and Pearse Street stations. This tunnel would connect with the southern Kildare railway line (towards Newbridge), along which DART services would run as far as Hazelhatch, and with the existing Malahide/Howth DART line to the north. The proposed Spencer Dock underground station is to be located beneath Central Square, adjacent to

the existing Spencer Dock LUAS stop and approx. 400m to the west of the subject development site.

Review of these plans in 2015 outlined a number of possible cost-saving alterations to the original scheme, involving a reduction in length of the proposed tunnel (which might terminate at Heuston to the west or at Pearse Street to the east) and/or a reduction in the number of underground stations. The final layout of the scheme has yet to be decided.

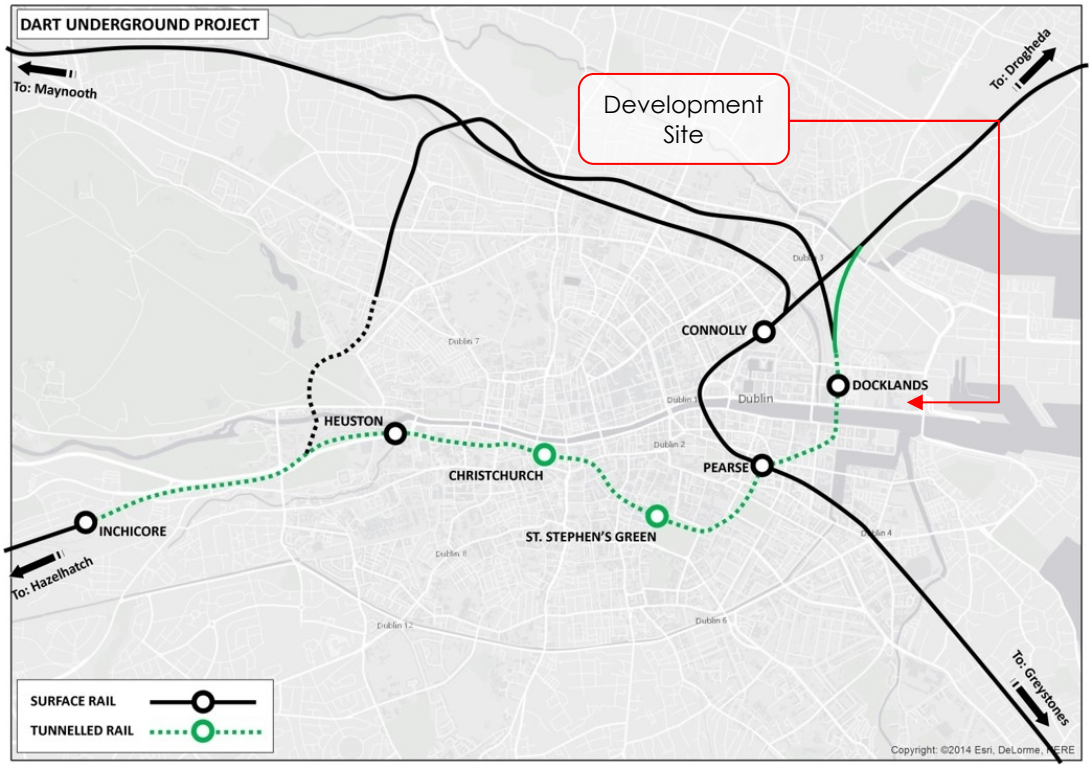


Figure 8 – DART Underground project (original proposal)
(base image source: National Transport Authority)

As shown in Figure 8, the subject development is well positioned to benefit from the DART Underground project, should this be undertaken as first proposed.

7.0 CONTENT OF THE MOBILITY MANAGEMENT PLAN

7.1 The MMP is a management tool that brings together transport, development occupants' and site management issues in a coordinated manner. This report sets out the objectives and specific measures required to establish an effective MMP.

7.2 This plan's aim is to provide more sustainable transport choices that will allow the lowest possible proportion of journeys to/from the site to be made by single-occupant private cars.

7.3 The plan sets out specific targets and objectives, including measures to be implemented to establish an effective modal shift in transport to and from the development. The plan will require regular monitoring to develop an effective implementation of mobility management measures.

7.4 Within Ireland, travel demand management is becoming well established through the initiatives and strategies identified in the document *A Platform for Change*, which was published by the Dublin Transportation Office (DTO) in 2001. Within this document, the first steps for travel demand management in Ireland are described as seeking "*to reduce the growth in the demand for travel while maintaining economic progress, [through measures] designed to encourage a transfer of trips to sustainable modes*".

7.5 Building on the policies set forth in *A Platform for Change*, further progress in the Irish context was made with the publication of the document *Smarter Travel: A Sustainable Future – A New Transport Policy for Ireland 2009-2020* and, more recently, the publication of the *Transport Strategy for the Greater Dublin Area 2016-2035*. Within these documents, numerous actions have

been proposed which aim to foster improved sustainable travel habits for Ireland.

7.6 An effective mobility management plan should be informed by and founded upon the following:

- A travel survey of development users, to establish the origins and destinations of trips to and from the development;
- An outline of specific schemes/measures implemented to discourage car-dependent transport to and from the site;
- Any comments/suggestions on travel that have been offered by development users;
- A set of targets, to be set out in accordance with approved guideline documents;
- An outline of the specific schemes that the development plans to make available to its users, in order to encourage the desired travel patterns to and from the site. These might include, for example: cycle facilities, public transport subsidies, walking groups, cycle groups, communication and consultation, etc.

It is intended that the Mobility Management Plan for the proposed development will follow the above guidelines. The success of the MMP depends on the co-operation of all parties; the appointment of a co-ordinator and a steering group is vital for the success of the plan. This MMP will need to be reviewed on a regular basis by the steering group, with updates implemented as improvements to the transport network in the vicinity of the development site are carried out.

8.0 OBJECTIVES OF THE MOBILITY MANAGEMENT PLAN

The objectives of the Mobility Management Plan for the proposed development are as follows:

- To promote and increase the use of public transport, walking, and cycling for development staff and visitors, and to facilitate travel by bicycle, bus, rail, and light rail;
- To integrate mobility management into the development's operational decisions, policies and practices; to work closely with governing bodies on matters of access to – and use of – transport services around the vicinity of the development site;
- To provide information on sustainable modes of travel and to have resources readily available to increase awareness of these amongst development staff and visitors.

8.1 Objective 1

To promote and increase the use of public transport, walking, and cycling for development staff and visitors, and to facilitate travel by bicycle, bus, rail, and light rail.

The encouragement and the increased use of other modes of transport, which are less damaging to the environment in terms of congestion and emissions, are directly linked to operating a lower-car-use development. Apart from the environmental benefits, the use of more sustainable modes of transport provides the following benefits to the individual:

- Savings in personal costs. Walking is free, cycling does not incur any fuel costs and buying a bicycle or using public transport is cheaper and can benefit from Government tax incentives.
- Health benefits. Levels of fitness and wellbeing increase with the practice of exercise, which is directly related to walking and cycling. The

use of public transport avoids the stress of driving, traffic congestion, seeking parking spaces, etc.

8.2 Objective 2

To integrate mobility management into the development decisions, policies and practices; to work closely with governing bodies on matters of access to – and use of – transport services around the vicinity of the development site.

Mobility management and sustainable transport cannot be addressed in isolation, but as part of a more general approach towards the development of a sustainable organisation whose functions deliver significant benefits to the community and the environment, together with economic savings. Regular communication with the Local Authorities on further improving facilities in and around the vicinity of the development can establish good policies and practices when developing decisions within the MMP.

8.3 Objective 3

To provide information on sustainable modes of travel and to have resources readily available to increase awareness of these amongst development staff and visitors.

The MMP has a significant role to play in the provision of information and resources both to people within the development and to the wider community. Information should be made readily available and the benefits of sustainable travel should be widely promoted throughout the development when completed. Information positioned correctly can influence attitudes, which in turn can influence behaviour.

9.0 INITIAL TARGETS OF THE MOBILITY MANAGEMENT PLAN

9.1 Journeys to and from the development shall be made by three distinct population groups: residents, commercial staff, and visitors. The targets set under the MMP shall be limited to residents and staff, as these are the only groups that are expected to make both frequent and regular trips to and from the site. While the travel habits of visitors are expected also to be influenced by measures adopted under the MMP, these are more difficult to monitor.

9.2 Table 4 gives both the assumed starting modal splits and the suggested initial MMP targets to be set in pursuance of the objectives defined in Section 8. The assumed starting modal splits have been informed primarily by the available bicycle and car parking provision (including nearby public car parks and on-street parking), the accessibility of public transport, and the proximity of amenities to the development.

Table 4 – Initial Target Modal Splits for Development Occupants

Mode	Assumed Starting Proportion of Trips	Suggested Initial MMP Targets
Driving a Car	5%	2%
Passenger in a Car (Driver going to Same Destination)	2%	1%
Passenger in a Car (Driver going to Different Destination)	2%	1%
Bicycle	4%	5%
Motorcycle	1%	1%
Bus and Tram	43%	44%
Train	33%	34%
Walking	10%	12%
TOTAL	100%	100%

Once the development is completed and occupied, the true initial modal splits should be established by means of a travel survey and the initial MMP targets should be amended by the Mobility Manager, if appropriate. These targets should be reappraised at regular intervals thereafter as part of the periodic MMP review process.

9.3 The duration of the first phase of the MMP, during which the initial target modal splits shall be pursued, will be decided by the Mobility Manager once the development is operational. A phase duration of 2 years is suggested, after which time the first MMP review may be conducted and the initial targets revised, if appropriate.

9.4 As part of on-going monitoring and review, the percentage shares of individual modes such as walking, cycling and public transport will be monitored to understand how successful implementation of targeted programs have been.

9.5 The targets set will require ongoing work and commitment from the development as a whole, without which they will not be achieved. It is recognised that some people will be easier to convert to alternative modes of transport than others, and that the more that is done to facilitate the use of those alternatives, the more they will be used. As it has already been noted, a mobility management plan is an ongoing process and targets that are achieved should be replaced by further targets.

10.0 MOBILITY MANAGEMENT MEASURES

The measures identified are a mixture of policies and incentives designed to encourage changes in travel behaviour and sustain a low rate of single-occupant car use. The measures are designed to be implemented over a period of time, allowing costs to be spread and ensuring that policies and incentives are implemented together.

While little may be observed in terms of travel behaviour in the short term, as implementation gains momentum so will the impact in terms of travel behaviour. The mobility management measures in the plan can be grouped under the following headings:

- Marketing and Communications
- Walking & Cycling
- Public Transport
- Implementation / Consultation / Monitoring

10.1 Marketing & Communications

The education of development occupants and visitors on the mobility plan initiatives and the importance of contribution is extremely important. The services available must be communicated in a consistent and continuous manner to sustain behaviour change.

Communications will include promotional initiatives and activities aimed at informing development occupants and visitors of the existing and proposed transport networks. Such initiatives and activities will include:

- Promoting the MMP through both internal communications and external avenues.
- Developing an Access Map to show public transport facility locations and to highlight safe walking and cycling routes. In addition to this, Travel Information Points should be established at dedicated on-site

locations, to make development occupants and visitors aware of the mode choices available in and around the development site. The Travel Information Points should be conspicuously located at reception areas and provide travel and mobility information such as maps, public transport routes and timetables, leaflets, etc.

- Preparing a formalised Sustainable Travel Information Pack, which is to be provided to all new residents upon moving in and to all new staff upon taking up employment within the development. The Pack will contain all the information relating to the Mobility Management Plan, including the Mobility Access Map and the locations of cycle parking, etc.
- Developing a digital Travel Information Point for the development, in the form of a dedicated website and/or a mobile app. This will provide details of travel options to the site, as well as linking to external websites relevant to visiting the development.

10.2 Walking & Cycling

10.2.1 Safe Walking and Cycling Routes

All pertinent safe walking and cycling routes should be identified within a radius of at least 5km around the development site. These routes will be selected with regard to:

- Availability of footpaths and cycle paths
- Safety at crossings
- Signage
- Lighting

10.2.2 Bicycle Parking, Umbrellas, Drying Room, Bicycle Repair Kit Facility and Changing/Shower Facilities

- Ensure that bicycle parking for development occupants and visitors is secure and sheltered.

- Provide umbrellas at reception for loan to development occupants and visitors.
- Maintain a toolkit containing puncture repair equipment, pump, etc. for use in emergencies and make it available to all bicycle users at reception areas.

10.3 Public Transport

The proposed measures intend to promote the use of public transport.

10.3.1 Service Information

It must be ensured that the information supplied in the development Access Map, Sustainable Travel Pack and Travel Information Points includes the location of stops, routes, timetables, walking times to main public transport facilities, etc. Changes and improvements to public transport provision must be publicised as well.

10.3.2 Multi-Modal Trip Support

Development users should be offered specific advice on combining public transport with other modes of transport, for instance travelling by bicycle between a bus stop or railway station and their home or workplace. In particular, information should be provided on the conditions under which standard or folding bicycles may be carried on bus and train services.

10.4 Implementation / Consultation / Monitoring

The Mobility Management Plan is a document that evolves over time and depends upon ongoing implementation, management and monitoring. Its successful implementation requires organisational support, an internal Mobility Manager and financial resourcing.

To implement the MMP the following inputs are required:

- Management support and commitment;
- A Mobility Manager as the plan coordinator;
- A Steering Group to oversee the plan;
- Working Groups on various related issues;
- Consultations with development users and external organisations.

To secure effective results from any initial sustainable travel investment, it is imperative to obtain the agreement of all the stakeholders and the support of external partners, such as the Local Authority, public transport operators, etc.

Ideally, the MMP will be managed by a Mobility Manager or travel plan coordinator with the clear mandate to implement and evolve the plan. The Mobility Manager will also be best suited to monitor the results of the plan. This role may for example be performed by a member of the development owner's management team.

Travel surveys of development occupants (and of visitors, if practicable) should be carried out in the early stages and repeated annually, to monitor the initial success of the travel plan and to gain a better understanding of travel habits. These survey results can also serve as a sustainable travel performance benchmark to indicate how the Mobility Management Plan is performing in comparison to previous years and against the sustainable travel targets initially outlined in the plan.

11.0 SUMMARY

11.1 The proposed development site is located at North Wall Quay, Dublin 1, within City Block 9 as identified in the *North Lotts and Grand Canal Dock Planning Scheme 2014*.

11.2 The proposed development site is located in proximity to existing high-quality light rail, bus, and rail services through Dublin City, as well as proposed future transport infrastructure. The site benefits from a location close to numerous amenities and centres of employment and is within approximately 25 minutes' walk of O'Connell Bridge, at the heart of the city centre.

It is therefore an objective under this MMP that a minimal proportion of the trips generated by this development be made by private car.

11.3 The MMP targets are summarized as follows:

11.3.1 General

- Put in place a formal travel plan.
- Appoint a Mobility Management coordinator.
- Create an Access Map.
- Provide travel information to development occupants, in the form of Sustainable Travel Welcome Packs and a travel hub website.
- Monitor the operation of the plan by development occupants, by carrying out travel surveys.
- Revise and update the plan as required.

11.3.2 Walking and Cycling

- Identify safe walking and cycling routes.
- Provide secure and attractive cycle parking and ancillary facilities for cyclists and pedestrians.

11.3.3 Public Transport

- Provide information on locations of stops, routes, timetables, walking times to main public transport facilities, etc.
- Provide specific advice on multi-modal trip planning.

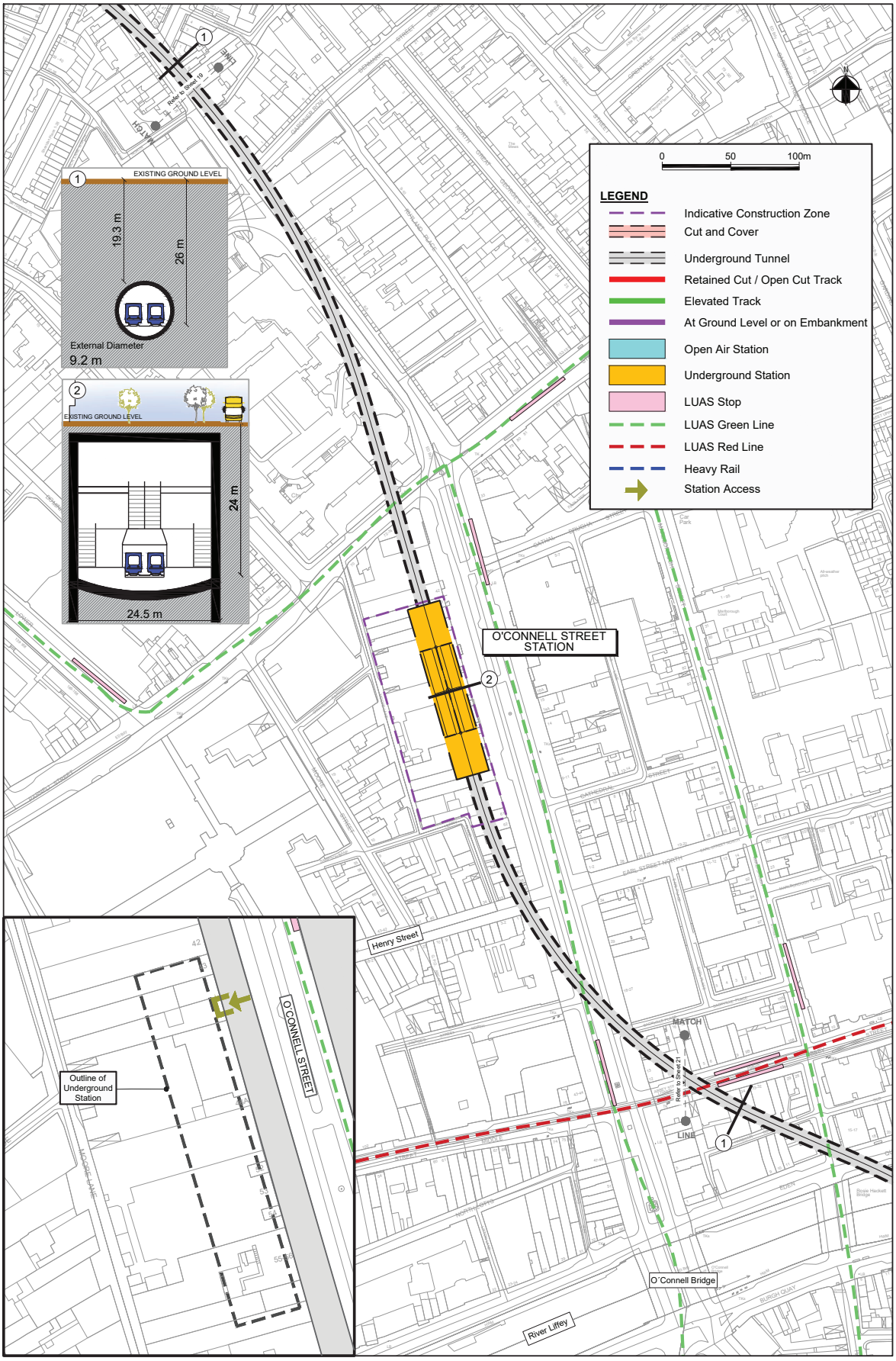
Appendix A

Details of proposed local transport infrastructure improvements

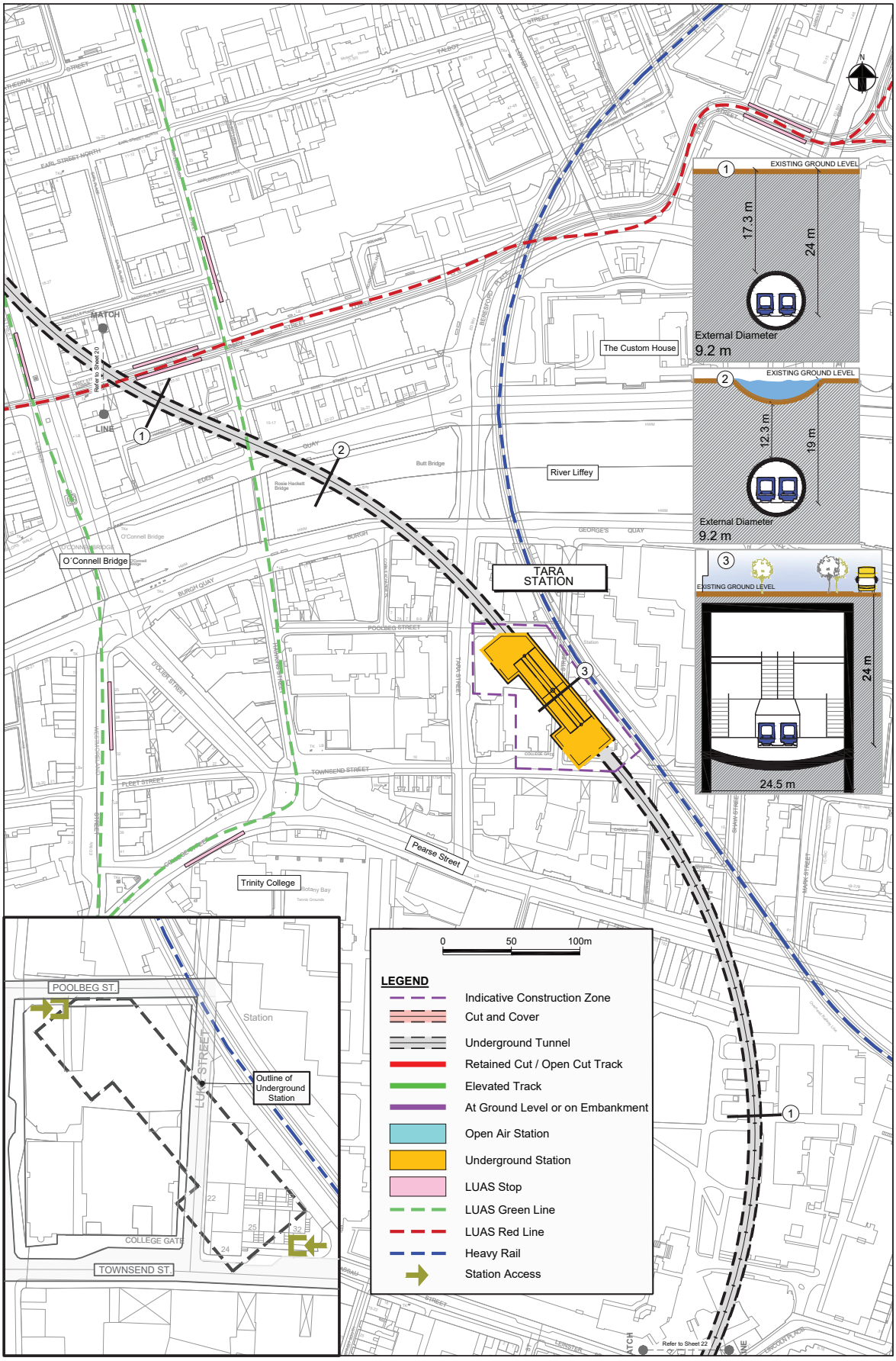
CS CONSULTING
GROUP


METROLINK
SWORDS - CHARLEMONT
MetroLink Station
MetroLink Interchange
P&R
Park & Ride
End of Tunnel
Bridge
Embankment
Cutting
Surface Level
Tunnel
DART
Commuter Rail Services
LUAS - Red Line
LUAS - Green Line
Estuary
P&R
Seatown
Swords Central
Fosterstown
Dublin Airport
Dardistown
(Future Station)
Northwood
Ballymun
Collins Avenue
Griffith Park
Glasnevin
Mater
O'Connell Street
Tara
St Stephen's Green
Charlemont
Donabate
Malahide
Kinsealy
Portmarnock
Poppintree
Santry
Darndale
Donaghmede
Baldoyle
Ballymun
Finglas
Edenmore
Coolock
Kilbarrack
Artane
Raheny
Glasnevin
Whitehall
Donnycarney
Castleknock
Ashtown
Drumcondra
Marino
Killester
Cabra
Clontarf
Dollymount
Phoenix Park
Chapelizod
Islandbridge
Heuston Station
Ballyfermot
Kilmainham
Ringsend
Inchicore
Dolphins Barn
Sandymount
Drimnagh
Crumlin
Harolds Cross
Ranelagh
Rathmines
Rathgar
Beechwood
Donnybrook
Clonskeagh
Walkinstown
Greenhills
Kimmage
Terenure
Booterstown
Rathfarnham
Kilnamanagh
Templeogue
Willbrook
Churchtown
Mount Merrion
Blackrock
Monkstown
Goatstown
Tallaght
Deansgrange
Ballyboden
Firhouse
Knocklyon
Sallynoggin
Foxrock
Ballinteer
Cornelscourt
Sandyford
M50
Harcourt
Charlemont
Ranelagh
Beechwood
End of Tunnel
GRAND CANAL

20. O'Connell Street



21. Tara


TARA STATION
The Custom House
River Liffey
O'Connell Bridge
Trinity College
Pearse Street
EXISTING GROUND LEVEL
17.3 m
24 m
External Diameter
9.2 m
12.3 m
19 m
24.5 m
POOLBEG ST.
Station
LUAS STREET
Outline of Underground Station
COLLEGE GATE
TOWNSEND ST.
0
50
100m
LEGEND
Indicative Construction Zone
Cut and Cover
Underground Tunnel
Retained Cut / Open Cut Track
Elevated Track
At Ground Level or on Embankment
Open Air Station
Underground Station
LUAS Stop
LUAS Green Line
LUAS Red Line
Heavy Rail
Station Access
Refer to Sheet 22

Ringsend to City Centre

16

Core Bus Corridor Preferred Route

Third Round of Public Consultation
November 2020

Project Ireland 2040
Building Ireland's Future

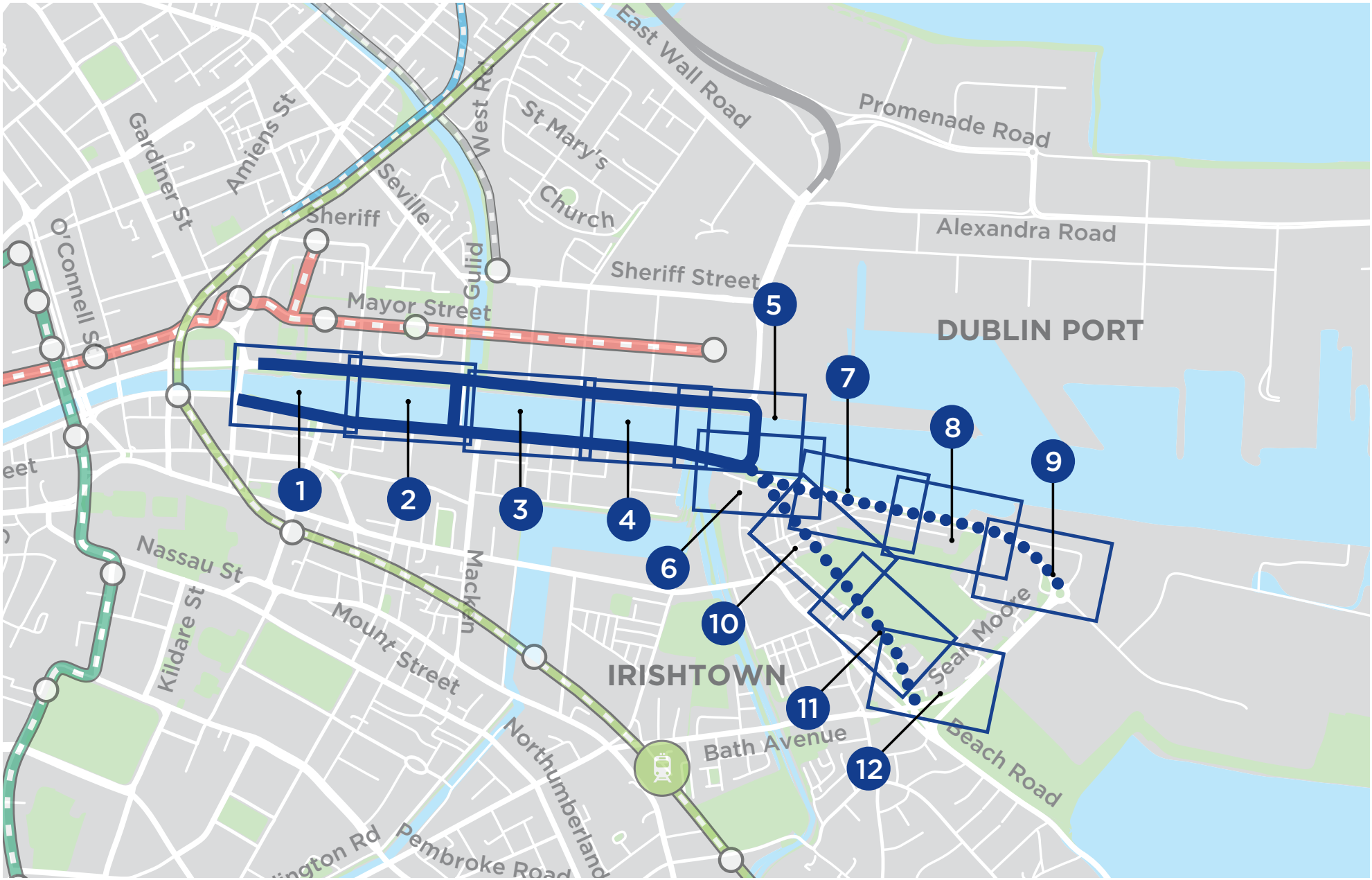
BUS CONNECTS
SUSTAINABLE TRANSPORT FOR A BETTER CITY.

1.5 A map of all 16 core bus corridors

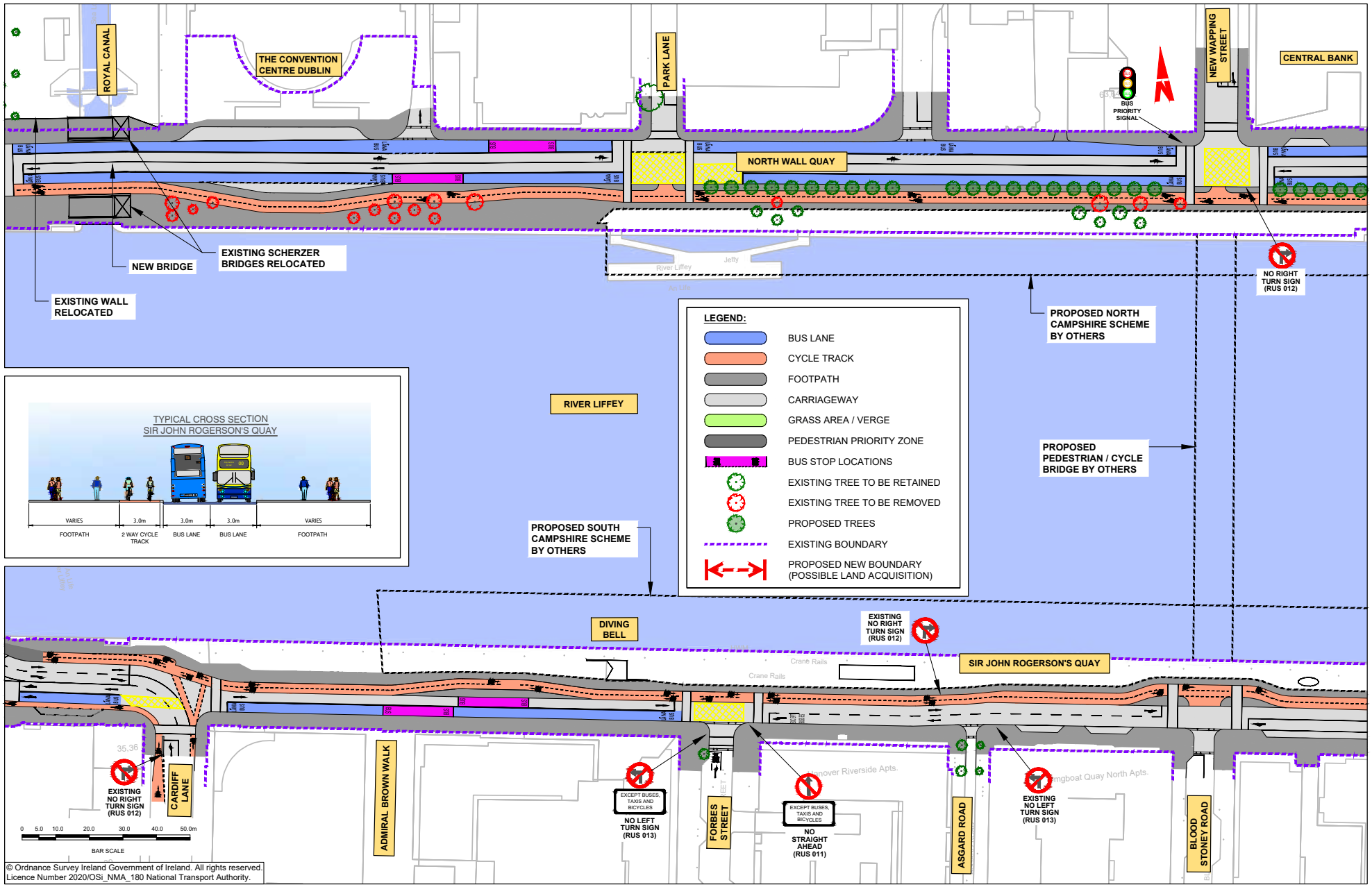
Preferred Routes

1. Clongriffin to City Centre
2. Swords to City Centre
3. Ballymun to City Centre
4. Finglas to Phibsborough
5. Blanchardstown to City Centre
6. Lucan to City Centre
7. Liffey Valley to City Centre
8. Clondalkin to Drimnagh
9. Greenhills to City Centre
10. Tallaght to Terenure
11. Kimmage to City Centre
12. Rathfarnham to City Centre
13. Bray to City Centre
14. UCD Ballsbridge to City Centre
15. Blackrock to Merrion
16. Ringsend to City Centre

Index Map



NOTE: The Preferred Route shown on the following drawings is indicative only and is subject to change following consultation and as part of the design development process.


ROYAL CANAL
THE CONVENTION CENTRE DUBLIN
PARK LANE
NEW WAPPING STREET
CENTRAL BANK
BUS PRIORITY SIGNAL
NORTH WALL QUAY
NEW BRIDGE
EXISTING SCHERZER BRIDGES RELOCATED
EXISTING WALL RELOCATED
NO RIGHT TURN SIGN (RUS 012)
PROPOSED NORTH CAMPSHIRE SCHEME BY OTHERS
RIVER LIFFEY
PROPOSED PEDESTRIAN / CYCLE BRIDGE BY OTHERS
PROPOSED SOUTH CAMPSHIRE SCHEME BY OTHERS
DIVING BELL
EXISTING NO RIGHT TURN SIGN (RUS 012)
SIR JOHN ROGERSON'S QUAY
EXISTING NO RIGHT TURN SIGN (RUS 012)
CARDIFF LANE
ADMIRAL BROWN WALK
EXCEPT BUSES, TAXIS AND BICYCLES
NO LEFT TURN SIGN (RUS 013)
FORBES STREET
EXCEPT BUSES, TAXIS AND BICYCLES
NO STRAIGHT AHEAD (RUS 011)
ASGARD ROAD
EXISTING NO LEFT TURN SIGN (RUS 013)
BLOOD STONEY ROAD
TYPICAL CROSS SECTION
SIR JOHN ROGERSON'S QUAY
VARIES
FOOTPATH
3.0m
2 WAY CYCLE TRACK
3.0m
BUS LANE
3.0m
BUS LANE
VARIES
FOOTPATH
LEGEND:
BUS LANE
CYCLE TRACK
FOOTPATH
CARRIAGEWAY
GRASS AREA / VERGE
PEDESTRIAN PRIORITY ZONE
BUS STOP LOCATIONS
EXISTING TREE TO BE RETAINED
EXISTING TREE TO BE REMOVED
PROPOSED TREES
EXISTING BOUNDARY
PROPOSED NEW BOUNDARY (POSSIBLE LAND ACQUISITION)
BAR SCALE
0 5.0 10.0 20.0 30.0 40.0 50.0m
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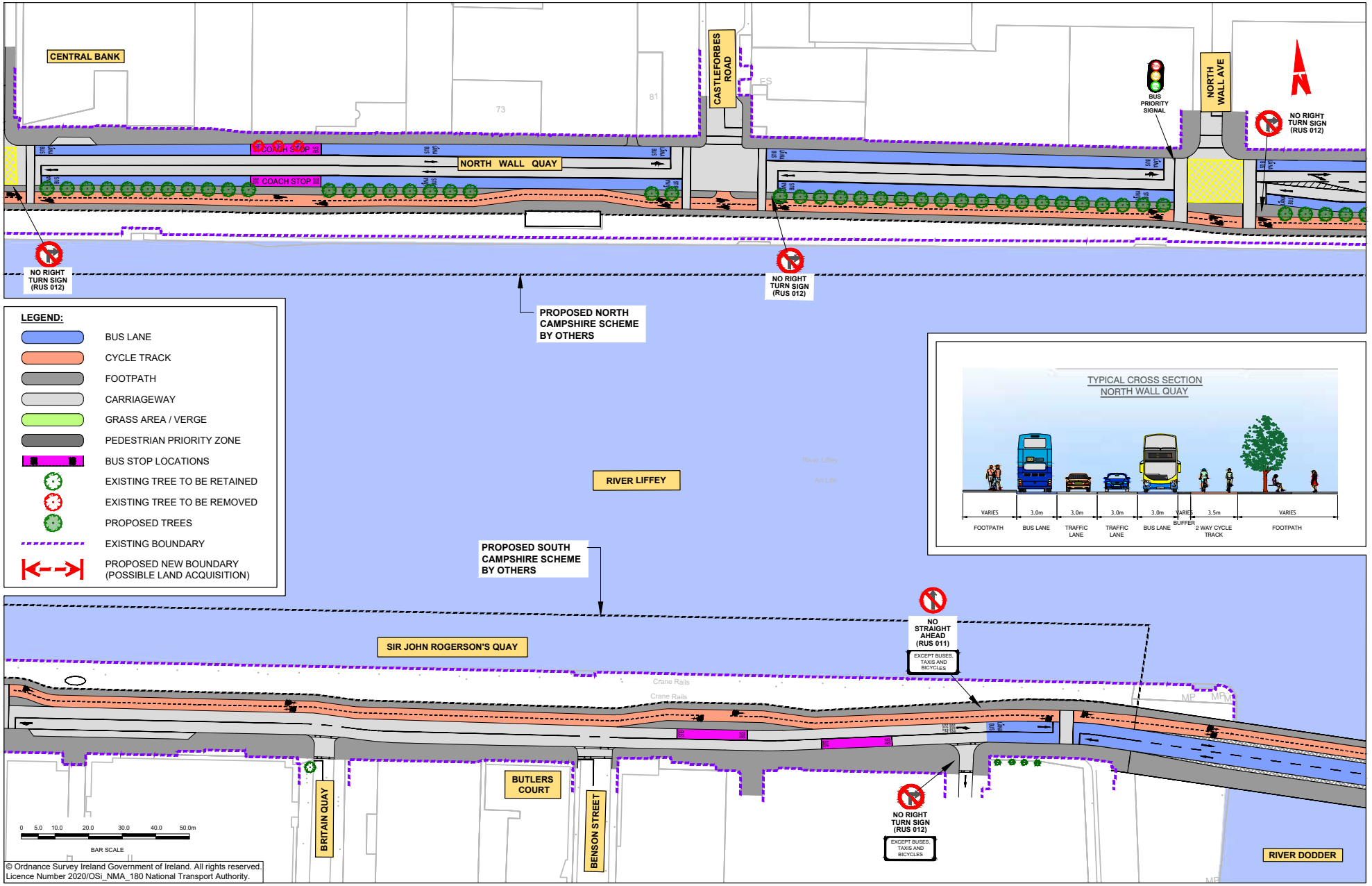
Licence Number 2020/OSi_NMA_180 National Transport Authority.


CENTRAL BANK
CASTLEFORBES ROAD
NORTH WALL AVE
BUS PRIORITY SIGNAL
NO RIGHT TURN SIGN (RUS 012)
COACH STOP
NORTH WALL QUAY
NO RIGHT TURN SIGN (RUS 012)
NO RIGHT TURN SIGN (RUS 012)
PROPOSED NORTH CAMPSHIRE SCHEME BY OTHERS
LEGEND:
BUS LANE
CYCLE TRACK
FOOTPATH
CARRIAGEWAY
GRASS AREA / VERGE
PEDESTRIAN PRIORITY ZONE
BUS STOP LOCATIONS
EXISTING TREE TO BE RETAINED
EXISTING TREE TO BE REMOVED
PROPOSED TREES
EXISTING BOUNDARY
PROPOSED NEW BOUNDARY (POSSIBLE LAND ACQUISITION)
TYPICAL CROSS SECTION
NORTH WALL QUAY
VARIES FOOTPATH
3.0m BUS LANE
3.0m TRAFFIC LANE
3.0m TRAFFIC LANE
3.0m BUS LANE
VARIES BUFFER
3.5m 2 WAY CYCLE TRACK
VARIES FOOTPATH
RIVER LIFFEY
PROPOSED SOUTH CAMPSHIRE SCHEME BY OTHERS
SIR JOHN ROGERSON'S QUAY
NO STRAIGHT AHEAD (RUS 011)
EXCEPT BUSES, TAXIS AND BICYCLES
BRITAIN QUAY
BUTLERS COURT
BENSON STREET
NO RIGHT TURN SIGN (RUS 012)
EXCEPT BUSES, TAXIS AND BICYCLES
RIVER DODDER
0 5.0 10.0 20.0 30.0 40.0 50.0m
BAR SCALE
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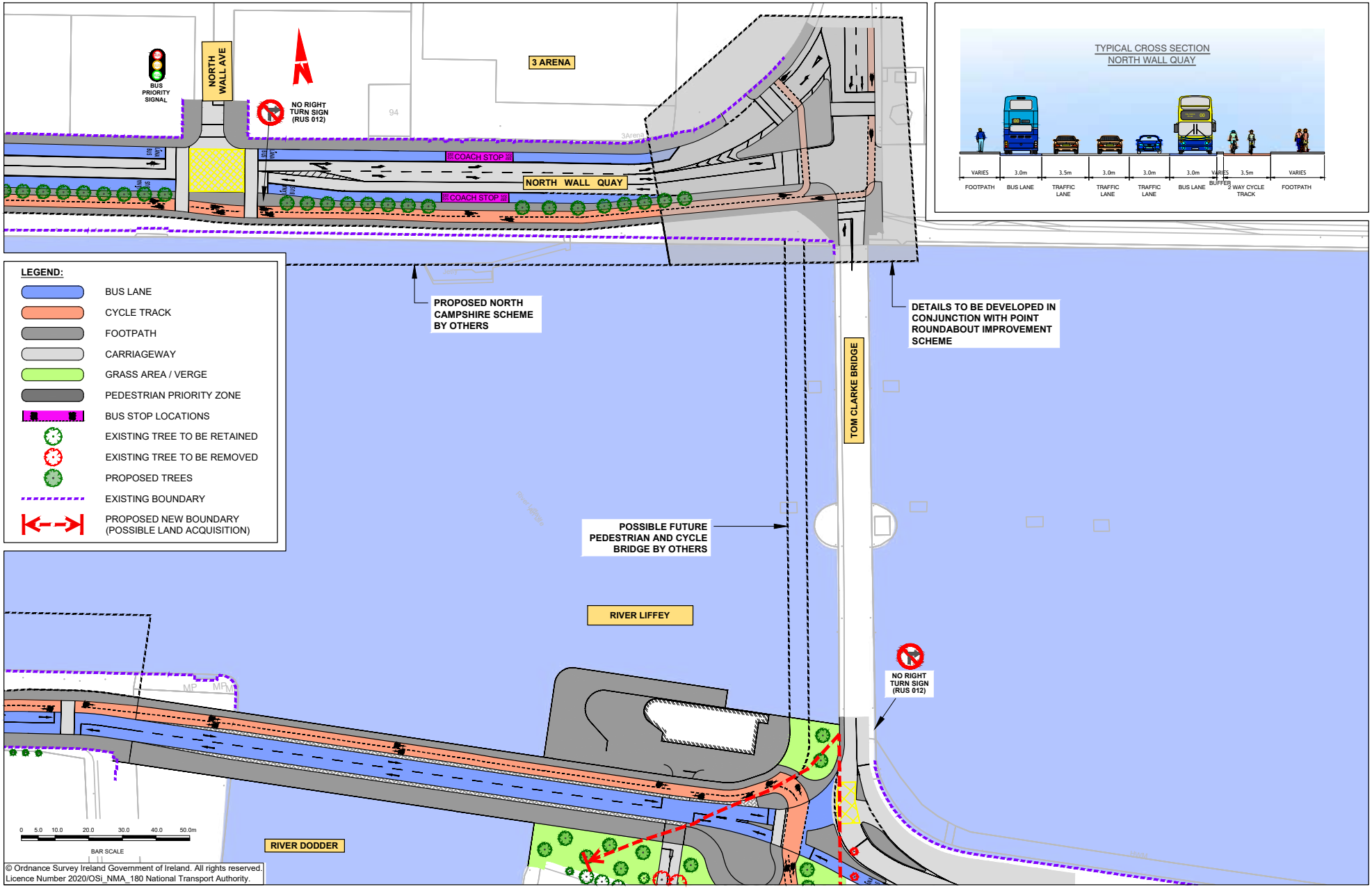
BUS PRIORITY SIGNAL
NORTH WALL AVE
NO RIGHT TURN SIGN (RUS 012)
3 ARENA
COACH STOP
NORTH WALL QUAY
COACH STOP
TYPICAL CROSS SECTION
NORTH WALL QUAY
VARIES
FOOTPATH
3.0m
BUS LANE
3.5m
TRAFFIC LANE
3.0m
TRAFFIC LANE
3.0m
TRAFFIC LANE
3.0m
BUS LANE
VARIES
BUFFER
3.5m
2 WAY CYCLE TRACK
VARIES
FOOTPATH
LEGEND:
BUS LANE
CYCLE TRACK
FOOTPATH
CARRIAGEWAY
GRASS AREA / VERGE
PEDESTRIAN PRIORITY ZONE
BUS STOP LOCATIONS
EXISTING TREE TO BE RETAINED
EXISTING TREE TO BE REMOVED
PROPOSED TREES
EXISTING BOUNDARY
PROPOSED NEW BOUNDARY (POSSIBLE LAND ACQUISITION)
PROPOSED NORTH CAMPSHIRE SCHEME BY OTHERS
DETAILS TO BE DEVELOPED IN CONJUNCTION WITH POINT ROUNDABOUT IMPROVEMENT SCHEME
TOM CLARKE BRIDGE
POSSIBLE FUTURE PEDESTRIAN AND CYCLE BRIDGE BY OTHERS
RIVER LIFFEY
NO RIGHT TURN SIGN (RUS 012)
RIVER DODDER
0 5.0 10.0 20.0 30.0 40.0 50.0m
BAR SCALE
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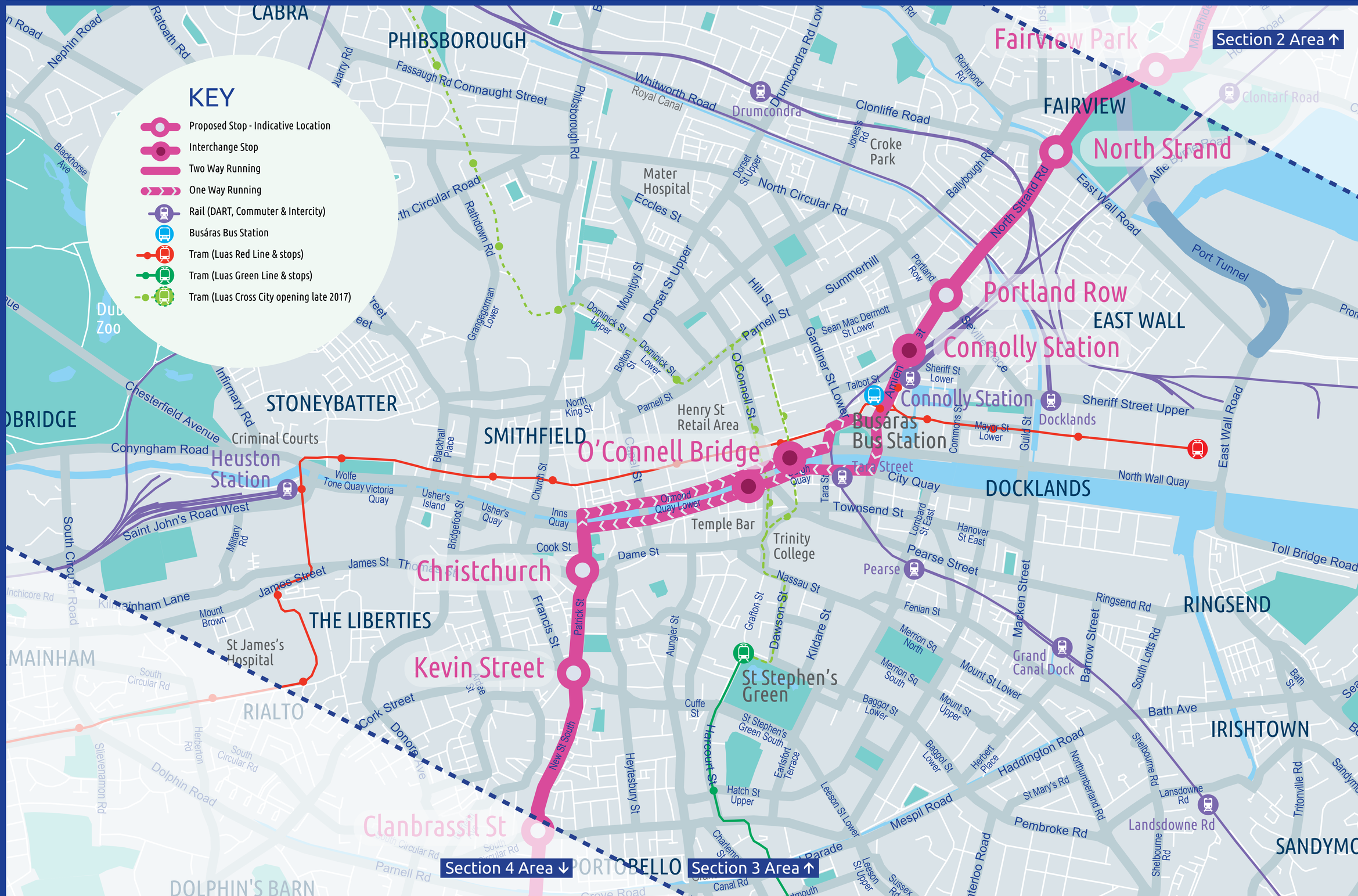
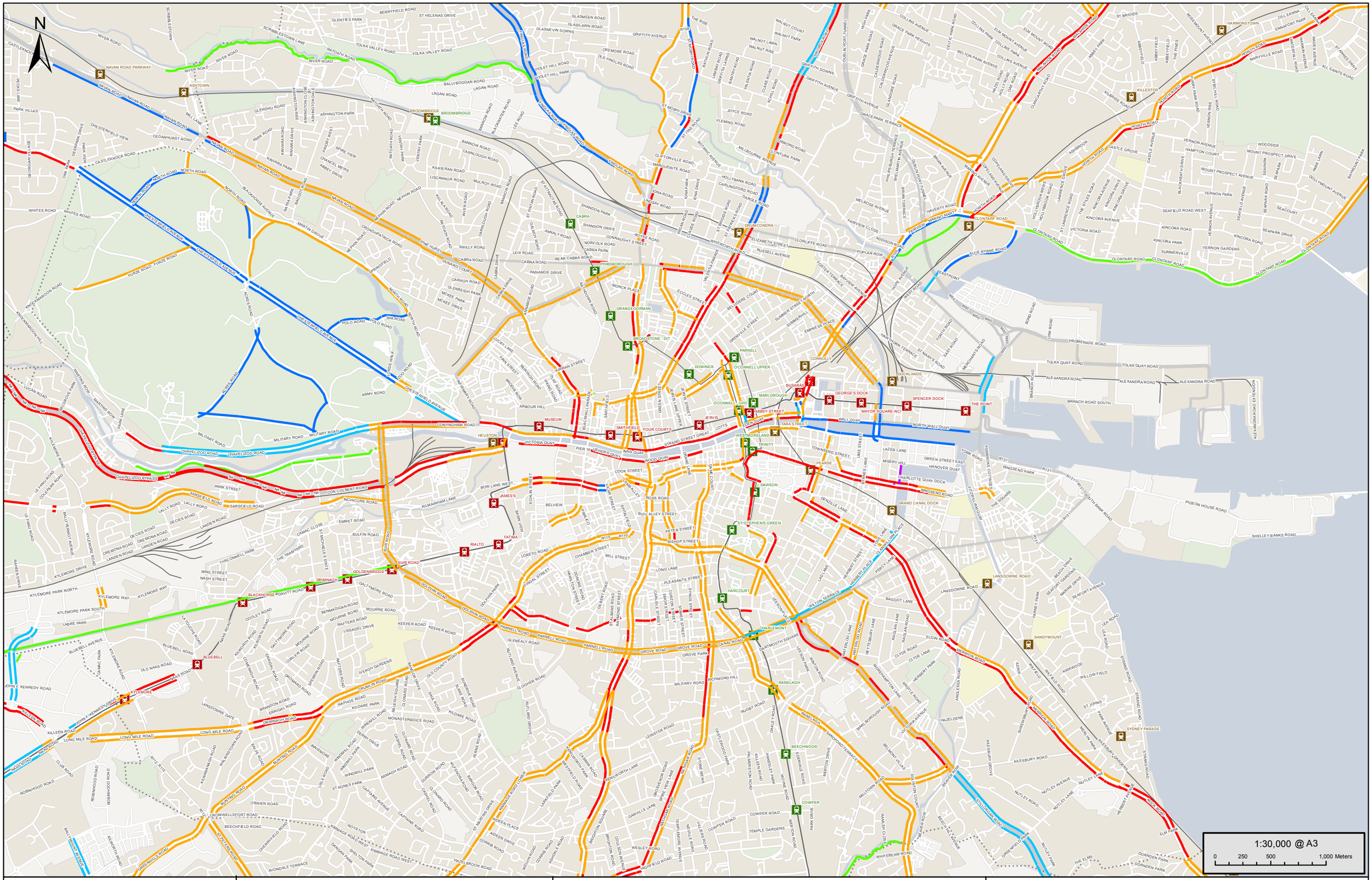
Swiftway
Bus Rapid Transit

Clongriffin → Tallaght
Emerging Preferred Route

Swiftway
Bus Rapid Transit

Clongriffin → Tallaght
Emerging Preferred Route
Section 3: City Centre





Project:

CYCLE NETWORK PLAN FOR THE GREATER DUBLIN AREA

Title:

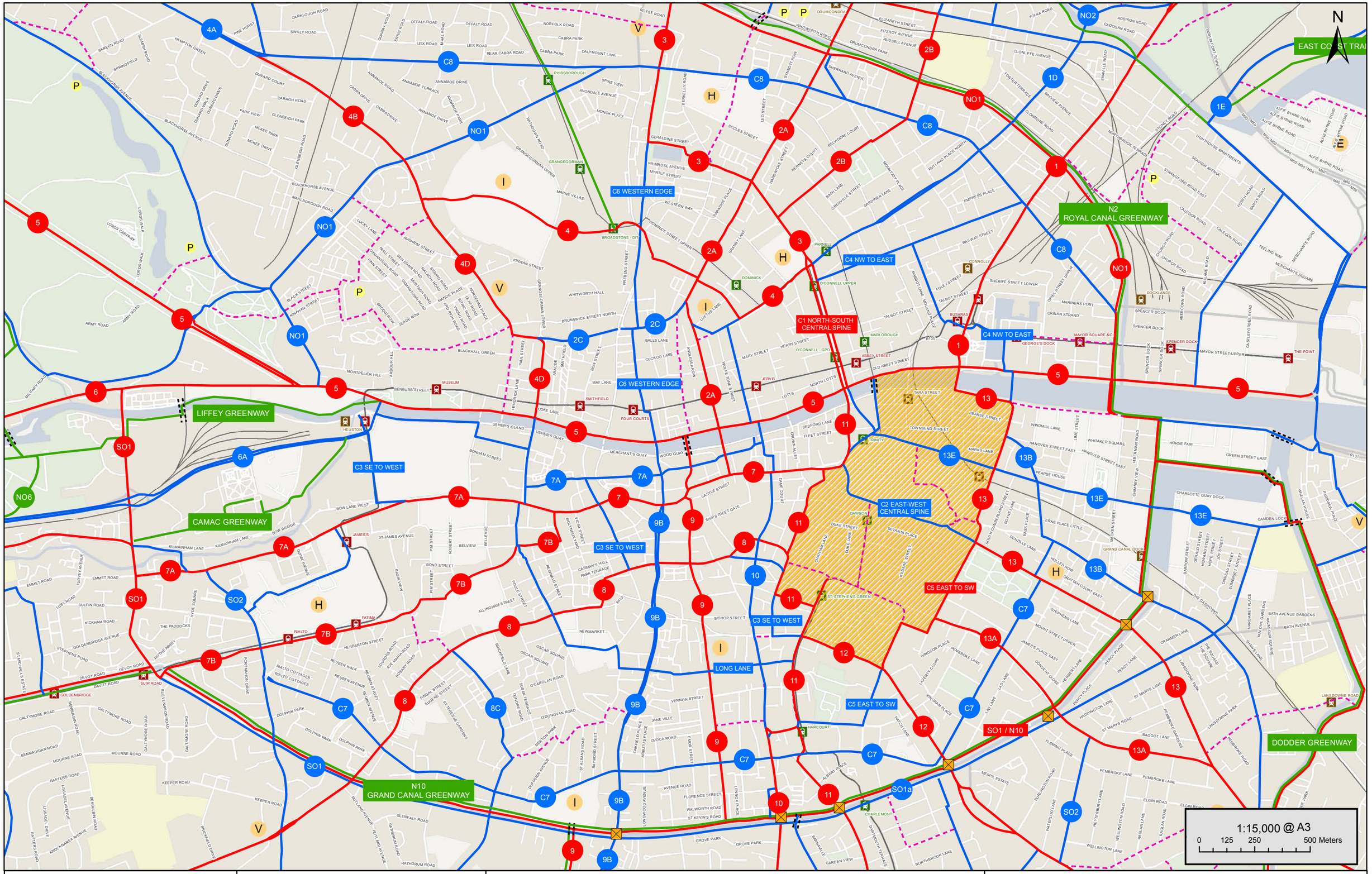
EXISTING CYCLE FACILITY TYPE
DUBLIN CITY CENTRE
SHEET E1

Legend:

- B1 - Bus Lane (no cycle lane)
- C1 - Cycle Track - separated from road
- C2 - Cycle Track - immediately adjacent
- C3 - Cycle Lane (even within Bus Lane)
- G1 - Cycle Trail or Greenway
- S2 - Shared Walking & Cycling
- Study Area
- County Council Boundaries
- Greenline Tram Stops
- Redline Tram Stops
- Stations

Údarás Náisiúnta Iompair
National Transport Authority

AECOM
Roughan & O'Donovan
Grand Canal House,
Upper Grand Canal Street,
Dublin 4
Tel: +353 (0)1 238 3100
Fax: +353 (0)1 238 3199
www.aecom.com



Project:

CYCLE NETWORK PLAN FOR THE GREATER DUBLIN AREA

Title:

PROPOSED CYCLE NETWORK DUBLIN CITY CENTRE SHEET N1a

Legend:

- Primary
- Secondary
- Greenway
- Primary/Secondary
- Inter-Urban
- Feeder
- Minor Greenway
- New Cycle Bridge
- P Permeability Link
- Gateway
- South Core City Centre (Trinity / Graffton)
- E Employment Zones
- H Hospitals
- I Institute of Technology
- Sc Shopping Centre
- Tc Town Centre
- U University
- V Village Centre
- Greenline Tram Stops
- Redline Tram Stops
- Stations

Údarás Náisiúnta Iompair
National Transport Authority

AECOM
Roughan & O'Donovan

Grand Canal House,
Upper Grand Canal Street,
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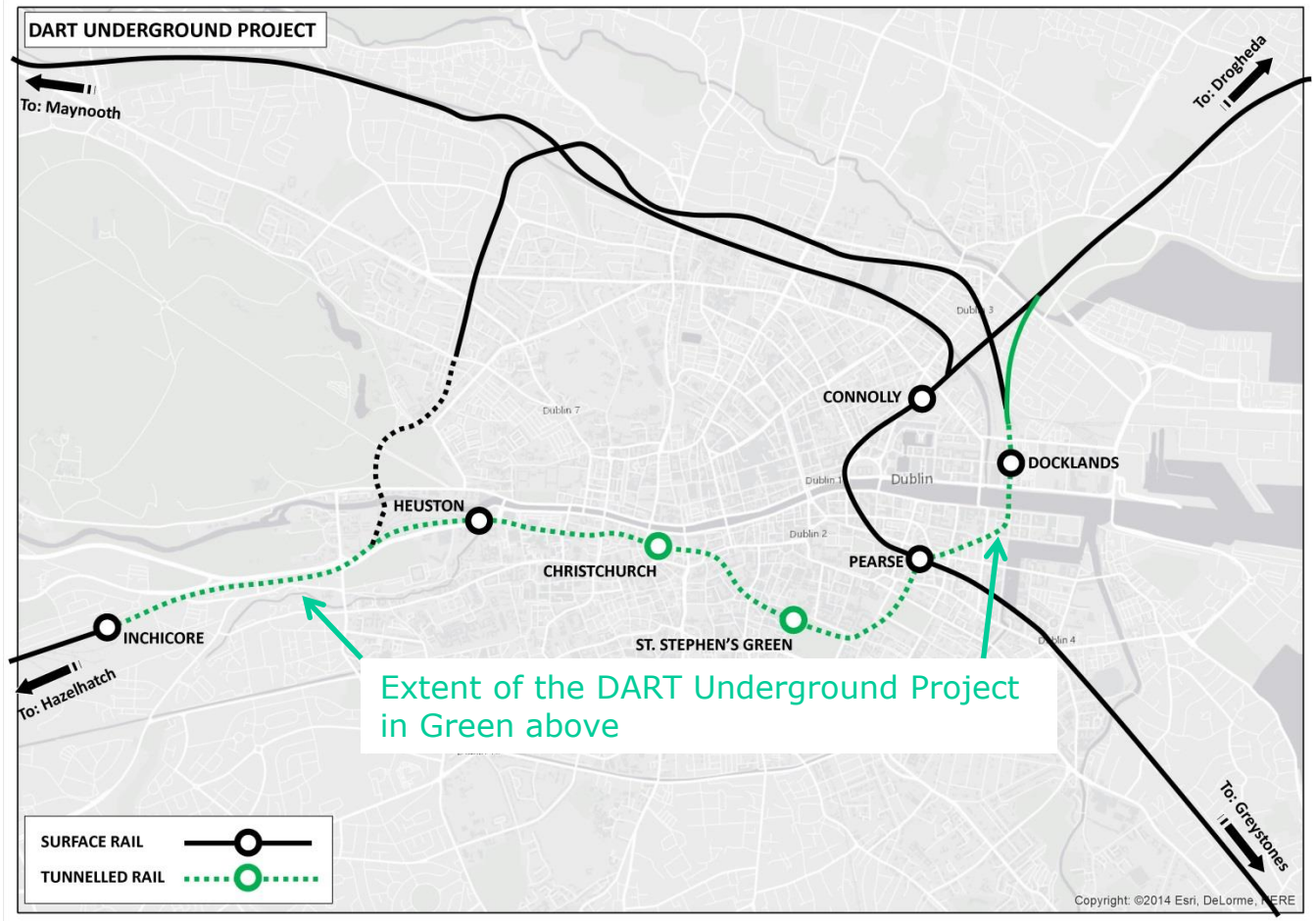
Fax: +353 (0)1 238 3199
www.aecom.com

DART Underground Project



Appendix B

Links to relevant guidance documents concerning Mobility Management

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GROUP

Appendix 15 – Useful Links and Resources

Please note that the National Transport is not making recommendations for any of the suppliers listed below, and your organisation will find other suppliers beyond the list given below. The links listed are just to give a flavour of the type of products/ services that are available.

Workplace Travel Plans
- www.smartertravelworkplaces.ie
- www.ways2work.bitc.org.uk

Sustainable Travel
- www.smartertravel.ie
- www.sustrans.org.uk
- www.nationaltransport.ie
- www.dttas.ie
- www.eltis.org
- www.mobilityweek.eu

Getting Active
- www.getirelandactive.ie

Public Transport Information
- www.transportforireland.ie
- www.taxsaver.ie

Cycle to Work Scheme
- www.revenue.ie

Walking challenges
- www.pedometerchallenge.ie
- www.irishheart.ie

Cycling
- www.cyclechallenge.ie
- www.dublinbikes.ie
- www.irishcycling.com

Cycle to Work scheme
- www.revenue.ie
- www.bikescheme.ie

Designing and Planning for Cycling
- www.cyclemanual.ie
- Transport for London Workplace Cycle Parking Guide
- See p16 for technical guidance on space allocations for cycle parking
- http://www.tfl.gov.uk/assets/downloads/businessandpartners/Workplace-Cycle-Parking-Guide.pdf

Walking/ Cycling Routes
- www.mapmyride.com
- www.mapmyrun.com

Car Sharing
- www.carsharing.ie

Misc.
- Copenhagen Cycle Chic - Bikes, style and Copenhagen