Ringwood Phase 2, Blarney **10/12/2025**

Reference number IE01T21A49

TRANSPORT ASSESSMENT



SYSTRA

RINGWOOD PHASE 2, BLARNEY

TRANSPORT ASSESSMENT

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1. INTRODUCTION

1.1 Overview

1.1.1 SYSTRA has been commissioned by Clockstrike Ltd to prepare a Transport Assessment (TA) for Phase 2 of a proposed Large-Scale Residential Development (LRD) in the Ringwood area of Blarney.

1.1.2 The development site is located in the north-east of Blarney, to the north of the R617 and approximately 1.2km to the east of the village centre. It forms part of a larger zoning set out within the Cork City Development Plan 2022-2028 (CCDP) for 'New Residential Neighbourhoods'.

1.1.3 Phase 1 of the development, comprising 246 residential units and a 61-space creche facility, was consented by Cork City Council (CCC) in December 2024 (Planning Ref: 2443031). Access to the Phase 1 scheme will be taken from a new signalised junction on Station Road.

1.1.4 **Figure 1** shows the location of the site, along with the consented Phase 1, and proposed Phase 2 application areas.

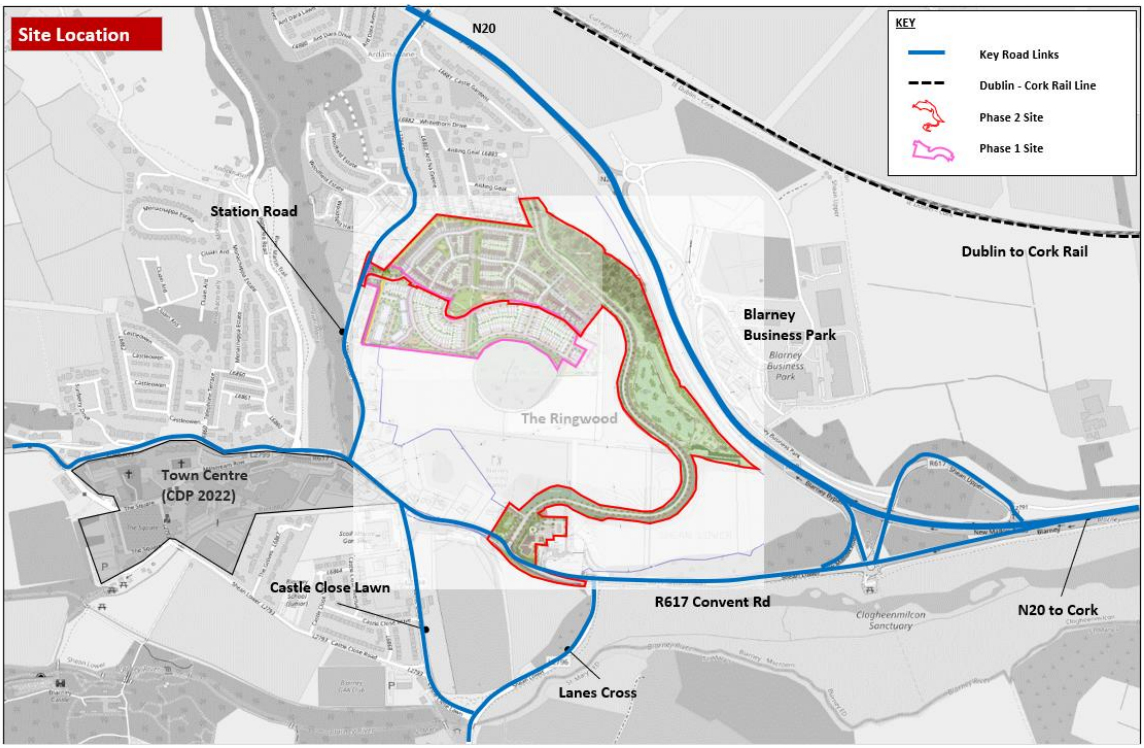


Figure 1. Site Location

1.1.5 The proposed Phase 2 development description is set out below:

"The proposed development will consist of a largescale residential development (LRD), representing Phase 2 of development in the Blarney East / Ringwood Expansion Area, and comprising the construction of (i) 323 no. residential dwellings comprising of 157 no. terraced, end-of-terrace, and detached houses; 52 no. duplexes provided in 5 no. 3-storey buildings; and

114 no. apartments provided in 2 no. 5-storey buildings (ii) a primary care centre, over 2 stories and 1,724sqm in area, incorporating GP services (iii) the refurbishment and redevelopment of existing farm outbuildings for conversion to a retail/pharmacy use, 80sqm in area, and café/restaurant use, 380sqm in area; (iv) a new access roadway into the site from the R617 with associated pedestrian and cyclist infrastructure, which will form the 1st phase of the proposed Stoneview Access Link Road, (v) a new signalised junction on the R617 road which will provide a single lane approach to the west and a two lane approach to the east, comprising one lane for through traffic on the R617 and a right turn lane for traffic turning into the site, and associated footpath improvements and cycle lane provision (vi) a new signalised junction on Station Road that reflects the junction permitted under the Phase 1 LRD scheme (Reg. Ref. 2443031) (vii) private, communal, and public open spaces and hard and soft landscaping, boundary treatments and amenity areas, including a new wetland public amenity area, (viii) drainage works and nature-based SuDS measures (ix) foul sewer infrastructure, including 1no. pump station, the diversion of existing foul and water sewers and other new network works, (x) car parking, including EV charging points, bicycle parking, and motorcycle parking bays (xi) 2no. substations all associated ancillary site, drainage and development works".

1.1.6 In transport terms, the key elements are:

- **Pedestrian, vehicle and cycle access** will be taken from the Phase 1 junction on Station Road (which is re-included in the Phase 2 red line boundary, and **a new signalised junction on the R617**, which will provide vehicle, cycle and pedestrian access into the site. This will reduce traffic pressure on the Phase 1 site access junction on Station Road, allowing vehicles to access the site without travelling through the R617 / Station Road junction.
- The construction of the first phase of the **'Stoneview Access Link Road'** into the site, which will ultimately link into lands to the north of the N20 / rail line, in future phases of the wider Masterplan. The Access Link Road has been designed to accommodate future bus services between the R617 and the future Blarney Rail Station (As part of a future application). Segregated cycle paths will run along its full length.
- The development will open up **new routes for pedestrians, cyclists and vehicles between the R617 and Station Road**. The route for vehicles is not direct, to dissuade 'rat-running' through the site.
- An **internal site layout that is DMURS compliant**, and features high-quality walking and cycling facilities.
- Pedestrian links into the site from **Aisling Gael** and **Ard na Greine.**
- Offsite improvements at the **R617 / Shean Lower junction**, which will be signalised. Fully controlled pedestrian / cycle crossings will be provided on all arms of the junction.
- A **new shared pedestrian / cycle link on the south side of the R617** will link the Clogheenmilcon cycle way on the east side of Shean Lower with the site.

1.2 Report Purpose

1.2.1 The TA sets out the likely transport impacts of the Phase 2 proposals.

1.2.2 It first describes and evaluates the baseline transport environment, forecasts multi-modal travel demand from the proposed development, details the proposed access arrangements to the development for all travel modes.

1.2.3 It then assesses the potential impact of this demand on the surrounding network and identifies the mitigation measures required to support the development.

1.2.4 In addition, SYSTRA has prepared a Framework Mobility Management Plan (MMP) for the development (summarised in **Chapter 8**) which sets out how sustainable travel will be promoted, and how the MMP will be monitored and managed.

1.2.5 The report also considers how the development will support, and benefit from, future transport initiatives such as the BusConnects Scheme, the Cork Metropolitan Area Strategy (CMATS), and the proposed N/M20 Upgrade Scheme.

1.3 Assessment Methodology

1.3.1 The assessment has been undertaken in line with the guidelines set out in Transport Infrastructure Ireland's (TII's) *'Traffic and Transport Assessment Guidelines'*.

1.4 Consultation

1.4.1 A Section 247 Pre-Application meeting was held with representatives of Cork City Council (CCC) on 24th April 2024. A formal LRD Response was received from CCC on 18th June 2024 (Ref: LRD 66/24).

1.4.2 A further Section 247 Pre-Application meeting was held with representatives of Cork City Council (CCC) in November 2024.

1.4.3 The S32B Stage TA was submitted to CCC in April 2025. A S32B meeting was held with representatives of Cork City Council (CCC) in May 2025. The main transport points raised in the LRD Opinion Response, and SYSTRA's response to these is summarised in **Table 1**.

Table 1. Points raised LRD Response

COMMENT	RESPONSE
N20 / M20 Project Office	
Clarification is sought on the provision of the TII traffic growth sensitivity test results for the Phase 1 application and request a similar test be undertaken for Phase 2 application. The Phase 2 test should assess the cumulative impacts of traffic (Phase 1 + Phase 2) on the N20/R617 Blarney junction in both the existing (N20/R617) and reconfigured (M20/R617) Blarney junction layouts.	A threshold assessment has been undertaken (Section 6.3) which considers the impact of the development on the N20 / R617 interchange. This shows that the predicted impact is in the region of 6% on all arms of the junction. A Sensitivity test has been undertaken at the N20 / R617 Blarney junction that assumed TII Low Growth rates between the 2025 survey dates and the 2028 and 2043 future year scenarios. Both the existing and proposed Blarney junction layouts have been tested, using junction capacity modelling. The results are presented in **Section 7**.

TRANSPORT AND INFRASTRUCTURE (CCC)	
Further consideration and amendment of the proposed development in terms of certain transport infrastructural issues as outlined in the report of the S.E.E. Strategic Transport Officer and the A/SEE Infrastructure Development section (See Appendix C) in relation to the following issues: *Further consideration and justification of the proposed:* • *External and internal road networks and connections* • *Amended Quality Audit to include the proposed amendments identified* • *Pedestrian Accessibility* • *Cycle Accessibility* • *Vehicular Accessibility* • *Internal road network* • *Parking identification and classification of types* • *Transportation Assessment information*	See points below.

TRANSPORT AND INFRASTRUCTURE (CCC)	
The main desire line for pedestrians and cyclists of the phase 2 development will be via station road. To enhance the pedestrian and cycling connectivity of the development provision of Active Travel Facilities on Station Road from the development entrance on Station Road to the Junction of Station Road and the R617 should be provided by the development. This should be of the same type as that conditioned in Phase 1 of the Ringwood development. This infrastructure should be delivered in advance of the development becoming operational. Details to be agreed with Cork City Council.	The Phase 1 Station Road Active Travel works are being delivered as part of that scheme, which is commencing imminently.
Pedestrian and cycling connection to all adjacent housing estates should be allowed for. This includes for the potential to connect to: Ard na Greine, Assumption Terrace and Aisling Geal.	Active Travel connections are proposed into Ard na Greine and Aisling Geal. Residents of Assumption Terrace will be able to easily access the development from the access junction on Station Road, which will incorporate signalised pedestrian crossing facilities.
In the interest of road safety, traffic calming measures are to be provided on the R617. Locations and details of these are to be agreed with Cork City Council.	The introduction of the R617 / Phase 2 signalised access junction, and the signalisation of the R617 / Shean Lower junction will automatically slow traffic on the R617.

TRANSPORT AND INFRASTRUCTURE (CCC)	
Length of the right turn lane on the R617 appears to be excessive for this development in isolation. Length of this is to be agreed with Cork City Council.	The length of the right-turn lane has been designed to accommodate further future development in the Ringwood and Stoneview Masterplan areas, which will remove the need to upgrade the new junction in future years.
In the interest of road safety traffic calming measures are to be provided along the spine route. locations and details of these are to be agreed with Cork City Council.	The spine route has been designed as a future bus route, which will serve the proposed Blarney Rail Station and Park and Ride. It is therefore not desirable to introduce vertical or road -narrowing traffic calming features. Taking this into account, the proposed approach to traffic calming is set out below: • The alignment of the spine route has been designed to reduce traffic speeds through the removal of excessively long straight sections. • In later phases, signalised junctions and controlled pedestrian crossings will be installed where required along the spine route. These will provide pedestrian and cycle connectivity across the spine route, and have the effect of slowing vehicles. These are shown on Drawings BLR-2-02-SW-ZZZ-DR-MHL-CE-01161 – 01181, provided as part of the application package.
In the interest of road safety Raised Pedestrian and cycling crossings are to be provided along the spine road at pedestrian desire lines. Locations and details of these crossings are to be in accordance with DMURS, the Cycle Design Manual and to be agreed with Cork City Council.	See above.

TRANSPORT AND INFRASTRUCTURE (CCC)	
In the interest of road safety particularly for visually impaired road users, tactile paving is to be provided at dropped kerbs and raised tables etc. throughout the development in accordance with DMURS and the UK Guidance on the Use of tactile paving Surfaces Dec 2021 (or most recent update) and to be agreed with Cork City Council.	Compliant tactile paving has been provided throughout the development, and is shown in the roads drawings produced by DOBA.
It is acknowledged that a quality audit was submitted and carried out by an external consultant however, an amended Quality Audit on the entire scheme including the proposed amendments identified here and agreed with Cork City Council should take place. This should also include the internal road/cycle/footpath layout. At a minimum the following is to be carried out by an independent 3rd party consultant: a. *Pedestrian/mobility Audit* b. *Cycling Audit* c. *Road Safety Audit*	A new Quality Audit has been undertaken, which incorporates the three listed Audits. This is provided elsewhere within the application pack.

TRANSPORT AND INFRASTRUCTURE (CCC)	
The proposed development (Phase 2) needs to include the active travel improvements proposed for Station Road as identified and granted permission under Phase 1. This is to ensure that sufficient active travel infrastructure is provided to serve Phase 2 if for some reason Phase 1 is delayed.	The Phase 1 Station Road Active Travel works are being delivered as part of that scheme, which is commencing imminently. .
The provision of the pedestrian connection to Aisling Gael is supported and should be included as part of the application.	This has been retained in the final application.
The scale and distribution of bike parking is in line with 2022-2028 Development Plan and is acceptable.	Noted.
The provision of a signalised junction on the R617 (Blarney to Cork Road) along with the retention of the previously granted access from Station Road is supported. The final details of both junctions and in particular the phasing of the lights will require further agreement with Cork City Council.	Noted. Should the development be consented, the agreement of the detailed junction design and phasing will be a condition of planning.

TRANSPORT AND INFRASTRUCTURE (CCC)	
The car parking provision is in line with the 2022-2028 Cork City Development Plan and is acceptable. The parking spaces allocated to the residents of the duplexes and apartments are a shared resource and no individual parking space should be assigned to a specific residential unit.	Noted.
The baseline traffic conditions and subsequent transport analysis need to be updated to reflect the most recent traffic count data carried out in April 2025.	The traffic analysis within the TA has been updated, and is now based upon the April 2025 surveys.
The traffic generation rates applied to the residential units are acceptable. With respect to the trip rates associated with the primary care facility confirmation is needed; have the trips associated with any pharmacy being included in these trip rates? Finally, although it is acknowledged that the cafe/restaurant is primarily likely to serve the primary care facility and local residents there will no doubt be some externally generated trips that should be accounted for in the overall trip generation figures.	The traffic generation figures for the Primary Care Centre (PCC) are now based upon a traffic survey that was undertaken on a PCC in Ballincollig in December 2023. The Ballincollig PCC comprises 3 surgeries and a Pharmacy. The updated traffic analysis assumes that 30% of trips generated by the café will come from outside the development.

TRANSPORT AND INFRASTRUCTURE (CCC)	
The application of the lower background traffic growth rates as calculated utilising the CMATS Regional Transport Model are acceptable. However, as noted in the transport assessment a sensitivity analysis utilising the 'Low' traffic growth rates set out in the 'Project Appraisal Guidelines for National Roads Unit 5.3' should also be used when analysing the N20 Blarney Junction.	Sensitivity analysis has been carried out, and is included in **Section 7**.
With respect to 'Committed Development' the traffic flows associated with the delivery of Phase 1 Ringwood should be noted in the text, it is clear from the accompanying traffic flow diagrams these flows have been included in the analysis.	Traffic flows from the Phase 1 development have been considered as Committed, and included within the future year 'Do Minimum' scenarios in the analysis.
The threshold analysis presented in Table 18 should focus on the proposed development only (i.e. Phase 2), as Phase 1 has been granted full permission by An Bord Pleanala and any resulting traffic flows generated by this development can be considered base traffic flows.	Noted. This is now reflected in the tables.

TRANSPORT AND INFRASTRUCTURE (CCC)	
The threshold assessment as presented in Table 16 should include any potential traffic impact on the National Road Network and in particular on the N20 National Road.	The impact on the N20 has now been included in the analysis.

2. TRANSPORT POLICY FRAMEWORK & STANDARDS

2.1 Overview

2.1.1 This chapter provides a summary of the relevant plans, policies, and objectives relating to the development. There are a wide range of plans, policies, and objectives that are applicable, which can be divided into three levels: the national; regional; and local level.

2.1 National Context

Climate Action Plan 2025

2.1.1 The Climate Action Plan 2025 (CAP25) is the sixth annual update to Ireland's Climate Action 2019.



2.1.2 The plan implements the carbon budgets and sectoral emissions ceilings and sets out a roadmap for taking decisive action to halve our emissions by 2030, and reach net zero no later than 2050, as committed to in the Programme for Government. CAP25 sets out how Ireland can accelerate the actions that are required to respond to the climate crisis, putting climate solutions at the centre of Ireland's social and economic development.

2.1.3 In terms of transport, CAP25 pledges to adopt the 'Avoid – Shift – Improve' approach, and targets a 50% reduction in emissions by 2030. It also aims to:

- Reduce the total distance driven across all journeys by **20%.**
- Ensure there is a significant behavioural shift towards walking, cycling and public transport.

2.1.4 With particular relevance to this residential development, CAP25 seeks to:

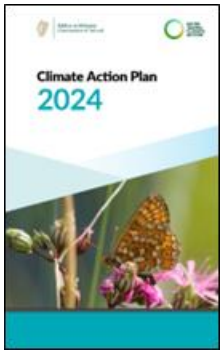
- TR/25/7: Advance roll-out of walking/cycling infrastructure in line with National Cycle Network (NCN) and CycleConnects plans
- TR/25/11 Prioritise and accelerate delivery of NTA Connecting Ireland and new town services, via demand responsive transport pilot initiatives, conventional and nonconventional modes of public transport services.

Ireland 2040 Our Plan: National Planning Framework

2.1.5 The National Policy Framework (NPF) outlines the new strategic planning and development strategy for the whole of Ireland and all its regions for the next 20 years. The document co-ordinates National, Regional and Local Authority policies and activities through one central strategy, providing a reference point to adhere to.

National Sustainable Mobility Policy (2022)

2.1.6 The National Sustainable Mobility Policy sets out a strategic framework to 2030 for active travel (walking and cycling) and public transport journeys to help Ireland meet its climate obligations.



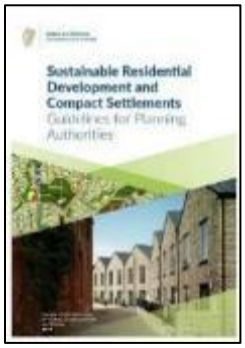
2.1.7 The policy aims to deliver at least 500,000 additional daily active travel and public transport journeys by 2030 and a 10% reduction in the number of kilometres driven by fossil fuelled cars. It will make it easier for people to choose walking, cycling and use public transport daily instead of having to use a petrol or diesel car.

The policy aims to make it easier for people to choose walking, cycling and use public transport daily instead of having to use a petrol or diesel car under the following key themes:

- Safe and Green mobility
- People focused mobility
- Better integrated mobility

2.1.8 With particular relevance to the development, the sustainable mobility policy seeks to expand walking, cycling and public transport infrastructure across the country, and improve the safety of walking, cycling and public transport networks.

Sustainable Residential Development and Compact Settlements Guidelines for Planning Authorities



2.1.9 Published in 2024, the Guidelines expand on higher-level policies of the National Planning Framework, setting policy and guidance in relation to the growth priorities for settlements, residential density, urban design and placemaking and introduce development standards for housing.

2.1.10 The density ranges support the application of densities that respond to settlement size and to different place contexts, recognising in particular the differences between cities, large and medium sized towns and smaller towns and villages.

2.1.11 The key indications of Quality Design and Placemaking set out in Guidelines are:

- **Sustainable and Efficient Movement** - Ensuring places are well connected and accessible by sustainable modes. Also acknowledging that quality of journey is equally important and that places are perceived as safe and are not dominated cars
- **Mix and Distribution of Uses** - Promoting the integration of land uses and transportation and a diverse and innovative mix of housing that can facilitate compact housing and provide greater housing choice.
- **Green and Blue Infrastructure** - Placing and emphasis on the protection of natural assets and biodiversity, whilst also taking a more strategic view as to how open space networks are formed to balance the needs of communities.

- **Responsive Built Form** - Placing an emphasis on the creation of a coherent urban structure and design approach that responds to local character and is attractive.

Design Manual for Urban Roads & Streets (Updated 2019)

2.1.12 The primary objective of the Design Manual for Urban Roads & Streets (DMURS), published by the Department of Transport, is to set out an integrated design approach for streets in urban areas which balances the needs of all users, and is influenced by the surrounding context of the street. The manual aims to promote a sustainable approach to design which promotes real alternatives to the car. To achieve this the needs of sustainable modes must be considered before that of the private car. This is outlined in the user shown in **Figure 2.**

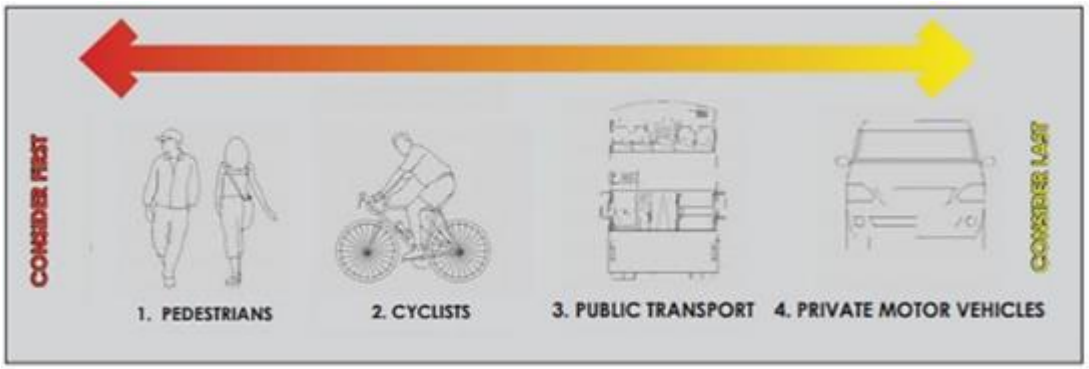


Figure 2. DMURS User Hierarchy

Quality Housing for Sustainable Communities (2007)

2.1.13 The 'Quality Housing for Sustainable Communities guidelines were published by the Department of the Environment, Heritage and Local Government in 2007.

2.1.14 The Guidelines state that:

"The successful design of a good quality sustainable housing project depends on the balance struck between a range of factors. Issues such as accessibility, security, safety, privacy, community interaction, availability of appropriate services and the provision of adequate space, should be given due weight. The needs and reasonable expectations of residents are of fundamental importance".

2.1.15 In terms of transport, two of the stated 'Essential Requirements' are applicable:

- **Accessible and Adaptable –** There should be ease of access and circulation for all residents, including people with impaired mobility, enabling them to move as freely as possible within and through the development, to gain access to buildings and to use the services and amenities provided. Dwellings should be capable of adaptation to meet changing needs of residents during the course of their lifetime.
- **Resource Efficient** – Efficient use should be made of land, infrastructure and energy. The location should be convenient to transport, services and amenities.

Cycle Design Manual

2.1.16 The National Cycle Manual (NCM) was published by the National Transport Authority (NTA) in 2023, and overseen by the Department of Transport.

2.1.17 It is guided by the need to deliver safe cycle facilities for people of all ages and abilities. The new manual places more emphasis on the range of cycles that cycle infrastructure will have to accommodate and the recommendations focus on segregating cyclists from traffic where speeds and volumes make roads unsuitable for sharing. There is also a general presumption towards segregating pedestrians and cyclists where possible.

2.2 Regional Context

Cork Metropolitan Area Transport Strategy (CMATS) 2040

2.2.1 The Cork Metropolitan Area Transport Strategy (CMATS) 2040 has been developed by the National Transport Authority (NTA) in collaboration with Transport Infrastructure Ireland (TII), Cork City Council and Cork County Council.

2.2.2 A key principle for CMATS is to reduce dependency on the private car within the Cork Metropolitan Area (CMA), while increasing the appeal of sustainable transport options. The document sets ambitious modal share targets for the Strategy, which are presented in **Table 2**.

Table 2. CMATS Modal Share (Peak Morning) Baseline and Targets

	WALKING	CYCLING	PUBLIC TRANSPORT	CAR
Existing	21%	1%	10%	66%
Target	21%	4%	25.7%	49.3%

2.2.3 A fundamental principle of the Strategy is to support the future growth of the CMA through the supply of an efficient transport network. Supporting measures have an important role to play in providing a future transport network that matches up to these principles.

2.2.4 **Figure 3** shows a summary of proposed improvements in the Blarney area.

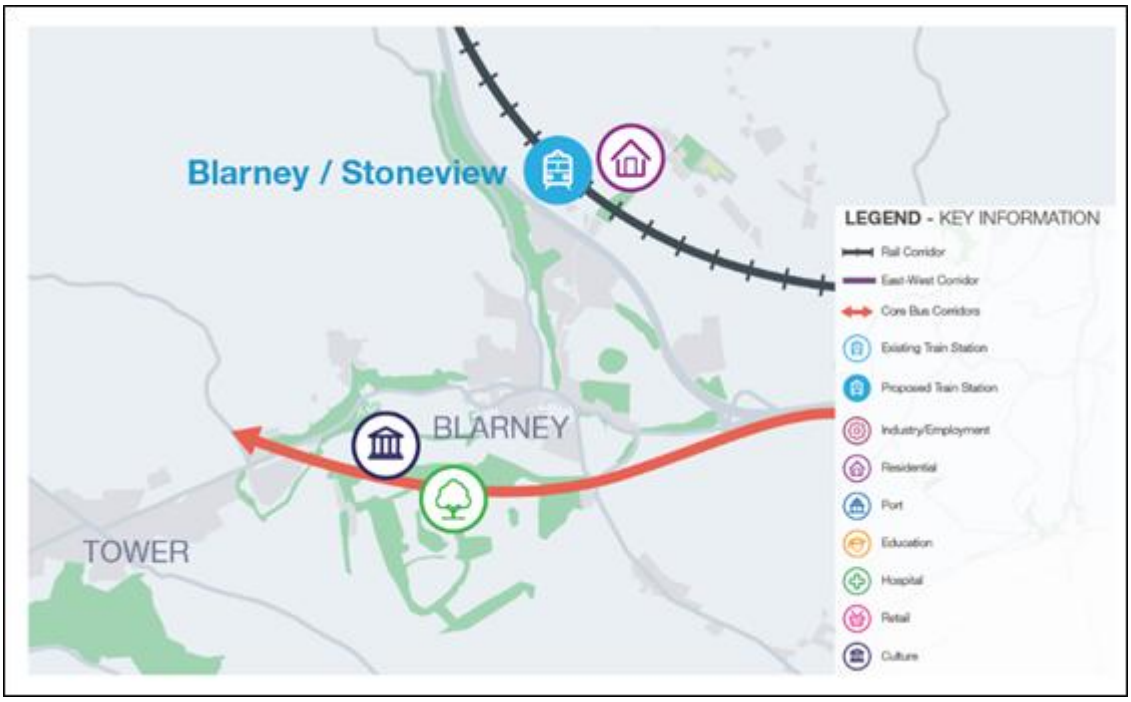


Figure 3. Extract from CMATS 2020: Indicative Public Transport Network

2.2.5 CMATS envisages the following key transport infrastructure / services in the Blarney area:

- Development of a new rail station on the Cork-Dublin rail line within the Stoneview area, along with an associated Park and Ride facility to reduce traffic pressure along the M20 / N2 corridor. CMATS notes that new stations will primarily support residential-led, mixed use development. Train frequency would be increased to 10 minutes, adding further capacity on the line.
- Expansion of the Cork BusConnects network along the R617 to Blarney, which will provide a high-frequency service to the city centre.
- Extension and improvement of the existing Waterloo Road and Killard Road / Blarney Bog Greenway cycle routes.
- Further enhanced pedestrian and cycle routes to serve Blarney, which will improve connectivity to, from and within the settlement.

The proposed development fully aligns with the CMATS strategy. It will help to deliver the first stage of some of the main CMATS elements in Blarney, and future residents will benefit from the step-changes in transport provision that it will deliver.

2.3 Local Policy

Cork City Development Plan 2022-2028



2.3.1 The Cork City Development Plan 2022-2028 (CCDP) came into effect in June 2022, and sets out how the city will grow and develop over the next six years,

2.3.2 Objective 10.63 within the CCDP *'Blarney East / Ringwood Expansion Area'* relates to the area to the south and west of the N20, which includes the site. It's stated aim is:

2.3.3 "To support the compact *growth and development of Blarney East / Ringwood Expansion Area as a strategic City consolidation and expansion area, as identified in the Core Strategy. All development shall be designed, planned and delivered in a co-ordinated and phased manner, using a layout and mix of uses that form part of an emerging neighbourhood integrated with the wider area".*

2.3.4 **Figure 4** presents an extract from the CCDP.

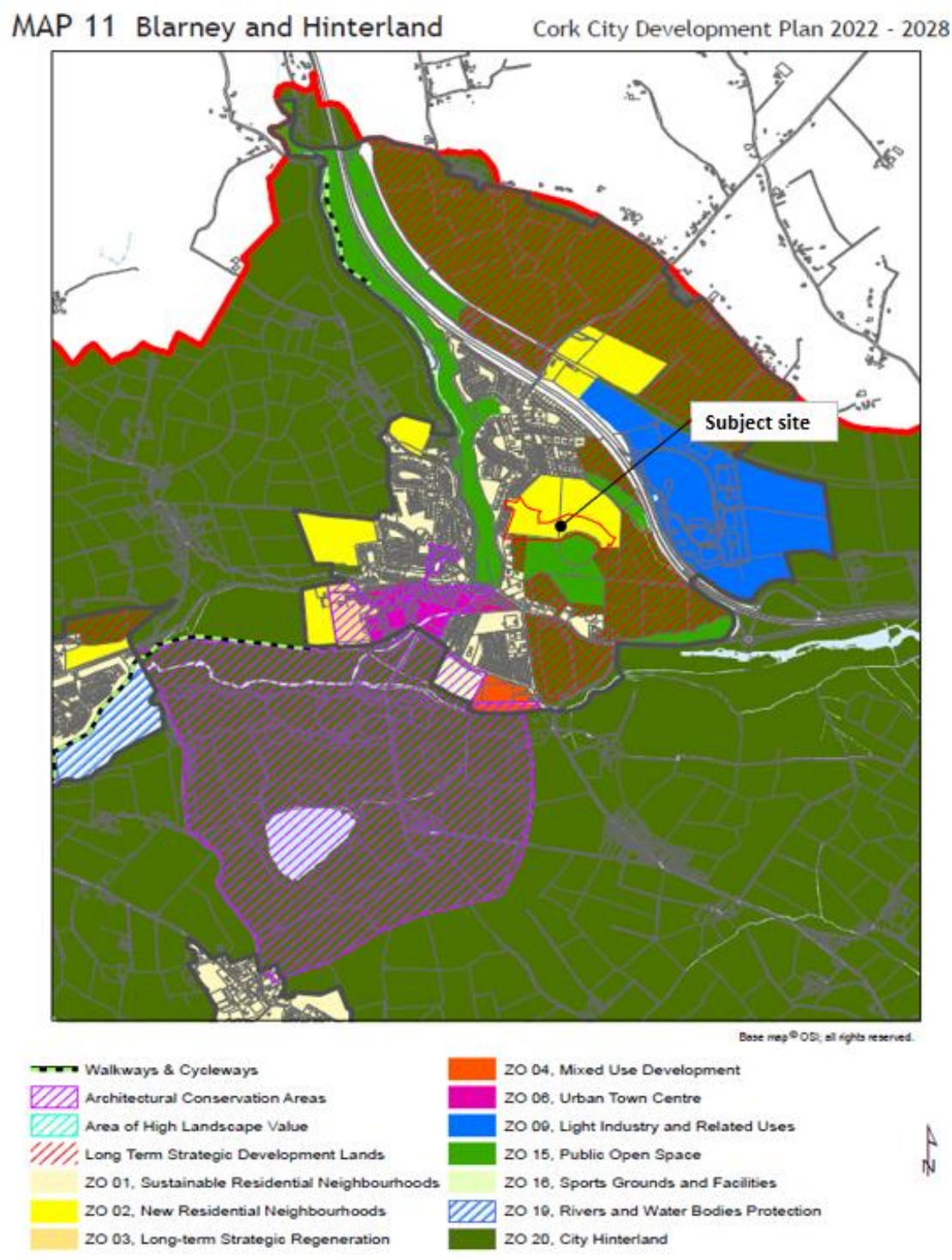


Figure 4. Blarney Zoning Map, CCDP 2022-2028

2.3.5 The site is designated as a 'Tier 2' site, meaning that it is anticipated that suitable infrastructure can be put in place to service the site.

2.3.6 This TA identifies the transport improvements that are required to support the site's development, and also looks ahead to the wider changes that will ultimately support wider development in the area.

Transport and Mobility

2.3.7 Strategic Objective 3 relates to Transport and Mobility, and is shown in **Figure 5**.

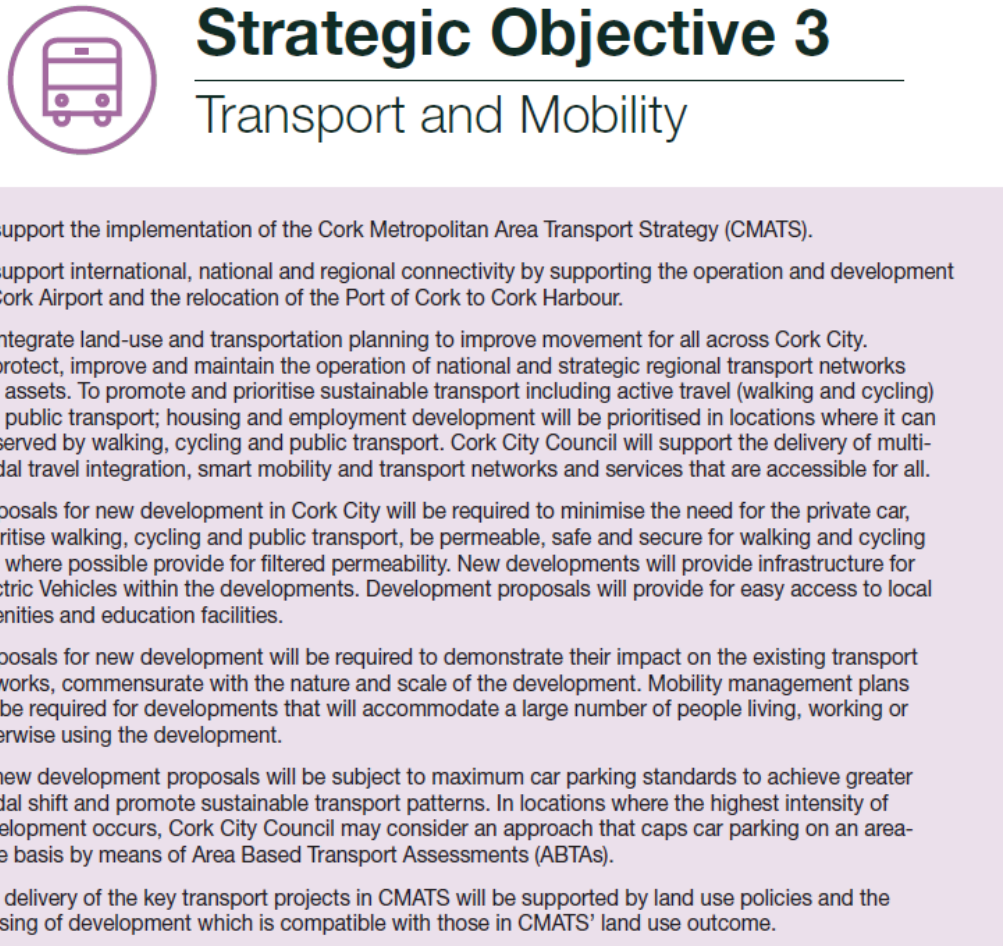


Figure 5. CCDP Strategic Objective 3: Transport and Mobility

2.3.8 The CCDP heavily references the CMATS 2040 strategy and interventions. It proposes the linking of sustainable transport provision with complementary land-use to provide a co-ordinated approach to the development of the city.

2.3.9 The CCDP includes a broad aim to facilitate compact growth through a broad range of transport options which seek to reduce congestion, and the economic and environmental cost of congestion, whilst heralding in a reduction in car dependency through strengthening sustainable alternatives.

2.3.10 This will involve focusing new residential and employment development in areas with good access to the planned public transport network and in locations where people can live close to work, making it easier to walk and cycle.

2.3.11 To illustrate this, the CCDP makes reference to the '15-minute city', where residents have easy access to their essential needs at distances taking no more than 15 minutes by public transport, foot or by bicycle. It is based on a network of liveable neighbourhoods and communities that offer diverse housing options, with safe access to active and public transport, local health care, education, shops, and other community infrastructure. Every resident's 15-minute city will differ due to their mobility preferences, their location, the quality of services and differing abilities to access these services. **Table 3** sets out the relevant Transport and Mobility-related objectives within the CCDP.

Table 3. CCDP Transport and Mobility Objectives

OBJECTIVE	POLICY
4.1 - CMATS	Cork City Council will work in cooperation with the NTA, TII and Cork County Council to fully implement the Cork Metropolitan Area Transport Strategy subject to detailed engineering design and environmental considerations, including the projects and programmes in relation to walking, cycling, public transport, BusConnects, suburban rail, light rail, park and rides and roads infrastructure.
4.3 – Strategic Location of New Development	To ensure that all new residential, employment and commercial development are focused in areas with good access to the planned high frequency public transport network.
4.4 – Active Travel	To actively promote walking and cycling as efficient, healthy, and environmentally friendly modes of transport by securing the development of a network of direct, comfortable, convenient, and safe cycle routes and footpaths across the city. To support the expansion of the Cork Bikes scheme. To accommodate other innovations such as electronic bikes, public car hire, and other solutions that will encourage active travel. To support the rollout of the NTA 5 Year Cycle Plan. To support and engage with the Safe Routes to School programme.
4.5 - Permeability	a. All new development, particularly alongside the possible routes identified for public transport improvements, shall include permeability for pedestrians, cyclists, and public transport so as to maximise its accessibility. b. To maximise permeability, safety, security and connectivity for pedestrians and cyclists by creating direct links to adjacent roads and public transport networks in accordance with the provisions of statutory guidance as prescribed. c. Prepare a permeability strategy for areas throughout the city.

OBJECTIVE	POLICY
11.1 – Sustainable Residential Development	Residential developments shall be sustainable and create high quality places which: a. Contribute to placemaking and to the 15-minute city and walkable neighbourhood concepts. b. Prioritise walking, cycling and public transport, and minimise the need to use cars. f. Are easy to access for all and to find one's way around. h. Provide a mix of land uses to minimise transport demand.

Parking

Car Parking

2.3.12 Car Parking standards are set out in Chapter 11 'Placemaking and Managing Development' of the CCDP (Variation No. 1) Four parking zones have been established for the City with the aim of ensuring adequate residential parking/car storage and control of destination carparking (non-residential uses), whilst also allowing greater flexibility in car parking standards on sites well served by public transport.

2.3.13 Blarney lies within Zone 3. Parking standards for Zone 3 are set out in **Table 4**.

Table 4. CCDP Maximum Car Parking Standards

LAND USE	ZONE 3 MAXIMUM STANDARD
Residential (1-2 Bedrooms)	1.25 spaces (including visitor parking)
Residential (3+ Bedrooms)	2.25 spaces (including visitor parking)
Medical Clinics	1 per consulting room
Café / Restaurant	1 space per 50sqm

2.3.14 5% of car parking spaces provided should be set aside for disabled parking. Disabled car parking spaces should as far as possible be provided within streets and spaces as close as reasonably possible to building entrance points. All disabled parking should be allocated and suitably sign-posted for convenient access.

Electric Vehicles

2.3.15 To encourage the use of Electric Vehicles (EV) developments shall provide the following minimum standards for EV charging points and infrastructure:

1. Multi-unit residential developments shall provide a minimum of one EV equipped parking space per five car parking. All other parking spaces shall be developed with appropriate infrastructure (ducting) that enables future installation of a charging point for EVs.

2. New dwellings with on-site car parking should be developed with appropriate infrastructure (ducting) that enables future installation of a charging point for EVs.

3. Other / non-residential development with more than 10 spaces shall provide at least 1 parking space equipped with a functioning EV charging point and at least 20% of spaces shall incorporate appropriate infrastructure (ducting) to allow for future fit out of a charging point.

Cycle Parking

2.3.16 No specific cycle parking standards are set for houses. It is assumed that bikes will be stored either in private gardens or garages.

2.3.17 For standard apartments located in the inner-urban suburbs, 1 bike parking space per unit is required.

2.3.18 As a comparison, SPPR4 of the Sustainable and Compact Settlements Guidance states that in the case of residential units that do not have ground level open space or have smaller terraces, a general minimum standard of 1 cycle storage space per bedroom should be applied. Visitor cycle parking should also be provided. Provision should also be made for a mix of bicycle parking types, and guidance on cycle storage facilities is also given.

2.3.19 Cycle parking for clinics / surgeries should be provided at a rate of 0.5 spaces per room.

2.3.20 Cycle parking for cafes / restaurants should be provided at a rate of 1 space per 200sqm.

Blarney within the CCDP

2.3.21 The CCDP contains a detailed section on the current situation in Blarney, and the aspirations and objectives for the future. The following section provides relevant extracts from the Plan.

General

"Stoneview, a large area earmarked for residential and employment development, requires investment in transport and utilities infrastructure to enable growth. Cork City Council recognises the potential Stoneview presents for public transport orientated development given its strategic position on the Dublin-Cork Railway line and will be preparing a framework plan in collaboration with relevant stakeholders including the NTA, TII, IDA and landowners which aims to address infrastructural constraints and allow for the development of this area.

Similarly, constraints have been identified at Ringwood, another large-scale development area located just outside the town centre on Station Road, and significant works will be required to allow for development of these lands".

Public Transport

"Blarney is served by the Cork City Bus network, significant improvements to both frequency and reliability are required on this route. CMATS proposes both a Core and Orbital bus network as part of BusConnects. Future provision for Blarney is as yet undecided but Cork City Council will endeavour to deliver significant improvements for public transport in Blarney during the lifetime of this Plan.

In addition to bus improvements, CMATS has also identified lands at Stoneview for the construction of a new railway station as part of the expansion of Cork Commuter Rail services. Enabling infrastructure such as new pedestrian and cycling linkages and upgrades to the local road network will be examined in both the Blarney Town Centre and Stoneview Framework Plans".

Local Road Network

2.3.22 *"Deficiencies in the local road network is one of the key reasons for the low level of development in Blarney, relative to other urban towns, with the existing road infrastructure unable to serve proposed developments. This issue is of particular concern in Stoneview and solutions to this problem will be identified as part of the Blarney Town Centre and Stoneview Framework plans which will prepared simultaneously during the lifetime of this Plan".*

2.3.23 Walking and Cycling

2.3.24 *"Facilitating a modal shift to walking and cycling for local journeys within the town would help ease congestion. There is significant potential for cycle routes in the town given the compact nature of the town and the proximity of most residential areas to the centre.*

2.3.25 *The Cork Cycle Network Plan which has been absorbed into CMATS contained proposals for both on and off road cycling infrastructure in the Blarney / Tower / Kerry Pike area and Cork City Council will work with relevant stakeholders to further these proposals during the lifetime of this Plan".*

Stoneview Framework Masterplan

2.3.26 *"Stoneview which is situated 1.9km north west of Blarney town centre site has been identified in successive plans as major residential expansion for the town. It occupies a strategic position on the Dublin-Cork railway line and the development of a large site in close proximity to the suburban rail network offers a major opportunity to achieve high modal shift by providing new homes at a location where residents can gain easy access to high quality rail. However, there are a number of infrastructural constraints which will prohibit development of this site in the short term, primarily water services and the need for major local road upgrades.*

2.3.27 *During the lifetime of this plan Cork City Council will collaborate with key stakeholders including Irish Water, NTA and TII to develop solutions to these constraints and provide Framework Masterplan for the co-ordinated development of this site which is considered paramount in delivering on the ambitions for both Blarney and Cork City in the National Planning Framework".*

2.3.28 **Table 5** sets out the objectives within the CCDP that are relevant to the Ringwood project.

Table 5. CCDP Blarney Objectives

OBJECTIVE	POLICY
10.63 – Blarney East / Ringwood Expansion Area	To support the compact growth and development of Blarney East / Ringwood Expansion Area as a strategic City consolidation and expansion area, as identified in the Core Strategy. All development shall be designed, planned and delivered in a co-ordinated and phased manner, using a layout and mix of uses that form part of an emerging neighbourhood integrated with the wider area.
10.64 – Blarney Town Centre Masterplan Framework	To support the compact growth and development of Blarney East / Ringwood Expansion Area as a strategic City consolidation and expansion area, as identified in the Core Strategy. All development shall be designed, planned and delivered in a co-ordinated and phased manner, using a layout and mix of uses that form part of an emerging neighbourhood integrated with the wider area.
10.65 – Stoneview Framework Masterplan	During the lifetime of this Plan Cork City Council will seek to provide and implement a framework for a transit-oriented mixed-use and residential development at Stoneview through the coordinated provision of infrastructure, services, land use, movement urban design and development.
10.66 – Blarney Public Transport	Cork City Council will collaborate with the NTA and Transport providers to deliver high quality public transport for the Blarney / Tower / Kerry Pike area to enhance the connections between each settlement and the wider Cork City area respectively.

2.4 Emerging Transport Developments

Cycle Connects Cork

2.4.1 'CycleConnects: Ireland's Cycle Network' (CC) aims to improve sustainable travel by providing the potential for more trips on a safe, accessible and convenient cycling network, connecting more people to more places.

2.4.2 Proposals for cycling links in key cities, towns and villages in each county are included in the plan, in addition to connections between the larger towns, villages and settlements. The plan also incorporates existing and planned cycle routes such as greenways and blueways.

2.4.3 The CC proposals in the vicinity of the site currently envisage:

- That Station Road (running north from Blarney) will become an Urban Primary Route.
- Two Urban Primary routes crossing Stoneview lands (north of the N20). This will require two new crossing points across the rail line.

- Junction improvements at the Station Road overbridge across the N20.

2.4.4 **Figure 6** shows a summary of proposed improvements in the Blarney area.

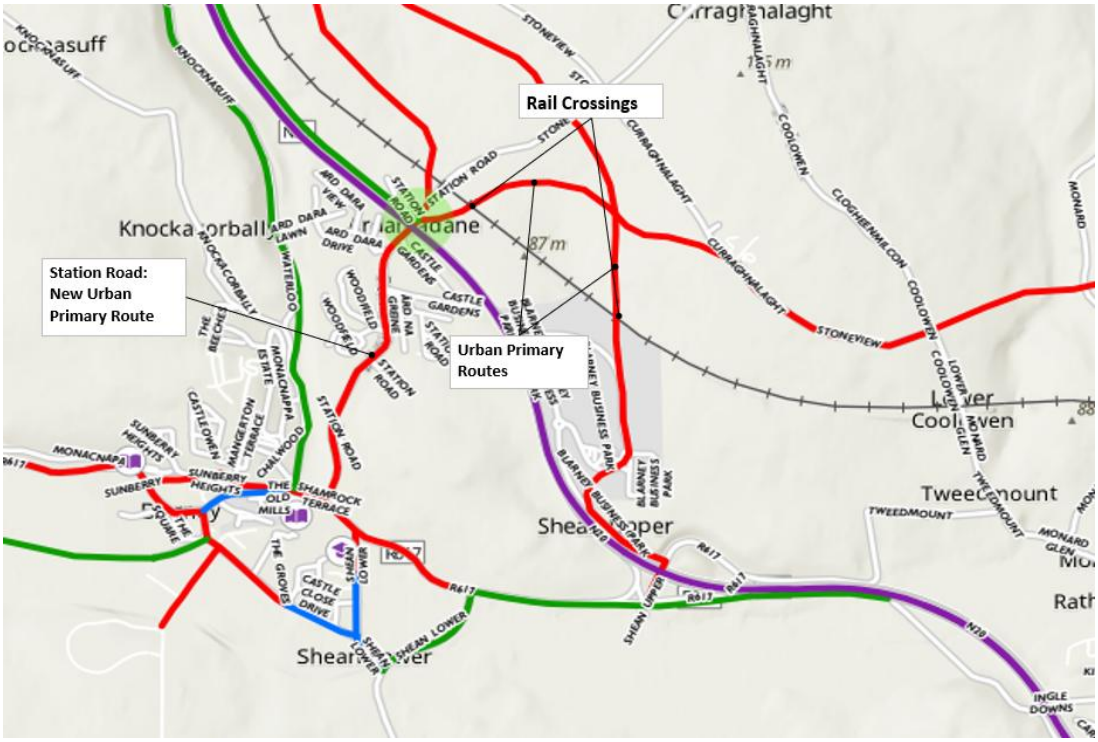


Figure 6. Extract from Cycle Connects Proposal Mapping

The client team has submitted a consultation response to the Cycle Connects proposals, and will work with the Cycle Connects team to ensure that aspirations for Cycle Connects are accommodated within future plans on the Ringwood and Stoneview sites.

BusConnects Cork

2.4.5 BusConnects is the National Transport Authority's (NTA) programme to greatly improve bus services in Irish cities. BusConnects is contained within the Government's National Development Plan 2021 – 2030, and the revised Climate Action Plan of 2021.

2.4.6 The National Transport Authority (NTA) launched its new design for the Cork Metropolitan Bus Network in June 2022. The new network, part of BusConnects Cork, is intended to transform the public transport network across the Cork Metropolitan Area. The new network will involve the creation of new bus routes and improved bus frequencies to help transform the public transport network to meet anticipated growth and future demand in the region.

2.4.7 The proposed routes in the Blarney area are:

- 16 Cloghroe Service – Tower – Blarney - Blackpool Shopping Centre - MacCurtain Street (30 mins frequency).

The proposed route would run along the R617 to the south of the site, and would provide high-frequency bus services to Cork City Centre within walking distance of the development site.

N20 / M20 Cork to Limerick Improvement Scheme

2.4.8 The N/M20 Cork to Limerick Road Improvement Scheme is a key element in Project Ireland 2040, the Government's long-term overarching strategy to make Ireland a better country for all of its people. The Strategy comprises the National Planning Framework (NPF) to 2040 and the National Development Plan (NDP) 2018-2027.

2.4.9 The NDP sets out that the N/M20 Cork to Limerick scheme would provide better connectivity between Ireland's second and third largest cities by improving the quality of the transport network which will address safety issues associated with the existing N20 route and provide for safer and more efficient journey times.

2.4.10 The 'Preferred Solution' has been published by the NTA in 2025. This shows that:

- The N20 will follow its current alignment.
- The N20 / R617 junction will be reconfigured and upgraded to a 'dumbbell' arrangement, that will provide for all movements to and from the N20 from the R617.
- The R617 / Business Park junction, which is currently a priority junction, will be replaced with a roundabout.
- The N20 Station Road overbridge will be retained.

2.4.11 **Figure 7** and **Figure 8** show the N20 proposals in the vicinity of Blarney.

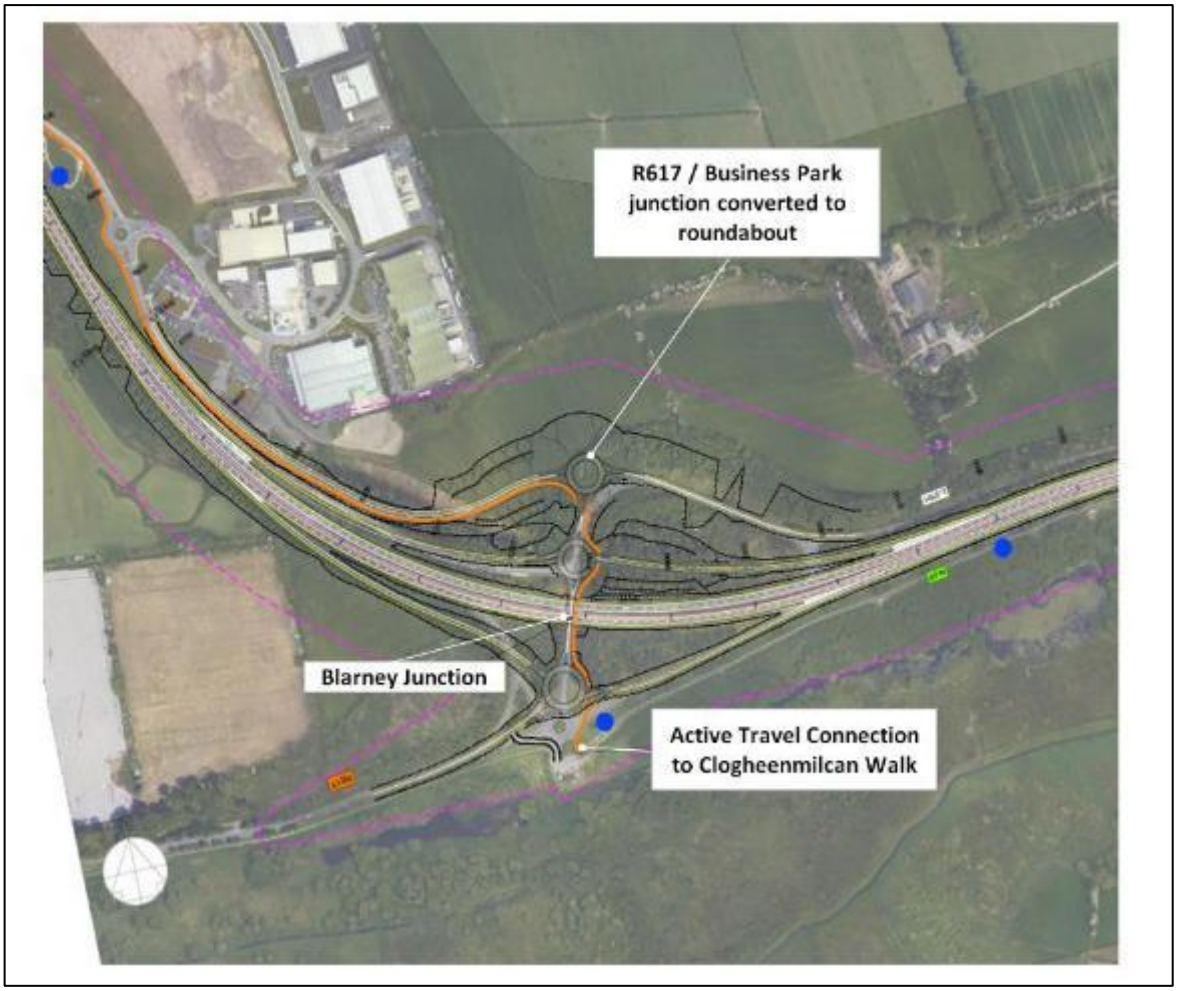


Figure 7. Reconfigured and upgraded N20 / R617 interchange



Figure 8. N20 Station Road / Business Park junction plans

Following selection of the Preferred Option, Phase 3 will commence subject to approvals. This is programmed to take two years with the key deliverables being the Design Report, the Environmental Impact Assessment Report, the Statutory Process Documentation and the Preliminary Business Case. Subject to government approval, the formal planning submission is then made to An Bord Pleanála in Phase 4.

Future residents of the site will benefit from the improved traffic capacity of the junction, and the upgraded compliant designs will improve road safety compared to the current sub-standard road layout.

Blarney Village Pedestrian and Cycle Infrastructure Scheme

2.4.12 Cork City Council is taking forward an extensive active travel scheme within Blarney.

2.4.13 The study area extends northwards towards Waterloo between Station Road and Waterloo Road (both east and west of the River Martin, eastwards towards Blarney Business Park, and southwards towards Blarney playground.

2.4.14 The objectives of the scheme are:

- Enhanced connectivity for pedestrians and cyclists.
- Provision of sustainable alternative routes for commuters, school and leisure users.
- Creation of an environment that will encourage the uptake of sustainable forms of transport.
- Reduction in traffic volumes on the local road network.
- Improved quality of life for residents and businesses in the area.

2.4.15 The scheme is currently at the planning / design stage, with the final Part 8 Consultation expected to be undertaken in 2025.

The CCC proposals, if implemented, will greatly benefit existing and future residents of Blarney by significantly enhancing active travel routes. In terms of the Ringwood development, potential improvements on Station Road, and the R617, will improve pedestrian and cycle access into the centre of the village, and destinations throughout Blarney.

Blarney / Stoneview Rail Station and Park and Ride

2.4.16 In 2021 the Irish Government announced the 'Cork Area Commuter Rail Programme', which will involve a major upgrade to the metropolitan commuter rail line in Cork,

2.4.17 The programme involves developments and enhancements to the rail network from Mallow through Cork to Cobh and Midleton and will include the delivery of new rail infrastructure and electrification and re-signalling across the 3 main lines of Mallow, Cobh and Glounthaune to Midleton

2.4.18 Phase 2 of the plans include a new station at Blarney, which will include a 'Park and Ride' site, which would be delivered by Irish Rail. These upgrades will enable and support enhanced services along the Cork-Dublin line, with CMATS envisaging a 10-minute service frequency along the corridor.

2.4.19 SYSTRA has engaged extensively with Irish Rail, and ongoing discussions have identified that this would be delivered around 2028, and would include a 250-300 space park and ride facility.

The proposed Blarney Rail Station will provide a 'step-change' in public transport to Blarney and its hinterland, providing existing and future residents with a high-frequency, high-quality train service to Cork and other destinations.

3. BASELINE CONDITIONS

3.1 Site Location

3.1.1 The Phase 2 site is located approximately 1.2km to the north-east of the historical village centre, on land to the north of the R617. It lies to the north of the Ringwood, a distinctive circular wooded mound. **Figure 9** shows the site location and key local features.

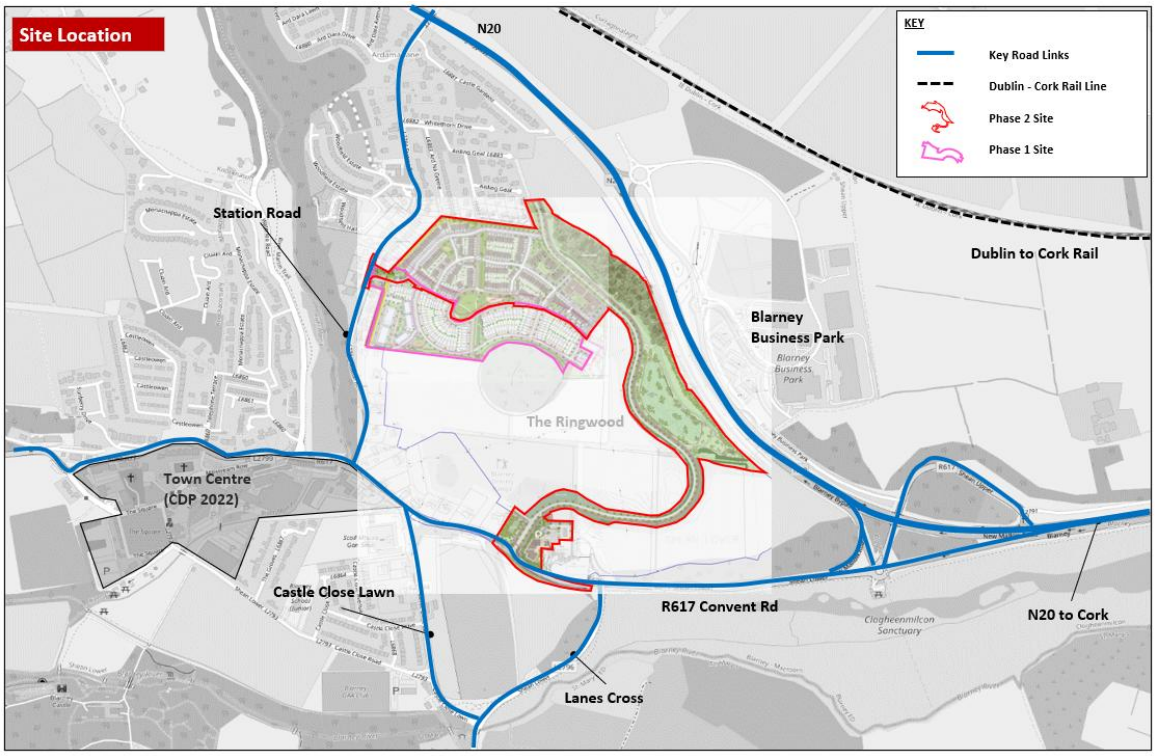


Figure 9. Site Location

3.1.2 **Figure 10** provides a summary of the current transport network surrounding the site. Further detail is provided in the remainder of this chapter.

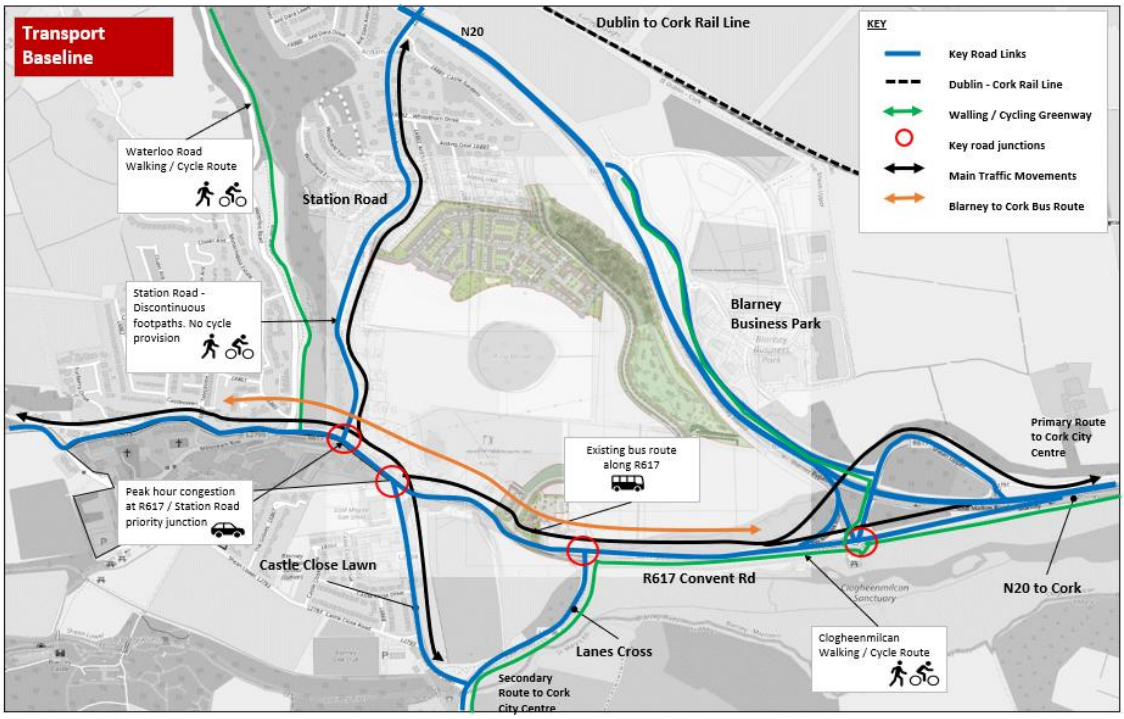


Figure 10. Summary of Transport Baseline

3.2 Pedestrian Accessibility & Infrastructure

3.2.1 **Figure 11** provides a summary of the pedestrian facilities in the vicinity of the site.

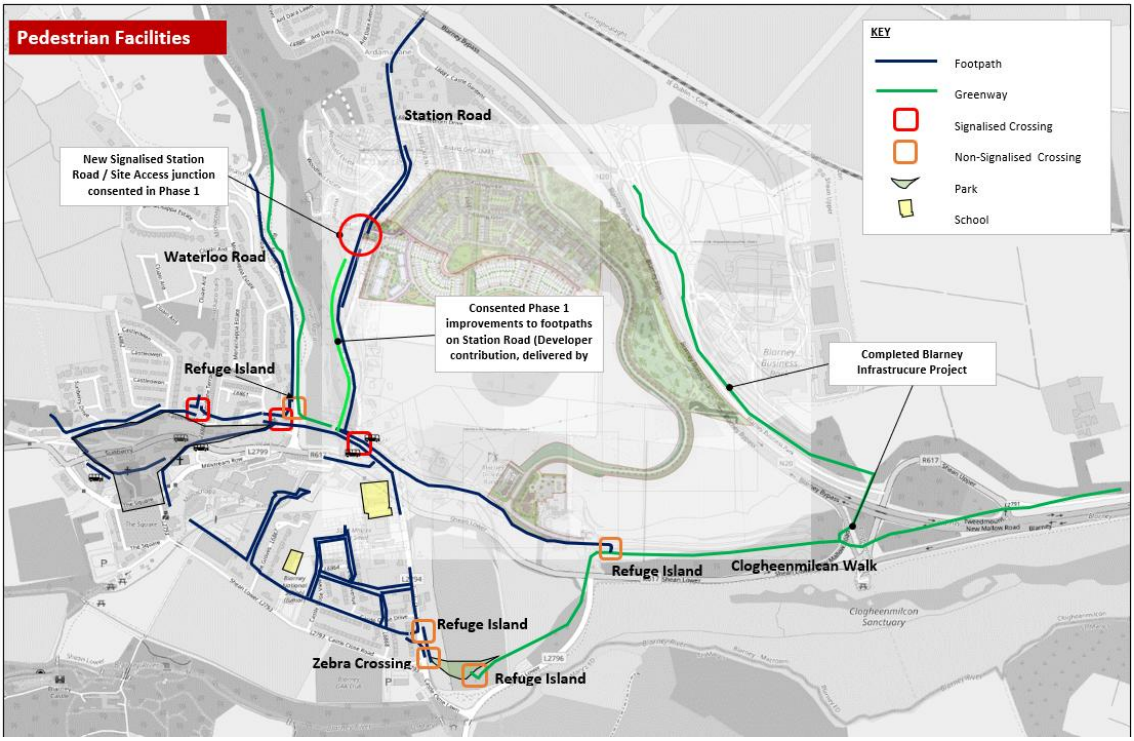


Figure 11. Existing and Consented Pedestrian Facilities

3.2.2 On the west side of Station Road, there is a continuous footway that runs from Ard Dara Drive in the north, to the R617. This pavement varies considerably in width, but is typically around 1m wide, which is below the minimum desirable width of 1.8m specified in DMURS.

3.2.3 On the east side of Station Road, there is currently no footway in the vicinity of the proposed site access point. To the north of this, there is a 250m section of footway that runs along the frontage of the properties on the east side of the road. To the south of this point, there is a further 140m section of footway, that again fronts a line of properties. This footway is slightly wider than on the west side of the road, but still below minimum DMURS width.

3.2.4 The recently completed Blarney Infrastructure Project has created a shared pedestrian and cycle facility linking the R617 and N20 on-ramps towards Blarney Business Park, improving safety, accessibility, and public amenities for the local community. The key improvements are:

- New bus stops and shelters
- Widened Clogheenmilcon Sanctuary Walkway
- New cycle and footpaths
- Road resurfacing
- Upgraded lighting and drainage

Off-site

3.2.5 **Figure 12** shows the existing typical footway provision on Station Road to the south of the proposed site access location, looking south.



Figure 12. Footways on Station Road to the south of the proposed site entrance

3.2.6 The R617 / Station Road junction is a priority junction with footpaths present on each side. Dropped kerbs are present on the Station Road arm, but the crossing distance is around 16m wide, which could be intimidating for more vulnerable pedestrians. It is understood that CCC has developed an updated layout at the junction as part of the NTA Active Travel Programme, which when implemented, will improve facilities for cyclists and pedestrians.

3.2.7 A signalised pedestrian crossing is located around 30m to the east of the Station Road junction. This is shown in **Figure 13**.



Figure 13. Pedestrian crossing to east of Station Road on R617

3.2.8 Additional signalised crossings are present across the R617 to the west of Waterloo Road, and to the east of St Ann's Road.

3.2.9 The R617 / Castle Close Lawn junction, which is on the pedestrian route to the secondary school, is shown in **Figure 14**. Presently there is no pedestrian crossing provision at the junction.



Figure 14. R617 looking west at Castle Close Lawn junction

3.2.10 There are two recreational off-road walking / cycling routes in the area:

- **Clogheenmilcon Walk**, which runs east-west to the south of the R617, and then bears south along the L2796 as far as the Children's Woodland Park.
- **Waterloo Road / River Martin Walkway**, which runs north-south on the east side of Waterloo Road.

3.2.11 The majority of main destinations within Blarney are all within are within a 20-minute walk from the site, as set out in **Table 6**.

Table 6. Walking times and distances from the site

LOCATION	DISTANCE	WALK TIME
Scoil Mhuire gan Smál Secondary School	1,090m	14 mins
River Martin Walk	1,230m	15 mins
Muskerry Arms	1,330m	17 mins
The Square	1,410m	18 mins
Blarney Playground	1,550m	19 mins
Post Office	1,600m	19 mins
Scoil Chroí Íosa Junior School	1,600m	20 mins
The Medical Centre	1,710m	21 mins

3.2.12 The main pedestrian routes to and from the site will be to:

- **The Village Centre**, which will be accessible either:
  - By heading south on Station Road, then crossing Station Road at the R617 / Station Road junction. From here the route proceeds along footways on the north side of the R617, crossing first Waterloo Road, and then the R617 itself, using the signalised crossing to the west of Waterloo Road. From here the route continues along footways on Millstream Road to reach the vicinity of The Square. Identified constraints on this section include the narrow width of the existing footpaths, and varied condition / quality of the surfacing; or
  - Accessing the development at the footways at the new R617 access junction, and then proceeding west along Station Road.

- **Scoil Mhuire gan Smál Secondary School**, which can be reached by heading south on Station Road, and crossing the R617 at the pedestrian crossing to the east of the R617 / Station Road junction. From here there is a continuous footway that proceeds along the south side of the R617 and runs south along Castle Close Lawn to the school.

3.3 Cycling Accessibility & Infrastructure

3.3.1 **Figure 15** shows the existing cycle infrastructure in the vicinity of the site.

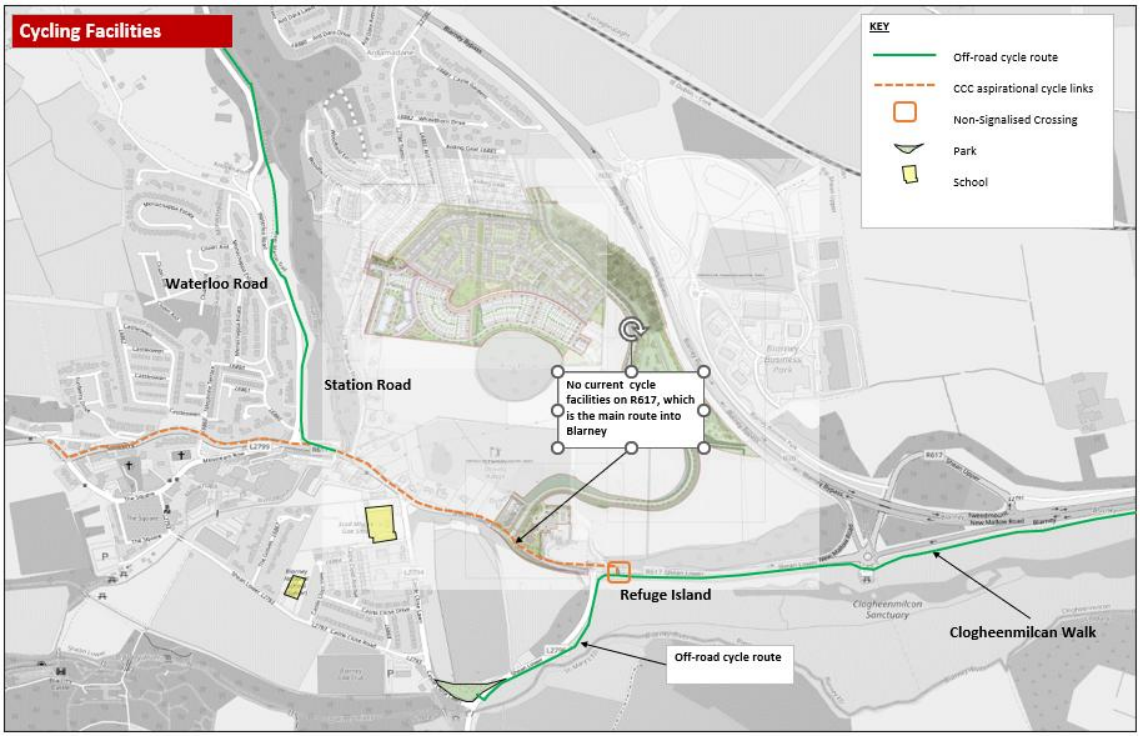


Figure 15. Cycle Infrastructure in the vicinity of the Site

3.3.2 Cycling infrastructure in the vicinity of the site consist of:

- The 2m-wide, off-road Clogheenmilcon Walk, where cyclists share the surfaced mixed--use path with pedestrians. This does not meet the requirements set out in Cycle Design Manual, which states that shared-use paths should be an absolute minimum width of 2.5m in rural areas.
- The 2m-wide, off-road, shared-use Waterloo Road path. This is also below standard CDM width.

3.3.3 The position of the site means that, assuming an average cycling speed of 16 km/hr all of the Blarney urban area is accessible within a 10-minute cycle journey, as indicated by **Figure 16** below. This demonstrates the potential for encouraging cycle trips from the development for commuting, commercial and recreational purposes.

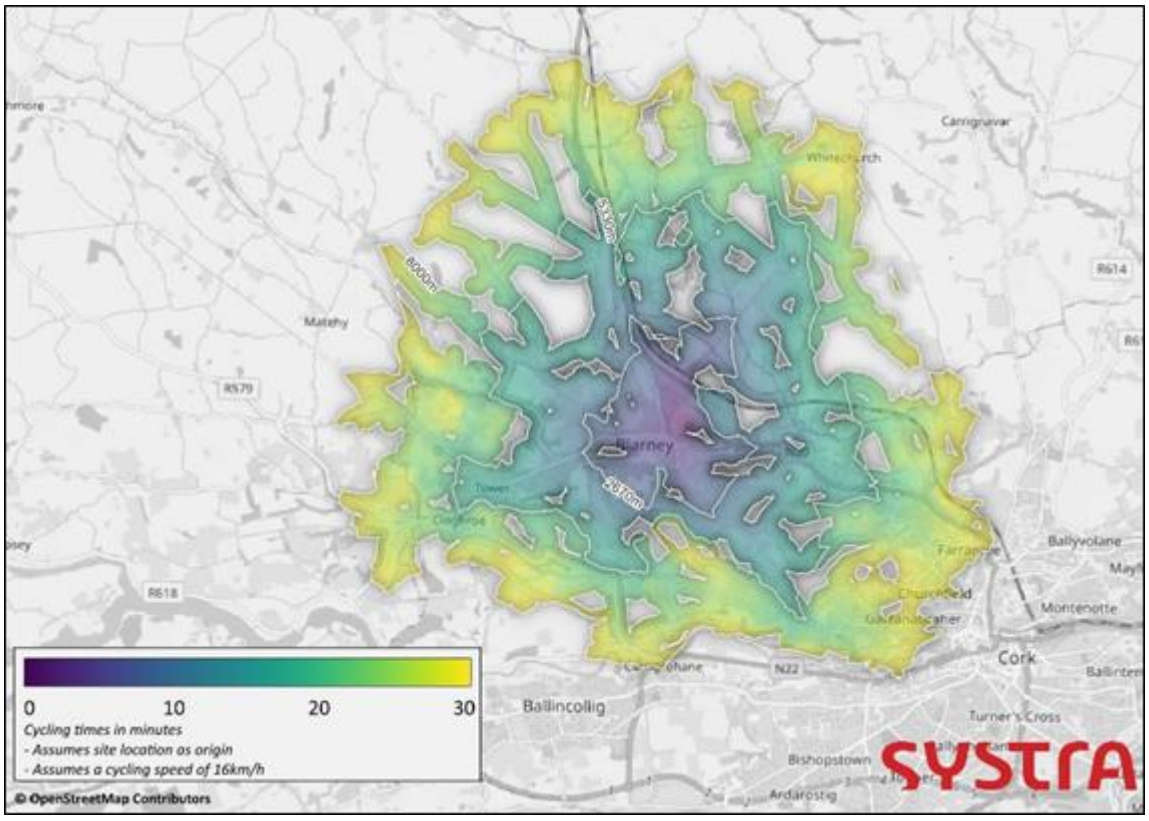


Figure 16. Cycling Catchment

3.4 Public Transport Accessibility & Infrastructure

3.4.1 **Figure 17** shows the closest bus stops to the site.

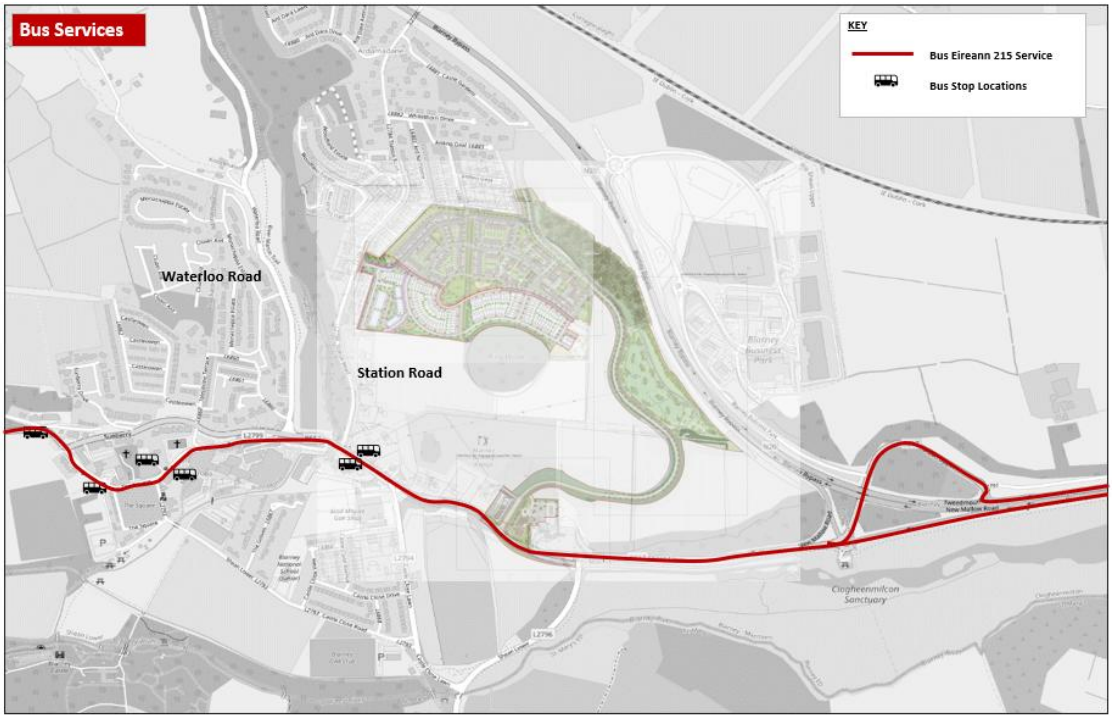


Figure 17. Bus Stops & Walking Distances from Site

3.4.2 The closest bus stops to the site are a pair of eastbound and westbound stops on the R617, located 50m to the east of the R617 / Station Road junction. These are only 530m distant from the proposed site access point, which corresponds to an approximate 6-minute walking time.

3.4.3 Bus Eireann Service 215 runs along the route shown in **Figure 17,** with a half-hourly service frequency throughout the day on Monday through to Sunday. Service 215 runs between Jacob's Island, Cork City Centre, Blarney and Tower.

3.5 Road Network Infrastructure & Traffic Conditions

3.5.1 The site is well-located to provide easy vehicle access onto the R617, and from there onto the N20 linking Cork and Limerick.

3.5.2 **Figure 18** shows the road network, and key junctions in the vicinity of the site.

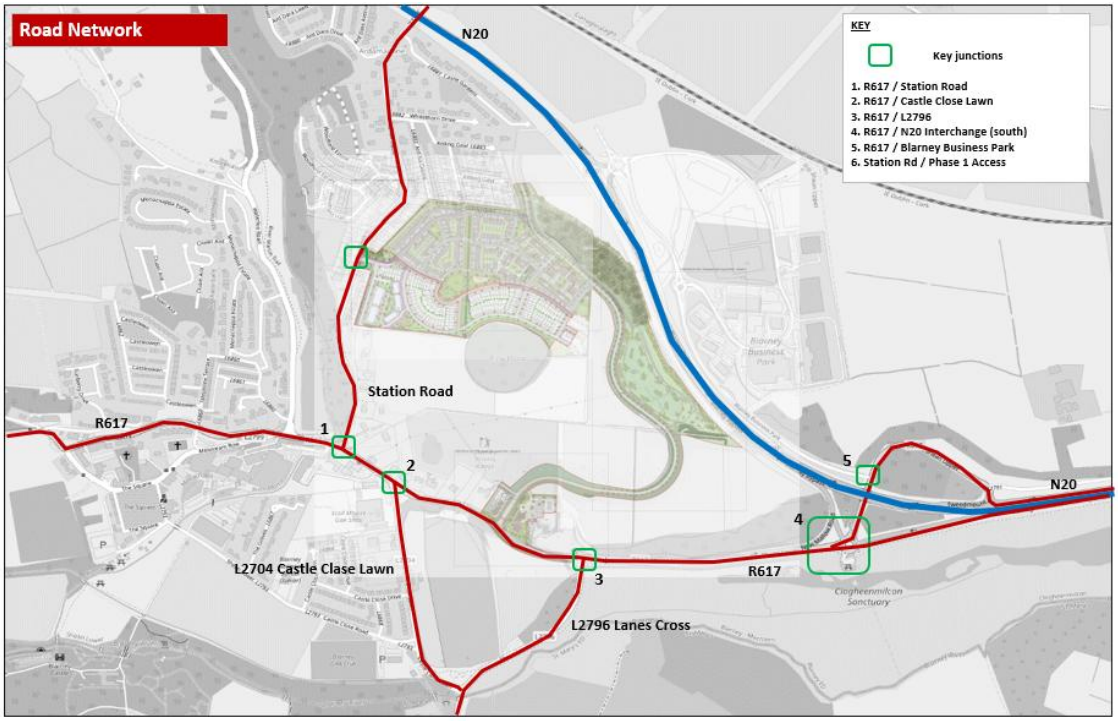


Figure 18. Local Road Network and Key Junctions

3.5.3 The key roads within the study area are:

- The **N20**, which provides the strategic east-west road connection through the area. The N20 / R617 interchange, to the south-east of the site, provides all-movement access to this road. N20 eastbound on and off-slips are present at the Blarney Business Park junction, which can only currently be accessed from the local road network to the south-east. There is no direct access onto the N20 from the Masterplan site.
- **R617 Convent Road** is a single-carriageway road that runs east-west, adjacent to the southern boundary of the site. It runs west from the N20, through Blarney town centre, and continues in a south-west direction to meet the R579 at Ballyandreen. Within Blarney, to the west of the L2796 junction, the R617 has a speed limit of 50km/h. Between the L2796 and the N20, the speed limit is 60km/h. In the vicinity of the site, the R617 has a width of between 6m and 6.5m.
- **Station Road** is a single-carriageway road which runs in a north-south alignment to the west of the site. It is a local road with a speed limit of 50km/h. Heading north from Blarney, Station Road passes first over the N20, and then over the Dublin to Cork Rail Line.
- **L2704 Castle Close Lawn** and the **L2796 Shean Lower**, which are single-carriageway roads with a speed limit of 50km/h. These feed into Shean Lower, which provides an alternative route to the N20 to access the west side of Cork.

3.5.4 The vehicular access for the development site will be via a new access junction onto Station Road at the location shown in **Figure 19**.



Figure 19. R619 Access Junction Location looking west

3.5.5 The existing road will be widened to allow the provision of widened footpaths and a dedicated right-turn lane into the development. Further landscaping will be undertaken to provide suitable visibility splays in either direction.

3.5.6 **Figure 20** shows the R617 / Station Road priority junction.



Figure 20. R617 / Station Road junction looking east

3.5.7 Station Road forms the minor arm of the junction, and is a one lane approach with a short flare with capacity for two cars. Unless well-positioned, waiting right-turning traffic from the westbound R617 into Station Road blocks following traffic until the turn is made. There is a signalised pedestrian crossing across the R617, 30m to the east of the junction.

3.5.8 **Figure 21** shows the R617 / Castle Close Lawn priority junction.



Figure 21. R617 / Castle Close Lawn junction looking east

3.5.9 Castle Close Lawn forms the minor arm of the junction, and has eastbound and westbound entry / exits separated by a splitter island. As a result, the junction has a larger footprint than a more standard priority junction No pedestrian facilities are present. The R617 has a single, 3.8m wide lane in either direction.

3.5.10 **Figure 22** shows the R617 / Waterloo Road priority junction.



Figure 22. R617 / Waterloo Road junction looking east

3.5.11 Waterloo Road forms the minor arm of the junction, and is a one lane approach with a separate 30m-long additional left-turn lane. Two refuge islands on Waterloo Road help pedestrians to cross. Waiting right-turning traffic from the westbound R617 into Waterloo Road blocks following traffic until the turn is made. There is a signalised pedestrian crossing across the R617, 20m to the west of the junction.

3.5.12 **Figure 23** shows R617 / L3286 Shean Lower priority junction.



Figure 23. R617 / L3286 junction looking west

3.5.13 Shean Lower forms the minor arm of the junction and is a one lane approach. Waiting right-turning traffic from the eastbound R617 blocks following traffic until the turn is made.

3.5.14 **Figure 24** shows the N20 / R617 interchange (south).



Figure 24. N20 / R617 Interchange (south)

3.5.15 The interchange comprises a five-arm roundabout with an Inscribed Circle Diameter (ICD) of 40m. The configuration of the roundabout is shown in **Figure 26**. Eastbound traffic on the R617 wishing to head north on the N20 can bypass the roundabout using the remote left-turning slip.

3.5.16 **Figure 25** shows the R617 / Business Park priority junction.



Figure 25. R617 / L3286 junction looking west

3.5.17 The Business Park road forms the minor arm of the junction, and is a one lane approach. Waiting right-turning traffic from the eastbound R617 blocks following traffic until the turn is made.

3.5.18 As noted, in **Section 2**, the 'N2- Cork to Limerick Improvement Scheme' proposals envisage that the current N20 / R617 interchange (which includes the R617 / L3286 junction) will be upgraded, and that the existing N20 / Blarney Business Park junction to the north-west, will be removed. The latest plans are shown in **Figure 8.**

3.6 Road Safety

3.6.1 The Road Safety Authority's (RSA) website states that: "*We are in the process of reviewing our road traffic collision (RTC) data sharing policies and procedures. Record-level RTC data can't be shared until this review is complete".*

3.6.2 At the time of preparing the TA, it has therefore not been possible to incorporate a review of local accident data.

3.7 Baseline Traffic Conditions

Traffic Surveys

3.7.1 In order to establish baseline traffic conditions on the local road network, traffic surveys were undertaken in in April 2025.

3.7.2 **Figure 26** shows the location of the Junction Turning Counts (JTC), and Automatic Traffic Counters (ATC).



Figure 26. Location of Junctions Turning Counts and ATCs

Junction Turning Counts

3.7.3 JTCs were undertaken at the following locations in April 2025:

- 1. R617 / Station Road priority junction
- 2. R617 / Castle Close Lawn priority junction
- 3. Blarney Business Park Roundabout
- 4. R617 / Lane's Cross priority junction
- 5. N20 / R617 Interchange (Roundabout and R617 on-slips onto NB N20)

- 6. R617 / Blarney Business Park priority junction
- 7. R617 / Waterloo Road;
- 8. R617 / Millstreet Row;
- 9. R617 / St Anne's Road; and
- 10. Lane's Cross / Castle Close Lawn.

3.7.4 Surveys were undertaken on Tuesday 1st April 2025, and ran between 07:00 -10:00 and 15:30 – 19:00. Classified turning counts were recorded at 15-minute intervals. Maximum queue lengths were collected on each arm of each junction in 5-minute bins.

3.7.5 Taking into account all of the recorded turning flows, the assessed network peak hours were:

- AM Peak – 08:00 – 09:00
- PM Peak – 16:30 – 17:30.

3.7.6 AM and PM peak hour turning diagrams are included in **Appendix A**.

Automatic Traffic Counters (ATC)

3.7.7 ATC were placed at the following locations:

- A. Station Road to north of N20 overbridge
- B. Station Road south of Woodfield
- C. R617 between Castle Close Lawn and Lane's Cross junctions

3.7.8 The ATC recorded data for a full 7-day period, commencing Tuesday 1st April, recording classified speed and flow data. The exception was at Site 3, where, due to a fault, the ATC counter only recorded Tuesday to Thursday (which are the key days in terms of typical weekday traffic flows)

3.7.9 **Figures 27** and **28** present eastbound and westbound daily totals at ATC C on the R617 for the period 07:00-20:00.

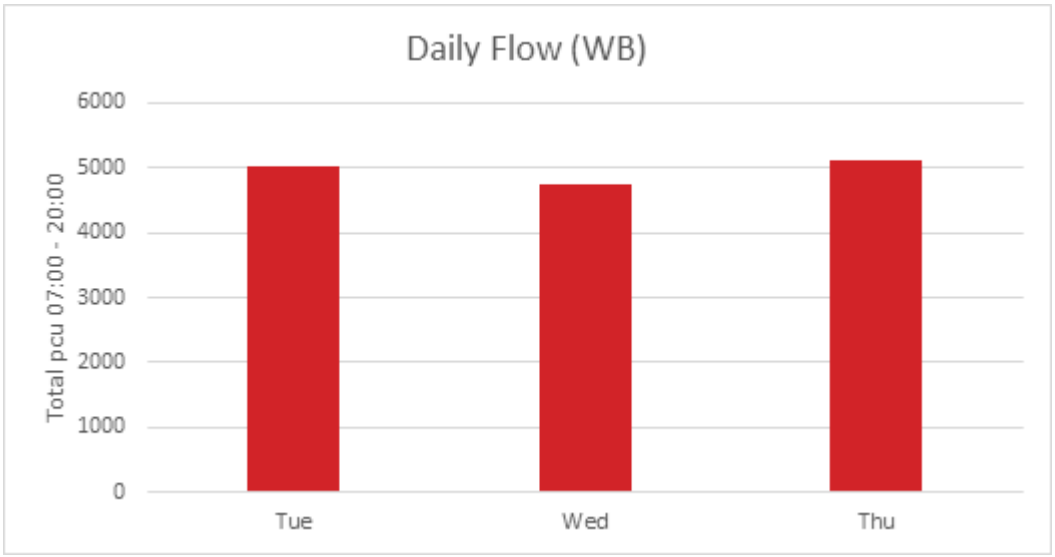


Figure 27. ATC C – R617 Westbound 07:00-20:00

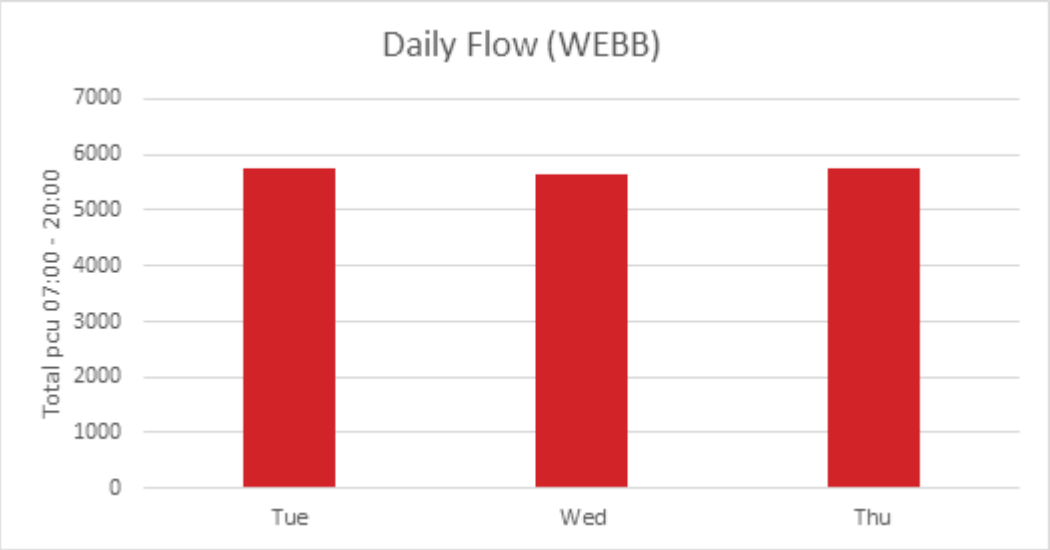


Figure 28. ATC C – R617 Eastbound 07:00-20:00

3.7.10 **Figures 27** and **28** show that daily flows recorded on Tuesday 1st April (the day of the junction count surveys) were a fair representation of midweek, weekday flows.

3.7.11 **Figure 29** shows the recorded westbound (towards Blarney) and eastbound (towards Cork City) hourly flow profiles on the R617 throughout the day on Tuesday 1st March.

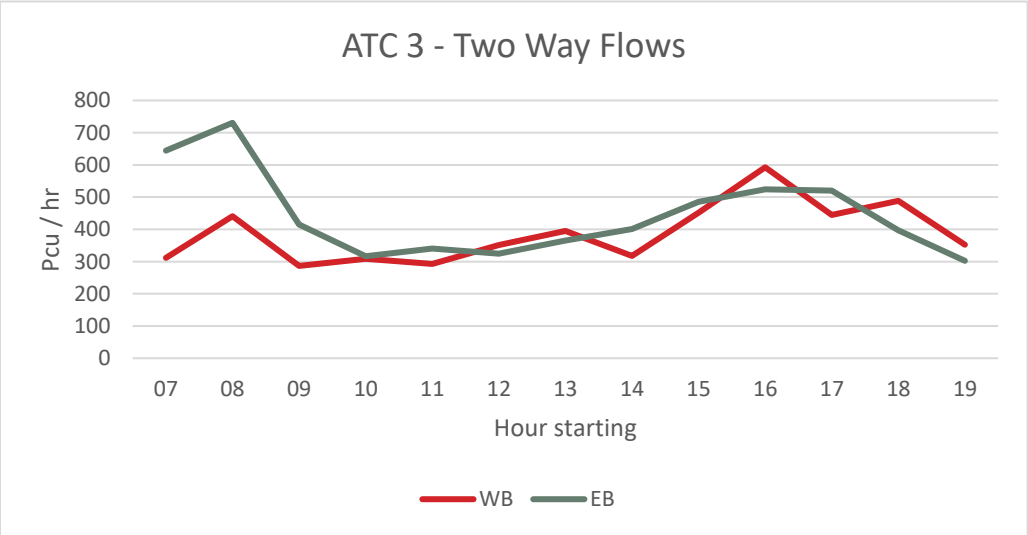


Figure 29. ATC C – R617 Hourly Flow Profile

3.7.12 **Figure 29** shows that traffic flows are tidal in nature, with most traffic heading towards Cork City in the AM peak, and most traffic heading towards Blarney in the PM peak, although flows in the PM are more balanced.

3.7.13 Recorded speeds on the R617 over the entire week were as follows:

- Eastbound – average speed 54.8ph, 85th percentile speed 61.2kph
- Westbound – average speed 55.4kph, 85th percentile speed 62.2kph.

3.7.14 ATC B, which was positioned at the location of the proposed access junction on Station Road recorded the following speeds:

- Northbound – average speed 49.8kph, 85th percentile speed 57.3kph.
- Southbound – average speed 49.3kph, 85th percentile speed 56.7kph.

3.7.15 The ATC data suggests that 85th percentile traffic speeds are slightly higher than the posted speed limit of 50kph. The introduction of the proposed signalised site access junction at this location will help to reduce speeds on approach to the junction, and on downstream links in both directions.

4. PROPOSED DEVELOPMENT & ACCESS ARRANGEMENTS

4.1 Development Mix

4.1.1 The proposed Phase 2 development comprises 323 residential dwelling on the Ringwood site, which will comprise the following:

- 157 terraced, end-of-terrace and detached houses;
- 52 no. duplexes provided in 5 no. 3-storey buildings; and
- 114 no. apartments provided in 2 no. 5-storey buildings

4.1.2 In addition, a 2,100sqm Primary Care Centre will be constructed in the south of the site, close to the R617 access. This will incorporate:

- GP Services
- An 80sqm retail / pharmacy unit
- A 380sqm café / restaurant.

4.1.3 A full description of the development is provided in **Section 1**. An extract from the site plan, is shown in **Figure 30.**



Figure 30. Proposed Site Layout

4.2 Access Strategy

4.2.1 **Figure 32** provides an overview of the proposed Phase 2 access strategy.

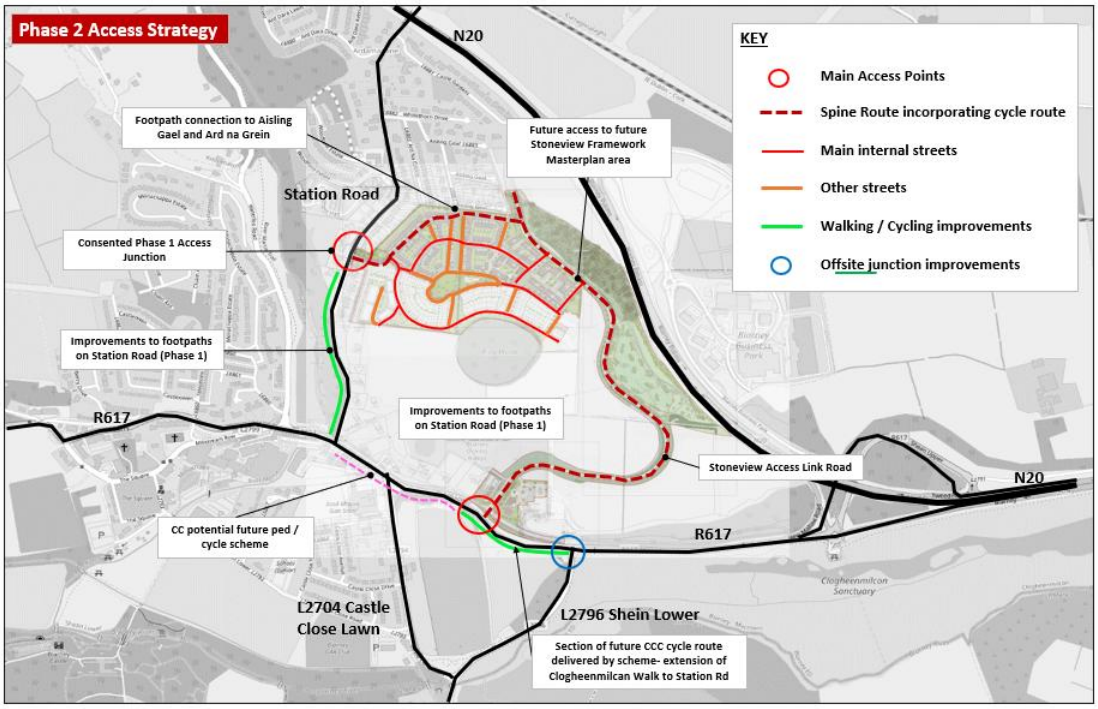


Figure 31. Access Strategy

4.2.2 The main aspects of the access strategy can be summarised as follows:

- **Pedestrian, vehicle and cycle access** will be taken from the Phase 1 junction on Station Road (which is re-included in the Phase 2 red line boundary, and **a new signalised junction on the R617**, which will provide vehicle, cycle and pedestrian access into the site. This will reduce traffic pressure on the Phase 1 site access junction on Station Road, allowing vehicles to access the site without travelling through the R617 / Station Road junction.
- The construction of the first phase of the **'Stoneview Access Link Road'** into the site, which will ultimately link into lands to the north of the N20 / rail line, in future phases of the wider Masterplan. The Access Link Road has been designed to accommodate future bus services between the R617 and the future Blarney Rail Station (As part of a future application). Segregated cycle paths will run along its full length.
- The development will open up **new routes for pedestrians, cyclists and vehicles between the R617 and Station Road**. The route for vehicles is not direct, to dissuade 'rat-running' through the site.
- An **internal site layout that is DMURS compliant**, and features high-quality walking and cycling facilities.
- Pedestrian links into the site from **Aisling Gael** and **Ard na Greine.**
- Offsite improvements at the **R617 / Shean Lower junction**, which will be signalised. Fully controlled pedestrian / cycle crossings will be provided on all arms of the junction.

- A **new shared pedestrian / cycle link on the south side of the R617** will link the Clogheenmilcon cycle way on the east side of Shean Lower with the site.

4.3 Pedestrian and Cycle Facilities

Phase 1

4.3.1 Improvements to the active travel network on Station Road between the site access junction and the R617 / Station Road junction, are proposed as part of the Phase 1 scheme, which is commencing imminently.

4.3.2 The facilities will comprise a new 3m wide shared track for cyclists and pedestrians on the west side of Station Road, between the R617 and the site access junction. Due to constraints, the width of the track will be reduced in certain sections.

Phase 2

4.3.3 Proposed pedestrian and cycle facilities in the north of the site are shown in **Figure 32**.

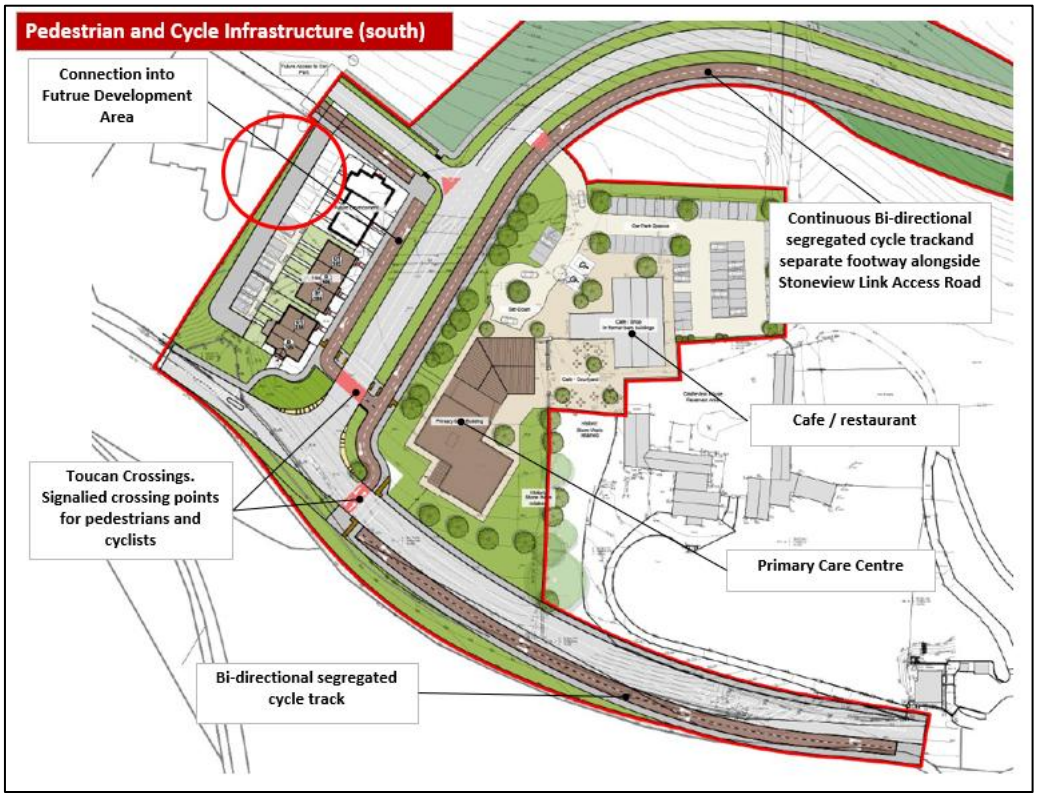


Figure 32. Pedestrian and Cycle Infrastructure (north)

4.3.4 Proposed pedestrian and cycle facilities in the south of the site are shown in **Figure 33**.

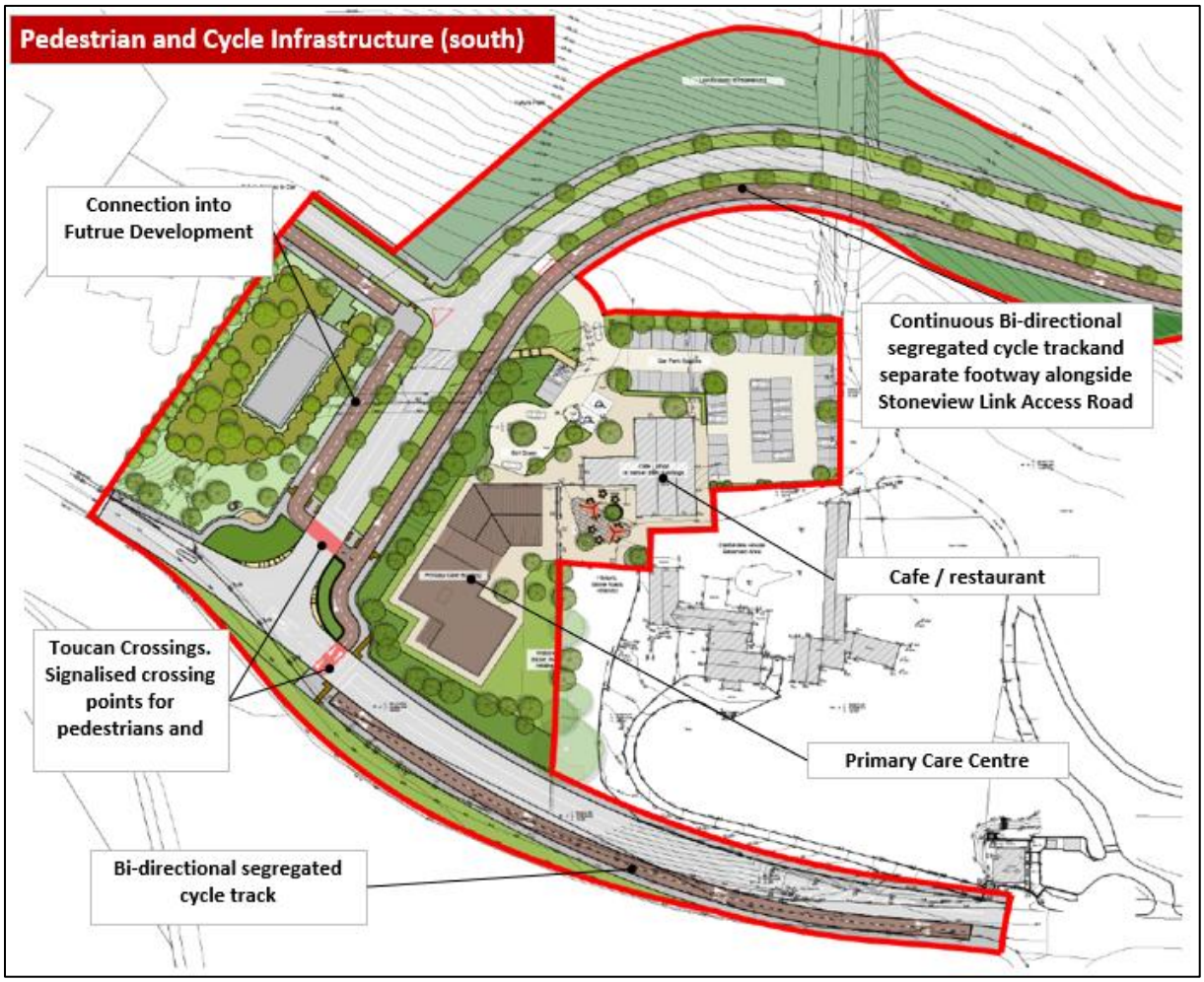


Figure 33. Pedestrian and Cycle Infrastructure (south)

4.3.5 The design of the scheme has placed a focus on pedestrian routes and infrastructure, with high-quality footpaths, and safe crossing points provided throughout.

4.3.6 Within the site, footpaths will be provided alongside all of the internal roads. In addition, off-road routes will be provided through greenspace, that will provide direct pedestrian access to residential areas, and short cuts between roads.

4.3.7 Raised crossings, and raised junction features will be provided at key pedestrian crossing points, an example of which is shown in **Figure 34**. The length of straight sections of streets has also been limited, to reduce forward visibility for vehicles and reduce traffic speeds.



Figure 34. Example Raised Table Crossing Facility

4.3.8 A continuous segregated cycle track of 3m in width will run along the east side of the Stoneview Access Link Road. Segregated cycle tracks will link the Station Road access with the Link Road.

Off-site

4.3.9 The development will provide a bi-directional shared pedestrian / cycle facility on the south side of the R617, between the R617 site access junction and Shean Lower. This will form part of CCC's proposed improvements to the Clogheenmilcon Greenway.

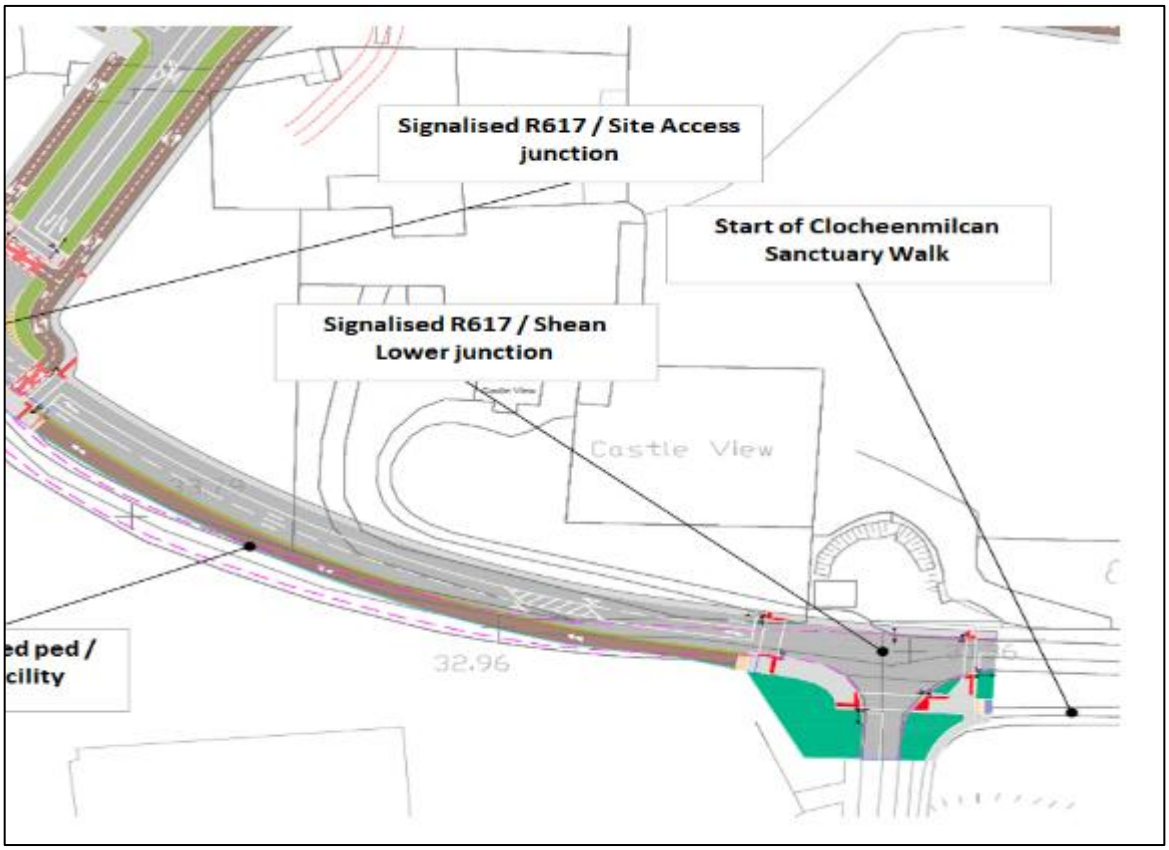


Figure 35. New R617 shared facility between Shean Lower and Site Access junction

Cycle Parking

4.3.10 To encourage active travel within the development, the proposed level of cycle parking exceeds the standards set out in Table 11.14 of the Development Plan, and is in line with the requirements of Sustainable Urban Housing: Design Standards for New Apartments - Guidelines for Planning Authorities (2022).

4.3.11 **Table 7** provides a summary of cycle parking provision across the site. Further details are provided in the following section.

Table 7. Cycle Parking and CCDP standards

UNIT TYPE / USE	STANDARD	NO / SIZE	PROVISION
Houses	-	157 units	314 spaces in curtilage, 2 per unit.
Apartments	Resident: 1 space per bedroom Visitor: 0.5 spaces per unit	114 units (174 bedrooms)	304 resident spaces plus 83 visitor spaces

UNIT TYPE / USE	STANDARD	NO / SIZE	PROVISION
Duplexes	Resident: 1 space per bedroom Visitor: 0.5 spaces per unit	52 units (130 bedrooms)	
Primary Care Centre	0.5 spaces per room	37 rooms	11 staff spaces plus 9 visitor spaces
Pharmacy	0.5 spaces per room	80 sqm	2 visitor spaces
Cafe	1 per 200m2 GFA	380 sqm	4 visitor spaces
TOTAL			**629 resident / staff spaces** **98 visitor spaces**

Apartments and Duplex

4.3.12 For the **149** multi-unit residential buildings, bicycle parking spaces will be provided at a rate of 1 space per bedroom, with an additional 1 visitor space per 2 units.

4.3.13 External storage is provided within the building or as sheltered structures, located close to main building entrances so that parking is both convenient and benefits from the direct surveillance of passersby. I

4.3.14 Internal bicycle stands will allow the frame and wheels to be securely attached to a steel tube against which the frame of a bike can be leant and locked.

4.3.15 Bicycle racks for visitors will be provided close to the entrances of each block where possible.

4.3.16 **In total 304 no. private bike storage spaces with 83 no. visitor spaces will be provided.**

Private Houses

4.3.17 Houses are proposed to secure and store their bicycles on their own private property. All end-of-terraced houses have a secure gate to their rear gardens and bikes can be stored there. Terraced houses do not have rear access to their private gardens and while bikes can be wheeled through the house it is not always ideal. Storing and securing bikes to the front of terraced houses is a growing trend and there are many ways to do this.

4.3.18 The simplest measure is to install a cycle hoop or 'Sheffield' stand on the driveway or threshold of the house, usually to the side where it won't impede access or parking. A lockable hoop or stand to the front of every mid-terraced house as part of their external landscape work.

4.3.19 Bicycle spaces will be provided within curtilage or will utilise rear private amenity space.

Primary Care Centre

4.3.20 CCC standards require a total of 0.5 spaces per room. There are a total of c.37 useable rooms within the building which requires 20 spaces.

4.3.21 A total of 21 cycle parking spaces will be provided. Cycle parking will be provided in external storage shelters for staff (12 spaces), and external Sheffield Stands for visitors (9 spaces), and exceed the required rate of 0.5 spaces per room.

Pharmacy

4.3.22 Four visitor spaces will be provided outside the pharmacy.

Café / Restaurant

4.3.23 Four visitor spaces will be provided outside the café.

4.4 Public Transport Access

4.4.1 The site is well positioned to avail of existing and future bus service provision. At present, bus services run along the R617 at a 30-minute frequency throughout the day, between Blarney and Cork City bus station. The nearest bus stops are located 50m to the east of the R617 / Station Road junction, which is around a 6-minute walk from the site entrance.

4.4.2 The Cork Bus Connects strategy proposed that services on the R617 will increase to a 20-minute frequency, which will further benefit current and future residents of Blarney.

4.4.3 Ultimately, when the road link over the N20 and railway are completed in later stages, bus services will pass directly through the site between the R617 and the Rail Station.

4.5 Vehicle Access

4.5.1 The site is well-located to provide easy access onto the R617, and from there onto the N20 linking Cork and Limerick, although the promotion of sustainable travel will be a priority. The proposed Phase 1 signalised access junction will provide vehicle access into both the Phase 1 and Phase 2 sites via Station Road. The R617 junction will form the main access route into the site, being the most convenient route for motorists travelling to and from Cork. When constructed, it will provide the most convenient route for the majority of Phase 1 and Phase 2 traffic to enter the site.

Station Road Site Access junction

4.5.2 The Station Road access junction, proposed as part of the Phase 1 scheme, has been re-included in the Phase 2 submission. The proposed layout is shown in **Figure 36**.



Figure 36. New Site Access junction on the R617

4.5.4 The proposed junction will provide:

- Single lane approaches on all arms for traffic.
- Controlled pedestrian crossing points on all arms.
- A raised table crossing across the site access arm.

R617 Site Access junction

4.5.5 As part of Phase 2 of the development, a new signalised access junction will be created on the R617.

4.5.6 The proposed junction is shown in **Figure 37**. The full drawing (BLR-2-02-SW-ZZZ-DR-MHL-CE-01153) has been prepared by MHL and is included as part of the overall submission.

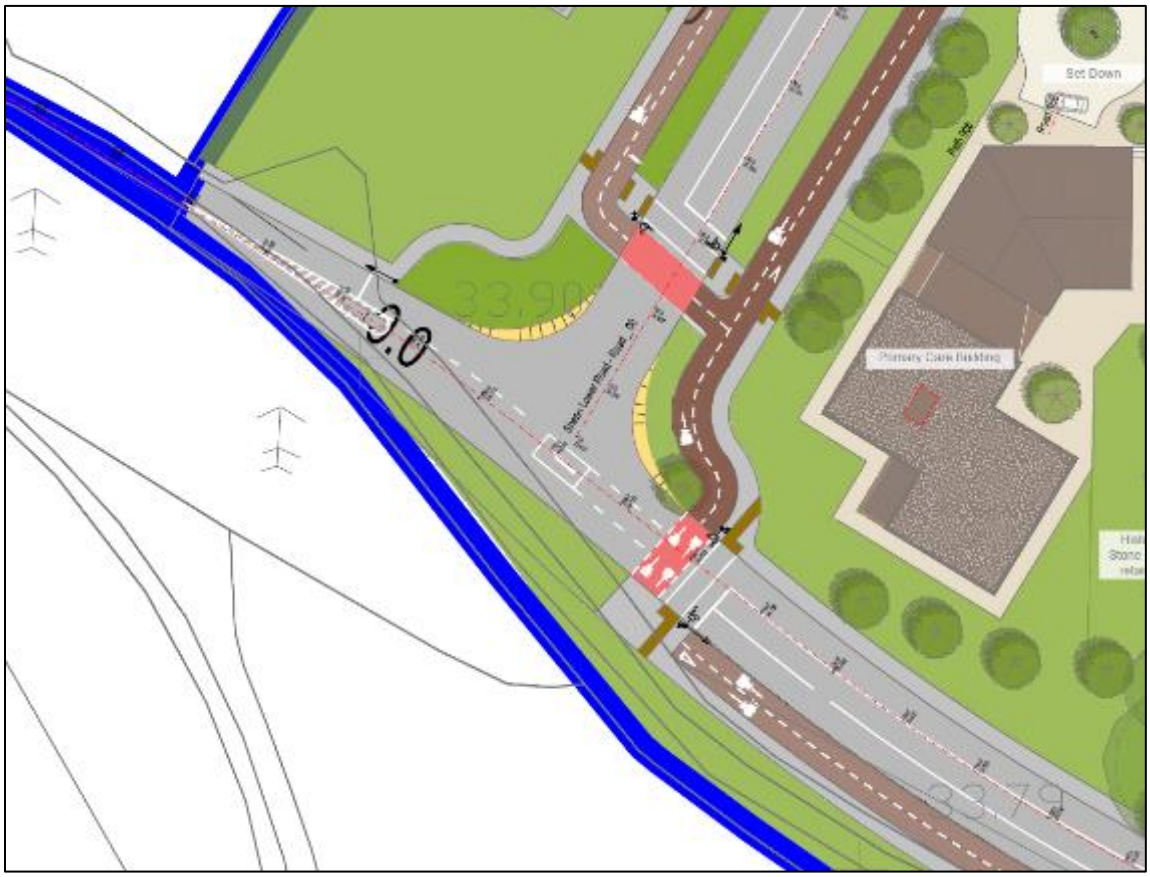


Figure 37. R617 Site Access Junction

4.5.7 The new junction will provide:

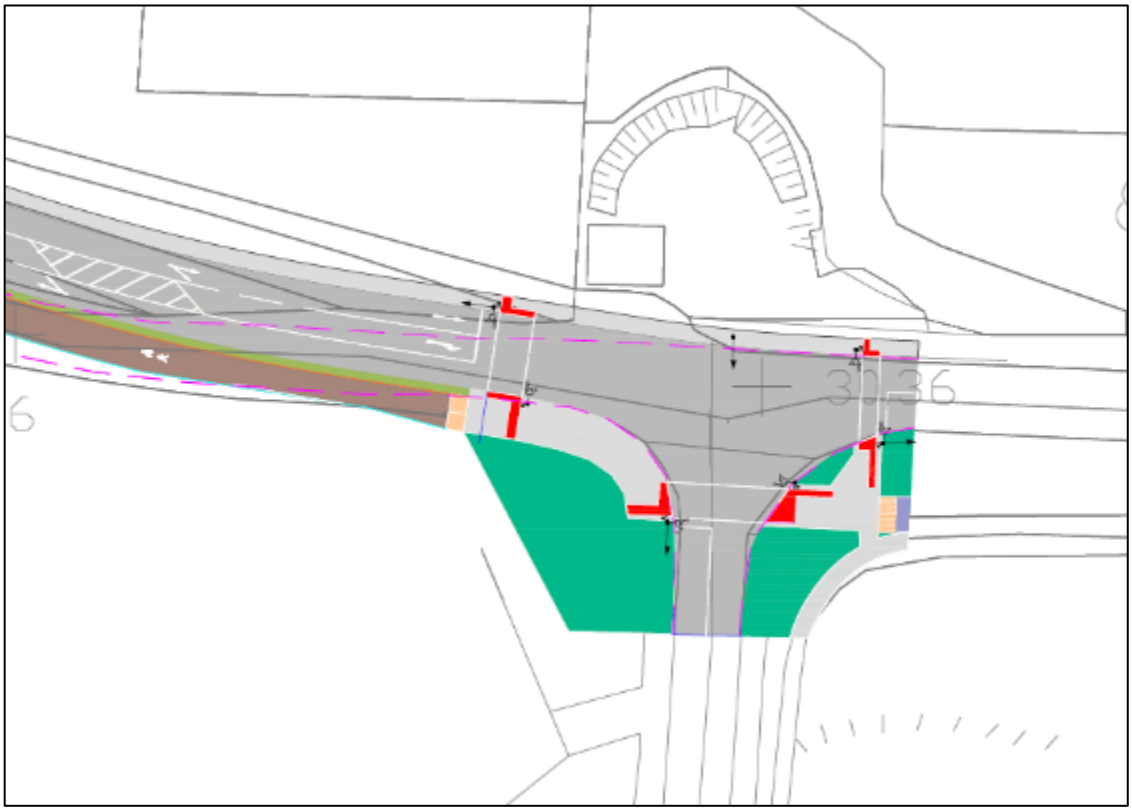
- Signalised pedestrian crossings on the R617 east and development arms.
- Dedicated cycle crossing points on the R617 east and development arms.
- A segregated two-way cycle lane on the south side of the R617 between Shean Lower and the development access. This will cross the eastern arm of the R617 at the junction via the cycle crossing, and continue along the east side of the Stoneview Access Link Road into the site. A spur of this two-way cycleway will run along the west side of the Access Link Road, between the R617 and the access to the Future Car Park.
- Two traffic lanes on the development arm approach, comprising a full lane for left-turning traffic, and an 50m-long flare lane for traffic turning right.
- A 110m-long, right-turn traffic lane on the R617 westbound carriageway, to ensure that development traffic will not block westbound mainline traffic when waiting to turn right. **This is a longer lane than will be needed for Phases 1 and 2 of the development, but will ensure that the junction is future-proofed for later phases.**

4.5.8 Within the site, priority junctions will provide access to the future development site to the west of the access road, and to the Primary Care Centre car park to the east.

R617 / Shean Lower junction

4.5.9 As part of Phase 2 of the development, it is proposed to signalise the R617 / Shean Lower junction. The proposed layout is shown in **Figure 38 (**extract from BLR-2-02-SW-ZZZ-DR-MHL-CE-01153)**.**

Figure 38. Proposed R617 / Shean Lower signalised junction



4.6 Stoneview Access Link Road

4.6.1 In Phase 2, the Link Road will extend from the R617 north through the site, to link up with the Phase 1 development. It will therefore be possible to travel from Station Road to the R617 through the development, although this will not be a direct route.

4.6.2 The Link Road It has been designed as a future bus route. **Figure 39** shows a typical cross-section of the spine route.

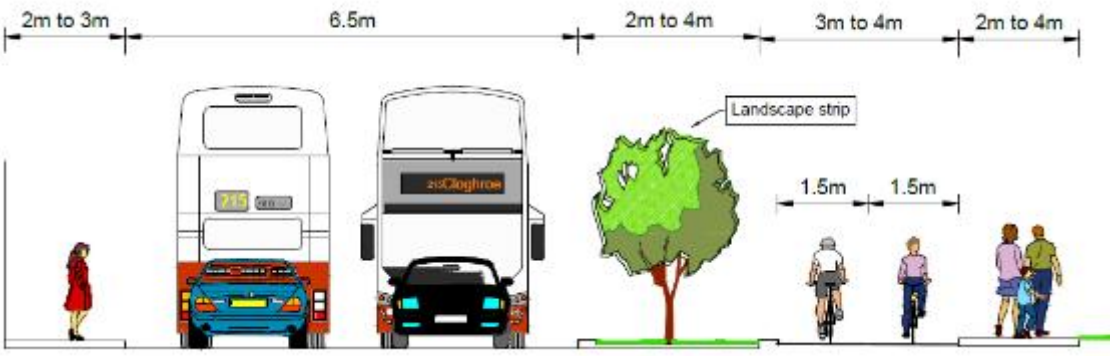


Figure 39. Spine Route – Typical Cross Section

4.6.3 The Link Road will be extended further north in subsequent phases, ultimately bridging both the N20 and the rail line to enter Stoneview lands.

Street Hierarchy

4.6.4 **Figure 40** shows the street hierarchy within the site, which is compliant with DMURS.

Figure 40. Internal Street Hierarchy



4.6.5 The street hierarchy comprises:

- The Stoneview Access Link Road, which forms the **Primary Street** within the site. This prioritises traffic movements.
- **Secondary Streets**, which have development frontage but need to accommodate moderate levels of traffic.
- **Home Zone / Court Streets** with Shared Surfaces, where priority is given to pedestrian and cycle movements.

4.7 Car Parking Provision

4.7.1 The applicant and overall design team take cognisance of the new approach to parking standards envisaged in the Adopted Variation No. 1 to the Cork City Development Plan 2022-2028, which sets maximum ratios for residential car parking.

4.7.2 In addition, this application has full awareness of Council´s policy in terms of minimising car use and maximising pedestrian and cycling linkages to the village centre and public transportation hubs, along with enhancing bicycle parking facilities.

4.7.3 As stated in the Development Plan, it is important that transport plans for Cork City consider the implication for climate change mitigation. Cork City Council, working with partners such as the NTA, TII, CIE and Iarnród Eireann, will work to achieve a considerable modal shift to reduce the car dependence for residents of Cork City.

4.7.4 Therefore, the development has proposed the car and bicycle parking allocations:

- Private parking for houses is provided at a rate of 2 spaces per unit for 3 and 4-bedroom houses.
- Parking for duplex units are provided at a rate of 1 space per unit.
- Parking for apartments is provided at a rate of 0.75 spaces per 1 and 2 bed units.

4.7.5 All houses are provided with in-curtilage spaces. Duplex and spaces are provided with a mix of parking courts and some on-street parking spaces.

4.7.6 On-street parking is recognized by DMURS as having numerous benefits. Well-designed on-street parking can calm traffic by increasing driver caution, add to the vitality of communities through the generation of activity as people come and go, provide a comforting buffer for pedestrians between the carriageway and footpath.

4.7.7 The proposed Primary Care Centre building, retail pharmacy and Café has a shared parking courtyard which allows for a total of 60 spaces. This meets the maximum standard within the Development Plan:

- For the Primary Care Centre, 1 space per consulting room.
- For the Café and Retail Building, 1 space per 20 net square m.

4.7.8 A total of 514 car parking spaces are proposed within the development.

4.8 Electric Vehicle Charging Points

4.8.1 In accordance with Chapter 11 of the Development Plan, the development will provide the following standards for EV charging points and infrastructure:

- Multi-unit residential buildings will provide a minimum of one EV equipped parking space per five car parking. All other parking spaces shall be developed with appropriate infrastructure (ducting) that enables future installation of a charging point for EVs.

4.9 Motorcycle Parking

4.9.1 In line with CCDP requirements, one motorcycle parking bay per 10 car parking spaces will be provided within the car parks for the apartments.

4.9.2 Spaces have been provided in locations convenient to building access points, as per cycle parking requirements.

4.1 Accessible Parking Spaces

4.1.1 In line with CCDP requirements, 5% of spaces within the shared apartment car parks, and 5% of visitor spaces within the site, will be accessible spaces.

4.2 Servicing

4.2.1 Communal bin stores are provided for all apartment buildings. In many cases, bin stores are located internally at the ground floor level.

4.2.2 Bin stores are located at a maximum of 50 metres horizontal travel distance from the front door of each unit.

4.2.3 Bins will be marshaled at the entrance of the parking court road by the management company. In this way bin trucks will be kept away from the front of the buildings, avoiding any potential accidents arising from bin trucks reversing down the road to directly access the front of the block.

4.2.4 Duplex buildings like individual houses have their own bins, provided with covered areas and directly adjacent to each front door.

4.3 Access During Construction Phase

4.3.1 Construction traffic for Phase 2 will access the site from the Station Road access initially whilst the R617 access and haul road is constructed. Once this is complete the R617 access will be used for construction traffic.

Figure 41. Construction Access



4.3.2 The details of the proposed construction routeing will be agreed with CCC prior to commencement of construction works, with the national road network being used as much as possible. The use of these designated routes can be written into Contractor obligations, and compliance can be assured through observations and monitoring.

4.3.3 An Outline Construction Traffic Management Plan (OCTMP) has been produced by MHL & Associates Ltd, and provided as part of the application package. It is anticipated that this will be finalised as a Planning Condition. The CTMP sets out construction vehicle and construction staff movements to the site and the mitigation measures proposed to alleviate any potential impacts.

5. TRIP GENERATION & DISTRIBUTION

5.1 Overview

5.1.1 The TRICS database has been used to establish person trip rates for the site. Separate person trip rates have been calculated for:

- Houses - 03 / A – 'Houses, privately owned';
- Flats – 03 / C – 'Flats, privately owned'; and
- Primary Care Centre – 05 / G – 'Health: GP Surgeries.

5.1.2 The Houses and Flats trip rates are as agreed with CCC, and used in the Phase 1 assessment.

5.1.3 Modal split for the residential element has been calculated using 2022 Census data for the Blarney area, with a 5% shift towards sustainable modes assumed (again as agreed with CCC). Model split for the Primary Care Centre has been taken directly from the surveyed TRICS sites.

5.1.4 It has been assumed that the café will not be a trip generator in its own right, but will primarily serve patients and visitors to the PCC, and residents of Phases 1 and 2.

5.2 Residential Trips

Person Trips

5.2.1 The resultant residential trip rates are shown in **Table 8**. These are the same trip rates as agreed with CCC, and used within the Phase 1 Transport Assessment. TRICS reports are presented in **Appendix B**.

Table 8. Residential Person Trip Rates (per unit)

Hour starting	Private Houses - Person Trip Rate (1 Unit)			Private Flats- Person Trip Rate (1 Unit)		
	Arrive	Depart	Two-way	Arrive	Depart	Two-way
07:00	0.12	0.33	0.45	0.06	0.37	0.44
08:00	**0.23**	**0.94**	**1.17**	**0.10**	**0.56**	**0.66**
09:00	0.29	0.41	0.69	0.18	0.28	0.46
10:00	0.27	0.28	0.55	0.15	0.21	0.35
11:00	0.24	0.28	0.52	0.13	0.18	0.31
12:00	0.30	0.30	0.60	0.19	0.17	0.36
13:00	0.33	0.34	0.68	0.16	0.18	0.33
14:00	0.42	0.37	0.79	0.20	0.18	0.37
15:00	0.55	0.39	0.94	0.27	0.14	0.42
16:00	0.57	0.36	0.92	0.31	0.13	0.44
17:00	**0.79**	**0.44**	**1.23**	**0.40**	**0.14**	**0.54**
18:00	0.58	0.43	1.01	0.30	0.16	0.46
12-Hr Total	**4.67**	**4.86**	**9.53**	**2.43**	**2.70**	**5.13**

5.2.2 **Table 8** suggests that the peak travel hours for the residential element of the development during a typical weekday will be 08:00-09:00 and 17:00 – 18:00.

5.2.3 **Table 9** presents the resultant number of person trips, based upon the proposed development of 32 units.

Table 9. Phase 2: Residential Resultant Person Trips

Hour starting	Houses Person Trips (208 units)			Flats Person Trips (118 units)			Total Person Trips (326 units)		
	Arrive	Depart	Two-way	Arrive	Depart	Two-way	Arrive	Depart	Two-way
07:00	24	69	94	7	44	52	32	113	145
08:00	48	195	244	12	66	77	60	261	321
09:00	59	84	144	21	33	54	80	117	198
10:00	56	58	114	17	25	42	73	82	156
11:00	49	58	108	15	21	36	64	80	144
12:00	62	62	124	22	20	42	84	82	167
13:00	69	72	141	19	21	39	88	92	180
14:00	87	77	163	23	21	44	110	97	207
15:00	114	80	195	32	17	49	147	97	244
16:00	118	74	192	36	15	52	154	89	244
17:00	164	91	255	47	17	64	211	108	319
18:00	120	90	210	35	19	54	155	109	264
12-Hr Total	972	1011	1983	286	319	605	1258	1330	2588

5.2.4 **Table 9** shows that the residential element of the development is expected to generate 321 two-way person trips in the AM peak hour, and 319 two-way person trips in the PM peak hour.

Current Mode Share

5.2.5 As shown in **Table 11**, analysis of recently available Census 2022 data for the settlement of Blarney, indicates that 74.6% of commuting trips to work are as a car driver. This is a high percentage, particularly considering that 14.6% of respondents were working at home at the time of the Census. Travel by sustainable modes is currently very low, with less than 5% of people walking or cycling to work.

5.2.6 As agreed with CCC as part of the Phase 1 assessment, Census 2022 commuter mode share (with 5% shift) has been used to calculate the potential number of vehicle trips that the development may generate. This 5% shift reflects the continued investment in active and sustainable travel modes that are envisaged for the area in the short term.

Table 10. Blarney Mode Share work trips - Census 2022, and with 5% active travel shift

Mode	%	With 5% shift to sustainable travel
On foot	3.2%	6.2%
Bicycle	0.0%	2.0%
Public Transport	1.6%	1.6%
Car / Van driver	74.6%	69.6%
Car / Van passenger	3.8%	3.8%
Work from home	14.6%	14.6%
Other	2.2%	2.2%
Total	**100.0%**	**100.0%**

5.2.7 It should be noted that the figures presented in **Table 10** are not reflective of travel for all purposes from the settlement – for example, when travel to school or college is included, the percentage of vehicular travel as car driver falls to 50.1%, with related increases in the percentage of car passengers and in walking trips.

5.2.8 **Table 11** shows the predicted vehicle trip generation of the residential elements of the development, based upon the proposed 323 residential units.

Table 11. Predicted Vehicle Trips

Hour starting	Private Houses (veh trips)			Private Flats (veh trips)			Total Vehicle Trips		
	Arrive	Depart	Two-way	Arrive	Depart	Two-way	Arrive	Depart	Two-way
07:00	17	48	65	5	31	36	22	79	101
08:00	34	136	170	8	46	54	42	182	223
09:00	41	59	100	15	23	38	56	82	138
10:00	39	40	79	12	17	29	51	57	108
11:00	34	41	75	10	15	25	45	55	100
12:00	43	43	87	15	14	29	59	57	116
13:00	48	50	98	13	14	27	61	64	125
14:00	60	53	114	16	14	31	76	68	144
15:00	80	56	136	23	12	34	102	68	170
16:00	82	51	133	25	11	36	107	62	170
17:00	114	64	178	33	12	44	147	75	222
18:00	84	63	146	24	13	37	108	76	184
12-Hr Total	677	704	1380	199	222	421	876	925	1801

5.2.9 The analysis indicates that the residential element of the development will create in the region of 169 departing and 37 arriving vehicle trips in the AM peak hour, and 64 departing / 133 arriving vehicle trips in the PM peak hour.

Future Mode Share

5.2.10 As set out in the Cork Metropolitan Area Transport Strategy (CMATS), by 2030 there is expected to be a high quality, multi-modal transport network for trips to, from and within Blarney, including the proposed Rail Station and Park and Ride.

5.2.11 The CMATS mode share targets aim for 49.3% of all trips to be made by car. These also broadly aligns with the national level mode share targets established in the Climate Action Plan 2024, which aims to:

- Reduce the total distance driven across all journeys by **20%.**
- Greatly increase the number of walking, cycling and public transport journeys.

5.2.12 Achieving these mode shares in Blarney will require the delivery of a range of sustainable transport measures, a number of which are currently being progressed as individual projects under the CMATS umbrella, including:

- A Cork Suburban rail service including a new station at Blarney incorporating Park & Ride.
- The Cork BusConnects project, which will provide enhanced services to Blarney and throughout the region.
- Development of a comprehensive active travel network in the settlement.

5.3 Primary Care Centre

5.3.1 The trip generation figures for the Primary Care Centre (PCC) have been based upon a traffic survey that was undertaken on a PCC in Ballincollig in December 2023. The survey results are presented in **Appendix D**. The surveyed site in Ballincollig is a substantial Primary Care Centre of 6,179 Sq M (approx. with 3 GP practices, a pharmacy, HSE Primary Care Services & Community Ophthalmology services and on-site car parking.

5.3.2 The resultant trip rates, and proportionate number of vehicle trips for the 1,804 Sq M proposed Blarney PCC is presented in **Table 12**.

Table 12. Primary Care Centre Vehicle Trips

Hour starting	Primary Care Centre (veh trips / 100sqm)			Primary Care Centre (veh trips)		
	Arrive	Depart	Two-way	Arrive	Depart	Two-way
07:00	0.08	0.02	0.10	1	0	2
08:00	1.29	0.18	1.47	23	3	27
09:00	1.60	0.74	2.35	29	13	42
10:00	0.98	1.02	2.00	18	18	36
11:00	1.10	1.10	2.20	20	20	40
12:00	0.85	1.22	2.07	15	22	37
13:00	0.86	0.72	1.58	15	13	28
14:00	1.25	1.13	2.38	23	20	43
15:00	1.09	1.19	2.28	20	22	41
16:00	0.45	1.39	1.84	8	25	33
17:00	0.06	0.74	0.81	1	13	15
18:00	0.02	0.03	0.05	0	1	1
12-Hr Total	9.64	9.50	19.13	174	171	345

5.3.3 The analysis shows that the Primary Care Centre is expected to generate a steady flow of traffic throughout the day. There are predicted to be:

- 27 two-way vehicle trips in the AM peak hour
- 15 two-way vehicle trips in the PM peak hour

5.4 Café

5.4.1 The small café, which is attached to the PCC, is expected to be primarily used by residents of the development, and by visitors to the PCC. However, it has the potential to generate a small amount of external vehicle trips.

5.4.2 The TRICS vehicle trip rates used in the assessment for the Cafe, and resultant number of calculated vehicle trips, are presented in **Table 13**. The calculated number of vehicle trips assumes that 30% of café trips are 'new' to the site.

Table 13. Primary Care Centre Vehicle Trips

Hour starting	Vehicle trip rate (/100sqm)			Vehicle Trips		
				Arrive	Depart	Two-way
07:00	2.76	1.84	4.60	7	2	9
08:00	**6.43**	**5.08**	**11.51**	**6**	**5**	**12**
09:00	5.75	5.02	10.77	8	5	13
10:00	7.08	6.20	13.28	13	7	20
11:00	12.39	12.68	25.07	11	14	24
12:00	9.88	9.44	19.32	10	10	21
13:00	9.59	8.41	17.99	9	9	18
14:00	8.11	8.85	16.96	5	10	15
15:00	5.02	5.31	10.33	4	6	10
16:00	3.98	4.87	8.85	3	5	8
17:00	**2.62**	**4.01**	**6.63**	**7**	**4**	**12**
18:00	6.75	6.75	13.49	1	7	9
12-Hr Total	**80.35**	**78.44**	**158.80**	**85**	**85**	**170**

5.4.3 The analysis shows that the Cafe is expected to generate around 170 external vehicle trips across a typical 12-hr day.

5.5 Total Development Trips

5.5.1 The total calculated number of vehicle trips for the full Phase 2 development is presented in **Table 14.**

Table 14. Total Phase 2 development trips

Hour starting	Private Houses (veh trips)			Private Flats (veh trips)			Primary Care Centre			Café			TOTAL VEH TRIPS		
	Arrive	Depart	Two-way	Arrive	Depart	Two-way	Arrive	Depart	Two-way	Arrive	Depart	Two-way	Arrive	Depart	Two-way
07:00	17	48	65	5	31	36	1	0	2	7	2	9	31	81	112
08:00	34	136	170	8	46	54	23	3	27	6	5	12	71	190	262
09:00	41	59	100	15	23	38	29	13	42	8	5	13	93	101	193
10:00	39	40	79	12	17	29	18	18	36	13	7	20	82	83	164
11:00	34	41	75	10	15	25	20	20	40	11	14	24	75	89	164
12:00	43	43	87	15	14	29	15	22	37	10	10	21	84	89	174
13:00	48	50	98	13	14	27	15	13	28	9	9	18	85	86	172
14:00	60	53	114	16	14	31	23	20	43	5	10	15	104	98	202
15:00	80	56	136	23	12	34	20	22	41	4	6	10	126	95	221
16:00	82	51	133	25	11	36	8	25	33	3	5	8	118	93	211
17:00	114	64	178	33	12	44	1	13	15	7	4	12	155	93	248
18:00	84	63	146	24	13	37	0	1	1	1	7	9	110	83	193
12-Hr Total	**677**	**704**	**1380**	**199**	**222**	**421**	**174**	**171**	**345**	**85**	**85**	**170**	**1135**	**1181**	**2316**

5.5.2 The analysis indicates that the development will generate in the region of 190 departing and 71 arriving vehicle trips in the AM peak hour, and 93 departing / 155 arriving vehicle trips in the PM peak hour.

6. TRAFFIC IMPACT

6.1 Introduction

6.1.1 This section of the TA reports on the results of a threshold assessment, and subsequent junction capacity modelling exercise, which has assessed the impact of the development on the local road network. This considers:

- The number of vehicle trips generated by the development, and where these trips are likely to arrive from / travel to.
- Traffic from committed developments.
- An allowance for background traffic growth.
- The percentage increase in traffic at junctions as a result of the development.
- Existing and future junction performance.

6.2 Modelled Scenarios

6.2.1 The following scenarios have been modelled in the AM and PM peak hours, both with and without the Phase 2 development:

- Opening Year (2028).
- Opening Year + 5 (2033).
- Opening Year +15 (2043).

Background Traffic Growth

6.2.2 Traffic growth between 2022, 2026, 2031 and 2041 has been calculated using trip-end totals from the CMATS Regional Traffic Model, which suggest the following factors within the Cork Metropolitan area.

6.2.3 For comparison, 'Low' traffic growth rates calculated using guidance set out in the 'Project Appraisal Guidelines for National Roads Unit 5.3', specifically Table 6.2 'Link Based Growth Rates' for Cork, have been provided in brackets below. These are much higher than predicted by the CMATS model. This level of traffic growth is not considered by SYSTRA to be sustainable, and is at odds with local and national policy, particularly the Climate Action Plan 2025 which seeks to reduce the total distance driven across all journeys by 20%.

- 2025-2028 – 1.3% (7.5%).
- 2025-2033 – 3.6% (17.7%).
- 2025-2043 – 8.1% (26.4%).

6.2.4 The CMATS calculated factors are considered to be more applicable. They have taken from a source that is consistent with local land use and transport policy, and are more aligned with the over-arching aims of the Climate Action Plan 2025 to reduce traffic levels over the same period.

6.2.5 As agreed with CCC, the CMATS growth rates have been used in the study. The resultant increase in traffic as a result of applying this growth is seen by SYSTRA as a proxy for traffic created by developments in Blarney that are included in the CDP.

6.2.6 As requested by TII, a Sensitivity test has been undertaken at the N20 / R617 Blarney junction that assumes TII Low Growth rates between the 2025 survey dates and the 2028 and 2043 future year scenarios.

Committed Development

6.2.7 In addition to background traffic growth, traffic from two committed developments in the Blarney area has been added to Baseline totals. These developments are subject to consented or ongoing planning applications:

- Monacnapa SHD, a consented development of 113 units that would be accessed from Sunberry Heights on the R617, to the west of Station Road.
- As agreed with CCC, for the purposes of the traffic impact assessment, the Phase 1 development has been included as a committed development. All traffic flows from Phase 1 have therefore been included in the future 'Do Minimum' scenario.

Development Traffic

6.2.8 The number of development vehicle trips used in the assessment is as set out in **Section 5**.

Traffic Distribution

6.2.9 Development traffic has been distributed proportionally throughout the network as per the observed 2025 survey results.

6.2.10 The calculated trip distribution is shown in **Table 15**.

Table 15. Trip Distribution

O / D		AM Peak		PM Peak	
		From development	To development	From development	To development
Station Rd North		10%	10%	10%	10%
R617 West	**via R617 / Station Rd junction**	21%	21%	21%	21%
South via Castle Close Lawn		20%	26%	26%	20%
N20N		11%	22%	23%	11%
N20S		38%	21%	20%	38%
TOTAL		**100%**	**100%**	**100%**	**100%**

6.2.11 Analysis suggests that 10% of traffic from the development was likely to travel to and from Station Road to the north of the site, and that 21% of traffic was likely to travel to and from the R617 west of Station Road. The remainder of traffic (to Castle Close Lawn and the N20 north and south) was calculated using observed turning proportions at each of the junctions on the R617.

6.2.12 The differing split of arrivals / departures (most noticeably to / from the N20S) in the peak hours, reflects the tidal nature of commuter flows. In the AM peak, a high percentage of trips from the development will be towards Cork City, whilst trips to the development in the AM peak are more likely to be more local trips from other destinations, with residents returning

from the school run, or dropping children off at the creche. In the PM peak, this pattern is reversed, with a higher percentage of commuters returning to the site from Cork.

6.2.13 Turn count diagrams for each of the modelled scenarios are provided in **Appendix A**.

6.3 Study Area and Threshold Assessment

6.3.1 TII's 'Traffic and Transport Assessment Guidelines' (PE-PDV-02045, May 2014), state that a threshold approach should be used to establish the area of influence of the development. It states that, "*In general, the study area should include all road links and associated junctions where traffic to and from the development may be expected to exceed 10% of the existing traffic movements, or 5% in congested or other sensitive locations, including junctions with national roads*".

6.3.2 The Guidelines also state that another consideration, when determining the study area, is whether, "*the development is part of incremental development that will have significant transport implications*".

6.3.3 The initial study area for the TA was considered to be the R617 corridor between Station Road and the N20 / R617 interchange, as shown in **Figure 42**.

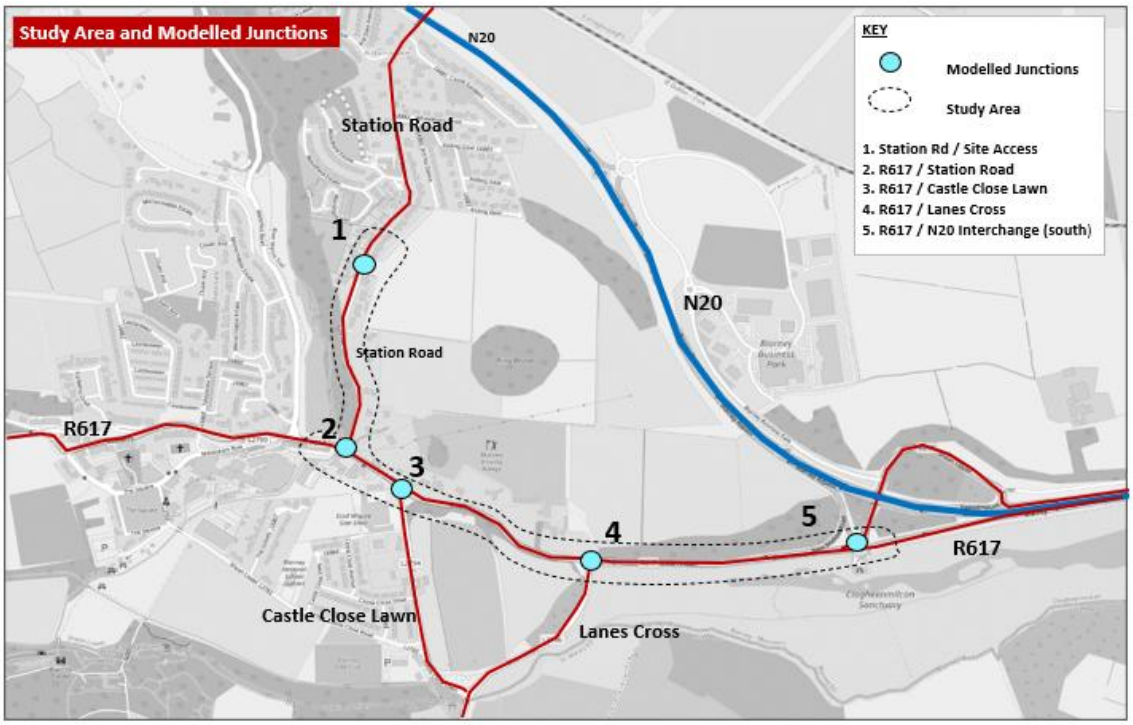


Figure 42. Study Area and Modelled Junctions

6.3.4 A threshold assessment at the above junctions has been undertaken, which compared projected Base 2028 traffic flows with Phase 2 of the development.

6.3.5 The results of the AM and PM Threshold Assessment are presented in **Table 16**.

6.3.6 As presented in the EIAR Chapter, a link flow threshold assessment has been undertaken, which compares predicted AADT traffic levels in 2028 with, and without the scheme. The results are presented in **Table 16.**

Table 16. Phase 2 Threshold Assessment (AADT)

Ref	Road Link	IEMA	2028 DM + Phase 2			2033 DM + Phase 2			2043 DM + Phase 2		
		Threshold	AADT	Increase	% Impact	AADT	Increase	% Impact	AADT	Increase	% Impact
1	Station Road north of site access	10%	6,551	371	6.0%	6,685	373	5.9%	6,953	376	5.7%
2	Phase 1 Site Access	10%	3,447	1,576	84.2%	3,491	1,620	86.6%	3,578	1,707	91.2%
3	Station Road between Phase 1 and R617	10%	5,210	-2,654	-33.8%	5,303	-2,698	-33.7%	5,489	-2,785	-33.7%
4	R617 west of Station Rd	10%	17,705	607	3.6%	18,059	607	3.5%	18,766	607	3.3%
5	R617 between Station Rd and Castle Close Lawn	10%	15,817	-2,643	-14.3%	16,151	-2,672	-14.2%	16,819	-2,732	-14.0%
6	Castle Close Lawn	10%	7,500	117	1.6%	7,650	117	1.5%	7,949	117	1.5%
7	Phase 2 Site Access	10%	4,746	4,746		4,789	4,789		4,876	4,876	
8	R617 Convent Road between CCL and Phase 1A access	10%	12,956	-1,705	-11.6%	13,219	-1,735	-11.6%	13,746	-1,795	-11.5%
9	R617 Convent Road between Phase 1A access and Lanes Cross	30%	16,635	1,860	12.6%	16,930	1,860	12.3%	17,520	1,861	11.9%
10	Lanes Cross	10%	6,327	527	9.1%	6,455	527	8.9%	6,708	527	8.5%
11	R617 between Lanes Cross and N20 interchange	30%	21,349	1,334	6.7%	21,761	1,333	6.5%	22,584	1,334	6.3%
12	R617 underneath N20	30%	12,340	702	6.0%	12,581	702	5.9%	13,063	702	5.7%
13	N20 NB on slip	30%	3,917	232	6.3%	3,993	232	6.2%	4,147	232	5.9%
14	N20 WB off slip	30%	6,402	417	7.0%	6,525	417	6.8%	6,770	417	6.6%

6.3.7 The figures in **Table 16** show that the predicted impacts of the development are below 10% on all links in the study area, with the exception of Link 2, the Phase 1 access on Station Road and Link 9, the R617 between the Phase 2 access and Lanes Cross.

6.3.8 AADT impacts at the R617 / N20 interchange are predicted to be in the region of 6% on all arms.

6.3.9 **Table 17** presents the results of a junction threshold assessment, which considers the flows on each arm in the AM and PM peak hours.

Table 17. Phase 2 Threshold Assessment (Junctions)

Junction	Arm	AM Peak Hour				PM Peak Hour			
		Base 2028	Dev Traffic	% impact	Junction impact	Base 2028	Dev Traffic	% impact	Junction impact
Station Rd / Phase 1 access	Station Rd north	370	377	2%	-3.6%	209	224	7%	-4.4%
	Site Access	131	158	20%		57	126	120%	
	Station Rd south	221	161	-27%		398	285	-28%	
R617 / Station Rd	R617 west	779	794	2%	-12.1%	729	761	4%	-9.5%
	Station Road	493	299	-39%		259	174	-33%	
	R617 east	658	604	-8%		910	783	-14%	
R617 / CCL	R617 west	979	774	-21%	-11.5%	664	584	-12%	-9.4%
	Castle Close Lawn	392	397	1%		385	390	1%	
	R617 east	489	477	-3%		643	558	-13%	
R617 / Shean Lower	R617 west	834	957	15%	9.2%	622	681	9%	9.1%
	Lanes Cross	175	190	9%		218	244	12%	
	R617 east	804	834	4%		926	1002	8%	
N20 / R617	R617 west	771	841	9%	7.1%	407	421	3%	6.5%
	R617 under N20	435	467	7%		349	366	5%	
	M20 WB off slip	433	447	3%		622	682	10%	
	Car park	9	9	0%		17	17	0%	

6.3.10 In order to provide a comprehensive assessment, junction capacity modelling was undertaken at each of the junctions shown in **Table 17**. This is presented in the following section.

7. JUNCTION CAPACITY ASSESSMENT

7.1 Modelled Junctions

7.1.1 The junctions that have been modelled in the assessment are:

- 1. Station Road / Site Access signalised junction.
- 2. R617 / Station Road priority junction.
- 3. R617 / Castle Close Lawn priority junction.
- 4. R617 / Lane's Cross priority junction.
- 5. N20 / R617 roundabout.

7.2 Software

Junctions 10

7.2.1 Junctions v10, an industry-standard software package, has been used to test priority junctions and roundabouts.

7.2.2 The modelling reports on the Ratio of Flow Capacity (RFC) and the maximum forecast queue for each give-way movement within the junctions, specifically:

- Minor arm right-left turning movements.
- Major arm right-turning movements into the minor arm.
- Roundabout approaches.

7.2.3 The RFC of an arm of a junction is one of the principal factors in influencing queues and delays. General engineering design principles, as set out in DMRB, suggest that when assessing a priority junction or roundabout, RFC levels on a given arm of a junction should not exceed 0.85 in order for that arm to operate within its 'practical' capacity. Should the RFC level exceed 1.0 then the junction is considered to be operating above its 'theoretical' capacity.

LinSig Modelling

7.2.4 LinSig has been used to model the proposed signalised Station Road / Site access junction.

7.2.5 Geometric parameters have been taken from the junction drawing produced by MHL, and suitable signal phasing and staging have been developed by SYSTRA. Minimum greens and intergreens have been calculated using appropriate standards.

7.2.6 A minimum green time of 7s has been assumed for standard signalised traffic phases, with a minimum green time of 5s for traffic filters and indicative arrows. The minimum green time for pedestrian crossings has been set at 6s. A cycle time of 120s has been assumed for a single cycle junction staging.

7.2.7 The constructed signalised junction and existing signalised junction modelled are likely to be MOVA controlled (or similar), which means that phase and cycle times can vary per cycle and are automatically optimised according to traffic flow and pedestrian demands. To model this effect, cycle times were fixed within LinSig, and signal timings optimised for each scenario.

7.2.8 LinSig results refer to the Degree of Saturation (DoS) and Mean Maximum Queue (MMQ) predicted for each lane at the junction. A DoS of 100% indicates that the lane in question is operating at its theoretical capacity (point of saturation), whilst a DoS of 90% or less indicates that the lane is operating within its practical capacity.

7.2.9 The MMQ represents the maximum queue (in PCUs) within a typical cycle averaged over all the cycles within the modelled time period.

7.2.10 Full model inputs and outputs for both LinSig and Junctions 10 modelling are provided in **Appendix C**.

7.3 Junction Modelling Results

7.3.1 The results presented below present the combined impact of the Phase 1 and Phase 2 developments at the assessed junctions.

Station Road / Site Access junction

7.3.2 **Table 18** presents the LINSIG results for the new R617 / Site Access junction in the modelled scenarios.

Table 18. Station Road site access junction

Movement	AM peak hour (0800-0900)			PM peak hour (1700-1800)		
	Deg Sat (%)	MMQ (pcu)	Total Delay (pcuHr)	Deg Sat (%)	MMQ (pcu)	Total Delay (pcuHr)
Base 2028						
Station Rd south	26.80%	4.7	1.2	35.80%	6.4	1.4
Station Rd north	33.80%	6.9	1.7	15.90%	2.6	0.5
Site Access	34.20%	3.9	1.7	32.80%	2	1.1
Base 2028 + Phase 2						
Station Rd south	21.00%	3.5	0.9	31.60%	5.8	1.5
Station Rd north	37.20%	7.4	2	21.50%	3.9	1
Site Access	36.30%	4.7	2	30.80%	3.7	1.6
Base 2043						
Station Rd south	28.30%	5	1.3	37.00%	6.7	1.4
Station Rd north	35.40%	7.4	1.8	16.70%	2.7	0.5
Site Access	35.60%	4	1.8	35.80%	2.1	1.1
Base 2043 + Phase 2						
Station Rd south	22.20%	3.7	1	32.90%	6.1	1.6
Station Rd north	39.00%	7.9	2	22.40%	4	1
Site Access	38.60%	4.9	2.1	33.20%	4	1.7

7.3.3 The results show that the Station Road site access junction is predicted to operate well within capacity in all of the assessed scenarios. Traffic levels at the junction reduce in Phase 2 when the R617 / Site access junction comes online, which is reflected in the improved performance of the junction.

R617 / Station Road junction

7.3.4 **Table 19** presents the Junctions results for the R617 / Station Road priority junction in the modelled scenarios.

Table 19. R617 / Station Road results

Movement	AM peak hour (0800-0900)			PM peak hour (1700-1800)		
	Queue (pcu)	Delay (s)	RFC	Queue (pcu)	Delay (s)	RFC
Base 2028						
Station Road LT	28.1	326	1.04	0.5	15	0.33
Station Road RT	16	356	1.02	1.6	40	0.61
R617 east into Station Road	0.5	11	0.32	1.5	12	0.51
Base 2028 + Phase 2						
Station Road LT	0.6	18	0.36	0.1	11	0.11
Station Road RT	1.8	36	0.64	0.9	24	0.45
R617 east into Station Road	0.2	9	0.13	0.2	10	0.18
Base 2043						
Station Road LT	65.6	752	1.14	0.6	19	0.39
Station Road RT	35.8	771	1.13	2.4	59	0.69
R617 east into Station Road	0.6	11	0.34	1.8	12	0.55
Base 2043 + Phase 2						
Station Road LT	0.8	22	0.43	0.1	12	0.12
Station Road RT	2.4	47	0.71	1.1	28	0.5
R617 east into Station Road	0.2	10	0.14	0.3	10	0.19

7.3.5 The results show that the introduction of the development access junction on the R617 as part of Phase 2, and the creation of the alternative route between Station Road and the R617, reduces traffic pressure on the Station Road priority junction. It is predicted to operate within capacity in each of the future years that have been modelled.

R617 / Castle Close Lawn junction

7.3.6 **Table 20** presents the Junctions results for the R617 / Castle Close Lawn priority junction in the modelled scenarios.

Table 20. R617 / Castle Close Lawn results

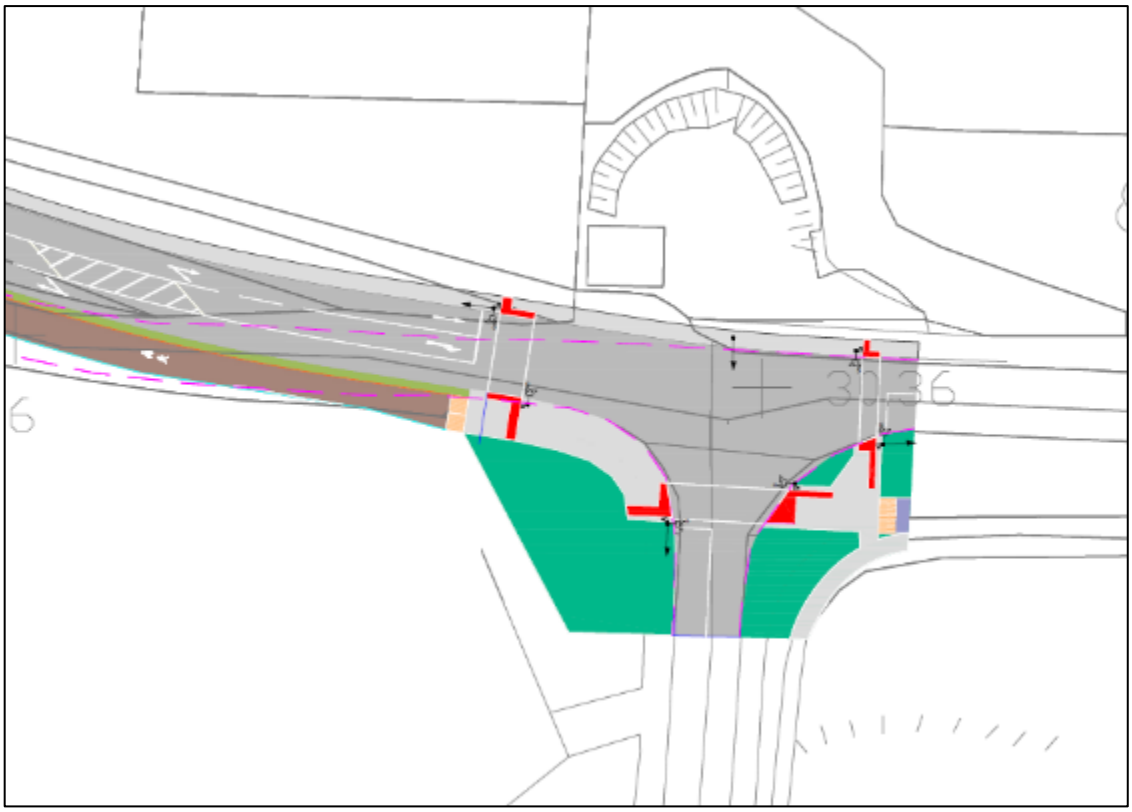
Movement	AM peak hour (0800-0900)			PM peak hour (1700-1800)		
	Queue (pcu)	Delay (s)	RFC	Queue (pcu)	Delay (s)	RFC
Base 2028						
CCL LT	1.2	16.35	0.55	1.7	20.32	0.64
CCL RT	1	24.07	0.5	0.5	16.56	0.32
R617 East into CCL	1.6	15.46	0.6	0.4	10.34	0.3
Base 2028 + Phase 2						
CCL LT	1.3	17.47	0.57	1.7	20.1	0.63
CCL RT	1.3	25.71	0.56	0.7	18.15	0.41
R617 East into CCL	1.5	15.41	0.58	0.4	9.85	0.28
Base 2043						
CCL LT	1.4	17.51	0.58	1.7	20.16	0.64
CCL RT	1.1	25.63	0.54	0.5	16.93	0.34
R617 East into CCL	1.5	15.24	0.58	0.4	10.04	0.28
Base 2043 + Phase 2						
CCL LT	1.5	19.06	0.61	2.2	24.41	0.69
CCL RT	1.3	28.55	0.56	0.6	18.12	0.36
R617 East into CCL	2	16.69	0.64	0.5	10.78	0.32

7.3.7 The results show that junction is predicted to operate within capacity in each of the future years that have been modelled.

R617 / Shean Lower signalised junction

7.3.8 As part of Phase 2 of the development, it is proposed to signalise the R617 / Shean Lower junction. The proposed layout is shown in **Figure 43**

Figure 43. Proposed R617 / Shean Lower signalised junction



7.3.9 **Table 21** presents the modelled LINSIG results for the proposed signalised junction in the Phase 2 scenario, both with and without an 'all red' pedestrian stage.

Table 21. R617 / Shean Lower results (All Phases)

Movement	AM peak hour (0800-0900)			PM peak hour (1700-1800)		
	n Max Queue (	Delay (s)	DoS	Queue (pcu)	Delay (s)	DoS
Base 2028 + Phase 2						
R617 west	24.3	23.1	77.4 : 77.4%	14	19.6	57.3 : 57.3%
R617 east	20	20.8	71.8%	32	33.6	88.5%
Shean Lower	7.9	85.3	79.8%	10.8	91.7	86.9%
Base 2043 + Phase 2						
R617 west	27.3	25.4	81.4 : 81.4%	15.3	20.6	60.6 : 60.6%
R617 east	22.7	22.6	76.3%	38.1	42.4	93.4%
Shean Lower	9	94.9	84.8%	12.6	107.5	91.9%

7.3.10 The results show that if the pedestrian stage were called each cycle, then the junction is predicted to operate slightly over Practical Capacity in the PM peak hour in 2043. As an

additional test, if the pedestrian stage is not called, then the junction is predicted to operate with a maximum DoS of 79.1% in the PM peak in 2044.

7.3.11 Given the location of the junction, SYSTRA would not expect there to be a high level of pedestrian or cycle demand in the peak hours, and therefore that the 'no ped stage' results are likely to better reflect the future operation of the junction.

R617 / N20 roundabout

7.3.12 The R617 / N20 interchange has been assessed in its current layout, and its future form as proposed by the N20 improvement scheme.

Existing layout

7.3.13 **Table 22** presents the modelled results for the existing roundabout in each scenario.

Table 22. R617 / N20 roundabout results (All Phases)

Movement	AM peak hour (0800-0900)			PM peak hour (1700-1800)		
	Queue (pcu)	Delay (s)	RFC	Queue (pcu)	Delay (s)	RFC
Base 2028						
R617 north	0.6	4.11	0.36	0.4	3.7	0.29
N20 WB off-slip	0.5	3.61	0.33	0.8	4.22	0.45
Car Park	0	6.54	0.02	0	7.75	0.04
R617 west	2.8	11.37	0.73	0.6	4.75	0.39
Base 2028 + Phase 2						
R617 north	0.6	4.13	0.36	0.4	3.68	0.28
N20 WB off-slip	0.5	3.57	0.32	0.9	4.33	0.47
Car Park	0	6.81	0.02	0	7.92	0.04
R617 west	3	11.93	0.76	0.6	4.68	0.38
Base 2043						
R617 north	0.6	4.11	0.36	0.4	3.7	0.29
N20 WB off-slip	0.5	3.61	0.33	0.8	4.22	0.45
Car Park	0	6.88	0.02	0	7.94	0.04
R617 west	2.7	10.95	0.73	0.6	4.75	0.39
Base 2043 + Phase 2						
R617 north	0.6	4.19	0.37	0.4	3.77	0.3
N20 WB off-slip	0.5	3.71	0.34	1	4.64	0.5
Car Park	0	7.1	0.02	0	8.73	0.04
R617 west	3.8	14.44	0.8	0.7	4.88	0.4

7.3.14 The results show that, in its current form, the roundabout is predicted to continue to operate within capacity with the Phase 2 development in place.

Sensitivity Test

7.3.15 As requested by TII, an additional sensitivity test has been undertaken for the R617 / N20 roundabout, which considers the application of 'Medium' traffic growth rates set out in the 'Project Appraisal Guidelines for National Roads Unit 5.3', as opposed to the main assessment which uses rates calculated from the CMATS Regional Transport Model. For comparison, the calculated growth rates are:

- CMATS traffic growth 2025 – 2043 = 8.1%
- TII PAG growth rates 2025- 2043 = 15.5%

7.3.16 The results of this test are presented in **Table 23**. Only 2043 results are presented, which represent the highest modelled traffic flows.

Table 23. R617 / N20 roundabout results (TII Sensitivity)

Movement	AM peak hour (0800-0900)			PM peak hour (1700-1800)		
	Queue (pcu)	Delay (s)	RFC	Queue (pcu)	Delay (s)	RFC
Base 2043 (TII) + Phase 2						
R617 north	0.7	4.35	0.39	0.5	3.87	0.32
N20 WB off-slip	0.6	3.94	0.37	1.2	5.03	0.53
Car Park	0	7.64	0.02	0.1	9.58	0.05
R617 west	5.2	18.8	0.85	0.7	5.12	0.43

7.3.17 The results show that the existing roundabout is predicted to operate within capacity in all scenarios, when the higher TII growth rate is assumed.

Proposed layout

7.3.18 **Table 24** presents the modelled results for the upgraded roundabout in the 2043 TII Sensitivity test scenario, which is the scenario with the highest flows.

Table 24. R617 / N20 roundabout results (TII Sensitivity, Proposed Layout)

Movement	AM peak hour (0800-0900)			PM peak hour (1700-1800)		
	Queue (pcu)	Delay (s)	RFC	Queue (pcu)	Delay (s)	RFC
Base 2043 (TII) + Phase 2						
R617 north	0.6	3.83	0.36	0.4	3.45	0.29
N20 WB off-slip	0.6	3.79	0.36	1.1	4.86	0.52
R617 west exit only)	1.7	6.04	0.63	0.5	3.23	0.32
N20 WB on-slip (exit only	-	-	-	-	-	-

7.3.19 The results show that the proposed N20 / R617 roundabout will operate within capacity with the Phase 2 development in place.

R617 / Second (Main) Site Access

7.3.20 **Table 25** presents the modelled results for the new signalised R617 access junction, which will become the main access point into the Phase 1 and Phase 2 sites.

Table 25. R617 / Second (Main) Site Access results

Movement	AM peak hour (0800-0900)			PM peak hour (1700-1800)		
	Deg Sat (%)	MMQ (pcu)	Delay (s)	Deg Sat (%)	MMQ (pcu)	Delay (s)
Base 2028 + Phase 2						
R617 east AH + RT	35.2 : 35.2%	12.7	5.5	48.4 : 48.4%	13.6	8
R617 west AH + LT	68.80%	28.8	17.9	49.80%	16.3	11.4
Site Access	67.2 : 67.2%	52.2	10.1	46.5 : 40.0%	57	4.1
Base 2043 + Phase 2						
R617 east AH + RT	37.4 : 37.4%	13.3	6	37.4 : 37.4%	13.3	6
R617 west AH + LT	72.00%	29.3	19.6	72.00%	29.3	19.6
Site Access	71.0 : 71.0%	54.8	10.7	71.0 : 71.0%	54.8	10.7

7.3.21 The results show that the Second Site Access is predicted to operate within capacity with the Phase 2 development in place.

8. SUPPORTING MEASURES

8.1 Overview

8.1.1 To support and enable residents and office staff to travel to and from the development by sustainable modes, a Mobility Management Plan (MMP) will be implemented to provide them with comprehensive information and a range of sustainable mobility options and negate the need to rely on a private car.

8.1.2 This will be produced as part of the Phase 1 development, and expanded to cover the Phase 2 scheme.

8.2 Alternatives & On-Site Mobility Measures

8.2.1 As demonstrated in Chapter 3, the site is well-located to support walking and cycling to and from the village centre. Access to public transport is good, with the nearest bus stops on the R617 being around a 6-minute walk from the site access. The planned Bus Connects improvements will see an increase in the frequency of buses between Blarney and Cork.

8.2.2 The overall aim of an MMP for the proposed developments is to minimise the proportion of single-occupancy vehicle trips and address the forecast transport impacts of the end-users of the site. The objectives can be summarised as follows:

- Consider the needs of residents in relation to accessing facilities for employment, education, health, leisure, recreation and shopping purposes, including identifying local amenities available that reduce the need to travel longer distances;
- Reduce the vehicular traffic generated by the development, including developing measures to reduce the need to travel; and
- Develop good urban design by ensuring permeability of the development to neighbouring areas and provision of cycle facilities including storage and cycle hire.

8.2.3 To achieve the above, a range of “hard” and “soft” tools have been developed with the objective of influencing travel choices. These can be summarised into the following broad areas as follows:

- Mobility Manager;
- Reducing the need to travel;
- Welcome Travel Pack;
- Marketing and Travel Information;
- Personalised Travel Planning;
- Walking;
- Cycling;
- Public Transport; and
- Managing Car Use.

8.2.4 Further details on each of the above are provided in the following sections.

8.3 Mobility Manager

8.3.1 A Mobility Manager will be appointed, and their role is to manage the implementation of the MMP. The role involves being the main point of contact for travel information, promotion and improvements. This may also be organised in the form of a resident's group the development is fully occupied and operational. The remit of the Mobility Manager includes the following:

- To develop and oversee the implementation of the initiatives outlined in the MMP Action Plan;
- To monitor the progress of the plan, including carrying out annual Travel Surveys of residents;
- To actively market and promote the social, economic and environmental benefits of sustainable travel to residents; and
- To provide sustainable travel information, support and advice to residents including available bus service timetables, walking and cycling maps, car-sharing, cycle hire services, and local cycling and walking schemes and events.

8.4 Reducing the Need to Travel

8.4.1 Reducing the need to travel can be one of the simplest ways to reduce a development's impact on the local road network. The COVID situation has greatly accelerated the move towards greater homeworking in the future, and the growing popularity of supermarket home-shopping, and internet shopping in general all point towards a reduced need to travel in the future.

8.5 Welcome Travel Pack

8.5.1 A 'Welcome Travel Pack' can be provided to all new residents with the intention that each resident is made fully aware of the travel choices available to them. This will also give the best possible opportunity to the new residents to consider more sustainable modes of travel at a key moment of life change (i.e. moving home) – where new travel habits are more easily encouraged.

8.5.2 The Welcome pack will include a variety of sustainable travel information and incentives about the development and the wider local area. It can include measures such as:

- Information on the site's available sustainable travel services (including cycle parking and cycle hire) and any on-site facilities;
- Incentives to trial sustainable travel such as:
  - Public transport 'taster tickets' via a Leap 'pay as you go' card for each resident; and
  - Discounts at a local bike shop to subsidise a bike purchase; first month's free membership of the site's cycle hire scheme; free branded cycling accessories (e.g. high vis reflectors, seat covers, water bottles); free or subsidised cycle skills training or cycle maintenance training.
- Information on services and amenities provided locally (both on-site and nearby), particularly those within walking and cycling distance;

- Maps showing the pedestrian and cycle routes in proximity to the site, including site cycle parking and cycle hire locations; advised routes (with journey times) into the town centre and to public transport interchanges;
- Information about local public transport services and tickets, including a plan showing the location of bus, and bus / cycle routes to rail stations;
- Information on the health benefits of walking and cycling;
- Details of online car-sharing services (e.g. Liftshare and Faxi) along with the benefits of car sharing, such as reduced congestion, better air quality, reduction in traffic noise and cost savings to the individuals taking part; and
- Provide information on the financial and environmental costs associated with driving and support regarding tips for green driving techniques.

8.6 Marketing & Travel Information

8.6.1 Marketing and raising awareness will involve directly engaging with individuals and raising awareness of travel options as well the benefits of sustainable and active travel.

8.6.2 The Mobility Manager can market and promote the MMP to residents of the site in the following ways:

- Production and distribution of the Welcome Travel Pack as described above;
- Producing dedicated printed Travel Options Leaflets (in addition to the Welcome Packs) and online information which can be personalised to suit the individual needs of the site;
- Once travel surveys have been undertaken, additional leaflets can be provided which are tailored to encourage travel by a specific mode of transport;
- Organising events and activities (e.g. Dr Bike sessions, Pedometer challenges, led walks, cycle training) to coincide with Bike Week, European Mobility Week and any other national / local sustainable travel or community events;
- Displaying regular updates on MMP targets and activities in communal areas; and
- Promotion of sustainable travel options to residents, focusing marketing initiatives on areas where there is willingness to change and promoting positive messages e.g. getting fit and active, reducing congestion and CO^2 emissions.

8.6.3 If a residents' intranet or App is being developed as part of post-occupation implementation, this is an ideal communication channel to promote sustainable travel information, events and initiatives to residents.

8.6.4 Continued incentivisation of sustainable travel using gamification may also be considered as part of the future development of the MMP – for example through the use of app platforms such as *BetterPoints*[1] where staff/residents are rewarded for sustainable travel. Typically, initiatives like this are organised on a city-wide or local-area basis – therefore if implemented on a wider scale, the development could benefit from participation in such challenges/competitions.

[1] https://www.betterpoints.ltd/app/

8.7 Personalised Travel Planning

8.7.1 Personal Travel Planning (PTP) is a well-established and proven method that encourages people to make more sustainable travel choices. Typically using motivational interviewing techniques, it seeks to overcome the habitual use of the car, enabling more journeys to be made on foot, bike, public transport or in shared cars. This is achieved through the provision of tailored information, incentives and motivation directly to individuals to help them voluntarily make more informed travel choices.

8.7.2 PTP tools and techniques that can be used as part of a MMP to encourage people to travel sustainably include:

- One-to-one conversations, either at the doorstep or by telephone, between individuals and trained field officers to encourage and motivate a change in behaviour; and
- The provision of information and support on how to travel sustainably (for example, maps or guides about the local bus network, walking and cycling routes, adult and child cycle training and bike maintenance classes.

8.7.3 PTP techniques have been reported to reduce car driver trips by 11% and the distance travelled by car by 12%. A successful PTP can deliver:

- Reduced congestion and reduce car use;
- Individual health improvements through increased walking and cycling;
- Greater use of public transport;
- Better air quality and reduction in traffic noise;
- More use of local services by residents;
- Support sustainable economic growth by reducing peak hour congestion;
- Encourage more active lifestyles to address health and well-being issues; and
- Promote environmentally responsible travel choices and carbon reduction by helping reduce individual carbon footprints.

8.7.4 PTP forms an important Smarter Choices tool to enable residents to consider sustainable travel and if appropriate upon completion of the Post-Occupation baseline travel survey, could be implemented as part of the MMP.

8.8 Walking

8.8.1 Depending on the outcome of the post-occupation baseline residents Travel Survey, the following measures could be implemented to promote walking to residents:

- Participation in a residents' 'Pedometer Challenge';
- Organise events such weekend led walks;
- Display local walking maps in communal areas (and online if applicable); and
- Highlight the direct savings and health and wellbeing benefits of walking.

8.9 Cycling

8.9.1 As detailed earlier, high quality pedestrian and cyclist access and internal facilities will be provided as part of the design of the development.

8.9.2 Depending on the outcome of the post-occupation baseline residents Travel Survey, the following measures can also be implemented to promote cycling to residents:

- Provide and publicise cycle parking for residents and visitors;
- Display local cycling maps in communal areas (and online if applicable);
- Host a Bike Week (www.bikeweek.ie) event for staff and residents, inviting local bike suppliers for staff and residents to try bikes before buying and run bike maintenance / Dr Bike sessions;
- Set up a Bicycle User Group (BUG) to promote cycling and encourage Bike Buddy scheme and led cycle rides through this forum; and
- Highlight the direct savings and health and wellbeing benefits of cycling.

8.10 Public Transport

8.10.1 Depending on the outcome of the post-occupation baseline Travel Survey, the following measures can be implemented to promote public transport to residents:

- Provide timetables and maps of local bus routes and the nearest bus stops, (including walk times) in communal areas;
- Promotion of the National Public Transport Journey Planner[2] for travel by bus and rail;
- If required, liaise with the NTA and local bus operators about any feedback gained from residents such as location of bus stops, timing of routes, or where you have market information about a potential new route.

[2] www.journeyplanner.transportforireland.ie

9. SUMMARY AND CONCLUSIONS

9.1 Summary

9.1.1 SYSTRA has been commissioned by Clockstrike Ltd to prepare a Transport Assessment (TA) for Phase 2 of the proposed residential development in the Ringwood area of Blarney.

9.1.2 Phase 1 of the development, comprising 246 residential units and a 61-space creche facility, was consented by Cork City Council (CCC) in December 2024 (Planning Ref: 2443031).

Proposed Development

9.1.3 The development site is located in the north-east of Blarney, to the north of the R617 and is approximately 1.2km to the east of the village centre. It forms part of a larger zoning set out within the Cork City Development Plan 2022-2028 (CCDP) for a 'New Residential Neighbourhoods'.

9.1.4 The proposed Phase 2 development comprises 339 residential dwelling on the Ringwood site, which will comprise the following:

- 157 terraced, end-of-terrace and detached houses;
- 52 no. duplexes provided in 5 no. 3-storey buildings; and
- 114 no. apartments provided in 2 no. 5-storey buildings

9.1.5 In addition, a 2,100sqm Primary Care Centre will be constructed in the south of the site, close to the R617 access. This will incorporate:

- GP Services
- An 80sqm retail / pharmacy unit
- A 380sqm café / restaurant.

Access Strategy

9.1.6 The main aspects of the access strategy can be summarised as follows:

- **Pedestrian, vehicle and cycle access** will be taken from the Phase 1 junction on Station Road (which is re-included in the Phase 2 red line boundary, and **a new signalised junction on the R617**, which will provide vehicle, cycle and pedestrian access into the site. This will reduce traffic pressure on the Phase 1 site access junction on Station Road, allowing vehicles to access the site without travelling through the R617 / Station Road junction.
- The construction of the first phase of the **'Stoneview Access Link Road'** into the site, which will ultimately link into lands to the north of the N20 / rail line, in future phases of the wider Masterplan. The Access Link Road has been designed to accommodate future bus services between the R617 and the future Blarney Rail Station (As part of a future application). Segregated cycle paths will run along its full length.
- The development will open up **new routes for pedestrians, cyclists and vehicles between the R617 and Station Road**. The route for vehicles is not direct, to dissuade 'rat-running' through the site.

- An **internal site layout that is DMURS compliant**, and features high-quality walking and cycling facilities.
- Pedestrian links into the site from **Aisling Gael** and **Ard na Greine.**
- Offsite improvements at the **R617 / Shean Lower junction**, which will be signalised. Fully controlled pedestrian / cycle crossings will be provided on all arms of the junction.
- A **new shared pedestrian / cycle link on the south side of the R617** will link the Clogheenmilcon cycle way on the east side of Shean Lower with the site.

9.1.7 The site is located within a 18-minute walk of the centre of village, and the nearest secondary school is 14-minutes distant.

9.1.8 Residents will access bus services at the existing bus stops to the east of the R617 / Station Road access junction, which are only 500m from the Phase 1 site access junction. The Cork Bus Connects strategy proposed that services on the R617 will increase to a 20-minute frequency, which will further benefit current and future residents of Blarney.

Travel Demand

9.1.9 Demand analysis suggests that the development is expected to generate in the region of 350 two-way person trips in the AM peak hour, and a similar number in the PM peak hour.

9.1.10 In terms of vehicle trips, the development is expected to generate 262 two-way vehicle trips in the AM peak hour, and 248 two-way vehicle trips in the PM peak hour.

9.1.11 Looking further into the future, the mode share targets set out in the Cork Metropolitan Area Transport Strategy (CMATS) aims for 49.3% of all trips to be made by car. This also broadly aligns with the national level mode share targets established in the Climate Action Plan 2024, which aims to:

- Reduce the total distance driven across all journeys by 20%.
- Greatly increase the amount of walking, cycling and public transport trips.

9.1.12 Achieving these mode shares in Blarney will require the delivery of a range of sustainable transport measures, a number of which are currently being progressed as individual projects under the CMATS umbrella, including:

- A Cork Suburban rail service including a new station at Blarney incorporating Park & Ride;
- The Cork BusConnects project, which will provide enhanced services to Blarney and throughout the region;
- Development of a comprehensive active travel network in the settlement.

Traffic Impact

9.1.13 AM and PM peak hour junction capacity modelling has been undertaken at the following junctions:

- 1. Station Road / Site Access signalised junction.
- 2. R617 / Station Road priority junction.
- 3. R617 / Castle Close Lawn priority junction.

- 4. R617 / Lane's Cross priority junction.
- 5. N20 / R617 roundabout.
- 6. R617 / Phase 2 signalised access junction.

9.1.14 The main points to emerge from this assessment were:

- Both site access junctions are predicted to operate within capacity in the assessed future years of 2028 and 2043, with both Phases 1 and 2 in place.
- The delivery of the R617 / Site Access junction reduces pressure on both the Station Road / Site Access junction, and the R617 / Station Road junction.
- The N20 / R617 interchange (in its current form), is predicted to operate within capacity in the 2043 future years, with both Phase 1 and Phase 2 in place. The N/M20 Cork to Limerick Road Improvement Scheme is proposing to deliver a redesigned N20 / R617 interchange. Modelling by SYSTRA of the emerging design indicates that it will provide enhanced capacity compared to the existing junction. SYSTRA has also undertaken a sensitivity test at the junction, which assumes higher TII growth rates. Again, both the existing junction, and the proposed upgraded junction are predicted to operate below capacity.

Mobility Management Plan

9.1.15 The Transport Assessment is supported by a Mobility Management Plan, which sets out a framework of measures which would be put in place to encourage sustainable travel from the site.

9.2 Conclusions

9.2.1 The proposed residential development on the Ringwood site will form the second part of a wider development in the north-east of Blarney, first within the Ringwood area, and in later years further north on the Stoneview Masterplan site.

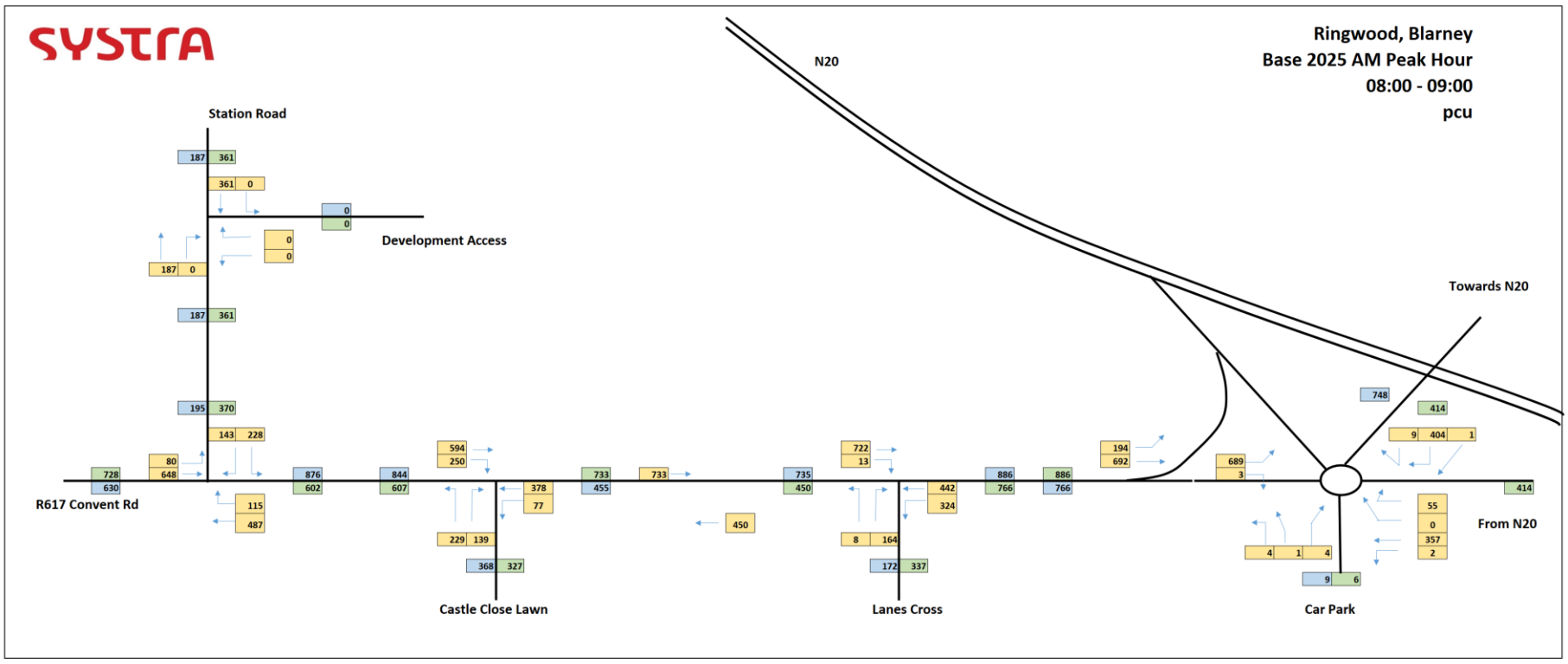
9.2.2 The Phase 1 development represented a natural in-fill of the Blarney urban area, and the Phase 2 forms a natural extension to this. Together, the Phase 1 and Phase 2 developments will create a high-quality neighbourhood within walking distance of the village centre. The transport strategy for the site is compliant with both DMURS and Cycling by Design, and supports the wider CMATS strategy.

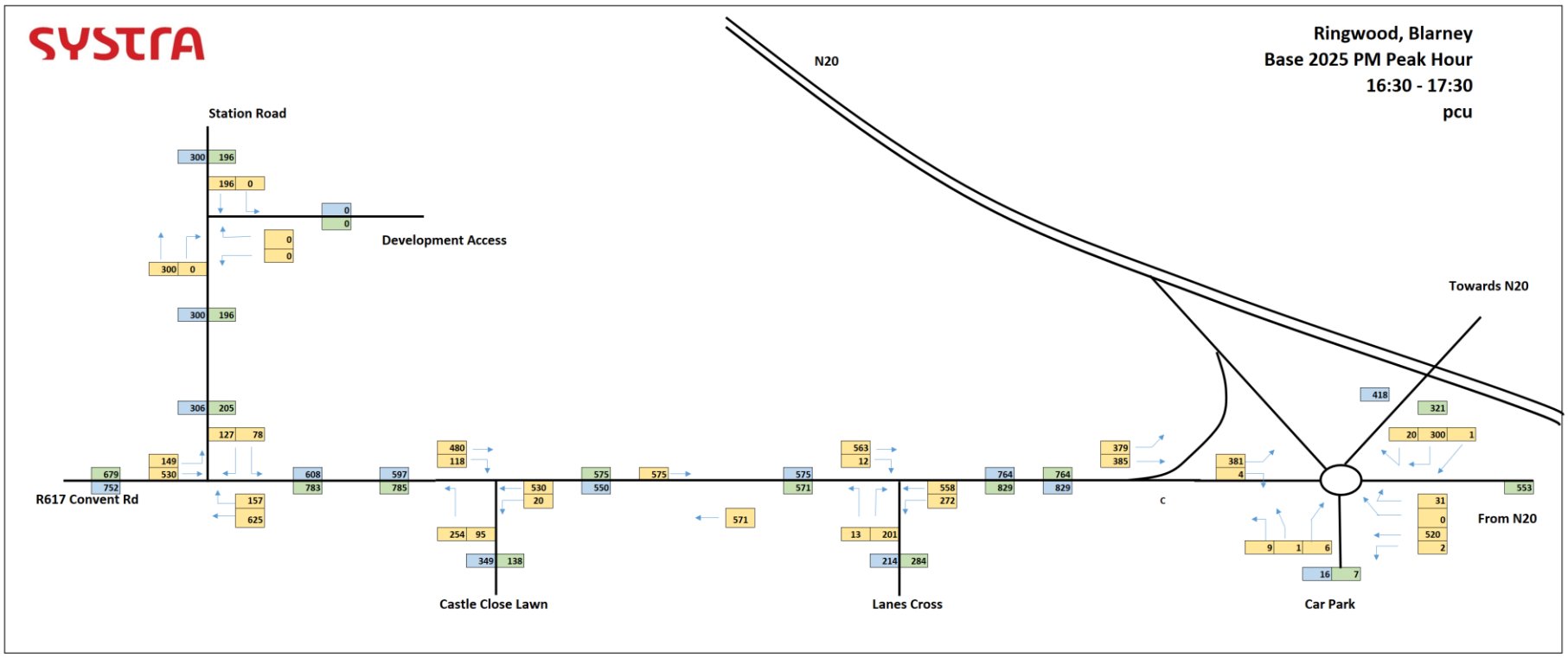
9.2.3 The Phase 2 development will also deliver key elements necessary for of the wider Masterplan development, the new R617 access junction and a significant section of the Stoneview Access Link Road. This infrastructure will ultimately enable development further north on Stoneview lands, and key strategic developments such as the Blarney Rail Station and Park and Ride.

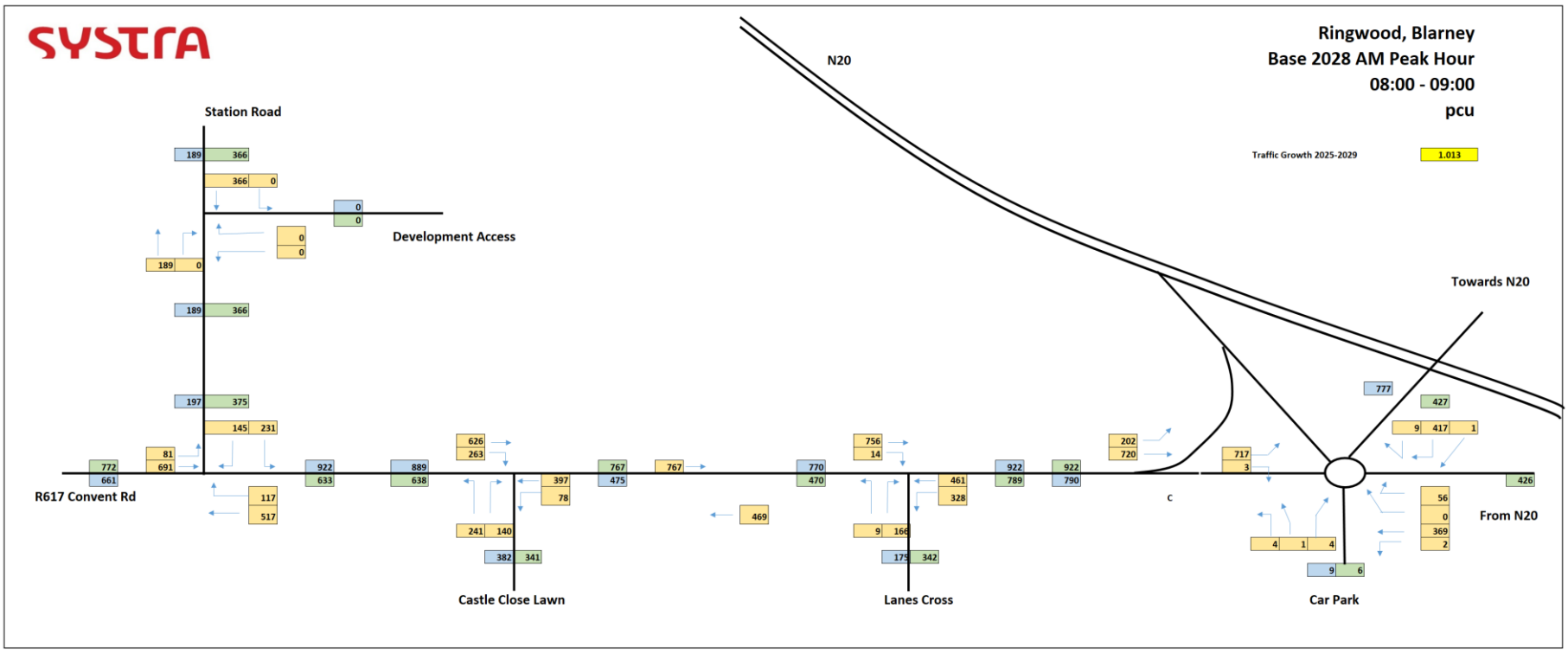
9.2.4 Phases 1 and 2 are expected to be completed between 2027 and 2029. During this timeframe, there are numerous strategies and transport initiatives that will deliver a step-change in the transport infrastructure within the Cork City region, and specifically within Blarney itself. A key driver of these transport initiatives is the Irish Government's Climate Action Plan 2024, which recognises that continued traffic growth is not sustainable and targets a 20% reduction in total distance travelled across all car journeys by 2030.

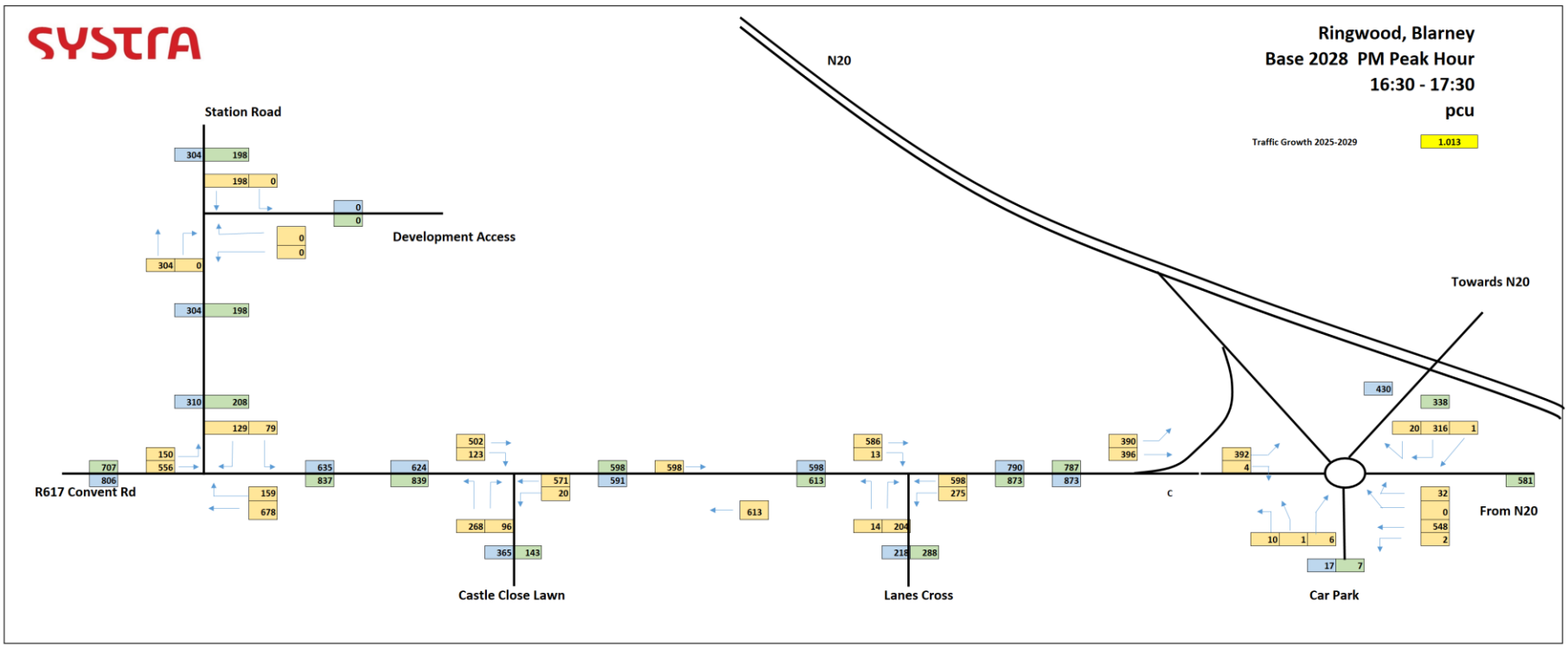
9.2.5 The proposed development, and its later Phases, will tie in with the transport projects set out in CMATS, which include the proposed Blarney Rail Station and associated Park and Ride, the BusConnects and CycleConnects scheme, and the Blarney-wide elements of the NTA's Active Travel Investment Programme.

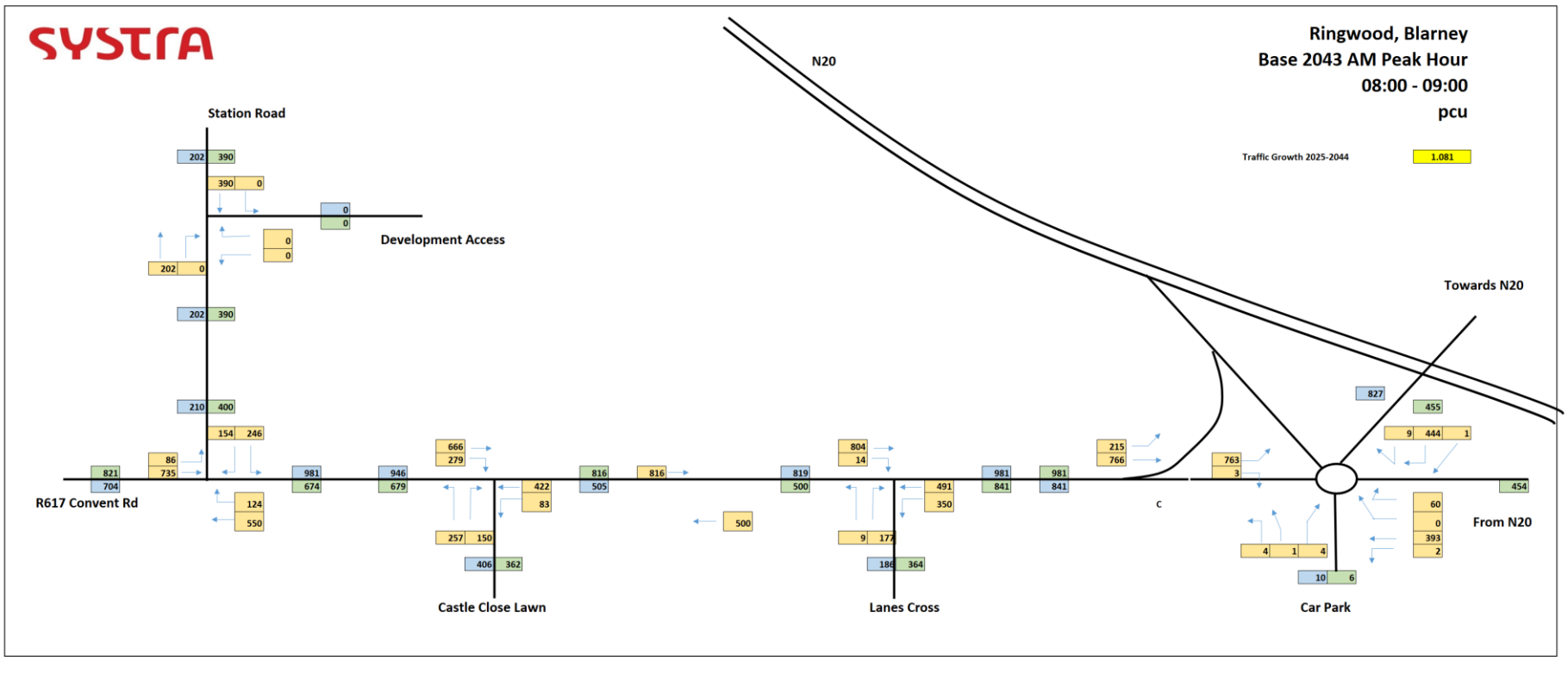
APPENDIX A – TRAFFIC DIAGRAMS

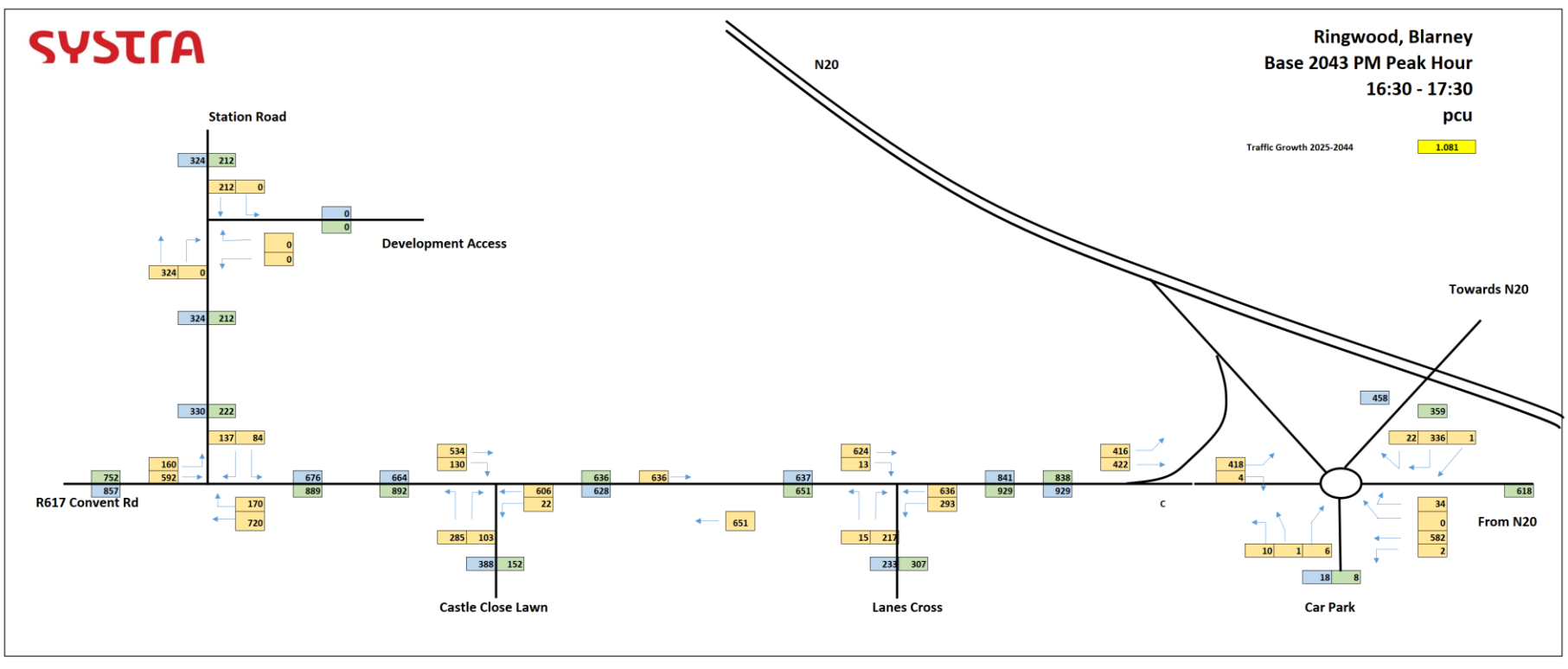


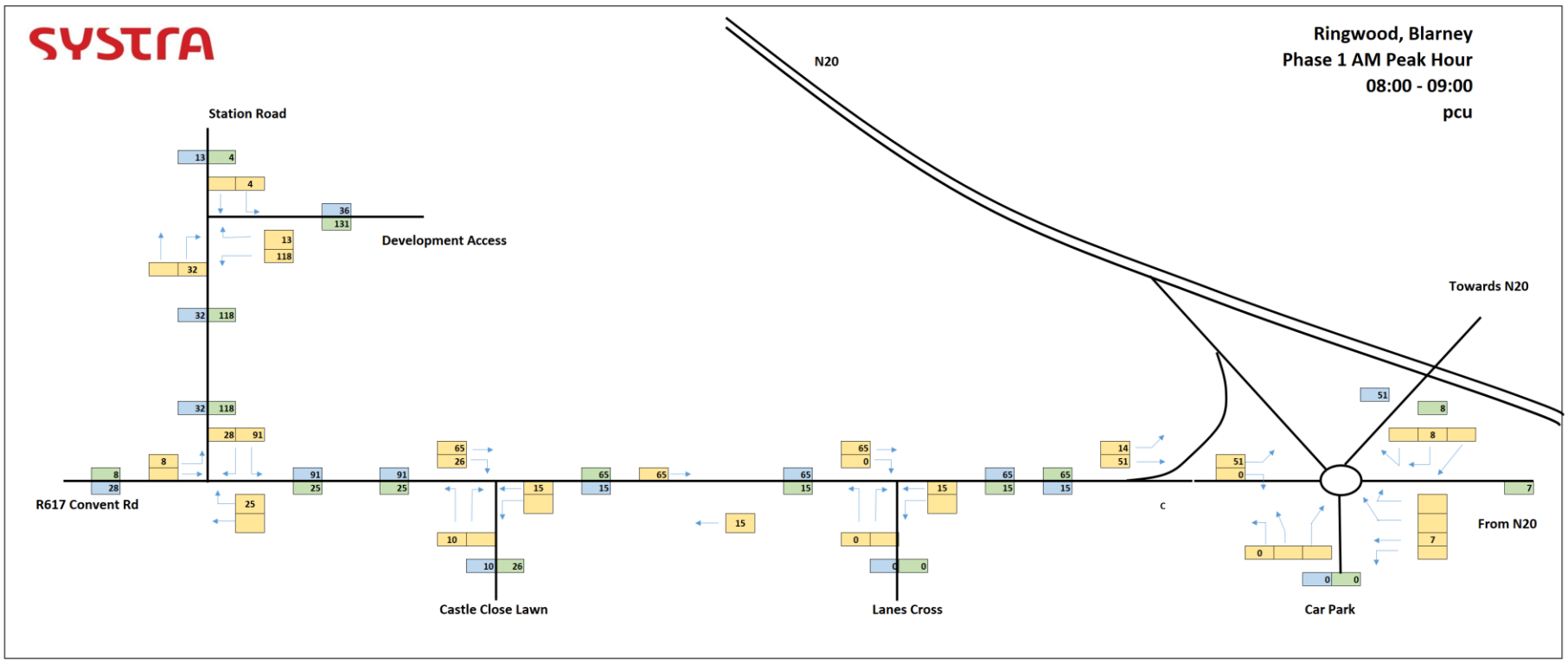


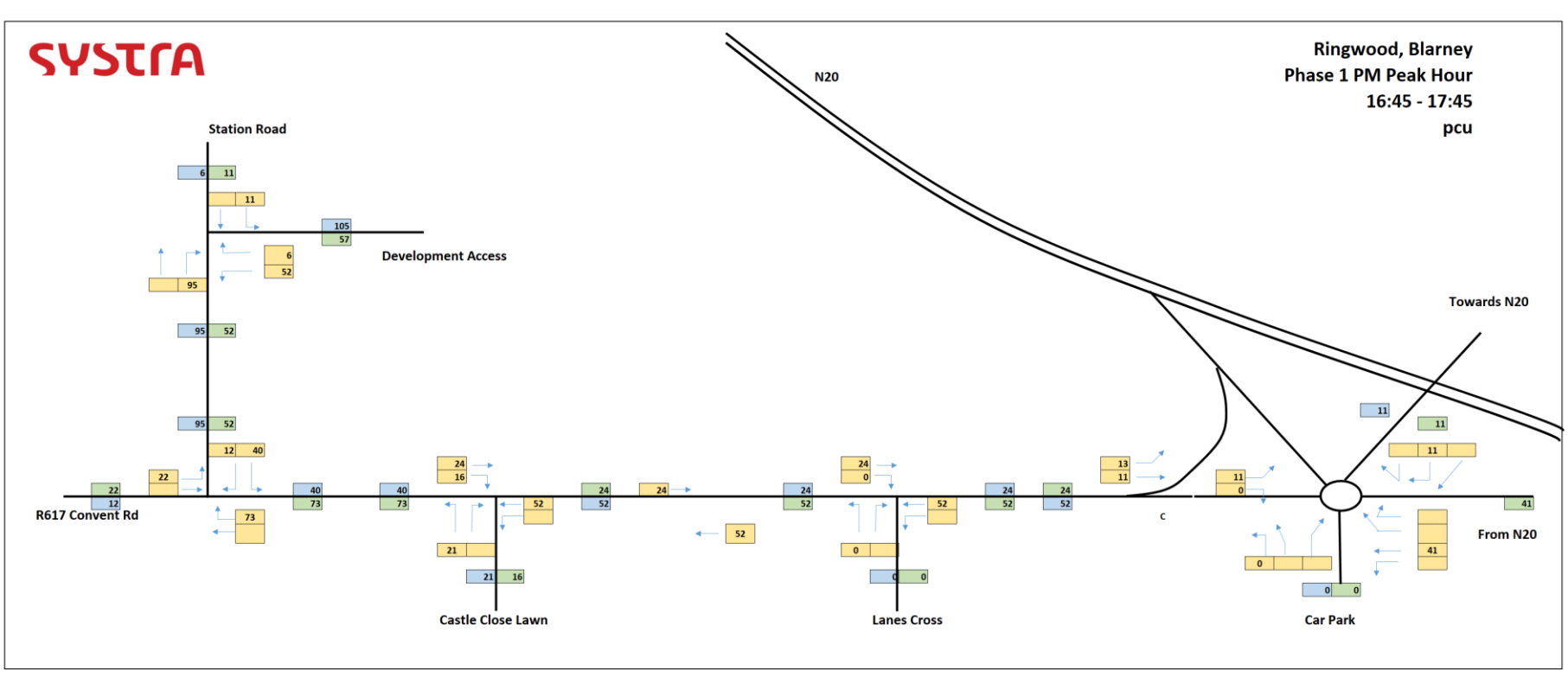

Ringwood, Blarney
Base 2028 AM Peak Hour
08:00 - 09:00
pcu
Traffic Growth 2025-2029
1.013
N20
Station Road
Development Access
Towards N20
R617 Convent Rd
Castle Close Lawn
Lanes Cross
Car Park
From N20
C

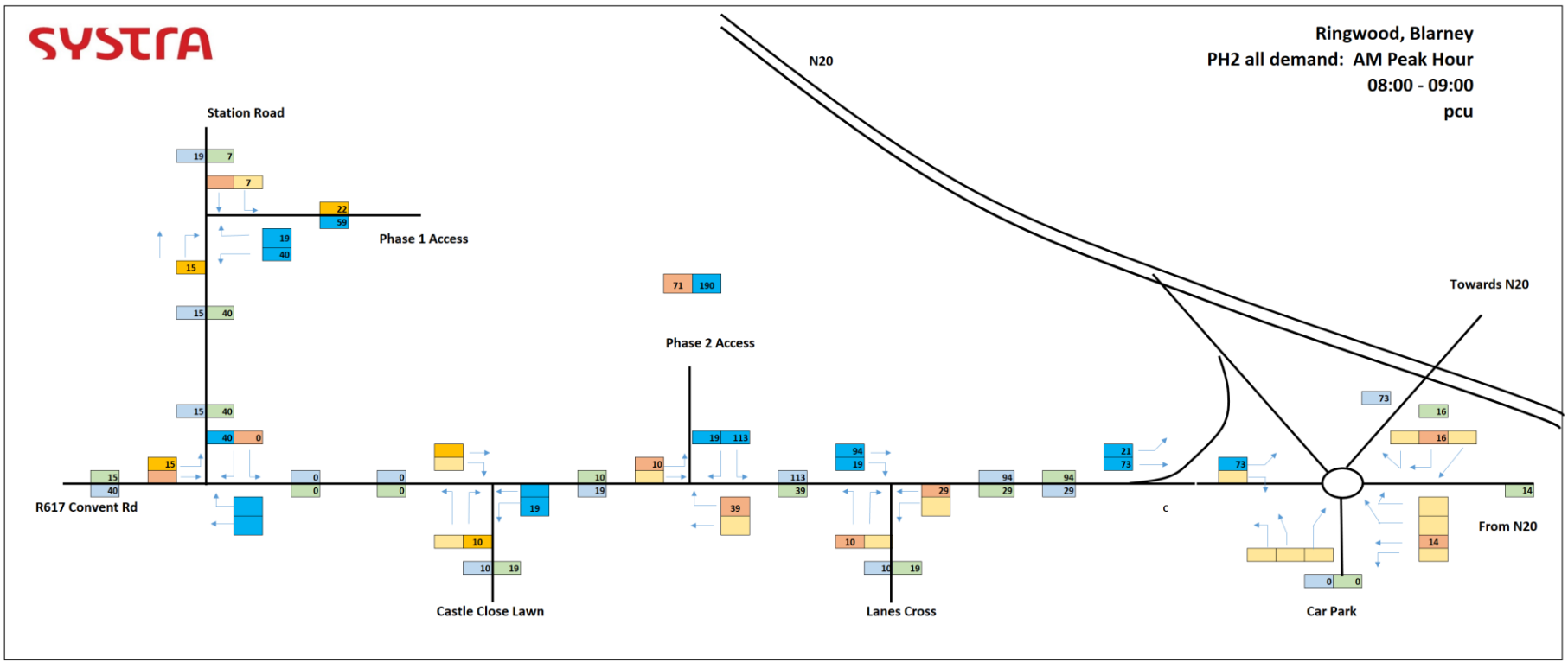

Ringwood, Blarney
Base 2028 PM Peak Hour
16:30 - 17:30
pcu
Traffic Growth 2025-2029
1.013
N20
Station Road
Development Access
Towards N20
R617 Convent Rd
Castle Close Lawn
Lanes Cross
Car Park
From N20
C

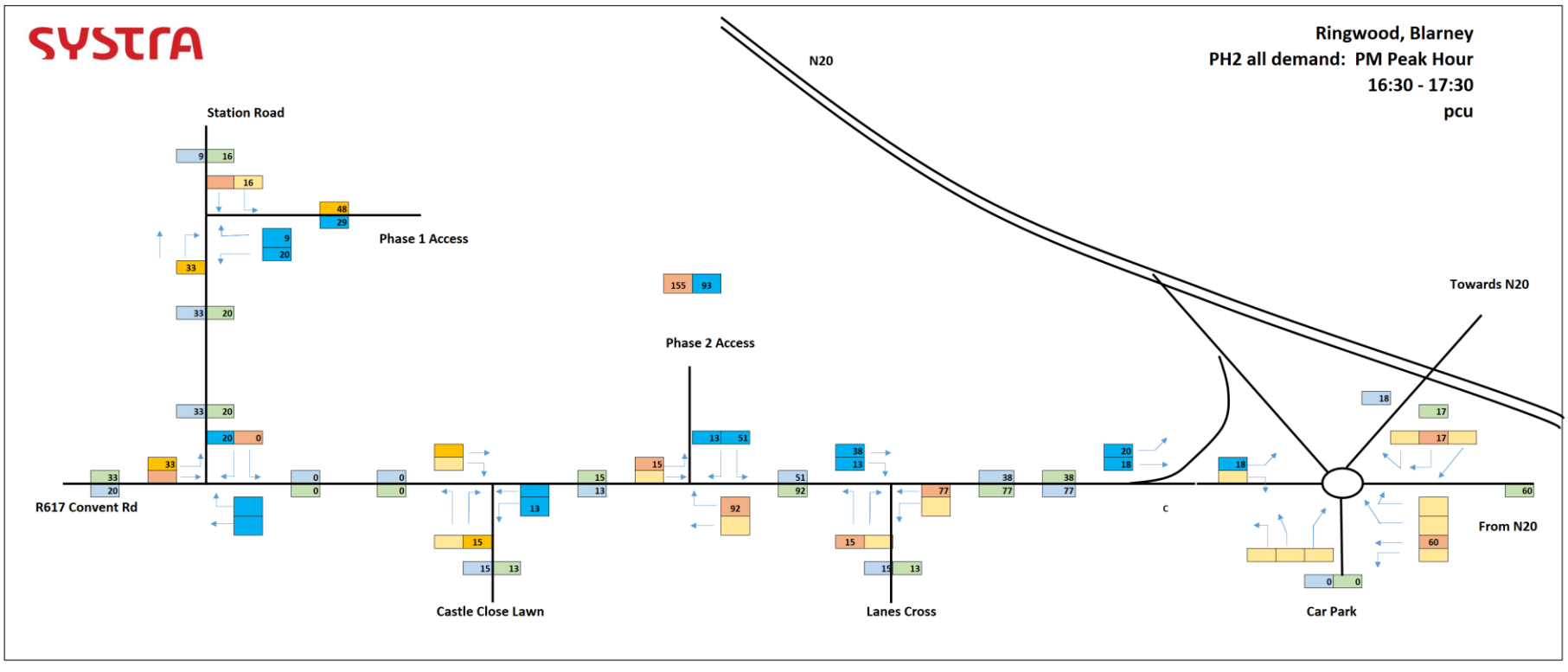

Ringwood, Blarney
Base 2043 AM Peak Hour
08:00 - 09:00
pcu
Traffic Growth 2025-2044
1.081
N20
Station Road
Development Access
Towards N20
From N20
R617 Convent Rd
Castle Close Lawn
Lanes Cross
Car Park

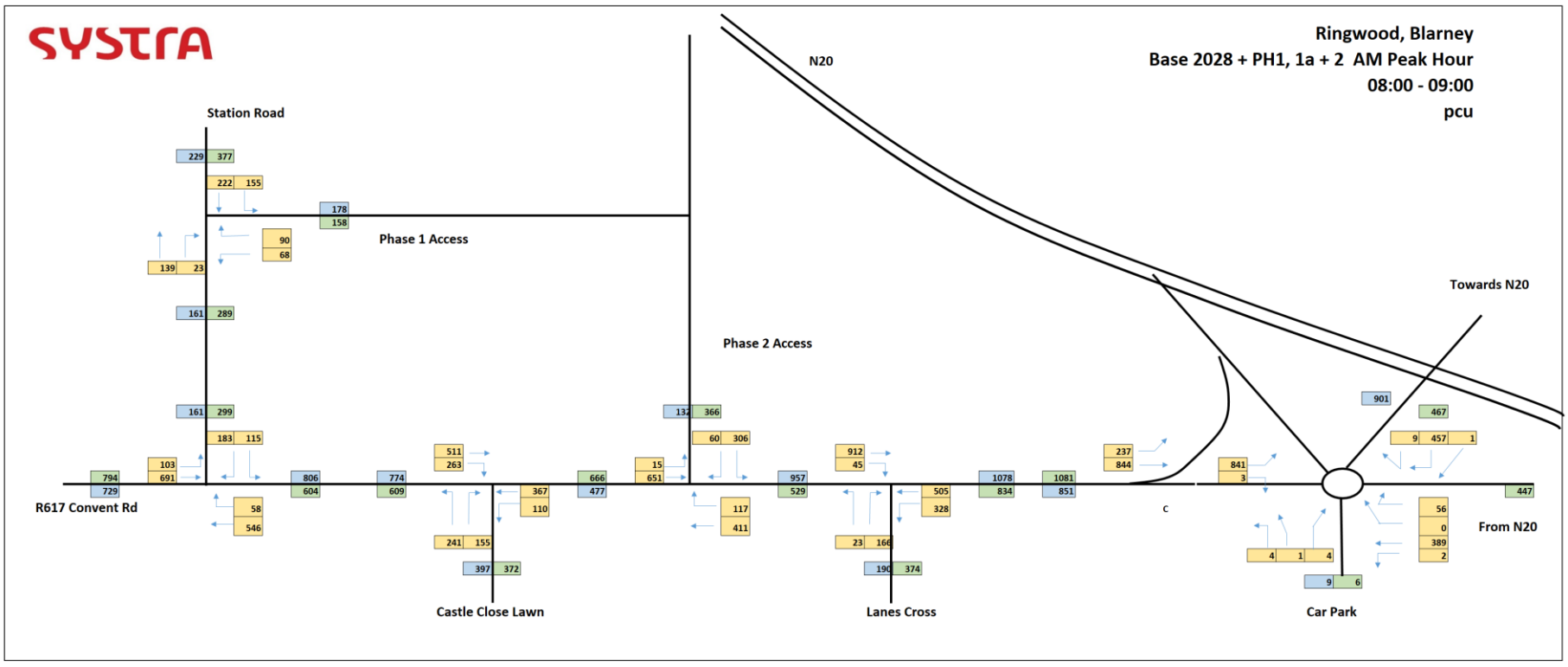

Ringwood, Blarney
Base 2043 PM Peak Hour
16:30 - 17:30
pcu
Traffic Growth 2025-2044
1.081
N20
Station Road
Development Access
Towards N20
From N20
R617 Convent Rd
Castle Close Lawn
Lanes Cross
Car Park

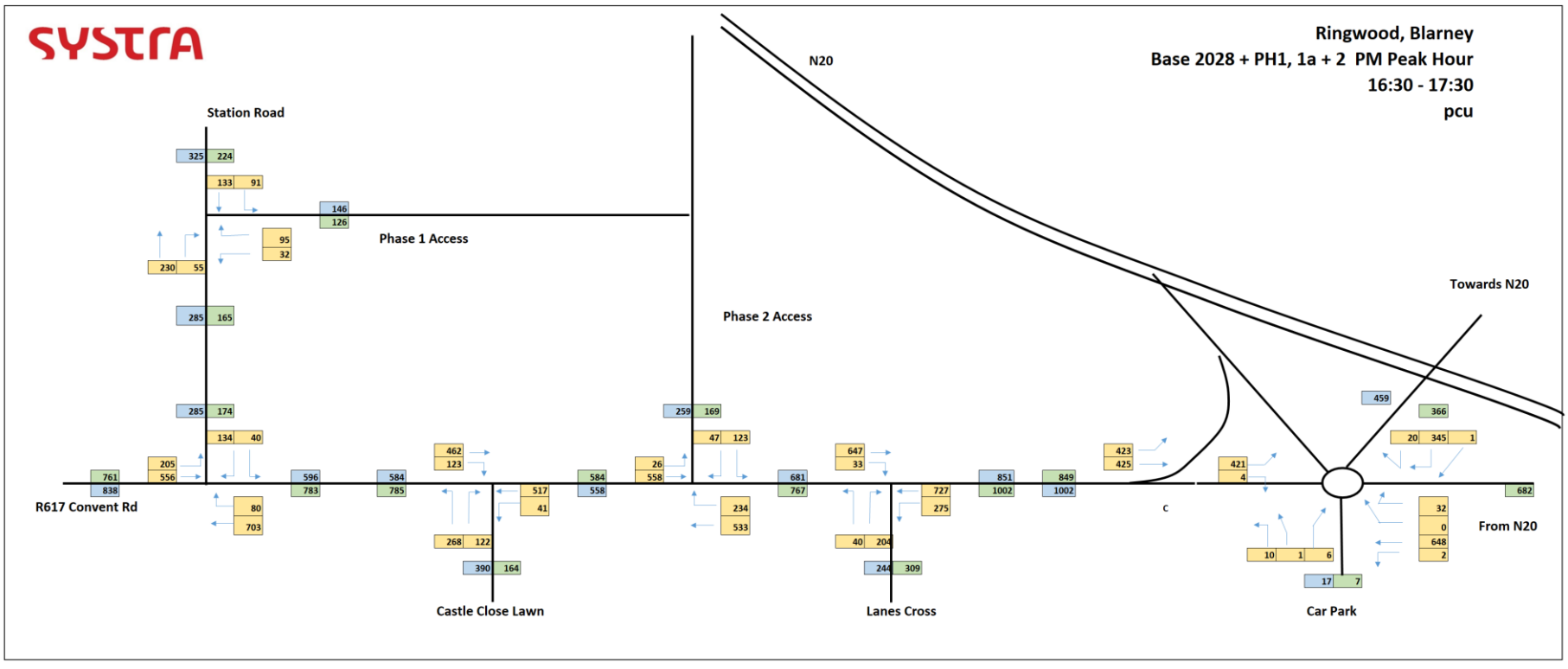

Ringwood, Blarney
Phase 1 AM Peak Hour
08:00 - 09:00
pcu
N20
Station Road
Development Access
Towards N20
R617 Convent Rd
Castle Close Lawn
Lanes Cross
Car Park
From N20

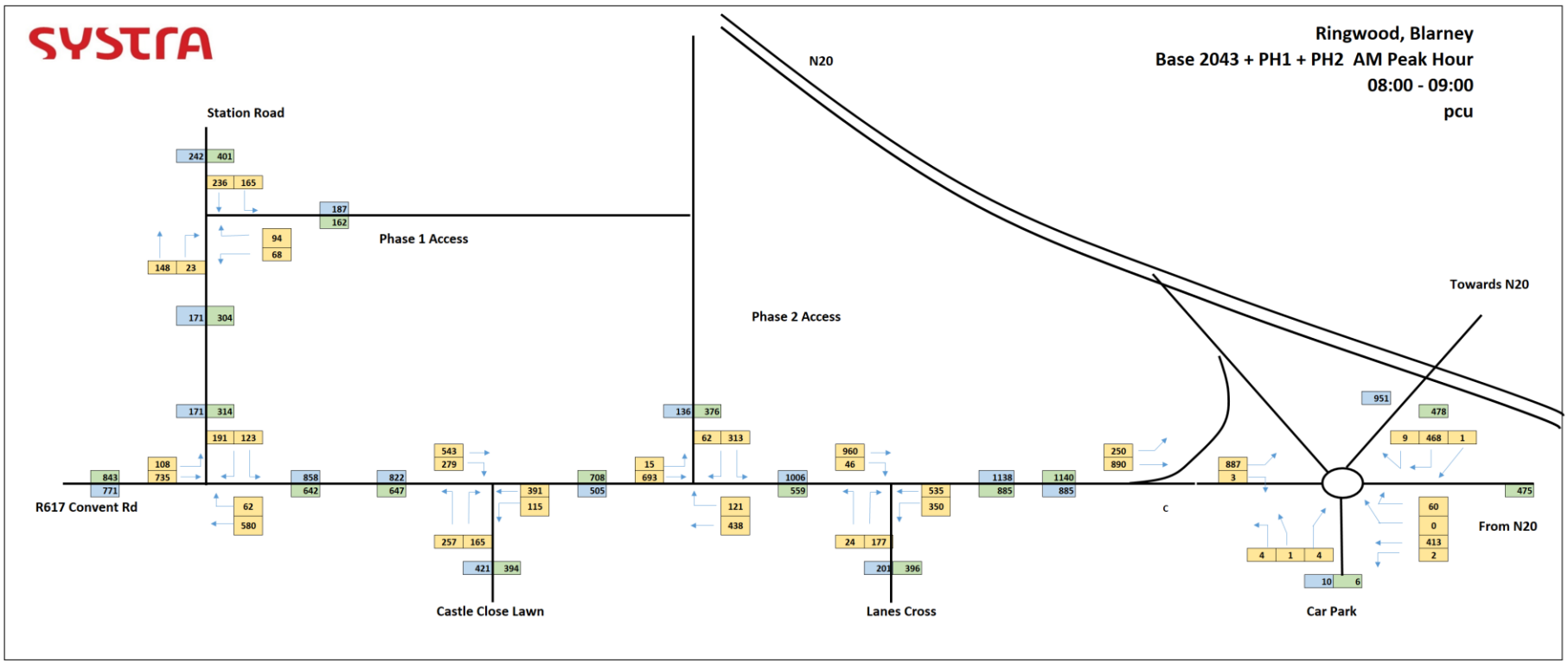

Ringwood, Blarney
Phase 1 PM Peak Hour
16:45 - 17:45
pcu
N20
Station Road
Development Access
Towards N20
R617 Convent Rd
Castle Close Lawn
Lanes Cross
Car Park
From N20

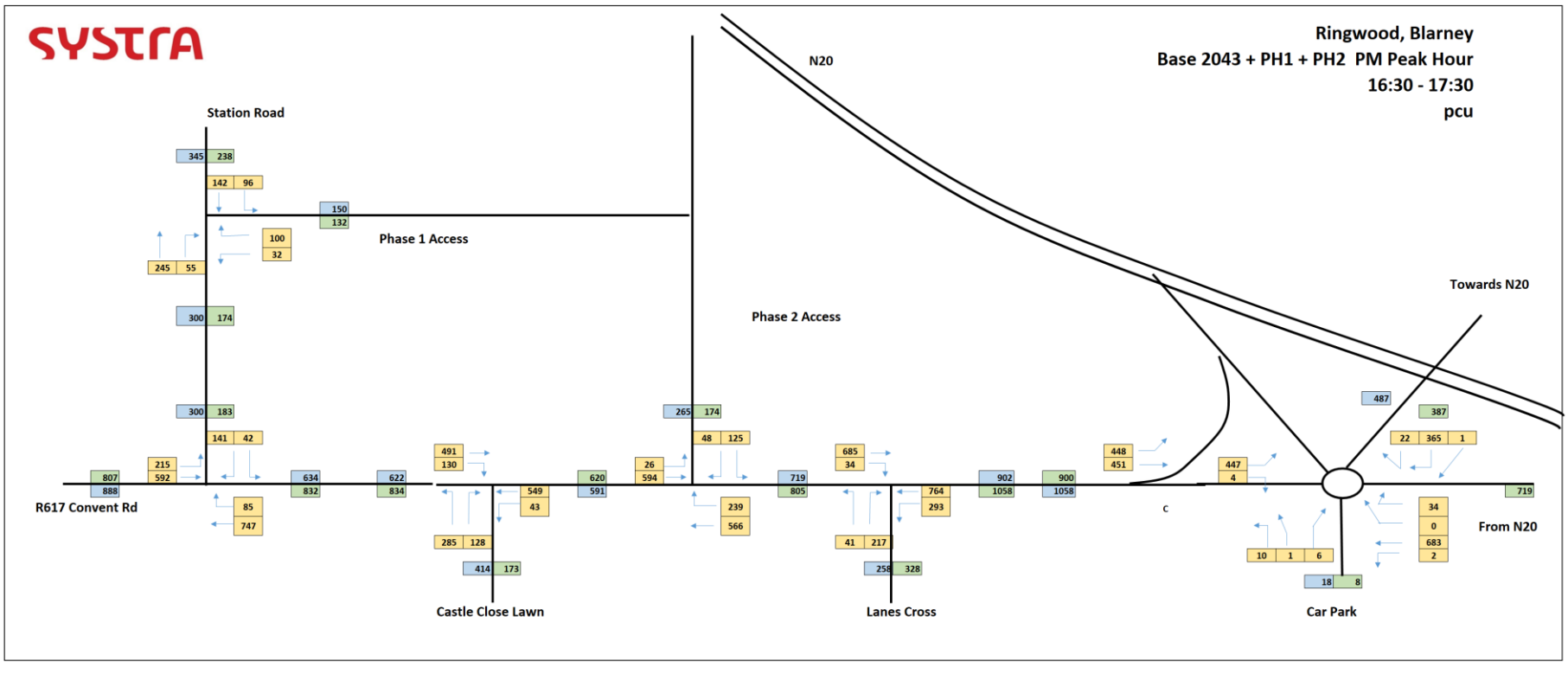

Ringwood, Blarney
PH2 all demand: AM Peak Hour
08:00 - 09:00
pcu
N20
Station Road
Phase 1 Access
Phase 2 Access
Towards N20
R617 Convent Rd
Castle Close Lawn
Lanes Cross
Car Park
From N20

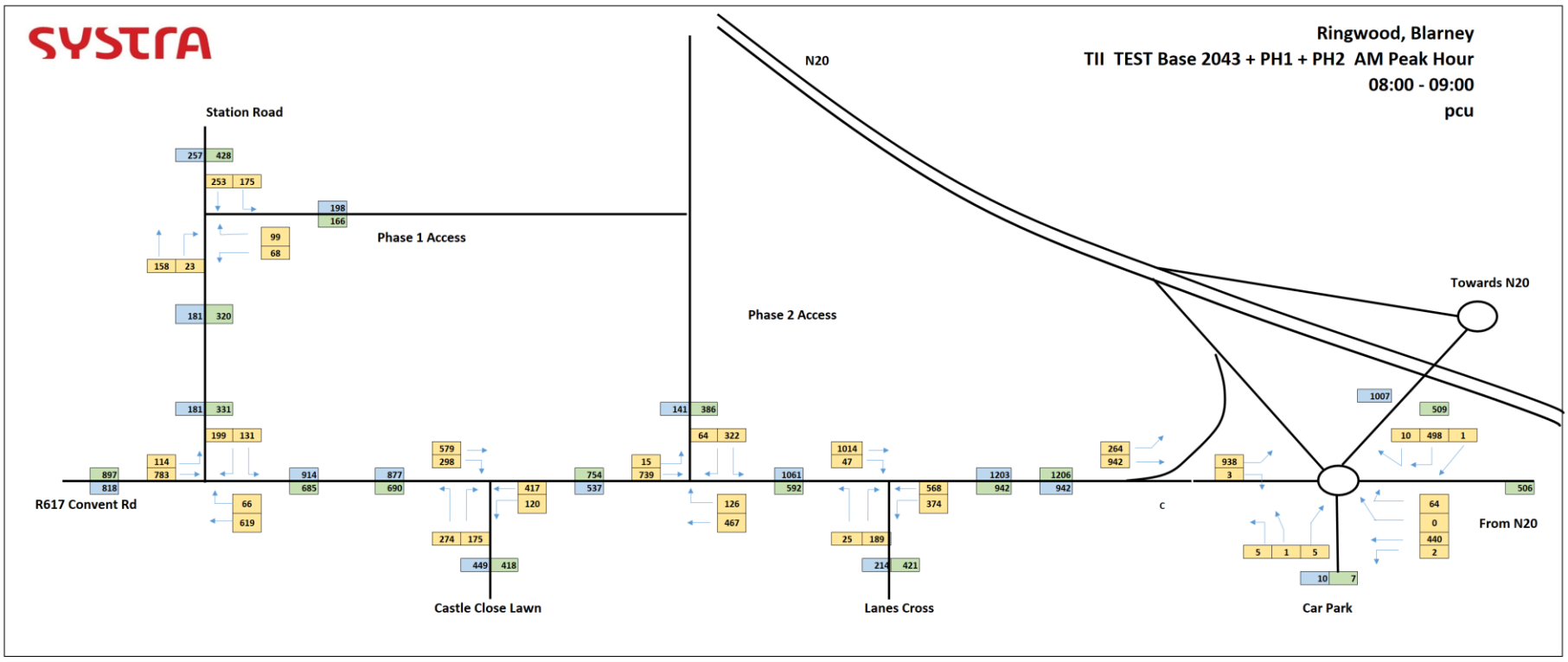

Ringwood, Blarney
PH2 all demand: PM Peak Hour
16:30 - 17:30
pcu
N20
Station Road
Phase 1 Access
Phase 2 Access
Towards N20
R617 Convent Rd
Castle Close Lawn
Lanes Cross
Car Park
From N20

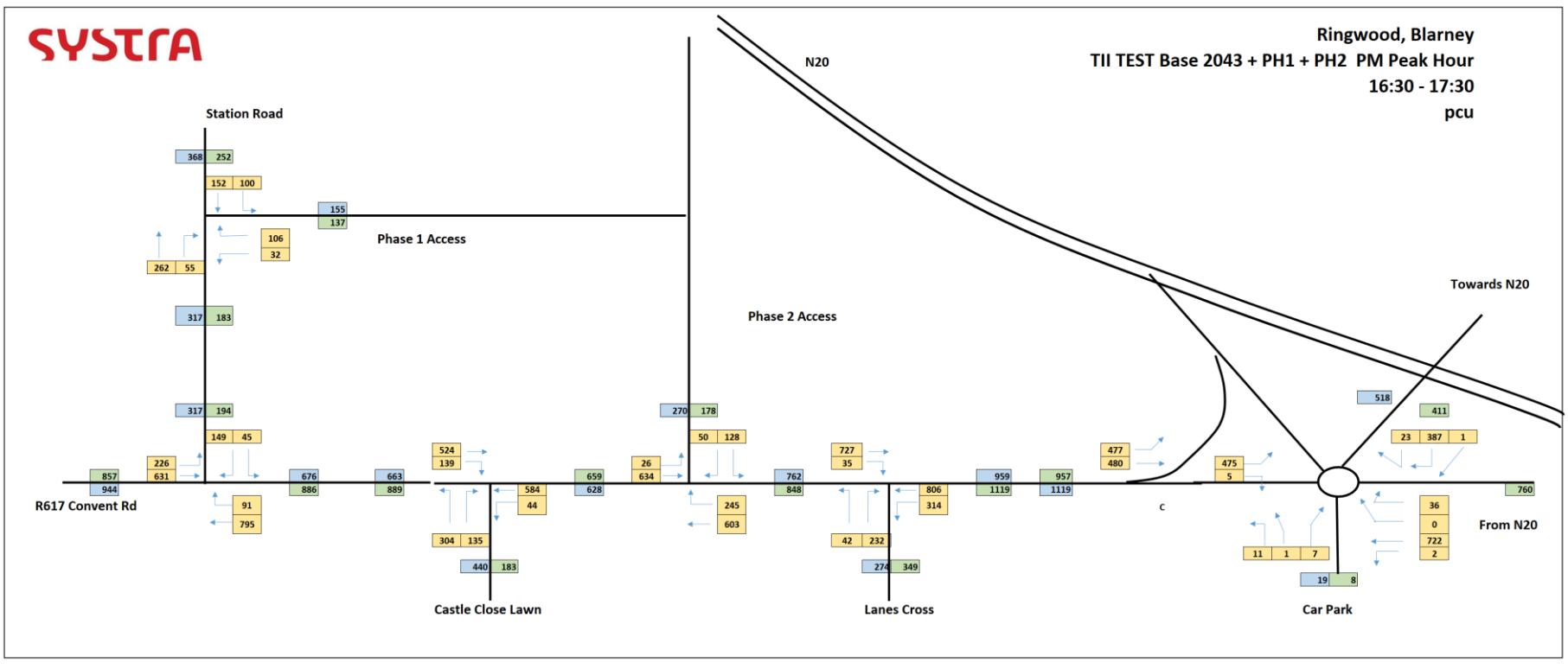

Ringwood, Blarney
Base 2028 + PH1, 1a + 2 AM Peak Hour
08:00 - 09:00
pcu
N20
Station Road
Phase 1 Access
Phase 2 Access
Towards N20
R617 Convent Rd
Castle Close Lawn
Lanes Cross
Car Park
From N20


Ringwood, Blarney
Base 2028 + PH1, 1a + 2 PM Peak Hour
16:30 - 17:30
pcu
N20
Station Road
Phase 1 Access
Phase 2 Access
Towards N20
R617 Convent Rd
Castle Close Lawn
Lanes Cross
Car Park
From N20


Ringwood, Blarney
Base 2043 + PH1 + PH2 AM Peak Hour
08:00 - 09:00
pcu
N20
Station Road
Phase 1 Access
Phase 2 Access
Towards N20
R617 Convent Rd
Castle Close Lawn
Lanes Cross
Car Park
From N20


Ringwood, Blarney
Base 2043 + PH1 + PH2 PM Peak Hour
16:30 - 17:30
pcu
N20
Station Road
Phase 1 Access
Phase 2 Access
Towards N20
R617 Convent Rd
Castle Close Lawn
Lanes Cross
Car Park
From N20


Ringwood, Blarney
TII TEST Base 2043 + PH1 + PH2 AM Peak Hour
08:00 - 09:00
pcu
N20
Station Road
Phase 1 Access
Phase 2 Access
Towards N20
R617 Convent Rd
Castle Close Lawn
Lanes Cross
Car Park
From N20


Ringwood, Blarney
TII TEST Base 2043 + PH1 + PH2 PM Peak Hour
16:30 - 17:30
pcu
N20
Station Road
Phase 1 Access
Phase 2 Access
Towards N20
R617 Convent Rd
Castle Close Lawn
Lanes Cross
Car Park
From N20

APPENDIX B – TRICS OUTPUTS

SYSTRA Ltd 37 Manor Place Edinburgh Licence No: 700705

Calculation Reference: AUDIT-700705-231020-1006

TRIP RATE CALCULATION SELECTION PARAMETERS:

Land Use : 03 - RESIDENTIAL
Category : C - FLATS PRIVATELY OWNED
MULTI-MODAL TOTAL PEOPLE

Selected regions and areas:

02	SOUTH EAST		
	HF	HERTFORDSHIRE	3 days
	WS	WEST SUSSEX	1 days
04	EAST ANGLIA		
	CA	CAMBRIDGESHIRE	1 days
	NF	NORFOLK	1 days
05	EAST MIDLANDS		
	DY	DERBY	1 days
	NG	NOTTINGHAM	2 days
08	NORTH WEST		
	MS	MERSEYSIDE	2 days
09	NORTH		
	TW	TYNE & WEAR	1 days
11	SCOTLAND		
	EB	CITY OF EDINBURGH	1 days
14	LEINSTER		
	LU	LOUTH	1 days
15	GREATER DUBLIN		
	DL	DUBLIN	1 days

This section displays the number of survey days per TRICS® sub-region in the selected set

Primary Filtering selection:

This data displays the chosen trip rate parameter and its selected range. Only sites that fall within the parameter range are included in the trip rate calculation.

Parameter:	No of Dwellings
Actual Range:	9 to 184 (units:)
Range Selected by User:	6 to 372 (units:)

Parking Spaces Range: All Surveys Included

Parking Spaces per Dwelling Range: All Surveys Included

Bedrooms per Dwelling Range: All Surveys Included

Percentage of dwellings privately owned: All Surveys Included

Public Transport Provision:
Selection by: Include all surveys

Date Range: 01/01/15 to 11/05/22

This data displays the range of survey dates selected. Only surveys that were conducted within this date range are included in the trip rate calculation.

Selected survey days:

Monday	3 days
Tuesday	4 days
Wednesday	6 days
Thursday	1 days
Friday	1 days

This data displays the number of selected surveys by day of the week.

Selected survey types:

Manual count	15 days
Directional ATC Count	0 days

This data displays the number of manual classified surveys and the number of unclassified ATC surveys, the total adding up to the overall number of surveys in the selected set. Manual surveys are undertaken using staff, whilst ATC surveys are undertaking using machines.

Selected Locations:

Suburban Area (PPS6 Out of Centre)	9
Edge of Town	3
Neighbourhood Centre (PPS6 Local Centre)	3

This data displays the number of surveys per main location category within the selected set. The main location categories consist of Free Standing, Edge of Town, Suburban Area, Neighbourhood Centre, Edge of Town Centre, Town Centre and Not Known.

Selected Location Sub Categories:

Development Zone	2
Residential Zone	10
No Sub Category	3

This data displays the number of surveys per location sub-category within the selected set. The location sub-categories consist of Commercial Zone, Industrial Zone, Development Zone, Residential Zone, Retail Zone, Built-Up Zone, Village, Out of Town, High Street and No Sub Category.

Inclusion of Servicing Vehicles Counts:

Servicing vehicles Included	9 days - Selected
Servicing vehicles Excluded	6 days - Selected

Secondary Filtering selection:

Use Class:

C3	15 days

This data displays the number of surveys per Use Class classification within the selected set. The Use Classes Order (England) 2020 has been used for this purpose, which can be found within the Library module of TRICS®.

Population within 500m Range:
All Surveys Included

Secondary Filtering selection (Cont.):

Population within 1 mile:

1,001 to 5,000	2 days
5,001 to 10,000	1 days
20,001 to 25,000	8 days
25,001 to 50,000	4 days

This data displays the number of selected surveys within stated 1-mile radii of population.

Population within 5 miles:

50,001 to 75,000	1 days
125,001 to 250,000	7 days
250,001 to 500,000	4 days
500,001 or More	3 days

This data displays the number of selected surveys within stated 5-mile radii of population.

Car ownership within 5 miles:

0.6 to 1.0	9 days
1.1 to 1.5	6 days

This data displays the number of selected surveys within stated ranges of average cars owned per residential dwelling, within a radius of 5-miles of selected survey sites.

Travel Plan:

Yes	3 days
No	12 days

This data displays the number of surveys within the selected set that were undertaken at sites with Travel Plans in place, and the number of surveys that were undertaken at sites without Travel Plans.

PTAL Rating:

No PTAL Present	15 days

This data displays the number of selected surveys with PTAL Ratings.

Covid-19 Restrictions	Yes	At least one survey within the selected data set was undertaken at a time of Covid-19 restrictions

LIST OF SITES relevant to selection parameters

1 CA-03-C-03 BLOCKS OF FLATS CAMBRIDGESHIRE
CROMWELL ROAD
CAMBRIDGE

Suburban Area (PPS6 Out of Centre)
No Sub Category
Total No of Dwellings: 82
Survey date: MONDAY *18/09/17* *Survey Type: MANUAL*

2 DL-03-C-18 BLOCKS OF FLATS DUBLIN
HAROLD'S CROSS ROAD
DUBLIN

Suburban Area (PPS6 Out of Centre)
Residential Zone
Total No of Dwellings: 102
Survey date: WEDNESDAY *19/05/21* *Survey Type: MANUAL*

3 DY-03-C-03 BLOCKS OF FLATS DERBY
CAESAR STREET
DERBY

Suburban Area (PPS6 Out of Centre)
Residential Zone
Total No of Dwellings: 30
Survey date: WEDNESDAY *25/09/19* *Survey Type: MANUAL*

4 EB-03-C-01 BLOCKS OF FLATS CITY OF EDINBURGH
MYRESIDE ROAD
EDINBURGH
CRAIGLOCKHART
Suburban Area (PPS6 Out of Centre)
Residential Zone
Total No of Dwellings: 32
Survey date: TUESDAY *26/05/15* *Survey Type: MANUAL*

5 HF-03-C-01 BLOCKS OF FLATS HERTFORDSHIRE
HAYLING ROAD
WATFORD
SOUTH OXHEY
Edge of Town
Residential Zone
Total No of Dwellings: 22
Survey date: WEDNESDAY *09/06/21* *Survey Type: MANUAL*

6 HF-03-C-04 BLOCKS OF FLATS HERTFORDSHIRE
OXHEY DRIVE
WATFORD
SOUTH OXHEY
Neighbourhood Centre (PPS6 Local Centre)
Residential Zone
Total No of Dwellings: 84
Survey date: THURSDAY *10/06/21* *Survey Type: MANUAL*

7 HF-03-C-05 BLOCKS OF FLATS HERTFORDSHIRE
FERNDOWN ROAD
WATFORD
SOUTH OXHEY
Edge of Town
Residential Zone
Total No of Dwellings: 26
Survey date: MONDAY *07/06/21* *Survey Type: MANUAL*

8 LU-03-C-04 BLOCKS OF FLATS LOUTH
RIVER COURT
DROGHEDA

Neighbourhood Centre (PPS6 Local Centre)
Residential Zone
Total No of Dwellings: 42
Survey date: WEDNESDAY *22/09/21* *Survey Type: MANUAL*

LIST OF SITES relevant to selection parameters (Cont.)

9	MS-03-C-02	BLOCKS OF FLATS	MERSEYSIDE
	SOUTH FERRY QUAY		
	LIVERPOOL		
	BRUNSWICK DOCK		
	Suburban Area (PPS6 Out of Centre)		
	Development Zone		
	Total No of Dwellings:	184	
	Survey date: TUESDAY	*13/11/18*	*Survey Type: MANUAL*
10	MS-03-C-03	BLOCK OF FLATS	MERSEYSIDE
	MARINERS WHARF		
	LIVERPOOL		
	QUEENS DOCK		
	Suburban Area (PPS6 Out of Centre)		
	Development Zone		
	Total No of Dwellings:	9	
	Survey date: TUESDAY	*13/11/18*	*Survey Type: MANUAL*
11	NF-03-C-02	MIXED FLATS & HOUSES	NORFOLK
	HALL ROAD		
	NORWICH		
	LAKENHAM		
	Suburban Area (PPS6 Out of Centre)		
	Residential Zone		
	Total No of Dwellings:	82	
	Survey date: MONDAY	*18/11/19*	*Survey Type: MANUAL*
12	NG-03-C-01	HOUSES (SPLIT INTO FLATS)	NOTTINGHAM
	LAWRENCE WAY		
	NOTTINGHAM		
	Suburban Area (PPS6 Out of Centre)		
	No Sub Category		
	Total No of Dwellings:	56	
	Survey date: TUESDAY	*08/11/16*	*Survey Type: MANUAL*
13	NG-03-C-02	HOUSES (SPLIT INTO FLATS)	NOTTINGHAM
	CASTLE MARINA ROAD		
	NOTTINGHAM		
	Suburban Area (PPS6 Out of Centre)		
	No Sub Category		
	Total No of Dwellings:	135	
	Survey date: WEDNESDAY	*09/11/16*	*Survey Type: MANUAL*
14	TW-03-C-01	BLOCKS OF FLATS	TYNE & WEAR
	CAULDWELL AVENUE		
	WHITLEY BAY		
	MONKESEATON		
	Edge of Town		
	Residential Zone		
	Total No of Dwellings:	45	
	Survey date: FRIDAY	*15/10/21*	*Survey Type: MANUAL*
15	WS-03-C-01	BLOCKS OF FLATS	WEST SUSSEX
	GORING ROAD		
	WORTHING		
	GORING-BY-SEA		
	Neighbourhood Centre (PPS6 Local Centre)		
	Residential Zone		
	Total No of Dwellings:	18	
	Survey date: WEDNESDAY	*11/05/22*	*Survey Type: MANUAL*

This section provides a list of all survey sites and days in the selected set. For each individual survey site, it displays a unique site reference code and site address, the selected trip rate calculation parameter and its value, the day of the week and date of each survey, and whether the survey was a manual classified count or an ATC count.

TRIP RATE for Land Use 03 - RESIDENTIAL/C - FLATS PRIVATELY OWNED
MULTI-MODAL TOTAL PEOPLE
Calculation factor: 1 DWELLS
BOLD print indicates peak (busiest) period
Total People to Total Vehicles ratio (all time periods and directions): 2.41

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	15	63	0.063	15	63	0.374	15	63	0.437
08:00 - 09:00	15	63	0.098	15	63	0.557	15	63	0.655
09:00 - 10:00	15	63	0.178	15	63	0.280	15	63	0.458
10:00 - 11:00	15	63	0.145	15	63	0.209	15	63	0.354
11:00 - 12:00	15	63	0.125	15	63	0.181	15	63	0.306
12:00 - 13:00	15	63	0.185	15	63	0.172	15	63	0.357
13:00 - 14:00	15	63	0.158	15	63	0.176	15	63	0.334
14:00 - 15:00	15	63	0.197	15	63	0.175	15	63	0.372
15:00 - 16:00	15	63	0.274	15	63	0.143	15	63	0.417
16:00 - 17:00	15	63	0.309	15	63	0.131	15	63	0.440
17:00 - 18:00	15	63	0.397	15	63	0.144	15	63	0.541
18:00 - 19:00	15	63	0.297	15	63	0.159	15	63	0.456
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			2.426			2.701			5.127

This section displays the trip rate results based on the selected set of surveys and the selected count type (shown just above the table). It is split by three main columns, representing arrivals trips, departures trips, and total trips (arrivals plus departures). Within each of these main columns are three sub-columns. These display the number of survey days where count data is included (per time period), the average value of the selected trip rate calculation parameter (per time period), and the trip rate result (per time period). Total trip rates (the sum of the column) are also displayed at the foot of the table.

*To obtain a trip rate, the average (mean) trip rate parameter value (TRP) is first calculated for all selected survey days that have count data available for the stated time period. The average (mean) number of arrivals, departures or totals (whichever applies) is also calculated (COUNT) for all selected survey days that have count data available for the stated time period. Then, the average count is divided by the average trip rate parameter value, and multiplied by the stated calculation factor (shown just above the table and abbreviated here as FACT). So, the method is: COUNT/TRP*FACT. Trip rates are then rounded to 3 decimal places.*

Calculation Reference: AUDIT-700705-231020-1011

TRIP RATE CALCULATION SELECTION PARAMETERS:

Land Use : 03 - RESIDENTIAL
Category : A - HOUSES PRIVATELY OWNED
MULTI-MODAL TOTAL VEHICLES

Selected regions and areas:

12	CONNAUGHT		
	CS	SLIGO	1 days
	LT	LEITRIM	1 days
14	LEINSTER		
	WC	WICKLOW	1 days
15	GREATER DUBLIN		
	DL	DUBLIN	1 days
16	ULSTER (REPUBLIC OF IRELAND)		
	CV	CAVAN	1 days
17	ULSTER (NORTHERN IRELAND)		
	AN	ANTRIM	1 days
	DE	DERRY	1 days
	TY	TYRONE	1 days

This section displays the number of survey days per TRICS® sub-region in the selected set

Primary Filtering selection:

This data displays the chosen trip rate parameter and its selected range. Only sites that fall within the parameter range are included in the trip rate calculation.

Parameter: No of Dwellings
Actual Range: 50 to 151 (units:)
Range Selected by User: 50 to 437 (units:)

Parking Spaces Range: All Surveys Included

Parking Spaces per Dwelling Range: All Surveys Included

Bedrooms per Dwelling Range: All Surveys Included

Percentage of dwellings privately owned: All Surveys Included

Public Transport Provision:
Selection by: Include all surveys

Date Range: 01/01/15 to 20/05/22

This data displays the range of survey dates selected. Only surveys that were conducted within this date range are included in the trip rate calculation.

Selected survey days:

Monday	2 days
Wednesday	2 days
Thursday	2 days
Friday	2 days

This data displays the number of selected surveys by day of the week.

Selected survey types:

Manual count	8 days
Directional ATC Count	0 days

This data displays the number of manual classified surveys and the number of unclassified ATC surveys, the total adding up to the overall number of surveys in the selected set. Manual surveys are undertaken using staff, whilst ATC surveys are undertaking using machines.

Selected Locations:

Suburban Area (PPS6 Out of Centre)	1
Edge of Town	6
Neighbourhood Centre (PPS6 Local Centre)	1

This data displays the number of surveys per main location category within the selected set. The main location categories consist of Free Standing, Edge of Town, Suburban Area, Neighbourhood Centre, Edge of Town Centre, Town Centre and Not Known.

Selected Location Sub Categories:

Industrial Zone	2
Residential Zone	2
Village	1
No Sub Category	3

This data displays the number of surveys per location sub-category within the selected set. The location sub-categories consist of Commercial Zone, Industrial Zone, Development Zone, Residential Zone, Retail Zone, Built-Up Zone, Village, Out of Town, High Street and No Sub Category.

Inclusion of Servicing Vehicles Counts:

Servicing vehicles Included	3 days - Selected
Servicing vehicles Excluded	7 days - Selected

Secondary Filtering selection:

Use Class:

C3	8 days

This data displays the number of surveys per Use Class classification within the selected set. The Use Classes Order (England) 2020 has been used for this purpose, which can be found within the Library module of TRICS®.

Population within 500m Range:
All Surveys Included

Secondary Filtering selection (Cont.):

Population within 1 mile:

1,000 or Less	2 days
1,001 to 5,000	3 days
5,001 to 10,000	1 days
10,001 to 15,000	2 days

This data displays the number of selected surveys within stated 1-mile radii of population.

Population within 5 miles:

5,000 or Less	1 days
5,001 to 25,000	5 days
25,001 to 50,000	2 days

This data displays the number of selected surveys within stated 5-mile radii of population.

Car ownership within 5 miles:

0.6 to 1.0	2 days
1.1 to 1.5	3 days
1.6 to 2.0	3 days

This data displays the number of selected surveys within stated ranges of average cars owned per residential dwelling, within a radius of 5-miles of selected survey sites.

Travel Plan:

No	8 days

This data displays the number of surveys within the selected set that were undertaken at sites with Travel Plans in place, and the number of surveys that were undertaken at sites without Travel Plans.

PTAL Rating:

No PTAL Present	8 days

This data displays the number of selected surveys with PTAL Ratings.

LIST OF SITES relevant to selection parameters

1 AN-03-A-09 DETACHED & SEMI-DETACHED ANTRIM
SLOEFIELD DRIVE
CARRICKFERGUS

Edge of Town
No Sub Category
Total No of Dwellings: 151
Survey date: WEDNESDAY 12/10/16 Survey Type: MANUAL

2 CS-03-A-04 DETACHED & SEMI-DETACHED SLIGO
R292
STRANDHILL

Neighbourhood Centre (PPS6 Local Centre)
Village
Total No of Dwellings: 63
Survey date: THURSDAY 27/10/16 Survey Type: MANUAL

3 CV-03-A-02 DETACHED & SEMI DETACHED CAVAN
R212 DUBLIN ROAD
CAVAN
KILLYNEBBER
Edge of Town
No Sub Category
Total No of Dwellings: 80
Survey date: MONDAY 22/05/17 Survey Type: MANUAL

4 DE-03-A-05 SEMI-DETACHED & TERRACED DERRY
CLOYFIN ROAD
COLERAINE
LOGUESTOWN IND. ESTATE
Edge of Town
Industrial Zone
Total No of Dwellings: 51
Survey date: FRIDAY 20/05/22 Survey Type: MANUAL

5 DL-03-A-10 SEMI DETACHED & DETACHED DUBLIN
R124
MALAHIDE
SAINT HELENS
Edge of Town
Residential Zone
Total No of Dwellings: 65
Survey date: WEDNESDAY 20/06/18 Survey Type: MANUAL

6 LT-03-A-01 SEMI-DETACHED & DETACHED LEITRIM
ARD NA SI
CARRICK-ON-SHANNON
ATTIRORY
Suburban Area (PPS6 Out of Centre)
Residential Zone
Total No of Dwellings: 90
Survey date: FRIDAY 24/04/15 Survey Type: MANUAL

7 TY-03-A-02 SEMI DETACHED & BUNGALOWS TYRONE
SANDHOLES ROAD
COOKSTOWN
DERRYLORAN
Edge of Town
Industrial Zone
Total No of Dwellings: 101
Survey date: THURSDAY 14/03/19 Survey Type: MANUAL

8 WC-03-A-01 DETACHED HOUSES WICKLOW
STATION ROAD
WICKLOW
CORPORATION MURRAGH
Edge of Town
No Sub Category
Total No of Dwellings: 50
Survey date: MONDAY 28/05/18 Survey Type: MANUAL

This section provides a list of all survey sites and days in the selected set. For each individual survey site, it displays a unique site reference code and site address, the selected trip rate calculation parameter and its value, the day of the week and date of each survey, and whether the survey was a manual classified count or an ATC count.

MANUALLY DESELECTED SURVEYS

Site Ref	Survey Date	Reason for Deselection
LU-03-A-01	21/09/21	Covid
TI-03-A-01	17/06/21	Covid

TRIP RATE for Land Use 03 - RESIDENTIAL/A - HOUSES PRIVATELY OWNED
MULTI-MODAL TOTAL VEHICLES
Calculation factor: 1 DWELLS
BOLD print indicates peak (busiest) period
Total People to Total Vehicles ratio (all time periods and directions): 1.35

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	8	81	0.086	8	81	0.257	8	81	0.343
08:00 - 09:00	8	81	0.178	8	81	0.613	8	81	0.791
09:00 - 10:00	8	81	0.229	8	81	0.284	8	81	0.513
10:00 - 11:00	8	81	0.190	8	81	0.195	8	81	0.385
11:00 - 12:00	8	81	0.183	8	81	0.218	8	81	0.401
12:00 - 13:00	8	81	0.253	8	81	0.230	8	81	0.483
13:00 - 14:00	8	81	0.253	8	81	0.257	8	81	0.510
14:00 - 15:00	8	81	0.304	8	81	0.301	8	81	0.605
15:00 - 16:00	8	81	0.367	8	81	0.287	8	81	0.654
16:00 - 17:00	8	81	0.412	8	81	0.273	8	81	0.685
17:00 - 18:00	8	81	0.588	8	81	0.330	8	81	0.918
18:00 - 19:00	8	81	0.432	8	81	0.332	8	81	0.764
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			3.475			3.577			7.052

This section displays the trip rate results based on the selected set of surveys and the selected count type (shown just above the table). It is split by three main columns, representing arrivals trips, departures trips, and total trips (arrivals plus departures). Within each of these main columns are three sub-columns. These display the number of survey days where count data is included (per time period), the average value of the selected trip rate calculation parameter (per time period), and the trip rate result (per time period). Total trip rates (the sum of the column) are also displayed at the foot of the table.

*To obtain a trip rate, the average (mean) trip rate parameter value (TRP) is first calculated for all selected survey days that have count data available for the stated time period. The average (mean) number of arrivals, departures or totals (whichever applies) is also calculated (COUNT) for all selected survey days that have count data available for the stated time period. Then, the average count is divided by the average trip rate parameter value, and multiplied by the stated calculation factor (shown just above the table and abbreviated here as FACT). So, the method is: COUNT/TRP*FACT. Trip rates are then rounded to 3 decimal places.*

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Parameter summary

Trip rate parameter range selected:	50 - 151 (units:)
Survey date date range:	01/01/15 - 20/05/22
Number of weekdays (Monday-Friday):	10
Number of Saturdays:	0
Number of Sundays:	0
Surveys automatically removed from selection:	2
Surveys manually removed from selection:	0

This section displays a quick summary of some of the data filtering selections made by the TRICS® user. The trip rate calculation parameter range of all selected surveys is displayed first, followed by the range of minimum and maximum survey dates selected by the user. Then, the total number of selected weekdays and weekend days in the selected set of surveys are show. Finally, the number of survey days that have been manually removed from the selected set outside of the standard filtering procedure are displayed.

TRIP RATE for Land Use 03 - RESIDENTIAL/A - HOUSES PRIVATELY OWNED
MULTI-MODAL TOTAL PEOPLE
Calculation factor: 1 DWELLS
BOLD print indicates peak (busiest) period
Total People to Total Vehicles ratio (all time periods and directions): 1.35

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	8	81	0.117	8	81	0.333	8	81	0.450
08:00 - 09:00	8	81	0.233	8	81	0.939	8	81	1.172
09:00 - 10:00	8	81	0.286	8	81	0.406	8	81	0.692
10:00 - 11:00	8	81	0.269	8	81	0.278	8	81	0.547
11:00 - 12:00	8	81	0.237	8	81	0.280	8	81	0.517
12:00 - 13:00	8	81	0.300	8	81	0.298	8	81	0.598
13:00 - 14:00	8	81	0.332	8	81	0.344	8	81	0.676
14:00 - 15:00	8	81	0.416	8	81	0.369	8	81	0.785
15:00 - 16:00	8	81	0.550	8	81	0.387	8	81	0.937
16:00 - 17:00	8	81	0.567	8	81	0.355	8	81	0.922
17:00 - 18:00	8	81	0.788	8	81	0.439	8	81	1.227
18:00 - 19:00	8	81	0.578	8	81	0.432	8	81	1.010
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			4.673			4.860			9.533

This section displays the trip rate results based on the selected set of surveys and the selected count type (shown just above the table). It is split by three main columns, representing arrivals trips, departures trips, and total trips (arrivals plus departures). Within each of these main columns are three sub-columns. These display the number of survey days where count data is included (per time period), the average value of the selected trip rate calculation parameter (per time period), and the trip rate result (per time period). Total trip rates (the sum of the column) are also displayed at the foot of the table.

*To obtain a trip rate, the average (mean) trip rate parameter value (TRP) is first calculated for all selected survey days that have count data available for the stated time period. The average (mean) number of arrivals, departures or totals (whichever applies) is also calculated (COUNT) for all selected survey days that have count data available for the stated time period. Then, the average count is divided by the average trip rate parameter value, and multiplied by the stated calculation factor (shown just above the table and abbreviated here as FACT). So, the method is: COUNT/TRP*FACT. Trip rates are then rounded to 3 decimal places.*

Calculation Reference: AUDIT-700705-231109-1150

TRIP RATE CALCULATION SELECTION PARAMETERS:

Land Use : 04 - EDUCATION
Category : D - NURSERY
TOTAL VEHICLES

Selected regions and areas:

12	CONNAUGHT		
	RO	ROSCOMMON	1 days
16	ULSTER (REPUBLIC OF IRELAND)		
	MG	MONAGHAN	1 days

This section displays the number of survey days per TRICS® sub-region in the selected set

Primary Filtering selection:

This data displays the chosen trip rate parameter and its selected range. Only sites that fall within the parameter range are included in the trip rate calculation.

Parameter: Number of pupils
Actual Range: 55 to 57 (units:)
Range Selected by User: 18 to 106 (units:)

Parking Spaces Range: All Surveys Included

Public Transport Provision:
Selection by: Include all surveys

Date Range: 01/01/15 to 12/10/21

This data displays the range of survey dates selected. Only surveys that were conducted within this date range are included in the trip rate calculation.

Selected survey days:
Tuesday 2 days

This data displays the number of selected surveys by day of the week.

Selected survey types:
Manual count 2 days
Directional ATC Count 0 days

This data displays the number of manual classified surveys and the number of unclassified ATC surveys, the total adding up to the overall number of surveys in the selected set. Manual surveys are undertaken using staff, whilst ATC surveys are undertaking using machines.

Selected Locations:
Edge of Town Centre 2

This data displays the number of surveys per main location category within the selected set. The main location categories consist of Free Standing, Edge of Town, Suburban Area, Neighbourhood Centre, Edge of Town Centre, Town Centre and Not Known.

Selected Location Sub Categories:
Residential Zone 2

This data displays the number of surveys per location sub-category within the selected set. The location sub-categories consist of Commercial Zone, Industrial Zone, Development Zone, Residential Zone, Retail Zone, Built-Up Zone, Village, Out of Town, High Street and No Sub Category.

Inclusion of Servicing Vehicles Counts:
Servicing vehicles Included X days - Selected
Servicing vehicles Excluded 3 days - Selected

Secondary Filtering selection:

Use Class:
E(f) 2 days

This data displays the number of surveys per Use Class classification within the selected set. The Use Classes Order (England) 2020 has been used for this purpose, which can be found within the Library module of TRICS®.

Population within 500m Range:
All Surveys Included
Population within 1 mile:
5,001 to 10,000 2 days

This data displays the number of selected surveys within stated 1-mile radii of population.

Secondary Filtering selection (Cont.):

Population within 5 miles:

5,001 to 25,000	1 days
50,001 to 75,000	1 days

This data displays the number of selected surveys within stated 5-mile radii of population.

Car ownership within 5 miles:

1.1 to 1.5	2 days

This data displays the number of selected surveys within stated ranges of average cars owned per residential dwelling, within a radius of 5-miles of selected survey sites.

Travel Plan:

No	2 days

This data displays the number of surveys within the selected set that were undertaken at sites with Travel Plans in place, and the number of surveys that were undertaken at sites without Travel Plans.

PTAL Rating:

No PTAL Present	2 days

This data displays the number of selected surveys with PTAL Ratings.

Covid-19 Restrictions	Yes	At least one survey within the selected data set was undertaken at a time of Covid-19 restrictions

LIST OF SITES relevant to selection parameters

1	MG-04-D-01 THE GRANGE MONAGHAN	NURSERY		MONAGHAN
	Edge of Town Centre Residential Zone Total Number of pupils:		55	
	Survey date: TUESDAY		*12/10/21*	*Survey Type: MANUAL*
2	RO-04-D-03 CIRCULAR ROAD ROSCOMMON	NURSERY		ROSCOMMON
	Edge of Town Centre Residential Zone Total Number of pupils:		57	
	Survey date: TUESDAY		*14/09/21*	*Survey Type: MANUAL*

This section provides a list of all survey sites and days in the selected set. For each individual survey site, it displays a unique site reference code and site address, the selected trip rate calculation parameter and its value, the day of the week and date of each survey, and whether the survey was a manual classified count or an ATC count.

TRIP RATE for Land Use 04 - EDUCATION/D - NURSERY
TOTAL VEHICLES
Calculation factor: 1
BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. PUPILS	Trip Rate	No. Days	Ave. PUPILS	Trip Rate	No. Days	Ave. PUPILS	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00	1	57	0.000	1	57	0.000	1	57	0.000
07:00 - 08:00	2	56	0.027	2	56	0.018	2	56	0.045
08:00 - 09:00	2	56	0.464	2	56	0.286	2	56	0.750
09:00 - 10:00	2	56	0.375	2	56	0.402	2	56	0.777
10:00 - 11:00	2	56	0.018	2	56	0.018	2	56	0.036
11:00 - 12:00	2	56	0.107	2	56	0.018	2	56	0.125
12:00 - 13:00	2	56	0.170	2	56	0.268	2	56	0.438
13:00 - 14:00	2	56	0.107	2	56	0.116	2	56	0.223
14:00 - 15:00	2	56	0.170	2	56	0.089	2	56	0.259
15:00 - 16:00	2	56	0.152	2	56	0.080	2	56	0.232
16:00 - 17:00	2	56	0.152	2	56	0.214	2	56	0.366
17:00 - 18:00	2	56	0.330	2	56	0.500	2	56	0.830
18:00 - 19:00	2	56	0.000	2	56	0.054	2	56	0.054
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			2.072			2.063			4.135

This section displays the trip rate results based on the selected set of surveys and the selected count type (shown just above the table). It is split by three main columns, representing arrivals trips, departures trips, and total trips (arrivals plus departures). Within each of these main columns are three sub-columns. These display the number of survey days where count data is included (per time period), the average value of the selected trip rate calculation parameter (per time period), and the trip rate result (per time period). Total trip rates (the sum of the column) are also displayed at the foot of the table.

*To obtain a trip rate, the average (mean) trip rate parameter value (TRP) is first calculated for all selected survey days that have count data available for the stated time period. The average (mean) number of arrivals, departures or totals (whichever applies) is also calculated (COUNT) for all selected survey days that have count data available for the stated time period. Then, the average count is divided by the average trip rate parameter value, and multiplied by the stated calculation factor (shown just above the table and abbreviated here as FACT). So, the method is: COUNT/TRP*FACT. Trip rates are then rounded to 3 decimal places.*

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Parameter summary

Trip rate parameter range selected:	55 - 57 (units:)
Survey date date range:	01/01/15 - 12/10/21
Number of weekdays (Monday-Friday):	2
Number of Saturdays:	0
Number of Sundays:	0
Surveys automatically removed from selection:	1
Surveys manually removed from selection:	0

This section displays a quick summary of some of the data filtering selections made by the TRICS® user. The trip rate calculation parameter range of all selected surveys is displayed first, followed by the range of minimum and maximum survey dates selected by the user. Then, the total number of selected weekdays and weekend days in the selected set of surveys are show. Finally, the number of survey days that have been manually removed from the selected set outside of the standard filtering procedure are displayed.

APPENDIX C – JUNCTION MODELLING FILES

Available electronically upon request

APPENDIX D – PCC SURVEY, BALLINCOLLIG

Irish Traffic Surveys LTD

Survey Name :	ITS J-810 Primary Care Centres Cork
Site:	JTC 11
Date:	13.12.2023
Time:	07:00 - 19:00
Location:	51.889727, -8.585609
Classification:	CAR, LGV, OGV1, OGV2, PSV, MC, PC,PEDS

Irish Traffic Surveys

Site 11 Cam R05 View



Aerial View



Co-ordinates:	51.889727, -8.585609
Junction Type:	3-Arm
Queues Required:	No
Pedestrian required:	Yes

Irish Traffic Surveys LTD

Survey Name :	ITS J-810 Primary Care Centres Cork
Site:	JTC 11
Date:	13.12.2023
Time:	07:00 - 19:00
Location:	51.889727, -8.585609
Classification:	CAR, LGV, OGV1, OGV2, PSV, MC, PC,PEDS

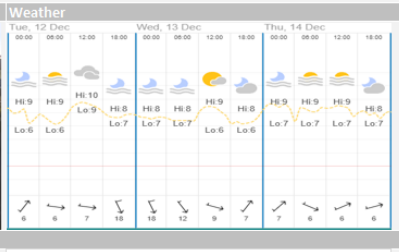
Arm A = Primary Care Centre

Irish Traffic Surveys

Site 11

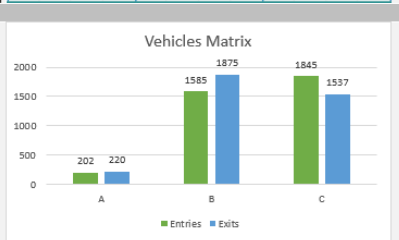


Weather



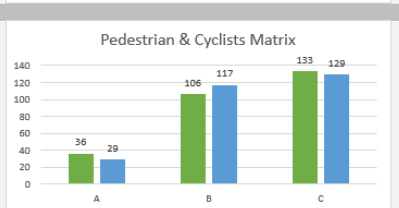
12 Hr Vehicles Matrix

Arm	A	B	C
A	0	120	82
B	128	2	1455
C	92	1753	0
Totals	**A**	**B**	**C**
Entries	202	1585	1845
Exits	220	1875	1537



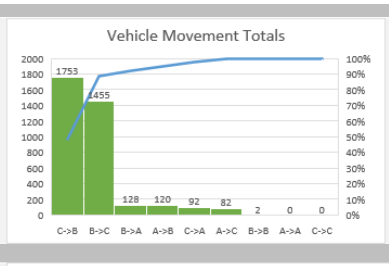
12 Hr Pedestrian & Cyclists Matrix

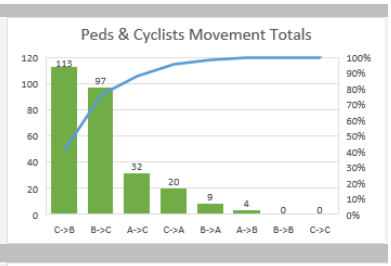
Arm	A	B	C
A	0	4	32
B	9	0	97
C	20	113	0
Totals	**A**	**B**	**C**
Entries	36	106	133
Exits	29	117	129



Movement Totals

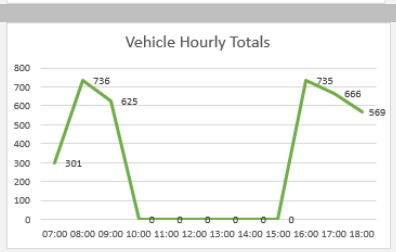
Arm	ehicle Tota	Pedestrian & Cyclists
A->A	0	0
A->B	120	4
A->C	82	32
B->A	128	9
B->B	2	0
B->C	1455	97
C->A	92	20
C->B	1753	113
C->C	0	0
Total	3632	275

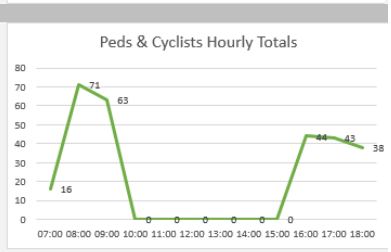




Hourly Totals

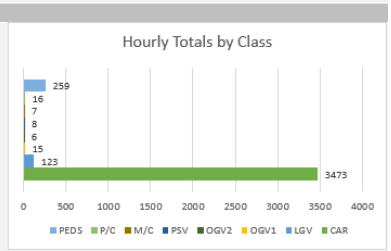
TIME	ehicle Tot	Pedestrian & Cyclists
07:00	301	16
08:00	736	71
09:00	625	63
10:00	0	0
11:00	0	0
12:00	0	0
13:00	0	0
14:00	0	0
15:00	0	0
16:00	735	44
17:00	666	43
18:00	569	38
Total	3632	275





Hourly Totals by Class

TIME	CAR	LGV	OGV1	OGV2	PSV	M/C	P/C	PEDS	% of 12hr Total
07:00	276	21	2	0	1	1	1	15	8%
08:00	695	27	4	2	5	3	6	65	20%
09:00	590	26	4	3	2	0	5	58	17%
10:00	0	0	0	0	0	0	0	0	0%
11:00	0	0	0	0	0	0	0	0	0%
12:00	0	0	0	0	0	0	0	0	0%
13:00	0	0	0	0	0	0	0	0	0%
14:00	0	0	0	0	0	0	0	0	0%
15:00	0	0	0	0	0	0	0	0	0%
16:00	711	20	3	0	0	1	1	43	20%
17:00	644	18	1	1	0	2	0	43	18%
18:00	557	11	1	0	0	0	3	35	16%
Total	3473	123	15	6	8	7	16	259	
% Total	88.89%	3.15%	0.38%	0.15%	0.20%	0.18%	0.41%	6.63%	



6179sqm 6179

Pro rata to 1804

1804

Hour starting	Primary Care Centre (veh trips / 100sqm)			Primary Care Centre (veh trips)		
	Arrive	Depart	Two-way	Arrive	Depart	Two-way
07:00				5	1	6
08:00				80	11	91
09:00				99	46	145
10:00						0
11:00						0
12:00						0
13:00						0
14:00						0
15:00						0
16:00				28	86	114
17:00				4	46	50
18:00				1	2	3
12-Hr Total	0.00	0.00	0.00	217	192	409

Hour starting	Primary Care Centre (veh trips / 100sqm)			Primary Care Centre (veh trips)		
	Arrive	Depart	Two-way	Arrive	Depart	Two-way
07:00	0.08	0.02	0.10	1	0	2
08:00	1.29	0.18	1.47	23	3	27
09:00	1.60	0.74	2.35	29	13	42
10:00	0.98	1.02	2.00	18	18	36
11:00	1.10	1.10	2.20	20	20	40
12:00	0.85	1.22	2.07	15	22	37
13:00	0.86	0.72	1.58	15	13	28
14:00	1.25	1.13	2.38	23	20	43
15:00	1.09	1.19	2.28	20	22	41
16:00	0.45	1.39	1.84	8	25	33
17:00	0.06	0.74	0.81	1	13	15
18:00	0.02	0.03	0.05	0	1	1
12-Hr Total	9.64	9.50	19.13	174	171	345

SYSTRA provides advice on transport, to central, regional and local government, agencies, developers, operators and financiers.

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