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CONSULTING ENGINEERS

Comhairle Cathrach
& Contae **Luimnigh**

Limerick City
& County Council

Apartment Development, Speakers Corner, Limerick
Limerick City and County Council
MOBILITY MANAGEMENT PLAN REPORT

Coakley Consulting Engineers
August 2022

DOCUMENT CONTROL SHEET

Client	Limerick City and County Council					
Project Title	Apartment Development, Speakers Corner, Limerick					
Document Title	Mobility Management Plan (MMP) Report					
Document No.	CCE0272Rp0001					
This Document Comprises	DCS	TOC	Text	List of Tables	List of Figures	No. of Appendices
	1	1	25	-	-	2

Rev.	Status	Author	Issue Date
D01	Draft	Brian Coakley, BE MEngSc HDipGIS MIEI	14.05.21
F01	Final	Brian Coakley	17.05.21
F02	Final		03.08.22

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1 Introduction

1.1 General

Coakley Consulting Engineers (CCE) were appointed to undertake a Mobility Management Plan (MMP) Report to support a Part 8 planning application for a proposed residential apartment development at Speakers Corner, Limerick City, the location of which is shown below in Figure 1.1.

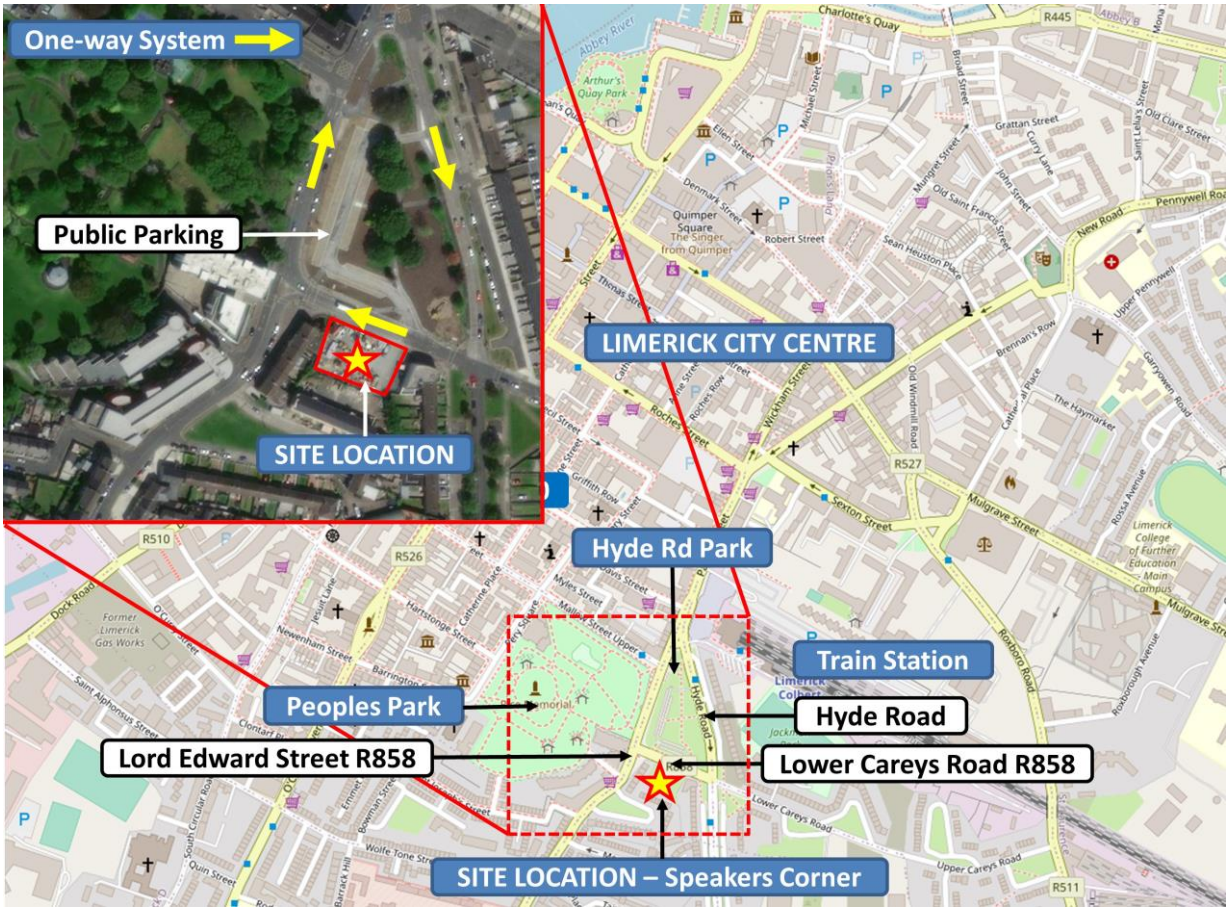
This MMP report should be read wholly in conjunction with all other documents and information submitted as part of this planning application, in particular the Design Statement document by Fewer Harrington and Partners Architects and Planning Report document by Fehily Timoney.

Coakley Consulting Engineers has taken into account and made reference to the following documents and information in preparation of this report:

- *Design Statement – Fewer Harrington and Partners Architects*
- *Mobility Management Plans - DTO Advice Note*
- *The DoT document DMURS - 'Design Manual for Urban Roads and Streets'*
- *CSO Statistical Information*
- *Limerick Development Plan 2022-2028 and other National Policy*

As shown below in Figure 1.1, the site is located on Speakers Corner, Lower Careys Road in Limerick city centre. The proposed development will be 'car free' and not provide car parking for residents. The local road network is a high-quality city centre urban environment within easy walking or cycling distance of all key services within the city centre and several public transport options available nearby.

Figure 1.1 – *Site Location and Local Road Network*



1.2 Justification for No Car Parking – Introduction and Summary

The overall objective of this Mobility Management Plan (MMP) report is to demonstrate that the proposed apartment development is ideally located within the city centre to encourage more sustainable and alternative modes of transport such as walking, cycling, public transport, car hire and cycle hire. These alternative modes of travel reduce the reliance on the private car and remove parking demand, thereby justifying that no car parking for residents within this city centre location is both feasible and realistic. It should be noted that this 'car free' scheme can become an exemplar apartment development within Limerick city and beyond.

Although the concept of no car parking provision for urban residential developments is relatively new, it is becoming more and more accepted in Limerick and throughout Ireland and many other European cities where Local Authorities are helping to reduce the reliance on the private car through a variety of measures, incentives, strategies and projects including Smart Travel and Active Travel solutions.

In the case of Limerick City, comparable apartments developments on Parnell Street have recently been accepted and granted planning permission (ref: 211598 and ref: 196), both with no parking provision and both located only minutes from this proposed development. As we move to a carbon neutral economy, many other cities and regions across Europe including Freiburg (Germany)[1], Utrecht (Netherlands)[2], Glasgow[3] and many more have also successfully implemented 'zero' parking apartment developments, 'car free' communities and more which have led to a dramatic improvement in the quality and liveability of these cities and regions.

Therefore, this proposed development and site location presents an opportunity for Limerick City to become a benchmark when considering this 'car free' approach for suitable urban infill residential development locations and an opportunity to support and implement both national policy and in particular those policies adopted and contained within the Limerick Development Plan 2022-2028 (see Section 2.4).

The proposed site is an urban regeneration/infill/brownfield site located at Speakers Corner in Limerick City Centre in an area zoned 'City Centre' (Zone 1) in the Limerick Development Plan 2022-2028. Furthermore, the national policy requirement to move away from car usage is contained in NDP Section 28 Ministerial Guidance (Sustainable Urban Housing: Design Standards for New Apartments) 2018 & 2020 and this site is considered an 'Accessible Urban Location' under this guidance.

The Limerick Development Plan 2022-2028 sets out a clear vision and strategy to provide an effective, sustainable and accessible transport system. A key objective is to seek reduced dependency on the private car and secure a shift towards sustainable modes of transport, including walking, cycling and public transport. Section 11.8.3 Car and Bicycle Parking Standards states that

- 'While the national transport policy is one of modal shift away from the private car to more sustainable means of mobility, provision must be made in the Plan for sufficient car parking as many areas of Limerick are currently poorly serviced by frequent public transport networks. All

[1] Freiburg in Germany
[2] Utrecht in the Netherlands
[3] Glasgow www.reglasgow.com

planning applications will consider parking provision whilst bearing in mind the need to promote modal shift in the interest of achieving national Greenhouse Gases (GHG) targets and healthier, more active lifestyles.'

- 'Car-free developments will be considered for all proposals in Zone 1 on a case-by-case basis'.

This proposal therefore accords with both National Policy and policies contained within the Limerick Development Plan which state that car parking provision can be 'minimised, substantially reduced or wholly eliminated' in certain circumstances and where sites meet certain key criteria.

The proposal also accords with the National Transport Plan and the future mobility and movement around Limerick City which is contained in the current Draft Limerick Shannon Metropolitan Area Transport Strategy (LSMATS).

As outlined in this MMP, the following key criteria and characteristics of the development demonstrate that 'zero' car parking provision is feasible, realistic and justified in this case:

- The site is ideally located to avail of a wide variety of **alternative and sustainable travel options** which surround the site and all of which are easily accessibility by walking or cycling.
- The site is located only < 9 minutes walk from the city centre and < 4 mins walk from the nearby **Colbert Bus and Train Station**. Travel times are lower still for those cycling.
- Safe and secure **cycle parking** areas have been provided within the development for all residents/visitors.
- In addition, the site is located only <4 mins walk from 2no. self-service **bike rental stations** in Colbert Station and Pery Square operated by the successful Coca-Cola Zero Bikes Limerick.
- The site is located only <4 mins walk from 2no. self-service **car rental stations** in Colbert Station and Barrington St. operated by GoCar
- The site is surrounded by several key **bus routes** through the city with **bus stops** located <1mins walk on Hyde Road and <4 mins walk at Colbert Bus and Train station and more.
- The site is located adjacent to several **existing public car parks** including the Hyde Road Car Park which is within <1 mins walk.
- **Walking and cycle times** from the proposed development to nearby key locations are shown below.

	Walk Time	Cycle Time
City Centre (example Thomas St.)	<9 minutes	<3 minutes
Colbert Bus and Train Station	<4 mins	<1 min
Local bus stop (301, 306 and more)	<1 min	<1 min
Bike Hire - Nearest Hub/Station	<4 mins	<1 min
Car Hire - Nearest Hub/Station (GoCar)	<4 mins	<1 min
Set down parking area adjacent to the development	<1 min	/

- The **Central Statistics Office** (CSO) data for residents living near the proposed development shows that they rely significantly less on private car use, rely more on sustainable modes of transport and have significantly shorter journey times compared to other locations in Limerick.

- Key **Actions** for consideration within the lifetime of this MMP report and possible conditions of planning include the provision of electric bike charging stations with the development, a new self-service bike hire hub/station within the development or nearby Hyde Road Park, a new car hire station or dedicated car club (carpooling/sharing) parking space(s) within Hyde Road Park for the development. In addition, consideration could also be given to allocating the set down spaces provided as part of this proposal for occupiers of the building and managed by the AHB should it be desirable.
- In conclusion, the development's ideal location with the city centre, apartment mix and type, its proximity to several public transport options, local high-quality infrastructure and facilities for both pedestrians and cyclists and other easily accessible services such as bike and car sharing located only minutes' walk from the development ensure that residents can easily avail of alternative transport modes and that provision of residential parking is not required or necessary.
- Similar to other recently granted city centre apartment developments, the proposed development meets all exceptional circumstances contained in the Limerick Development Plan (Section 11.8.3) and other key Development Plan sustainable mobility objectives and policies and can therefore justify the full relaxation of car parking requirement and wholly eliminate car parking provision for the development.
- It should be noted that the provision of parking on-site was not discounted during the overall design process. The provision of parking within the site was examined but the site itself does not ideally lend itself to parking for a variety of reasons including Geometric and Road Safety:
    - The size of the site is restricted geometrically and is not capable of providing sufficient under croft or underground parking spaces to justify the costs and would be wholly cost prohibitive for the proposed scale of the development.
    - More importantly, vehicular access to any potential car park would not be possible, firstly due to the proximity of the nearby signal junctions and secondly whereby exiting traffic wishing to turn right would have to weave across multiple lanes over a short distance, creating a potential serious road safety issue.

2 Proposed Development

2.1 General

The proposed development comprises 36no. Apartment units over 5 storeys as shown in Table 2.1.

Table 2.1 – *Proposed Development Schedule*

Proposed Development	Quantity / Units
1 Bed - Apartments	11
2 Bed - Apartments	25
Total Apartment Units	36
Car Parking Spaces	0
Bicycle Parking - Secure Shelter	1
On-Street Set-Down (Lower Careys Road)*	1no. for Refuse Collection / Set Down

2.2 Proposed Site Layout, Site Access and Local Road Network

The proposed site layout is shown below in Figure 2.1 and includes the following:

- The site is surrounded by high quality footpath provision in addition to nearby parks and more
- All nearby signal junctions have controlled pedestrian crossing facilities available
- *Existing set-down extended as part of the proposed development
- No car parking spaces and main pedestrian entry point and access from Lower Careys Road
- A safe and secure cycle parking shelter been provided behind controlled access gates for residents only. Controlled access is available on both sides of the building (see Figure 2.1)
- Lower Careys Road is a one-way westbound road with 3no. lanes (x2 right turn, x1 left turn)
- The site itself does not ideally lend itself to parking due to the proximity of the nearby signal junction (~10m from western boundary), whereby exiting traffic wishing to turn right may have to weave across lanes over a short distance, creating a potential serious road safety issue.

Figure 2.1 *- Proposed Site Layout (extract from FHP Drawing PP01)*

2.3 Parking Strategy and Justification

Residential car parking spaces are not proposed as part of the subject development planning application for 36no. apartment units.

The site location within the city centre, local transport links, development type, target demographics, car ownerships levels and supporting local, regional and national policy should help justify the full relaxation and provision of no car parking for the development.

a) **Local Policy**: Limerick Development Plan 2022-2028 (see Policy Framework below)

b) **Other Policy:** Recent guidance from the Department of Housing, Planning and Local Government 'Sustainable Urban Housing: Design Standards for New Apartments – March 2018' highlights that the default policy for new apartment dwellings located within close proximity to public transport, is for car parking provision to be ***'minimised, substantially reduced or wholly eliminated'*** in certain circumstances.

c) It is noted that the concept for car parking reduction or elimination in apartments is relatively new in Ireland, and therefore, proposals to implement a more sustainable approach for car parking may take time. Case studies[4] in the UK with reference to the 'Build to Rent' schemes, or Public Rental Schemes (PRS) demonstrate that the total average of car ownership for privately owned 1-2 bedroom residences is 0.6-0.7 cars per residential unit. This is compared with a car ownership of just 0.3 cars per residential unit for 1-2 bedroom residences that are rented (non-owner occupied). This data suggests that car parking demand for the rental market is also likely to be lower than traditional build to sell schemes in Ireland.

2.4 Policy Framework

2.4.1 Limerick Development Plan 2022-2028

The Limerick Development Plan 2022-2028 sets out a clear vision and strategy to provide an effective, sustainable and accessible transport system. A key objective is to seek reduced dependency on the private car and secure a shift towards sustainable modes of transport, including walking, cycling and public transport.

The overall policy approach seeks to look beyond catering for car dominated road space and focus on quality of life, the need for people to travel and the development of 10-minute cities and towns, where people can live close to their workplace, community facilities and services, thereby reducing the need for a private car.

This approach will be supported by a range of key Development Plan policies and objectives relating to sustainable mobility including: (REVIEW THESE – I assume)

- ***Policy TR P1*** - ***Integration of Land Use and Transport Policies***. 'It is a policy of the Council to support and facilitate the integration of land use and transportation policies, to ensure the delivery of sustainable compact settlements, which are served by sustainable modes of transport.'

[4] Unlocking the Benefits and Potential of Build to Rent' report by British Property Federation commissioned from Savills and academically reviewed by LSE

- ***Policy TR P2 - Promotion of Sustainable Patterns of Transport Use***. It is a policy of the Council to seek to implement in a positive manner, in cooperation with other relevant authorities and agencies, the policies of the NPF, RSES and the Department of Transport's Smarter Travel, A Sustainable Transport Future 2009 – 2020, to encourage more sustainable patterns of travel and greater use of sustainable forms of transport, including public transport, cycling and walking.
- ***Policy TR P5 - Sustainable Travel and Transport***. 'It is a policy of the Council to support, facilitate and co-operate with relevant agencies to secure sustainable travel within Limerick and seek to implement the 10 minute city/town concept, promote compact growth and reduce the need for long distance travel, as a means to reduce the impact of climate change.'
- ***Objective TR O11 - Universal Design***. 'It is an objective of the Council to ensure that all transport schemes incorporate high-quality urban realm design that is attractive, safe, comfortable and accessible for all individuals.'
- ***Objective TR O12 - Limerick – Shannon Metropolitan Area Transport Strategy***. 'It is an objective of the Council to facilitate the implementation and delivery of the proposals that will be contained in the final Limerick Shannon Metropolitan Area Transport Strategy, in conjunction with the National Transport Authority, Transport Infrastructure Ireland and Clare County Council and other relevant stakeholders.
- ***Objective TR O13*** - ***Delivering Modal Split*** away from private car use. 'It is an objective of the Council to:
    - a) Promote a modal shift away from the private car towards more sustainable modes of transport including walking, cycling, carpool and public transport in conjunction with the relevant transport authorities;
    - b) Support investment in sustainable transport infrastructure that will make walking, cycling, carpool and public transport more attractive, appealing and accessible for all.
- ***Objective TR O28 - Mobility Management***. 'It is an objective of the Council to require the submission of Mobility Management Plans, subject to the guidance provided in the Toolkit for School Travel, Safe Routes to School Programme, Workplace Travel Plans – A Guide for Implementers and Achieving Effective Workplace Travel Plans – Guidance for Local Authorities, for any development that the Council consider will have significant trip generation and attraction rates, at peak hours or throughout the day and where existing or proposed public transport may be utilised***.***
- ***Objective TR O44 - Traffic Management***. 'It is an objective of the Council to require the submission of Mobility Management Plans and Traffic and Transport Assessments in accordance with the requirements of Traffic and Transport Assessment Guidelines (2014), for developments with the potential to create significant additional demands on the traffic network by virtue of the nature of their activity, the number of employees, their location or a combination

of these factors and for significant developments affecting the national and non-national road network.' See Development Plan Chapter 11.8 Transport and Infrastructure for details.

Although the Plan recognises that many areas of Limerick are currently poorly serviced by frequent public transport networks and therefore require sufficient parking, the Plan also recognises that the parking requirements (Table DM 8a) for many areas of the city and for specific planning applications may be relaxed in part or whole in exceptional circumstances[5] including:

1. Limited/Restricted site area - Site size whereby refurbishment on sites of any size or urban infill schemes on sites of up to 0.25ha, car parking provision may be relaxed in part or whole, on a case-by-case basis, subject to overall design quality and location;
2. Proximity to public transport service;
3. Sustainable travel infrastructure supported by a Mobility Management Plan;
4. Availability of car sharing and bike/ebike sharing facilities on-site and in the vicinity;
5. Existing car parking in the vicinity, including on street and the potential for dual use subject to agreement and management details;
6. Impact on traffic safety and the capacity of the road network;
7. Urban design, regeneration and civic benefits of the proposal including enhancement of public realm.

As outlined below and throughout this Mobility Management Plan (MMP) report, the proposed development meets all 7no. 'exceptional circumstance' (see above) and is supported by key Development Plan Objectives and Policies, thereby justifying a full relaxation of car parking standards and requirements and parking provision wholly eliminated for the development.

The area of proposed site is approximately 0.17Ha (less than 0.25ha) and is located in close proximity to

- The city centre which allows ease of access on foot or cycle (Parking Zone 1)
- Several public transports routes
- Colbert bus and train station
- Nearby car and bike/e-bike sharing services
- Other sustainable travel infrastructure and facilities

As per Table DM 8 (a)[2], the proposed development is located in Zone 1[6] and requires the following parking provision:

- 18no. car parking spaces based on a rate of 0.5 spaces per unit
- No visitor car parking required
- 36no. cycle parking spaces based on a rate of 1.0 spaces per unit
- 18no. visitor cycle parking spaces based on a rate of 1.0 space per 2 units

[5] See Limerick Development Plan 2022-2028 Section 11.8.3 Car and Bicycle Parking Standards

[6] The Limerick Development Plan 2022-2028 Plan states that parking zones are the same as the density zones outlined in Chapter 2: Core Strategy, Section 2.3.5.2.

Based on meeting the above exceptional circumstances and supported by a range of Development Plan policies and objectives, it is concluded that the proposed development can justify relaxing the parking requirements in full and the provision of no car parking on site.

2.4.2 Smarter Travel Limerick – A Sustainable Transport Future

Smarter Travel was published in 2009 by the Department of Transport which represents the national policy documentation outlining a broad vision for the future and establishes objectives and targets for transport. The document examines past trends in population and economic growth and transport concluding that these trends are unsustainable into the future.

In order to address the unsustainable nature of current travel behaviour, Smarter Travel sets down a number of key goals and targets - including:

- Total vehicle km travelled by car will not significantly increase
- Work-related commuting by car will be reduced from 65% to 45%;
- 10% of all trips will be by cycling;
- The efficiency of the transport system will be significantly improved.

The document recognises that these are ambitious targets, and outlines a suite of 49 actions required to achieve these targets – summarised under the following four main headings:

- Actions aimed at reducing distances travelled by car and the use of fiscal measures to discourage use of the car;
- Actions aimed at ensuring that alternatives to the car are more widely available;
- Actions aimed at improving fuel efficiency of motorised travel; and
- Actions aimed at strengthening institutional arrangements to deliver the targets.

2.4.3 Sustainable Urban Housing: Design Standards for New Apartments: Mar 2018

This guideline document was produced by the Department of Housing, Planning and Local Government and was updated with the latest version in March 2018. The purpose of this document is to set out standards for apartment development, mainly in response to circumstances that had arisen whereby some local authority standards were at odds with national guidance.

With the demand for housing increasing, it is critical to ensure that apartment living is an increasingly attractive and desirable housing option for a range of household types and tenures.

These Guidelines apply to all housing developments that include apartments that may be made available for sale, whether for owner occupation or for individual lease. They also apply to housing developments that include apartments that are built specifically for rental purposes, whether as ‘build to rent’ or as ‘shared accommodation’.

Walking and cycling provides a flexible, efficient and attractive transport option for urban living and these guidelines require that this transport mode is fully integrated into the design and operation of all new apartment development schemes.

2.5 Estimated Trip Generation

Development trips were estimated using the industry stand TRICS trip rate database and is shown below in Table 2.2. TRICS contains a wide sample of traffic surveys from various types of development throughout the Ireland and the UK.

Table 2.2 – *Estimated Development Trips: 36no. Apartments TRICS*

Apartments	**Arrivals**		**Departures**	
Units:	**Trip Rate**	**No. of Trips**	**Trip Rate**	**No. of Trips**
Time		**(vehicles)**		**(vehicles)**
08:00-09:00	0.074	3	0.194	7
17:00-18:00	0.135	5	0.067	2

These statistics, along with other site accessibility information and proposed measures such as car sharing and bike sharing as part of this MMP suggest that a provision of 0.3 parking spaces per apartment unit is not only realistic and feasible but is a sustainable measure that is suitable for this development type and target demographic but also compliments both the existing and potential future public transport infrastructure adjacent to the site.

3 Existing Travel Conditions

3.1 Site Location - Local Amenities

As shown in Figure 1.1, the proposed development site is ideally located in terms of its close proximity to a wide range of local city centre amenities and is within easy walking and cycling distance of several key attractors and typical vehicle trip generators including retail, employment, education, entertainment, leisure and transport facilities such as public parks, sports and fitness clubs and other services such as banking, laundry and more. The proposed development meets the Development Plan Policy TR P5 which seek to implement the 10 minute city/town concept, promote compact growth and reduce the need for long distance travel.

The proposed development site is located in a city centre urban area surrounded by a road network with quality facilities and infrastructure for vulnerable road users and public transport users.

3.2 Existing Travel Patterns – CSO

The Central Statistics Office (CSO) Census 2016 Small Area Population Statistics (SAPMAP) has been used to gather data for existing commuting travel patterns for 'Population aged 5 years and over by means of travel to school, work or college' for the Limerick City and Suburbs (settlement area) as shown in Figure 3.1 and outlined below in Table 3.1 and Figure 3.2.

The more localised CSO SAPMAP small area (Sa2017_128030002) data is also shown in Table 3.1 which demonstrates that residents living in and around the proposed site are closer to the city centre and therefore rely less on private car use (20.27%), rely more on sustainable modes of transport and have significantly shorter journey times (Table 3.2).

Figure 3.1 *– CSO SAPMAP screenshot (Limerick City and Suburbs Settlement Area)*

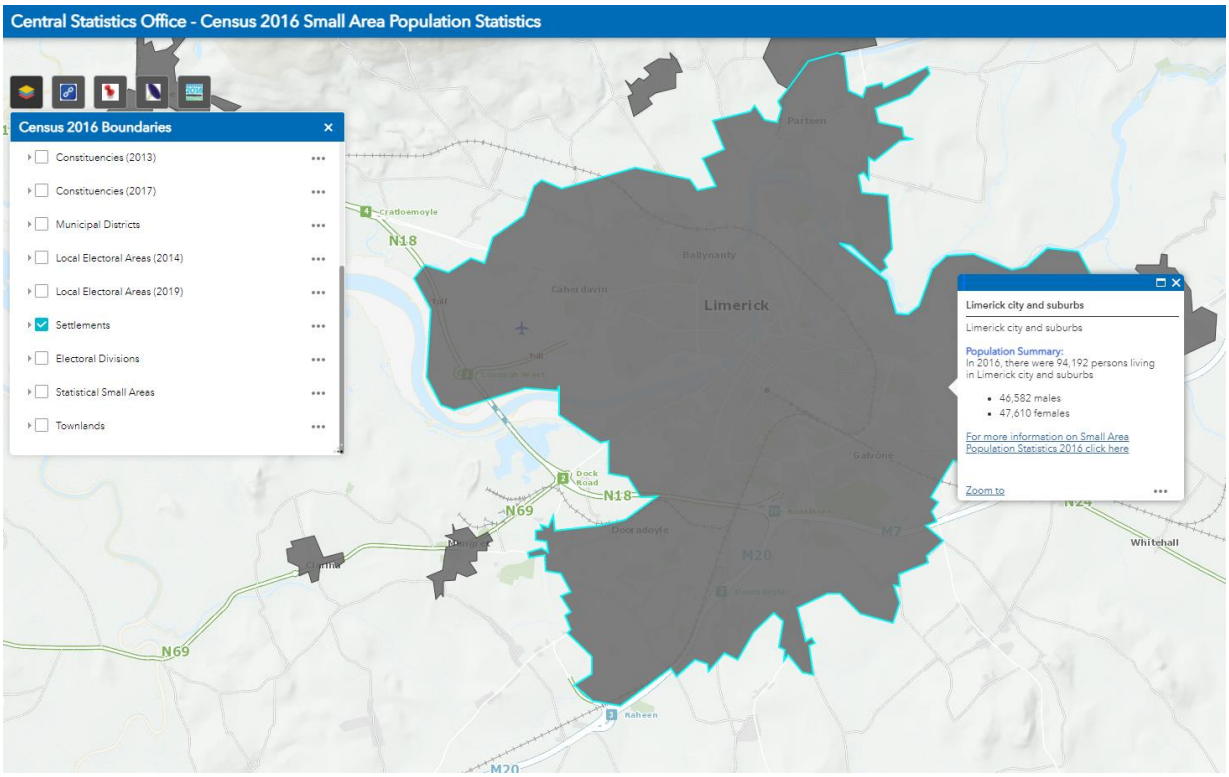


Table 3.1 *– 2016 CSO Limerick City Settlement Area & Local Area Surrounding Site - Mode of Travel*

Travel Mode	2016 Mode of Travel to Work/School/College	
	Limerick City	**Local Small Area**
On foot	22.34%	36.49%
Bicycle	2.79%	4.05%
Bus, minibus or coach	7.27%	6.76%
Train, DART or LUAS	0.21%	0.00%
Motorcycle or scooter	0.21%	0.00%
Car driver	38.51%	20.27%
Car passenger	18.56%	18.92%
Van	2.13%	2.70%
Other (incl. lorry)	0.13%	0.00%
Work mainly at or from home	1.44%*	1.35%
Not stated	6.42%	9.46%
TOTAL	**100%**	**100%**

Working from home is likely to increase significantly post Covid

Figure 3.2 *– CSO SAPMAP – 2016 CSO 'Travel to Work' Modal Split*

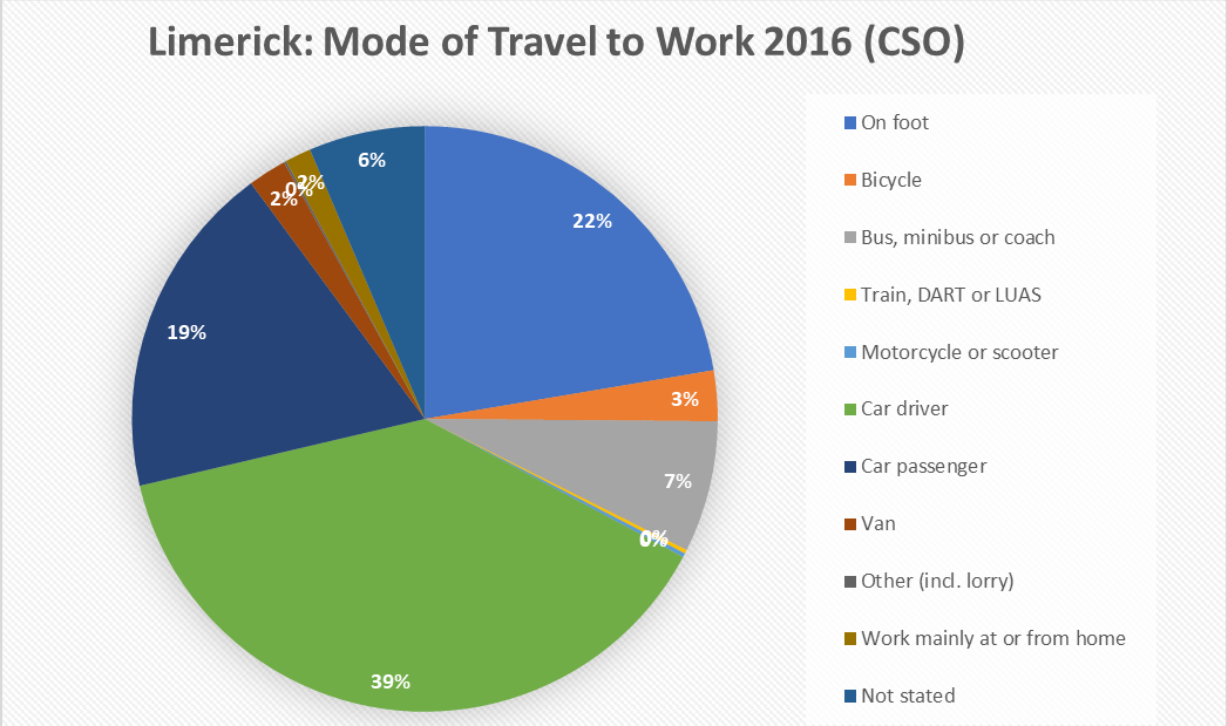


Table 3.2 *– 2016 CSO Limerick Settlement Area – Journey Time*

	Travel to Work/School/College	
Journey Time	**Limerick City**	**Local Small Area**
Under 15 mins	35%	36%
1/4 hour - under 1/2 hour	38%	44%
1/2 hour - under 3/4 hour	13%	3%
3/4 hour - under 1 hour	2%	1%
1 hour - under 1 1/2 hours	2%	3%
1 1/2 hours and over	1%	0%
Not stated	9%	14%

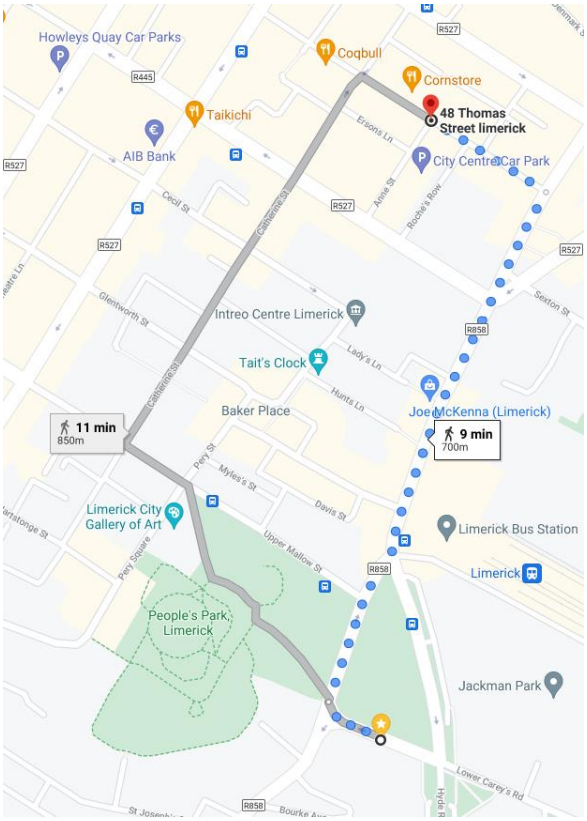
The above travel mode and journey time CSO statistics suggest that this city centre apartment development without resident parking provision would be appropriate in terms of accessibility.

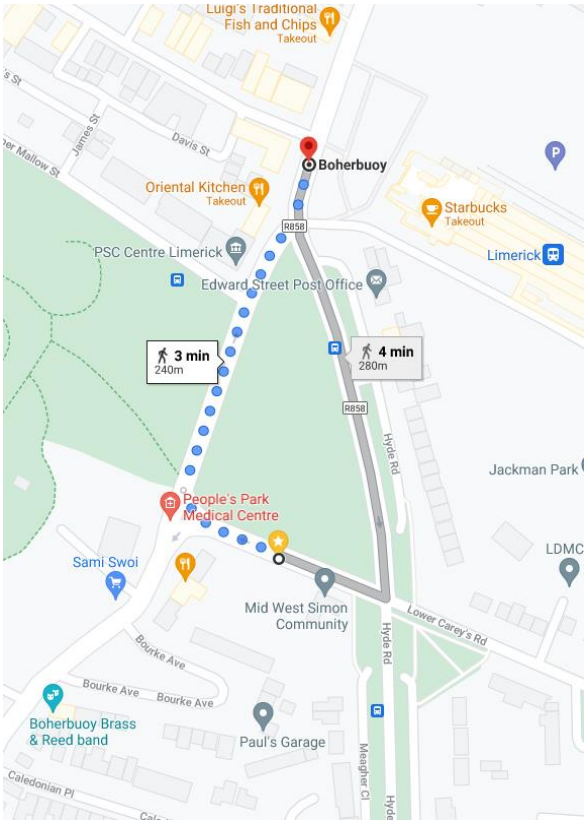
3.3 Pedestrians

As part of the site layout design, pedestrian access to the proposed development is via the main front facing building entrance or via the controlled access gates on either side of the building which also provide access to the rear open space and cycle parking facilities.

The site is located within easy walking distance of several key attractors. There are good existing footway facilities including signalised crossing points, street lighting and pedestrian paths through nearby parks which link the site to these nearby key attractors in all directions and to the surrounding public transportation links.

Figure 3.3 - *Approx. Walking Time to key local trip generators/attractors*





< 700m (<9mins walk) from Thomas Street <300m (<3mins) walk from Limerick Bus/Train Station

Typical walk times are outlined below and on Table 3.3:

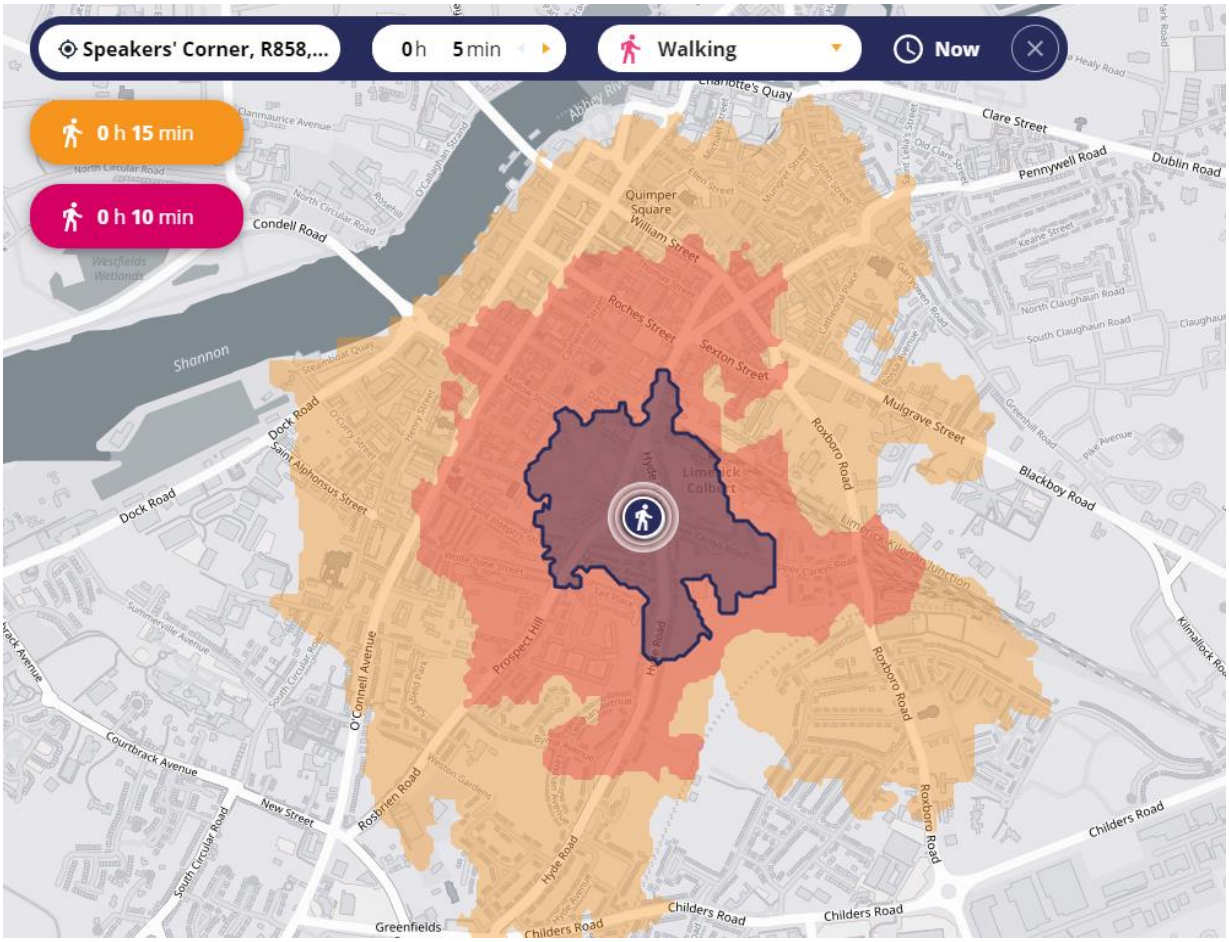
- Typical commuting walking speed is 3.7mph (6km/h or 1.65m per second)
- Typical walking speed for adults is 3.1mph (5km/h or 1.39m per second)
- Typical walking speed for school children is 2.7mph (4.3 km/h or 1.21m per second).

Table 3.3 – *Average Walk Times and Distances*

Walking Time	Avg. Distance (Child)	Avg. Distance (Adult)	Avg. Distance (Commuter)
5 minutes	363m	417m	495m
10 minutes	726m	726m	990m
20 minutes	1,452m (1.45km)	1,452m (1.45km)	1,980m (1.98km)
30 minutes	2,178m (2.18km)	2,178m (2.18km)	2,970m (2.97km)

As shown in Figure 3.4, this isochrones diagram illustrates how far the average Adult (3.1mph/5km/h) can walk in 5, 10 and 15 minutes from the site and highlights that nearly the entire city centre is within easy 15min walk from the site. This diagram in addition to the use of travel planning websites and apps such as Google Maps or the Transport for Ireland Journey planner will help residents estimate how long it would take to walk to work, school or the city centre from the proposed residential development.

Figure 3.4 - *Approx. Walking Time Isochrones Diagram from Site Location*



3.4 Cycling

As outlined in Section 2.3, secure and sheltered cycle parking been provided within the site and access to same will be via a controlled pedestrian access gate on both sides of the building as shown in Figure 2.1. Continued improvements to cycle facilities and infrastructure is planned throughout Limerick City as part of both the current 2016 and future development plan documents, the Limerick Metropolitan Cycle Network Study and other Smarter Travel initiatives.

With improved cycle facilities proposed as part of the several plans and initiative within the city, the attractiveness of cycling throughout city will be significantly improved over time. Typical cycling times are outlined below in Table 3.4 based on typical cycle speeds for school children (<14 years old), for adults (>14yrs) and for commuting cycling speed. As shown in Figure 3.5, this isochrones diagram illustrates how far the average Adult (3.1mph/5km/h) can cycle in 5, 10 and 15 minutes

Table 3.4 – *Average Cycle Times and Distances*

Cycle	Avg. Distance (Child)	Avg. Distance (Adult)	Avg. Distance (Commuter)
Time / Speed	13.7km/h or 3.8m/s	16km/h or 4.5m/s	24km/h or 6.7m/s
5 mins	1,140m (1.14km)	1,341m (1.34km)	2,010m (2.01km)
10 mins	2,280m (2.28km)	2,682m (2.68km)	4,020m (4.02km)
20 mins	4,560m (4.56km)	5,364m (5.36km)	8,040m (8.04km)
30 mins	6,840m (6.84km)	8,046m (8.05km)	12,060m (12.06km)

Figure 3.5 - *Approx. Cycle Time Isochrones Diagram from Site Location*

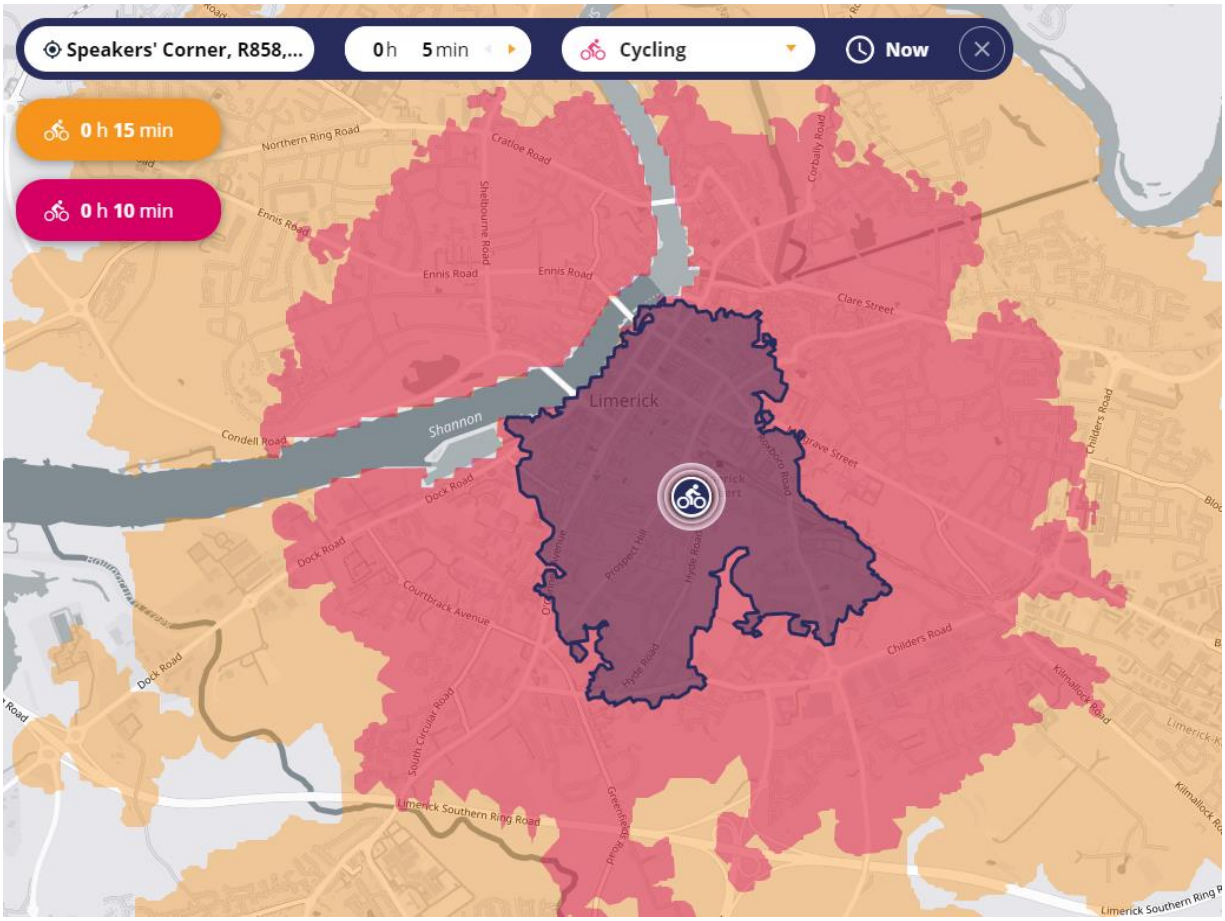


Figure 4.3 highlights that the site is located within easy cycling duration/distance (0-15mins) of nearly the entire city, all key attractors and typical vehicle trip generators such as the city centre, local shops, local employment, the bus and train station and more. Therefore, cycling as a mode of travel options for commuting to school or work has great potential.

This diagram in addition to the use of travel planning websites and apps such as Google Maps or the Transport for Ireland Journey planner will help residents estimate how long it would take to cycle to work, school or the city centre from the proposed residential development site.

3.5 Bike Sharing

Coca-Cola Zero Bikes Limerick is a self-service bike rental service open to all from 14-years old. Stations are conveniently located throughout Limerick making it easy to get around on a Coca-Cola Zero Bike, whether it is commuting to work and meetings or some sight-seeing at your leisure.

For more information visit www.bikeshare.ie. New bike stations are being continually added where required.

At present there are 23 stations and 215 bikes located throughout Limerick City and as shown below in Figure 3.6, there are two stations located within close proximity to the proposed site (<4 mins walk) including:

- Pery square (west side of Peoples Park) which has 9 stands
- Colbert Train Station which has 13 stands
- The bike share app provides users with live information for each station such as the number of bikes available to use at that moment, live GPS directions to each station and more

Figure 3.6 – *Bike Share Locations*

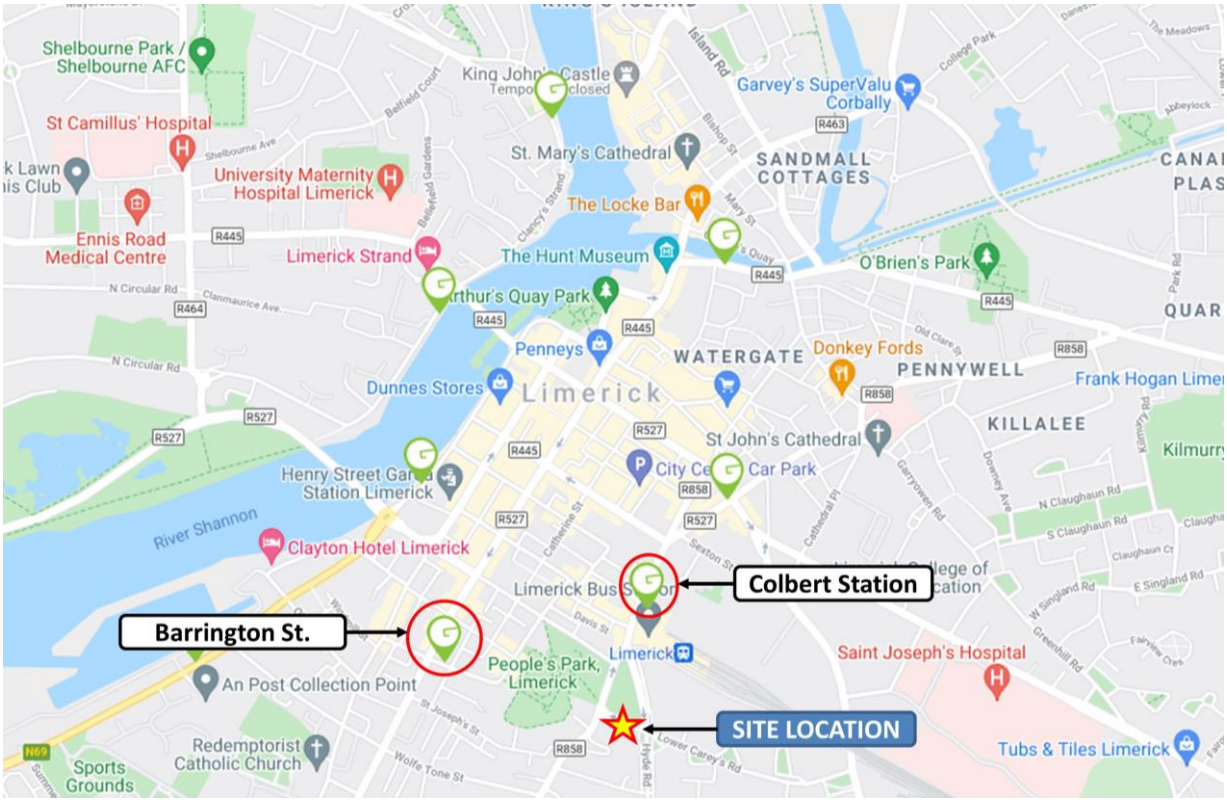
3.6 Car Sharing

GoCar is a self-service car rental service with locations conveniently located throughout Limerick as shown in Figure 4.5. With 13no locations throughout the city, GoCar offer easy to use pay-as-you-go driving with hourly rates from only €9/hr on a return to base scheme.

Members can book cars online or via the app, access the vehicle using their phone or GoCard, enter a pin to release the keys and they're off. Multiple vehicle types are available from cars to large vans.

As shown in Figure 3.7, there are 2no. GoBase rental locations in close proximity to the site (<4mins walk) which can easily be availed of if a resident requires a car.

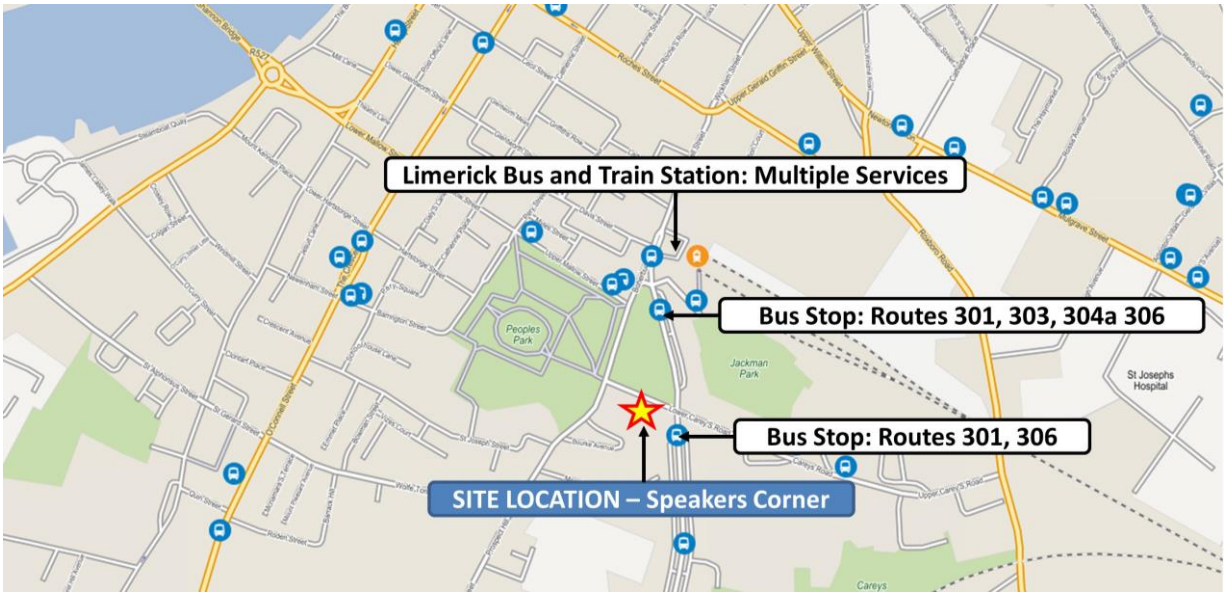
Figure 3.7 *– Car Share Locations*



3.7 Public Transport

As outlined in Section 2.2 and shown below in Figure 3.8, the site is located less than 5 min walk from several public transport options including nearby bus stops and the Limerick Bus and Train Station which provides multiple train services and bus routes.

***Figure 3.8** – Local Public Transport Options*



The local bus and train services operate on a daily basis and offer relatively frequent schedules which can be found in detail here www.journeyplanner.transportforireland.ie. Detailed route maps for each of the bus services and the various destinations that they serve along their routes are shown in Appendix A. Figure 3.9 below illustrates approx. how far you can travel from the site by public transport in 10, 20 and 30 minutes.

***Figure 3.9** - Approx. Public Transport Travel Time Isochrones Diagram*

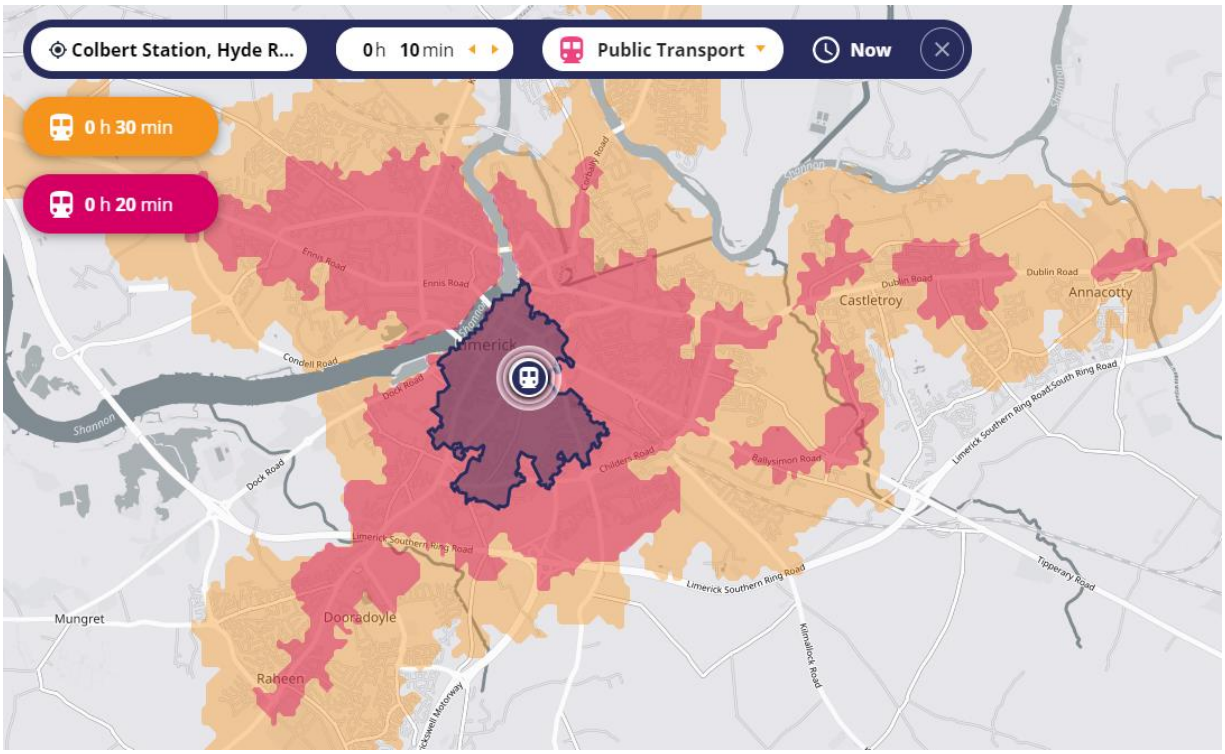
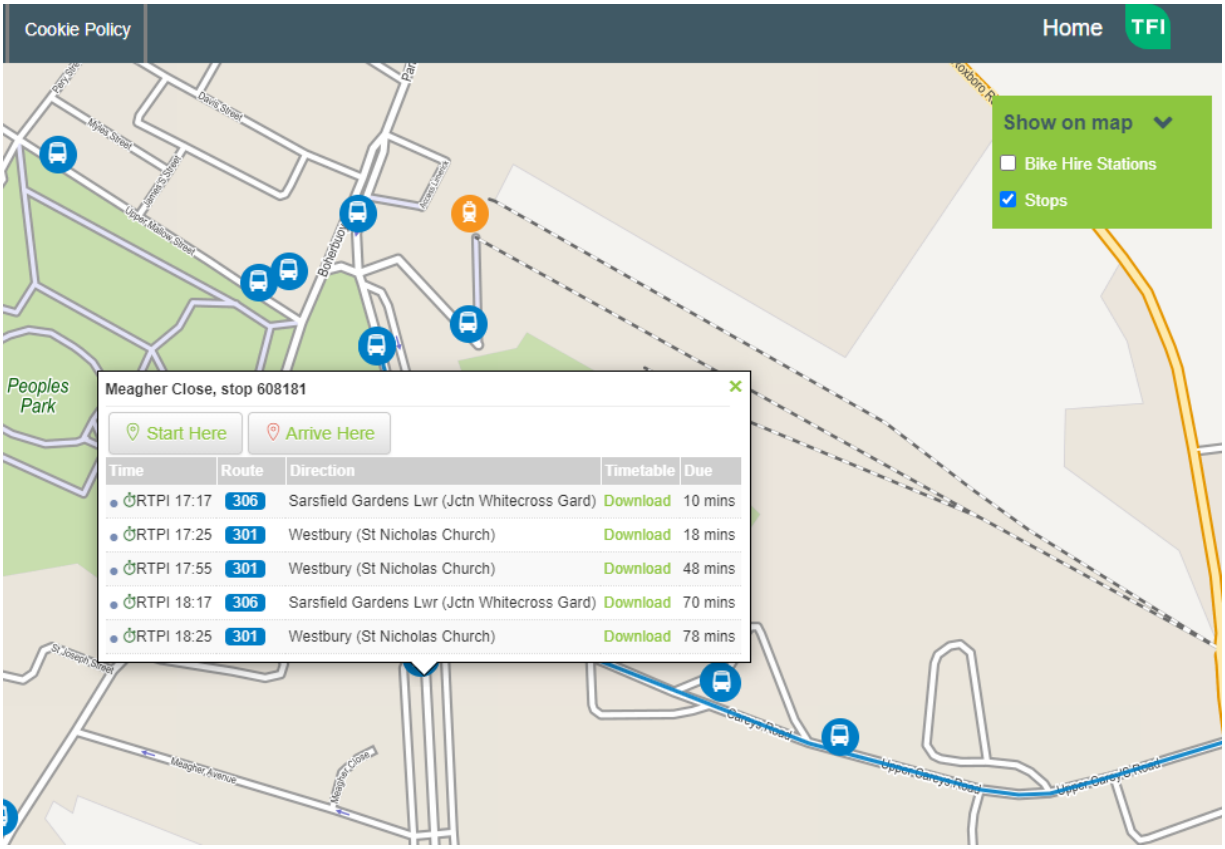


Figure 3.9 highlights that the majority of the city and major trip attractors are within only 30min travel time on public transport (bus) from the site. This diagram in addition to the use of travel planning websites and apps such as Google Maps or the Transport for Ireland Journey planner will help residents estimate how long it would take to go to work, school or the city centre by public transport from the proposed residential development site.

With continual advance in technology and the use of mobile platforms harnessing the use of GPS on your phone, real time public transport information has never been more accessible. GPS has transformed public transport information and now, exact user location, bus stop and route information is available 'live' on your phone via mobile websites and Apps such as Google Maps and the Transport for Ireland website and app www.transportforireland.ie. A sample screenshot of 'real time' information for the Meagher Close bus stop (no 608181) adjacent to the site is shown below in Figure 3.10.

***Figure 3.10** – 'Real Time' Public Transport Information (www.transportforireland.ie)*



4 Objectives and Targets

4.1 General

The overall aim of this MMP report is to demonstrate that the proposed city centre apartment development can operate in a sustainable manner without parking provision for its residents and this can be achieved by

- Reviewing existing local mode of travel statistics (CSO) – See Section 3.2.
- Ensure all residents are aware of the sustainable transport options available to them
- Provide quality and relevant information to residents through appropriate mediums
- Encourage the use of sustainable modes of transport
- Promote walking and cycling as a health benefit to residents
- Promote healthy lifestyles and sustainable vibrant local communities

The above objectives can be achieved through considering both hard and soft initiatives and measures as outlined in Section 8.0.

4.2 CSO Travel Statistics and MMP Targets

In order to establish a range of travel patterns including model split (mode of travel), travel time, car ownership, demand for car parking and more within the surrounding area of the proposed development site, the 2016 CSO small area map statistics have been reviewed and analysed (see Section 3.2).

Taking into account an ideal urban site location, proximity to major attractors, well-developed public transport facilities, good local pedestrian and cycling facilities and the implementation of a wide range of positive measures and initiatives, the initial modal split targets for residents traveling to Work/School/College are shown in Table 5.1 and compared against the existing CSO mode of travel data for the CSO small area surrounding the proposed site location.

Table 5.1 *– Mode of Travel Split*

Modal Share	Limerick City and Suburbs 2016	Mode of Travel
On foot	36.49%	60%
Bicycle or bike share	4.05%	10%
Bus, minibus, taxi or car share	6.76%	20%
Train, DART or LUAS	0.00%	3%
Motorcycle or scooter	0.00%	1%
Car driver	20.27%	
Car passenger	18.92%	
Van	2.70%	
Other (incl. lorry)	0.00%	
Work mainly at or from home	1.35%	6%
	100%	100%

The targets outlined above should be considered as preliminary targets for review over time.

The MMP targets set out above aim to demonstrate that no parking provision is both feasible and sustainable taking into account the following:

- Ideal city centre urban site location
- Development type and apartment beds/occupancy
- Target demographic – age and tenant
- High quality and high frequency public transport services in close proximity to the site
- The sites proximity to key trip attractors such as shopping, employment, education and city centre which allow residents live close to their workplace, community facilities and services which is the basis of the 10-minute city objective.
- Good pedestrian and cycling facilities surrounding the site
- Cycle parking provision as per the required standards
- Implementation of multiple positive measures and initiatives as part of the MMP
- Nearby bike sharing services
- Nearby car sharing services
- The proposed development meets all 7no. exceptional circumstances contained in the Limerick Development Plan 2022-2028 (Section 11.8.3) and other key sustainable mobility objectives and can therefore justify the full relaxation of car parking requirements and wholly eliminating parking provision for the development.

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5 Action Plan

5.1 Proposed Action Plan Measures

In order to achieve the objectives and targets set out above, the Action Plan outlined below in Table 5.1 contains both 'Soft' measures (operational and promotional) and 'Hard' (infrastructural) measures for consideration as part of the live plan.

One of the only opportunities to implement 'Soft' measures as part of residential only development is providing information to new residents and displaying information in shared spaces with the development such as the lobby/entrance/lift area.

Table 5.1 *– Action Plan*

#	Category	Action	Year
1	**Soft**	Provide key walking, cycling, public transport and parking information to all new residents	**1**
2	**Soft**	Display travel information for walking, cycling and public transport (Maps, etc) in a prominent location within the development	**1**
3	**Soft**	Provide and display travel information and locations for both nearby bike and car sharing services in a prominent location within the development	**1**
4	**Soft**	Provide and display information about the locations and most convenient routes to / from local services (e.g. shops, banks, doctors, dentist, pharmacy, laundry, café, schools etc.).	**1**
5	**Soft**	Transport for Ireland (TFI) provide information, useful tools and services online and in print. https://www.transportforireland.ie/available-apps/	**1**
6	**Soft**	If required, provide residents with cost comparison of using car and bike sharing services and public transport compared to purchasing, taxing, insuring, fuel, parking costs and maintaining a private vehicle on an annual basis	**1**
7	**Soft**	Promote 'working from home' to residents with the availability of high speed internet access from each residential unit, therefore potentially reducing work & college trips	**1**
8	**Soft**	Display information about Public Transport Tax Saver Tickets	**1**
9	**Soft**	Provide a number of shared umbrellas for residents at appropriate location using an honesty system to encourage walking even during poor weather	

#	Category	Action	Year
10	**Soft**	Provide cycle parking information to all new residents	**1**
11	**Soft**	Use Cycle Time Travel Maps (isochrones diagrams) to illustrate cycle times to the Centre from various surrounding locations, thereby encouraging more cycling.	**1**
12	**Soft**	Organise bike maintenance training to those interested residents	**1**
13	**Soft**	Display information about Cycle to Work Tax Saver Scheme in a prominent location within the building	**1**
14	**Soft**	Promote participation in National Bike Week for day for residents	**1**
15	**Soft**	Support the establishment of a Bicycle Users Group (BUG) where cyclists can work together to encourage cycling and improve facilities for cyclists in the local area	**1**
16	**Hard**	Create a bike repair and maintenance area/base within the development cycle parking area, stock with the required tools and make it available to all residents and staff	**2**
17	**Hard**	Review cycle parking demand within the site and provide additional facilities if required. Consider electric bike fast charging stations and possible bike hire station within the site	**2**
18	**Hard**	Support the consideration and possible provision of new car and bike sharing facilities in the existing public car park within Hyde Road Park	**2**
19	**Soft**	Provide the Travel Survey to residents in both print and digital formats for the annual Monitoring Phase to increase the rate of return of surveys. Digital formats may include the use of platforms such as Survey Monkey of Google Forms, etc.	**1**
20	**Hard**	Where required, review and continue to improve accessibility and connectivity for the mobility impaired or sensory impaired residents between the existing footpaths and crossing points on the adjacent road network and the site entrance	**2**
21	**Hard**	Where required, review and continue to improve public street lighting on the road network surrounding the site.	**2**

To implement the MMP Actions the following steps are taken:

- Establish a named Mobility Management Coordinator and Steering Group through which all decisions should be made in relation to the consideration, implementation and review of the proposed measures and actions, in conjunction with the Local Authority
- Implement an awareness campaign to promote the Mobility Measures/Actions:
    - Leaflets/ Mobility Fact Sheets/newsletter/website
    - Present to residents
    - Information campaigns should be repeated regularly
    - Implement the recommended measures and review

6 Monitoring

6.1 Monitoring Mode of Travel

The MMP should be monitored and reviewed annually by the MMP Co-ordinator (See Section 8):

- The first 'Travel Survey' of residents should be carried out on the first anniversary of the date of residents occupying the building
- Undertake the travel survey annually thereafter, for a period of 3 years, thereby monitoring progress over time
- The results of the Travel Survey to be monitored against the Objectives and Targets (Section 5) and the Action Plan (Section 6) of this MMP
- The 'Blank' Annual Travel Survey Questionnaire is contained in Appendix B of this report. This should be converted in digital format for use online if required. To increase the rate of return of survey, it is recommended that they be conducted both in print and online and give the options of both.
- The Annual Travel Survey will be filled out by each Resident and and/or the MMP Co-ordinator with the overall results recorded and monitored annually
- Upon completion of the questionnaire, the appointed MMP Co-coordinator will compile a Monitoring Report which contains:
    - Summary of results from the annual Travel Survey for residents
    - Details of any initiatives carried out during the year
    - Indicate if the 'soft' and/or 'hard' measures in the Action Plan have been considered, commenced or implemented over the previous year and if they have been considered successful or unsuccessful; and
    - Details of any promotional material used, displayed or created to promote sustainable travel.
- The appointed MMP Co-ordinator will submit the annual Monitoring Report to the Mobility Management section of the Local Authority for a period of three years.
- A 'blank' Monitoring Report Template is contained overleaf in Table 6.1 which can be filled out and submitted to the Local Authority each Year. Questions 1 to 9 in the Monitoring Report Template are to be compiled directly from the results of the Travel Survey Questionnaire in Appendix B.
- In order to promote and increase awareness on sustainable travel modes of travel the results of each monitoring report should be made available to all staff and residents
- The survey will also ask residents what if any improvements could be made in or around the site, for example, additional bike or car sharing locations, bus timetable information and more.

- A potential addition or alternative to the annual survey could be the use of Central Statistics Office (CSO) Census 2016 Small Area Population Statistics (SAPMAP) can be reviewed every 4 years for the immediate local area and can be used to gather data for existing commuting travel patterns of residents and the local community. Using Census statistics will allow a direct comparison with 2016 mode of travel statistics shown in Table 2.1.

Table 6.1 *– MMP Co-ordinator - Monitoring Report Template*

Item A: Question 1 Modal Share	**Baseline**	**Modal Split Target**	**Year 1 Survey**	**Change +/-**	**Year 2 Survey**	**Change +/-**	**Year 3 Survey**	**Change +/-**
On foot	22.34%	60%	%					
Bicycle/bike share	2.79%	10%	%					
Bus & car share	7.27%	20%	%					
Train,	0.21%	3%	%					
Motorcycle	0.21%	1%	%					
Car driver	38.51%		%					
Car passenger	18.56%		%					
Van	2.13%		%					
Other (incl. lorry)	0.13%		%					
Work from home	1.44%	6%	%					

Question 2 & 3	**Ped**	**Cycle**	**Bike Share**	**Bus**	**Taxi**	**DART Luas**	**Motor Bike**	**Car**	**Car Share**	**Pass**	**Work from home**
Q2 Year 1	%										
Q2 Year 2	%										
Q2 Year 3	%										
Q3 Year 1	%										
Q3 Year 2	%										
Q3 Year 3	%										

Question 4	**<1km**	**1-2km**	**2-4km**	**5-10k**	**10-20**	**20+**	**Average**	**Min**	**Max**
Q4 Year 1	%								
Q4 Year 2	%								
Q4 Year 3	%								

Question 5	**Own a Car**	**Do Not Own a Car**	**Why? Do not require a car**	**No Parking available**	**Cost**	**Park nearby**	**Consider**	
							Car Share	**Bike Share**
Q5 Year 1	%							
Q5 Year 2	%							
Q5 Year 3	%							

Question 6 to 14	**Action Plan Measure Number**	**Well Implemented %**	**Implemented %**	**More Info Required %**	**Not Aware of Measure %**
Q6					
Q7					
Q8					
Q9					
Q10					

Q11					
Q12					
Q13					
Q14					
Q15					

General	Baseline	Year 1	Year 2	Year 2
Number of Residents				
Members of GoCar				
Average Monthly Use (Hours)				
Members of Bike Share				
Average Monthly Use (Hours)				
No. of Cycle Spaces	54			
Average Daily Occupancy				

Item B	Year 1	Year 2	Year 3
Incentives Carried Out	**Notes:**	**Notes:**	**Notes:**

Item C	Tick Box and Enter year				
Action No.	**Considered**	**Commenced**	**Implemented**	**Successful**	**Not Successful**
1					
2					
3					
4					
5					
6					
7					
8					
9					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					
21					

7 Travel MMP Co-ordinator

7.1 Nominated Co-ordinator

A MMP Co-ordinator can be nominated with their details filled in below. The Co-ordinator will be responsible for reviewing and considering each of the proposed measures and if required, undertaking the travel mode survey.

Name	
Position	
Address	
Phone	
Email	

8 Conclusion

8.1 Proposed Action Plan Measures

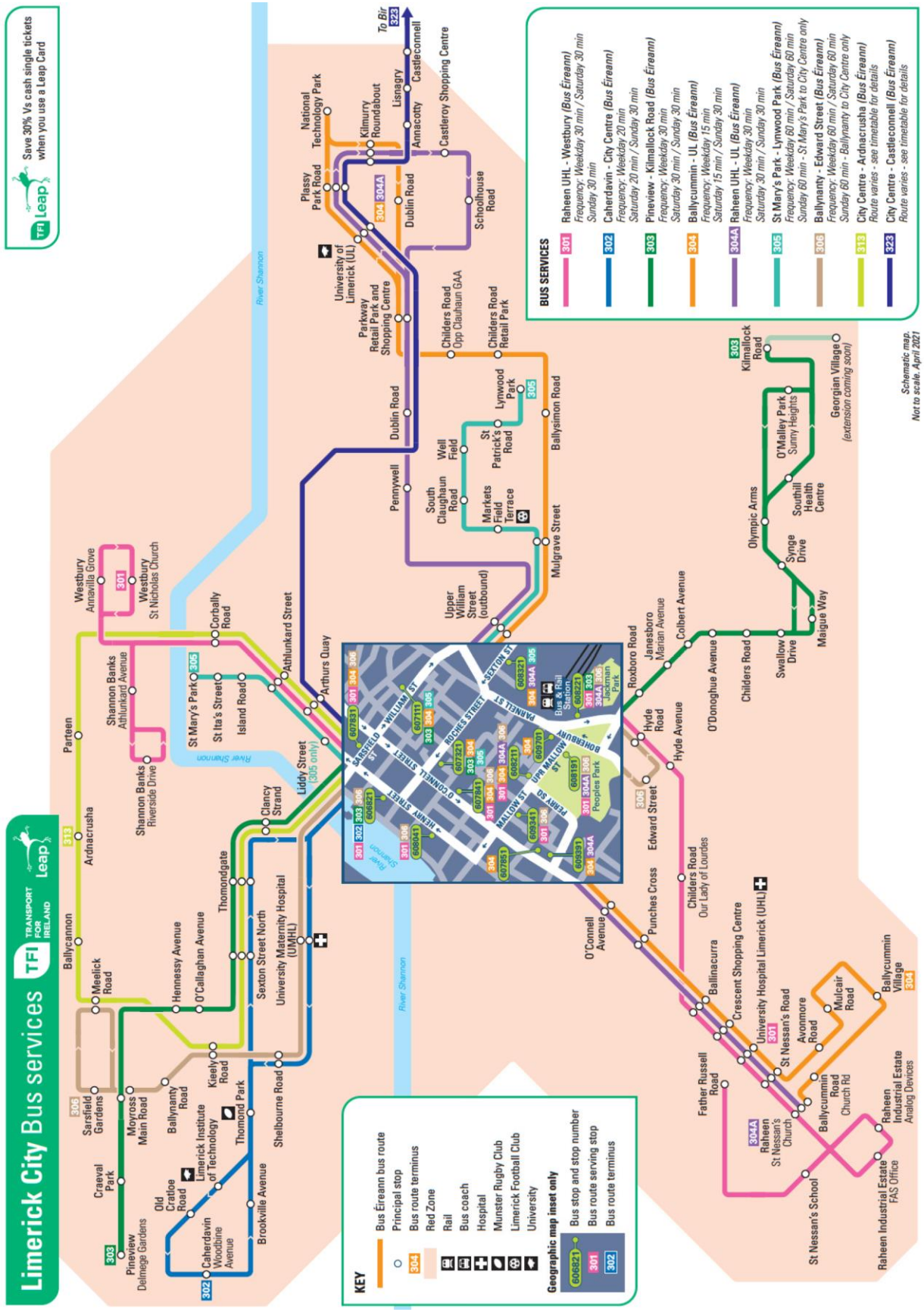
This Mobility Management Plan Report has been compiled to demonstrate that the proposed city centre apartment development can operate in a sustainable manner without parking provision for its residents.

The development's ideal location with the city centre, apartment mix and type, its proximity to several public transport options, local high-quality infrastructure and facilities for both pedestrians and cyclists and other easily accessible services such as bike and car sharing located only minutes' walk from the development ensure that residents can easily avail of alternative transport modes and that provision of residential parking is not required or necessary.

The proposed development meets all exceptional circumstances contained in the Limerick Development Plan (Section 11.8.3) and other key Development Plan sustainable mobility objectives and policies and can therefore justify the full relaxation of car parking requirements and wholly eliminate parking provision for the development.

This is a live document that can be continually updated and monitored, where required.

Appendix A – Public Transport Information



Schematic map.
Not to scale. April 2021

Appendix B – Resident Travel Survey

TRAVEL SURVEY - Baseline and Annual Monitoring **FULLY ANONYMOUS SURVEY**

1. TRAVEL DETAILS

Resident	☐	Staff	☐	Customer	☐	Please tick appropriate Box
Employed	☐	Student	☐	Other	☐	Please tick appropriate Box

Q1 - How do you usually travel each day to work, school or college?
Tick the Box - If you travel on more than one mode, please number boxes..1...2...3

☐	On Foot	☐	Passenger in Car	Any Comments:
☐	Cycle	☐	Taxi	
☐	Bus	☐	Truck/Van	
☐	DART/LUAS	☐	Other Means	
☐	Car Share	☐	Work From Home	
☐	Motorcycle	☐	Bike Share Scheme	

Q2 - Which Mode of Transport do you occasionally use?
Tick the Box

☐	On Foot	☐	Passenger in Car	Any Comments:
☐	Cycle	☐	Taxi	
☐	Bus	☐	Truck/Van	
☐	DART/LUAS	☐	Other Means	
☐	Car Share	☐	Work From Home	
☐	Motorcycle	☐	Bike Share Scheme	

Q3 - Which Mode of Transport would you Consider on some days?
Tick the Box

☐	On Foot	☐	Passenger in Car	Any Comments:
☐	Cycle	☐	Taxi	
☐	Bus	☐	Truck/Van	
☐	DART/LUAS	☐	Other Means	
☐	Car Share	☐	Work From Home	
☐	Motorcycle	☐	Bike Share Scheme	

Q4 - How far do you usually Travel each day?
Tick the Box

☐	Less than 1km	Any Comments:
☐	Between 1 and 2 km	
☐	Between 2 and 4 km	
☐	Between 5 and 10 km	
☐	Between 10 and 20 km	
☐	Over 20 km	

Q5 - Do you own a car? ☐ Yes ☐ No
If No, why not? Please Tick the Box (s)

☐	Do not require a car for daily commute	Other Reason or Any Comments:
☐	No Parking Availability within building	
☐	Too Expensive	
☐	Do you park nearby	
☐	Would you consider the car share scheme	
☐	Would you consider the bike share scheme	

Measures that I am aware have been implemented (R/S = Questions for Residents & Staff only)

	Well Implemented	Implemented	Implemented more info req.	Not Aware
Q6 - Walking and Cycling Travel Info	☐	☐	☐	☐
Any Comments				
Q7 - Cycle to Work Scheme Info	☐	☐	☐	☐
Any Comments				
Q8 - Cycle Parking Facilities	☐	☐	☐	☐
Any Comments				
Q9 - Cycle Maintenance Training (R/S)	☐	☐	☐	☐
Any Comments				
Q10 - Cycle/Bike Sharing Scheme (R/S)	☐	☐	☐	☐
Any Comments				
Q11 - Public Transport Travel Info	☐	☐	☐	☐
Any Comments				
Q12 - Public Transport Tax Saver Info	☐	☐	☐	☐
Any Comments				
Q13 - Parking Management Strategy (R/S)	☐	☐	☐	☐
Any Comments				
Q14 - Car Sharing Scheme - CarClub (R/S)	☐	☐	☐	☐
Any Comments				

Q15 - Suggested Measures or Improvements

Any Comments