

MOBILITY MANAGEMENT PLAN

Residential Development Cloghroe Cork December 2021



Consulting Engineers

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1.0 INTRODUCTION

- 1.1 M.H.L. & Associates Ltd. Consulting Engineers have been engaged by Cloghroe Development Ltd. to prepare a Mobility Management Plan (MMP) in support of a planning application for a proposed strategic housing development [SHD] located in Cloghroe, Tower, Cork. The MMP has been prepared with the objective of developing a sustainable transportation policy for residents and users of the retail proposal and creche facility within the proposed SHD.
- 1.2 Sources including the Dublin Transportation Office's Advice Note on Mobility Management Plans, and the National Transport Authority document titled "Achieving Effective Workplace Travel Plans: Guidance for Local Authorities", were used as guidance to complete this MMP.
- 1.3 A mobility management plan is best described as a package of measures put in place to encourage and support sustainable travel patterns amongst the users of the proposed development. The aim of a MMP is to reduce the demand and use of the car and to highlight and facilitate the use of alternative modes of transport. The focus in this instance is on commuting residents as well as employees and users of the retail and creche elements with the following objectives:
- To inform the user of alternative modes of travel available to them for their journeys.
 - To promote healthier, stress-free and cheaper options of commuting for residents.
 - Enhance the environment of the development, improve accessibility and outline the potential advantages to residents of using sustainable transport solutions.
 - To reduce trip generation to and from the site thus reducing parking demand and traffic flow.
- 1.4 The proposed SHD comprises the construction of 198 no. residential units, two storey creche, two storey café building and single storey retail food store. The proposed development provides for 117 no. dwelling houses consisting of 5 no. 4 bedroom detached houses, 44 no. 4 bedroom semi-detached houses, 8 no. 4 bedroom townhouses, 14 no. 3 bedroom semi-detached houses, 24 no. 3 bedroom townhouses and 22 no. 2 bedroom townhouses. The proposed development includes 81 no. apartment/duplex units consisting of 2 no. 3 bedroom, 35 no. 2 bedroom and 44 no. 1 bedroom units. 79 no. of the proposed apartment/duplex units will be provided in 6 no. 3 storey apartment buildings with ancillary communal areas and bicycle parking facilities.

The retail element consists of a single storey retail food store with a net sales area of 1,315 m² (which includes the sale of alcohol for consumption off premises) with ancillary signage, surface car park, servicing areas and bicycle parking facilities. The proposed development includes a proposed two storey café building with café on ground floor and 2 no. apartments at first floor level.

Objective TM3:3 of the Cork County Development Plan states:

c) For developments of 50 employees or more, developers will be required to prepare mobility management plans (travel plans), to promote alternative sustainable modes or practices of transport as part of the proposal.

The proposed retail development will have 25-30 employees maximum and in general these will work in shifts with an average employee presence of 15-20. Even though this is below the threshold specified, specific measures to encourage modal shift will be included as part of the operational phase of the scheme. These measures will include car-pooling, bike to work schemes and public transport incentives.

- 1.5 Existing services within the area include the Cloghroe Retail Park, Cloghroe Catholic Church, Cloghroe National Primary School and Muskerry Golf Course. The village of Tower to the north is an approximate 20 min walk and includes a Medical Centre, Supervalu Store, a

pharmacy and a number of small restaurants including a Chinese Restaurant and two number pubs.

2.0 MOBILITY MANAGEMENT PLAN?

- 2.1 There are many benefits associated with the use of alternative modes of travel including improved accessibility, reduced commuter costs, more reliable journey times and less congestion on the network for those who have no choice but to use the car (school runs prior to work etc.). In addition, there are also health benefits for those walking and cycling as well as an overall decrease in stress levels associated with driving and waiting in traffic.
- 2.2 Peak hour congestion on our roads network is now an accepted norm with up to 90% of car journeys having a single occupier and 80% of all car journeys to and from work are by private car. Car-sharing, public transport use or walking even once a week could dramatically change this figure.
- 2.3 To facilitate the necessary change in our approach to commuting, the travelling public will be required to make changes. Alternative modes of travel need to be actively promoted and participation in car-pooling, cycling and walking groups supported by a Mobility Management Plan Steering Committee. The public must be presented with an alternative to using the motor car and encouraged to do so. The provision of housing within walking distance to school provision is a key factor in achieving this change.
- 2.4 National strategy for sustainable transport is set out in the Smarter Travel Document A *Sustainable Transport Future* the document sets out the following aims by 2020:
- To support sustainable travel, future population and employment growth will have to predominantly take place in sustainable compact urban areas or rural areas, which discourage dispersed development and long commuting.
 - Work-related commuting by car will be reduced from a current modal share of 65% to 45%, which will mean that between 500,000 and 600,000 commuters nationally will be encouraged to take means of transport other than car driver (of these 200,000 would be existing car drivers). Change in personal behaviour will also be necessary for other travel purposes as most travel relates to non-commuting.
 - Car drivers will be accommodated on other modes such as walking, cycling, public transport and car sharing (to the extent that commuting by these modes will rise to 55% by 2020) or through other measures such as e-working.

3.0 EXISTING PUBLIC TRANSPORT INFRASTRUCTURE

- 3.1 The 215-bus service runs a 30min service with Cloghroe as its terminus and serves Blarney, Cork City Centre and Mahon Point. This service runs 7 days a week. An existing 215 bus stop is located on the R617 as shown in the following image.



Fig 3.1: Location of existing 215 bus stop on the R617

- 3.2 The Cork Metropolitan Area Transport Strategy 2040 (CMATS) proposes significant improvements to the public transport facilities over and above what is currently available. With the provision of these facilities and other incentives as part of national policy, it is anticipated that a shift to public transport will occur over the construction phase of this scheme. CMATS has provided more certainty for the delivery of these enhancements. The LAP states that is an objective of the plan to Support the achievement of high levels of modal shift by collaborating with other agencies to improve public transport services and influence patterns of employment development to support use of sustainable modes and travel by public transport”.

The village of Tower is on a Bus Priority Route as defined in CMATS and based on this Cork City Council requested that the proposed development make provision for a future dedicated bus lane. As outlined in Figure 2.1 a 3.25m reservation has been included which will form part of the hard/soft landscaping of the scheme.

- 3.3 The following isochrone map shows the areas currently accessible by public transport based on time of travel from the site.

Note: The distances include transfers to different services so are indicative only (delay may be experienced during transfer)

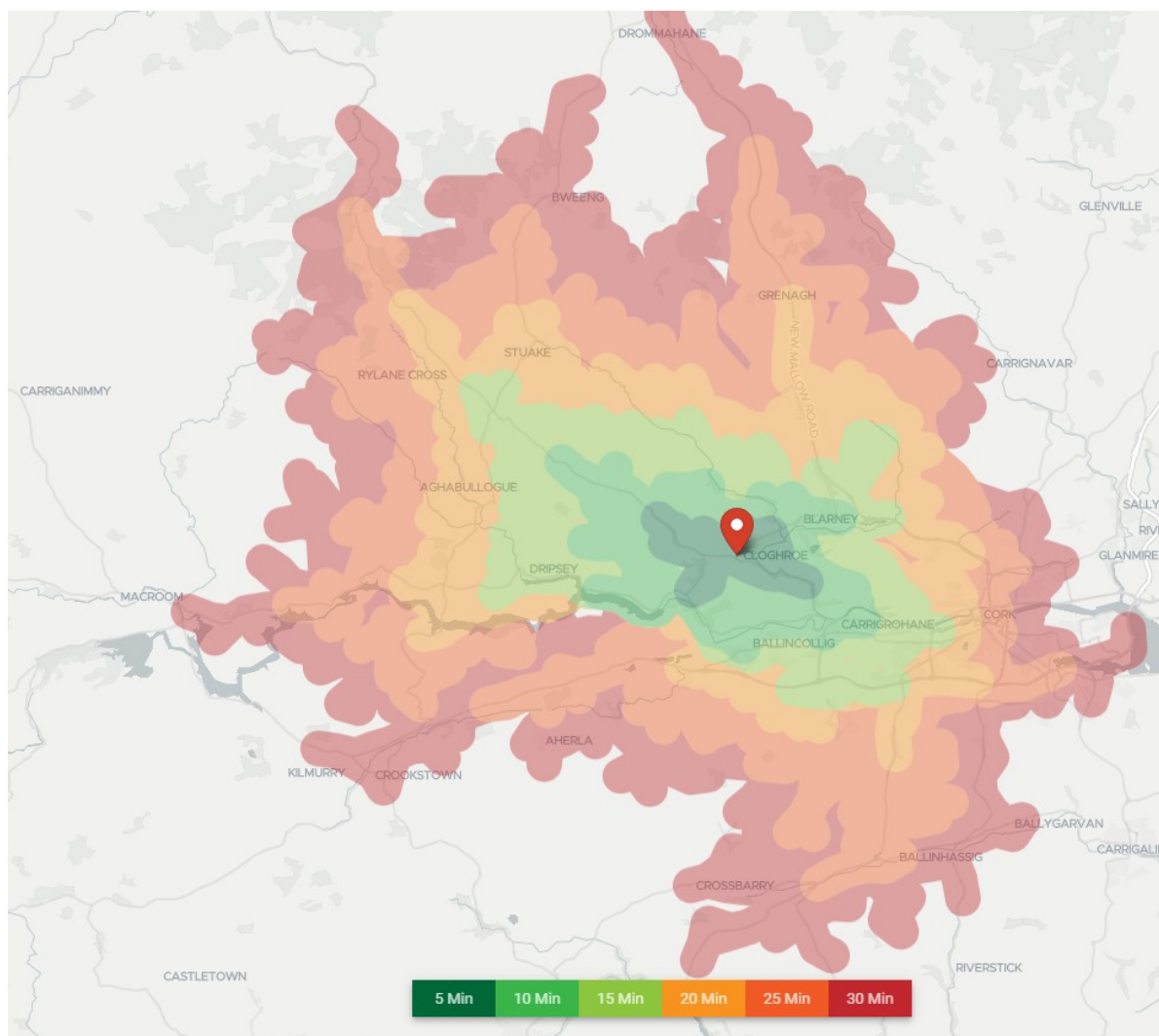


Fig 3.1: Time of travel by Public Transport Options

3.4 Evident from the above map is that current bus provision in the area allows travel to a wide area within 30 mins, with many of the main employment centres being within the 20 mins range. This is significantly shorter than CSO figures for other areas such as Dublin City 28.9 mins, South Dublin 30.6 mins, Waterford City & County 22.4 mins, Limerick City & County 24.2 mins.

A commute time by public transport in excess of 45 mins results in a change in behavioural preference away from public transport. It can be concluded that the proposed development site, by its location, will encourage the use of public transport in-line with national policy.

3.5 The aforementioned travel times are set to significantly improve as a result of CMATS which will include bus priority at junctions, additional on-road facilities such as covered shelters, real-time arrival departure boards and an increase in frequency of service. These measures, scheduled for delivery in 2023, will require the density of population in the area served, to justify this expenditure by the NTA.

4.0 ACCESSIBILITY & INTEGRATION

- 4.1 A desktop assessment of permeability for cyclists and pedestrians from the site was carried out. Presented in the following isochrone maps are the range of distances, for both pedestrians and cyclists, based on travel time. Pedestrians have the benefit of footpaths, but cyclists are required to use the existing regional roads and share with other vehicles.

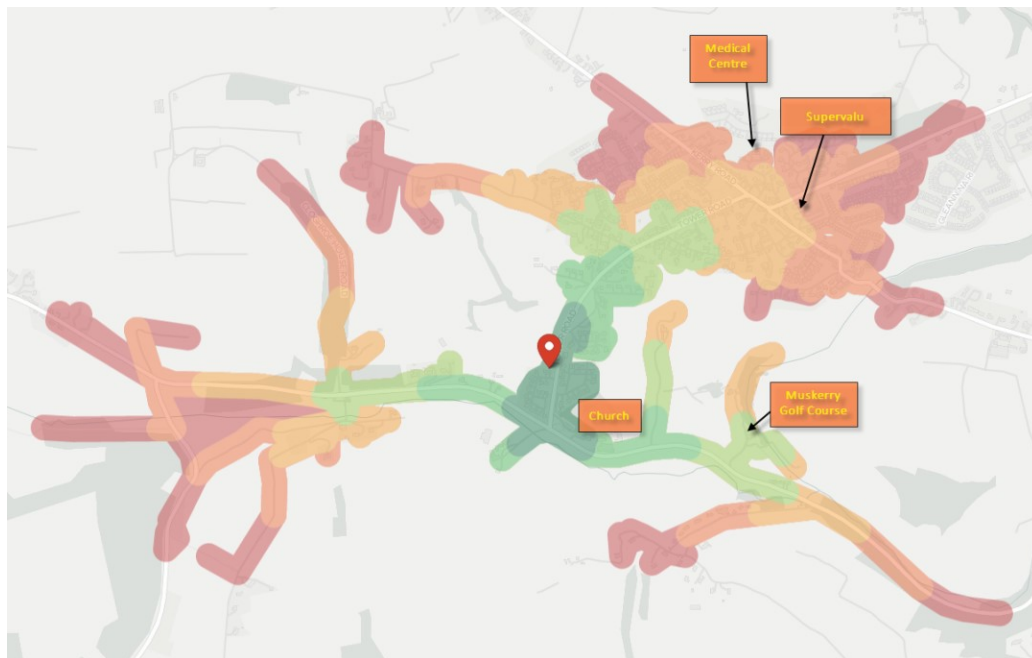


Fig 4.1: Proposed Development: Walking distance to local area

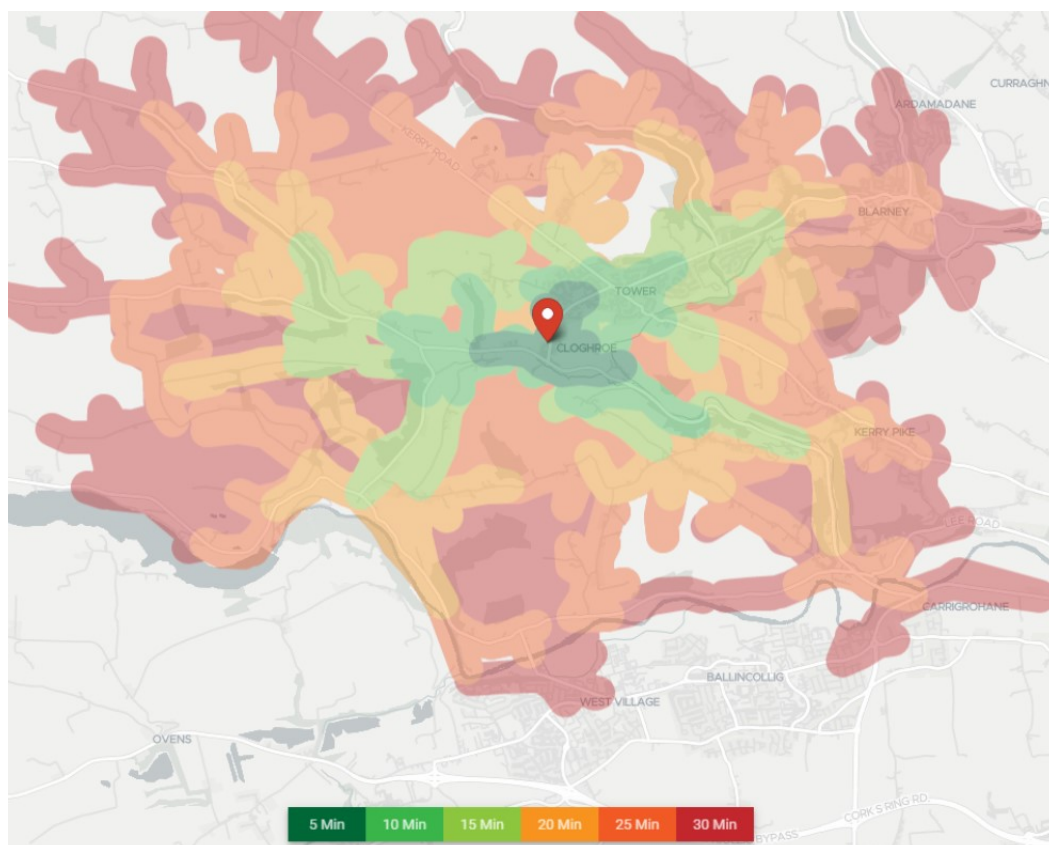


Fig 4.2: Proposed Development: Cycle distance to local area

- 4.2 Within 10 mins walk time from the site:
- Cloghroe Retail Park
 - Cloghroe Church
 - Cloghroe National Primary School
 - Muskerry Golf Course

Within 20 mins walk time from the site:

- SuperValu Tower
- Tower Medical Centre
- DayBreak Circle K TOWER
- Aunties Bar
- The Hunstman
- Local Chinese

- 4.3 The cycle range is presented in similar terms and relates to the average distance travelled in a specific time (16-19 kmh). Blarney and Ballincollig both fall within the 20 min category based on unrestricted flow through junctions.

Note: The travel speed used is on the low side, an experienced cyclist would have a 26-30kph average speed, however the speed used is more reflective of the topography in and around Tower.

- 4.4 As part of the development of the scheme the R617 will be upgraded to include a 2.0m cycle track, a 1.0m planted verge, a 2.0m pedestrian footpath and a reservation of 3.25m for a future Bus Lane as part of Bus Connects. An additional controlled pedestrian crossing on the R617 is also included which will significantly improve connectivity to and from the development site as well as serving the 215-bus stop for all local residents.

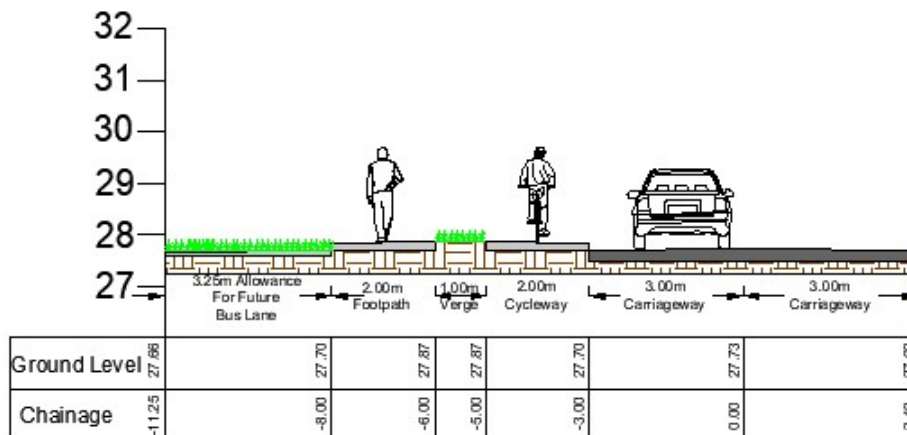


Fig 4.3: Proposed Upgrade works to the R617- Typical Cross Section

5.0 PARKING PROVISION

5.1 The following table outlines the proposed parking provision for the site, reference is made to the Architects Drg. No. 20068/P/014, Proposed Vehicle Parking Allocation.

| VEHICLE PARKING SPACES IN AREA A - RESIDENTIAL (HOUSING) | | | |
|--|--------------|------------------------------|---------------|
| Unit Types | No. of Units | Parking x Units | Total Parking |
| 4 bed detached | 5no. | 2no. Parking spaces per unit | 10no. |
| 4 bed semi-detached | 44no. | 2no. Parking spaces per unit | 88no. |
| 3 bed semi-detached | 14no. | 2no. Parking spaces per unit | 28no. |
| 3 bed townhouse | 8no. | 2no. Parking spaces per unit | 16no. |
| 2 bed townhouse | 2no. | 2no. Parking spaces per unit | 4no. |
| TOTAL NUMBER OF PRIVATE PARKING SPACES | | | 146no. |
| TOTAL NUMBER OF PARKING SPACES | | | 146no. |

| VEHICLE PARKING SPACES IN AREA B - RESIDENTIAL (HOUSING) | | | |
|--|--------------|------------------------------|---------------|
| Unit Types | No. of Units | Parking x Units | Total Parking |
| 3 bed townhouse | 16no. | 2no. Parking spaces per unit | 32no. |
| 2 bed townhouse | 20no. | 1no. Parking spaces per unit | 20no. |
| TOTAL NUMBER OF PRIVATE PARKING SPACES | | | 52no. |
| Visitors Parking | | | 7no. |
| TOTAL NUMBER OF PARKING SPACES | | | 59no. |

| VEHICLE PARKING SPACES IN AREA C - RESIDENTIAL (HOUSING/APARTMENTS/DUPLEX UNITS) | | | |
|--|--------------|--------------------------------|---------------|
| Unit Types | No. of Units | Parking x Units | Total Parking |
| 4 bed townhouse | 8no. | 2no. Parking spaces per unit | 16no. |
| 2 & 3 bed duplex units | 26no. | 1no. Parking spaces per unit | 26no. |
| 1 & 2 bed GF apartments | 26no. | 0.5no. Parking spaces per unit | 13no. |
| TOTAL NUMBER OF PRIVATE PARKING SPACES | | | 55no. |
| Visitors Parking | | | 1no. |
| Disabled Parking | | | 2no. |
| Parent & Child Parking | | | 5no. |
| Electric Vehicle Parking | | | 5no. |
| TOTAL NUMBER OF PARKING SPACES | | | 68no. |

Table 5.1: Breakdown of Car Parking (refer Architects DWG 20068/P/014)

The following extract from the County Development Plan indicates that the provision of car parking on-site is in accordance with this plan.

| Table 1a Car Parking Requirements for New Development (Maximum per sq.m) | | |
|--|---|---|
| Development Type | Cork City North & South Environs | Rest of Cork County |
| Schools | 1 space per teaching staff + 1 space per 2 ancillary staff + additional 50% of staff provision for visitors at primary level and additional 30% at second level | 1 space per teaching staff + 1 space per 2 ancillary staff + additional 50% of staff provision for visitors at primary level and additional 30% at second level |
| Colleges of further education / universities | 1 per classroom + 1 per 5 students | 1 per classroom + 1 per 5 students |
| Commercial leisure: (amusement centres, play centres, etc.) | 1 space per 50 sqm | 1 space per 50 sqm |
| Conference centres: public areas | 1 space per 20 sqm | 1 space per 7sqm |
| Other cultural / recreational & leisure uses | Dependent upon nature and location of use | |
| Residential (All areas) | | |
| Dwelling House | 2 spaces per dwelling | |
| Apartments | 1.25 spaces per apartment | |

Table 5.2 Extract from County Development Plan (Table 1a).

A total of 397 no. car parking spaces are proposed for the proposed development, which are allocated on the basis of housing type and likely demands of future residents. The proposed parking provision is below the Development Plan minimum standard of 2 spaces per house and 1.25 spaces per apartment.

5.2 Bicycle Parking

Paragraph 4.17 of the *Design Standard for New Apartments* considers the requirement for bicycle parking/storage and includes the following;

“Quantity – a general minimum standard of 1 cycle storage space per bedroom shall be applied. For studio units, at least 1 cycle storage space shall be provided. Visitor cycle parking shall also be provided at a standard of 1 space per 2 residential units.”

Regarding the bicycle parking facilities, as asserted in the “Sustainable Urban Housing: Design Standards for New Apartments – Guidelines for planning Authorities”, they have been assigned as follows:

- No. 1 private bike space x bedroom
- No. 1 visitor space every 2 apartments

For the duplex-apartments, all the bike spaces are placed in secured bike storage near the relative apartments. While for the apartment blocks, the private bike spaces are placed in the basement in secured rooms and the visitors’ bike spaces are in covered bike racks outside the buildings.

Accordingly, the design standard requirements for bicycle parking set out in the Guidelines have been complied with.

6.0 ALTERNATIVES

6.1 The development location allows the user a modal choice for commuting to and from the site. The benefits to the development site are direct and measurable however additional benefits to the wider community should not be ignored. A reduction in car trips implies reduced traffic congestion, enhanced air quality and reduced noise to the surrounding neighbourhood.

6.2 The types of modal choice investigated as part of the Traffic & Transport Assessment carried out include:

- Pedestrian and cycling facilities near the site
- Public transport

6.3 In general, car usage patterns can be grouped between city centre sites and out of town sites. City centre or suburbs would range from 25% to 35% car usage with out-of-town sites higher at 65% to 90%. This scheme would fall into the later category however national policy related to climate change and sustainable travel are expected to impact on the current norms. This scheme is compatible with such policy.

6.4 Pedestrians & Cyclists

6.4.1 Upon implementation, the MMP will promote walking and cycling as part of a daily exercise routine and will provide information on routes, journey times and calories burned. Indeed, the location of this particular proposed development is convenient for most pedestrians.

In terms of cycling the site does not benefit from existing cycle facilities however provision has been made for an off-road cycle track within the public realm works proposed on the R617. This facility will be isolated until the delivery of wider connectivity works as part of CMATS.

The combination of walking with public transport/ taxi services will also be supported.

*“ 30 minutes of aerobic activity, such as a brisk walk,
per day helps reduce the risk of heart disease’*

(Reference, ‘The Route to Sustainable Commuting, An Employers Guide to Mobility Management Plans produced by the Dublin Transportation Office, Kirklees Metropolitan Council and the Irish Energy Centre)

6.5 Public Transport

6.5.1 The proposed development is well served by regular bus route, the 215. The availability of a public transport system allows users of the proposed development an alternative mode of travel. The mobility management plan developed for the completed scheme will include for incentives such as;

- Monthly/annual commuter ticket schemes/offers
- Timetables, routes and maps
- Journey time indicators
- Government supported programs to encourage people to use public transport (currently includes up to a 48% saving on standard pay-over-the-counter charge by means of tax saving schemes).

In-line with the proposed upgrade works on the R671 the existing 215 Bus Stop is to be upgraded with the provision of a Bus Shelter and a colour contrasted paved stop area. The developed scheme proposes universal footpath access to the bus stop as well as more direct

stepped access. The provision of the controlled pedestrian crossing to the north of the bus stop will facilitate safe and controlled access for existing residents in the area.

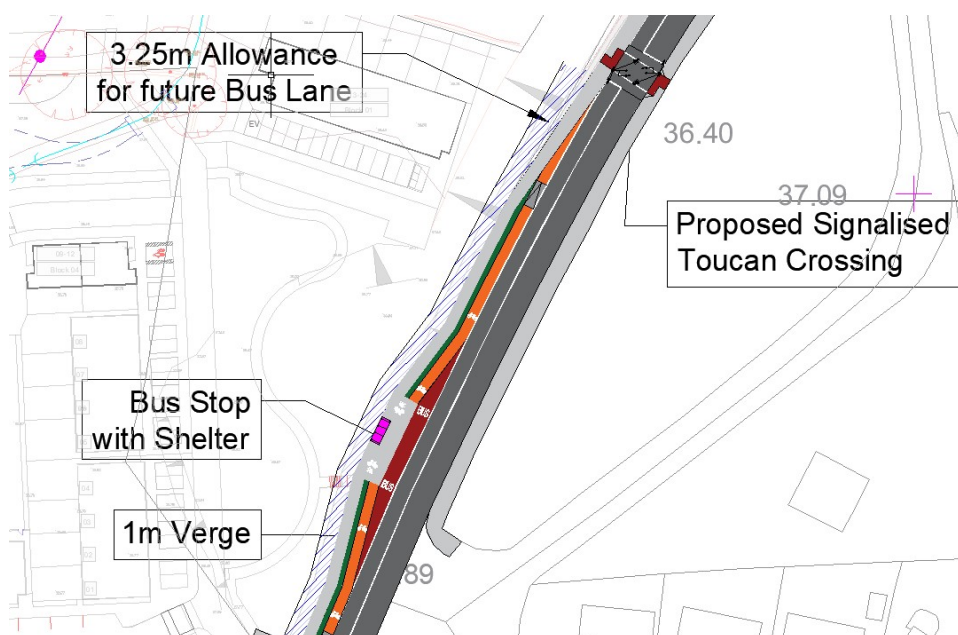


Figure 6.1: Proposed Upgraded Bus Stop with Shelter on the R617

As previously outlined the village of Tower is on a Bus Priority Route as defined in CMATS and based on this Cork City Council requested that the proposed development make provision for a future dedicated bus lane

7.0 CONCLUSIONS & RECOMMENDATIONS

- 7.1 In conclusion, the site location is well situated for the implementation of a Mobility Management Plan promoting alternative modes of transport especially when accessing local services such as the National School and local retail offerings including the proposed food retail store.
- 7.2 The proposed development includes upgrade works to the R617 which will significantly improve connectivity to and from the site. Figure 4.3 outlines the proposed cross section fronting the scheme which has been agreed with the Local Authority. Other measures such as the controlled pedestrian crossing on the R617 north of the upgraded bus stop will facilitate safe pedestrian access to service provision in Tower through sustainable means of travel.
- 7.3 All sustainable modes of transport will be promoted as part of a marketing campaign for the site which will include actively encouraging public transport, walking and cycling as viable modes of transport for residents.

This can be achieved via the circulation of useful information such as routes, exercise plans etc. Cycle Planner Apps are useful in planning routes that avoid roads with heavy traffic and avoid difficult turns at busy junctions. Walking & cycling societies could be formed to create a community culture around the activity. Attention should also be drawn to the regular bus route from the city centre. A bulletin board could be placed in the lobby of apartment blocks or other such communal areas where information on all alternative transport modes could be posted.

For the retail element incentives such as The Bike to Work Scheme, public transport support and car-pooling will be offered to employees. The required infrastructure to promote these efforts will be provided by the end user.

- 7.4 There are no existing cycling facilities in the area although the R617 and the R579 form part of a regular cycle route for the 'serious cyclist'. The proposed development includes the provision of an off-road cycle lane on the R617 as directed by the Local Authority. This indicates the Council's intention to provide wider cycle facilities as part of future upgrade schemes which will benefit the scheme.
- 7.5 The continued dependence on the motor car is not sustainable into the future. Planning and development of new commercial and residential schemes should go hand in hand with a transport strategy limiting the dependability on the private motor car. Current national policy supports this premise for the development of residential areas. The proposed development meets all of the criteria associated with this policy.
- 7.6 A Site Plan of the proposed development can be found in **Appendix A**.

8.0 References

The Route to Sustainable Commuting, An Employer's Guide to Mobility Management Plans
published by Dublin Transportation Office, Kirklees Metropolitan Council, Irish Energy Centre.

The Traffic Management Guidelines
published by the Dublin Transportation Office

2020 Vision-Sustainable Travel and Transport: Public Consultation Document
published by the Department of Transport

Cork County Development Plan 2014.
published by Cork County Council

Bus Eireann

APPENDIX A

Proposed Site Layout

