Mobility Management Plan

Hartfield Place, Swords Road, Whitehall, Dublin 9
SHD Stage 3 Application

Eastwise Construction Swords Limited.

Project number: 60601744

March 2022

Delivering a better world

Quality information

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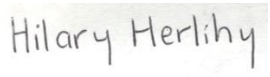		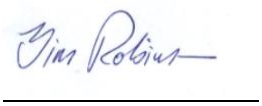	
Hilary Herlihy Graduate Consultant	Patrick McGough Consultant	Tim Robinson Regional Director	Tim Robinson Regional Director

Revision History

Revision	Revision date	Details	Authorized	Name	Position
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Prepared for:

Eastwise Construction Swords Limited.

Prepared by:

Hilary Herlihy
Graduate Consultant
E: hilary.herlihy@aecom.com

AECOM Ireland Limited
4th Floor
Adelphi Plaza
Georges Street Upper
Dun Laoghaire
Co. Dublin A96 T927
Ireland

T: +353 1 238 3100
aecom.com

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1. Introduction

1.1 Background

This Mobility Management Plan (MMP) has been prepared by AECOM in support of a Strategic Housing Development (SHD) planning application to An Bord Pleanála (ABP) for 472 no. residential apartments with a café, creche and residential amenity facilities on a site located off Swords Road, Whitehall, Dublin 9.

The proposed development entails 472 no. residential apartments, comprising of the following breakdown:

- 32 no. studio apartments;
- 198 no. 1-bedroom apartments;
- 233 no. 2-bedroom apartments; and
- 9 no. 3-bedroom apartments.

In addition, the scheme includes for a crèche and café . As part of the scheme, it is proposed to provide 334 no. car parking spaces (274 no. at basement level and 60 no. at grade) a total of 315 no residents parking spaces and 982 no. cycle parking spaces (732 no. long stay, 236 no. short stay spaces and 14 no. cargo bike spaces). In respect of the proposed site access arrangements, AECOM have engaged with Dublin City Council (DCC) and the National Transport Authority (NTA) to agree a junction layout arrangement which would not impede the delivery of the future BusConnects scheme along the Swords Road, Core Bus Corridor 2. Swords to City Centre. The proposed SHD is located approximately 3.9km from Dublin City Centre and approximately 3.4km from the M50 Junction 3. A site location map is presented in Figure 1.1 and Figure 1.2.

To accompany this MMP, a Traffic and Transport Assessment (TTA) has also been prepared by AECOM, which outlines the traffic and transportation impacts associated with the development proposals. The TTA should be read in conjunction with this MMP.

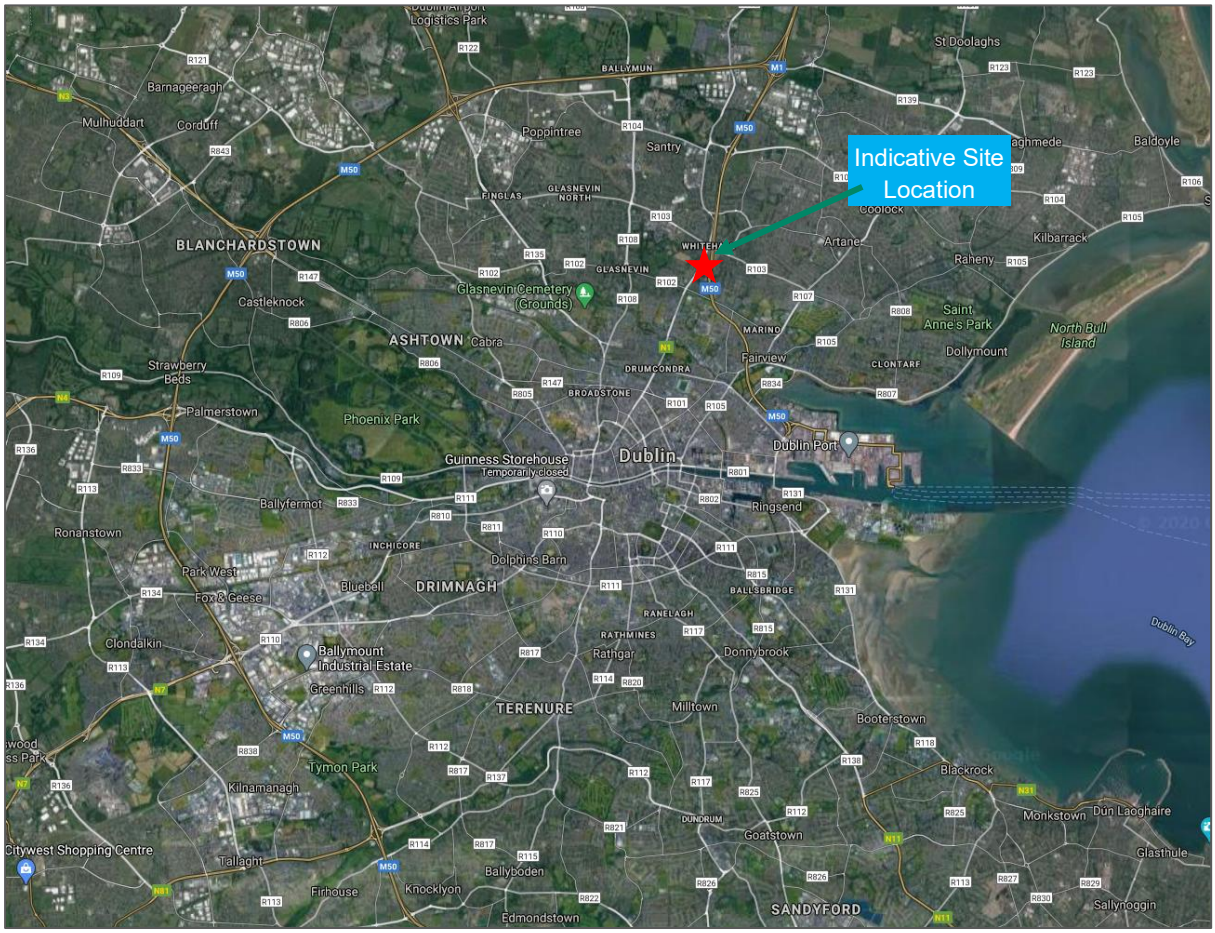

Figure 1.1 – Site location in Relation to the Greater Dublin Area (Source: Google Maps)

Figure 1.2 – Site Location (Source: Google Maps)

1.2 Proposed Development

Eastwise Construction Swords Limited intend to apply to An Bord Pleanála for permission for a Strategic Housing Development on a site at Swords Road, Whitehall, Dublin 9 (to be known as Hartfield Place). The site is bounded to the west by Swords Road, to the south by Highfield Hospital, to the north by vacant lands and GAA pitches and to the east by Beechlawn Nursing Home with residential development beyond.

To facilitate the proposed development infrastructure works are proposed to the adjacent road network including the introduction of a signalised fourth arm to the existing Swords Road / Iveragh Road junction with pedestrian crossings provided to all arms of the junction, to facilitate this one car parking space will be required to be removed along the western side of Swords Road and a new pedestrian refuge island will be provided on the southern arm of the junction. A right turn pocket is to be provided into the subject site on the northbound approach of Swords Road with a left turn filter lane provided on the southbound approach, shared with the bus lane. The proposed development also includes the relocation of the existing footpath (along Swords Road) eastwards and the provision of a grass verge at the location of the existing path and a cycle path along the western boundary of the subject site.

The proposed development will consist of the construction of 7 no. blocks in heights up to 8 storeys (over single level basement) comprising 472 no. apartment units, a creche, café unit, and internal residential amenity space. The proposal also includes car, cycle, and motorcycle parking, public and communal open spaces, landscaping, bin stores, plant areas, substations, switch rooms, and all associated site development works and services provision. Access is provided from the development from Swords Road with associated upgrades to the existing public road and footpaths. A full description of the development is provided in the statutory notices and in Chapter 3 of the EIAR submitted with the application.

The proposed development principally replicates the layout and footprint of the scheme permitted under DCC Reg. Ref. 3269/10 / ABP Ref. PL29N.238685 (as extended under DCC Reg. Ref. 3269/10/X1 and DCC Reg. Ref. 3405/19) but proposes the slight relocation of the creche building to the west and additional height of up to one storey on some of the blocks and the rationalisation of the permitted floorplans, resulting in an increase in the overall quantum of residential units from 374 No. apartments to 472 No. apartments.

1.3 Objective

The focus for a MMP depends on the particular nature of the site it covers. More generally, the aim is to promote more sustainable modes of transport. This MMP has been prepared in accordance with Section 8.5.5 of the Dublin City Council Development Plan 2016 – 2022, which states the following:

"*Mobility Management seeks to encourage as much travel as possible by sustainable means such as public transport, walking and cycling. At a strategic level, this involves locating development in the most accessible locations while at a more detailed level, it means designing new areas and developments in a way that minimises the need to travel from the outset and reduces the demand for car use. Engagement and collaboration with communities, schools and workplaces can greatly help achieve modal shift. A good example of this has been the 'Hike it, Bike it, Like it, Drimnagh!' project which helped bring about favourable changes in travel behaviour*."

This MMP outlines the transport measures, initiatives and incentives which will be available to the prospective residents and visitors of the development as a means of reducing car dependency, in the interest of compliance with the following transport initiatives:

- **DCC Development Plan (2016 – 2022);** which stipulates a number of aims and policies to promote the use of sustainable modes of transport such as walking, cycling and public transport.
- **Design Manual for Urban Roads and Streets,** DMURS, May 2019 (Dept of Transport, Tourism and Sport/ Dept of Environment, Community & Local Govt); which aims to put well-designed streets at the heart of sustainable communities.
- **Geometric Design of Junctions** (priority junctions, direct accesses, roundabouts, grade separated and compact grade separated junctions), DN-GEO-03060, (TII, June 2017). This Standard sets out the standards and advice for the geometric design of junctions. The design principles and geometric parameters which shall be considered by Designers when developing safe, traffic efficient junction layouts and vehicular accesses onto new and improved National roads are outlined.
- **PE-PDV-02045 Traffic and Transport Assessment Guidelines** (May 2014), Transport Infrastructure Ireland aims to provide a framework to promote an integrated approach to development, which ensures that proposals promote more efficient use of investment in transportation infrastructure, reduce travel demand and promote road safety.
- **Greater Dublin Area Cycle Network Plan** (National Transport Authority).
- **National Cycle Manual** (National Transport Authority, 2011); this Manual embraces the Principles of Sustainable Safety as this will offer a safe traffic environment for all road users including cyclists. It offers guidance on integrating the bike in the design of urban areas.
- **Transport for Ireland Dublin Area Train and Tram Services** (Transport for Ireland).

As such, the key aims of this MMP are as follows:

1. To encourage behavioural and attitude changes toward healthy and sustainable travel;
2. Improve facilities for walkers and cyclists;
3. To support wider transport benefits to the local area; and
4. To minimise the number of individual vehicle journeys made to / from the development site.

The key objective of this MMP is to set out the infrastructural proposals and modal split targets for the development in general terms. The Plan will then be further developed and informed by travel surveys undertaken by prospective residents of the subject site once the proposed development, subject to consent, has been occupied.

1.4 Structure of this Mobility Management Plan

The remainder of this report is divided into the following sections:

- Section 2 provides a review of the relevant guidance and policy documents that have helped establish the principles of this report;

- Section 3 summaries the results of a detailed site audit to understand the transportation context in which the proposed development is located;
- Section 4 provides a summary of the proposed development itself with regard to the key MMP objectives.
- Section 5 outlines the estimated travel behaviours of the subject site;
- Section 6 proposes a series of targets for the proposed development;
- Section 7 outlines the measures to be implemented and considered as part of the MMP;
- Section 8 details the monitoring and review process for the MMP; and
- Section 9 presents a summary of the MMP.

2. Policy Context

2.1 Overview

In order to complete this MMP, AECOM has made reference to the following documents and websites:

- DCC Development Plan (2016 – 2022);
- Transport Strategy for the Greater Dublin Area 2016 – 2035 (National Transport Authority (NTA));
- Project Ireland 2040;
- Smarter Travel: A Sustainable Transport Future: A new Transport Policy for Ireland, 2009 – 2020, (Department of Transport Tourism and Sport (DTTAS), 2008);
- Greater Dublin Area Cycle Network Plan (National Transport Authority);
- The National Cycling Policy Framework 2010; and
- Transport for Ireland Dublin Area Train and Tram Services (Transport for Ireland).

The planning policies will aid in preparing a MMP that, upon implementation, will reduce overall single occupancy vehicle dependence and increase more sustainable forms of transport and create a positive sustainable transport environment for residents while adhering to the local and national policies.

2.2 Dublin City Council Development Plan

The Development Plan 2016 - 2022 sets out the vision, policies, strategies and objectives for planning and sustainable development within the administrative area of DCC. In the context of the subject site a number of the most relevant polices include:

2.2.1 Movement and Transport (MT) Policy 2 – Overarching

Whilst having regard to the necessity for private car usage and the economic benefit to the city centre retail core as well as the city and national economy, to continue to promote modal shift from private car use towards increased use of more sustainable forms of transport such as cycling, walking and public transport, and to co-operate with the NTA, Transport Infrastructure Ireland (TII) and other transport agencies in progressing an integrated set of transport objectives. Initiatives contained in the government's 'Smarter Travel' document and in the NTA's draft transport strategy are key elements of this approach.

2.2.2 Movement and Transport (MT) Policy 3 – Public Transport

To support and facilitate the development of an integrated public transport network with efficient interchange between transport modes, serving the existing and future needs of the city in association with relevant transport providers, agencies and stakeholders.

2.2.3 Movement and Transport (MT) Policy 8 – Active Travel (Walking and Cycling)

To improve the city's environment for walking and cycling through the implementation of improvements to thoroughfares and junctions and also through the development of new and safe routes, including the provision of foot and cycle bridges. Routes within the network will be planned in conjunction with green infrastructure objectives and on foot of (inter alia) the NTA's Cycle Network Plan for the Greater Dublin Area, and the National Cycle Manual, having regard to policy GI5 and objective GIO18.

2.2.4 Movement and Transport (MT) Policy 13 – Mobility Management and Travel Planning

To promote best practice mobility management and travel planning to balance car use to capacity and provide for necessary mobility via sustainable transport modes.

2.2.5 Movement and Transport (MT) Policy 18 – Car Club

To encourage new ways of addressing the parking needs of residents (such as car clubs) to reduce the requirement for car parking.

2.3 Transport Strategy for the Greater Dublin Area, 2016 – 2035

The Transport Strategy for the Greater Dublin Area (2016 – 2035), which has been prepared by the NTA, with the purpose of the strategy being:

To contribute to the economic, social and cultural progress of the Greater Dublin Area by providing for the efficient, effective and sustainable movement of people and goods.

Chapter 5 of the Transport Strategy for the Greater Dublin Area, sets out the "*strategic infrastructure that is proposed to be delivered within the lifetime of the strategy*". The strategy proposals are presented by the various modes of transport as follows:

- *Heavy Rail Infrastructure;*
- *Light Rail Infrastructure;*
- *Bus Infrastructure;*
- *Cycling Infrastructure;*
- *Walking; and*
- *Road network.*

Within each section of the modes of transport the NTA outline the proposed measures to be adopted when providing a development and the considerations that have to be given.

2.4 Project Ireland 2040

The National Planning Framework (NPF), published in February 2018, is a national document intended to guide at a high-level strategic planning and development for Ireland over the next 20+ years, so that as the population grows, that growth is sustainable (in economic, social and environmental terms). The NPF details ten National Strategic Outcomes' and the National Development Plan 2018 – 2027 outlines how public capital investment over the next ten years aims to secure the realisation of each of these under corresponding 'Strategic Investment Priorities'.

National Strategic Outcome No. 4 (p.53) states that:

An environmentally sustainable public transport system will enable growth and change; meet the significant increase in travel demand and urban congestion while also contributing to our national policy vision of a low-carbon economy. A step change is required under the NPF in putting in place environmentally sustainable public transport systems in order to secure Ireland's climate action goals. These must represent a decisive shift away from polluting and carbon-intensive propulsion systems to new technologies such as electric vehicles and introduction of electric and other alternatively fuelled systems for public transport fleets. The expansion of attractive and sustainable public transport alternatives to private based car transport will reduce congestion and emissions and enable the transport sector to cater in an environmentally sustainable way for the demands associated with longer term population and employment growth envisaged under the NPF. Furthermore, the provision of safe alternative active travel options such as segregated cycling and walking facilities can also help alleviate congestion and meet climate action objectives by providing viable alternatives and connectivity.

2.5 Smarter Travel – A Sustainable Transport Future

The Smarter Travel policy published in 2009 sets a goal to reduce work-related commuting by car nationally in Ireland from 65 percent to 45 percent by 2020. The policy sets out forty-nine different actions to achieve a more sustainable transport system grouped into four overarching actions outlined on page 29 of the policy as follows:

- Actions to reduce distance travelled by private car and encourage smarter travel, including focusing population and employment growth predominantly in larger urban areas and the use of pricing mechanisms or fiscal measures to encourage behavioural change;
- Actions aimed at ensuring that alternatives to the car are more widely available, mainly through a radically improved public transport service and through investment in cycling and walking;
- Actions aimed at improving the fuel efficiency of motorised transport through improved fleet structure, energy efficient driving, and alternative technologies; and

- Actions aimed at strengthening institutional arrangements to deliver the targets.

The Smarter Travel policy emphasises the potential of mobility management to encourage people to change their travel behaviour and commitment to ensuring better integration of land use planning (Action 2) as well as to requiring and encouraging large workplaces to develop and implement workplace travel plans (Action 8) and that personalised travel plans should be prepared to encourage citizens to use public forms of transport (Action 9).

ACTION 2

We will ensure better integration of land use planning and transport policies in the relevant planning guidelines as part of their ongoing review and we will avail of policy directives to give effect to specific measures needed to meet the vision for sustainable travel.

The following will also be included in future planning guidelines:

- *A general requirement that significant housing development in all cities and towns must have good public transport connections and safe routes for walking and cycling to access such connections and local amenities*
- *Integration of cycling and public transport*
- *Promotion of targets requiring a minimum percentage of new residential and mixed-use development to take place on brownfield/existing sites to consolidate urban growth and enable organic development of urban areas from the centre out*
- *Ensuring a general minimum housing density of between 35 and 50 dwellings per hectare in urban areas of suitable size and population and requiring substantially higher densities where local circumstances warrant, particularly in high capacity public transport corridors*
- *Specification of a maximum permitted level of car parking for commercial sites, which have suitable public transport facilities and are within walking/ cycling distance to amenities requirement that developments above a certain scale have viable travel plans in place*
- *A requirement that development in urban rail corridors be high density and appropriate for public transport use (e.g. not warehousing or other activities with low employment intensity)*
- *Guidance on the incorporation of cycling and walking policies in development plans*
- *A general restriction of the future development of out-of-town retail centres except in exceptional circumstances and consideration of a similar requirement that parking charges be introduced for most existing centres*
- *Encouragement of the use of local area plans and strategic development zones (SDZs) within major urban areas as a way of improving the land use-transport interface, particularly to ensure that employment and residential centres are co-located.*

ACTION 8

Workplace Travel Plans encourage employers and employees to take steps to reduce dependency on the car and to take alternative transport options. The Minister for Transport has already provided initial funding for a pilot scheme managed by the Dublin Transportation Office (DTO) and the Department of Transport was the first Department to introduce such a Plan. The Government has also introduced a parking levy on employee car parking in key urban areas in the region of e200 per annum to dissuade use of the private car for commuting purposes. We will now focus on encouraging alternative ways of travelling to work. We will, therefore:

- *Work towards a requirement on organisations with over 100 staff to develop and implement workplace travel plans;*
- *Provide support and guidelines for the development and implementation of workplace travel plans; and*
- *Seek a plan from the Office of Public Works to reduce car-parking spaces at Government offices where alternative travel options are possible and require other public sector organisations to do likewise as part of their workplace travel plans.*

ACTION 9

Personalised travel plans aim to encourage individuals to take alternatives to car travel where these are available. International experience shows that such plans must be accompanied by good targeted marketing and involve incentives to encourage people to use alternatives to the private car. We will implement a programme to promote Personalised Travel Plans aimed at citizens in areas served by Public Transport.

This MMP has been developed in consideration of national and local policy / strategy.

3. Existing Infrastructure

3.1 Overview

This section of the report outlines the available transport facilities within the receiving environment of the subject site which can be utilised to reduce the number of single vehicle trips and promote the use of sustainable forms of transport. A review of the existing baseline conditions has been undertaken including the existing site layout, the local road network, pedestrian / cycling facilities, public transport and committed development.

3.2 Existing Site Access

There is an existing vehicular access at the north-western and south-western corners of the site. The northern access is located at the existing 3-arm junction with Iveragh Road. The junction currently operates as a priority controlled minor arm with signal heads controlling the major arm.

The permitted scheme comprised of a single vehicular access to the site off Swords Road. The permitted access (ABP Reg Ref: PL 29N.238685, DCC Reg Ref: 3269/10) comprised of a new 4th arm connecting onto the existing Swords Road / Iveragh Road signalised junction.

3.3 Local Road Network

The subject site is located approximately 3.9km north of Dublin City Centre, situated along the Swords Road which is to from part of the BusConnects Corridor Project, Route No. 2 – Swords to City Centre. Travelling north from the site will bring motorists to the M50 Junction 3 which allows motorists to access the wider road network.

The general location of the subject site in relation to the surrounding road network is illustrated in Figure 3.1 whilst Table 3.1 indicates a number of key destinations that the residents of the proposed development may travel to and their distance from the site.

Table 3.1 – Distances to Points of Interest

Ref	Key Destinations	Distance from site
1	Dublin City University (DCU)	1.0 km
2	Dublin Airport	6.9 km
3	Jamestown Business Park	4.3 km
4	Rosemount Business Park	8.0 km
5	Blanchardstown Shopping Centre	12.5 km
6	Dublin Industrial Estate	5.0 km
7	Technological University Dublin (TUD)	4.5 km
8	Dublin City Centre	3.9 km
9	Dublin Port	5.0 km
10	Trinity College Dublin (TCD)	5.0 km
11	Ballymount Industrial Estate	11.0 km

Figure 3.1 – Points of Interest (Source: Google Maps)

3.4 Active Travel – Pedestrian and Cyclist Facilities

3.4.1 Swords Road

Swords Road (R132) is a regional two-way carriageway with 2 lanes running both north and southbound, with one lane dedicated for buses in each direction. The speed limit along the carriageway is 50 km/hr in the vicinity of the development. Footpaths are situated on both sides of the carriageway. An off-road cycle lane is provided on the western side of the carriageway, which transitions into an on road cycle lane along the approach of Iveragh Road. To the north, Swords Road intersects with Collins Avenue West (R103), as part of an orbital route connecting Killester / Donnycarney with Whitehall, Ballymun, Glasnevin and Finglas. The existing junction at the Swords Road / Iveragh Road / Site Access junction consists of a signalised pedestrian crossing on the northern arm of the junction which is operated by pedestrians pressing the push button. A yellow box junction is provided to prohibit vehicles blocking vehicles exiting / entering the Iveragh Road.

Figure 3.2 – Swords Rd facing North, at Iveragh Road Approach

Figure 3.3 – Swords Road facing Northbound

3.5 Sustainable Transport – Bus Services

As graphically illustrated in Figure 3.4 below, the site is situated to benefit from bus transport connections allowing residents, and visitors to travel by this sustainable mode.

The closest bus stops to the site are located along the Swords Road, which are within a 200m walking catchment of the site. These bus stops are operated by Dublin Bus. Figure 3.4 illustrates the location of the bus stops in relation to the development with Table 3.2 detailing the number of services per day and the routes.

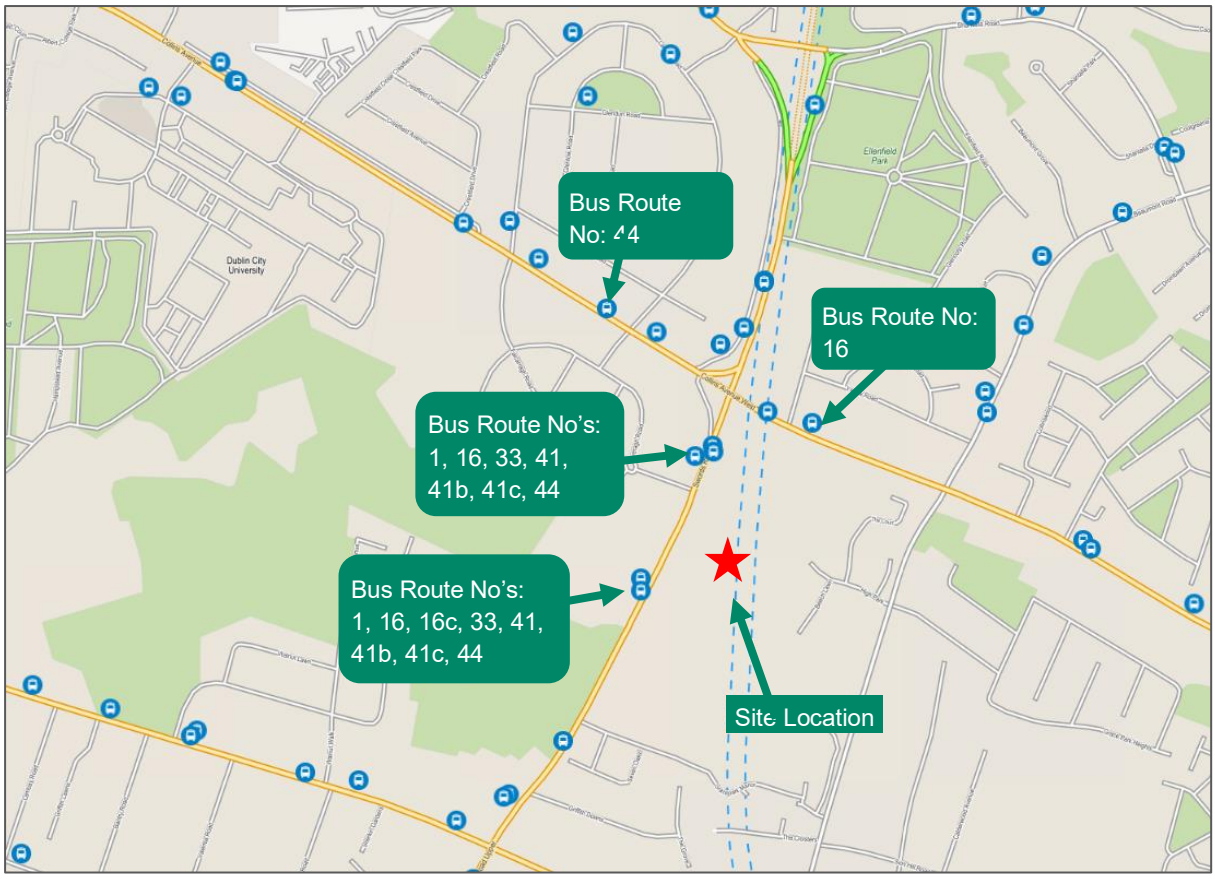

Figure 3.4 – Bus Stops in the Vicinity of the Site (Source: www.journeyplanner.transportforireland.ie)

Table 3.2 – Bus Timetables (Source: www.journeyplanner.transportforireland.ie)

Route No.	Operator	Route	No. of Services		
			Monday to Friday	Saturday	Sunday
1	Dublin Bus	Santry – Whitehall – Dublin City – Sandymount	Every 10-12 mins	Every 20 mins	
16	Dublin Bus	Dublin Airport – Whitehall – Drumcondra – Dublin City - Ballinteer	Every 10 mins	Every 15 mins	
16c	Dublin Bus	Dublin Airport – Santry – Whitehall – Ballybough – Dublin City	3 services per day (From 23:00 – 23:30)		
33	Dublin Bus	Dublin City – Drumcondra – Whitehall – Dublin Airport – Swords – Lusk – Balbriggan	1 service every hour		
41	Dublin Bus	Dublin City – Drumcondra – Whitehall – Dublin Airport – Swords – Knocksedan	Every 20 mins	Every 30 mins	Every 20 mins
41b	Dublin Bus	Dublin City – Drumcondra – Whitehall – Dublin Airport – Swords – Rowlestown	5 services per day	4 services per day	3 services per day
41c	Dublin Bus	Dublin City – Drumcondra – Whitehall – Dublin Airport – Swords – Knocksedan	Every 20 mins	Every 30 mins	Every 30 mins
44	Dublin Bus	Whitehall – Drumcondra – Dublin City – Dundrum – Stepaside – Enniskerry	1 service every hour		

3.6 Sustainable Transport – Heavy Rail Network

The closet railway station to the site is the Drumcondra Train Station located 2.2 km (26 min walk) south of the subject site. The Drumcondra Station is part of the Western Commuter service which provides rail services eastward to Dublin Connolly and westwards towards Sligo. Figure 3.5 illustrates the site location in relation to the Drumcondra Train Station.

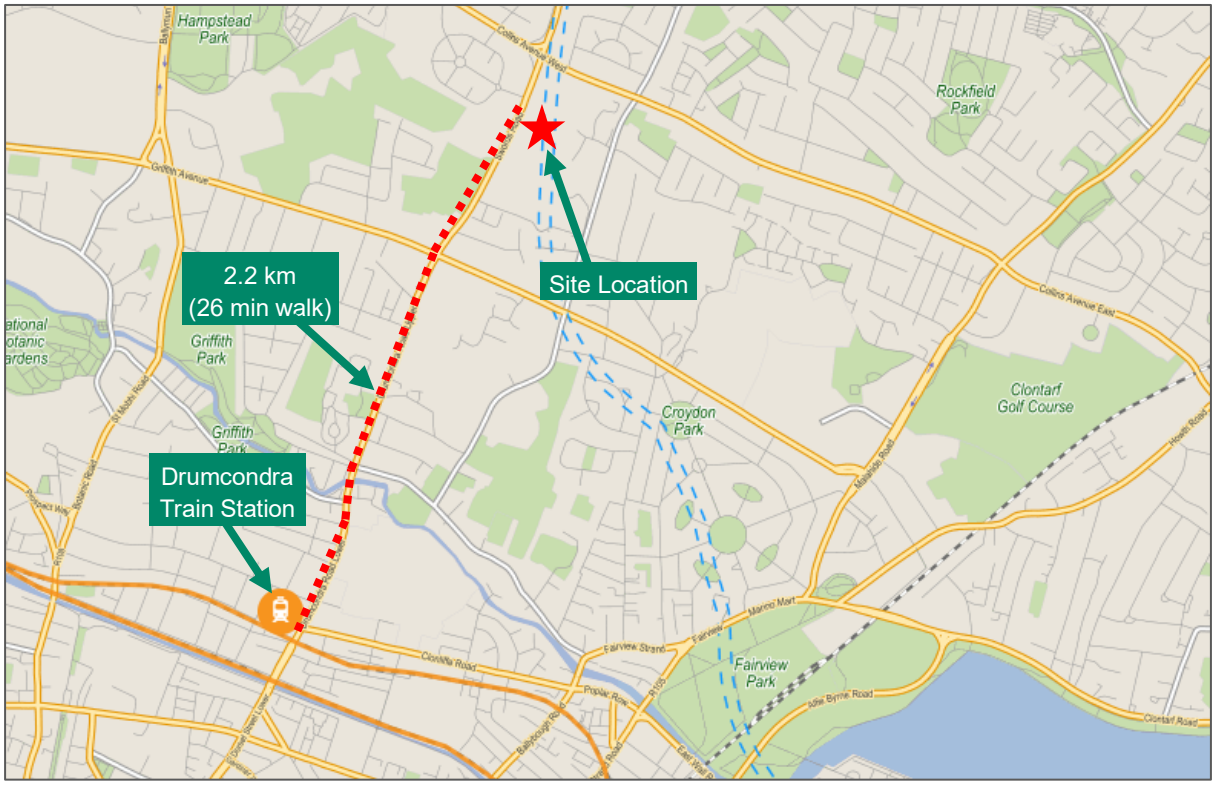

Figure 3.5 – Site Proximity to Train Station (Source: www.journeyplanner.transportforireland.ie)

3.7 Sustainable Transport – Light Rail Network

The closet railway station which offers DART services is the Killester Train Station located 3.3 km (39 min walk) east of the subject site. The Killester Station is part of the Northern Commuter service which provides light rail services north to Malahide and further to Dundalk and Belfast by heavy rail and south towards Connolly and Bray which continues further to the Rosslare Europort by heavy rail. Figure 3.6 illustrates the site location in relation to the Killester Train Station.

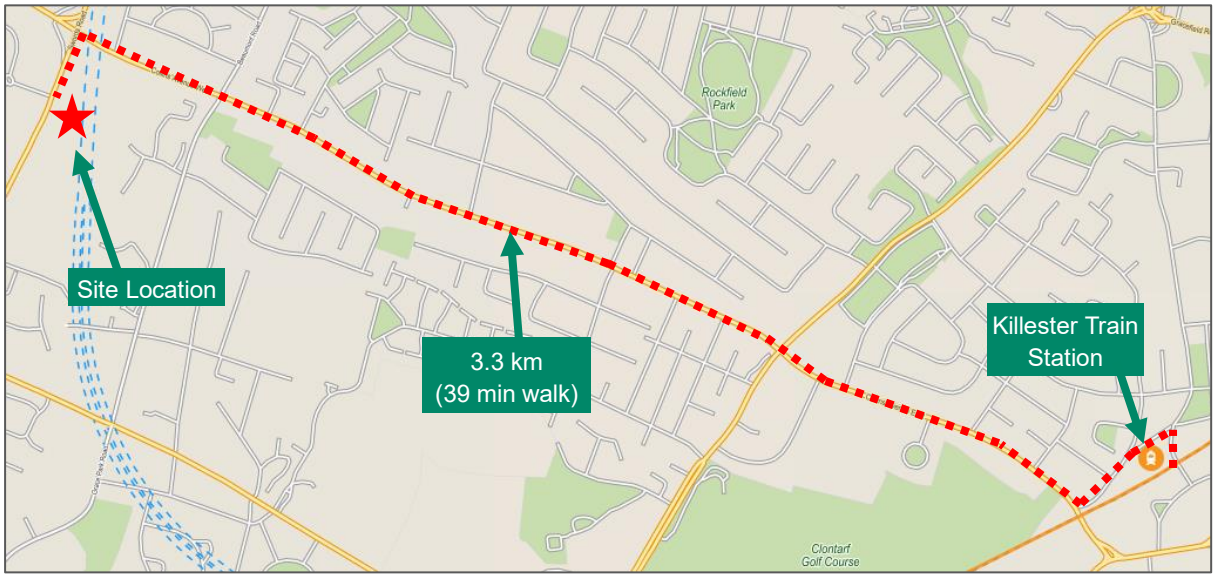

Figure 3.6 – Site Proximity to Nearest DART Station (Source: www.journeyplanner.transportforireland.ie)

3.8 Sustainable Transport – Car Club

There are 13 GoCar hire stations located within a 1.5km walking catchment of the subject site. GoCar members can book cars online or via the app for durations of as little as an hour. They then unlock the car with their phone or a GoCard; the keys are in the car, with fuel, insurance and city parking all included. The benefits of such car sharing services include:

- The reduction of cars on the road and therefore traffic congestion, noise and air pollution;
- Frees up land traditionally used for private parking spaces;
- Encourages and potentially increases use of public transport, walking and cycling as the need for car ownership is reduced;
- Car sharing allows those who cannot afford a car the opportunity to drive, encouraging social inclusivity; and
- Car share replaces approximately 20 private car parking spaces.

The locations of the GoCar bases are illustrated in Figure 3.7 with Table 3.3 providing additional details in relation to walking distance from the site and the type of GoCar vehicle available.

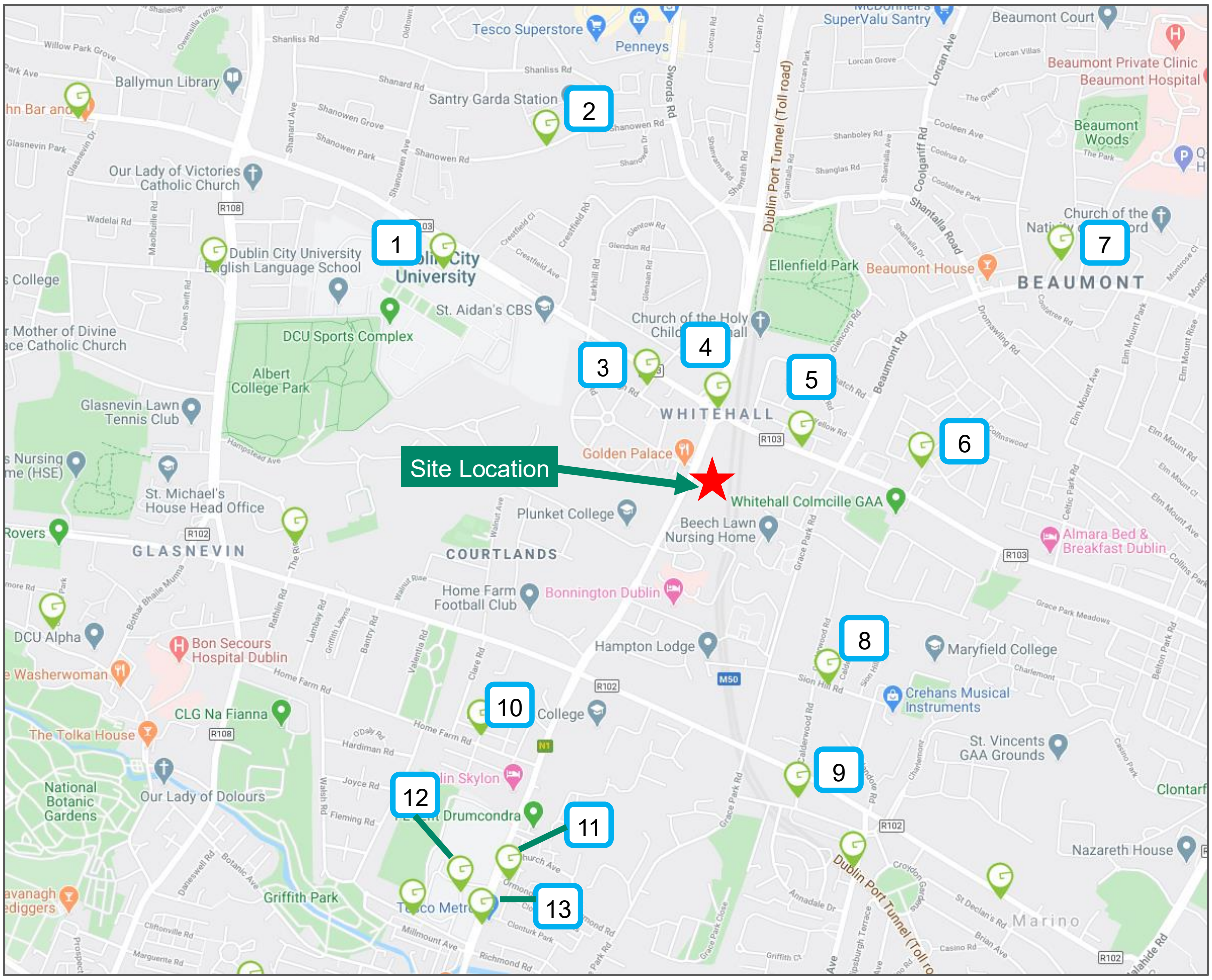

Figure 3.7 – GoBase Locations (Source: www.GoCar.ie)

Table 3.3 – GoBase Details

Ref No.	Go Base Location	Vehicle Class	Approximate Distance from the development
1	Dublin City University, Collins Avenue	GoCity	1.00 km
2	Shanowen Road	GoCity	1.50 km
3	Iveragh Road	GoCity	0.35 km
4	Whitehall Car Park	GoCargo	0.20 km
5	Collins Avenue West – Whitehall	GoCity	0.40 km
6	Collinswood	GoTripper	0.85 km
7	The Park – Beaumont	GoTripper	1.50 km
8	Sion Hill Road	GoCity	1.20 km
9	Griffith Walk	GoCity	1.40 km
10	Achill Road	GoCity	1.20 km
11	Ormond Road, Drumcondra	GoCity	1.40 km
12	Dublin City University, St. Pat's	Go City	1.40 km
13	Clonturk Park	GoCargo, GoTripper	1.50 km

3.9 Emerging Transport Infrastructure

3.9.1 Local Road Proposals

The Dublin City Development Plan 2016 – 2022, has outlined both short (6 years) and long-term road network proposals for the Dublin City environs.

Upon review of the Development Plan, no roads objectives have been identified within the vicinity of the subject site.

3.9.2 Cycle Network Proposals

In the vicinity of the subject site, it is planned to upgrade the cycle facilities along the Swords Road, Collins Avenue and Griffith Avenue. It is understood that the cycle facilities to be provided along the Swords Road will be part of the BusConnects redesign. Figure 3.8 illustrates the existing cycle facilities in the vicinity of the subject site with Figure 3.9 illustrating the proposed cycle network upgrades as part of the Cycle Network Plan for the Greater Dublin Area

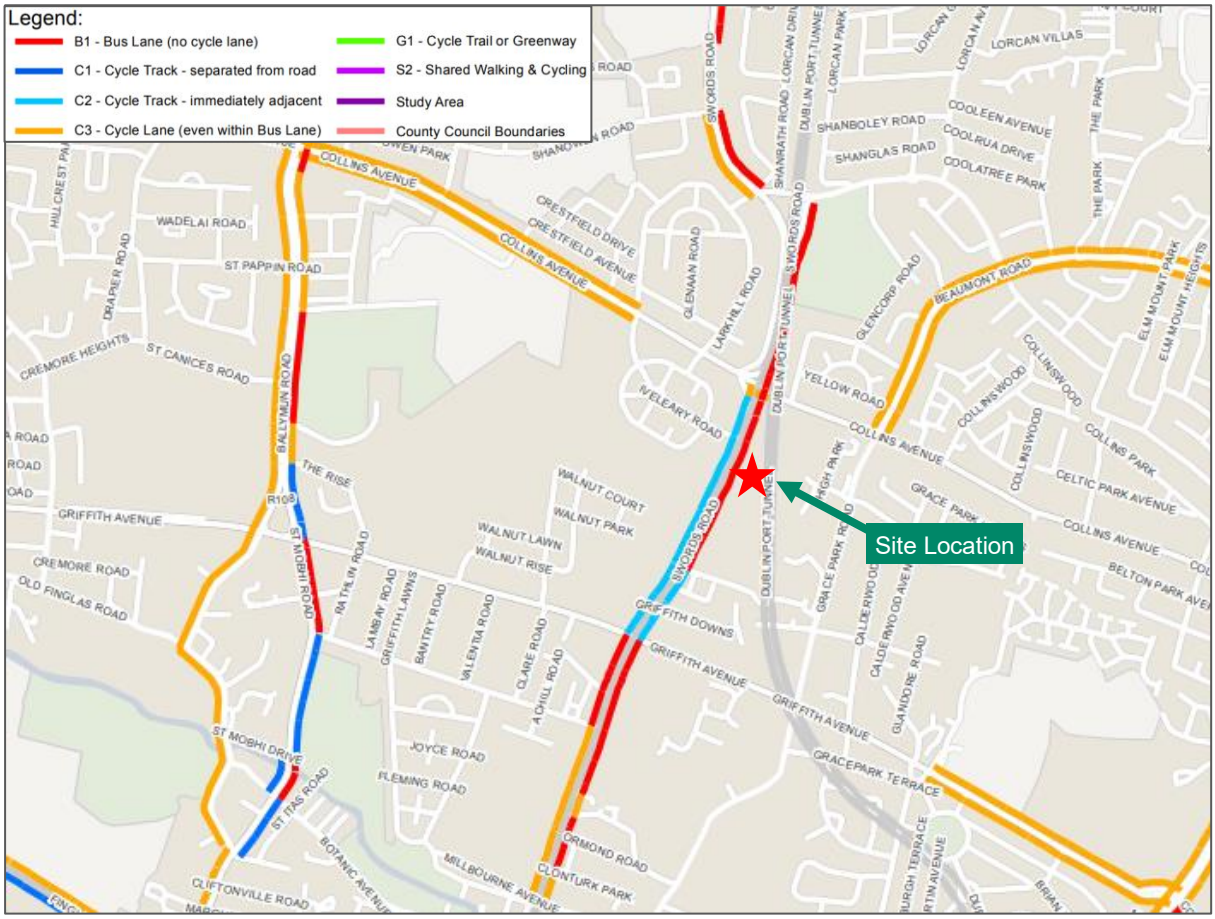

Figure 3.8 – Existing Cycle Facilities (Source: GDA Cycle Network Plan, National Transport Authority)

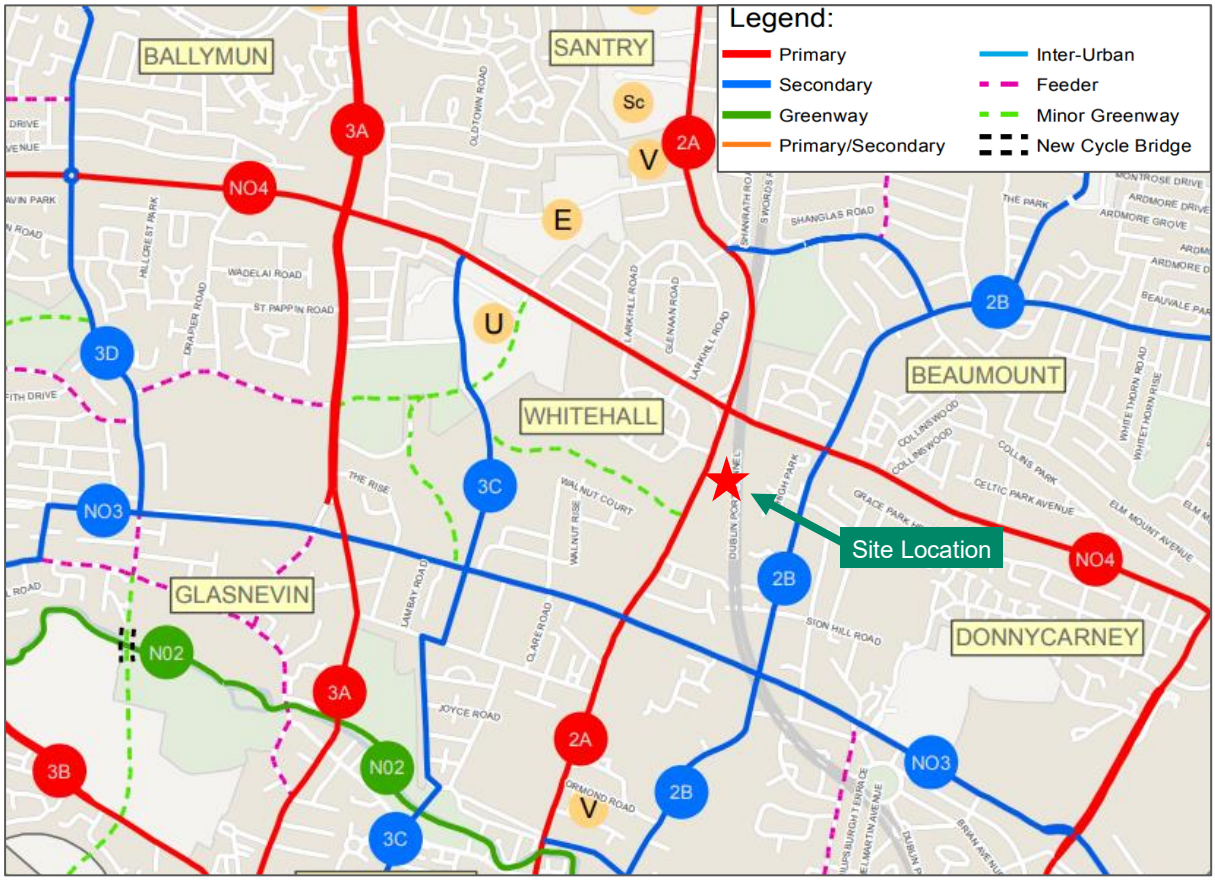

Figure 3.9 – Proposed Cycling Facilities (Source: GDA Cycle Network Plan, National Transport Authority)

3.9.3 Bus Network Proposals

The National Transport Authority (NTA) has put forward proposals to upgrade a number of core bus corridors from the Dublin environs to the City Centre under the title 'BusConnects'. The aim of the project is to:

- *'Make bus journeys faster, predictable and reliable;*
- *New bus stops and better facilities;*
- *More efficient network, connecting more places and carrying more passengers;*
- *Updated ticketing systems and implementing a cashless payment system with a simpler fare structure; and*
- *Improving the cycling network and making it safer.'*

As part of the BusConnects scheme the current bus network is to be revised and more frequent and efficient services are to be provided across the Dublin environs. Table 3.4 details the proposed routes in the vicinity of the subject site with Figure 3.10 illustrating the proposed routing.

Table 3.4 – Revised Bus Network Routes

Route	Route Type	Route	Frequency
A1	Spine / Branch Routes	Beaumont – City Centre – Terenure – Templeogue – Ballycullen	Every 10 – 15 mins
A2	Spine / Branch Routes	Airport – City Centre – Terenure – Ballinteer – Dundrum	Every 10 – 15 mins
A3	Spine / Branch Routes	Shanowen Rd – City Centre – Rathmines – Terenure – Tallaght	Every 10 – 15 mins
A4	Spine / Branch Routes	Swords – City Centre – Rathmines – Terenure – Nutgrove	Every 10 – 15 mins
N2	Orbital Route	Clontarf Rd Station – Marino – Glasnevin – Broombridge – Stoneybatter – Heuston Station	Every 20 mins
N4	Orbital Route	Blanchardstown Centre – Finglas – DCU – Whitehall – Killester – Spencer Dock	Every 10 – 15 mins
82	Other City Bound Route	Glen Ellan Rd – Swords Rd – Drumcondra – City Centre – Merrion Sq	Every 10 – 15 mins

94	Other City Bound Route	Ballymun – Wadelai – Glasnevin – Drumcondra – City Centre – Parnell Sq	Every 10 – 15 mins
280	Local Routes	Swords Business Park – Drynam Rd – Clongriffin Station – Beaumont – Whitehall – DCU	Every 40 mins

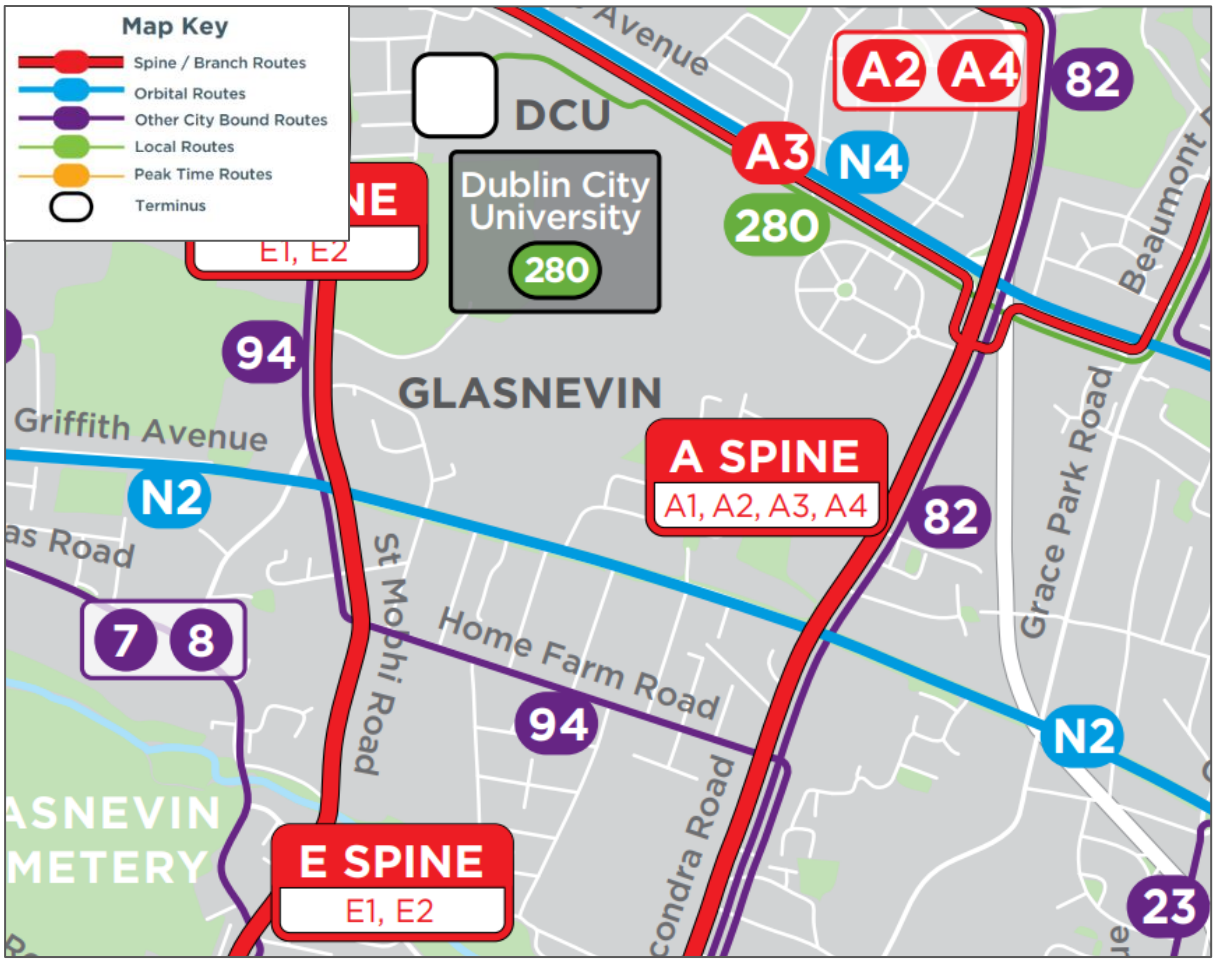

Figure 3.10 – Proposed Public Transport Services (Source: www.busconnects.ie)

3.9.4 Metro Link

MetroLink is a proposed large scale infrastructure project which will provide a metro line within the Dublin Area. The proposed scheme will start in Swords and terminate in Charlemont to tie in with the Luas Green Line. As part of the scheme, it is proposed to provide 16 no. stations which will include locations such as the Dublin Airport, Glasnevin and O' Connell Street. While the project is currently in its public consultation phase, a preferred route has been published along with the locations of proposed metro stations. It is anticipated that the completed Metrolinks project will be delivered in 2027. The subject site is located approximately 1.8km from the proposed Collins Avenue Station which has been illustrated in Figure 3.11.

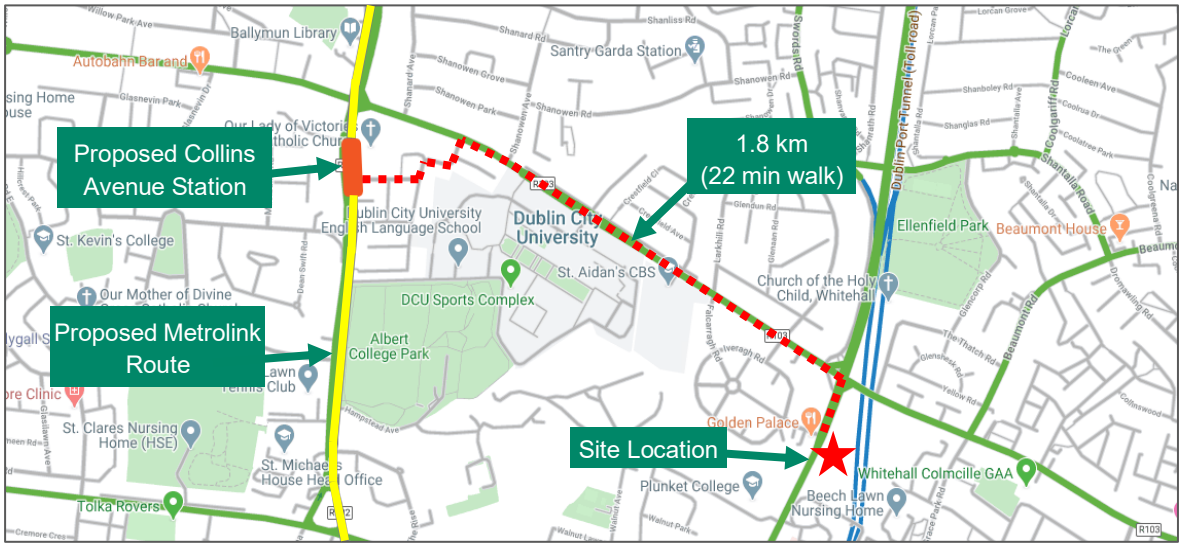

Figure 3.11 – Metrolink Emerging Preferred Route (Source: www.metrolink.ie)

4. Characteristics of Proposals

4.1 General

This Section outlines the traffic and transport elements of the proposed development and demonstrates that the scheme is consistent with the main MMP objective, to encourage a shift from single occupancy private car use towards sustainable alternatives.

4.2 Proposed Development

The proposed development entails 472 no. residential apartments with a creche and a café unit consisting of the following breakdown:

Table 4.1 – Proposed Schedule of Accommodation

Land Use	Type	Quantum	Total
Residential	Studio Apartment	32 units	472 units
	1 Bedroom Apartment	198 units	
	2 Bedroom Apartment	233 units	
	3 Bedroom Apartment	19 units	
Retail	Café	99.0 sq.m (GFA)	99.0 sq.m
Education	Creche	445.8 sq.m (GFA)	445.8 sq.m
Car Parking (Basement)	Residential*	241 spaces	274 spaces
	Creche Staff	5 spaces	
	Accessible	18 spaces	
	Car Club	10 spaces	
Car Parking (At-grade)	Residential	41 spaces	60 spaces
	Visitor Parking (Café Staff/ Set down)	19 spaces	
Cycle Parking	Long Stay	732 Spaces	982 Spaces
	Short Stay	236 spaces	
	Cargo Bikes	14 spaces	
Motorcycle Parking	Basement	11 spaces	11 spaces

* = Inclusive of 20% of total parking spaces to be equipped for electric vehicle charging

4.3 Pedestrian and Cyclist Permeability

There are a number of access points along the western boundary of the site onto the Swords Road which facilitate safe access and permeability to / from the site with Figure 4.1 indicating the location of these access points. Once residents enter the site there are paved footways which will allow residents to easily access their apartment block, please refer to the architects site layouts.

The proposed vehicle access arrangement to the site from Swords Road has been designed to accommodate pedestrians by providing pedestrian crossings on all arms of the junction, which is an improvement to the current situation. Moreover this access arrangement does not preclude the delivery of BusConnects.

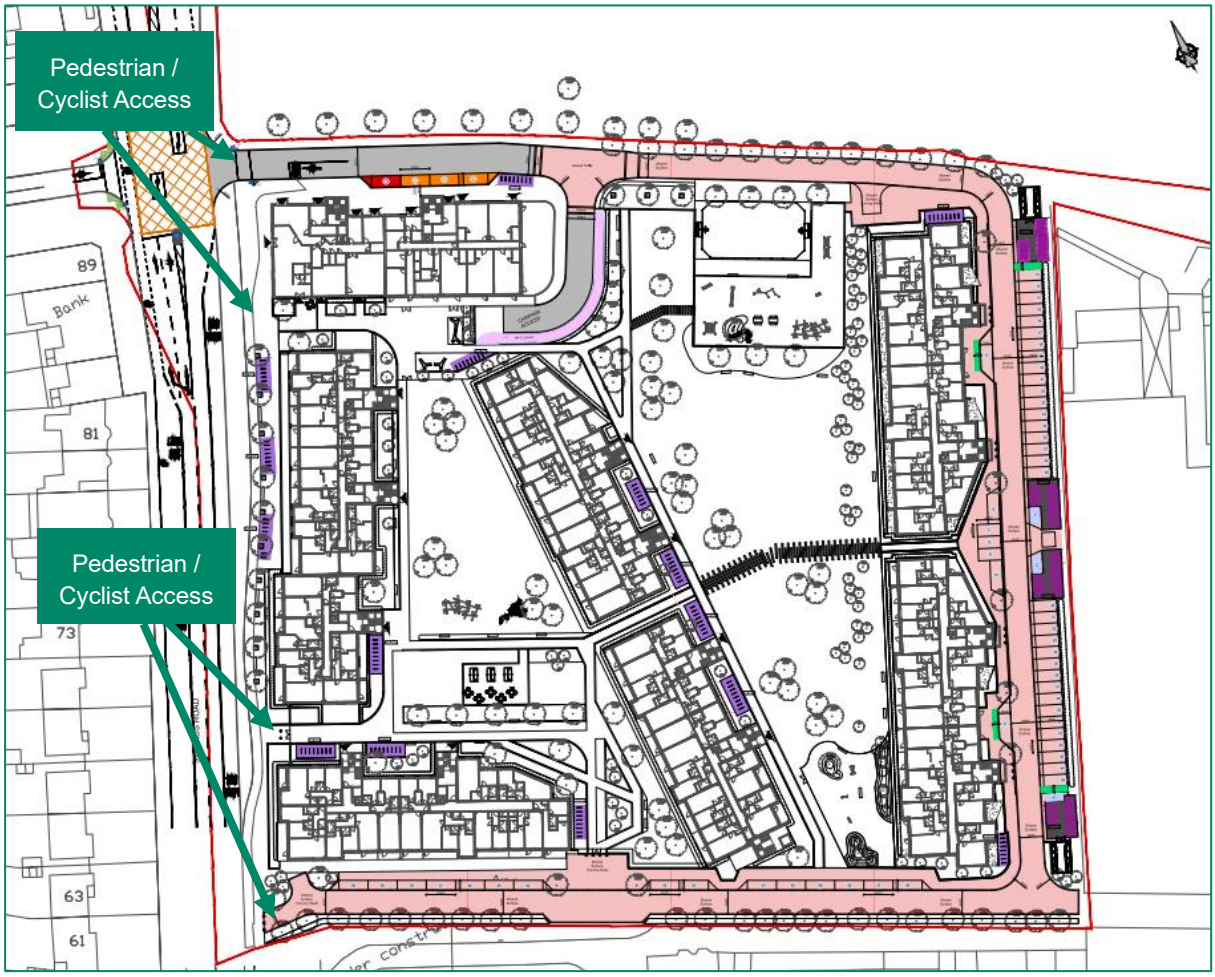

Figure 4.1 – Pedestrian Cyclist Access points (Source: AECOM PR379360-ACM-XX-XX-DR-CE-10-0001)

4.4 Cycle Parking Provision

The proposed cycle parking provision has been designed to encourage cycling as a key mode of travel to and from the development. The cycle parking spaces will comprise of secure cycle spaces for residents of the apartment units within the basement and at grade with standard 'Sheffield style' cycle parking stands for visitors.

The DCC Development Plan Standards (2016 – 2022) and the Sustainable Urban Housing Design of New Apartments Guidelines (December 2020) have been considered when determining a suitable amount of cycle parking for the proposed development.

Table 4.2 illustrates the proposed cycle parking provision against DCC's and the Sustainable Urban Housing parking standards.

Table 4.2 – Cycle Parking Requirements

National Standards	Cycle Parking Requirements	Minimum Cycle Parking Standard	Number of Cycle Parking Spaces Required	Total Number of Cycle Parking Spaces Required
DCC Development Plan standards (2016 – 2022)	Apartment Units (472)	1 cycle space per unit	472	472
	Visitor Spaces	TBD on case by case	NA	
The Sustainable Urban Housing Design of New Apartments guidelines (December 2020)	Bedrooms (723)	1 cycle space per bedroom	723	959
	Visitor Spaces	1 cycle space per 2 units	236	

A total of **982 no. cycle parking spaces** are proposed within the site to cater for the proposed development.

Table 4.2 above demonstrates that the cycle parking provision of 968 no. spaces is compliant with the DCC Development Plan standards (472 no. spaces) and the Design Standards for New Apartments guidelines, which recommends provision of 1 cycle space per bedroom along with 1 visitor space per 2 units.

AECOM considers the proposed cycle parking provision to be appropriate when cognisance is given to the accessibility of the site to existing walking and public transport infrastructure in the surrounding area.

It is proposed within this MMP to monitor the usage of the cycle stands following the opening of the proposed development. Should demand meet the proposed level of cycle parking, the management company will allocate additional cycle parking for the development i.e. increasing the number of cycle stands. There is ample space at surface level to add more cycle stands following a review of the demand.

The proposed cycle parking spaces will comprise of the following:

- 732 no. spaces in secure bike storage within the basement and at grade for residents; and
- 236 no. spaces in the form of Sheffield stands at-grade for visitors.
- 14 no. cargo bike spaces
- All bike parking stations will include a repair toolkit for users of the bicycle parking spaces

Access to the basement level cycle parking will be permitted into the bike stores via the use of a key or fob, providing a sense of security for cyclists. Access to bike parking compounds will be well lit and signposted.

It is therefore anticipated that the proposed cycle parking provision is sufficient to accommodate predicted demand, whilst also complying with DCC's minimum cycle parking standards.

4.5 Car Parking Provision

It is proposed to provide a total of 334 no. car parking spaces on site, 315 no. spaces dedicated to the 472 no. residential units (274 no. at basement level and 41 no. at grade), 5 no. spaces within the basement for creche staff and the 19 no. visitor parking spaces on surface will be accessible for café staff. 10 no. car club spaces are proposed at basement

The proposed car parking provision has been designed to cater for the expected car parking demand of the site whilst also considering the residential amenity of prospective residents.

20% of overall car parking spaces will contain the relevant infrastructure to support electric vehicle recharging.

The TTA sets out the various policy and research documents used to establish the projected car parking demand. Following the assessment outlined in the TTA, it is determined that the proposed quantum of 0.70 of a car parking space per apartment unit is sufficient to cater for the anticipated demand of perspective residents of the site.

5. Existing Travel Patterns

5.1 Overview

In order to gain an understanding of the existing travel behaviours of the future residents of the development, reference has been made to the National Household Travel Survey and the 2016 Census Data. This data will provide an understanding of the travel patterns of the existing residents in the area and help inform the future travel patterns of perspective residents.

5.2 National Household Travel Survey

AECOM has made use of the NTA National Household Travel Survey (NHTS) 2018. The National Household Travel *Survey is a nationally representative study of Irelands travel habits*. The survey comprised of a survey administered to 5,906 households with a 3-day travel diary to be completed by each person in the house over the age of 4, a total of 10,289 diaries were completed. These travel diaries accounted for 62,307 trips and detailed factors, such as:

- Distance travelled;
- Duration of journeys;
- Mode of Transport;
- Reason for the journey;
- The day of travel;
- Time of outward journey;
- Number of people taking the trip; and
- Demographic profiles.

5.2.1 Dublin City

To determine the trip pattern of the Dublin City Region, reference has been made to chapter 6 of the NHTS which details the travel behaviours of those surveyed in the Dublin City Region, Figure 5.1 illustrates the site location in relation to the Dublin City Region as indicated in the NHTS. The Dublin City Region only includes for the areas within the extents of DCC's administrative area.

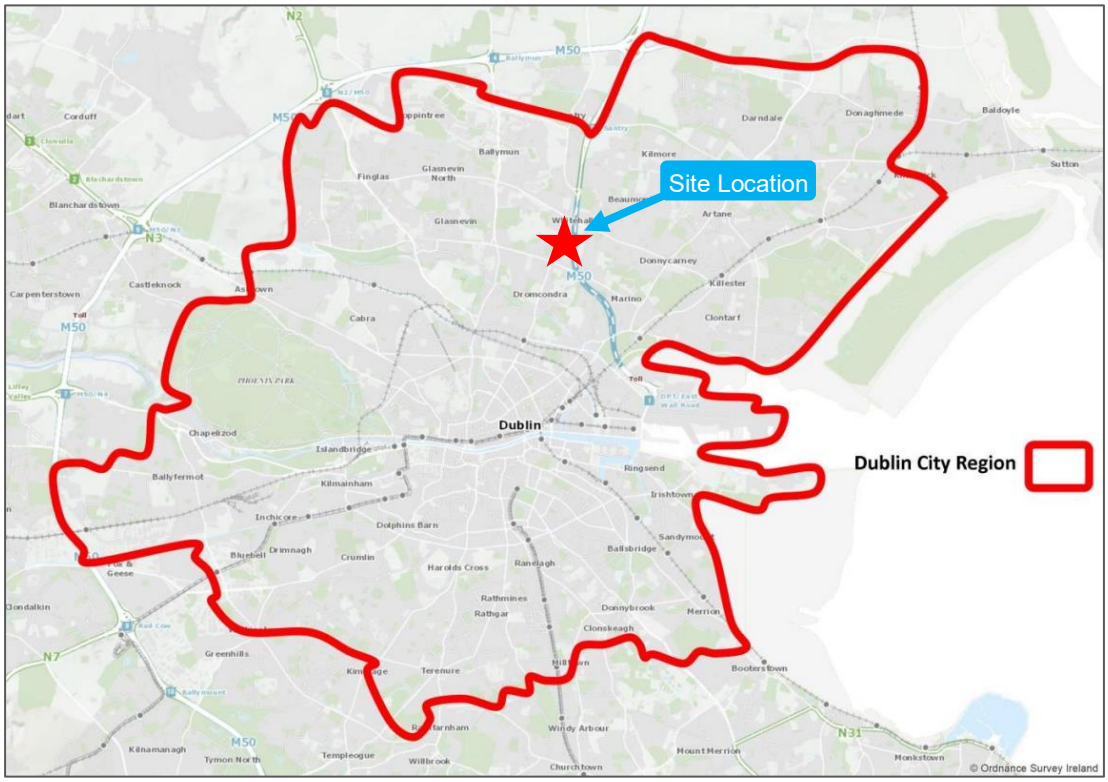

Figure 5.1 – Site location in the context of the Dublin City Region (Source: NHTS, 2018)

From the NHTS the findings based on the modes of travel are shown in Figure 5.2.

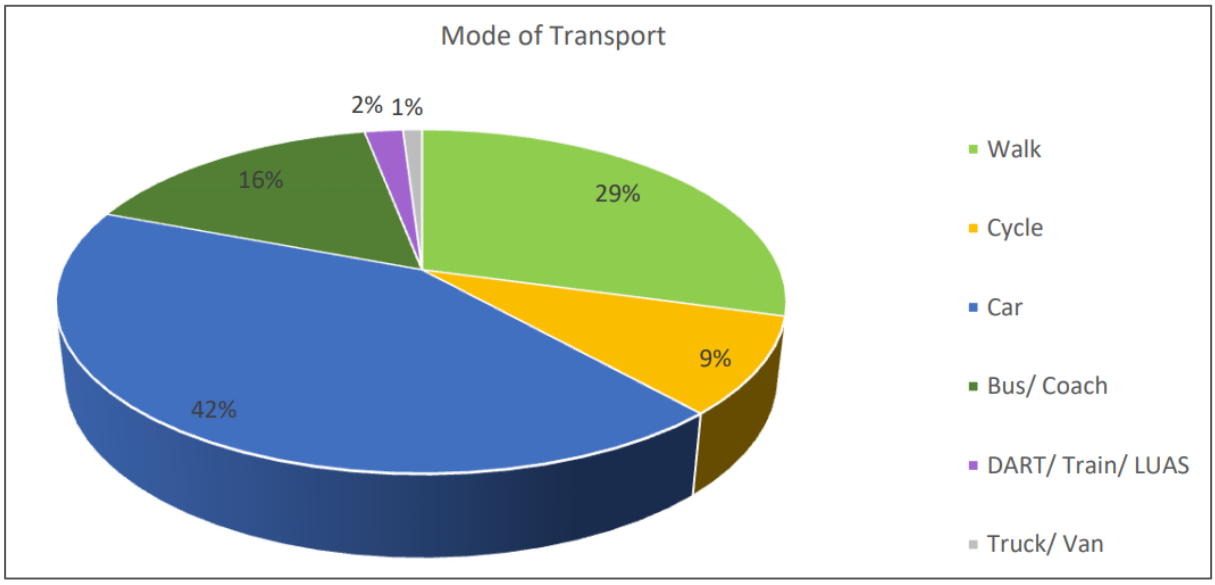

Figure 5.2 – Modes of Transport for the Dublin City region (Source: NHTS 2018)

From the NHTS it was found that the predominant mode of transport in the Dublin City Region was travelling by car (42%) followed by walking (29%), bus (16%), cycle (9%), DART / train / LUAS (2%) and finally truck / van (1%). Based on these results from the 2017 NHTS, it shows that sustainable forms of transport account for a total of 56% of the travel behaviours of residents in the Dublin City Region.

5.3 Census Data

AECOM has made use of the Central Statistics Office (CSO) SAPMAP tool to analyse the findings of the 2016 Census. Residential settlements that are located within proximity to the subject site have been analysed to determine existing commuter trends for the area. This analysis has been used to identify initial baseline travel characteristics for development site.

The following 10 different geographical catchment areas (Figure 5.3) have been identified and examined:

- Area 1 – Small Area Ref: Sa2017_268160002/02 – Highfield Hospital
- Area 2 – Small Area Ref: Sa2017_268160006 – Whitehall
- Area 3 – Small Area Ref: Sa2017_268157005 – Whitehall
- Area 4 – Small Area Ref: Sa2017_268157002 – Courtlands
- Area 5 – Small Area Ref: Sa2017_268070015 – Grace Park
- Area 6 – Small Area Ref: Sa2017_268157012 – Whitehall
- Area 7 – Small Area Ref: Sa2017_268070003 – Grace Park
- Area 8 – Small Area Ref: Sa2017_268160002/01 – Whitehall
- Area 9 – Small Area Ref: Sa2017_268157004 – Whitehall
- Area 10 – Small Area Ref: Sa2017_268158011 – Whitehall

These areas have been selected as they display similar characteristics to the subject site in terms of their location, accessibility characteristics, type of accommodation and type of resident.

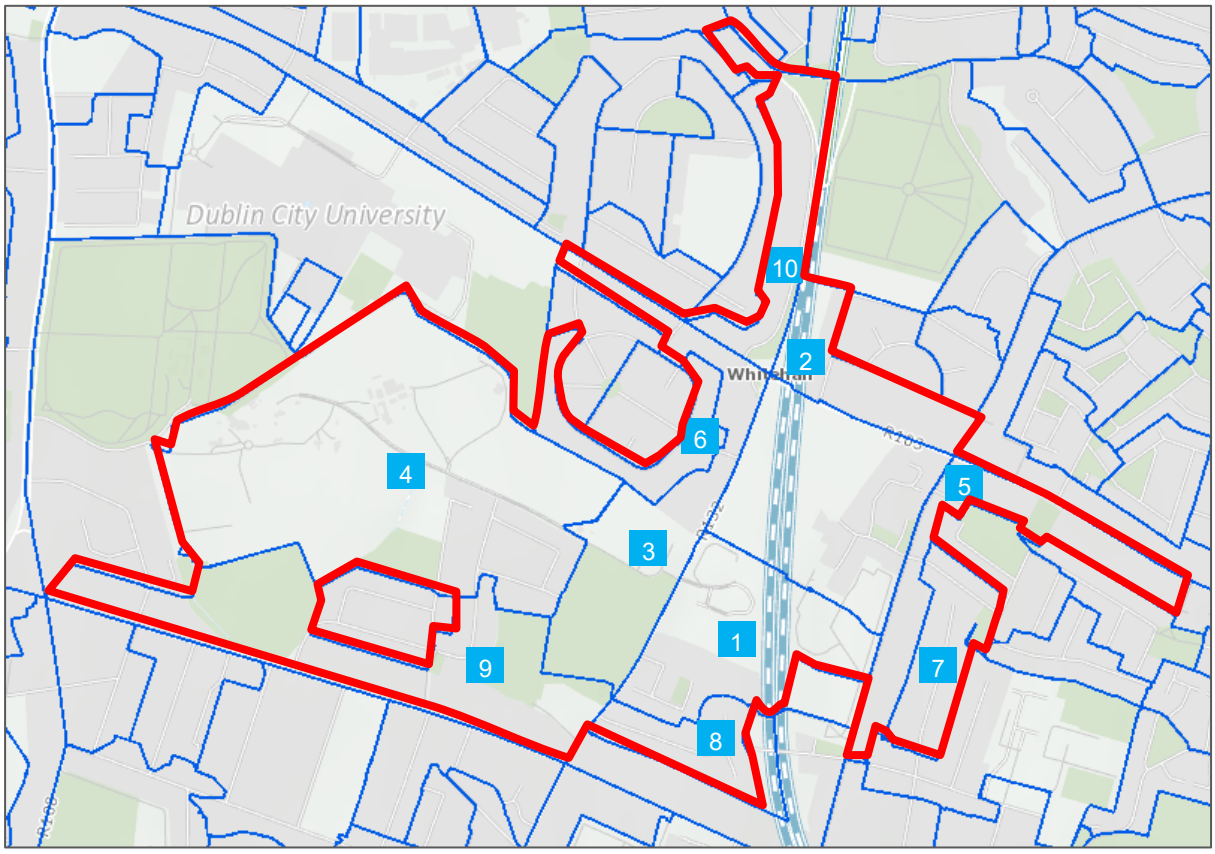

Figure 5.3 – Extent of Small Area Boundaries (Source: Central Statistics Office – 2016 SAP Maps)

In order to anticipate the predominant mode of travel for residents of the subject development when travelling to work / college, AECOM has reviewed the CSO data for residents living in each of the above 10 catchment areas. The principal mode of travel used by residents in each catchment area is summarised in Figure 5.4 below for Walking, Cycling, Bus, Motorcycle, Car Driver, and Car Passenger.

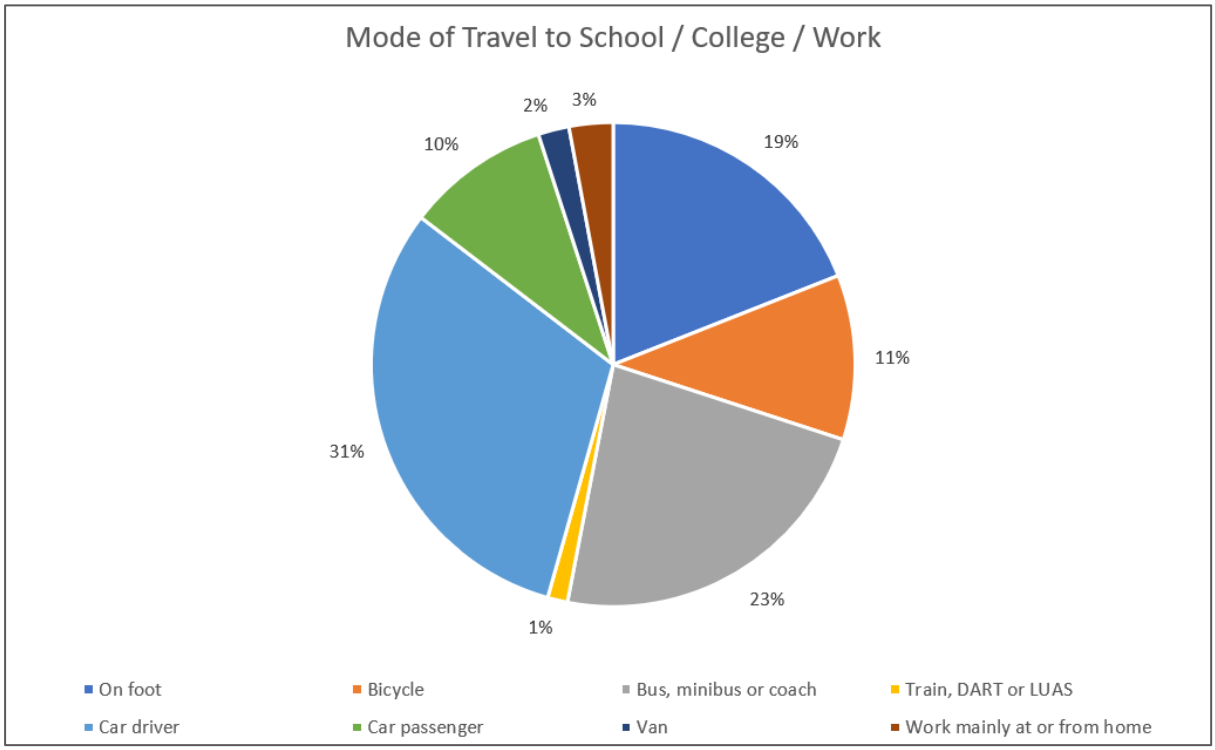

Figure 5.4 – Modes of Transport Based on Small Area Population

From the CSO SAP Maps it was found that the predominant mode of transport in the surrounding region is travelling by Car (31%) followed by Bus (23%), On Foot (19%), bicycle (11%), car passenger (10%), work from home (3%), van (2%) and Train / LUAS / DART (1%). Based on these results from the CSO SAP Maps, it shows that sustainable forms of transport accounts for a total of 67% of the travel behaviours of residents in the surrounding area.

5.4 Comparison of the NHTS Vs the Census 2016

Based on both the results of the NHTS and the Census 2016, Table 5.1 summarises the various modes of transport for the subject development region.

Table 5.1 – Mode of Travel Comparison

Mode of Transport	NHTS (%)	Census 2016 (%)
Walking	29	19
Bicycle	9	11
Bus	16	23
DART / Train / LUAS	2	1
Car Driver	42	31
Car Passenger	N/A	10
Motorcycle / Scooter	N/A	0
Van	1	2
Work From Home	N/A	3

When comparing the NHTS against the Census 2016 information it can be seen that there is a decrease in the number of people who walk from 29% to 19% and a decrease in the number of car drivers from 42% to 31%. The Census 2016 indicates that there is an increase in the number of people who utilise cycling (9% to 11%) and the bus (16% to 23%).

Overall the Census 2016 data indicates that more sustainable forms of transport are utilised by residents in the surrounding area (67% of the total mode) compared to 56% for the NHTS.

The modal split values attained from this review and comparison of the NHTS and the Census 2016 will help in formulating the proposed modal split targets for the proposed SHD.

6. Targets

On the basis of the results in Section 5 above, AECOM has proposed indicative Modal Split targets of the proposed development following the first year and first 5 years of opening.

6.1 Swords Road Proposed Modal Trips

At this preliminary stage the aim of the MMP is to reduce the level of single occupancy car trips from the subject site and encourage travel by sustainable modes. Accordingly the key target of this MMP Framework will be to reduce single occupancy car use from the subject site from approximately 31% to 25% up to the development opening year +5.

6.2 Swords Road Proposed Targets

Due to the nature of the site being a new development, baseline travel surveys cannot be undertaken. In order to determine interim Modal Split targets AECOM have made reference to the 2016 Census data. The interim Modal Split Targets that we have outlined will be for the first year after the development has been occupied. A baseline travel survey will then be undertaken to determine if the initial targets are representative. This baseline travel survey data will then provide a better understanding of what can be achieved at the subject site and accordingly form the basis for setting targets for future revisions of the MMP.

Mode	Census 2016	1 Year Target	5 Year Target	Target Rationale
Walking	19 %	20 %	21 %	A higher target for walking is proposed to be in line with the National Household survey results.
Cycling	11 %	12 %	13 %	A higher target for cycling is proposed to be in line with the National Household survey results.
Bus / Train	24 %	25 %	26 %	Due to the sites proximity to the bus connects route it is anticipated that a number of perspective residents would choose this mode of transport.
Car (Driver)	31 %	28 %	25 %	Given the proximity of the development along the bus connects route with a high level of service per day it would be anticipated that with the measures outlined in the plan there could be a greater incentive for perspective residents to rely on sustainable forms of transport as opposed to private vehicle trips.
Car (Passenger)	10 %	10 %	10 %	Only a marginal increase would be anticipated as the number of car drivers would decrease for sustainable forms of transport
Other	5 %	5 %	5 %	It would be anticipated that these mode of travel will remain the same

7. Mobility Management Measures

7.1 Approach

The key to the development of an appropriate Mobility Management Strategy is the employment of the well-documented 'Carrot and Stick' approach:

- The 'Carrot' incorporates improvements in alternative modes of travel, effectively opening up transport options for commuters.
- The 'Stick' measures include car parking restraint and other physical measures.

Both elements of this approach are required to achieve a successful result. At this stage, these are suggestions to the Mobility Management Coordinator.

7.2 Mobility Management Coordinator (MMC)

It is intended that the management of the development will appoint a Mobility Management Coordinator (MMC) who will promote all aspects of the MMP for the complex. The MCC will be responsible for implementing and managing the MMP process. The role of the MMC will be as follows:

- To play a senior role in coordinating the Swords Road MMP.
- Setting up, coordinating and attending Steering Groups, Working Groups etc.
- Conducting a resident travel survey and analysis, leading to a development of a travel action plan.
- Implementation of the travel plan, with calendared events over three years.
- Designing and implementing effective marketing and awareness-raising campaigns to promote the travel action plan to both residents, staff and visitors alike.
- Coordinating the necessary data collection to monitor the success of the plans - implementation, reviewing and updating as necessary.
- Acting as the main point of contact for stakeholders, both within and outside the organisation.

The MMC will oversee the following MMP measures:

- Develop a marketing & communications plan (this could include keeping residents up to date on progress, developments and achievements made in relation to travel).
- Hold Green / Active Commuters coffee mornings.
- Include travel information in residents' welcome packs and online in an easily accessible location on the developments website.
- Provide incentives for active commuters.
- Brand the complex's MMP.
- Support the management of car parking on site.
- Provision of information on the different bus ticket types available.
- Analyse the demand for a dedicated residential cargo/e-cargo bike share scheme.

7.3 MMP & Associated Action Plan

A non-exhaustive list of actions proposed to change the mode share and achieve the national targets outlined within Section 2 of this report is given below. Other actions may arise when the management company is known and as the Action Plan implementation progresses. It is proposed that the management company should set up an Action Plan Working Group, run by the MMC to assist with the implementation and running of the initiatives.

7.3.1 Welcome Package

As part of the MMP for the development, the MMC will oversee / prepare a welcome pack to residents which details the following (this is a non-exhaustive list):

- Bus services and timetables.
- Train timetables.
- Walking / cycling routes to points of interest around Dublin with approximate walking/cycling time.
- Location and approximate walking time to bike hire stations.
- Details on the parking management process on site (Parking Strategy is provided in the TTA).
- Location and approximate walking time to Car Club stations.

7.4 Mobility Management Information Point

It is proposed to provide a travel / mobility management information point. The MMC appointed by the Swords Road Management will organise the Mobility Management Information Point. This information point will dispense travel information to both residents and staff at the development in relation to walking, cycling and public transport.

7.5 Website

Information regarding public transport accessibility will be provided via the journey planner website.

7.6 Walking

The key to pedestrian accessibility is short, convenient and safe links. Walking is the most widely used form of transport; nearly all journeys involve some walking, therefore better pedestrian facilities can have a wide impact. As a main method of travel, a distance of up to 4 km is considered reasonable for walking; however, these distances are only indicative, but can help to define target groups. Furthermore, walking may be combined with car sharing or use of public transport for distances of 2.5km or more. The following measures can be incorporated into the MMP scheme:

Action	Responsibility	Timeline
Information on walking distances, journey times and optimal routes as well as information provided at the Mobility Management Information Point upon request. It is intended that this will give residents and staff a better perception of walking as mode of travel.	MMC	Prior to Occupation of the site
Promote the health benefits of walking.	MMC	Prior to Occupation of the site
Promote walking through organised walking events / lunchtime walks.	MMC	1-3 months
Participate in the annual Marchathon walking challenge in March.	MMC	3-6 months
Leave umbrellas at reception to use on wet days for travel between buildings on the development.	MMC	Immediately
Display and promote accessibility maps showing how long it would take to walk to / from the development.	MMC	Prior to Occupation of the site
Display time to walk posters showing time to travel on foot to nearby and popular destinations.	MMC	Prior to Occupation of the site
Improve ‘natural surveillance’ on site (e.g. improving lighting)	Developer	Immediately (as part of scheme proposals)
Consider mapping a Sli na Slainte or other walking route	MMC	Prior to Occupation of the site
Awareness campaigns.	MMC	1-3 months

7.7 Public Transport – Bus Use

The following measures will encourage further use of the bus:

Action	Responsibility	Timeline
Provide up-to-date public transport information including timetables and bus company contact information resident transport notice boards, similar to what is provided within the reception area of the complex.	MMC	Prior to Occupation of the site
Publicise the national door-to-door multi modal journey planner on www.transportireland.ie.	MMC	Prior to Occupation of the site

7.8 Car Sharing

Car sharing is when two or more people, usually who are heading to the same destination, travel together by car for all or part of a journey. Car-sharing is a good means of reducing single-occupancy car use.

A central database system may be the most effective means of implementing a car-sharing scheme but a basic scheme using notice boards may be adopted in the first instance.

It would be proposed to maximise the potential of these services by implementing the following measures:

Action	Responsibility	Timeline
Set up a private car sharing scheme on www.carsharing.ie	MMC	1-3 months
Allocate car sharing parking bays in priority locations.	MMC	Immediately (as part of scheme proposals)
Develop a car sharing policy.	MMC	Prior to Occupation of the site
Promote private car sharing scheme to staff/residents (e.g. at a transport roadshow event - this could be as part of the welcoming weeks).	MMC	1-3 months
Hold coffee mornings/a launch event for potential car sharers to find out what is involved & see a demo of the site & to meet others who they might car share with.	MMC	1-3 months
Raffle the use of a parking space near entrances/reception for one car sharing group every month or something that will appeal to residents.	MMC	1-3 months

8. Monitoring

To ensure the success of a MMP, the identification of an appropriate management structure is critical to its effective implementation. The MMC will therefore be responsible for managing and overseeing the implementation of the MMP.

Periodic monitoring will assess whether the stated targets for a reduction in travel are met. This will play an important role in reviewing and re-setting resident targets by ensuring that on-going observation takes place. It is recommended that annual reviews are undertaken to review travel patterns, and whether the measures are supporting modal shift from private car to more sustainable modes.

9. Summary and Conclusion

9.1 Summary

This Mobility Management Plan (MMP), has been prepared by AECOM in support of a planning application for a proposed Strategic Housing Development on a site located off Swords Road, Whitehall, Dublin 9. This MMP forms a part of the planning application documentation prepared for the development.

Based upon the information and analysis presented within this MMP, the assessment demonstrates how prospective residents of the proposed development can be encouraged to use sustainable means of transport to and from the subject site. The MMP details the predicted modal split for users of the development and has established these splits are achievable given proximity of the development to local facilities and the existing sustainable transport network in proximity to the site.

9.2 Overall Conclusion

The applicant for the proposed development is committed to the implementation and ongoing monitoring of a MMP and will allocate resources to ensure success. This will include appointing a Mobility Management Coordinator, undertaking travel surveys and implementing measures to reduce single occupancy car dependency.

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