St Kevin's Strategic Housing Development

At the former St. Kevin's Hospital and Grounds, Shanakiel, Cork

Client: Land Development Agency

Traffic & Transport Assessment & Mobility Management Plan – Final

ST KEVIN'S STRATEGIC HOUSING DEVELOPMENT

Description:

Traffic & Transport Assessment & Mobility Management Plan

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9th December 2020

Distribution:

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ST KEVIN'S STRATEGIC HOUSING DEVELOPMENT

CONTENTS :

FIGURES :

TABLES :

1 INTRODUCTION

1.1 Background

1.1.1 ILTP Consulting were commissioned to undertake a new Traffic and Transport Assessment (TTA) and Mobility Management Plan (MMP) for a proposed residential development on lands at the former St Kevin's Hospital and Grounds, Shanakiel, Cork. The proposed development will be progressed via the SHD planning process.

1.1.2 The proposed development consists of a residential development comprising 266 no. residential units, in addition to an ancillary commercial crèche, chapel office / enterprise centre and public open space.

1.2 Purpose of Report

1.2.1 The primary purpose of this TTA is to assess the potential impact the latest proposed development may have on the surrounding road network and to identify measures to ameliorate these impacts and promote sustainable transport patterns.

1.2.2 This Traffic & Transport Assessment sets out to assess:

- Existing traffic conditions
- Integration with adjoining developments and surrounding area
- Public transport provisions
- Proposed access arrangements for the development
- Proposed parking arrangements
- Effect on road network of increased traffic volumes from proposed development

1.2.3 The report also contains the Mobility Management Plan for the proposed development and sets out the Construction Traffic Impact Assessment.

1.3 Pre-Planning Consultation

1.3.1 ILTP had an initial pre-planning meeting in February 2020 with the Community, Culture and Placemaking and Traffic Planning Departments of CCC. This initial meeting discussed the initial concepts for the lands, the scope of the TTA and approach to car and cycle parking provision. CCC had no objection in principle to providing vehicular access to the proposed development site near Shanakiel Road. ILTP also agreed the scope of the TTA and traffic count surveys with CCC.

1.4 Tri-Partite Meeting, Further Consultations & Updated TTA

1.4.1 Following the submission to An Bord Pleanala (Ref. ABP-207259-20), the formal Section 5 Pre-Application Tripartite meeting took place on 7th September 2020. CCC also made a submission to the Board on this Section 5 lodgement and also attended the meeting on 7th September.

1.4.2 The Board on 24th September 2020 issued a Notice of Pre-Application Consultation Opinion. To comprehensively address all the transport, parking and related issues raised by the Board ILTP have updated the full TTA.

1.4.3 ILTP and the project team undertook a number of meetings with CCC to consider all the matters raised in the Opinion. This included detailed discussion with CCC on car and cycle parking strategy, the overall site layout and access arrangements as well as a number of detailed items within the proposed development.

1.5 Methodology

1.5.1 ILTP coordinated traffic count surveys undertaken on Thursday 27th February 2020 in order to collate the full set of traffic data considered necessary to support the planning application for the proposed development.

1.5.2 ILTP calculated the estimated trip rates from the proposed development and added these figures to the base flows. Picady and LinSig traffic modelling software was also utilised to assess the capacity of junctions in the vicinity of the proposed development access.

1.5.3 From these results a conclusion could be drawn as to the impact that the proposed development will have on the adjoining road network.

1.5.4 A study of public transport provisions in the area was also carried out to determine the likely usage of public transport services by residents of the new development.

1.5.5 As part of this TTA ILTP have prepared a Mobility Management Plan for the proposed development, with the specific objectives of reducing in overall terms both the amount of trips generated by the development, and maximising the use of more sustainable modes of travel.

1.5.6 ILTP also assessed the construction stage traffic impacts of the proposed development on the wider road network.

1.6 Report Structure

1.6.1 Chapter 2 sets out the planning context for the proposed development.

1.6.2 A review of the existing site and wider environment is presented in Chapter 3.

1.6.3 Chapter 4 presents a description of proposed access arrangements for the development.

1.6.4 An assessment of car and cycle parking provision and arrangements is made in Chapter 5.

1.6.5 Chapter 6 describes the data taken from traffic count surveys and site appraisals for the proposed development.

1.6.6 Trip Generation and Trip Distribution figures for the proposed development are set out in Chapter 7.

1.6.7 Traffic Impact Assessment and Traffic Modelling results are presented in Chapter 8.

1.6.8 Chapter 9 includes the Construction Traffic Impact Assessment for the proposed development.

1.6.9 The Mobility Management Plan is included in Chapter 10.

1.6.10 Chapter 11 sets out a summary of the relevant items raised in An Bord Pleanála's Opinion issued following the tri-partite meeting.

1.6.11 The summary and conclusions are outlined in Chapter 12.

2 PLANNING CONTEXT

2.1 Overview

2.1.1 This study is being prepared having regard to key policy documents at national, regional and local levels:

- *National Planning Framework* and *National Development Plan*
- *Regional Spatial and Economic Strategy for the Southern Region*
- *Cork City Development Plan 2015 - 2021*
- *Cork City Metropolitan Area Transport Strategy*
- *Smarter Travel A Sustainable Transport Future*
- Other Key National Policy

2.2 National Planning Framework and National Development Plan

2.2.1 The *National Planning Framework – Project Ireland 2040* is the overarching Government spatial planning policy that replaces the *National Spatial Strategy*.

2.2.2 The main strategy of the NPF for Ireland's cities of Cork, Limerick, Galway and Waterford is as follows:

> *"Supporting ambitious growth targets to enable the four cities of Cork, Limerick, Galway and Waterford to each grow by at least 50% to 2040 and to enhance their significant potential to become cities of scale."*

2.2.3 The core focus of this policy is also to ensure more sustainable, dense and compact growth within existing urban centres as an alternative to continuing sprawl on greenfield sites:

> *"A major new policy emphasis on renewing and developing existing settlements will be required, rather than continual expansion and sprawl of cities and towns out into the countryside, at the expense of town centres and smaller villages. The target is for at least 40% of all new housing to be delivered within the existing built up areas of cities, towns and villages on infill and/or brownfield sites."*

2.2.4 The NPF, in Section 2.6, sets out the following advantages of providing more compact high-quality urban development and minimising sprawl:

1. *"The 'liveability' or quality of life of urban places – how people experience living in cities, towns and villages. This includes the quality of the built environment, including the public realm, traffic and parking issues, access to amenities and public transport and a sense of personal safety and well-being;*
2. *Making the continuous regeneration and development of existing built up areas as attractive and as viable as greenfield development. This requires greater certainty and cost equalisation as a result of a steady supply of sites and land and investment in infrastructure and amenities through more active land management in urban areas;*
3. *Tackling legacies such as concentrations of disadvantage in central urban areas through holistic social as well as physical regeneration and by encouraging more mixed tenure and integrated communities;*

4. *Linking regeneration and redevelopment initiatives to climate action, to support a reduced carbon footprint through greater energy efficiency and use of renewables."*

2.2.5 The *National Development Plan 2018 – 2027* includes proposals for implementation and delivery of key transport infrastructure in Cork city within the lifetime of the plan. This includes the M20 Limerick Cork and N28 Cork to Ringaskiddy national routes, and also the full Cork city BusConnects scheme by 2027.

2.2.6 The NDP also includes for undertaking appraisal, planning and design of a light rail corridor for Cork city towards the later stages of the period of the *Cork Metropolitan Area Transport Strategy*, which is up to 2040.

2.3 Regional Spatial and Economic Strategy for the Southern Region

2.3.1 The *Regional Spatial and Economic Strategy for the Southern Region* calls for compact growth within the metropolitan areas of cities in the region. This is proposed to be achieved by Regional Policy Objective (RPO) 10, which includes:

"Prioritise housing and employment development in locations within and contiguous to existing city footprints where it can be served by public transport, walking and cycling."

"Creation of continually updated databases identifying brownfield, infill sites, regeneration areas and infrastructure packages to enable progress towards achieving compact growth targets. Through active land management initiatives, identify strategic locations for residential growth responding to the growth targets and achievement of compact growth and employment growth."

The Cork Metropolitan Area Strategic Plan (MASP) is shown in Figure 2.1:

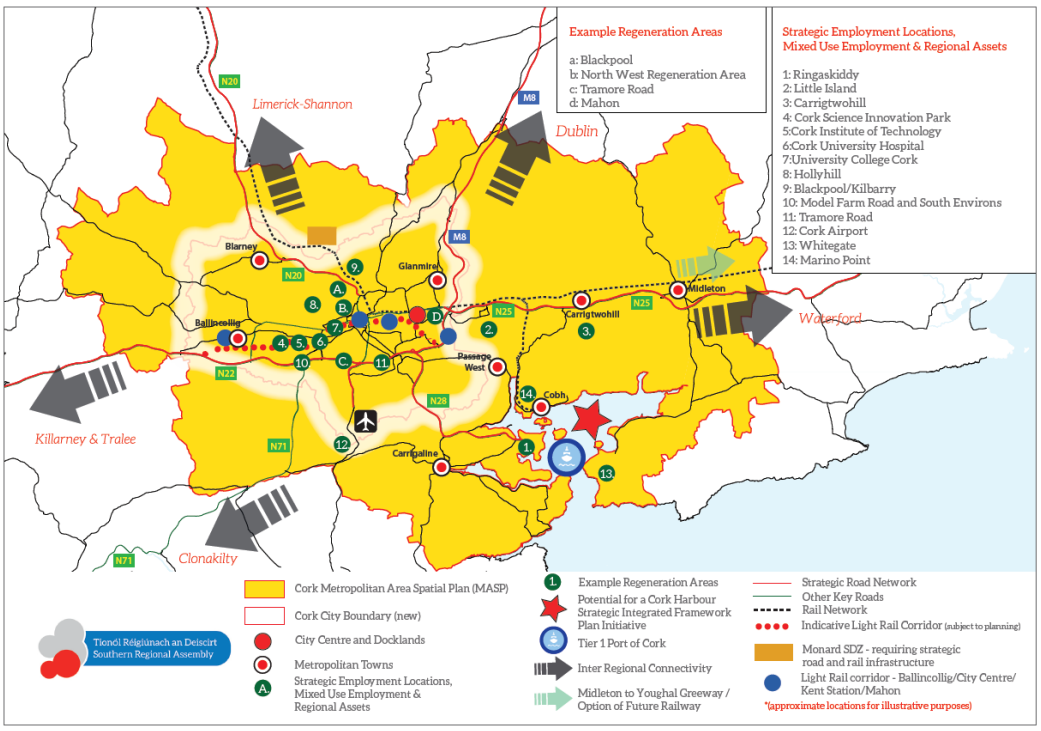


Figure 2.1: Cork City Metropolitan Area Strategic Plan (MASP) (Source: *Regional Spatial and Economic Strategy for the Southern Region*)

2.3.2 The RSES also emphasises the critical need to implement the Cork Metropolitan Area Transport Strategy.

2.4 Cork City Development Plan

2.4.1 The *Cork City Development Plan* sets out the development context for the proposed development. The CDP zoning objectives for the area are shown in Figure 2.2.

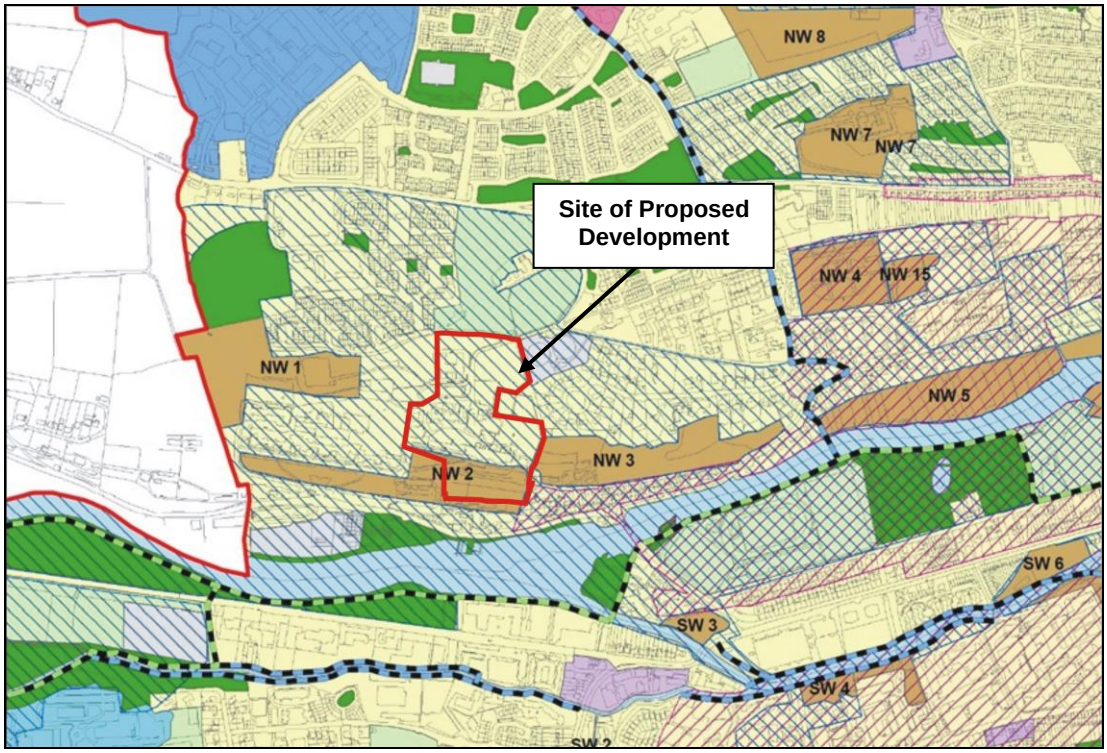


Figure 2.2: Proposed Development in context of CCC Development Plan (Source: *Cork City Development Plan*)

2.4.2 The subject site has a zoning objective of *"Residential, Local Services and Institutional Uses"*, and is also classified under *"Areas of High Landscape Value"*.

2.4.3 The following key CDP policies relating to residential strategy are of relevance to the proposed development:

Objective 6.1	Residential Strategic Objectives
a.	To encourage the development of sustainable residential neighbourhoods;
b.	To provide a variety of sites for housing to meet the various needs of different sections of the population;
c.	To continue to work with the Approved Housing Bodies and to actively engage with all key stakeholders in the provision of housing;
d.	To continue to regenerate and maintain existing housing;
e.	To encourage the use of derelict or underused land and buildings to assist in their regeneration;
f.	To promote high standards of design, energy efficiency, estate layout and landscaping in all new housing developments;
g.	To protect and, where necessary, enhance the amenities and the environment of existing residential areas.

Figure 2.3: CCC Development Plan Residential Strategic Objectives (Source: *Cork City Development Plan*)

2.4.4 These Government and Council policies and objectives reinforce the need for quality high density residential development on derelict, underused and regeneration sites in Cork city. In addition, the targeted reductions in private car mode share in the Cork Transport Strategy will serve to reduce traffic flows on the wider road network over time.

2.5 Cork Metropolitan Area Transport Strategy

2.5.1 In March 2020 the National Transport Authority (NTA), in association with Cork City Council, published the *Cork Metropolitan Area Transport Strategy* (CMATS) which aims to address the current and future transport requirements of Cork city and the wider environs up to 2040. The CMATS outlines a series of proposed measures for active travel, public transport and general traffic in Cork, to be implemented on a phased basis.

2.5.2 The CMATS states:

> *"This Strategy will deliver an accessible, integrated transport network that enables the sustainable growth of the Cork Metropolitan Area as a dynamic, connected, and internationally competitive European city region as envisaged by the National Planning Framework 2040."*

2.5.3 The guiding principles of the CMATS relevant to the proposed development are set out under various core areas, which include the following:

> *"Principle 02 - To prioritise sustainable and active travel and reduce car dependency within the CMA."*
>
> *"Principle 03 - To provide a high level of public transport connectivity to key destinations within high demand corridors."*
>
> *"Principle 06 - To increase public transport capacity and frequencies where needed to achieve the strategy outcomes."*

2.5.4 The CMATS firstly sets out the existing transport infrastructure for the metropolitan area. This includes five high frequency bus routes running at 10 to 30 minute intervals, one of which is Route 202 linking Mahon and Knocknaheeny which routes within 500m of the subject site to the north (see Figure 2.4). High frequency route 208 also routes to the south of the proposed development along the N22 Western Road / Carrigrohane Road.

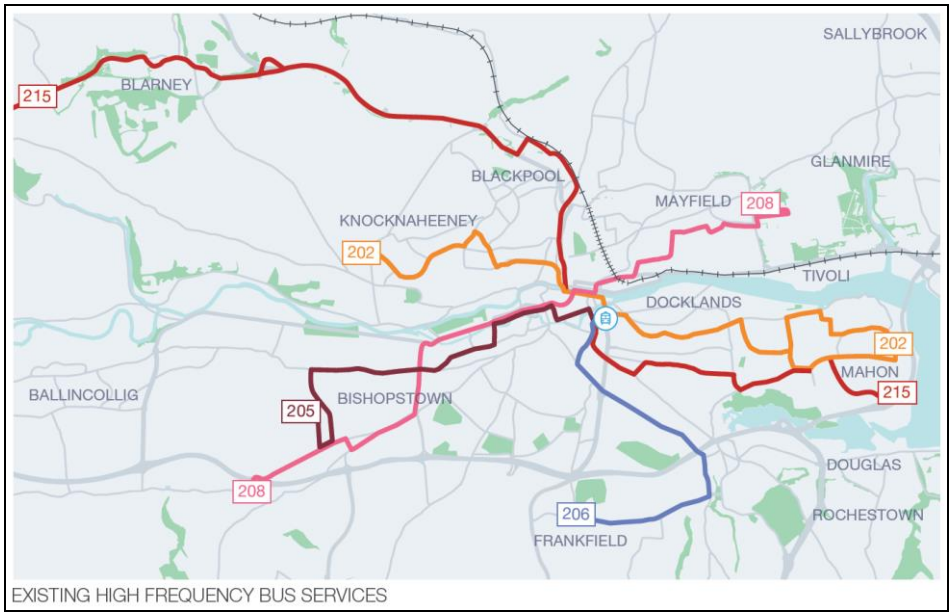


Figure 2.4: Existing High Frequency Bus Services for Cork City (Source: *Cork Metropolitan Area Strategic Plan*)

2.5.5 The wider existing public transport network for Cork city is shown in Figure 2.5.

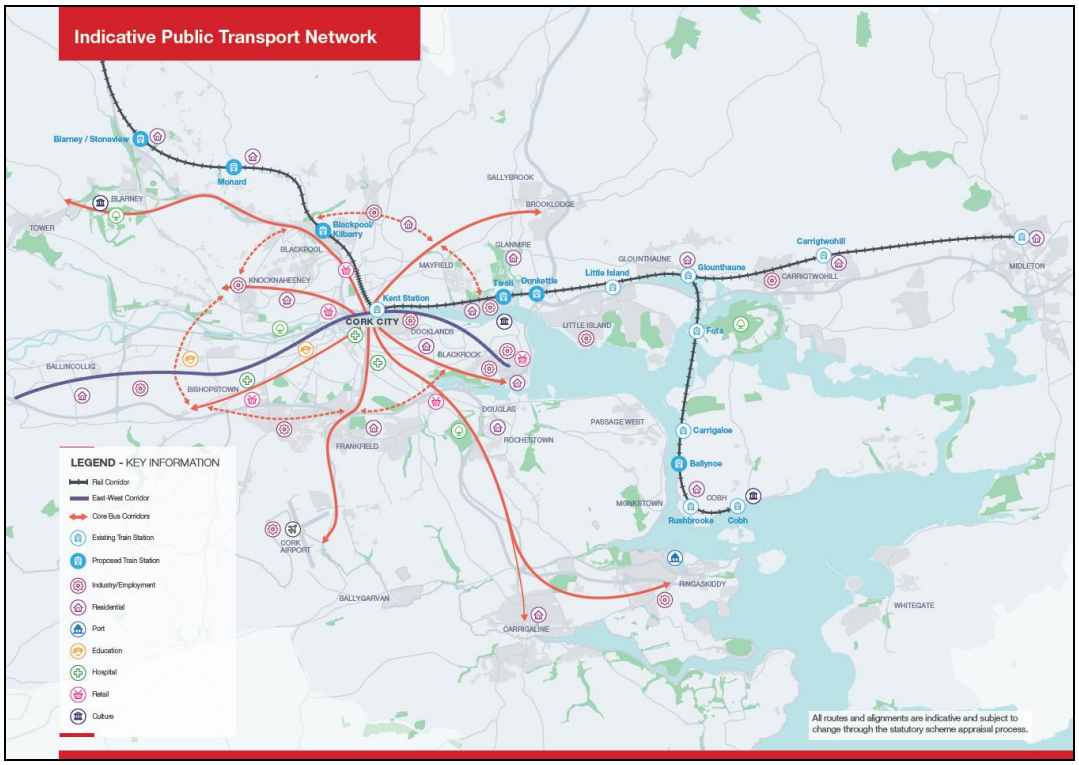


Figure 2.5: Wider Existing Public Transport Network for Cork City (Source: *Cork Metropolitan Area Strategic Plan*)

2.5.6 The CMATS includes plans for significant improvements to the transportation network of Cork city. This includes the implementation of high priority high frequency Bus Connects corridors throughout the city, to be delivered by 2027. The planned Bus Connects routes are shown in Figure 2.6, which include a new route along Shanakiel Road directly serving the subject site.

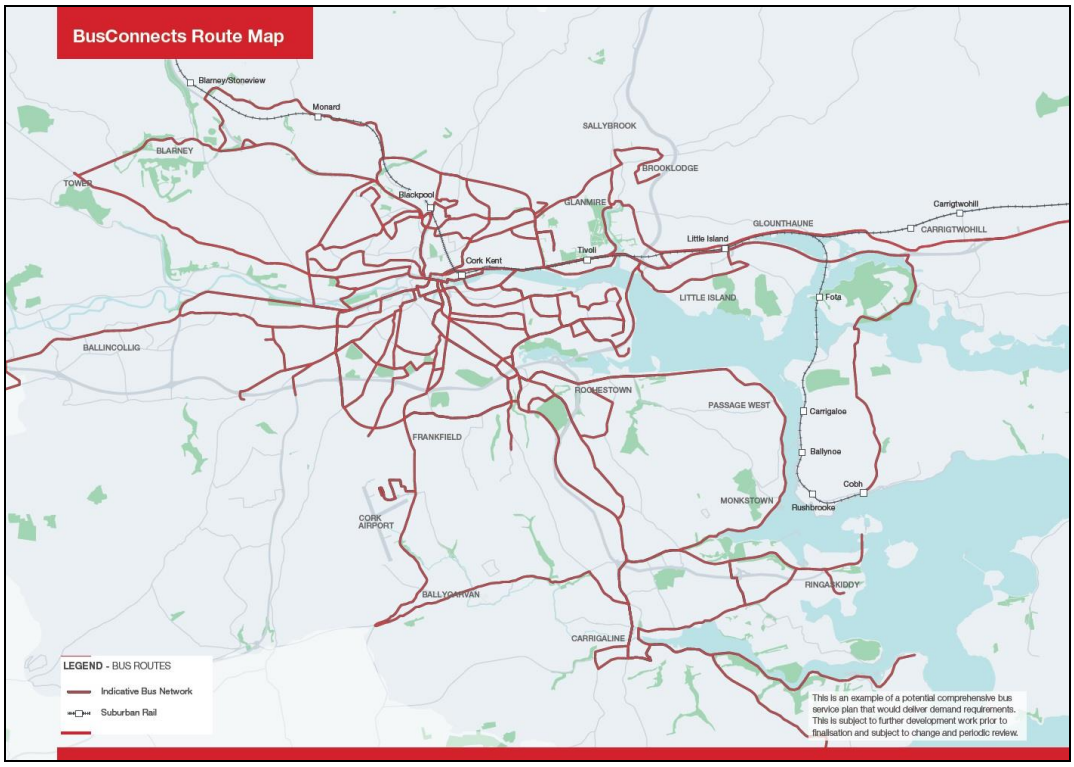


Figure 2.6: Proposed Bus Connects Routes for Cork City (Source: *Cork Metropolitan Area Strategic Plan*)

2.5.7 A light rail corridor for Cork City is planned as part of the CMATS, to be delivered by 2040 which is within the lifetime of the plan. The proposed route links Mahon and Ballincollig which runs along the N22 Carrigrohane Road to the south of the subject site (see Figure 2.7).

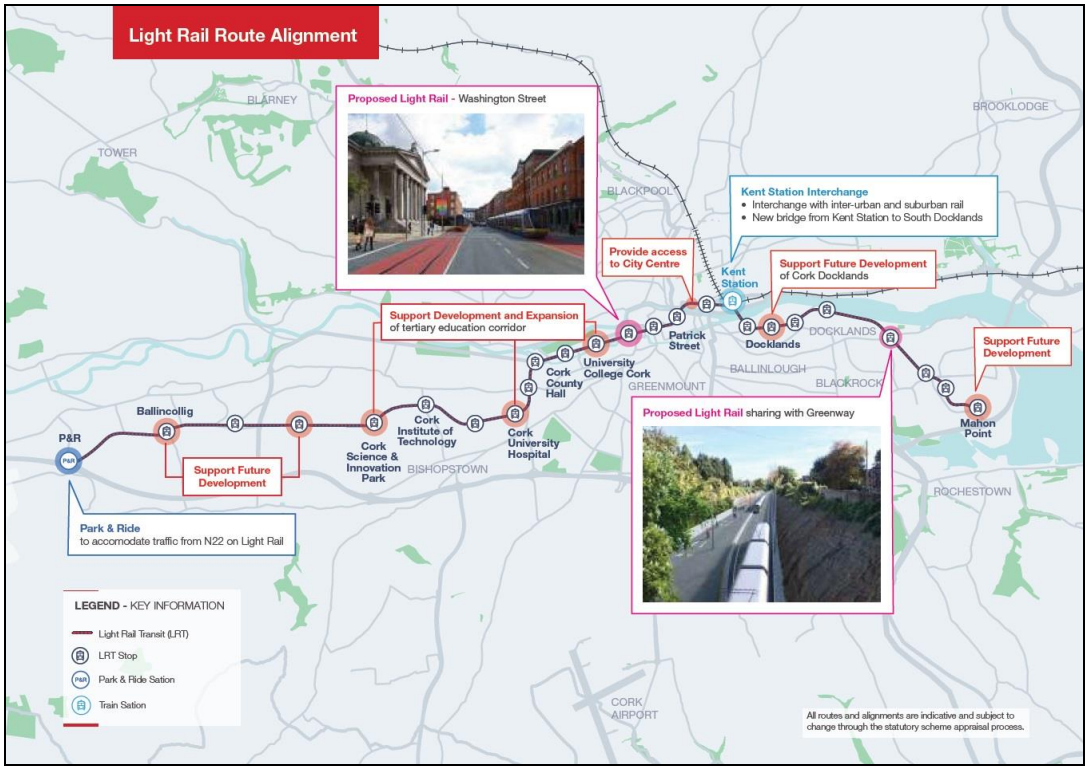


Figure 2.7: Proposed Light Rail Corridor for Cork City (Source: *Cork Metropolitan Area Strategic Plan*)

2.5.8 There are also significant improvements planned for the bicycle network in the vicinity of the subject lands, as set out in the CMATS. The planned network in the vicinity of the subject site is shown in Figure 2.8, and includes a primary cycle route along Shanakiel Road and Beechtree Avenue which borders the site to the north.

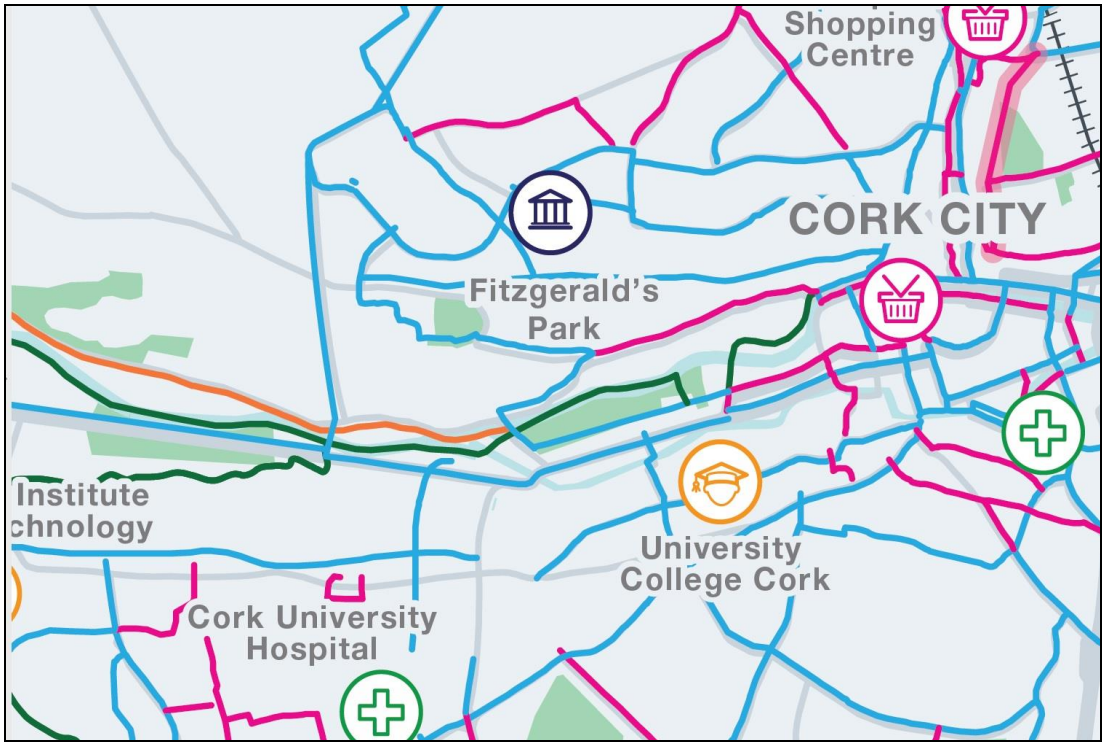


Figure 2.8: Proposed Cycle Network in vicinity of Subject Site (Source: *Cork Metropolitan Area Strategic Plan*)

2.5.9 This would further promote sustainable travel patterns to and from the proposed development.

2.5.10 The CMATS also includes for additional road network infrastructure on the north side of Cork City to:

> *"cater for access to planned development lands, provide walking and cycling linkages, access to radial public transport routes, orbital public transport provision, and the removal of some strategic traffic from Cork City Centre."*

2.5.11 This includes the Cork Northern Distributor Road, to the immediate west of the subject site, which CMATS classifies as a short-term objective and considered to be a 'critical enabler' for the wider delivery of CMATS. The benefits of the Cork Northern Distributor Road set out in CMATS include:

> *"Creates opportunities for sustainable development of existing land banks in the Northern Cork Metropolitan area including Monard SDZ and the Ballyvollane Urban Expansion Area."*
>
> *"Facilitates the rollout of sustainable transport measures including public transport services for the North Cork Metropolitan City area."*
>
> *"Facilitates the introduction of a HGV ban within the City Centre."*
>
> *"Serves the requirements of local traffic demand in the northern CMA."*
>
> *"The Cork Northern Distributor Road will provide for orbital movement for bus, pedestrian, cycle and some strategic and general traffic and reduce reliance on radial routes through the city centre."*

2.5.12 The Cork Northern Distributor Road is shown in Figure 2.9.

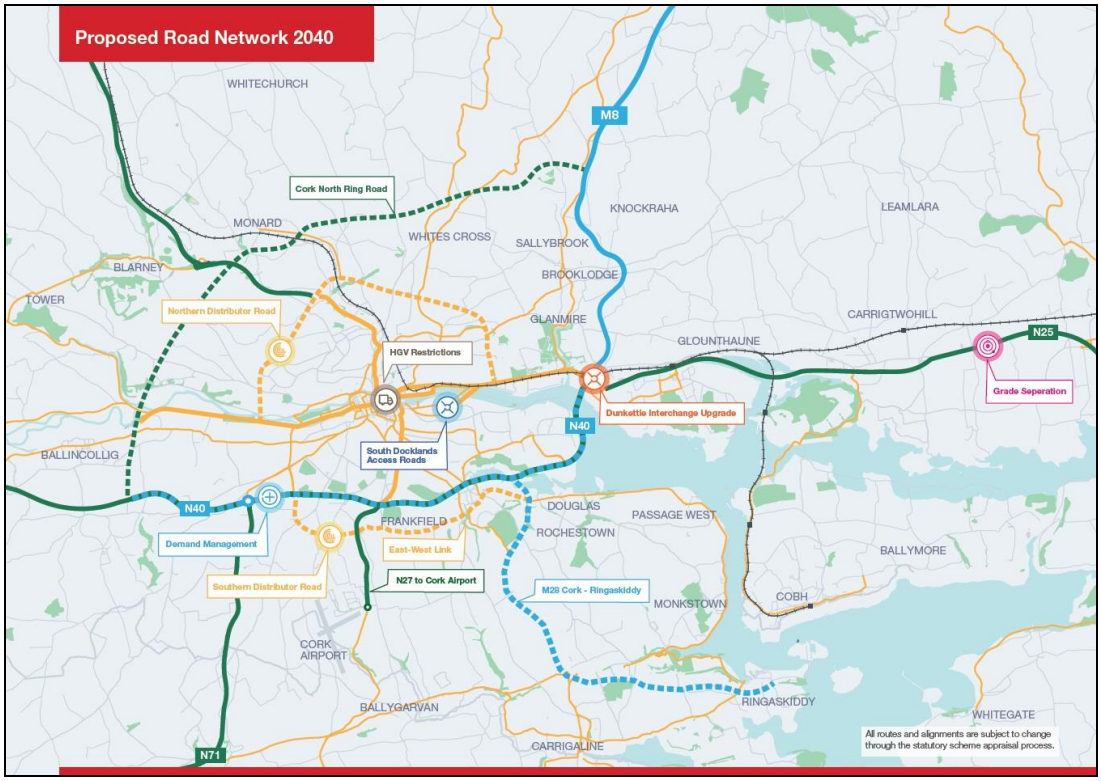


Figure 2.9: Proposed Cork Northern Distributor Road (Source: *Cork Metropolitan Area Strategic Plan*)

The CMATS therefore projects that traffic volumes in the city centre will decline with the Cork Northern Distributor Road in place.

2.6 Smarter Travel A Sustainable Transport Future 2009-2020

2.6.1 *Smarter Travel A Sustainable Transport Future 2009-2020*, recognises the vital importance of continued investment in transport to ensure an efficient economy and continued social development, but it also sets out the necessary steps to ensure that people choose more sustainable transport modes such as walking, cycling and public transport. The policy is a response to the fact that continued growth in demand for road transport is not sustainable from a number of angles as it will lead to further congestion, further local air pollution, contribute to global warming, and result in negative impacts to health through promoting increasingly sedentary lifestyles. The aim of the policy document is to:

- Improve quality of life and accessibility to transport for all and, in particular, for people with reduced mobility and those who may experience isolation due to lack of transport.
- Improve economic competitiveness through maximising the efficiency of the transport system and alleviating congestion and infrastructural bottlenecks.
- Minimise the negative impacts of transport on the local and global environment through reducing localised air pollutants and greenhouse gas emissions.
- Reduce overall travel demand and commuting distances travelled by the private car
- Improve security of energy supply by reducing dependency on imported fossil fuels.

2.6.2 These are to be achieved by four main actions;

- Actions to reduce the need to travel,
- Actions to reduce distance travelled by private car and encourage smarter travel, including focusing population growth in city centres and to encourage people to live in close proximity to places of employment and the use of pricing mechanisms or fiscal measures to encourage behavioral change,
- Actions aimed at ensuring that alternatives to the car are more widely available, mainly through a radically improved public transport service and through investment in cycling and walking,
- Actions aimed at improving the fuel efficiency of motorised transport through improved fleet structure, energy efficient driving and alternative technologies, and
- Actions aimed at strengthening institutional arrangements.

2.6.3 In order to ensure that the broad goals and detailed targets of the Smarter Travel document are met a series of polices and measures are recommended. These policies focus on co-coordinating land use and transport, the provision of high-quality public transport and high-quality routes for cycling and walking, aligning employment policy with transport planning, the implementation of mobility management plans and the use of fiscal measures to influence travel behaviour.

2.6.4 Intensification of development within established urban areas accords with good planning and promotes sustainable transport modes.

2.7 Other Key National Policy

2.7.1 In developing sustainable new communities, the National Transport Authority sets out in order of descending priority how best to create sustainable communities in accordance with best planning practice. These are:

- Reduce the Need to Travel
- Reduce the Distance Travelled
- Reduce the Time Travelled
- Promote greater use of walk and cycle and Public Transport modes

2.7.2 The primary and preferred strategy when considering new development is to reduce the distance travelled. This benefits not only the receiving environment but makes for more efficient and sustainable communities. The longer the distance travelled by all modes of transport the greater the impact a development will have on the receiving environment.

2.7.3 Research has shown that the less time spent travelling the more time there is for family, social and community participation. By virtue of its location in a long-established urban setting the proposed development at St. Kevin's will result in well below average travel times to work, which in turn will mean greater time available for the new residents for family, social and community participation.

2.7.4 The Government also recognises that locating new residential development close to employment centres is preferred where possible. The proposed development at St Kevin's supports this policy objective as it is located relatively close to key employment areas, including the Hollymount and Hollyhill industrial estates.

3 REVIEW OF EXISTING SITE & ENVIRONMENT

3.1 Description of Site and Receiving Environment

3.1.1 The site of the proposed development is in Shanakiel, to the northwest of Cork city centre.

3.1.2 The site was formerly part of a large institutional development which was known as Our Lady's. Part of this overall site is already developed and known as Atkin's Hall and is in effect severed by the St Kevin's lands at present.

3.1.3 The lands are also on a steep gradient and, while offering some splendid views of the city, this also make for more challenging access and layout requirements

3.1.4 St. Kevin's is located close to major employment centres, to third level institutions and to local facilities.

3.1.5 The planning application site is approximately 5.7 hectares in area or which approximately 4.5 hectares are developable..

3.1.6 The location of the proposed development is shown in Figure 3.1.

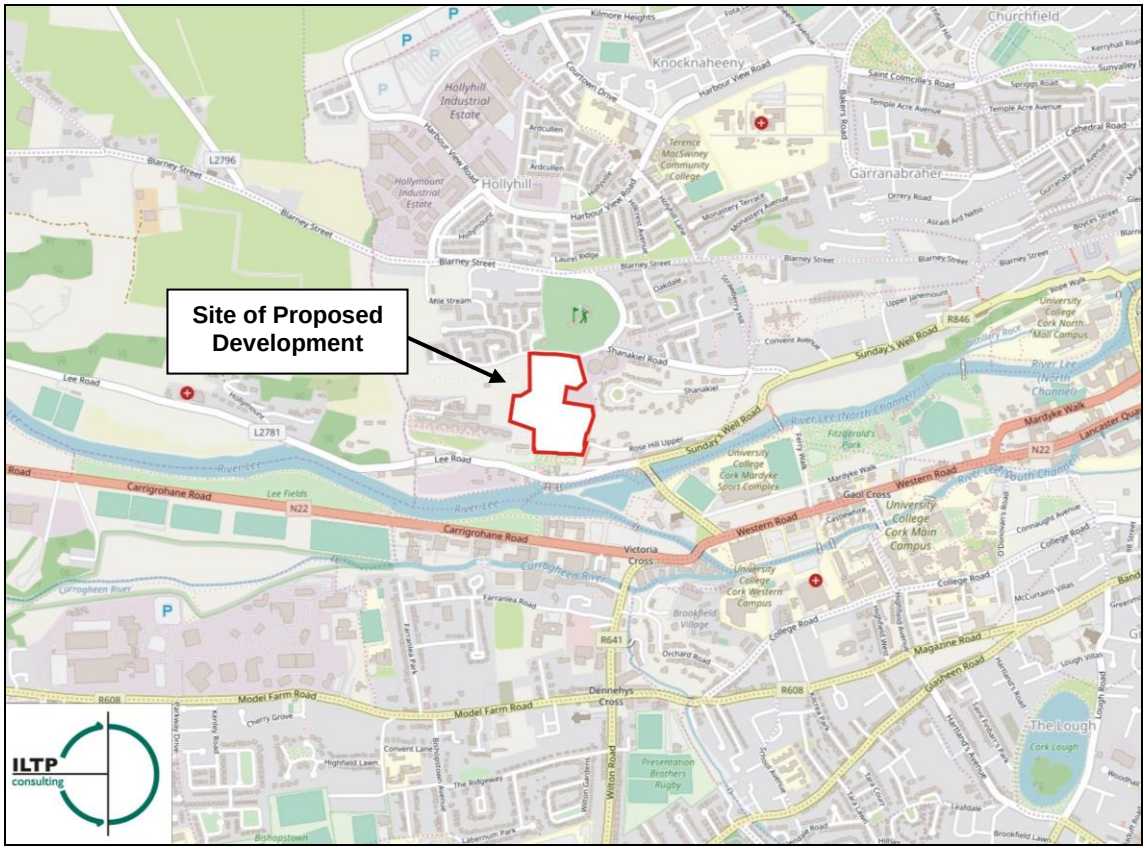


Figure 3.1: Location of Proposed Development

3.2 Existing Road Network

3.2.1 The main road frontage of the subject site is located off Beechtree Avenue along the northern boundary, which connects to Shanakiel Road. Beechtree Avenue also serves the existing Beechtree Avenue residential estate and the St. Anne's Pitch & Putt Club.

3.2.2 The existing gated vehicular access off Beechtree Avenue is shown in Figure 3.2.

Figure 3.2: Existing Gated Vehicular Access to Subject Site

3.3 Review of Existing Public Transport and Cycle Infrastructure

3.3.1 The subject site is within walking distance of various city and regional bus routes. Table 3.1 sets out bus routes within walking distance of the subject site, which are also shown graphically in Figure 3.4.

Table 3.1: Existing Bus Routes within Walking Distance of Subject Site

Route No.	Route	Frequency
201	CUH – CIT – Hollyhill – Blackpool - Lotabeg	5 / day in each direction
202	Apple Campus – Hollyhill - Mahon	10 minutes
205	CIT – Kent Station	15 – 20 minutes
208	Lotabeg – Mayfield – Bishopstown - Curraheen	20 minutes
220	Ovens – Ballincollig – Carrigaline	15 minutes
220X	Ovens – Ballincollig – Crosshaven	Hourly
233	Cork – Macroom	12 / day in each direction
236	Cork – Bantry - Castletownbere	7 – 8 / day in each direction
237	Cork – Clonakilty - Skibbereen	9 – 10 / day in each direction
239	Cork – Bandon	20 / day
40	Rosslare - Tralee	11 – 12 / day in each direction

3.3.2 Kent Station to the east of Cork city centre has high frequency high capacity intercity rail services, particularly to destinations on the Cork to Dublin and Cork to Limerick / Galway rail lines which travel via Limerick Junction. Inbound and outbound services via Limerick Junction travel hourly on average. There are also services to and from Cobh which operate every half hour during peak hours.

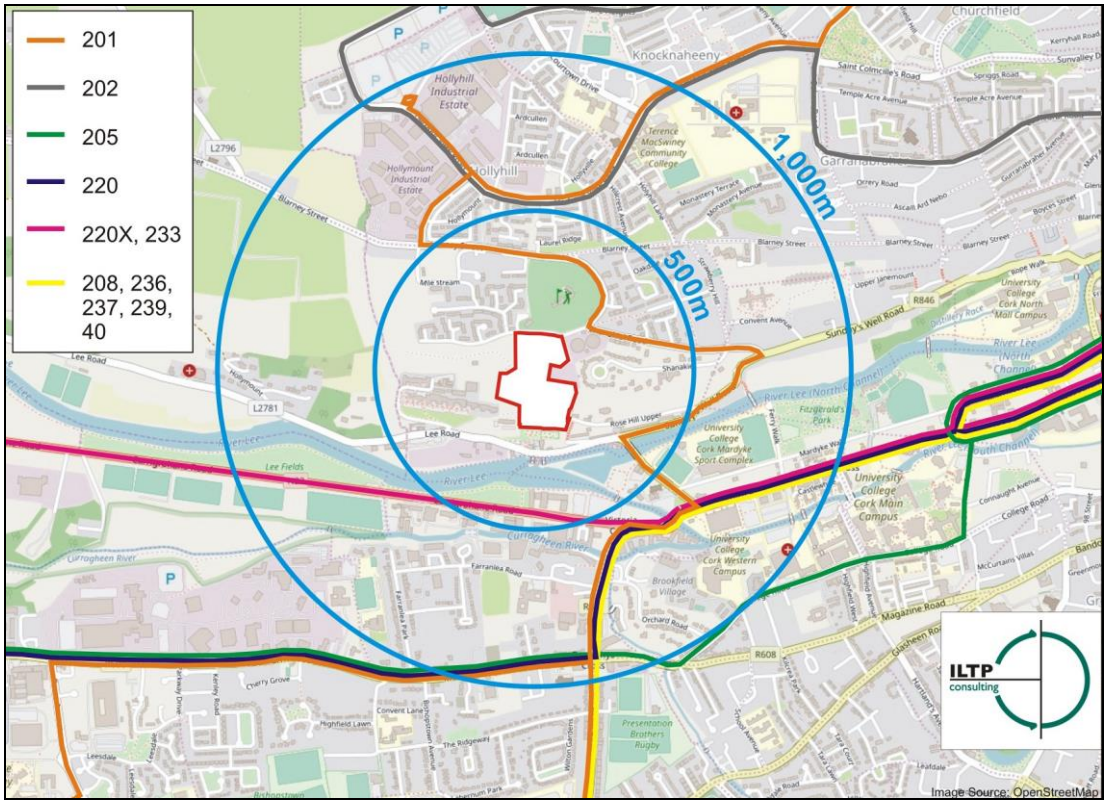


Figure 3.3: Proximity of Subject Site to Public Transport Services

3.3.3 This shows that Bus Route 201 linking CUH, CIT and Lotabeg is the closest route to the site, however this only operates 5 times per day in either direction. High frequency Route 202 linking Mahon and Knocknaheeny routes just over 500m from the subject site to the north (see Figure 2.4).

3.3.4 City routes 208, 220 and 220X route the closest to the subject site to the south, with the closest stop on the N22 Western Road being approximately 1.2km walking distance away, which accounts for the steep topography of land in the area and indirect walking routes.

3.3.5 These bus services provide access to a range of destinations nearby, to Cork city centre and to transport hubs at the Bus Eireann Bus Station and Kent Station. The proximity and range of destinations served by these local bus services enhance the accessibility levels of the proposed residential development in addition to providing a viable and practical sustainable alternative to journeys undertaken by private motor car.

3.3.6 Bus Eireann Bus Station and Kent Station to the east of Cork city centre has high frequency high public transport connectivity services. These provide, inter-urban rail connections linking Cork to Dublin Limerick, Tralee and Galway as well as local rail services to Midleton and Cobh. The wide variety of interurban bus services also provide bus links to a large number of destinations.

3.3.7 Regional routes 233, 236, 237, 239 and 40 serve destinations such as Bandon, Clonakilty, Macroom, Skibbereen, Tralee and Rosslare

3.3.8 The graphic in Figure 3.3 also shows that the significant employment areas at Hollyhill and Hollymount industrial estates are within a reasonable walk or short cycle from the proposed development.

3.3.9 The existing key cycle access routes linking to the subject site are shown in Figure 3.4, which are taken from the *Cork Cycle Network Plan*, January 2017. These include a route across Daly's Bridge (Shakey Bridge), which provides more direct access across the River Lee. There is also a direct pedestrian / cycle route through the Beechmount Avenue residential estate which is a more direct link to the Hollyhill and Hollymount industrial estates.

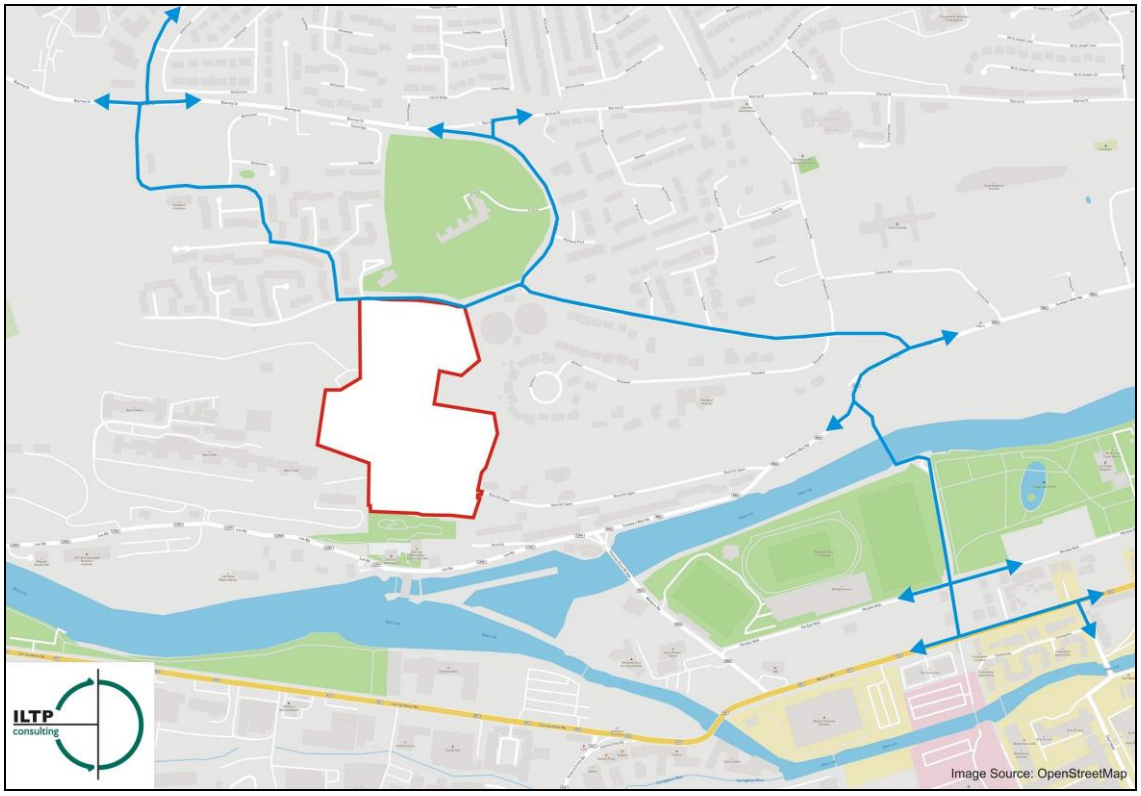


Figure 3.4: Key Cycle Routes in Vicinity of Subject Site (Data source: *Cork Cycle Network Plan*, January 2017)

3.4 Review of Proposed Transport Infrastructure

3.4.1 The Cork Metropolitan Area Transport Strategy sets out both the existing and proposed future transport infrastructure network for Cork city, including public transport, pedestrian and cycle infrastructure and roads.

3.4.2 The CMATS includes plans for significant improvements to the transportation network of Cork city. This includes the implementation of high priority high frequency Bus Connects corridors throughout the city, to be delivered by 2027. The planned Bus Connects routes include a new route along Shanakiel Road directly serving the subject site.

3.4.3 A light rail corridor for Cork City is planned as part of the CMATS, to be delivered by 2040 which is within the lifetime of the plan. The proposed route links Mahon and Ballincollig which runs along the N22 Carrigrohane Road to the south of the subject site.

3.4.4 There are also significant improvements planned for the bicycle network in the vicinity of the subject lands, as set out in the CMATS. The planned network in the vicinity of the subject includes a primary cycle route along Shanakiel Road and Beechtree Avenue which borders the site to the north.

3.4.5 This will further promote sustainable travel patterns to and from the proposed development over time.

3.4.6 The proposed enhancements in public transport, pedestrian and cycle infrastructure in the wider area is also likely to reduce traffic flows on the surrounding road network and promote a shift from private car to public transport in the medium term.

3.4.7 The CMATS also includes for additional road network infrastructure on the north side of Cork City. This includes the Cork Northern Distributor Road, to the immediate west of the subject site, which CMATS classifies as a short-term objective and considered to be a 'critical enabler' for the wider delivery of CMATS.

3.4.8 The CMATS projects that traffic volumes in the city centre will decline with the Cork Northern Distributor Road in place.

3.4.9 Further details of the existing and proposed public transport upgrades included in the CMATS are set out above in Section 2.

4 REVIEW OF PROPOSED DEVELOPMENT AND ACCESS ARRANGEMENTS

4.1 Update of Proposed Development

4.1.1 The proposed development is primarily focused on family living, with a significant affordable provision. In addition, it is proposed to include a crèche to meet local demand.

4.1.2 The proposed St Kevin's development consists of 266 residential units comprising apartments, duplex apartments and townhouses. The proposed development also includes a crèche and chapel office / enterprise centre to serve local need.

4.1.3 Following the receipt of the Board's Opinion further discussion took place with CCC on the overall scheme design including the internal road layout and proposed access off Beechtree Avenue. The overall development is illustrated in Figure 4.1.

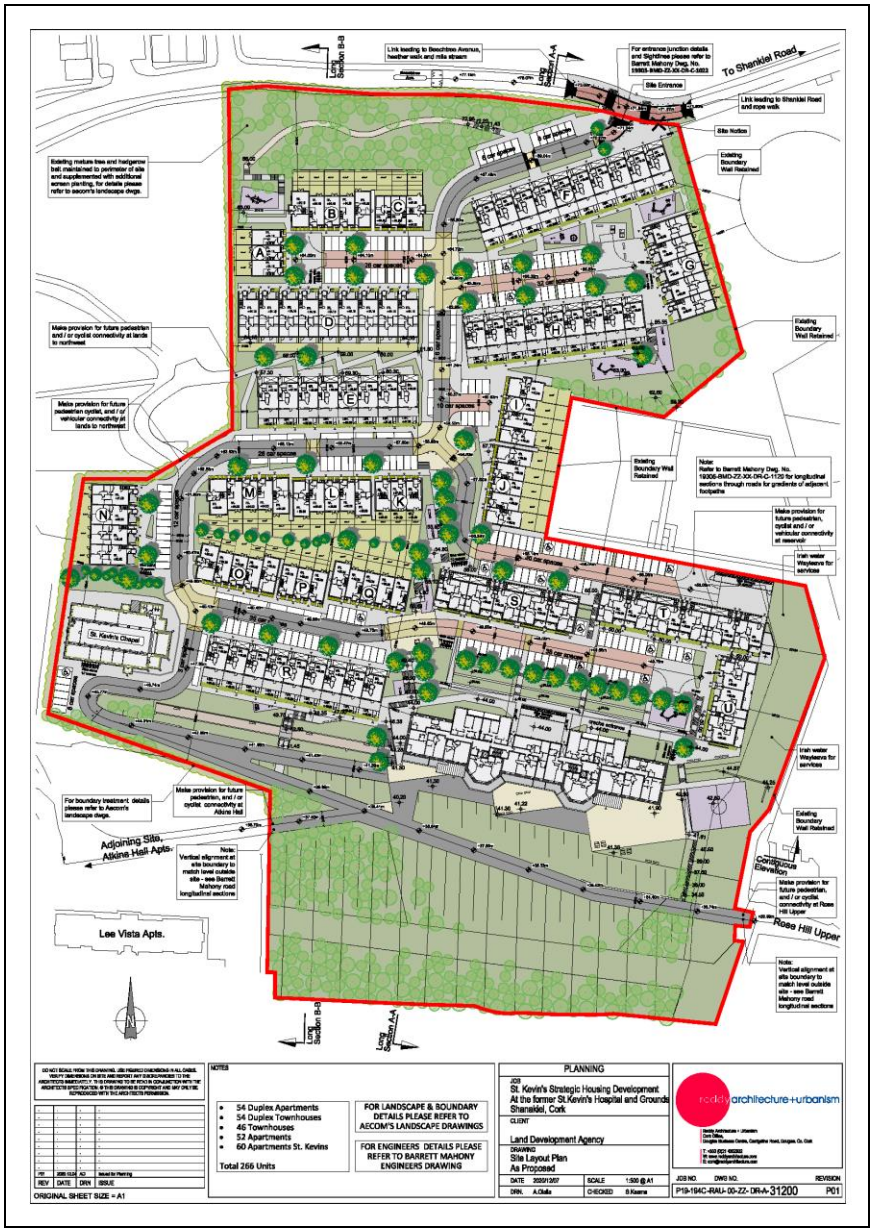


Figure 4.1: Overall Development Layout (Source: Reddy Architecture + Urbanism)

4.1.4 The vehicular access to the proposed development will be off the existing access road to the north, where it joins the access to Beechtree Avenue and then links to Shanakiel Road via a traffic signal-controlled junction.

4.2 Update of Proposed Access Arrangements

4.2.1 It is proposed that the vehicular access to the site be via the existing gated access off Beechtree Avenue to the north of the subject site.

4.2.2 The proposed main access junction off Beechtree Avenue has also been configured following further consultations with CCC, to ensure higher priority for pedestrians and cyclists through measures such as providing pedestrian crossings at the junction, upgrade of the existing footpaths, the use of a raised area through the junction, localised carriageway narrowing, and variations in surface materials. This will slow vehicles through the junction to provide more comfort for non-motorised road users.

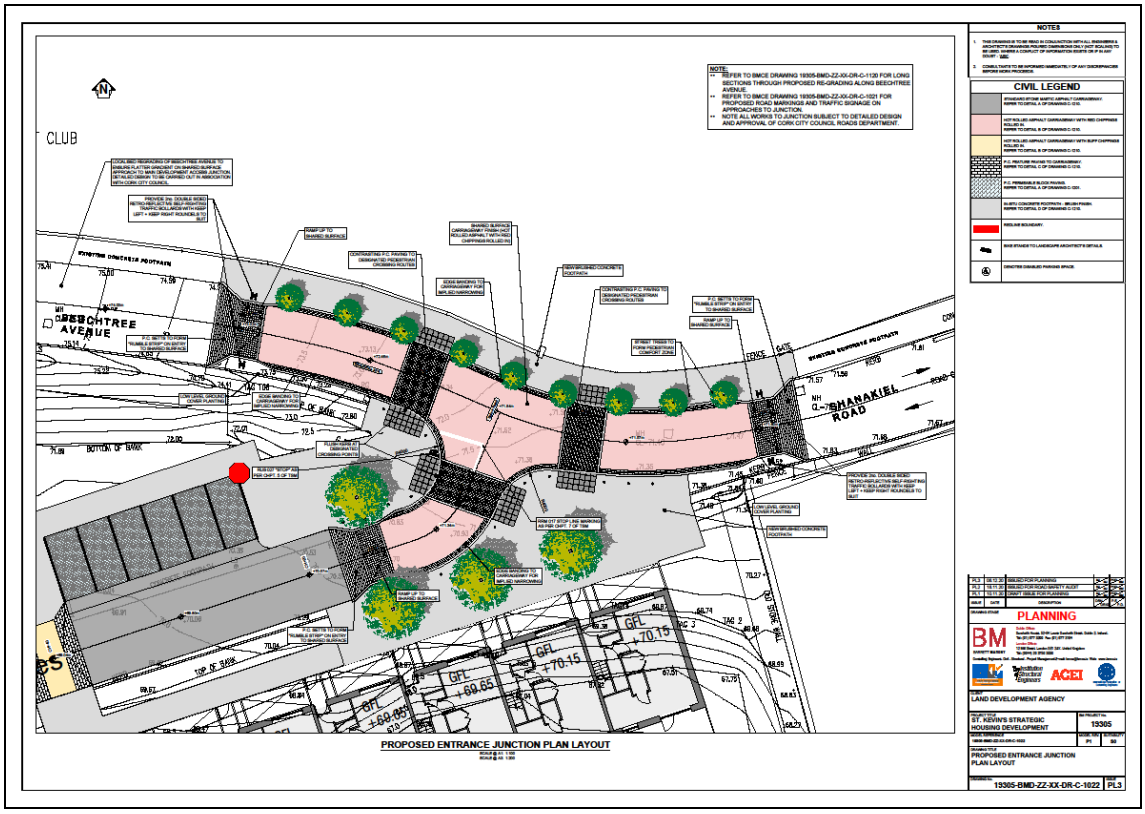


Figure 4.2: Updated Site Junction Access Arrangement (Source: Barrett Mahony)

4.2.3 The proposed development priority junction access has been configured to have appropriate visibility in both directions. For Beechtree Avenue, which has a 50kph speed limit, the minimum sightline distance would be 45 metres in each direction, which can be accommodated at the proposed access.

4.2.4 The proposed overall access road layout has also been designed to meet the needs of the development and to account for feedback given by the Cork City Council Transportation Department during pre- planning consultation meetings.

4.2.5 As shown in Figure 4.1, the planning application also includes for provision to be made for future access for adjacent lands. These are detailed in the DMURS Compatibility Statement which is included as a separate report. The provision for future links to the adjacent lands will facilitate the better integration of the proposed development lands with adjacent zoned lands.

4.3 DMURS Compatibility

4.3.1 Beechtree Avenue and Shanakiel Road at the location of the proposed main vehicular access are within a 50kph speed limit. The proposed access arrangements are designed to accord with the principles as set out in DMURS.

4.3.2 The development of the subject lands internally will also be designed as a 30kph slow zone. This means that all internal vehicular movement will be within this overall speed limit. In addition, the site layout and site topography mean that internal speeds will remain very low which is desirable in a residential area.

4.3.3 The access and internal layouts are designed in accordance with DMURS which will promote and facilitate sustainable travel patterns as part of the overall development. The DMURS Compatibility Statement is also provided under a separate report.

5 CAR AND CYCLE PARKING ASSESSMENT

5.1 Overview of Policy

5.1.1 The proposed parking strategy for the proposed St. Kevin's development was established having regard to the *National Planning Framework* (NPF) and *Regional Spatial and Economic Strategy* (RSES) policy documents, in addition to the *Cork City Development Plan*, the *Cork Transport Strategy*, the new Apartment guidelines, pre-planning consultation with Cork City Council and the needs of the development.

5.1.2 ILTP had a preliminary meeting with the Community, Culture and Placemaking and Traffic Planning Departments of CCC in 2020. This initial meeting discussed the initial concepts for the lands, the scope of the TTA and approach to car and cycle parking provision. Reference was made at the meeting to the CDP car parking standards being maximum and the Apartment Guidelines requiring justification of car parking. Overall CCC are seeking to promote greater use of alternative modes and to also reduce car parking where appropriate.

5.1.3 In addition, the location of the proposed development, and the Mobility Management Plan (MMP) measures proposed have been taken into account as part of determining the proposed parking provision.

5.2 Further Consultation with CCC on Parking Strategy

5.2.1 Following the receipt of the Board's Opinion further discussions and consultations took place with CCC on the overall car and cycle application for the proposed development. It was agreed to reduce overall car parking in the development and in particular the area nearer to the St. Kevin's building. This also facilitated increased provision for landscaping in the area.

5.2.2 In addition, it was agreed to significantly increase cycle parking within the overall development. The overall car parking within the proposed development is now approximately 16% reduced from the Section 5 pre-planning lodgement to the Board, and cycle parking and facilities are also increased significantly.

5.3 Updated Car Parking Provision & Allocation

5.3.1 The current Cork City Council (CCC) Development Plan includes the parking standards shown in Figure 5.1 for the currently proposed development. From the outset it should be noted that these are maximum possible standards.

5.3.2 The proposed St Kevin's residential development site is located within Parking Zone 3 of the CDP Parking Standards, which is the remainder of the city outside Zone 1 - inner Cork City, and Zone 2 - areas alongside public transportation corridors and within 'Local Centres'.

5.3.3 For Residential land-use, Table 16.8 of the City Development Plan (CDP) Parking Standards includes a maximum provision of 1 no. car parking space per 1-2 bed dwelling for Parking Zone 3, and a maximum provision of 2 no. car parking spaces per 3 bed+ dwelling for Zone 3. An additional 0.25 spaces per unit is also included for visitor parking.

5.3.4 The relevant extract of Table 16.8 relating to residential land-use is shown in Figure 5.1 below.

	1 City Centre	2 Accessible to mass transit (existing / committed and indicated)		3 Rest of Cork City
Land use category		**A** **Within 500m of Blackpool Station and Kent Station***	**B** **South Docks (outside zone 2A)****	
RESIDENTIAL DEVELOPMENT				
RESIDENTIAL (1-2 Bedroom)	0.5	1		1 plus 0.25 spaces for visitor parking
RESIDENTIAL (3 - 3+ Bed Unit)	1.0	2.0		2.0 plus 0.25 spaces for visitor parking
ELDERLY PERSON DWELLINGS / WARDEN SUPERVISED GROUP HOUSING SCHEMES / SHELTERED HOUSING	0.25	0.5		0.5
RESIDENTIAL INSTITUTION	None	1 per 20 bed spaces		1 per 10 bedspaces
STUDENT HOUSING	None	1 per 20 bed spaces		1 per 10 bedspaces

Figure 5.1 Maximum Car Parking Standard for Residential Land-Use (Source: *Cork City Development Plan*)

5.3.5 It is noted that the CDP residential parking standards do not differentiate between apartments and houses.

5.3.6 The Government Residential Density Guidelines also give general guidance for car and cycle provision for new apartments, on a case-by-case basis.

5.3.7 Given the location of the site and the desire to promote sustainable travel modes it is proposed that reduced car parking provision is appropriate for this development.

5.3.8 However, it is also important to take into consideration the proposed nature of the development, which is primarily intended as a family type development. The location of the development, topography and accessing local services were also considered in determining the appropriate level of car parking. The revised car parking provision is set down in Table 5.1.

5.3.9 It is now proposed to provide 241 no. car parking spaces for 266 no. proposed residential units and the chapel office / enterprise centre and crèche.

Table 5.1: Revised Car Parking Provision

Proposed Use	Assumed Size / No. of Units	CCC Maximum Car Parking Rate	Proposed Car Parking Provision & Allocation
1 bed apartments	37 no.	46 (1 plus 0.25 spaces for visitor parking)	18
2 bed apartments	67 no.	83 (1 plus 0.25 spaces for visitor parking)	34
2 bed duplex apartments / townhouses	58 no.	72 (1 plus 0.25 spaces for visitor parking)	58
3 bed duplex townhouses	36 no.	81 (2 plus 0.25 spaces for visitor parking)	36
3 bed townhouses	33 no.	74 (2 plus 0.25 spaces for visitor parking)	33
4 bed duplex townhouses	18 no.	40 (2 plus 0.25 spaces for visitor parking)	18
4 bed townhouses	17 no.	38 (2 plus 0.25 spaces for visitor parking)	17
Residential Subtotal	**266**	**434**	**214**
Additional 5% for Vistor Parking & GoCar		5% of Residential Car parking	11
Chapel Office & Enterprise Centre		12 (1 per 50 sq. m)	6
Creche - 72 child spaces		12 (1 per 6 students)	6
Subtotal		**458**	**237**
Car Club			4
Total		**463**	**241**

5.3.10 As shown in Table 5.1, it is proposed that car parking for one and two apartments be 50% of the CDP standard. The proposal includes a car parking space to residential unit ratio of 0.5:1 for 1-bed and 2-bed apartments.

5.3.11 It is further proposed that only one dedicated car parking space will be allocated to duplexes or houses with two of more bedrooms, which is a 1:1 car parking space to residential unit ratio.

5.3.12 It is currently proposed that visitor parking including Shared/GoCar provision be 5% of the proposed residential parking provision.

5.3.13 It is proposed that 6 no. spaces be allocated to the Chapel Office & Enterprise Centre.

5.3.14 A total of 6 no. car parking spaces are also proposed for the crèche, which provides for vehicular drop-off demand and staff parking.

5.3.15 It is further proposed that the crèche and Chapel Office / Enterprise Centre car parking spaces may be used as visitor parking at evening and at weekends if required.

5.3.16 It is also proposed to include for 4 no. spaces for a Car Share / Go Car scheme within the development. Appropriate works will be provided in car parking area to allow for EV charge points. This will over time allow for increased levels of EV only vehicles to be accommodated within the proposed development over time.

5.3.17 To support the proposed reduction in car parking numbers below CDP standards a MMP will be prepared, which will set out details of support mechanisms that will help promote sustainable travel in accordance with national, regional and local policy.

5.4 Proposed Cycle Parking Provision & Allocation

5.4.1 The relevant extract of Table 16.9 of the CDP relating to cycle parking requirements for residential land-use is shown in Figure 5.2 below.

Land Use	Cycle Parking Requirement
Residential	
Standard Apartments	1 per unit in City Centre / Inner Urban Areas
	0.50 per unit in Suburbs
Student Apartments	0.5 per bed space

Figure 5.2: Cycle Parking Requirements for Residential Land-Use (Source: *Cork City Development Plan*)

5.4.2 As shown in Figure 5.2, the CDP requires 0.5 bicycle parking spaces per apartment unit for suburban locations.

5.4.3 The proposed cycle parking provision has been set out in consideration of the CDP standards and the Apartment Guidelines and is shown in Table 5.2. The revised cycle parking was agreed with CCC following the issuing of the Board's Opinion.

Table 5.2: Revised Cycle Parking Provision

Type	Bedroom Type				No. of Units	Bedrooms	Cycle spaces	Eq. Cycle Spaces
Townhouses	**1**	**2**	**3**	**4**				
Block A	0	0	3	0	3	9	In curtilage	6
Block B	0	0	3	2	5	17	In curtilage	10
Block C	0	0	2	1	3	10	In curtilage	6
Block I	0	0	2	2	4	14	In curtilage	8
Block J	0	0	3	2	5	17	In curtilage	10
Block K	0	0	3	0	3	9	In curtilage	6
Block L	0	0	3	2	5	17	In curtilage	10
Block M	0	0	3	2	5	17	In curtilage	10
Block O	0	0	3	2	5	17	In curtilage	10
Block P	0	0	3	0	3	9	In curtilage	6
Block Q	0	0	4	1	5	9	In curtilage	10
Total	0	0	32	14	**46**	145		92

Type	Number of Bedrooms				No. of Units	No. of Beds	Cycle spaces	Eq. Cycle Spaces
Duplex Units	**1**	**2**	**3**	**4**				
Block D	0	9	0	9	18	54	In curtilage	36
Block E	0	8	8	0	16	40	In curtilage	32
Block F	0	10	10	0	20	50	In curtilage	40
Block G	0	5	0	5	10	30	In curtilage	20
Block H	0	9	9	0	18	45	In curtilage	36
Block N	0	4	0	4	8	24	In curtilage	16
Block R	0	9	9	0	18	45	In curtilage	36
Total	0	54	36	18	**108**	288		216

Type	Number of Bedrooms				No. of Units	No. of Beds	Cycle spaces	Cycle Spaces
Apartments	**1**	**2**	**3**	**4**				
Block S	5	15	0	0	20	35	35	35
Block T	6	18	0	0	24	42	42	42
Block U	0	8	0	0	8	16	16	16
St Kevins	26	34	0	0	60	94	94	94
Total	37	75	0	0	**112**	187		187

Type					No. of Units			Cycle Spaces Residential
ALL DWELLINGS					**266**			**495**

Cycle Spaces per Townhouse/Duplex	**154**	**2 per unit**
Cycle Spaces per Apartment	**112**	**1.67 per unit**

Residential Visitor Cycle Spaces	10%	**50**

Total Residential Cycle Provision			**545**
Cycle Spaces Creche	1 per 25 plus visitor	100 children	**6**
Cycle Spaces E.C.	600 sqm	1 per 50 sqm	**12**
Total Proposed Cycle Parking			**563**

5.4.4 It is proposed that 1 no. dedicated secure covered cycle parking space be provided per apartment unit, which is well in excess of the CDP requirements. These are appropriately distributed throughout the proposed development.

5.4.5 An additional 10% of the total no. of residential cycle spaces is also proposed for visitor cycle parking which are dispersed throughout the overall development.

5.4.6 It is further proposed that a dedicated 12 no. cycle parking spaces be provided for the enterprise centre, with 6 no. spaces allocated to the crèche for staff and drop-off needs.

5.4.7 Given the location of the proposed development and the specified uses within the development very generous cycle parking is now proposed which is also consistent with the recent Government Apartment Guidelines.

6 TRAFFIC SURVEY & SITE APPRAISAL

6.1 Introduction

6.1.1 In order to assess the traffic impact of the proposed development it was first necessary to assess the current traffic situation in the area. Site appraisals and fully classified traffic counts in the environs of the proposed development were undertaken on behalf of the applicant on 27th February 2020. Full details of the traffic survey data are contained as **Appendix B** attached.

6.1.2 The scope and extent of the traffic count surveys was agreed with CCC at pre-planning stage.

6.1.3 ILTP carried out LinSig and Picady traffic model analyses of the junctions adjoining the proposed development to project the impact of additional traffic flows from the proposed development on the capacity of the junctions.

6.1.4 From these results a conclusion could be drawn as to the impact that the development will have on the adjoining road network.

6.2 Summary Traffic Survey Results

6.2.1 ILTP coordinated detailed traffic count surveys undertaken on 27th February 2020 in order to collate the full set of traffic data considered necessary to support the planning application for the proposed development.

6.2.2 The purpose of the surveys was to measure current traffic flows at the site and neighbouring junctions during the peak periods. This was of critical interest in gauging the effect the proposed development would have on existing traffic patterns and volumes in the area during peak flow periods.

6.2.3 ILTP also observed traffic, pedestrian and cyclist patterns and behaviours in the vicinity of the proposed development.

6.2.4 The turning counts and flows for the AM 08:00 – 09:00 peak hour are illustrated in Figure 6.1.

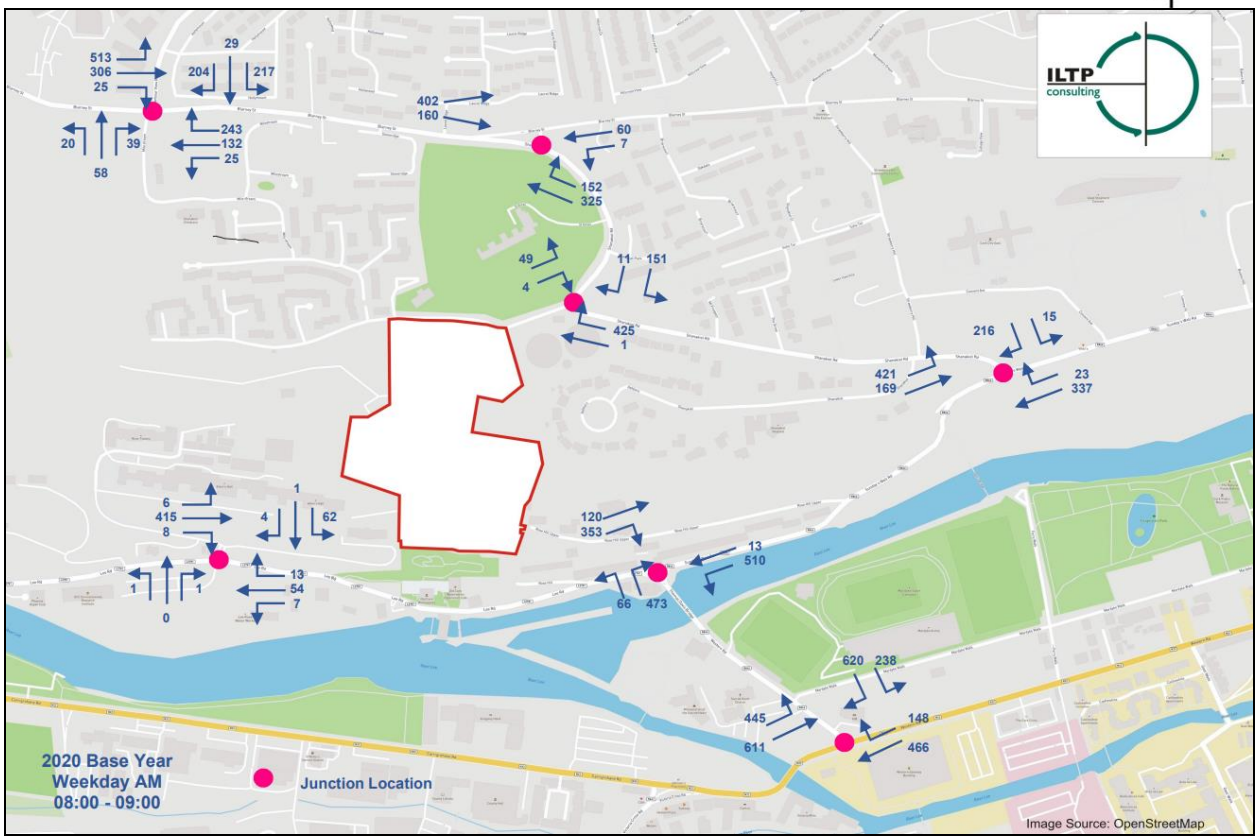


Figure 6.1: 2020 Base Year Recorded Turning Counts (veh / hr) – AM Peak Hour

6.2.5 The corresponding turning counts for the PM 17:00 – 18:00 peak hour are shown in Figure 6.2.

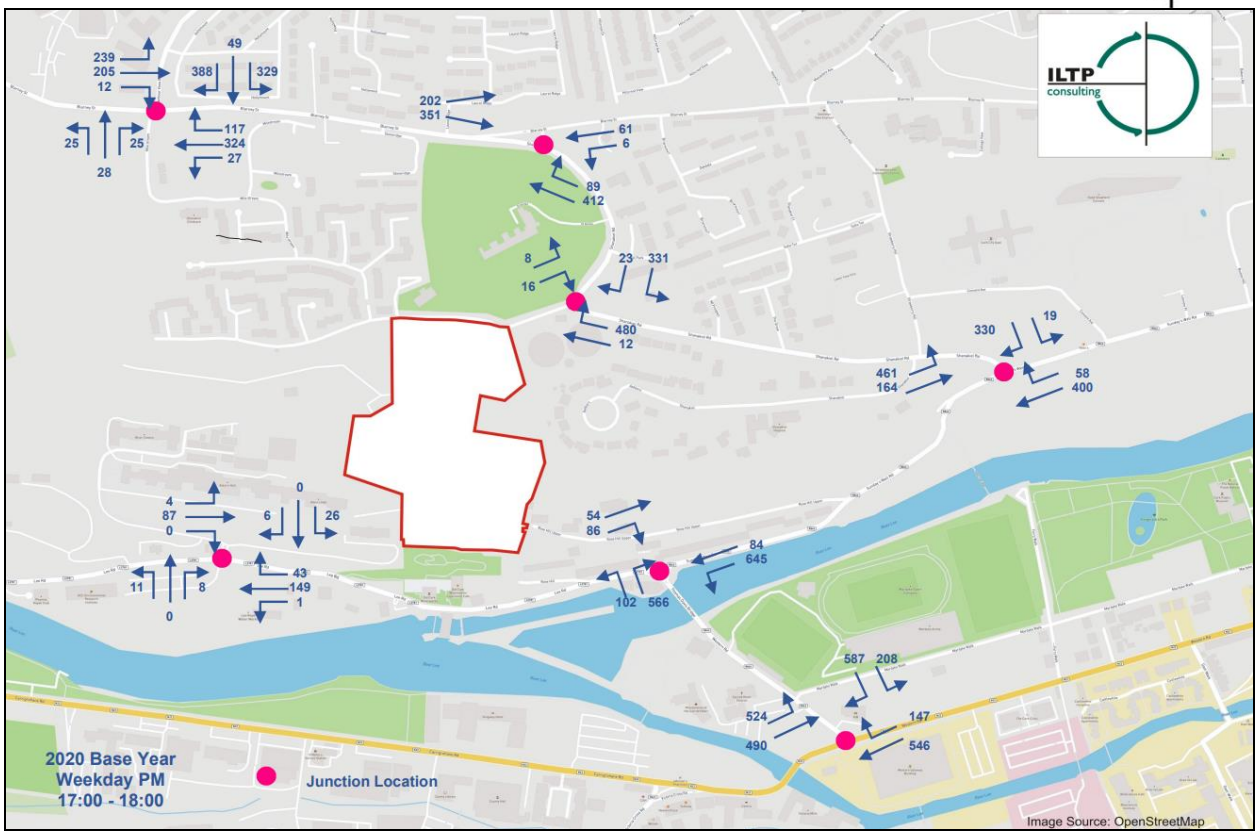


Figure 6.2: 2020 Base Year Recorded Turning Counts (veh / hr) – PM Peak Hour

6.2.6 The traffic count data showed typical traffic patterns with the exception of the outbound traffic flow on Blarney Street approaching Blarney Road/Shanakiel Road junction, where traffic flows appear low in the outbound direction. This is as a result of the junction configuration at this location as outbound traffic has to first turn left towards Shanakiel Road and then yield and make a right turn to get on to Blarney Road. While this movement could serve destinations of major employment and residential development to the north, traffic tends to avoid this movement and use more direct and alternative routes available. This explains the much lower outbound flows on this link in both the AM and PM peaks and also explains why traffic flows along this section of Blarney Road are relatively low.

6.3 Review of Link Capacity of Shanakiel Road

6.3.1 Based on an assessment of traffic flow data, traffic flows on Shanakiel Road are relatively lower than other city centre routes and major traffic disruption on this road is less frequent as a result.

6.3.2 At periods of peak traffic times some delays are evident on the overall network, which is consistent with most urban areas at peak periods. However, this can often be as a result of wider network constraints rather than localised capacity issues.

6.3.3 From the ILTP traffic surveys undertaken the peak hourly one-way traffic flow for Shanakiel Road was recorded as 519 vehicles per hour. For a local distributor road with a lane width of 3 metres, as is the case with Shanakiel Road, the Peak Hour Flow Capacity would be upwards of 1,100 vehicles per hour (Data source: *Transport in the Urban Environment*, The Institution of Highways & Transportation). Shanakiel Road therefore has more than sufficient link capacity to accommodate the proposed development.

7 PROJECTED TRIP GENERATION AND TRIP DISTRIBUTION FOR PROPOSED DEVELOPMENT

7.1 Projected Trip Generation for Proposed Development

7.1.1 The proposed development will generate an increased level of traffic on the local road network.

7.1.2 To calculate the likely increase in traffic volumes trip rates were established for each proposed land use type and quantum using ILTP's own experience of comparable developments of similar size and nature in Ireland, and with reference to the Trip Rate Information Computer System (TRICS) database. Using direct comparison developments to assess trip rates is, where available, the preferred method according to the TTA Guidelines.

7.1.3 The trip rates used in the TTA are consistent with those used for comparator development. A previous TTA undertaken by ILTP for the residential development at the former Clancy Barracks site off South Circular Road, Dublin use forecasted trip rates to predict future traffic flow. These were independently assessed post occupation and this assessment verified the accuracy of the trip generation rate. For the proposed St. Kevin's development, a trip rate of approximately 50% higher that this comparator was used, which represents a very robust assumption for traffic impact assessment purposes.

Table 7.1: Trip Rates for Proposed St Kevin's Residential Development

Land Use	Number of Units / Area	AM Peak Trip Rates		PM Peak Trip Rates	
		Arr	Dep	Arr	Dep
Residential - Apartment	112	0.075	0.21	0.15	0.09
Residential – Duplex / House	154	0.14	0.41	0.4	0.24
Crèche*	440 sq.m	2.30/100m^2	1.95/100m^2	2.75/100m^2	2.90/100m^2
Chapel Office & Enterprise Centre	630 sq.m	1.97/100m^2	0.28/100m^2	0.33/100m^2	1.76/100m^2

* Trip Rates for Total Internal & External Vehicular Trips

7.1.4 The associated projected final Trip Generation figures for the proposed St. Kevin's residential development are presented in Table 7.2.

7.1.5 The proposed crèche is estimated to cater for up to 72 childcare spaces. The proposed crèche will cater primarily for children from the proposed residential development. The provision of a crèche will generate some additional staff movements, the majority of which would be likely to be generated outside of the traditional AM and PM peak periods. To provide a robust traffic model however, ILTP have assumed that 40% of vehicular trips to and from the crèche would be dedicated external vehicular trips by staff and parents not residing in the proposed St Kevin's residential development, and these have been included in Table 7.2.

Table 7.2: Final Trip Generation for Proposed St Kevin's Residential Development

Land Use	Number of Units / Area	AM Peak Trips		PM Peak Trips	
		Arr	Dep	Arr	Dep
Residential - Apartment	112	8	24	17	10
Residential – Duplex / House	154	22	63	62	37
Crèche – Projected External Trips	440 sq.m	4	3	5	5
Chapel Office & Enterprise Centre	630 sq.m	12	2	2	11
Total		**46**	**92**	**86**	**63**

7.1.6 Overall, for the proposed development the Trip Generation assessment yielded an estimate of an additional 46 no. inward and 92 no. outward trips for the AM peak hour (08:00 – 09:00). An additional 86 no. inward trips and 63 no. outward trips were estimated for the PM peak hour (17:00 – 18:00).

7.2 Projected Trip Distribution for Proposed Development

7.2.1 In assessing the proposed Trip Distribution for vehicular trips to and from the proposed development ILTP have accounted for various factors which include:

- Recorded 07:00 – 10:00 and 16:00 – 19:00 peak traffic flows during February 2020 surveys
- Employment areas in vicinity of proposed development, particularly the Hollyhill and Hollymount industrial estates to the north, which include the Apple facility.
- Location and proximity of key routes to and from Cork city centre

7.2.2 A map of the key attractors and routes which informed and guided the projected Trip Distribution for the proposed development traffic is shown in Figure 7.1.

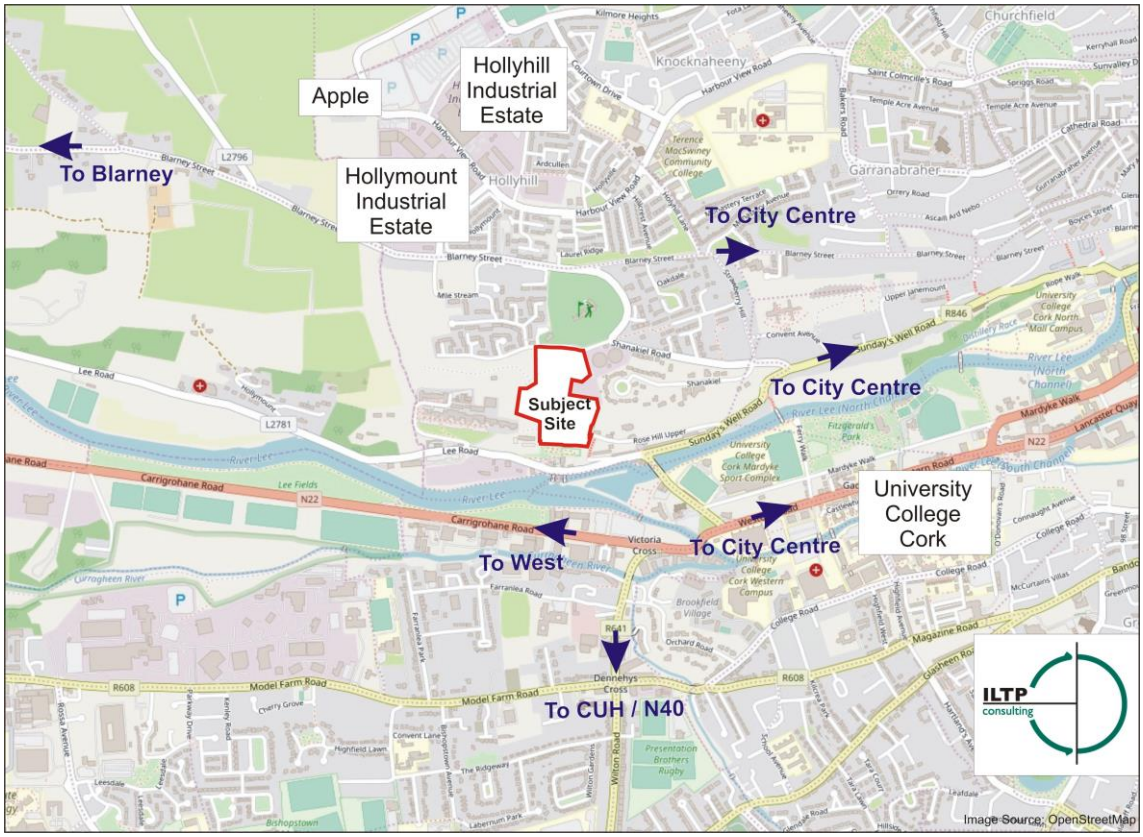


Figure 7.1 Key Attractors and Routes Relevant to Projected Trip Distribution for Proposed Development

7.2.3 From these assessments ILTP have applied traffic trip distribution profiles for trips arriving to and departing from the proposed development having regard to the location of the proposed development, the provision of key attractors in the area and the location of the proposed development. The trip distribution is illustrated in Figure 7.2. The trip distribution is as follows:

- 60% to and from Shanakiel Road north, which includes:
  - 25% to and from city centre and surrounding environs via Blarney Road
  - 20% to and from Hollymount and Hollyhill Industrial Estates, including Apple
  - 15% to and from Blarney, N20 Limerick / Blarney Road, R579 towards Macroom
- 40% to and from Shanakiel Road south, which includes:
  - 10% to and from city centre and surrounding environs via Sunday's Well Road
  - 5% to and from Lee Road / R618 (Inishcarra, Dripsey, Coachford, Macroom)
  - 5% to and from city centre and surrounding environs via N22 Western Road
  - 20% to and from N40 South Circular Road (via Victoria Cross) and N22 Carrigrohane Road West

7.2.4 As set out above, it is projected that a proportion of vehicular traffic will travel to and from the city centre via Blarney Road than Sunday's Well Road due to the wider carriageway width and overall higher carrying capacity of Blarney Road.

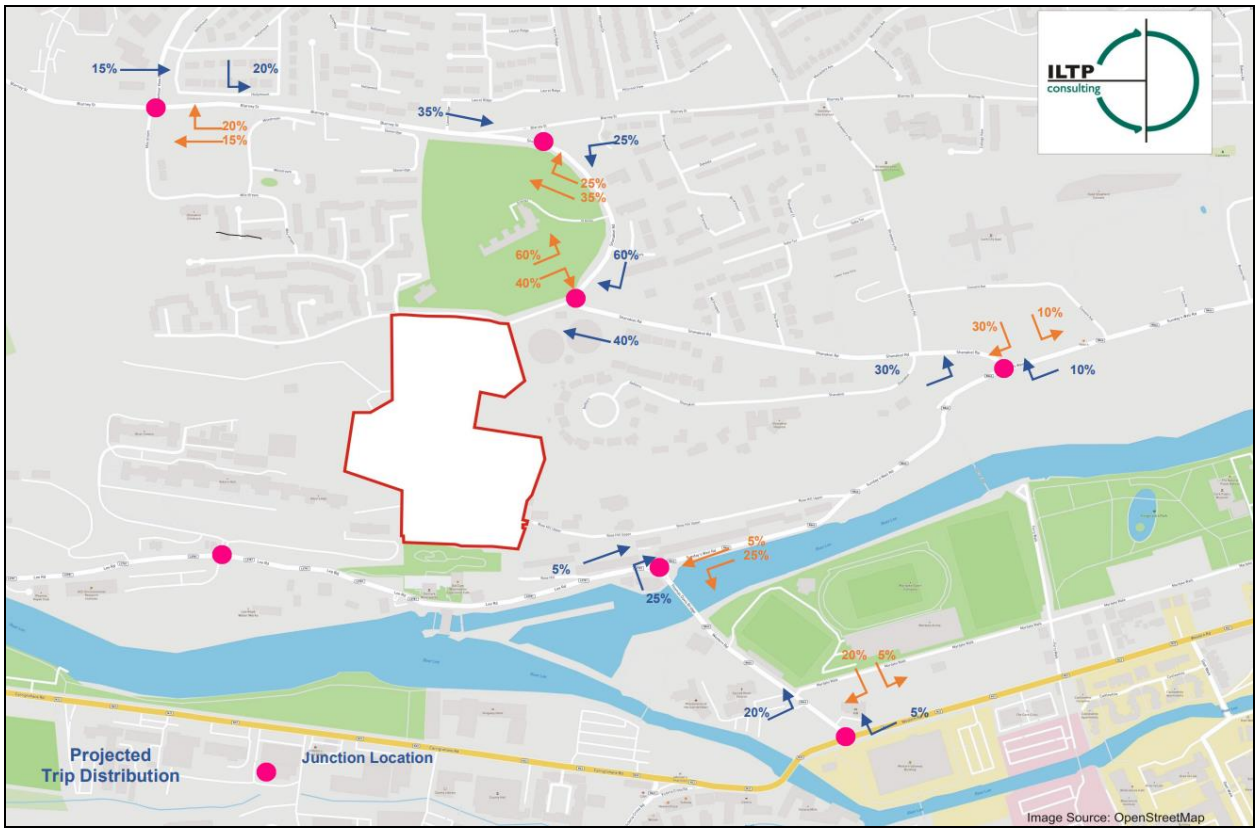


Figure 7.2 Proposed Trip Distribution for Trips Departing from and Arriving at the Proposed Development

7.2.5 The projected AM and PM peak hour vehicular trips were then assigned to the surrounding road network for the proposed St Kevin's development based on the above trip generation and trip distribution and these are shown in Figures 7.3 and 7.4 respectively.

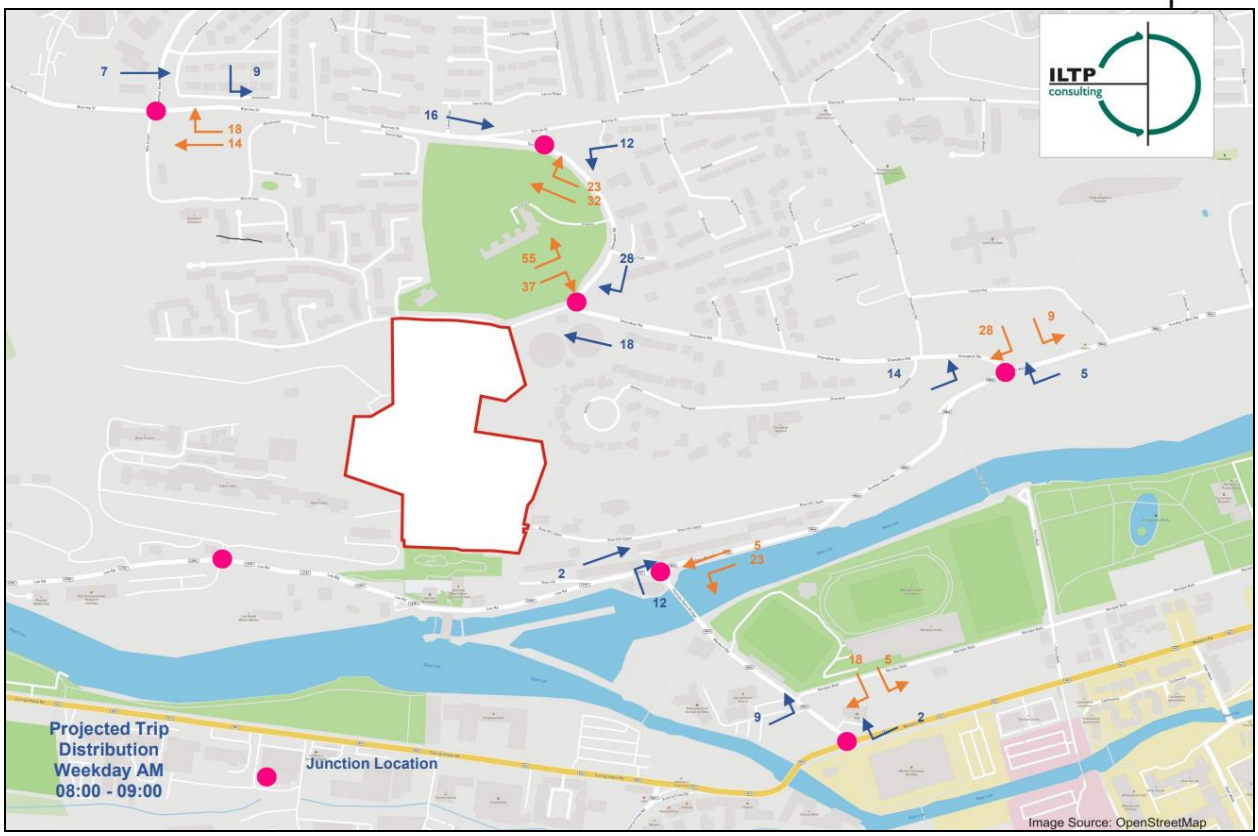


Figure 7.3: Proposed Development Projected Trip Distribution (veh / hr) – AM Peak Hour

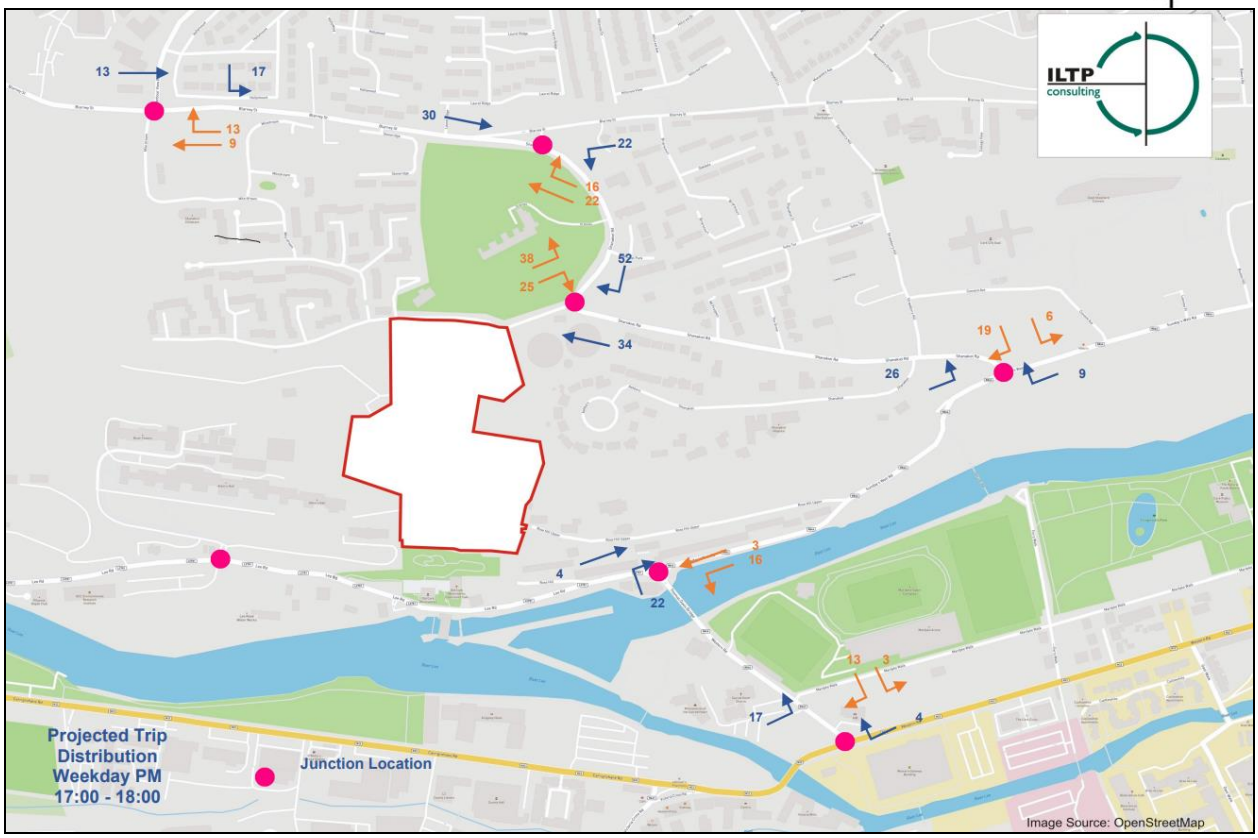


Figure 7.4: Proposed Development Projected Trip Distribution (veh / hr) – PM Peak Hour

7.2.6 The projected Trip Distribution shows development trip dispersing through the road network beyond the directly adjoining Beechtree Avenue / Shanakiel Road junction. The Traffic Impact Assessment of the proposed development in Section 8 below has been based on this Trip Distribution profile.

8 TRAFFIC IMPACT ASSESSMENT AND MODELLING RESULTS

8.1 Introduction

8.1.1 The revised development reduces very slightly the trip rates to that assumed in the original TTA. While these changes would not materially alter the results or findings of the previous analysis, ILTP for completeness have undertaken a full update of all the traffic assessments and modelling undertaken.

8.1.2 Subject to planning, the Opening Year of the first phase of the proposed development is projected to be 2022, and the corresponding Design Year is taken to be 2037, which is 15 years after the Opening Year.

8.1.3 Following pre-planning discussions with CCC on trip rates, ILTP also made a number of robust assumptions in respect to traffic increases that might result from the proposed development as previously set out in this report. In addition, no downward adjustment was made in the traffic impact assessment as a result of the reduced car parking provision for the development. The analysis therefore represents a very robust assessment of the likely traffic impact of the proposed development.

8.2 Traffic Impact Assessment of Adjoining Junctions in context of Traffic Impact Assessment Thresholds

8.2.1 The projected increases in traffic as a result of the proposed development have been assessed with regard to the vehicle movement threshold levels above which a Transport Assessment is automatically required, as defined in the *NRA Traffic and Transport Assessment Guidelines* (May 2014), which include:

> *"Traffic to and from the development exceeds 10% of the traffic flow on the adjoining road.*
>
> *Traffic to and from the development exceeds 5% of the traffic flow on the adjoining road where congestion exists, or the location is sensitive."*
>
> Residential development in excess of 200 dwellings.
>
> Retail and leisure development in excess of 1,000m^2*."*

8.2.2 From the Trip Generation and Trip Distribution projections set out above the additional traffic flows and turning movements on the adjoining road network could be estimated. As shown in Table 8.2, it is projected that the proposed development will increase two-way flows on the adjoining Shanakiel Road by up to 84 no. vehicles during the AM peak hour, and 90 no. vehicles during the PM peak hour to the immediate east of the proposed access.

8.2.3 This gives a projected peak hour increase of up to 13.2% over two-way background traffic flows on Shanakiel Road.

Table 8.2: Projected Increases in Two-Way Traffic Flows on Adjoining Roads

Link	Recorded Peak Two-Way Traffic Count Volumes Without Proposed Development		Projected Additional Two-way Traffic from Proposed Development		% Increase	
	AM Peak Hour	PM Peak Hour	AM Peak Hour	PM Peak Hour	AM Peak Hour	PM Peak Hour
Shanakiel Road north of Proposed Development	638	847	84	90	13.2%	10.6%
Shanakiel Road south / east of Proposed Development	594	844	56	61	9.4%	7.2%
Blarney Road west of Shanakiel Road	968	1,026	49	52	5.1%	5.1%
Blarney Road east of Shanakiel Road	621	358	35	38	5.6%	10.6%
Sunday's Well Road west of Shanakiel Road	1,143	1355	42	45	3.7%	3.3%
Sunday's Well Road east of Shanakiel Road	544	641	14	15	2.8%	2.3%

8.2.4 Beyond the Blarney Road / Shanakiel Road junction to the north it is projected that the additional traffic from the proposed development will add up to 10.6% over recorded two-way background traffic flows on Blarney Road.

8.2.5 Beyond the Sunday's Well Road / Shanakiel Road/Wellington junction to the south-east it is projected that the additional traffic from the proposed development will add up to 3.3% over recorded two-way background traffic flows on Sunday's Well Road.

8.2.6 As requested by CCC at pre-planning stage, ILTP consider the traffic impact of the proposed development on the Sunday's Well Road / Lee Road junction. It is projected that the additional traffic from the proposed development will add up to 2.7% and 2.9% over recorded total junction traffic volumes during the respective AM and PM peak traffic hours. This is well below the 5% threshold in the TTA Guidelines. The project increase in traffic approaching this junction, to and from the direction of Sunday's Well as illustrated in Table 8.2 is less that one additional vehicle per minute during both peak hour traffic periods and this would fall within the range of normal daily variation in traffic flow.

8.2.7 The assessment presented above and in Table 8.2 verifies that, beyond the Blarney Road / Shanakiel Road and Sunday's Well Road / Shanakiel Road junctions, traffic will dissipate to well below the relevant Traffic Impact Assessment thresholds as listed under Item 8.2.1 above.

8.2.8 It is therefore considered appropriate that the capacity of the following junctions be assessed to ensure they have adequate capacity to accommodate the proposed development:

- Junction of Shanakiel Road / Beechtree Avenue
- Junction of Blarney Road / Shanakiel Road
- Junction of Sunday's Well Road / Shanakiel Road

8.2.9 Therefore, no further Traffic Impact Assessment is proposed beyond the above junctions with Shanakiel Road.

8.3 Future Trends in Traffic Growth in Urban Areas

8.3.1 The inclusion for traffic growth over time is often required particularly when designing new roads. This is appropriate as these are in the main new interurban routes or new routes to serve the expansion of towns or cities.

8.3.2 Traffic patterns and growth rates in cities show very different patterns to overall growth rates on the wider road network. In particular, traffic flows at peak hour periods to and from city centres generally show little if any growth over time. This is consistent with the wider traffic trends for other cities in Ireland.

8.3.3 For example, the NTA / DCC annual Cordon Count (*Canal Cordon Report 2019 - Report on Trends in Mode Share of Vehicles and People Crossing the Canal Cordon 2006 to 2019*, April 2019) shows that in overall terms there has been a significant decline since 2006 in the number of vehicles coming into Dublin during the Cordon Count period. Car numbers crossing the canal cordon have continued to decline over the years, with a total reduction of 20.9% between 2006 and end of 2019, which occurred against the background of major redevelopment of the city centre.

8.3.4 ILTP have also assessed TII traffic count data for the N22 Carrigohane Road radial route, which is located in the vicinity of the subject site. This shows a year-on-year decline in Annual Average Daily Traffic (AADT) on the route, as shown in Table 8.12 and is consistent with traffic flow patterns on many radial routes to city centres.

Table 8.12: Annual Average Daily Traffic (AADT) data for N22 in Vicinity of Proposed Development (TII Counter Ref: TMU N22 000.0 E)

	2016	2017	2018	2019
AADT	11,141	11,066	10,802	10,792
%HGV	1.1%	1.1%	1.1%	1.1%

8.3.5 This recorded decline in private car usage is promoted and supported by policy objectives at national, regional and local levels. *Smarter Travel a Sustainable Transport Future* has as its goal a shift from car dependency to more sustainable modes of transport as such future planned development will have to have a high level of sustainability. This will in turn lead to a move away from car dependency particularly in city locations served public transport such as the proposed development.

8.3.6 Furthermore, the *Smarter Travel* document states that:

> *"The total kilometers travelled by the car fleet in 2020 will not increase significantly from current total car kilometres."*

8.3.7 This will be particularly true in town centre locations and on radial routes into and out of city centre. It is further noted that the current *Cork City Development Plan 2015 - 2021* and *Cork Transport Strategy* target an ongoing reduction in private car trips in Cork City.

8.3.8 On the basis of the existing traffic patterns in the area over recent years and in urban areas in generally and in accordance with national and local policies that seek to further reduce car dependency and encourage mode shift targets a the decline in private car usage in Cork city is set to continue over time.

8.3.9 It is considered that background traffic in the surrounding area will not grow due to the established urban setting, the provision of public transport and further planned improvements in the public transport, cycling and pedestrian environment. This is also in line the policies and objectives set down in *Smarter Travel - A Sustainable Transport Future 2009 – 2020*, the current CDP, and the *Cork Metropolitan Area Transport Strategy*.

8.3.10 Furthermore, current Government and CCC modal shift targets to more sustainable forms of transport are likely to yield a reduction in background traffic in the medium term, particularly where more frequent and new public transport services are in operation within a convenient short walking distance, as is the case with the proposed development.

8.4 Future Year Scenarios

8.4.1 A request was made by CCC to consider a scenario of increased traffic on the local network in their submission to the Board for Opening Year plus 5 years and Opening Year plus 15 years. As set out above, it is considered that background traffic in the surrounding area will not grow given current traffic trends in urban areas and sustainable transport policies at national regional and local level.

8.4.2 For completeness however, ILTP have undertaken a sensitivity test up to the 2037 Design Year with TII Low Growth Rates for the Cork Metropolitan Area, as included in the TII *Project Appraisal Guidelines for National Roads Unit 5.3 - Travel Demand Projections*, PE-PAG-02017, May 2019. This is a worse case scenario, that assumes background traffic growth continues year on year until 2037. Therefore, any intervening years, including the 2022 Opening Year, will have lower overall traffic flows than the Design Year.

8.5 Projected Traffic with Proposed Development in Place

8.5.1 The projected 2022 Opening Year traffic flows using TII Low Growth Rates and with the proposed development in place are shown in Figures 8.1 and 8.2 below for the AM and PM peak traffic hour periods.

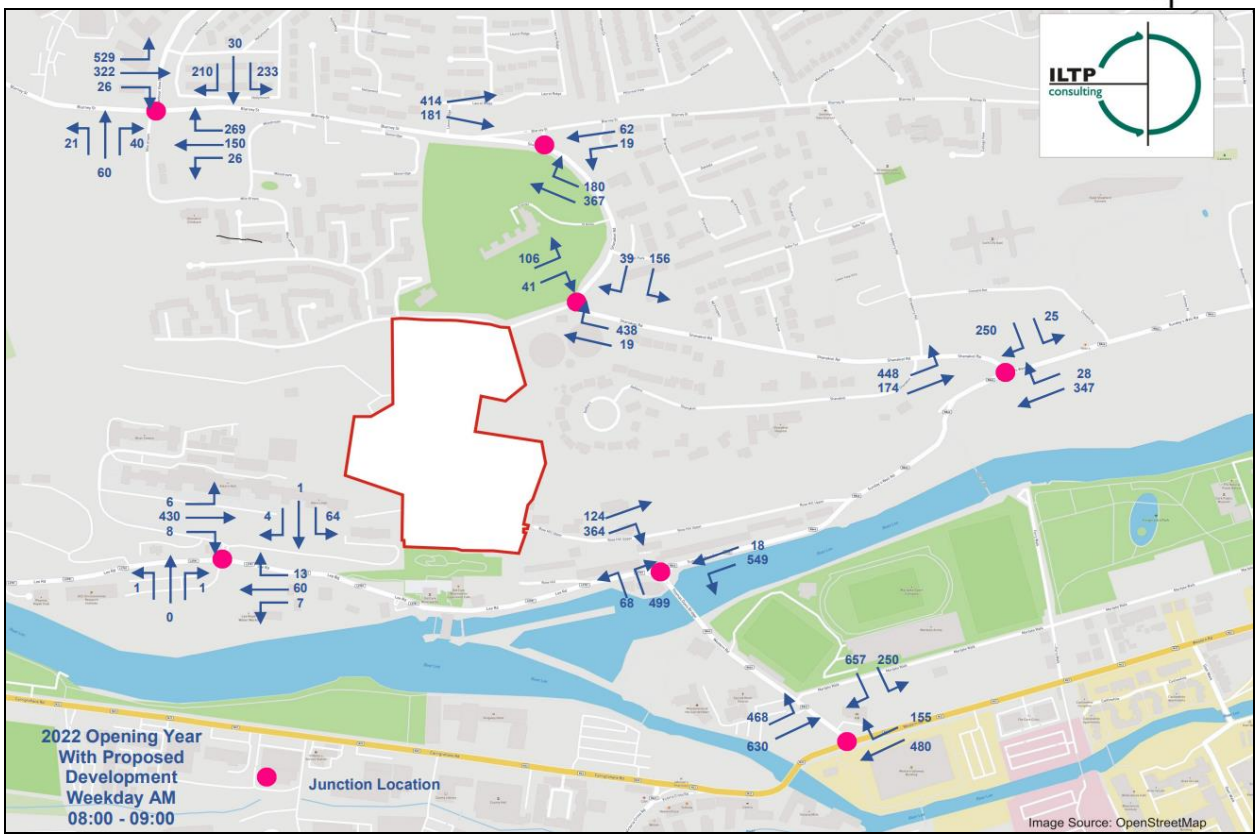


Figure 8.1: Projected 2022 Opening Year Traffic Flows with Proposed Development – AM Peak Hour

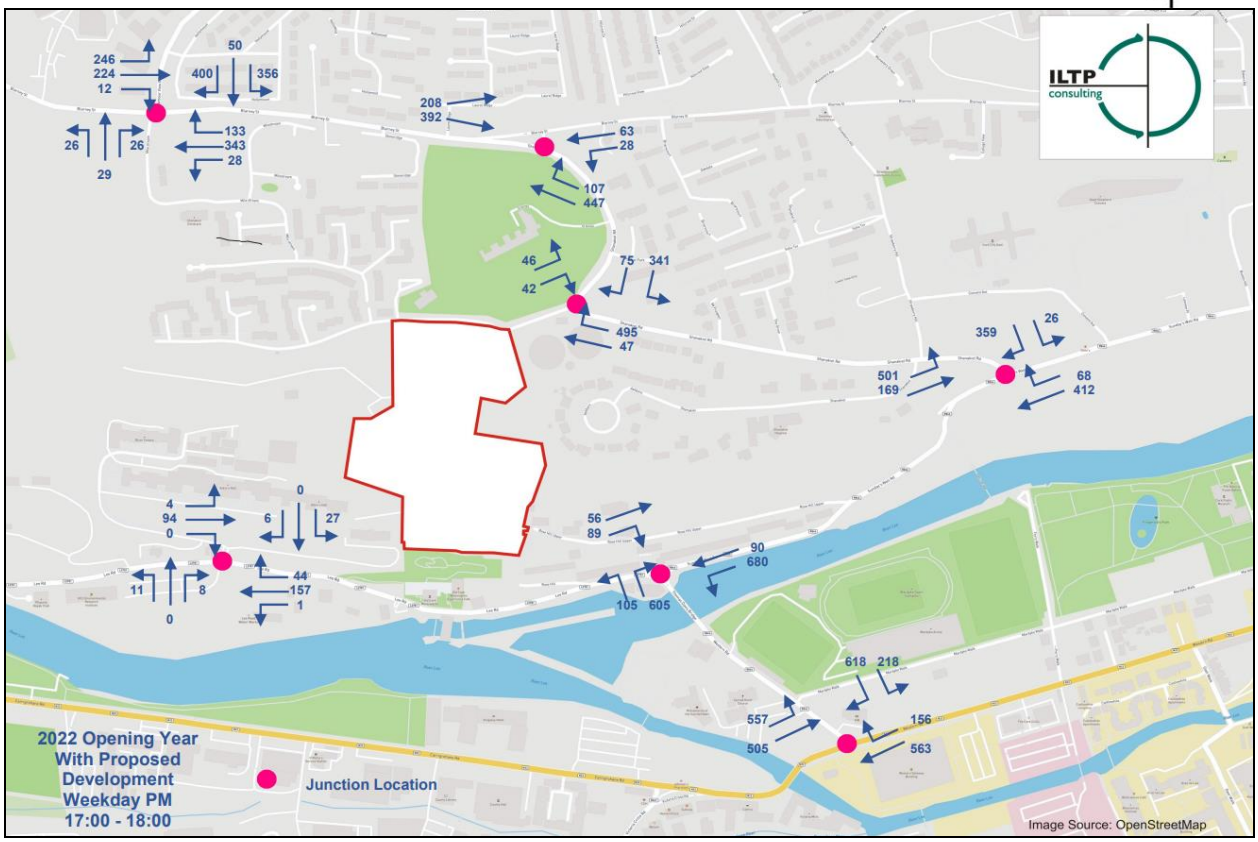


Figure 8.2: Projected 2022 Opening Year Traffic Flows with Proposed Development – PM Peak Hour

8.6 Capacity Assessments of Adjoining Junctions - Overview

8.6.1 As set out above, ILTP have conducted capacity assessments of adjoining junctions in the vicinity of the proposed development, which are as follows.

- Shanakiel Road / Beechtree Avenue Junction
- Blarney Road / Shanakiel Road Junction
- Sunday's Well Road / Shanakiel Road Junction

8.7 Capacity Assessment of Shanakiel Road / Beechtree Avenue Junction

8.7.1 ILTP performed an analysis of the capacity of the Shanakiel Road / Beechtree Avenue Junction using the LinSig Version 3.2.40.0 signalised junction modelling software.

8.7.2 The results of the scenarios modelled in LinSig are presented in terms of Degree of Saturation. Values over 90% for an urban signalised junction are typically regarded as experiencing occasional traffic congestion, with queues of vehicles beginning to form. It should be noted that at many urban junctions the Degree of Saturation exceeds 100% for a portion of the peak period. The extent and duration of the queues which form as a result are managed, to minimise interference spreading through the network.

8.7.3 The LinSig Model is based on the 1-hour time periods, 08:00 – 09:00 and 17:00 – 18:00 peak hour periods, and traffic volume inputs are in Passenger Car Units (PCU). The cycle and average stage times input into the model are also in line with on-site measurements.

8.7.4 The ILTP LinSig model for the junction is displayed in Figure 8.3.

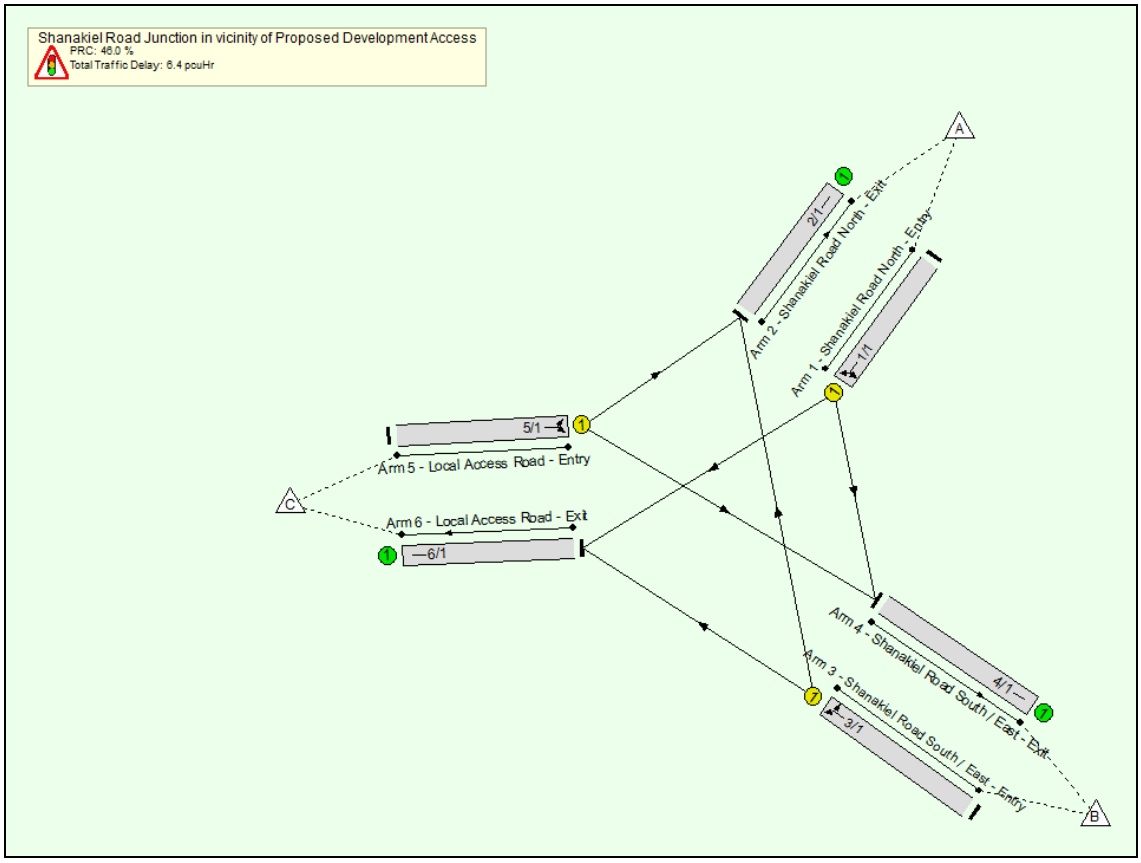


Figure 8.3: LinSig Model for Shanakiel Road / Beechtree Avenue Junction

8.7.5 The results of the various scenarios modelled in LinSig are presented in Table 8.3 in terms of Degree of Saturation.

Table 8.3: Shanakiel Road / Beechtree Avenue Junction Performance Assessment – LinSig Traffic Model Output Results

Scenario		Degree of Saturation per Approach Arm		
		Shanakiel Road North	Shanakiel Road South	Beechtree Avenue
2022 Opening Year Without Proposed Development	**AM**	23.8%	59.6%	29.0%
	PM	52.0%	68.8%	12.9%
2022 Opening Year With Proposed Development	**AM**	27.8%	62.0%	78.8%
	PM	59.2%	73.6%	47.2%

8.7.6 The main LinSig model results show that the Shanakiel Road / Beechtree Avenue Junction operates within the design capacity of the junction both without and with the proposed development in place. The model shows the highest Degree of Saturation is during the AM peak hour for the Beechtree Avenue approach arm, at 78.8% with the proposed development in place. The results also show that further optimisation of the signal timings of this junction for the respective approach arms with the proposed development in place would enhance the overall capacity of the junction

8.7.7 The LinSig traffic modelling analysis undertaken shows that the junction can satisfactorily accommodate the projected additional traffic from the proposed development.

8.7.8 The full LinSig outputs are included in **Appendix A**.

8.8 Capacity Assessment of Blarney Road / Shanakiel Road Junction

8.8.1 ILTP performed a Picady capacity assessment of the of the Blarney Road / Shanakiel Road priority junction.

14.1 The Picady software package was used to calculate RFC (ratio of flow to capacity) factors for the approach arms to the junction. This is often used to assess capacity of priority junctions. This measures the observed flow of a link against the theoretical capacity of the link. RFC is calculated thus;-

$$\% \text{ RFC} = \frac{\text{Observed Flow}}{\text{Link capacity}} \times 100$$

8.8.2 RFC values are typically used in the design of new roads and junctions and as a means of assessing the relative impact that new development might have on the junction approach arms. RFC values below 85% for an approach arm of a junction mean that the approach arm is normally deemed to be operating under free-flow conditions without significant junction delays. It should be noted however, that by their nature most urban junctions operate close to their ultimate capacity, i.e. 100%, during peak traffic hour conditions and in many instances exceed 100% capacity, which generally reflects wider traffic congestion in the overall network. RFC values between 85% and 100% are typically regarded as experiencing occasional queuing during peak hour conditions and these are typical of many urban areas at peak periods.

8.8.3 The annotation used in Picady for the approach arms is as follows:

- Arm A: Blarney Road East
- Arm B: Shanakiel Road
- Arm C: Blarney Road West

8.8.4 The results of the Picady assessment of the Blarney Road / Shanakiel Road junction are shown in Tables 8.4 to 8.7.

Table 8.4: Picady Analysis Results for Blarney Road / Shanakiel Road Junction – 2022 Opening Year Without Proposed Development – AM Peak Hour

Segment	Stream	Demand (veh/min)	Capacity (veh/min)	RFC	Start Queue (veh)	End Queue (veh)	Delay (veh.min/segment)	Mean Arriving Vehicle Delay (min)
08:00-09:00	B-AC	1.15	6.17	0.186	0.23	0.23	3.4	0.2
	C-AB	2.62	8.5	0.308	0.52	0.53	8	0.17
	C-A	-	-	-	-	-	-	-
	A-B	0	-	-	-	-	-	-
	A-C	2.75	-	-	-	-	-	-

Table 8.5: Picady Analysis Results for Blarney Road / Shanakiel Road Junction – 2022 Opening Year Without Proposed Development – PM Peak Hour

Segment	Stream	Demand (veh/min)	Capacity (veh/min)	RFC	Start Queue (veh)	End Queue (veh)	Delay (veh.min/segment)	Mean Arriving Vehicle Delay (min)
17:00-18:00	B-AC	1.15	5.45	0.211	0.26	0.26	4	0.23
	C-AB	1.53	7.75	0.198	0.29	0.29	4.4	0.16
	C-A	-	-	-	-	-	-	-
	A-B	0	-	-	-	-	-	-
	A-C	6.03	-	-	-	-	-	-

Table 8.6: Picady Analysis Results for Blarney Road / Shanakiel Road Junction – 2022 Opening Year With Proposed Development – AM Peak Hour

Segment	Stream	Demand (veh/min)	Capacity (veh/min)	RFC	Start Queue (veh)	End Queue (veh)	Delay (veh.min/segment)	Mean Arriving Vehicle Delay (min)
08:00-09:00	B-AC	1.35	6.25	0.216	0.27	0.27	4.1	0.2
	C-AB	3	8.44	0.356	0.67	0.68	10.4	0.18
	C-A	-	-	-	-	-	-	-
	A-B	0	-	-	-	-	-	-
	A-C	3.02	-	-	-	-	-	-

Table 8.7: Picady Analysis Results for Blarney Road / Shanakiel Road Junction – 2022 Opening Year With Proposed Development – PM Peak Hour

Segment	Stream	Demand (veh/min)	Capacity (veh/min)	RFC	Start Queue (veh)	End Queue (veh)	Delay (veh.min/segment)	Mean Arriving Vehicle Delay (min)
17:00-18:00	B-AC	1.52	5.76	0.264	0.35	0.35	5.3	0.24
	C-AB	1.78	7.64	0.233	0.37	0.37	5.6	0.17
	C-A	-	-	-	-	-	-	-
	A-B	0	-	-	-	-	-	-
	A-C	6.53	-	-	-	-	-	-

8.8.5 The Picady results for the Blarney Road / Shanakiel Road junction show that all approach arms of the junction will operate at or below 30.8% capacity without the projected peak hour development traffic in place, and will operate at or below 35.6% capacity with the projected peak hour development traffic in place. This shows that the proposed development will have a small additional impact on this junction relative to background traffic, and that the junction has more than adequate capacity for the proposed development.

8.8.6 The full Picady outputs are included in **Appendix A**.

8.9 Capacity Assessment of Sunday's Well Road / Shanakiel Road Junction

8.9.1 ILTP also performed a Picady capacity assessment of the of the Sunday's Well Road / Shanakiel Road priority junction.

8.9.2 The annotation used in Picady for the approach arms is as follows:

- Arm A: Sunday's Well Road West
- Arm B: Shanakiel Road
- Arm C: Sunday's Well Road East

8.9.3 The results of the Picady assessment of the Sunday's Well Road / Shanakiel Road junction are shown in Tables 8.8 to 8.11.

Table 8.8: Picady Analysis Results for Sunday's Well Road / Shanakiel Road Junction – 2022 Opening Year Without Proposed Development – AM Peak Hour

Segment	Stream	Demand (veh/min)	Capacity (veh/min)	RFC	Start Queue (veh)	End Queue (veh)	Delay (veh.min/segment)	Mean Arriving Vehicle Delay (min)
08:00-09:00	B-A	3.72	6.96	0.535	1.13	1.14	17	0.31
	B-C	0.25	5.75	0.044	0.05	0.05	0.7	0.18
	C-AB	0.4	7.81	0.051	0.06	0.06	0.8	0.13
	C-A	-	-	-	-	-	-	-
	A-B	7.21	-	-	-	-	-	-
	A-C	2.89	-	-	-	-	-	-

Table 8.9: Picady Analysis Results for Sunday's Well Road / Shanakiel Road Junction – 2022 Opening Year Without Proposed Development – PM Peak Hour

Segment	Stream	Demand (veh/min)	Capacity (veh/min)	RFC	Start Queue (veh)	End Queue (veh)	Delay (veh.min/segment)	Mean Arriving Vehicle Delay (min)
17:00-18:00	B-A	5.67	6.5	0.872	5.76	5.97	88.1	1.11
	B-C	0.33	1.68	0.199	0.23	0.24	3.5	0.74
	C-AB	1	7.66	0.131	0.17	0.17	2.5	0.15
	C-A	-	-	-	-	-	-	-
	A-B	7.91	-	-	-	-	-	-
	A-C	2.82	-	-	-	-	-	-

Table 8.10: Picady Analysis Results for Sunday's Well Road / Shanakiel Road Junction – 2022 Opening Year With Proposed Development – AM Peak Hour

Segment	Stream	Demand (veh/min)	Capacity (veh/min)	RFC	Start Queue (veh)	End Queue (veh)	Delay (veh.min/segment)	Mean Arriving Vehicle Delay (min)
08:00-09:00	B-A	4.16	6.89	0.605	1.5	1.51	22.5	0.37
	B-C	0.42	5.35	0.078	0.08	0.08	1.3	0.2
	C-AB	0.47	7.74	0.06	0.07	0.07	1	0.14
	C-A	-	-	-	-	-	-	-
	A-B	7.47	-	-	-	-	-	-
	A-C	2.9	-	-	-	-	-	-

Table 8.11: Picady Analysis Results for Sunday's Well Road / Shanakiel Road Junction – 2022 Opening Year With Proposed Development – PM Peak Hour

Segment	Stream	Demand (veh/min)	Capacity (veh/min)	RFC	Start Queue (veh)	End Queue (veh)	Delay (veh.min/segment)	Mean Arriving Vehicle Delay (min)
17:00-18:00	B-A	5.99	6.39	0.937	8.33	9.4	133.5	1.68
	B-C	0.43	0.56	0.778	2.06	2.29	32.7	6.01
	C-AB	1.13	7.56	0.15	0.2	0.2	3	0.16
	C-A	-	-	-	-	-	-	-
	A-B	8.35	-	-	-	-	-	-
	A-C	2.82	-	-	-	-	-	-

8.9.4 The Picady results for the Sunday's Well Road / Shanakiel Road junction show the maximum %RFC is the Shanakiel Road approach arm during the PM peak hour at 87.2% and 93.7% without and with the proposed development in place, respectively.

8.9.5 The maximum %RFC from the Picady results during the AM peak hour is the Shanakiel Road approach arm at 53.5% without and with the proposed development and 60.5 with the proposed development.

8.9.6 This shows that the proposed development will have a small additional impact on the overall capacity of the Sunday's Well Road / Shanakiel Road junction relative to background traffic, and that the junction has adequate capacity for the proposed development.

8.9.7 The Picady results therefore show that the Sunday's Well Road / Shanakiel Road junction operates satisfactorily with the proposed development in place during peak hour conditions.

8.9.8 The full Picady outputs are included in **Appendix A**.

8.10 2037 Design Year Traffic Assessment – Sensitivity Test

8.10.1 As set out above, a request was made by CCC to consider a scenario of increased traffic on the local network in their submission to the Board for Opening Year plus 5 years and Opening Year plus 15 years. As also set out in Section 8.3 above, it is considered that background traffic in the surrounding area will not grow given current traffic trends in urban areas and sustainable transport policies at national regional and local level. For completeness however, ILTP have undertaken a sensitivity test up to the 2037 Design Year with TII Low Growth Rates. This is a worse case scenario, that assumes background traffic growth continues year on year until 2037. Therefore, any intervening years will have lower overall traffic flows than the Design Year.

8.10.2 The results of the Design Year traffic assessments are summarised in Tables 8.12, 8.13 and 8.14.

8.10.3 The results of the LinSig assessment of the Shanakiel Road / Beechtree Avenue junction are shown in Table 8.12.

Table 8.12: 2037 Design Year - Shanakiel Road / Beechtree Avenue Junction Performance Assessment – LinSig Traffic Model Output Results

Scenario		Degree of Saturation per Approach Arm		
		Shanakiel Road North	Shanakiel Road South	Beechtree Avenue
2037 Design Year Without Proposed Development	**AM**	27.8%	69.5%	34.3%
	PM	60.6%	80.3%	15.5%
2037 Design Year With Proposed Development	**AM**	31.7%	72.1%	83.6%
	PM	67.9%	85.1%	48.8%

8.10.4 The results of the Picady assessment of the Shanakiel Road / Blarney Road junction are shown in Table 8.13.

Table 8.13: 2037 Design Year - Shanakiel Road / Blarney Road Junction Performance Assessment – Picady Traffic Model Output Results

Scenario		Ratio of Flow to Capacity (RFC) per Approach Arm		
		Blarney Road East	Shanakiel Road	Blarney Road West
2037 Design Year Without Proposed Development	**AM**	NA	0.231	0.363
	PM	NA	0.274	0.237
2037 Design Year With Proposed Development	**AM**	NA	0.264	0.412
	PM	NA	0.329	0.277

8.10.5 The capacity assessments of the Shanakiel Road / Beechtree Avenue and Shanakiel Road / Blarney Road junctions for the 2037 Design Year sensitivity test scenario show that as background traffic continues to grow in the immediate vicinity traffic flows through the junctions also increase.

8.10.6 The results also show that the proposed development will have a small additional impact on the overall capacity of the junctions relative to background traffic, and that the junctions have more than adequate capacity for the proposed development.

8.10.7 The results of the Picady assessment of the Sunday's Well Road / Shanakiel Road junction are shown in Table 8.14.

Table 8.14: 2037 Design Year - Shanakiel Road / Sunday's Well Road Junction Performance Assessment – Picady Traffic Model Output Results

Scenario		Ratio of Flow to Capacity (RFC) per Approach Arm		
		Sunday's Well Road West	Shanakiel Road	Sunday's Well Road East
2037 Design Year Without Proposed Development	**AM**	NA	0.663	0.063
	PM	NA	1.107	0.161
2037 Design Year With Proposed Development	**AM**	NA	0.746	0.073
	PM	NA	1.179	0.182

8.10.8 For the 2037 Design Year sensitivity test scenario the Picady results for the Sunday's Well Road / Shanakiel Road junction show, as expected, increased levels of congestion, which would occur irrespective of the proposed development. However, for the reasons outlined earlier this assumed growth in background traffic is not considered likely to arise and such an occurrence would be at odds with current traffic trends in urban areas and sustainable transport policies at national regional and local level. The foregoing analysis also assumes no changes to the junction layout between now and 2037. However, if it was the desire to accommodate increased traffic flows over time at this junction improvements such as traffic light installation could be considered. However accommodating increases in traffic flows in urban areas would be contrary to planning policy at all levels and is not supported by traffic growth trends or patterns in urban areas.

8.10.9 The 2037 Design Year results including for growth in background traffic if materialised would result in the proposed development traffic having a smaller additional impact on this junction relative to opening year.

8.11 Summary of Findings

8.11.1 This traffic impact assessment assumes very robust trip generation figures for the proposed development and confirms that the adjoining road network can satisfactorily accommodate the projected development traffic.

8.11.2 It is further noted that if current Government and CCC objectives for sustainable travel are met, then reductions in background traffic can be expected in the short to medium term in line with greater shift to more sustainable modes of transport and evidenced elsewhere. Therefore, over time overall traffic in the area is likely to decline in line tends elsewhere and through planned increases capital investment in non-motorised modes of travel.

9 CONSTRUCTION TRAFFIC IMPACT ASSESSMENT

9.1 Construction Activity

9.1.1 The traffic impacts associated with the construction phase of the proposed development have been assessed in this section.

9.1.2 This Construction Traffic Impact Assessment has been undertaken with reference to the following reports included with the planning application for the proposed development:

- DCON Safety Consultants report titled *Outline Construction Management Plan.*
- O'Callaghan Moran & Associates report titled *Outline Construction Environmental Management Plan (CEMP)*.

9.1.3 A detailed Construction Traffic Management Plan will be prepared and submitted to the planning authority prior to commencement of construction of the development.

9.1.4 For Construction Traffic Impact Assessment purposes, it is anticipated that following any grant of planning permission, construction will start in 2021.

9.1.5 The development works will be phased in such a way as to allow the road network to remain open with existing capacity maintained at all times.

9.1.6 The following assumptions were made as part of the evaluation process:

- 11 Hours operation per day Monday - Friday (07.00 – 18.00)
- 6 Hours operation Saturday (08.00 – 14.00)
- 25 tonne (15m^3) capacity vehicles

9.2 Construction Stage Vehicular Movements

<u>HGV Traffic during Construction Stage</u>

9.2.1 From ILTP's experience of construction works on comparator developments it is projected that the peak traffic volumes associated with the construction stage will be during the earthworks excavation stage, during which time the bulk of excavated material will be transported off site to a licensed facility.

9.2.2 As set out in the *Outline Construction Management Plan* (referenced above in Section 10.1), the quantity of gross cut material that will be generated has been estimated to be c. 33,321 m^3. This includes c. 14,751 m^3 of rock. The Outline CMP further estimated that 5,819 m^3 of gross fill material will be required, which is expected to be taken from the gross cut volume, and that the net cut balance of 27,402 m^3 will be taken from site.

9.2.3 Based on the quantities of excavation material to be moved from the site, the projected HGV movements to and from the site were determined during the earthworks excavation stage as presented in Table 10.1.

9.2.4 The Outline CMP projects that the bulk earthworks excavation stage will be 2.5 months in duration.

Table 9.1: Estimation of Peak Construction Stage HGV Movements - during Earthworks Excavation Stage

Activity	Volume / Tonnes of Material	Total Number of Trucks Required	Average HGV loads per day (based on 2.5-month Earthworks Excavation duration)	Average One-Way HGV movements per day	Estimated Maximum AM Peak Hour One-Way HGV Movements	Estimated Maximum PM Peak Hour One-Way HGV Movements
Earthworks Excavation – Net Cut Balance to be taken from site	27,402 m^3	1,827	36	72	12	12
Total estimated one-way HGV movements				**72**	**12**	**12**

9.2.5 As set out in Table 9.1, the bulk earthworks excavation stage is projected to be 2.5 months in duration and require an average of 72 no. one-way HGV movements per day. This would represent a worse-case scenario for construction traffic and will be significantly less than the traffic generated by the proposed development once completed.

9.2.6 HGV traffic is typically spread throughout the working day. On the basis of a 10-hour day, this equates to an average of 7 one-way HGV movements per hour. ILTP have conservatively estimated for Traffic Impact Assessment purposes however that there will be a maximum of 12 one-way movements per hour.

9.2.7 Beyond the earthworks excavation stage, other stages during construction, such as the concrete floor slabs and roofing construction, are estimated to have lower average HGV loads per day.

Car / Van Traffic during Construction Stage

9.2.8 Excluding HGV drivers, it is estimated that the construction works would require personnel on site, including full time construction workers and contractors.

9.2.9 The Outline CMP also estimates that during the peak construction activity, subject to phasing, a maximum of between 150 - 200 staff will be working on the development.

9.2.10 Given typical construction working hours the majority of site personnel are expected to arrive to site in advance of the 08:00 – 09:00 morning peak hour and after the 17:00 - 18:00 evening peak hour. To ensure a robust Traffic Impact Assessment however, it is assumed that half of site personnel arrive to and depart from the site during the 08:00 – 09:00 and 17:00 – 18:00 peak traffic hours. This equates to a maximum of 100 staff estimated to arrive to site during the AM peak hour and depart from site during the PM peak hour.

9.2.11 ILTP estimate that 20% of staff will travel to and from site by walking, cycling or public transport.

9.2.12 It is further estimated that 80% of staff will travel to site by car / van with an average car occupancy in excess of 1.5.

9.2.13 This equates to an estimated maximum of 53 cars / vans arriving to and departing from site with construction staff during the AM and PM peak traffic hours at the peak construction stage.

Total Peak Traffic Volume Estimates during Construction Stage

9.2.14 The projected combined HGV and car / van construction traffic movements associated with the peak construction activity of the proposed development are shown in Table 9.2.

Table 9.2: Estimation of Peak Construction Stage Vehicle Movements

Activity	Estimated Maximum AM Peak Hour One-Way Car / Van Movements	Estimated Maximum PM Peak Hour One-Way Car / Van Movements
HGV Vehicles	12	12
Construction Site Personnel	53	53
Total estimated One-Way Vehicle Movements	**65**	**65**

9.2.15 As shown in Tables 9.2 the estimated peak one-way construction traffic movements during the bulk earthworks excavation stage give a combined total of 65 no. one-way vehicular movements during the AM and PM peak traffic hours.

9.2.16 This projected peak volume of construction traffic, including both truck and staff movements, is lower than the daily and peak hour traffic volumes projected for the fully occupied development during the operational stage, which included up to 138 no. one-way vehicular movements during the AM peak traffic hour and 149 no. one-way vehicular movements during the PM peak traffic hour.

9.2.17 Therefore, in Traffic Impact Assessment terms, the most onerous scenario to assess in terms of capacity and traffic impact is the operational stage of the development.

9.3 Proposed Haul Route for Construction Traffic

9.3.1 It is proposed that the construction stage haul route for the proposed development would avoid Cork City Centre and built-up residential areas, while also providing a direct route to the national primary road network. The proposed haul routes are shown in Figure 10.1, which include:

- Route to / from North and West (including N20) via Shanakiel Road and Blarney Street
- Route to / from South / East / West via Shanakiel Road, R846 Sunday's Well Road, N22 and N40 South Ring Road

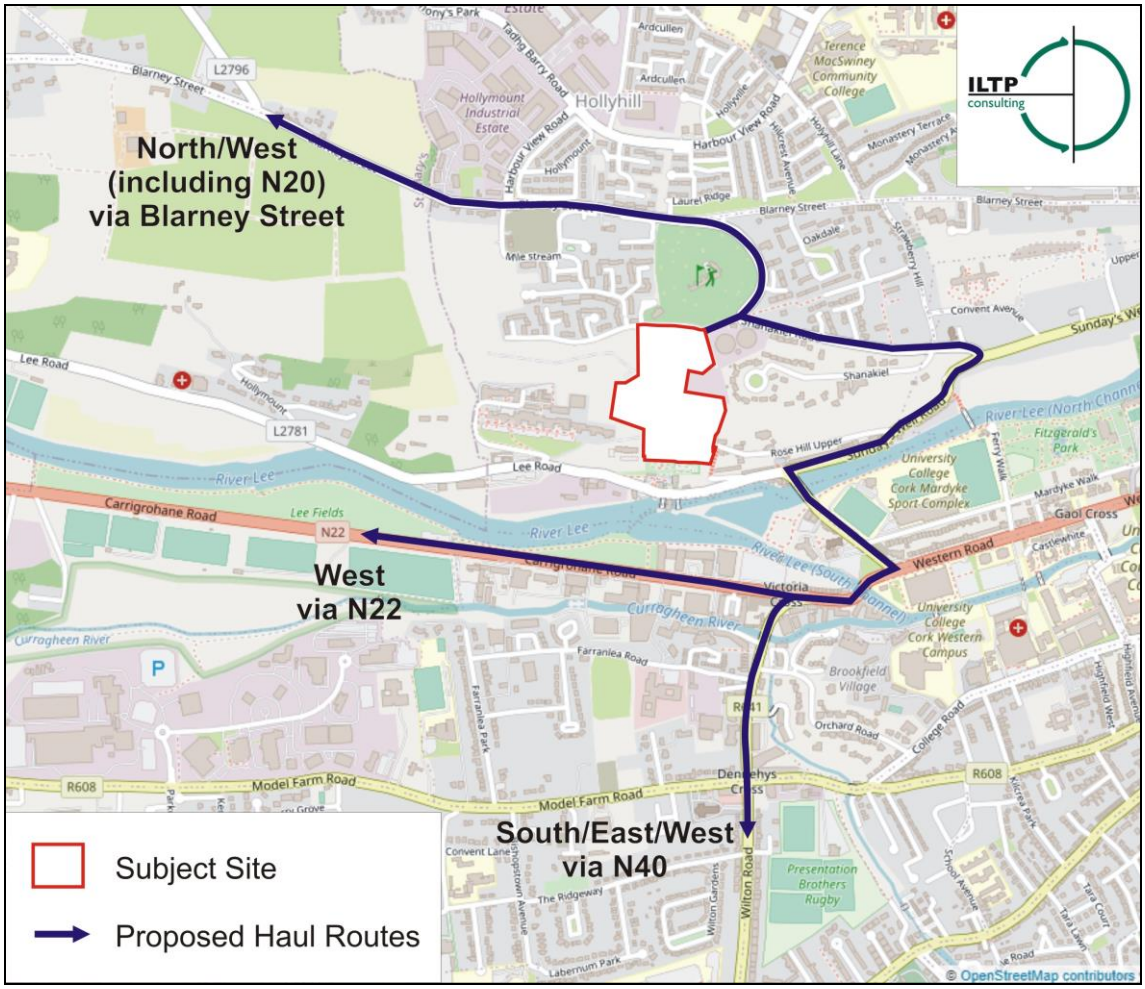


Figure 9.1: Proposed Haul Route

9.3.2 The designated haul routes will be agreed with the planning authority prior to commencement of construction works.

9.4 Construction Traffic Amelioration Measures

9.4.1 Tracked excavators will be moved to and from the site on low-loaders and will not be permitted to drive onto the adjacent roadway.

9.4.2 Dust and dirt will be controlled on adjacent roads by road sweeping when necessary and use of a drive-through for HGVs.

9.4.3 Vehicles delivering or removing material with potential for dust emissions to an off-site location shall be enclosed or covered with tarpaulin at all times to restrict the escape of dust.

9.4.4 The applicant shall at all times keep all public and private roads and footpaths entirely free of excavated materials, debris and rubbish.

9.4.5 The applicant is committed to implementing sustainable construction practices and as such will be seeking to reduce the quantities of waste material being carried off the site to a minimum.

9.4.6 Construction work will be limited to normal working hours; that are 07.00 – 18.00 on weekdays and 08.00 – 14.00 on Saturdays. All deliveries of materials, plant and machinery to the site and removals of waste or other material will take place within the permitted hours of work. Vehicle movements will be planned to ensure arrival and departure times are maintained inside the agreed working hours.

9.4.7 A site liaison officer will be identified as a single contact point for the planning authority and local community to deal with any issues that may arise in a prompt and efficient manner.

9.4.8 On site staff car parking will also be provided to ensure no construction workers will be required to park on adjacent roads or streets.

9.5 Construction Traffic Management Plan

9.5.1 As part of the construction works the appointed contractor shall prepare a Construction Traffic Management Plan which will outline their approach to the project and detail potential impacts for the public road system. This will include measures to ameliorate any potential noise and air quality impacts resulting from construction activities, namely from traffic movements in and out of the site.

9.5.2 A more detailed Construction Traffic Management Plan will be prepared and agreed with the Transportation Department of Cork City Council to provide for amelioration of the impact of construction traffic associated with the proposed development. The Construction Traffic Management Plan will provide for the following additional matters where required:

<u>General:</u>

- Inside the site boundary a clear pedestrian access will be provided to the areas of work and appropriate signage placed. Pedestrian boundary will be delineated with pedestrian barriers.
- Tracked excavators will be moved to and from the site on low-loaders and will not be permitted to drive onto the adjacent roadway.
- Vehicles delivering or removing material with potential for dust emissions to an off-site location shall be enclosed or covered with tarpaulin to restrict the escape of dust.
- All public and private roads and footpaths shall at all times be kept entirely free of excavated materials, debris and rubbish.
- A wheel wash facility will be employed at the exit of the site so that traffic leaving the site compound will not generate dust or cause the build-up of aggregates and fine material in the public domain.
- The applicant is committed to implementing sustainable construction practices and as such will be seeking to reduce the quantities of waste material being carried off the site to a minimum.
- A site liaison officer will be identified as a single contact point for the Planning Authority and local community to deal with any issues that may arise in a prompt and efficient manner.
- Construction work will be limited to normal working hours; that are 07.00 – 18.00 on weekdays and 08.00 – 14.00 on Saturdays. It is proposed that hours of work outside of these times will be by agreement with the local authority.

- All deliveries of materials, plant and machinery to the site and removals of waste or other material will take place within the permitted hours of work. Vehicle movements will be planned to ensure arrival and departure times are maintained inside the agreed working hours.

- Deliveries will be co-ordinated to prevent queuing of vehicles adversely affecting traffic flow and to minimise disruption to local traffic. They will be timed and coordinated to avoid conflict with collection of waste, other deliveries (particularly to adjoining owners), and peak traffic hours. Large deliveries will be scheduled outside peak traffic hours to minimise disruption.

- Site staff parking will be provided on site and workers will not be permitted to park in adjacent residential area.

- No daytime or night-time parking of site vehicles or construction staff vehicles will be permitted outside the site gate.

- The applicant shall be responsible for and make good any damages to existing roads or footpaths caused by his own contractors or suppliers transporting to and from the site.

- The contractor shall confine his activities to the area of the site occupied by the works and the builders' compound, as far as practicably possible, during any particular phase of the works.

- Establishment and maintenance of a truck holding area within the site.

Main Gate & Pedestrian Gate

- Due to the nature and location of the site the main gate will remain closed at all times. The foreman will have a key and a spare located at the site reception. The gate will be opened for deliveries and it will be closed again once unloaded. If the gate is to remain open for prolonged periods, such as large concrete pours, a flagman will be placed at the gate for the duration it remains open to ensure there are no unauthorised entries.

- All pedestrian access will be via designated pedestrian entrances. These accesses will remain closed at all times and will only be opened by the input of a security pin code. This code will be given to staff at inductions.

Safety on the Public Road:

- Priority to keep vehicles and pedestrians apart.

- Whether inside the site boundary or on the public road all construction vehicles will give way to pedestrians.

- Any works completed outside site boundary will be fully barriered with such work covered by a method statement and agreed in advance with the local authority.

- Flagmen shall be used to control the movement of construction vehicles to and from the site, where required.

- Access to neighbouring properties will be maintained through all stages of construction.

- Footpaths will not be blocked resulting in pedestrians having to step onto the carriageway.

- For works outside the boundary which may impede traffic / pedestrians on the public road a separate traffic management plan will be completed.

- The roads will be monitored throughout the works and a road sweeper will be employed when required for the duration should the roads become dirty. The contractor will liaise with the local authority and all adjoining owners / residents in respect of the timing and movement of the road sweeper activity.

- All deliveries must be notified to the site in advance so that the site will be organised, for the offloading and dictate which crane will be unloading. This is to ensure that delivery trucks, on entering the site, cannot block any of the public roads adjacent to the site. A banksman will be assigned to control all deliveries.

- Any works on public roads outside the site will be co-ordinated with Cork City Council and the adjoining residents, businesses and relevant stakeholders.

- Secure site hoarding will be employed around any works outside of the site, with controlled access points.

- Firm, level, and well-drained pedestrian walkways will be provided.

- Measures will be implemented to ensure drivers driving out onto public roads can see both ways along the footway before they move on to it.

9.6 Summary of Construction Traffic Impact Assessment

9.6.1 The overall level of traffic generated by the construction works will be low. A number of steps will be implemented to ensure the existing road network continues to operate throughout the construction process.

9.6.2 The construction traffic will not have a significant negative impact on the local road network and will be directed via designated construction traffic routes using the regional and national road network and avoiding Cork City Centre. On site staff parking will be provided and construction workers will not be allowed to park on any adjacent residential areas. The proposed construction phasing and traffic management plan will minimise impact on local residents and ensure that the adjoining road network remains operational at all times.

10 MOBILITY MANAGEMENT PLAN

10.1 Introduction

10.1.1 A Mobility Management Plan (MMP) is a wide range of policies, programmes, services and products that influence how, why, when & where people travel to make travel behaviour more sustainable.

10.1.2 Figure 10.1 represent graphically the interlinking approaches and strategies utilised in the preparation of Mobility Management Plan. Within this MMP we have sought to consider transportation demand, transportation supply and land use.

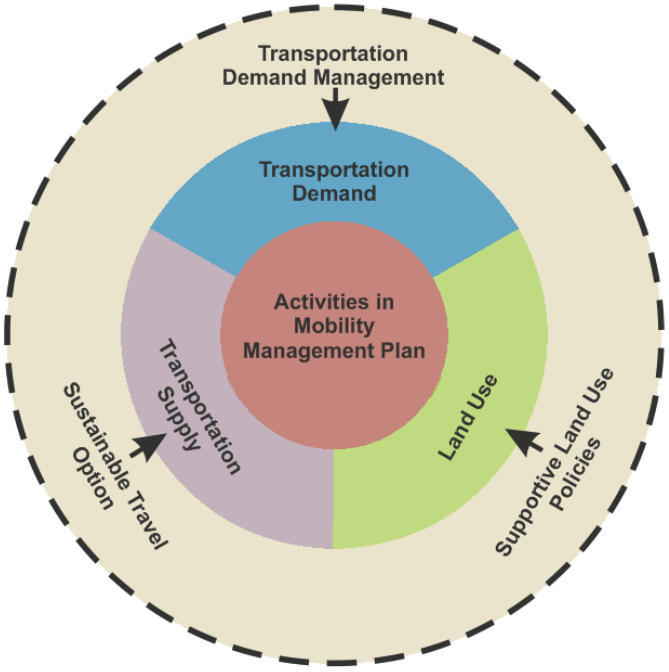


Figure 10.1: Mobility Management Plan Strategies

10.1.3 Mobility Management can be described, as a transport demand management mechanism that seeks to provide for the transportation needs of people and goods. It can be applied as a strategic demand management tool or as a site-specific tool measure. The aim is to reduce the demand for and use of cars by increasing the attractiveness and practicality of other modes of transport. Mobility Management encourages individuals, companies or institutions to satisfy their transport needs by the efficient and integrated use of available transport facilities.

10.1.4 The UK Dept of Transport has produced a document entitled *'Making residential travel plans work – guidelines for new development'*." This document has guided the preparation and drafting of this MMP strategy. In addition, the DTO guideline document "*Route to Sustainable Commuting: an Employer's guide to travel plans*" and "*A Sustainable Transport Future*" produced by the Department of Transport have influenced the preparation of this MMP.

10.1.5 The use of MMP is an important element in meeting targets set down in the *Smarter Travel A Sustainable Transport Future.*

10.1.6 The Department of Transport published the policy document *Smarter Travel A Sustainable Transport Future – A New Transport Policy Document for Ireland 2009 –2020* in early 2009. This document sets down the policies and measures required to reduce travel demand and ensure that a far greater proportion of travel is done using sustainable modes of transport.

10.2 Smarter Travel A Sustainable Transport Future 2009-2020

10.2.1 *Smarter Travel A Sustainable Transport Future 2009-2020*, recognises the vital importance of continued investment in transport to ensure an efficient economy and continued social development, but it also sets out the necessary steps to ensure that people choose more sustainable transport modes such as walking, cycling and public transport. The policy is a response to the fact that continued growth in demand for road transport is not sustainable from a number of angles as it will lead to further congestion, further local air pollution, contribute to global warming, and result in negative impacts to health through promoting increasingly sedentary lifestyles. The aim of the policy document is to;

- Improve quality of life and accessibility to transport for all and, in particular, for people with reduced mobility and those who may experience isolation due to lack of transport.
- Improve economic competitiveness through maximising the efficiency of the transport system and alleviating congestion and infrastructural bottlenecks.
- Minimise the negative impacts of transport on the local and global environment through reducing localised air pollutants and greenhouse gas emissions.
- Reduce overall travel demand and commuting distances travelled by the private car
- Improve security of energy supply by reducing dependency on imported fossil fuels.

10.2.2 These are to be achieved by four main actions;

- Action to reduce the need to travel, by concentrating development in city centres and areas close to existing or planed public transport
- Actions to reduce distance travelled by private car and encourage smarter travel, including focusing population growth in areas of employment and to encourage people to live in close proximity to places of employment and the use of pricing mechanisms or fiscal measures to encourage behavioral change,
- Actions aimed at ensuring that alternatives to the car are more widely available, mainly through a radically improved public transport service and through investment in cycling and walking,
- Actions aimed at improving the fuel efficiency of motorised transport through improved fleet structure, energy efficient driving and alternative technologies, and
- Actions aimed at strengthening institutional arrangements.

10.2.3 In order to ensure that the broad goals and detailed targets of the Smarter Travel document are met a series of polices and measures are recommended. These policies focus on co-coordinating land use and transport, the provision of high-quality public transport and high-quality routes for cycling and walking, aligning employment policy with transport planning, the implementation of mobility management plans and the use of fiscal measures to influence travel behaviour. These include:

10.2.4 Intensification of development within established urban areas served by high capacity, high quality public transport services accords with good planning and promotes sustainable transport modes.

10.3 Objectives of Mobility Management Plan

10.3.1 A Mobility Management Plan would have the effect of reducing in overall terms both the number of trips generated by a particular development, and to ensure that greater numbers use public transport. A mobility management strategy would therefore act as a form of amelioration by reducing the overall level of traffic that would be on the surrounding roads in the future.

10.3.2 This Mobility Management Plan includes provision for the appointment of a Mobility Manager, and details of access to the appointed Mobility Manager by the residents in the development.

10.4 Mobility Management Plan Study

10.4.1 ILTP have undertaken a comprehensive study of the proposed future traffic management within the study area involved consideration of the following:

- Public Transport Network
- Non-Motorised Transport Network
- Car and Bicycle Parking

10.5 Public Transport Network

10.5.1 The proposed development is already well served by frequent bus public transport facilities. The *Cork Transport Strategy* also sets out further comprehensive bus and rail service upgrade proposals across Cork City. Such enhancements in public transport in the area will reduce traffic flows from the proposed development by increasing the attractiveness of mode shift from private car to public transport.

10.6 Non-Motorised Transport Network

10.6.1 There are improvements planned for the bicycle network in the vicinity of the subject lands. The planned improvements are set out in the *Cork Transport Strategy*. This would further promote sustainable travel patterns to and from the proposed development.

10.6.2 Integral to the proposed development are the increased pedestrian and cyclist linkages and permeability through the site, which would further attract more sustainable alternatives to the private car, including walking, cycling and public transport.

10.7 Car and Bicycle Parking

10.7.1 The overall car parking approach for the proposed development is first and foremost to deliver new development in a manner that also promotes and delivers increased use of sustainable travel modes. This is fully consistent with national, regional and local transport policies and objectives.

10.7.2 Following detailed consultations between CCC and ILTP car parking numbers below CDP maximum standards was agrees. In addition it was agreed that generous cycle parking provision be proposed.

10.7.3 It is proposed to provide reduce car parking of 241 no. car parking spaces for the 266 no. proposed residential units and chapel office / enterprise centre and crèche.

10.7.4 This reduction in car parking provision, which is below CDP maximum standards, coupled with the wider MMP measures and the existing and planned improvement to public transport in the area, will reduce the traffic impact of the proposed development, and promote a greater uptake of more sustainable modes of travel.

10.8 Mobility Management Plan

10.8.1 **Mobility Manager -** Most fundamental to the success of such a venture is the appointment of a Mobility Manager for the development, which will ultimately come under the remit of the Management Company. This individual will be responsible for the delivery of the programme and will act as an interface between the various stakeholder groups within the development.

10.8.2 The Mobility Manager will also be involved in monitoring of the mode of travel to and from the development. This ideally will be done on an annual basis. Monitoring of travel patterns will facilitate the provision of sustainable transport modes and ensure that once modal targets are met that there is no slippage and instead efforts made to further improve the situation. The Management Company concierge will also be located at the entrance to the scheme which will help with monitoring.

10.8.3 A Mobility Manager for the proposed development will be appointed after the completion and occupation of the first phase. The Mobility Manager will have a role in promoting and monitoring the provisions of travel plans within the development.

10.8.4 The Mobility Manager will at the outset of the occupation of the first phase of the development implement a number of key measures. These will include

- Providing Travel Welcome Packs to residents giving full details of transport options, cycle / walking maps and information on local services.
- Instigate and regularly update an online travel notice board for the proposed development providing travel information.
- Promote the use of a car club and car share scheme within the development.

10.9 Personalised Travel Planning

10.9.1 Alongside the roll-out of these standardised measures a travel plan will be implemented with the objective of developing a sustainable transportation and access policy for residents, staff and users of the proposed development both during and after the construction.

10.9.2 The travel plan aims to create:

- Healthier, stress free and cheaper commutes for users.
- Manage travel options that provide realistic alternatives to single occupant car commutes.
- More informed travel choices.
- Integration with other relevant initiatives such as the Green Schools Travel Programme and work-based mobility management plans.

10.9.3 Central to the plan is the creation and communication of travel options available to all those accessing the proposed and planned developments.

10.10 Application of Personalised Travel Planning

10.10.1 To maximise its effectiveness, it should be implemented from the outset of the scheme in order to establish sustainable travel patterns at an early stage. A detailed PTP will need to be established and agreed between the developers of the scheme, the Council and any other relevant bodies, all of whom will have a stake in the initiative. Broadly it will include the following elements:

10.10.2 **Personalised Travel Programme -** A programme that will assess the targets of the plan, the most appropriate means of delivering those targets and a system of ongoing monitoring, feedback and improvement.

10.10.3 **Information tailoring and provision -** The success of the scheme is based on the provision of tailored and relevant information to each user.

10.10.4 **Incentivisation -** As part of a marketing strategy, incentives can be organised to promote increased use of public transport and promote the financial benefits of PT, cycling and walking.

10.10.5 **Monitoring -** In order to measure the success of the scheme entire as well as individual initiatives within the scheme, regular monitoring and evaluation against key performance indicators should be undertaken. This will be done on an annual basis.

10.10.6 **Formulation of individual initiatives -** The overall programme will be a composite of several sub-initiatives, as deemed appropriate to the local area. These may include, among others, all or some of the following: -

- Car-sharing / Pooling / Car Club initiatives
- Cycle/ Walk to work initiatives
- Walk to School initiatives
- PT Incentivisation schemes
- Tele-working initiatives
- Cycle training
- Community Travel Forum

10.11 Implementation, Evaluation and Reporting

10.11.1 It is proposed that the MMP will be implemented for the whole of the proposed development, thus magnifying its impacts. In addition, the MMP will commence implementation upon occupation of the first phase of the development, which means that by the completion of the proposed development mode shift will have already occurred, which will offset any traffic increase that will arise from the completed scheme.

10.11.2 The functioning of the Mobility Management Plan will be overseen on an ongoing basis. This will ensure that the online travel notice board is kept up to date and that new residents and employers are provided with travel packs and a full induction session.

10.11.3 More formal measurement of the travel behaviour can be undertaken on an annual basis, to include seeking input from the local authority and the management company. This can determine if the objectives of the Mobility Management Plan are being met.

10.11.4 Following on from this analysis measures required to remedy any deficiencies can be identified and implemented.

11 SUMMARY RESPONSE TO ITEMS RAISED IN AN BORD PLEANALA OPINION

11.1 Overview

11.1.1 The application also takes into consideration the items raised by ABP on the pre-planning lodgement for case ref. ABP-207259-20. The relevant Traffic and Transportation items raised in the *Inspector's Report on Recommended Opinion*, dated 11th September 2020, and the ABP *Notice of Pre-Planning Consultation Opinion*, dated 24th September 2020, are set out below with ILTP's responses to same.

11.1.2 The TTA was fully revised and updated to account for design changes to the original proposed scheme and to take account of all the relevant items raised in the Board's Opinion. Detailed discussion and meetings with CCC also took place and the proposed car and cycle parking requirement agreed with them during these consultations are outlined in the TTA.

11.2 Summary Response to Transport, Parking and Related Items

11.2.1 The ABP Direction, dated 24th September 2020, also states:

> *"I hereby direct that an Opinion, pursuant to section 6 (7) of the Planning and Development (Housing) and Residential Tenancies Act 2016, should issue generally in accordance with the Inspector's Recommendation."*

11.3 Summary of Response to Items Raised by Board – 2: Car Parking Rationale

11.3.1 The quantum of car parking has been reduced overall by circa 16% from the Section 5 pre-planning lodgement to the Board, and significant increases in cycle parking and facilities are proposed. The car and cycle parking quantums were agreed with CCC having regard to the site location, proposed nature of the development, the existing and future transport infrastructure and to national, regional and local policies.

11.3.2 Car parking was significantly reduced around Block S, T & U and, as set out in the Architects report, significant improvement to the public realm and landscaping were achieved in this area.

11.4 Summary of Response to Board's Specific Information Requests 2, 4, 6 & 8

11.4.1 In respect to Item 2 requested by the Board, ILTP have undertaken a fully updated TTA, which includes for enhanced pedestrian infrastructure at the access off Beechtree Avenue and overall improvements to the internal street layouts in accordance with the principles as set out in DMURS. The updated TTA also includes the revised overall development proposals and car and cycle parking provisions.

11.4.2 In respect to Item 4, clarification is given on the provision for future integration with the surrounding area as well as additional provision for future integration with adjacent lands, which are also detailed in other submissions to the Board.

11.4.3 In respect to Item 6, a MMP has been updated and is included in Chapter 10 of this Report.

11.4.4 In respect to Item 8, a Construction Traffic Impact Assessment is included in Chapter 9 of this report to compliment the CEMP, which is included as a separate BMCE report.

12 SUMMARY & CONCLUSIONS

12.1 Summary

12.1.1 ILTP Consulting were commissioned to undertake a new Traffic and Transport Assessment (TTA) for a proposed residential development on lands at the former St Kevin's Hospital and Grounds, Shanakiel, Cork. The proposed development will be progress via the SHD planning process. The TTA has been fully updated to reflect the proposed changes to the overall development following receipt of the Board's Opinion.

12.1.2 The proposed development consists of a residential development comprising 266 no. residential units, in addition to an ancillary commercial crèche, chapel office / enterprise centre and public open space.

12.1.3 ILTP met with Cork City Council on various dates to discuss the planning application and items relating to traffic and transport. CCC support in principle to providing vehicular access to the proposed development site from Shanakiel Road. CCC also agreed with ILTP the scope to the TTA assessment, the proposed main junction layout and proposed car and cycle parking strategy.

12.1.4 ILTP coordinated traffic count surveys undertaken on 27th February 2020 in order to collate the full set of traffic data considered necessary to support the planning application for the proposed development.

12.1.5 Based on an assessment of traffic flow data, traffic flows on Shanakiel Road are relatively lower than other city centre routes and the traffic flows are well within the link capacity of adjacent roads.

12.1.6 Following receipt of the Board's Opinion further detailed discussion took place with CCC to discuss car and cycle parking, a review of internal layout, provision of future access to adjacent lands and on the proposed access layout off Beechtree Avenue. The revised car and cycle parking numbers were agreed with CCC during these further consultations and are as set out in the TTA.

12.1.7 It is considered that background traffic at the subject site is not anticipated to grow over time. This is in line with traffic volume trends in the vicinity of the subject site and a review of traffic growth rates in cities and on radial routes. This is also underpinned by the policies and objectives as set down in *Smarter Travel - A Sustainable Transport Future 2009 – 2020*, the current CDP, and the *Cork Metropolitan Transport Strategy*.

12.1.8 Furthermore, current Government and CCC modal shift targets to more sustainable forms of transport are likely to yield a reduction in background traffic in the short to medium term in urban areas.

12.1.9 To ensure a robust Traffic Impact Assessment of the proposed development however, ILTP did not include for any reduction in background traffic volumes for future year scenarios below current levels. Instead ILTP applied a worse-case scenario by assuming that the recorded 2020 traffic count survey volumes will persist over time. Additional traffic generated by the proposed development, based on robust assumptions, was also added to existing traffic conditions.

12.1.10 Based on the traffic conditions observed during site visits and the traffic surveys, the location of the development, and the proximity to Cork City Centre, ILTP estimated a 60/40 split in Trip Distribution for traffic exiting the development on to Shanakiel Road. Therefore, the development traffic flow will dissipate left and right, with just over one additional vehicular movement per minute being added to the two-way background traffic on Shanakiel Road to either side of the subject site.

12.1.11 ILTP carried out LinSig and Picady traffic model analyses of the junctions adjoining the proposed development to project the impact of additional traffic flows from the proposed development on the capacity of the junctions.

12.1.12 The capacity of the Shanakiel Road / Beechtree Avenue signalised junction was assessed using the LinSig Signalised Junction Modelling software. The LinSig Traffic Model shows that all arms of the junction are operating within capacity with both the recorded background traffic and projected development traffic in place. The LinSig traffic modelling analysis undertaken shows that the junction can satisfactorily accommodate the projected additional traffic from the proposed development.

12.1.13 The Picady results for the Blarney Road / Shanakiel Road and Sunday's Well Road / Shanakiel Road priority junctions show that the proposed development will have a small additional impact on these junctions relative to background traffic, and that the junctions have adequate capacity for the proposed development. The Picady results show that the Blarney Road / Shanakiel Road and Sunday's Well Road / Shanakiel Road junctions operate satisfactorily with the proposed development in place during peak hour conditions.

12.1.14 The assessment undertaken by ILTP verifies that, beyond the Blarney Road / Shanakiel Road and Sunday's Well Road / Shanakiel Road junctions, traffic will dissipate to below Traffic Impact Assessment thresholds.

12.1.15 As requested ILTP also undertook a sensitivity test assuming traffic continues to grow in the future up to a 2037 Design Year scenario. This as expected showed increased levels of congestion using this scenario, which would occur irrespective of the proposed development. However ILTP are firmly of the view, based on a review of traffic patterns in city centres and on established approach roads, as set out in the TTA, this is a most unlikely occurrence and could only arise in the context of existing transport and sustainability policies at national, regional and local level being abandoned and reversed.

12.1.16 The proposed internal street layouts, reduced car parking provision and increased cycle parking combined with the measures as set out in the Mobility Management Plan (MMP) will further promote greater use of more sustainable travel modes. In addition, car club and electric car parking points are to be provided, which can be increased over time to meet future demand. Generous cycle parking and facilities are provided for within the development.

12.1.17 The MMP includes for the appointment of a Mobility Manager for the development, which will ultimately come under the remit of the Management Company, which will ensure active participation of all users in promoting sustainable travel patterns.

12.1.18 The construction traffic will not have a significant negative impact on the local road network and will be directed via designated construction traffic routes. The proposed construction phasing and Construction Traffic Management Plan and associated CEMP will minimise impact on the local road network and ensure that Shanakiel Road and the adjoining road network remain operational at all times. The proposed haul route and Construction TMP will be submitted and agreed with the planning authority in advance of construction commencing.

12.2 Conclusions

12.2.1 The proposed development fully accords with the policies as set down in the *Cork City Development Plan and Cork Metropolitan Area Transport Strategy*. The proposed development is fully supported by National, Regional and Local Plan policies and has evolved in a manner so that it fully supports the principles for sustainable transport as set out in Smarter Travel and DMURS. This TTA and MMP also deals with all the traffic, parking and accessibility matters raised in the Board's Opinion.

12.2.2 While the TTA assumed robust, worst case scenario assumptions in respect to traffic flows and traffic generation, it demonstrates that the overall traffic impact can be accommodated in the road network. The proposed development will promote sustainable travel patterns by virtue of its location, layout, design and proximity to the public transport and cycle networks. These will be complimented with a Mobility Management Plan and the appointment of a Mobility Manager to promote sustainable travel patterns. The proposed development is located and designed such that it will not have any significant traffic impacts on the surrounding area. The access and internal layout are designed in accordance with DMURS.

A APPENDIX

A.1 LinSig and Picady Traffic Modelling Analyses

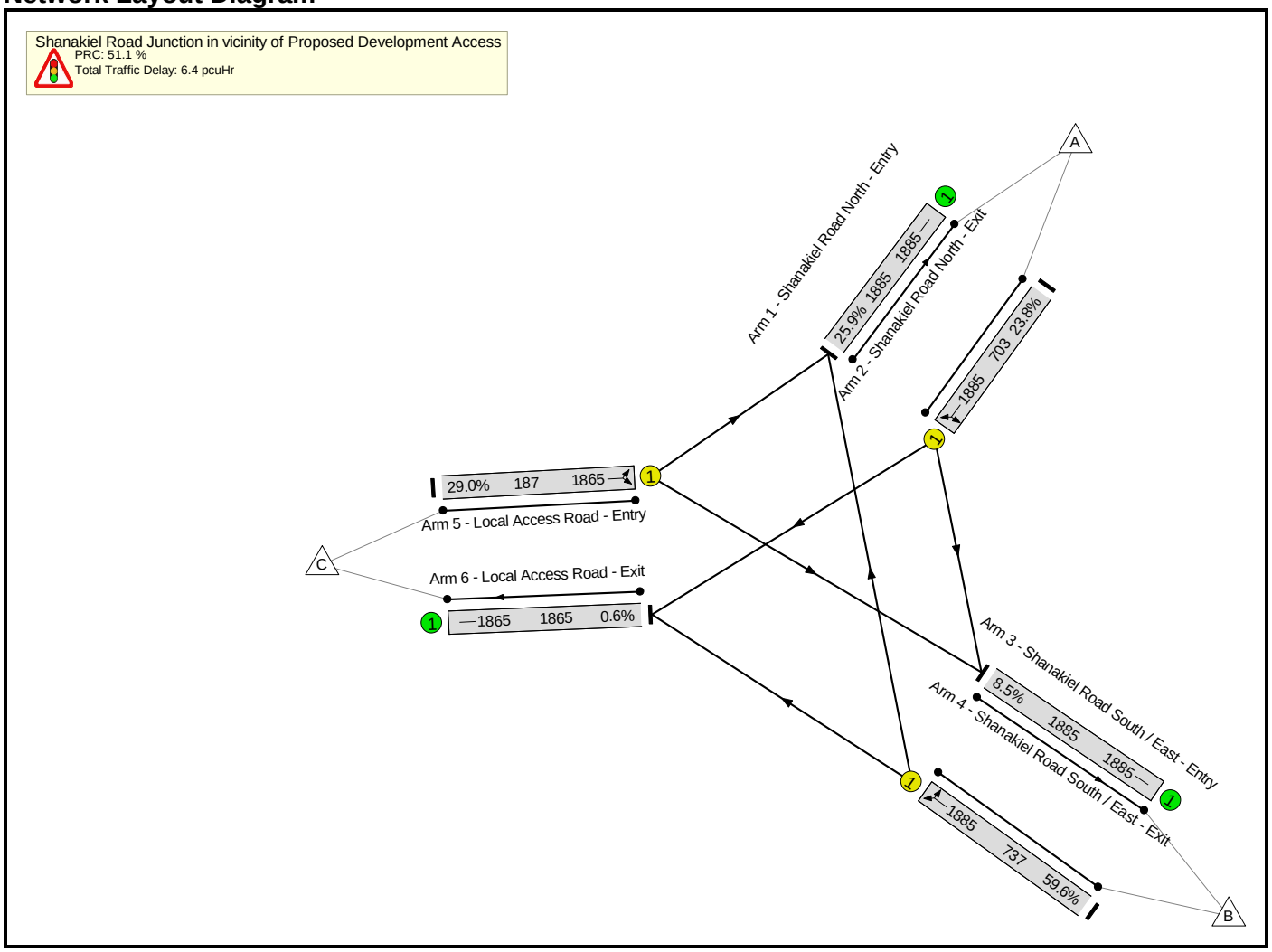
Basic Results Summary

User and Project Details

Project:	**St. Kevin's SHD Cork**
Title:	
Location:	
Client:	LDA
Date Started:	10th March 2020
Model Purpose:	Capacity Assessment of Shanakiel Road Junction in immediate vicinity of Proposed Development Access
Model Assumptions:	Assumed 2022 Opening Year & 2037 Design Year
Additional detail:	
File name:	Shanakiel Road Junction in vicinity of Proposed Access - Dec 2020.lsg3x
Author:	
Company:	ILTP Consulting
Address:	

Scenario 1: 'Scenario 1 - 2022 Without AM' (FG1: 'Flow Group 1 - 2022 Without AM', Plan 1: 'Network Control Plan 1')

Network Layout Diagram



Basic Results Summary

Basic Results Summary

Network Results

Item	Lane Description	Lane Type	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Mean Max Queue (pcu)
Network	-	-	-		-	-	-	-	-	-	**59.6%**	**0**	**0**	**0**	**6.4**	-	-
Shanakiel Road Junction in vicinity of Proposed Development Access	-	-	-		-	-	-	-	-	-	**59.6%**	**0**	**0**	**0**	**6.4**	-	-
1/1	Shanakiel Road North - Entry Left Right	U	A		1	40	-	167	1885	703	23.8%	-	-	-	1.3	27.1	3.6
2/1	Shanakiel Road North - Exit	U	-		-	-	-	488	1885	1885	25.9%	-	-	-	0.2	1.3	0.2
3/1	Shanakiel Road South / East - Entry Right Ahead	U	B		1	42	-	439	1885	737	59.6%	-	-	-	4.0	32.6	11.3
4/1	Shanakiel Road South / East - Exit	U	-		-	-	-	160	1885	1885	8.5%	-	-	-	0.0	1.0	0.0
5/1	Local Access Road - Entry Left Ahead	U	C		1	10	-	54	1865	187	29.0%	-	-	-	0.9	59.4	1.7
6/1	Local Access Road - Exit	U	-		-	-	-	12	1865	1865	0.6%	-	-	-	0.0	1.0	0.0

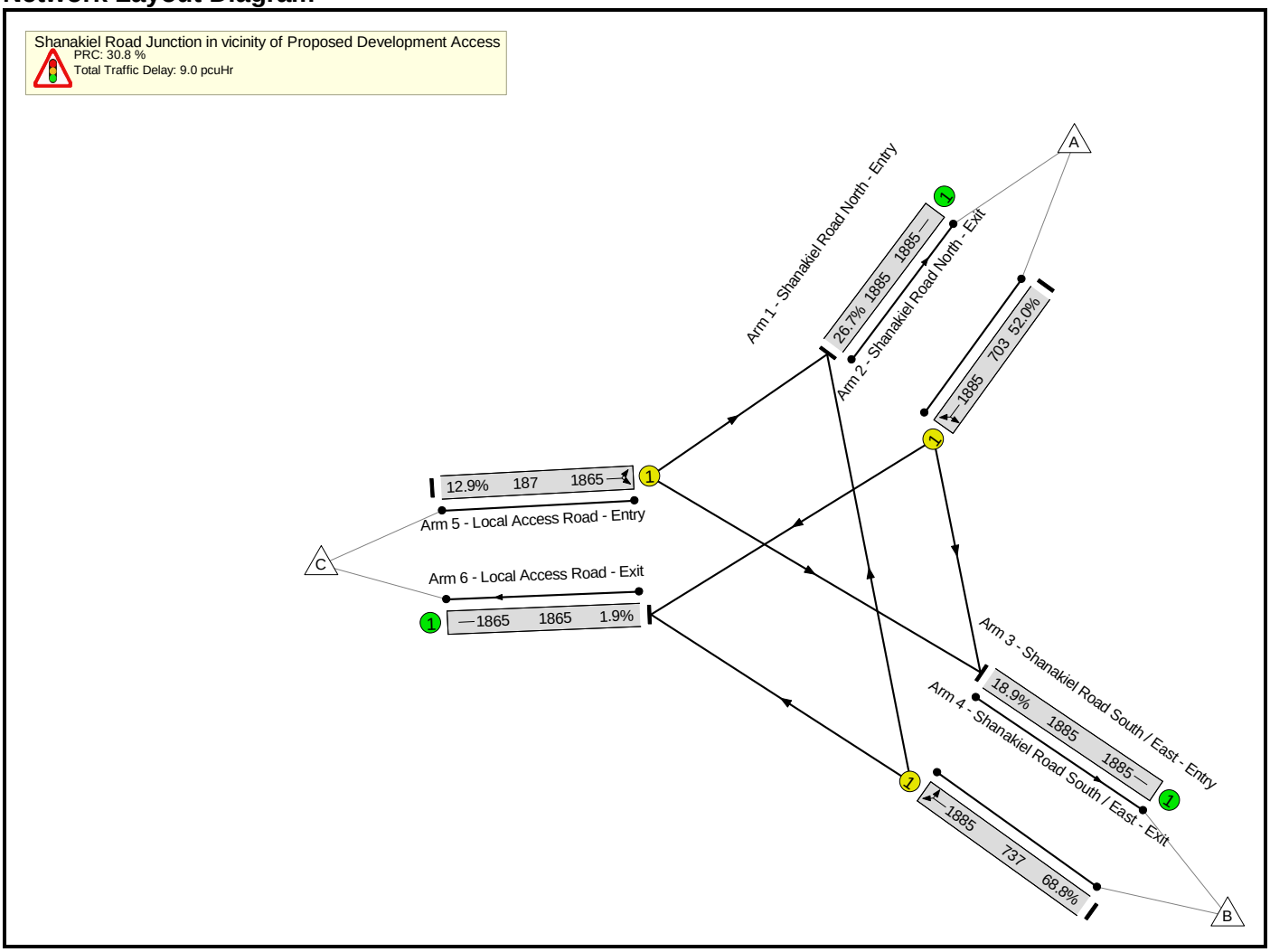
C1 PRC for Signalled Lanes (%): 51.1 Total Delay for Signalled Lanes (pcuHr): 6.13 Cycle Time (s): 110

PRC Over All Lanes (%): 51.1 Total Delay Over All Lanes(pcuHr): 6.35

Basic Results Summary

Scenario 2: 'Scenario 2 - 2022 Without PM' (FG2: 'Flow Group 2 - 2022 Without PM', Plan 1: 'Network Control Plan 1')

Network Layout Diagram



Basic Results Summary

Network Results

Item	Lane Description	Lane Type	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Mean Max Queue (pcu)
Network	-	-	-		-	-	-	-	-	-	**68.8%**	**0**	**0**	**0**	**9.0**	-	-
Shanakiel Road Junction in vicinity of Proposed Development Access	-	-	-		-	-	-	-	-	-	**68.8%**	**0**	**0**	**0**	**9.0**	-	-
1/1	Shanakiel Road North - Entry Left Right	U	A		1	40	-	365	1885	703	52.0%	-	-	-	3.3	32.2	9.2
2/1	Shanakiel Road North - Exit	U	-		-	-	-	503	1885	1885	26.7%	-	-	-	0.2	1.3	0.2
3/1	Shanakiel Road South / East - Entry Right Ahead	U	B		1	42	-	507	1885	737	68.8%	-	-	-	5.0	35.7	13.9
4/1	Shanakiel Road South / East - Exit	U	-		-	-	-	357	1885	1885	18.9%	-	-	-	0.1	1.2	0.1
5/1	Local Access Road - Entry Left Ahead	U	C		1	10	-	24	1865	187	12.9%	-	-	-	0.4	56.3	0.7
6/1	Local Access Road - Exit	U	-		-	-	-	36	1865	1865	1.9%	-	-	-	0.0	1.0	0.0

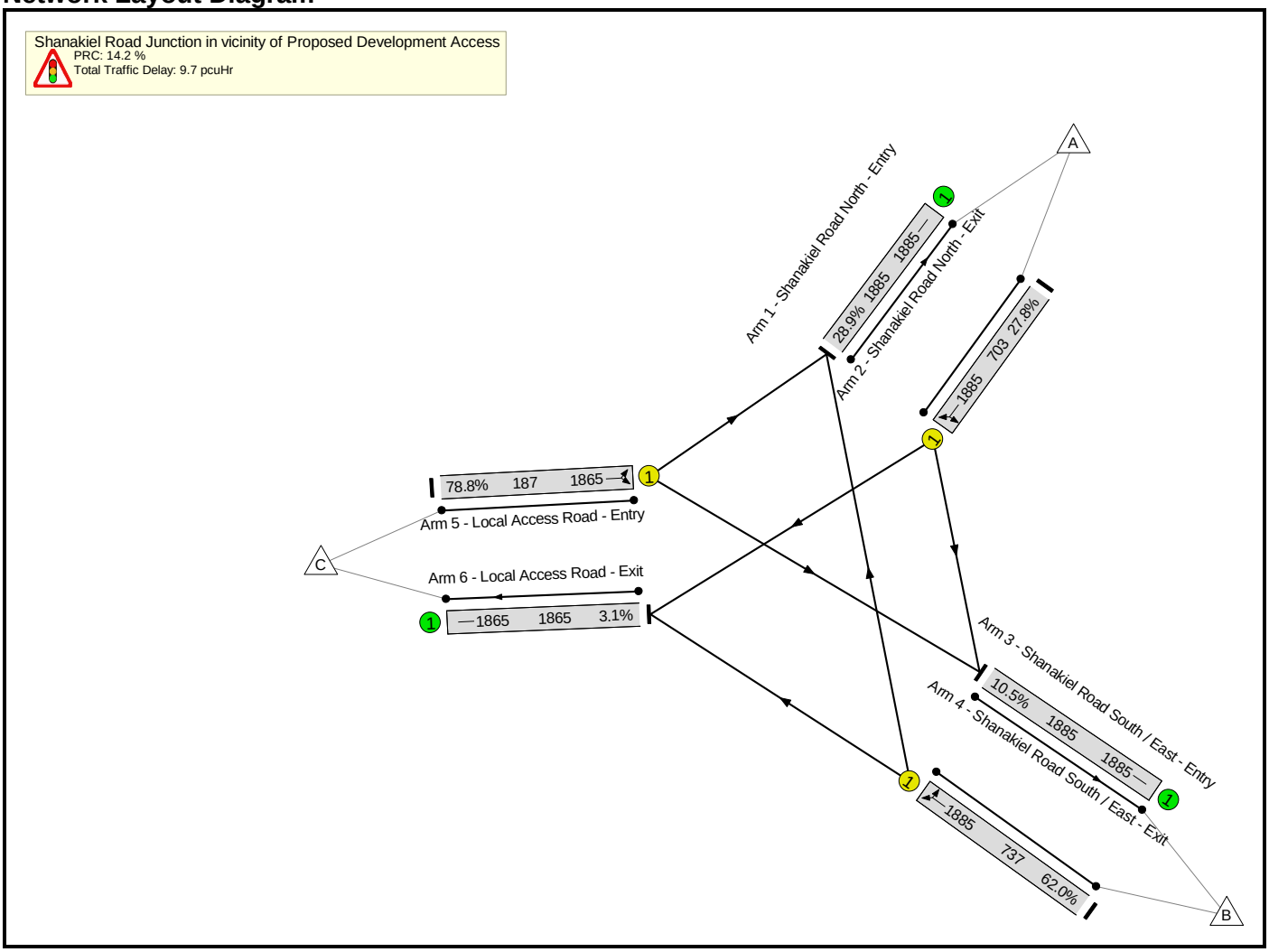
C1 PRC for Signalled Lanes (%): 30.8 Total Delay for Signalled Lanes (pcuHr): 8.66 Cycle Time (s): 110

PRC Over All Lanes (%): 30.8 Total Delay Over All Lanes(pcuHr): 8.97

Basic Results Summary

Scenario 3: 'Scenario 3 - 2022 With AM' (FG3: 'Flow Group 3 - 2022 With AM', Plan 1: 'Network Control Plan 1')

Network Layout Diagram



Basic Results Summary

Network Results

Item	Lane Description	Lane Type	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Mean Max Queue (pcu)
Network	**-**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**78.8%**	**0**	**0**	**0**	**9.7**	**-**	**-**
Shanakiel Road Junction in vicinity of Proposed Development Access	**-**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**78.8%**	**0**	**0**	**0**	**9.7**	**-**	**-**
1/1	Shanakiel Road North - Entry Left Right	U	A		1	40	-	195	1885	703	27.8%	-	-	-	1.5	27.7	4.3
2/1	Shanakiel Road North - Exit	U	-		-	-	-	544	1885	1885	28.9%	-	-	-	0.2	1.3	0.2
3/1	Shanakiel Road South / East - Entry Right Ahead	U	B		1	42	-	457	1885	737	62.0%	-	-	-	4.2	33.3	12.0
4/1	Shanakiel Road South / East - Exit	U	-		-	-	-	197	1885	1885	10.5%	-	-	-	0.1	1.1	0.1
5/1	Local Access Road - Entry Left Ahead	U	C		1	10	-	147	1865	187	78.8%	-	-	-	3.7	90.3	6.1
6/1	Local Access Road - Exit	U	-		-	-	-	58	1865	1865	3.1%	-	-	-	0.0	1.0	0.0

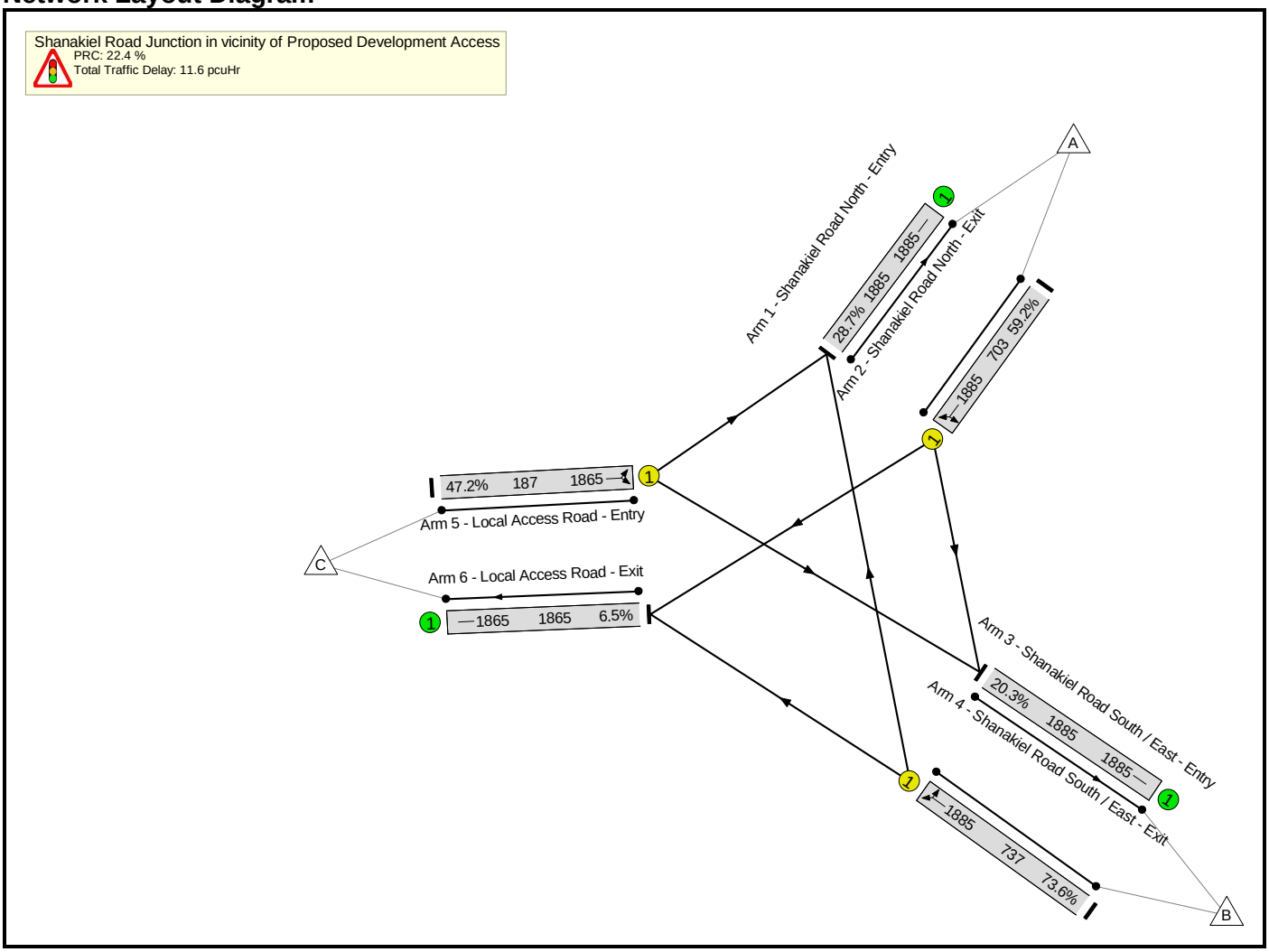
C1 PRC for Signalled Lanes (%): 14.2 Total Delay for Signalled Lanes (pcuHr): 9.42 Cycle Time (s): 110

PRC Over All Lanes (%): 14.2 Total Delay Over All Lanes(pcuHr): 9.70

Basic Results Summary

Scenario 4: 'Scenario 4 - 2022 With PM' (FG4: 'Flow Group 4 - 2022 With PM', Plan 1: 'Network Control Plan 1')

Network Layout Diagram



Basic Results Summary

Network Results

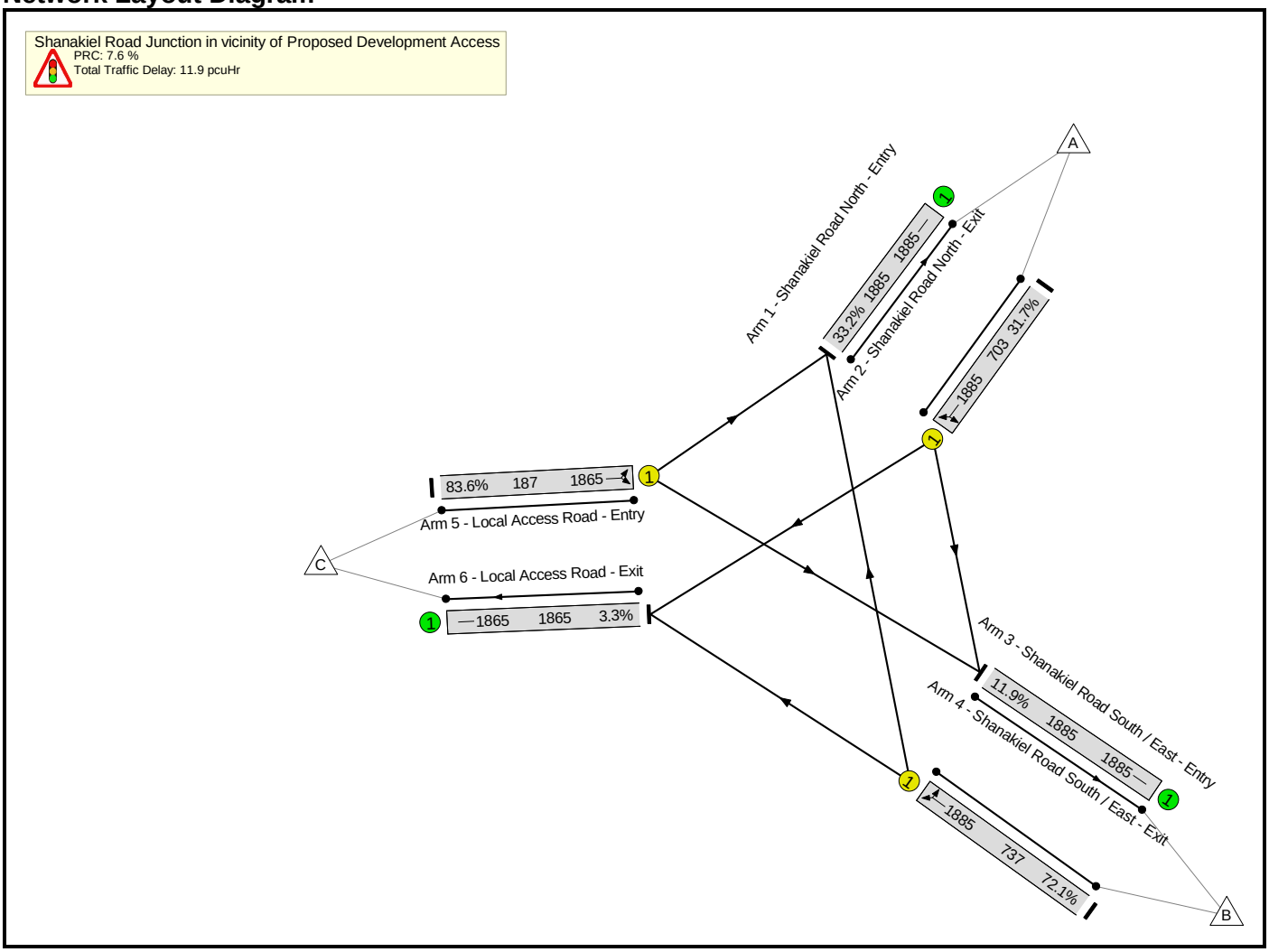
Item	Lane Description	Lane Type	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Mean Max Queue (pcu)
Network	**-**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**73.6%**	**0**	**0**	**0**	**11.6**	**-**	**-**
Shanakiel Road Junction in vicinity of Proposed Development Access	**-**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**73.6%**	**0**	**0**	**0**	**11.6**	**-**	**-**
1/1	Shanakiel Road North - Entry Left Right	U	A		1	40	-	416	1885	703	59.2%	-	-	-	3.9	34.0	10.9
2/1	Shanakiel Road North - Exit	U	-		-	-	-	541	1885	1885	28.7%	-	-	-	0.2	1.3	0.2
3/1	Shanakiel Road South / East - Entry Right Ahead	U	B		1	42	-	542	1885	737	73.6%	-	-	-	5.7	37.7	15.5
4/1	Shanakiel Road South / East - Exit	U	-		-	-	-	383	1885	1885	20.3%	-	-	-	0.1	1.2	0.1
5/1	Local Access Road - Entry Left Ahead	U	C		1	10	-	88	1865	187	47.2%	-	-	-	1.6	64.9	3.0
6/1	Local Access Road - Exit	U	-		-	-	-	122	1865	1865	6.5%	-	-	-	0.0	1.0	0.0

C1 PRC for Signalled Lanes (%): 22.4 Total Delay for Signalled Lanes (pcuHr): 11.20 Cycle Time (s): 110
PRC Over All Lanes (%): 22.4 Total Delay Over All Lanes(pcuHr): 11.56

Basic Results Summary

Scenario 5: 'Scenario 5 - 2037 With AM' (FG5: 'Flow Group 5 - 2037 With AM', Plan 1: 'Network Control Plan 1')

Network Layout Diagram



Basic Results Summary

Network Results

Item	Lane Description	Lane Type	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Mean Max Queue (pcu)
Network	-	-	-		-	-	-	-	-	-	**83.6%**	**0**	**0**	**0**	**11.9**	-	-
Shanakiel Road Junction in vicinity of Proposed Development Access	-	-	-		-	-	-	-	-	-	**83.6%**	**0**	**0**	**0**	**11.9**	-	-
1/1	Shanakiel Road North - Entry Left Right	U	A		1	40	-	223	1885	703	31.7%	-	-	-	1.8	28.3	5.1
2/1	Shanakiel Road North - Exit	U	-		-	-	-	625	1885	1885	33.2%	-	-	-	0.2	1.4	0.2
3/1	Shanakiel Road South / East - Entry Right Ahead	U	B		1	42	-	531	1885	737	72.1%	-	-	-	5.5	37.0	15.0
4/1	Shanakiel Road South / East - Exit	U	-		-	-	-	224	1885	1885	11.9%	-	-	-	0.1	1.1	0.1
5/1	Local Access Road - Entry Left Ahead	U	C		1	10	-	156	1865	187	83.6%	-	-	-	4.3	100.1	6.9
6/1	Local Access Road - Exit	U	-		-	-	-	61	1865	1865	3.3%	-	-	-	0.0	1.0	0.0

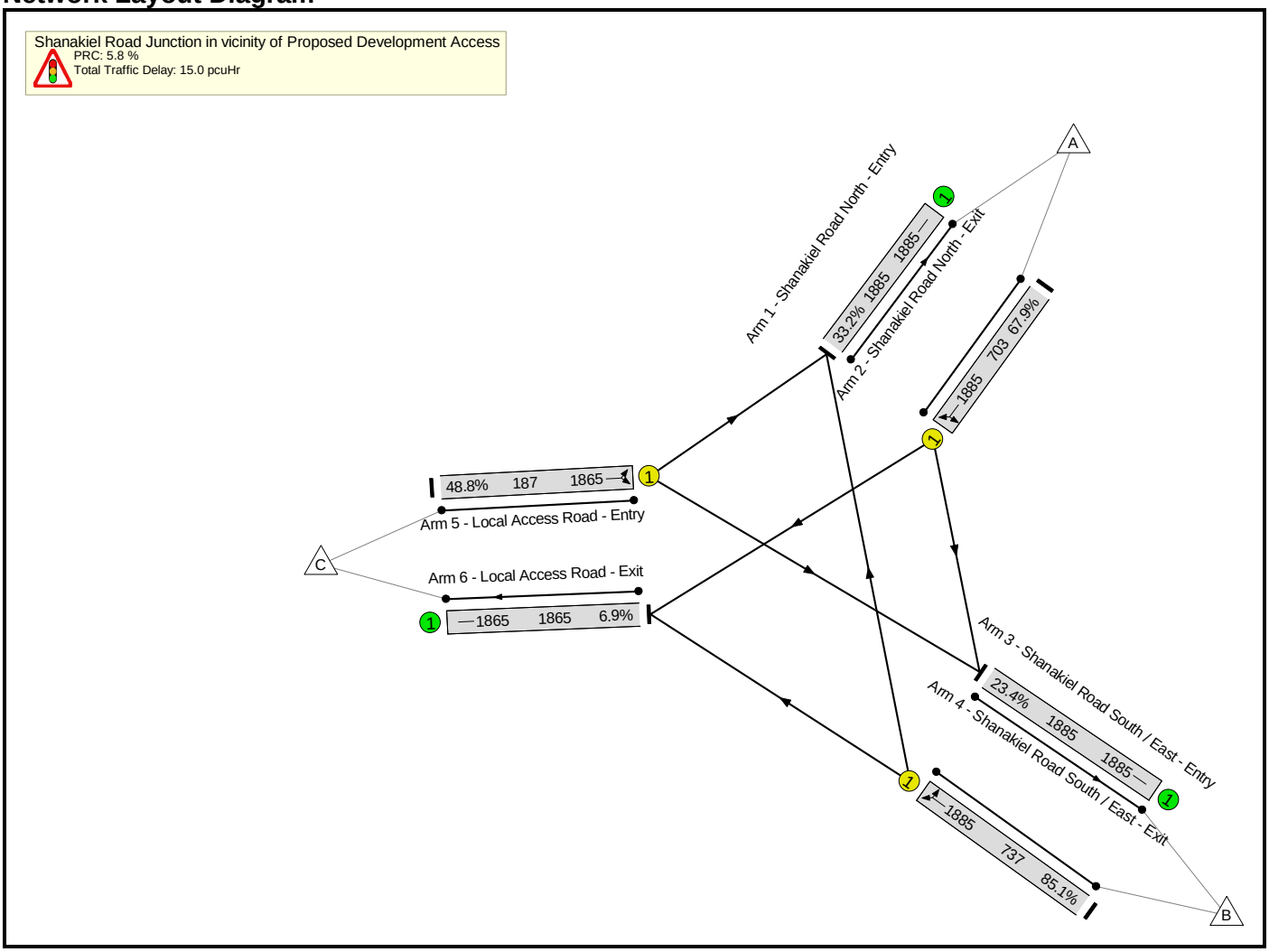
C1 PRC for Signalled Lanes (%): 7.6 Total Delay for Signalled Lanes (pcuHr): 11.56 Cycle Time (s): 110

PRC Over All Lanes (%): 7.6 Total Delay Over All Lanes(pcuHr): 11.89

Basic Results Summary

Scenario 6: 'Scenario 6 - 2037 With PM' (FG6: 'Flow Group 6 - 2037 With PM', Plan 1: 'Network Control Plan 1')

Network Layout Diagram



Basic Results Summary

Network Results

Item	Lane Description	Lane Type	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Mean Max Queue (pcu)
Network	-	-	-		-	-	-	-	-	-	**85.1%**	**0**	**0**	**0**	**15.0**	-	-
Shanakiel Road Junction in vicinity of Proposed Development Access	-	-	-		-	-	-	-	-	-	**85.1%**	**0**	**0**	**0**	**15.0**	-	-
1/1	Shanakiel Road North - Entry Left Right	U	A		1	40	-	477	1885	703	67.9%	-	-	-	4.9	36.9	13.2
2/1	Shanakiel Road North - Exit	U	-		-	-	-	625	1885	1885	33.2%	-	-	-	0.2	1.4	0.2
3/1	Shanakiel Road South / East - Entry Right Ahead	U	B		1	42	-	627	1885	737	85.1%	-	-	-	8.0	46.2	20.1
4/1	Shanakiel Road South / East - Exit	U	-		-	-	-	442	1885	1885	23.4%	-	-	-	0.2	1.2	0.2
5/1	Local Access Road - Entry Left Ahead	U	C		1	10	-	91	1865	187	48.8%	-	-	-	1.7	65.5	3.1
6/1	Local Access Road - Exit	U	-		-	-	-	128	1865	1865	6.9%	-	-	-	0.0	1.0	0.0

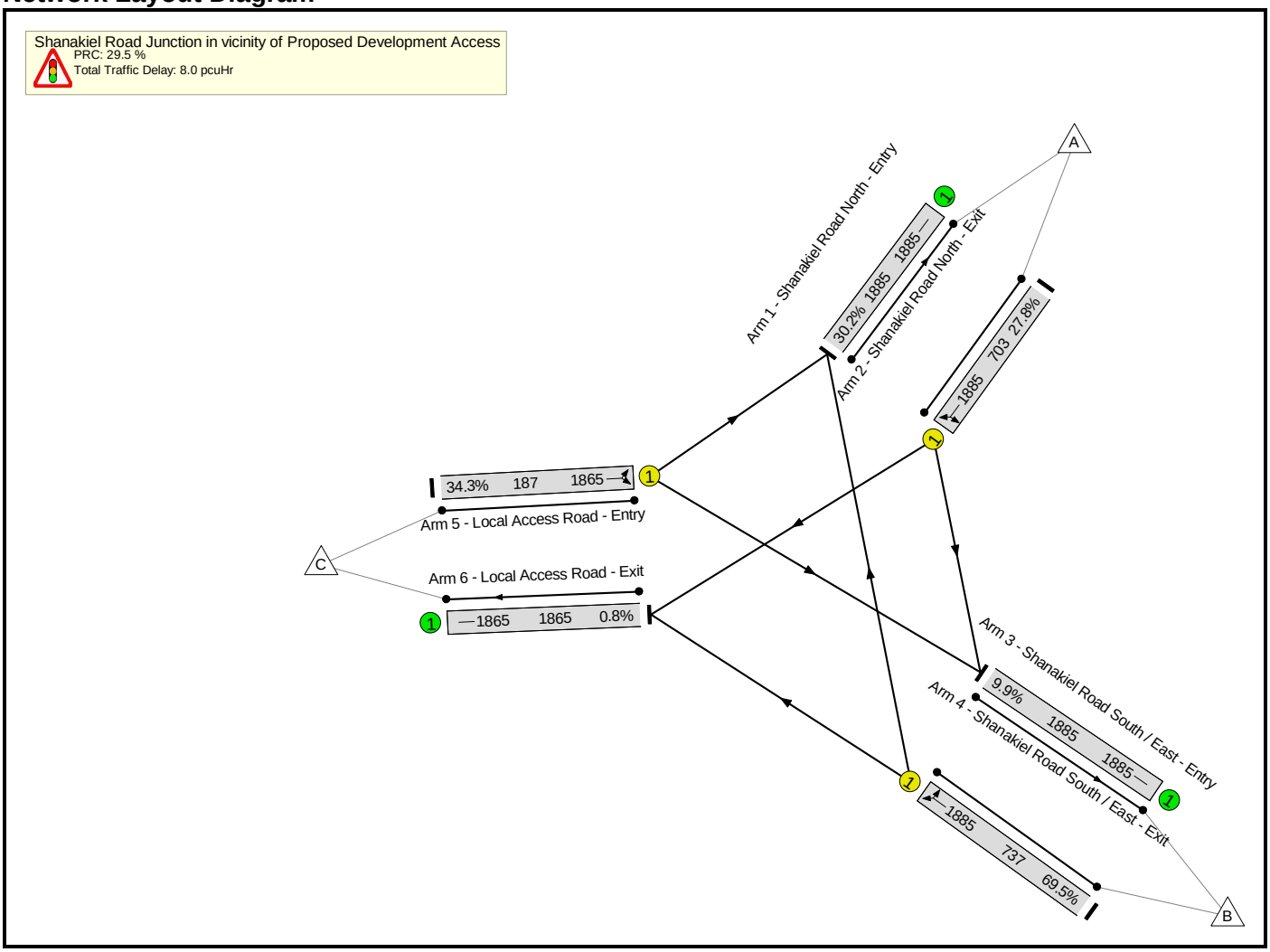
C1 PRC for Signalled Lanes (%): 5.8 Total Delay for Signalled Lanes (pcuHr): 14.59 Cycle Time (s): 110

PRC Over All Lanes (%): 5.8 Total Delay Over All Lanes(pcuHr): 15.02

Basic Results Summary

Scenario 7: 'Scenario 7 - 2037 Without AM' (FG7: 'Flow Group 7 - 2037 Without AM', Plan 1: 'Network Control Plan 1')

Network Layout Diagram



Basic Results Summary

Network Results

Item	Lane Description	Lane Type	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Mean Max Queue (pcu)
Network	**-**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**69.5%**	**0**	**0**	**0**	**8.0**	**-**	**-**
Shanakiel Road Junction in vicinity of Proposed Development Access	**-**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**69.5%**	**0**	**0**	**0**	**8.0**	**-**	**-**
1/1	Shanakiel Road North - Entry Left Right	U	A		1	40	-	195	1885	703	27.8%	-	-	-	1.5	27.7	4.3
2/1	Shanakiel Road North - Exit	U	-		-	-	-	570	1885	1885	30.2%	-	-	-	0.2	1.4	0.2
3/1	Shanakiel Road South / East - Entry Right Ahead	U	B		1	42	-	512	1885	737	69.5%	-	-	-	5.1	35.9	14.1
4/1	Shanakiel Road South / East - Exit	U	-		-	-	-	187	1885	1885	9.9%	-	-	-	0.1	1.1	0.1
5/1	Local Access Road - Entry Left Ahead	U	C		1	10	-	64	1865	187	34.3%	-	-	-	1.1	60.8	2.1
6/1	Local Access Road - Exit	U	-		-	-	-	14	1865	1865	0.8%	-	-	-	0.0	1.0	0.0

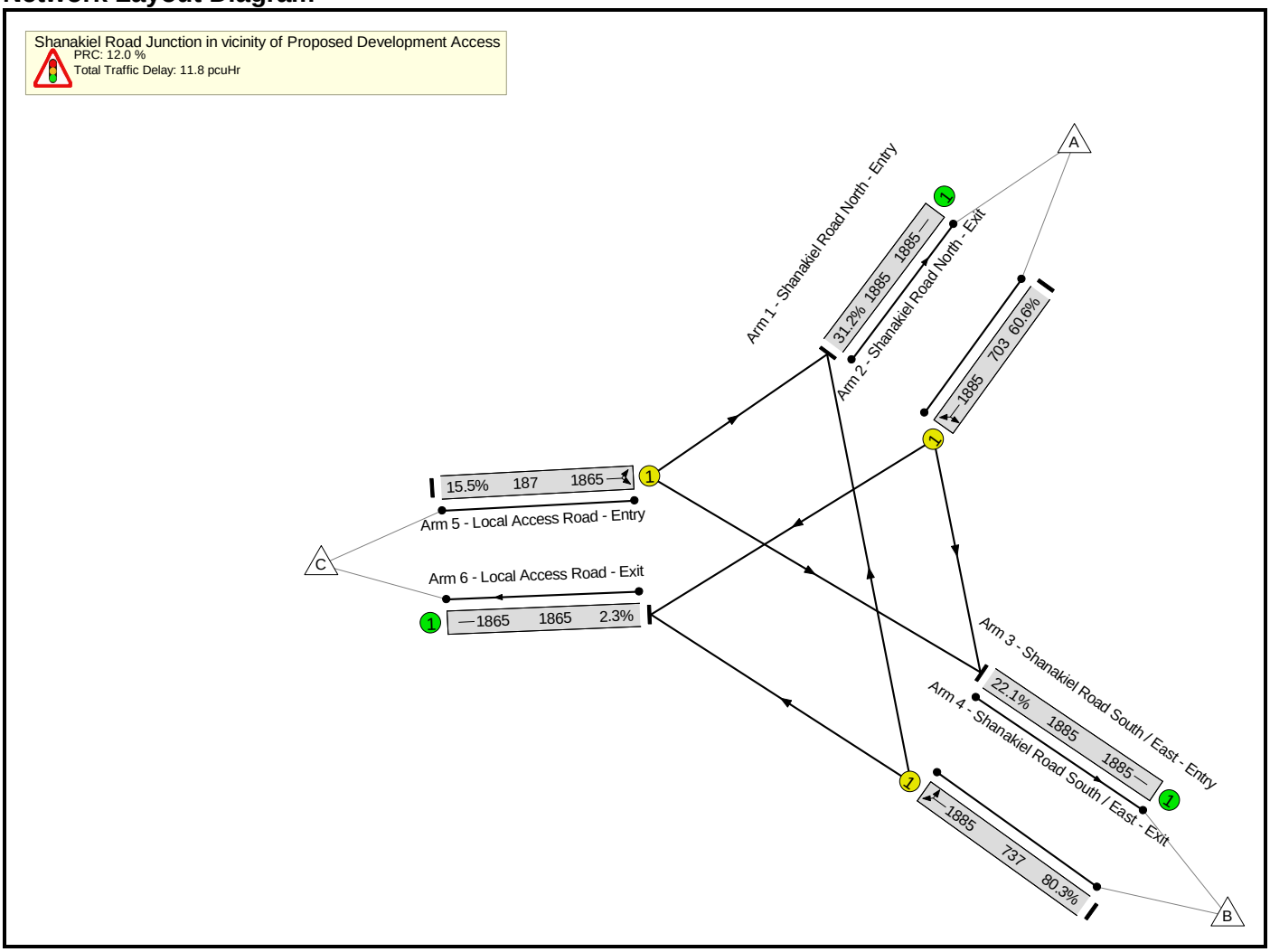
C1 PRC for Signalled Lanes (%): 29.5 Total Delay for Signalled Lanes (pcuHr): 7.69 Cycle Time (s): 110

PRC Over All Lanes (%): 29.5 Total Delay Over All Lanes(pcuHr): 7.97

Basic Results Summary

Scenario 8: 'Scenario 8 - 2037 Without PM' (FG8: 'Flow Group 8 - 2037 Without PM', Plan 1: 'Network Control Plan 1')

Network Layout Diagram



Basic Results Summary

Network Results

Item	Lane Description	Lane Type	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Mean Max Queue (pcu)
Network	-	-	-		-	-	-	-	-	-	**80.3%**	**0**	**0**	**0**	**11.8**	-	-
Shanakiel Road Junction in vicinity of Proposed Development Access	-	-	-		-	-	-	-	-	-	**80.3%**	**0**	**0**	**0**	**11.8**	-	-
1/1	Shanakiel Road North - Entry Left Right	U	A		1	40	-	426	1885	703	60.6%	-	-	-	4.1	34.4	11.3
2/1	Shanakiel Road North - Exit	U	-		-	-	-	588	1885	1885	31.2%	-	-	-	0.2	1.4	0.2
3/1	Shanakiel Road South / East - Entry Right Ahead	U	B		1	42	-	592	1885	737	80.3%	-	-	-	6.9	41.8	17.9
4/1	Shanakiel Road South / East - Exit	U	-		-	-	-	417	1885	1885	22.1%	-	-	-	0.1	1.2	0.1
5/1	Local Access Road - Entry Left Ahead	U	C		1	10	-	29	1865	187	15.5%	-	-	-	0.5	56.7	0.9
6/1	Local Access Road - Exit	U	-		-	-	-	42	1865	1865	2.3%	-	-	-	0.0	1.0	0.0

C1 PRC for Signalled Lanes (%): 12.0 Total Delay for Signalled Lanes (pcuHr): 11.41 Cycle Time (s): 110

PRC Over All Lanes (%): 12.0 Total Delay Over All Lanes(pcuHr): 11.79

PICADY

GUI Version: 5.1 AE
Analysis Program Release: 5.0 (MAY 2010)

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Web: www.trlsoftware.co.uk

Run Analysis

Parameter	Values
File Run	I:\..\Shanakiel Road Blarney Road\Shanakiel Road Blarney Road Junction-Dec 2020.vpi
Date Run	04 December 2020
Time Run	13:46:38
Driving Side	Drive On The Left

Arm Names and Flow Scaling Factors

Arm	Arm Name	Flow Scaling Factor (%)
Arm A	Arm A - Blarney Road West	100
Arm B	Arm B - Blarney Road East	100
Arm C	Arm C - Shanakiel Road	100

Stream Labelling Convention

Stream A-B contains traffic going from A to B etc.

Run Information

Parameter	Values
Run Title	St Kevins SHD - Junction of Shanakiel Road and Blarney Road
Location	Junction of Shanakiel Road and Blarney Road
Date	22 April 2020
Enumerator	administrator [ILTP023]
Job Number	STKEVINS
Status	TIA
Client	LDA
Description	Capacity assessment of Shanakiel Road / Blarney Road priority junction for 2022 Opening Year and 2037 Design Year without and with proposed development

Errors and Warnings

Parameter	Values
Warning	No Errors Or Warnings

Geometric Data

Geometric Parameters

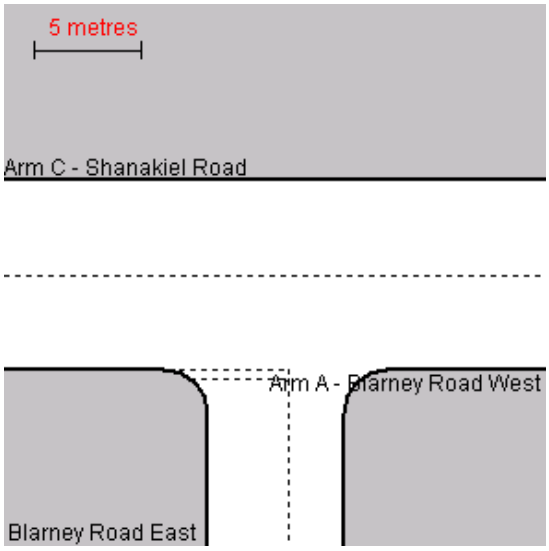
Parameter	Minor Arm B
Major Road Carriageway Width (m)	6.50
Major Road Kerbed Central Reserve Width (m)	0.00
Major Road Right Turning Lane Width (m)	2.20
Minor Road First Lane Width (m)	3.75
Minor Road Visibility To Right (m)	49
Minor Road Visibility To Left (m)	49
Major Road Right Turn Visibility (m)	49
Major Road Right Turn Blocks Traffic	Yes (if over 1 veh)

Slope and Intercept Values

Stream	Intercept for Stream	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
B-A	556.549	0.099	0.251	0.158	0.358
B-C	703.950	0.106	0.267	-	-
C-B	602.340	0.228	0.228	-	-

Note: Streams may be combined in which case capacity will be adjusted
These values do not allow for any site-specific corrections

Junction Diagram



Demand Data

Modelling Periods

Parameter	Period	Duration (min)	Segment Length (min)
First Modelling Period	08:00-09:00	60	15
Second Modelling Period	17:00-18:00	60	15

Direct Entry Flows

Demand Set: 2022 Opening Year Without Proposed Development - AM Peak Hour
Modelling Period: 08:00-09:00

Segment: 08:00-08:15

Arm	Flow (veh/min)
Arm A	2.75
Arm B	1.15
Arm C	8.20

Segment: 08:15-08:30

Arm	Flow (veh/min)
Arm A	2.75
Arm B	1.15
Arm C	8.20

Segment: 08:30-08:45

Arm	Flow (veh/min)
Arm A	2.75
Arm B	1.15
Arm C	8.20

Segment: 08:45-09:00

Arm	Flow (veh/min)
Arm A	2.75
Arm B	1.15
Arm C	8.20

Demand Set: 2022 Opening Year Without Proposed Development - PM Peak Hour
Modelling Period: 17:00-18:00

Segment: 17:00-17:15

Arm	Flow (veh/min)
Arm A	6.03
Arm B	1.15
Arm C	8.62

Segment: 17:15-17:30

Arm	Flow (veh/min)
Arm A	6.03
Arm B	1.15
Arm C	8.62

Segment: 17:30-17:45

Arm	Flow (veh/min)
Arm A	6.03
Arm B	1.15
Arm C	8.62

Segment: 17:45-18:00

Arm	Flow (veh/min)
Arm A	6.03
Arm B	1.15
Arm C	8.62

Demand Set: 2022 Opening Year With Proposed Development - AM Peak Hour
Modelling Period: 08:00-09:00

Segment: 08:00-08:15

Arm	Flow (veh/min)
Arm A	3.02
Arm B	1.35
Arm C	9.12

Segment: 08:15-08:30

Arm	Flow (veh/min)
Arm A	3.02
Arm B	1.35
Arm C	9.12

Segment: 08:30-08:45

Arm	Flow (veh/min)
Arm A	3.02
Arm B	1.35
Arm C	9.12

Segment: 08:45-09:00

Arm	Flow (veh/min)
Arm A	3.02
Arm B	1.35
Arm C	9.12

Demand Set: 2022 Opening Year With Proposed Development - PM Peak Hour
Modelling Period: 17:00-18:00

Segment: 17:00-17:15

Arm	Flow (veh/min)
Arm A	6.53
Arm B	1.52
Arm C	9.23

Segment: 17:15-17:30

Arm	Flow (veh/min)
Arm A	6.53
Arm B	1.52
Arm C	9.23

Segment: 17:30-17:45

Arm	Flow (veh/min)
Arm A	6.53
Arm B	1.52
Arm C	9.23

Segment: 17:45-18:00

Arm	Flow (veh/min)
Arm A	6.53
Arm B	1.52
Arm C	9.23

Demand Set: 2037 Opening Year Without Proposed Development - AM Peak Hour
Modelling Period: 08:00-09:00

Segment: 08:00-08:15

Arm	Flow (veh/min)
Arm A	3.21
Arm B	1.33
Arm C	9.56

Segment: 08:15-08:30

Arm	Flow (veh/min)
Arm A	3.21
Arm B	1.33
Arm C	9.56

Segment: 08:30-08:45

Arm	Flow (veh/min)
Arm A	3.21
Arm B	1.33
Arm C	9.56

Segment: 08:45-09:00

Arm	Flow (veh/min)
Arm A	3.21
Arm B	1.33
Arm C	9.56

Demand Set: 2037 Opening Year With Proposed Development - AM Peak Hour
Modelling Period: 08:00-09:00

Segment: 08:00-08:15

Arm	Flow (veh/min)
Arm A	3.48
Arm B	1.53
Arm C	10.48

Segment: 08:15-08:30

Arm	Flow (veh/min)
Arm A	3.48
Arm B	1.53
Arm C	10.48

Segment: 08:30-08:45

Arm	Flow (veh/min)
Arm A	3.48
Arm B	1.53
Arm C	10.48

Segment: 08:45-09:00

Arm	Flow (veh/min)
Arm A	3.48
Arm B	1.53
Arm C	10.48

Demand Set: 2037 Opening Year Without Proposed Development - PM Peak Hour
Modelling Period: 17:00-18:00

Segment: 17:00-17:15

Arm	Flow (veh/min)
Arm A	7.03
Arm B	1.35
Arm C	10.05

Segment: 17:15-17:30

Arm	Flow (veh/min)
Arm A	7.03
Arm B	1.35
Arm C	10.05

Segment: 17:30-17:45

Arm	Flow (veh/min)
Arm A	7.03
Arm B	1.35
Arm C	10.05

Segment: 17:45-18:00

Arm	Flow (veh/min)
Arm A	7.03
Arm B	1.35
Arm C	10.05

Demand Set: 2037 Opening Year With Proposed Development - PM Peak Hour
Modelling Period: 17:00-18:00

Segment: 17:00-17:15

Arm	Flow (veh/min)
Arm A	7.53
Arm B	1.70
Arm C	10.68

Segment: 17:15-17:30

Arm	Flow (veh/min)
Arm A	7.53
Arm B	1.70
Arm C	10.68

Segment: 17:30-17:45

Arm	Flow (veh/min)
Arm A	7.53
Arm B	1.70
Arm C	10.68

Segment: 17:45-18:00

Arm	Flow (veh/min)
Arm A	7.53
Arm B	1.70
Arm C	10.68

Turning Counts

Demand Set: 2022 Opening Year Without Proposed Development - AM Peak Hour
Modelling Period: 08:00-09:00

From/To	Arm A	Arm B	Arm C
Arm A	-	0	165
Arm B	62	-	7
Arm C	335	157	-

Demand Set: 2022 Opening Year Without Proposed Development - PM Peak Hour
Modelling Period: 17:00-18:00

From/To	Arm A	Arm B	Arm C
Arm A	-	0	362
Arm B	63	-	6
Arm C	425	92	-

Demand Set: 2022 Opening Year With Proposed Development - AM Peak Hour
Modelling Period: 08:00-09:00

From/To	Arm A	Arm B	Arm C
Arm A	-	0	181
Arm B	62	-	19
Arm C	367	180	-

Demand Set: 2022 Opening Year With Proposed Development - PM Peak Hour
Modelling Period: 17:00-18:00

From/To	Arm A	Arm B	Arm C
Arm A	-	0	392
Arm B	63	-	28
Arm C	447	107	-

Demand Set: 2037 Opening Year Without Proposed Development - AM Peak Hour
Modelling Period: 08:00-09:00

From/To	Arm A	Arm B	Arm C
Arm A	-	0	193
Arm B	72	-	8
Arm C	391	183	-

Demand Set: 2037 Opening Year With Proposed Development - AM Peak Hour
Modelling Period: 08:00-09:00

From/To	Arm A	Arm B	Arm C
Arm A	-	0	209
Arm B	72	-	20
Arm C	423	206	-

Demand Set: 2037 Opening Year Without Proposed Development - PM Peak Hour
Modelling Period: 17:00-18:00

From/To	Arm A	Arm B	Arm C
Arm A	-	0	422
Arm B	73	-	7
Arm C	496	107	-

Demand Set: 2037 Opening Year With Proposed Development - PM Peak Hour
Modelling Period: 17:00-18:00

From/To	Arm A	Arm B	Arm C
Arm A	-	0	452
Arm B	73	-	29
Arm C	518	123	-

Turning proportions are calculated from turning count data

Turning Proportions

Demand Set: 2022 Opening Year Without Proposed Development - AM Peak Hour
Modelling Period: 08:00-09:00

From/To	Arm A	Arm B	Arm C
Arm A	0.000	0.000	1.000
Arm B	0.899	0.000	0.101
Arm C	0.681	0.319	0.000

Demand Set: 2022 Opening Year Without Proposed Development - PM Peak Hour
Modelling Period: 17:00-18:00

From/To	Arm A	Arm B	Arm C
Arm A	0.000	0.000	1.000
Arm B	0.913	0.000	0.087
Arm C	0.822	0.178	0.000

Demand Set: 2022 Opening Year With Proposed Development - AM Peak Hour
Modelling Period: 08:00-09:00

From/To	Arm A	Arm B	Arm C
Arm A	0.000	0.000	1.000
Arm B	0.765	0.000	0.235
Arm C	0.671	0.329	0.000

Demand Set: 2022 Opening Year With Proposed Development - PM Peak Hour
Modelling Period: 17:00-18:00

From/To	Arm A	Arm B	Arm C
Arm A	0.000	0.000	1.000
Arm B	0.692	0.000	0.308
Arm C	0.807	0.193	0.000

Demand Set: 2037 Opening Year Without Proposed Development - AM Peak Hour
Modelling Period: 08:00-09:00

From/To	Arm A	Arm B	Arm C
Arm A	0.000	0.000	1.000
Arm B	0.900	0.000	0.100
Arm C	0.681	0.319	0.000

Demand Set: 2037 Opening Year With Proposed Development - AM Peak Hour
Modelling Period: 08:00-09:00

From/To	Arm A	Arm B	Arm C
Arm A	0.000	0.000	1.000
Arm B	0.783	0.000	0.217
Arm C	0.672	0.328	0.000

Demand Set: 2037 Opening Year Without Proposed Development - PM Peak Hour
Modelling Period: 17:00-18:00

From/To	Arm A	Arm B	Arm C
Arm A	0.000	0.000	1.000
Arm B	0.913	0.000	0.087
Arm C	0.823	0.177	0.000

Demand Set: 2037 Opening Year With Proposed Development - PM Peak Hour
Modelling Period: 17:00-18:00

From/To	Arm A	Arm B	Arm C
Arm A	0.000	0.000	1.000
Arm B	0.716	0.000	0.284
Arm C	0.808	0.192	0.000

Heavy Vehicles Percentages

Demand Set: 2022 Opening Year Without Proposed Development - AM Peak Hour
Modelling Period: 08:00-09:00

From/To	Arm A	Arm B	Arm C
Arm A	-	10.0	10.0
Arm B	10.0	-	10.0
Arm C	10.0	10.0	-

Demand Set: 2022 Opening Year Without Proposed Development - PM Peak Hour
Modelling Period: 17:00-18:00

From/To	Arm A	Arm B	Arm C
Arm A	-	10.0	10.0
Arm B	10.0	-	10.0
Arm C	10.0	10.0	-

Demand Set: 2022 Opening Year With Proposed Development - AM Peak Hour
Modelling Period: 08:00-09:00

From/To	Arm A	Arm B	Arm C
Arm A	-	10.0	10.0
Arm B	10.0	-	10.0
Arm C	10.0	10.0	-

Demand Set: 2022 Opening Year With Proposed Development - PM Peak Hour
Modelling Period: 17:00-18:00

From/To	Arm A	Arm B	Arm C
Arm A	-	10.0	10.0
Arm B	10.0	-	10.0
Arm C	10.0	10.0	-

Demand Set: 2037 Opening Year Without Proposed Development - AM Peak Hour
Modelling Period: 08:00-09:00

From/To	Arm A	Arm B	Arm C
Arm A	-	10.0	10.0
Arm B	10.0	-	10.0
Arm C	10.0	10.0	-

Demand Set: 2037 Opening Year With Proposed Development - AM Peak Hour
Modelling Period: 08:00-09:00

From/To	Arm A	Arm B	Arm C
Arm A	-	10.0	10.0
Arm B	10.0	-	10.0
Arm C	10.0	10.0	-

Demand Set: 2037 Opening Year Without Proposed Development - PM Peak Hour
Modelling Period: 17:00-18:00

From/To	Arm A	Arm B	Arm C
Arm A	-	10.0	10.0
Arm B	10.0	-	10.0
Arm C	10.0	10.0	-

Demand Set: 2037 Opening Year With Proposed Development - PM Peak Hour
Modelling Period: 17:00-18:00

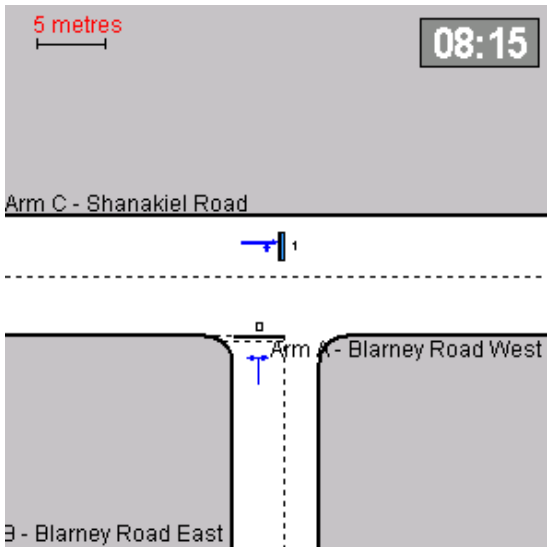
From/To	Arm A	Arm B	Arm C
Arm A	-	10.0	10.0
Arm B	10.0	-	10.0
Arm C	10.0	10.0	-

Default proportions of heavy vehicles are used

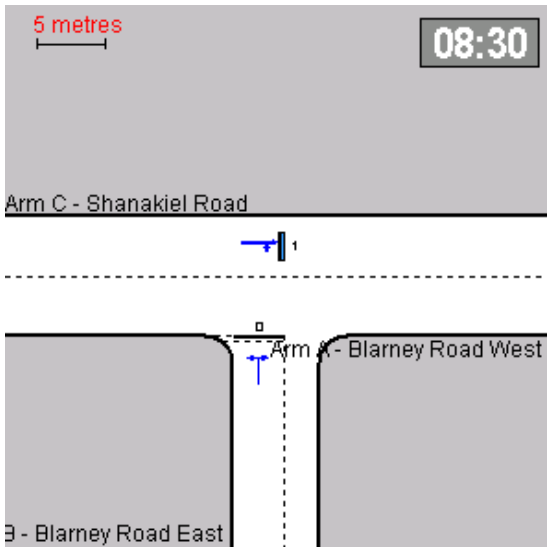
Queue Diagrams

Demand Set: 2022 Opening Year Without Proposed Development - AM Peak Hour
Modelling Period: 08:00-09:00
View Extent: 40m

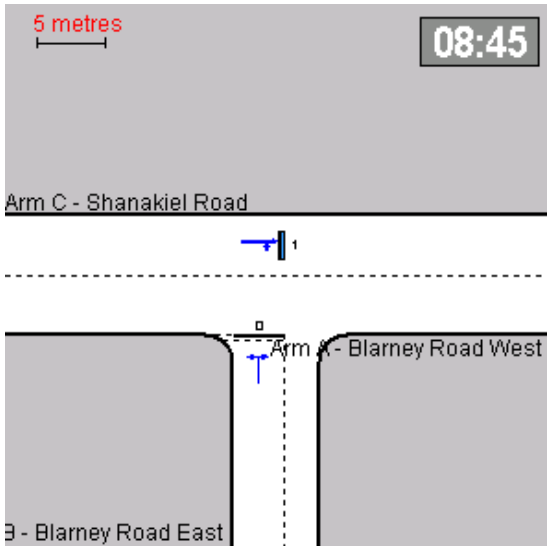
Queue Interval 1: 08:00-08:15



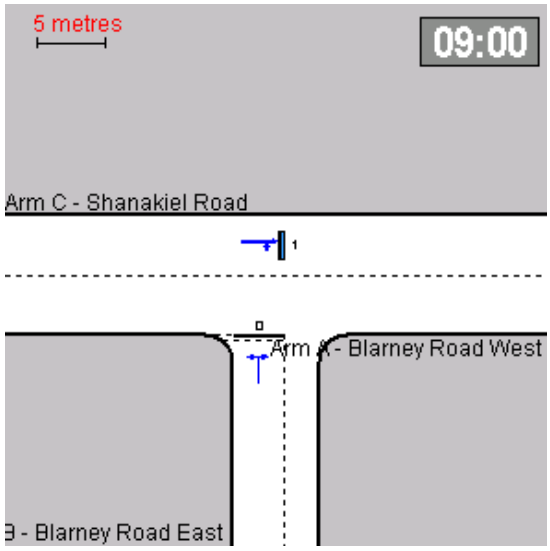
Queue Interval 2: 08:15-08:30



Queue Interval 3: 08:30-08:45

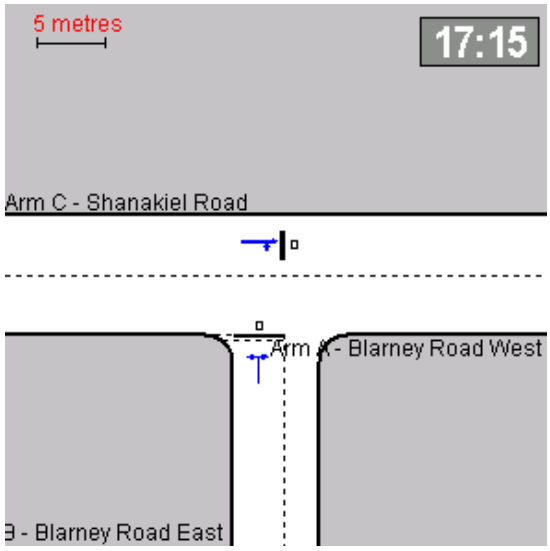


Queue Interval 4: 08:45-09:00

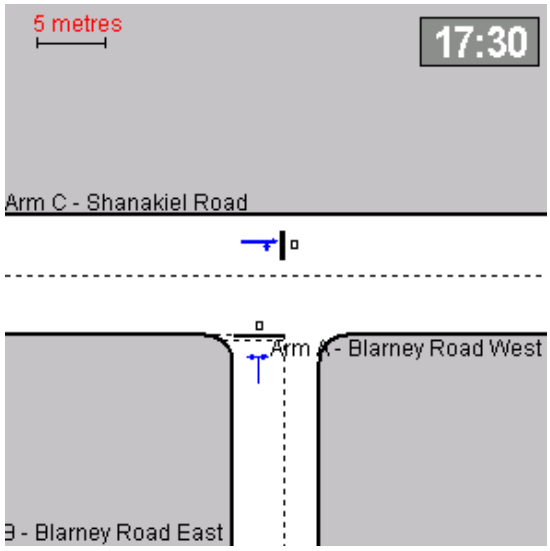


Demand Set: 2022 Opening Year Without Proposed Development - PM Peak Hour
Modelling Period: 17:00-18:00
View Extent: 40m

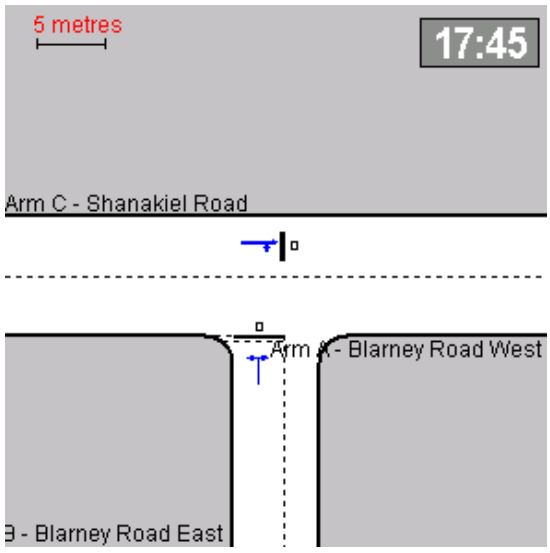
Queue Interval 1: 17:00-17:15



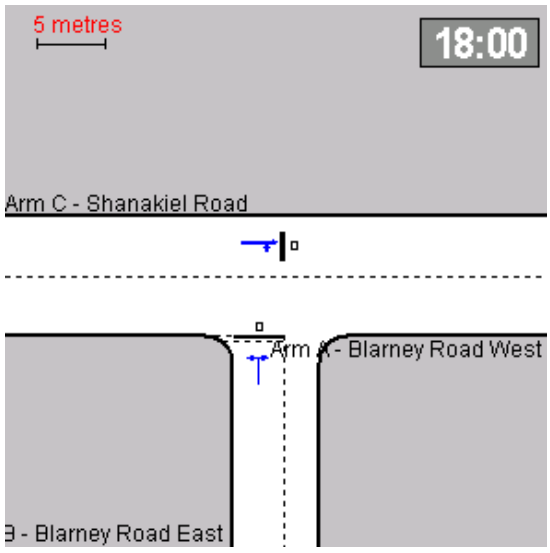
Queue Interval 2: 17:15-17:30



Queue Interval 3: 17:30-17:45

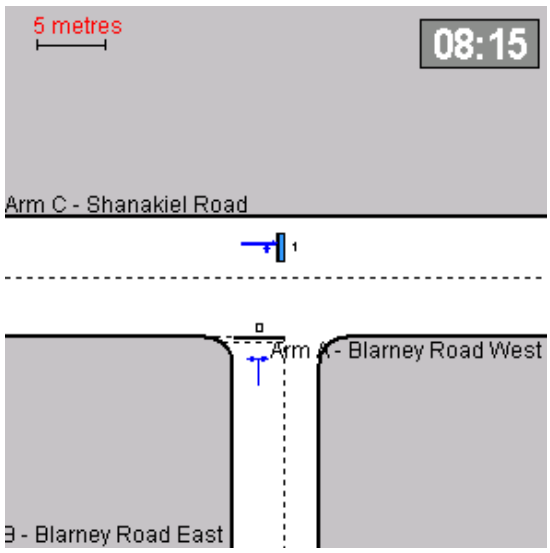


Queue Interval 4: 17:45-18:00

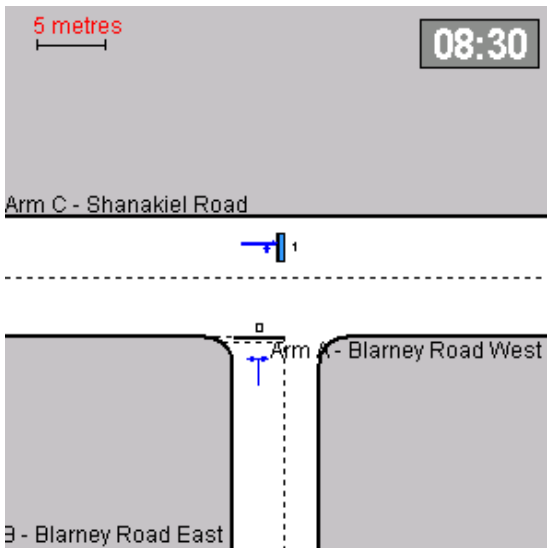


Demand Set: 2022 Opening Year With Proposed Development - AM Peak Hour
Modelling Period: 08:00-09:00
View Extent: 40m

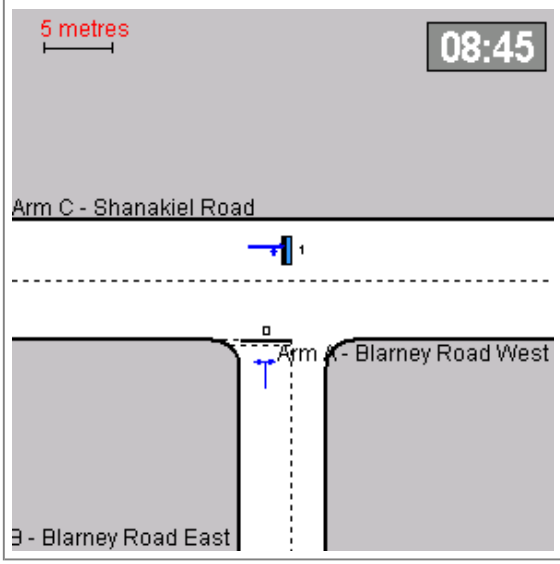
Queue Interval 1: 08:00-08:15



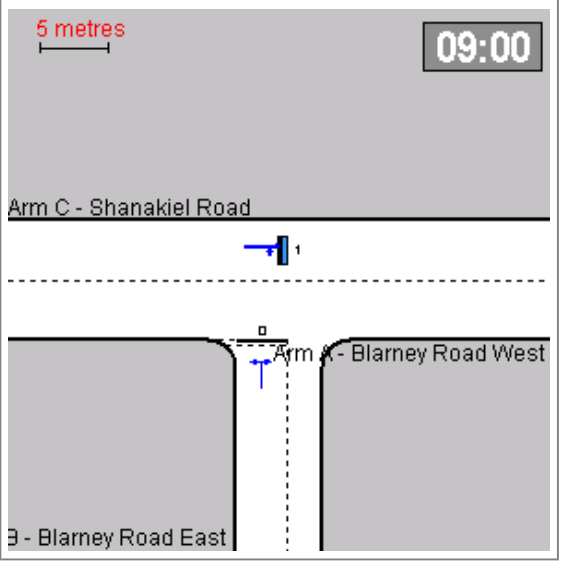
Queue Interval 2: 08:15-08:30



Queue Interval 3: 08:30-08:45

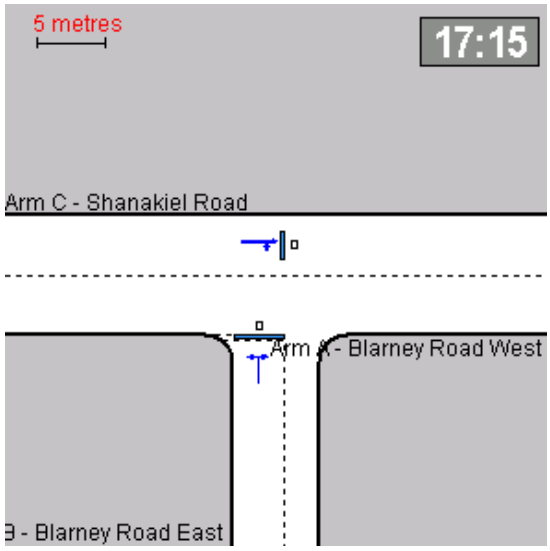


Queue Interval 4: 08:45-09:00

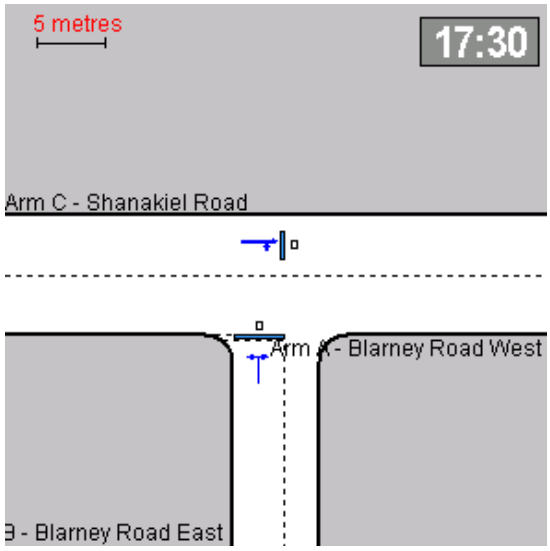


Demand Set: 2022 Opening Year With Proposed Development - PM Peak Hour
Modelling Period: 17:00-18:00
View Extent: 40m

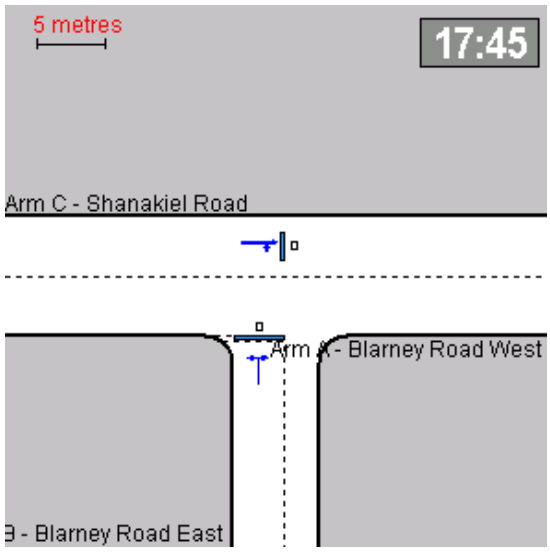
Queue Interval 1: 17:00-17:15



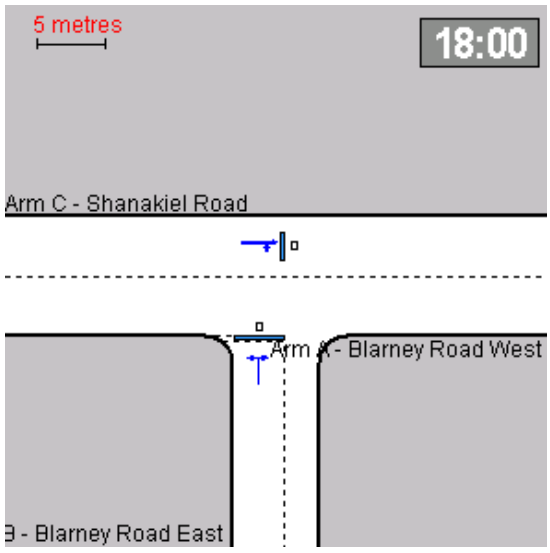
Queue Interval 2: 17:15-17:30



Queue Interval 3: 17:30-17:45

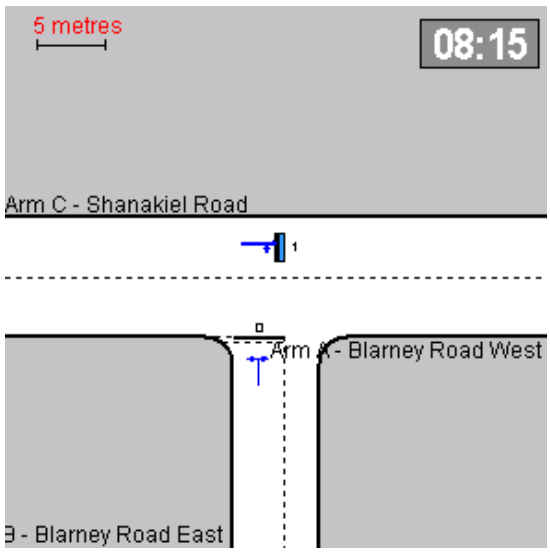


Queue Interval 4: 17:45-18:00

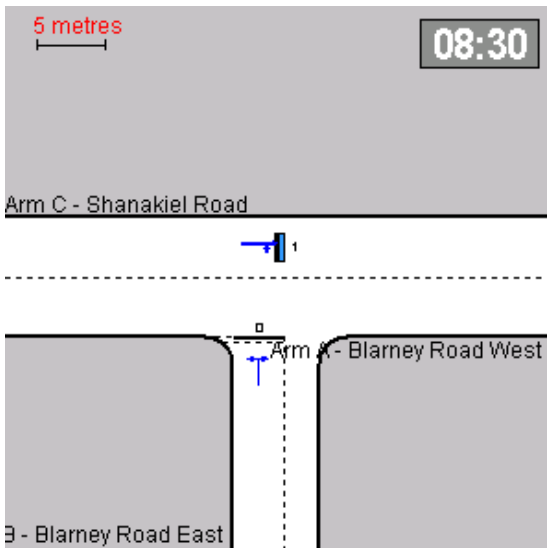


Demand Set: 2037 Opening Year Without Proposed Development - AM Peak Hour
Modelling Period: 08:00-09:00
View Extent: 40m

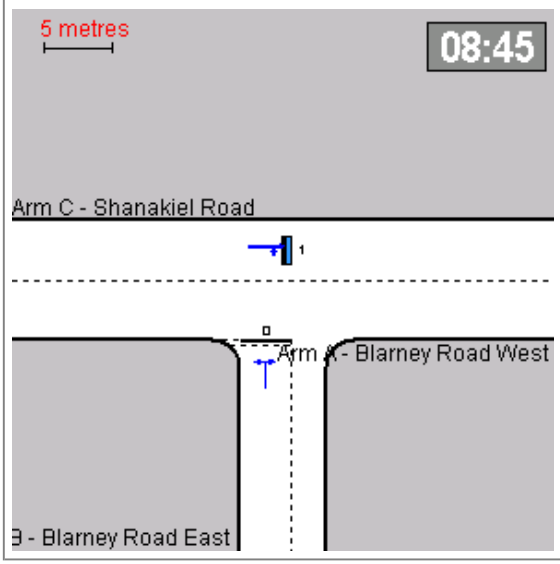
Queue Interval 1: 08:00-08:15



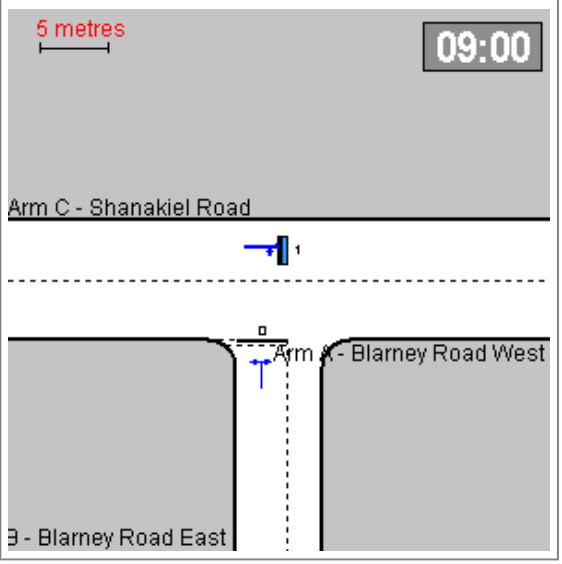
Queue Interval 2: 08:15-08:30



Queue Interval 3: 08:30-08:45

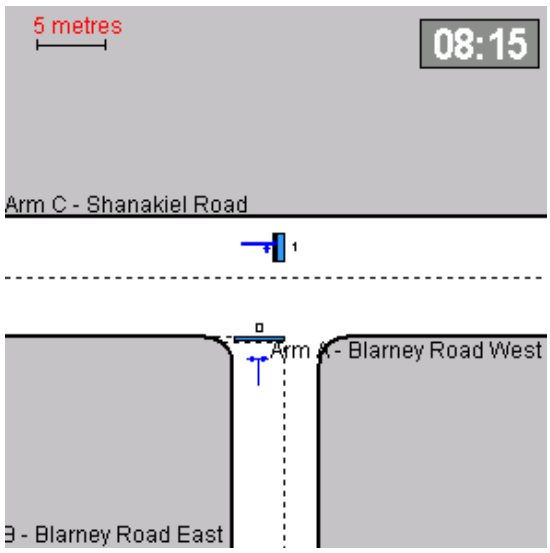


Queue Interval 4: 08:45-09:00

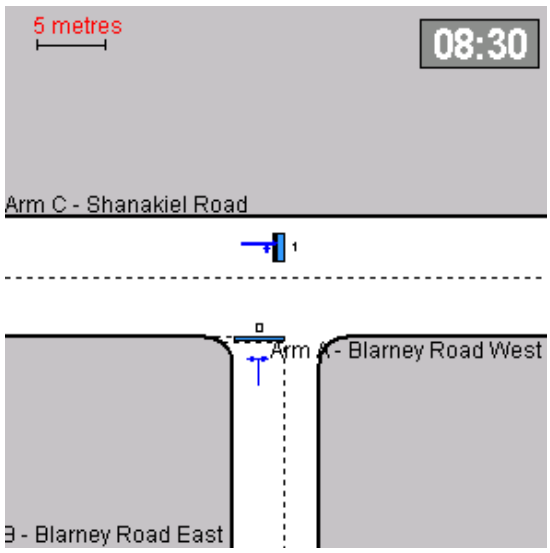


Demand Set: 2037 Opening Year With Proposed Development - AM Peak Hour
Modelling Period: 08:00-09:00
View Extent: 40m

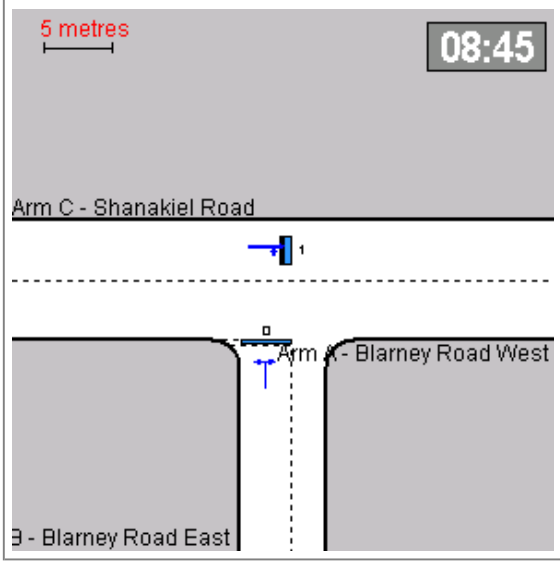
Queue Interval 1: 08:00-08:15



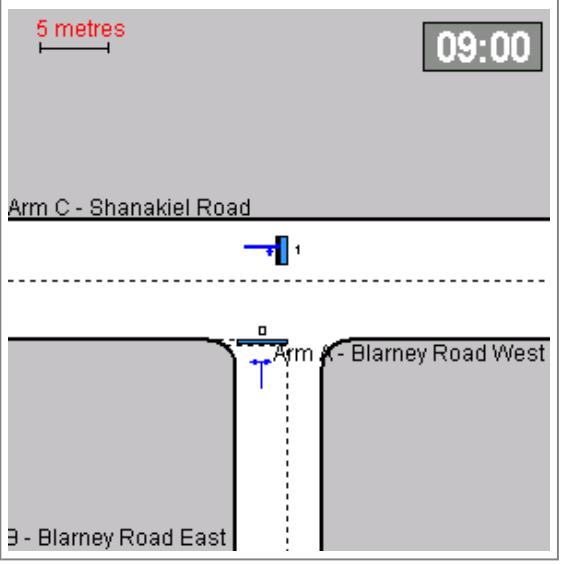
Queue Interval 2: 08:15-08:30



Queue Interval 3: 08:30-08:45

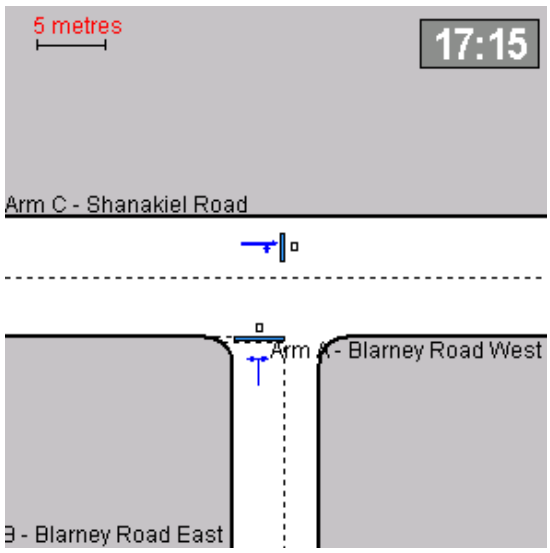


Queue Interval 4: 08:45-09:00

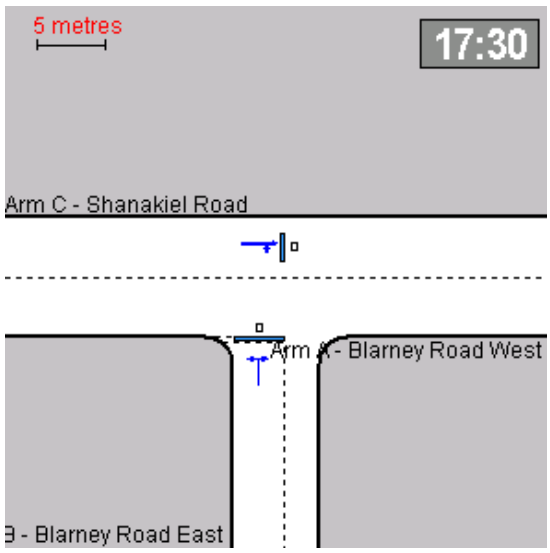


Demand Set: 2037 Opening Year Without Proposed Development - PM Peak Hour
Modelling Period: 17:00-18:00
View Extent: 40m

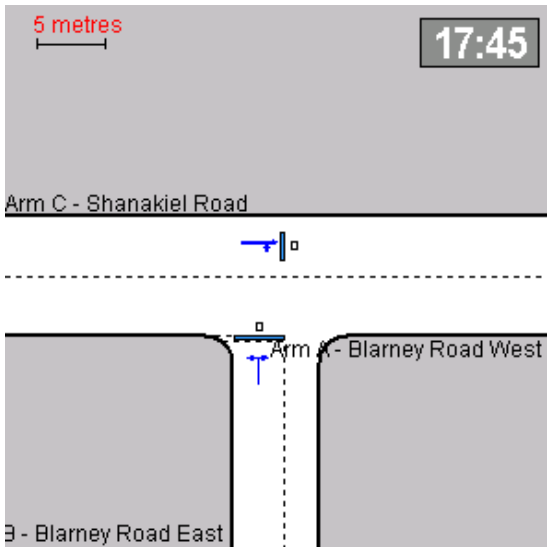
Queue Interval 1: 17:00-17:15



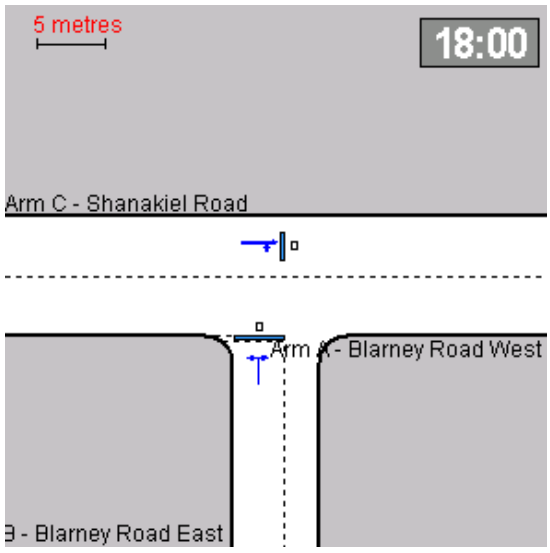
Queue Interval 2: 17:15-17:30



Queue Interval 3: 17:30-17:45

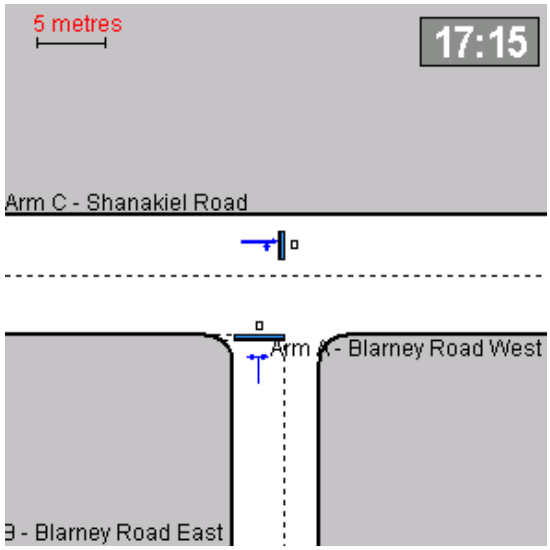


Queue Interval 4: 17:45-18:00

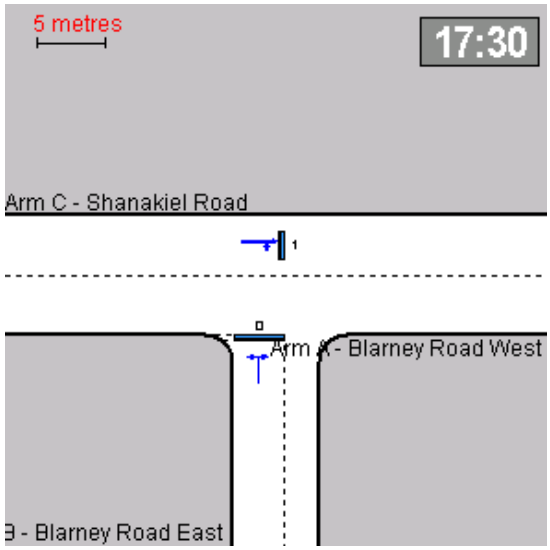


Demand Set: 2037 Opening Year With Proposed Development - PM Peak Hour
Modelling Period: 17:00-18:00
View Extent: 40m

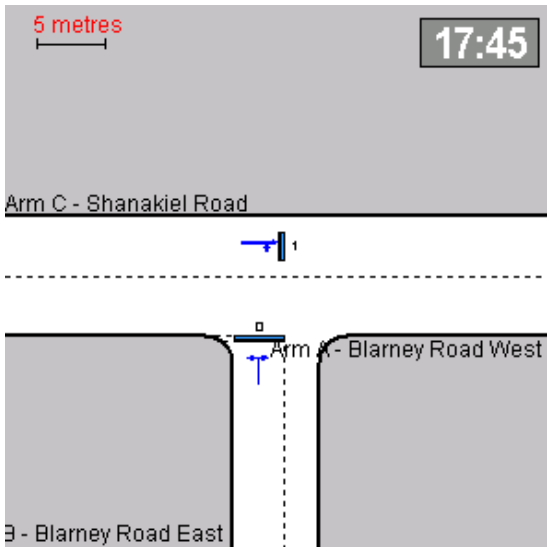
Queue Interval 1: 17:00-17:15



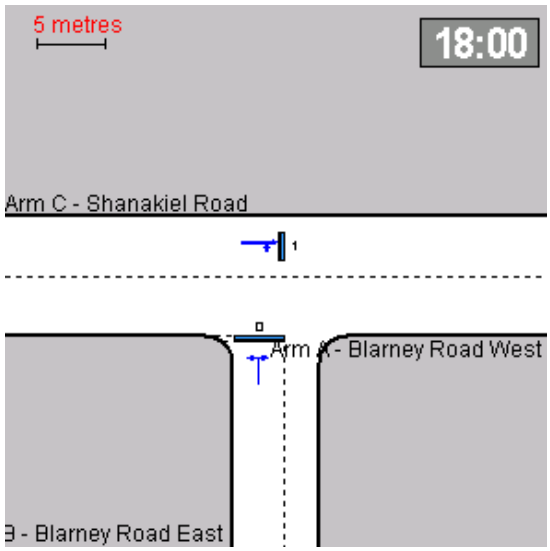
Queue Interval 2: 17:15-17:30



Queue Interval 3: 17:30-17:45

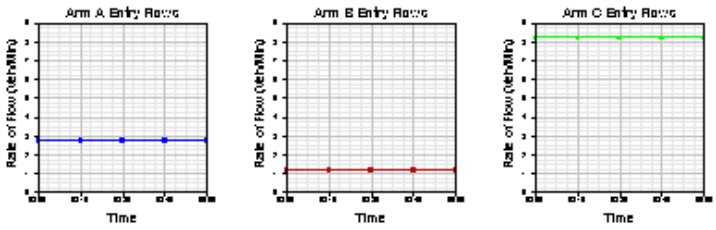


Queue Interval 4: 17:45-18:00

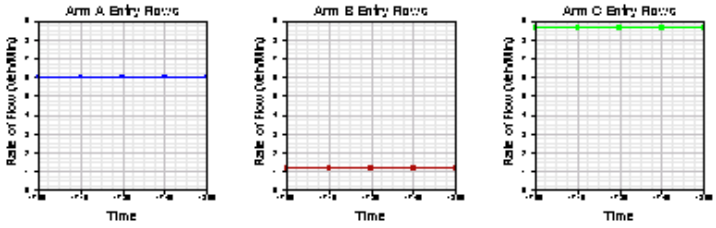


Demand Data Graph

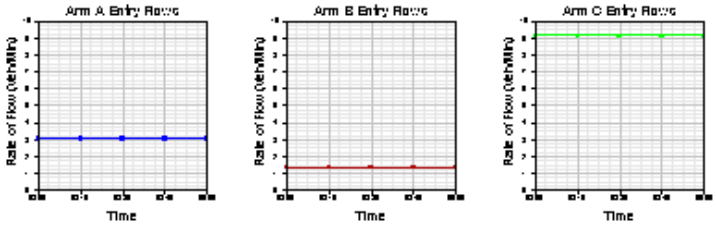
Demand Set: 2022 Opening Year Without Proposed Development - AM Peak Hour
Modelling Period: 08:00-09:00



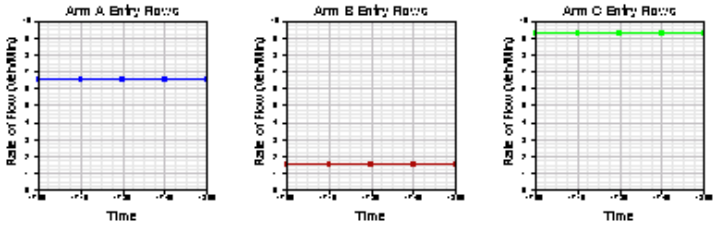
Demand Set: 2022 Opening Year Without Proposed Development - PM Peak Hour
Modelling Period: 17:00-18:00



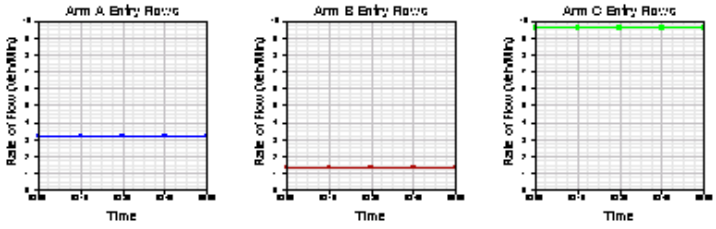
Demand Set: 2022 Opening Year With Proposed Development - AM Peak Hour
Modelling Period: 08:00-09:00



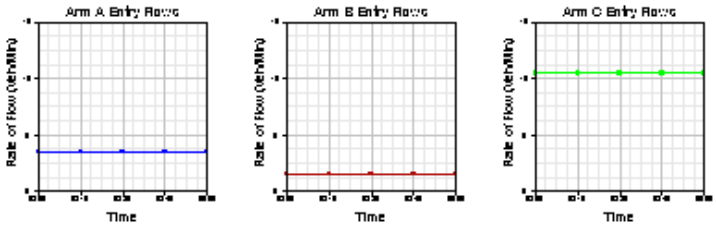
Demand Set: 2022 Opening Year With Proposed Development - PM Peak Hour
Modelling Period: 17:00-18:00



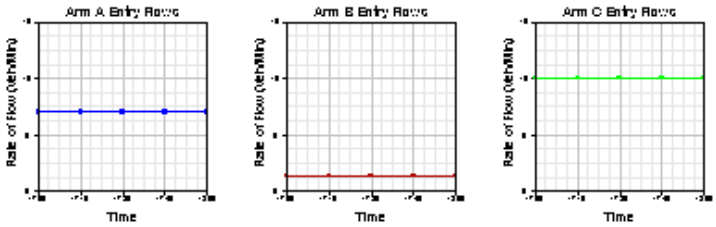
Demand Set: 2037 Opening Year Without Proposed Development - AM Peak Hour
Modelling Period: 08:00-09:00



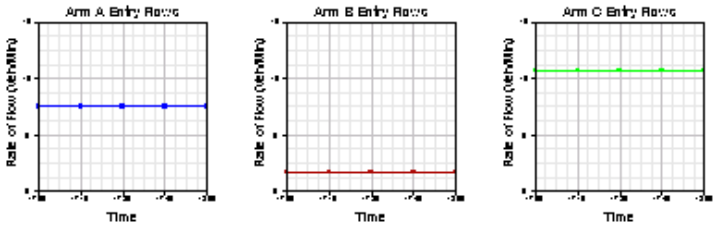
Demand Set: 2037 Opening Year With Proposed Development - AM Peak Hour
Modelling Period: 08:00-09:00



Demand Set: 2037 Opening Year Without Proposed Development - PM Peak Hour
Modelling Period: 17:00-18:00

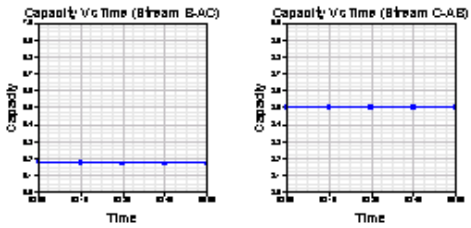


Demand Set: 2037 Opening Year With Proposed Development - PM Peak Hour
Modelling Period: 17:00-18:00

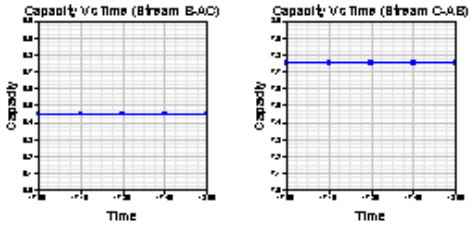


Capacity Graph

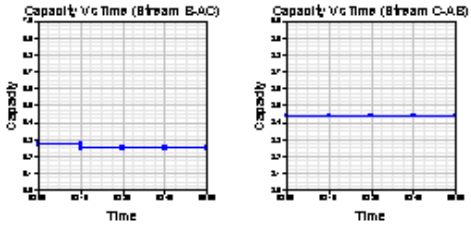
Demand Set: 2022 Opening Year Without Proposed Development - AM Peak Hour
Modelling Period: 08:00-09:00



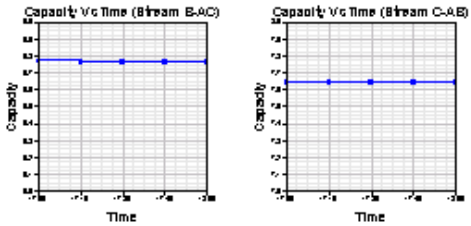
Demand Set: 2022 Opening Year Without Proposed Development - PM Peak Hour
Modelling Period: 17:00-18:00



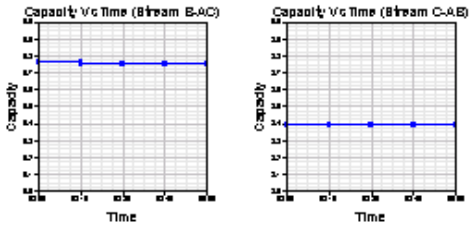
Demand Set: 2022 Opening Year With Proposed Development - AM Peak Hour
Modelling Period: 08:00-09:00



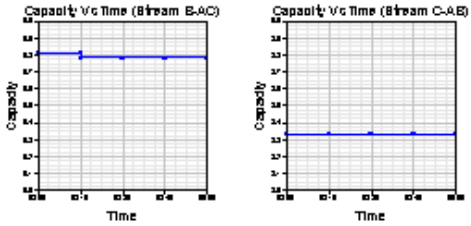
Demand Set: 2022 Opening Year With Proposed Development - PM Peak Hour
Modelling Period: 17:00-18:00



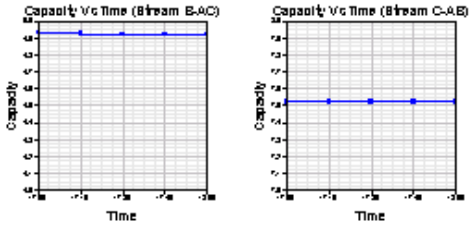
Demand Set: 2037 Opening Year Without Proposed Development - AM Peak Hour
Modelling Period: 08:00-09:00



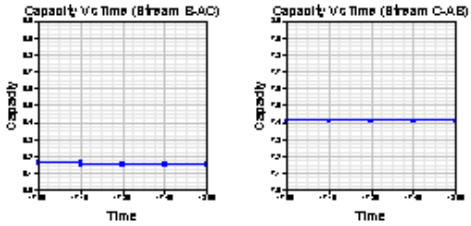
Demand Set: 2037 Opening Year With Proposed Development - AM Peak Hour
Modelling Period: 08:00-09:00



Demand Set: 2037 Opening Year Without Proposed Development - PM Peak Hour
Modelling Period: 17:00-18:00

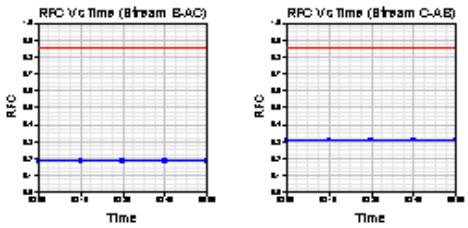


Demand Set: 2037 Opening Year With Proposed Development - PM Peak Hour
Modelling Period: 17:00-18:00

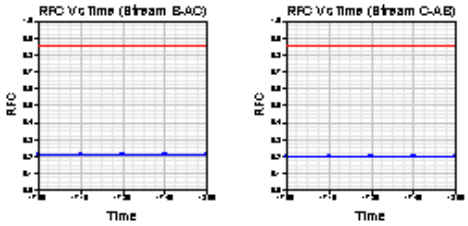


RFC Graph

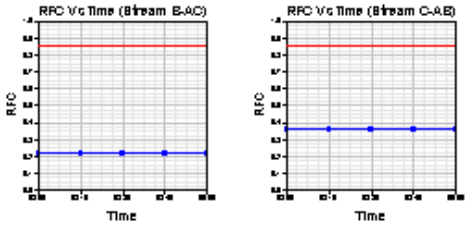
Demand Set: 2022 Opening Year Without Proposed Development - AM Peak Hour
Modelling Period: 08:00-09:00



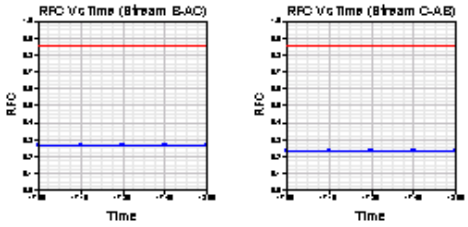
Demand Set: 2022 Opening Year Without Proposed Development - PM Peak Hour
Modelling Period: 17:00-18:00



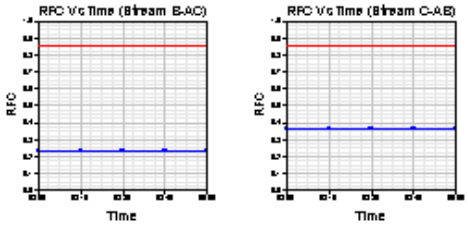
Demand Set: 2022 Opening Year With Proposed Development - AM Peak Hour
Modelling Period: 08:00-09:00



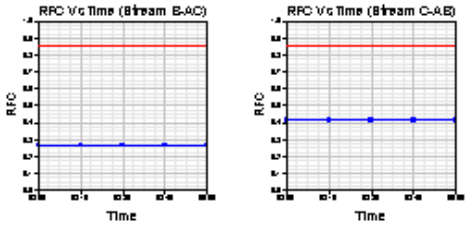
Demand Set: 2022 Opening Year With Proposed Development - PM Peak Hour
Modelling Period: 17:00-18:00



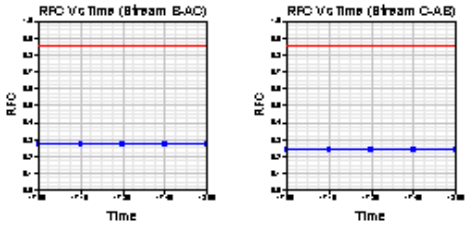
Demand Set: 2037 Opening Year Without Proposed Development - AM Peak Hour
Modelling Period: 08:00-09:00



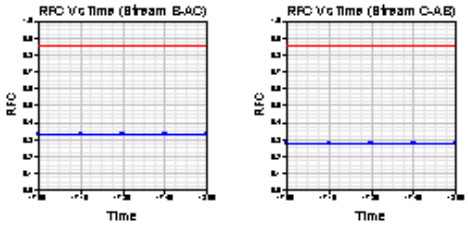
Demand Set: 2037 Opening Year With Proposed Development - AM Peak Hour
Modelling Period: 08:00-09:00



Demand Set: 2037 Opening Year Without Proposed Development - PM Peak Hour
Modelling Period: 17:00-18:00

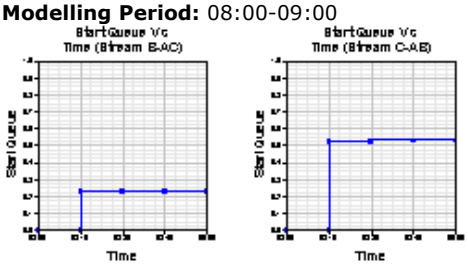


Demand Set: 2037 Opening Year With Proposed Development - PM Peak Hour
Modelling Period: 17:00-18:00

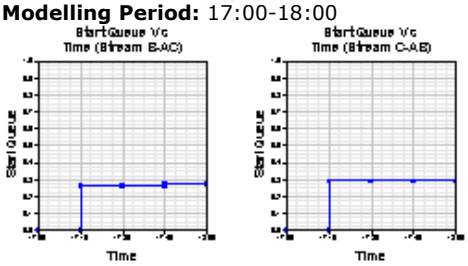


Start Queue Graph

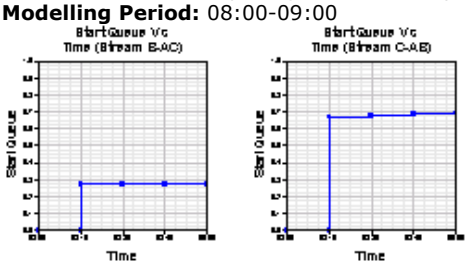
Demand Set: 2022 Opening Year Without Proposed Development - AM Peak Hour
Modelling Period: 08:00-09:00



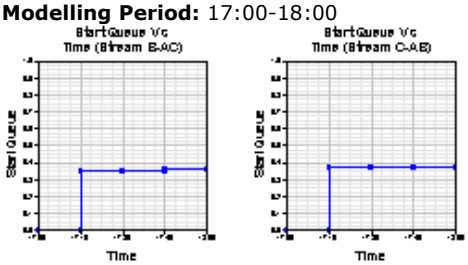
Demand Set: 2022 Opening Year Without Proposed Development - PM Peak Hour
Modelling Period: 17:00-18:00



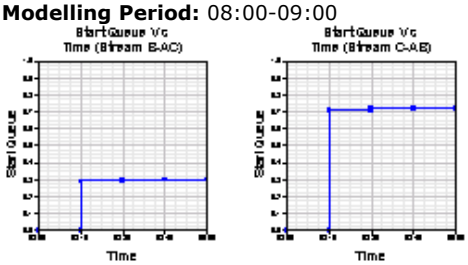
Demand Set: 2022 Opening Year With Proposed Development - AM Peak Hour
Modelling Period: 08:00-09:00



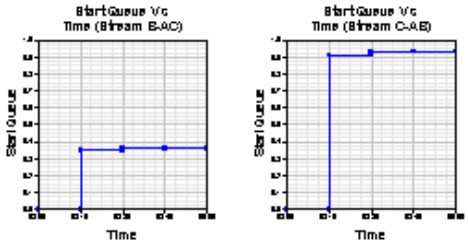
Demand Set: 2022 Opening Year With Proposed Development - PM Peak Hour
Modelling Period: 17:00-18:00



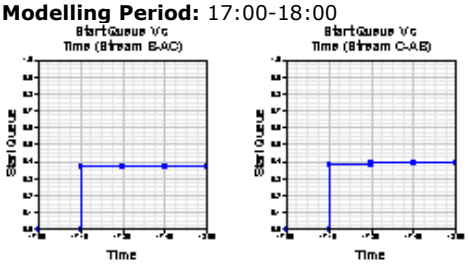
Demand Set: 2037 Opening Year Without Proposed Development - AM Peak Hour
Modelling Period: 08:00-09:00



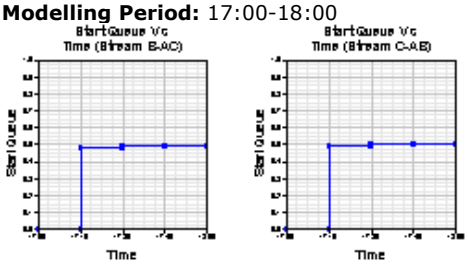
Demand Set: 2037 Opening Year With Proposed Development - AM Peak Hour
Modelling Period: 08:00-09:00



Demand Set: 2037 Opening Year Without Proposed Development - PM Peak Hour
Modelling Period: 17:00-18:00

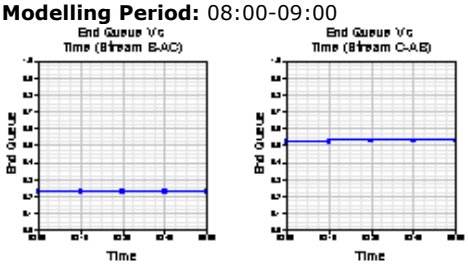


Demand Set: 2037 Opening Year With Proposed Development - PM Peak Hour
Modelling Period: 17:00-18:00

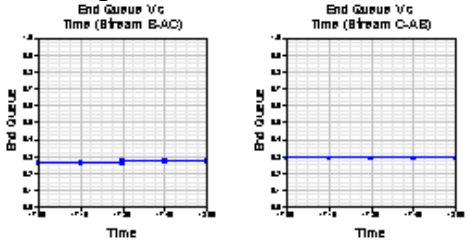


End Queue Graph

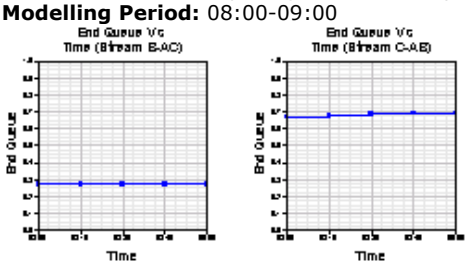
Demand Set: 2022 Opening Year Without Proposed Development - AM Peak Hour
Modelling Period: 08:00-09:00



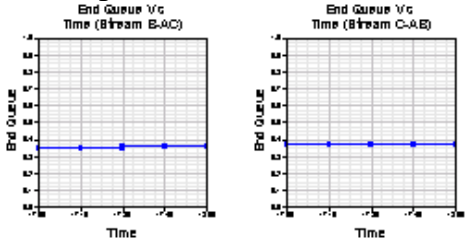
Demand Set: 2022 Opening Year Without Proposed Development - PM Peak Hour
Modelling Period: 17:00-18:00



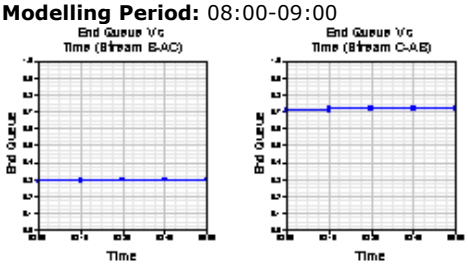
Demand Set: 2022 Opening Year With Proposed Development - AM Peak Hour
Modelling Period: 08:00-09:00



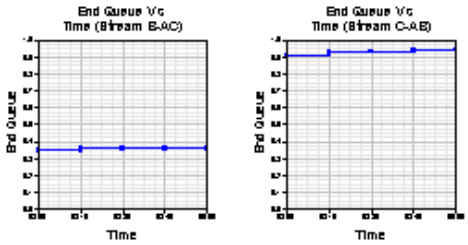
Demand Set: 2022 Opening Year With Proposed Development - PM Peak Hour
Modelling Period: 17:00-18:00



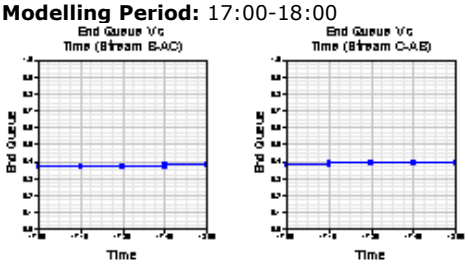
Demand Set: 2037 Opening Year Without Proposed Development - AM Peak Hour
Modelling Period: 08:00-09:00



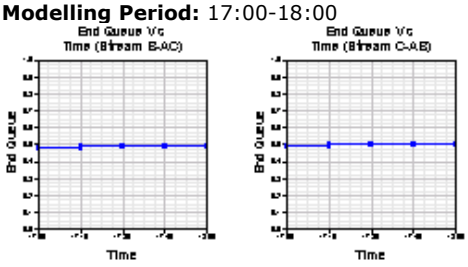
Demand Set: 2037 Opening Year With Proposed Development - AM Peak Hour
Modelling Period: 08:00-09:00



Demand Set: 2037 Opening Year Without Proposed Development - PM Peak Hour
Modelling Period: 17:00-18:00

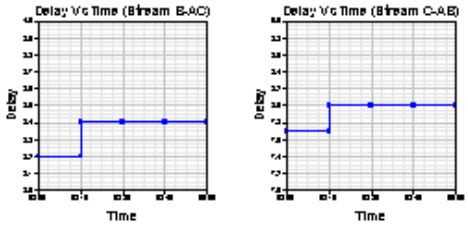


Demand Set: 2037 Opening Year With Proposed Development - PM Peak Hour
Modelling Period: 17:00-18:00

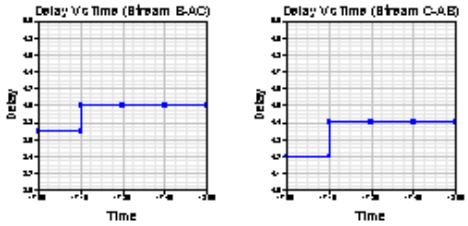


Delay Graph

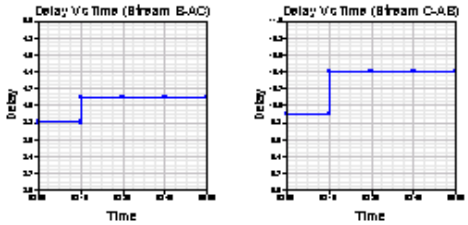
Demand Set: 2022 Opening Year Without Proposed Development - AM Peak Hour
Modelling Period: 08:00-09:00



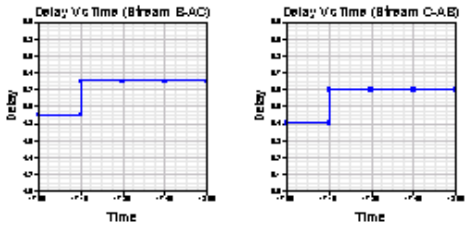
Demand Set: 2022 Opening Year Without Proposed Development - PM Peak Hour
Modelling Period: 17:00-18:00



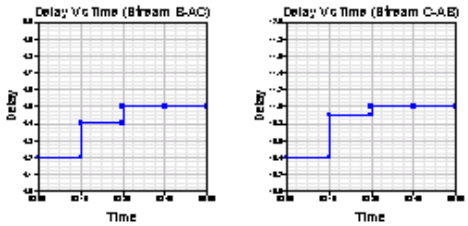
Demand Set: 2022 Opening Year With Proposed Development - AM Peak Hour
Modelling Period: 08:00-09:00



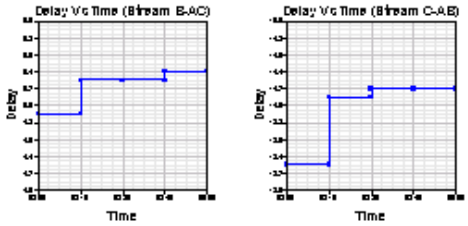
Demand Set: 2022 Opening Year With Proposed Development - PM Peak Hour
Modelling Period: 17:00-18:00



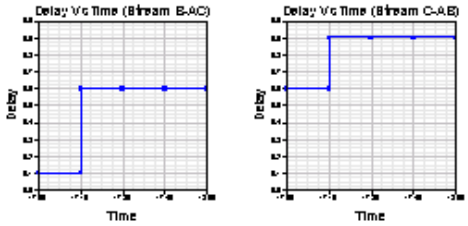
Demand Set: 2037 Opening Year Without Proposed Development - AM Peak Hour
Modelling Period: 08:00-09:00



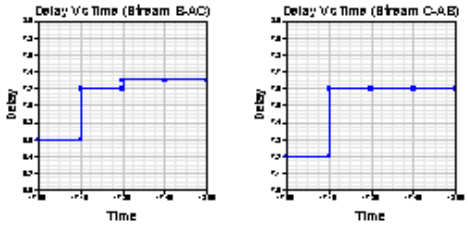
Demand Set: 2037 Opening Year With Proposed Development - AM Peak Hour
Modelling Period: 08:00-09:00



Demand Set: 2037 Opening Year Without Proposed Development - PM Peak Hour
Modelling Period: 17:00-18:00



Demand Set: 2037 Opening Year With Proposed Development - PM Peak Hour
Modelling Period: 17:00-18:00



Queues & Delays

Demand Set: 2022 Opening Year Without Proposed Development - AM Peak Hour
Modelling Period: 08:00-09:00

Segment	Stream	Demand (veh/min)	Capacity (veh/min)	RFC	Ped. Flow (ped/min)	Start Queue (veh)	End Queue (veh)	Geometric Delay (veh.min/ segment)	Delay (veh.min/ segment)	Mean Arriving Vehicle Delay (min)
08:00-08:15	B-AC	1.15	6.18	0.186	-	0.00	0.23	-	3.2	0.20
	C-AB	2.62	8.50	0.308	-	0.00	0.52	-	7.7	0.17
	C-A	-	-	-	-	-	-	-	-	-
	A-B	0.00	-	-	-	-	-	-	-	-
	A-C	2.75	-	-	-	-	-	-	-	-

Segment	Stream	Demand (veh/min)	Capacity (veh/min)	RFC	Ped. Flow (ped/min)	Start Queue (veh)	End Queue (veh)	Geometric Delay (veh.min/ segment)	Delay (veh.min/ segment)	Mean Arriving Vehicle Delay (min)
08:15-08:30	B-AC	1.15	6.17	0.186	-	0.23	0.23	-	3.4	0.20
	C-AB	2.62	8.50	0.308	-	0.52	0.53	-	8.0	0.17
	C-A	-	-	-	-	-	-	-	-	-
	A-B	0.00	-	-	-	-	-	-	-	-
	A-C	2.75	-	-	-	-	-	-	-	-

Segment	Stream	Demand (veh/min)	Capacity (veh/min)	RFC	Ped. Flow (ped/min)	Start Queue (veh)	End Queue (veh)	Geometric Delay (veh.min/ segment)	Delay (veh.min/ segment)	Mean Arriving Vehicle Delay (min)
08:30-08:45	B-AC	1.15	6.17	0.186	-	0.23	0.23	-	3.4	0.20
	C-AB	2.62	8.50	0.308	-	0.53	0.53	-	8.0	0.17
	C-A	-	-	-	-	-	-	-	-	-
	A-B	0.00	-	-	-	-	-	-	-	-
	A-C	2.75	-	-	-	-	-	-	-	-

Segment	Stream	Demand (veh/min)	Capacity (veh/min)	RFC	Ped. Flow (ped/min)	Start Queue (veh)	End Queue (veh)	Geometric Delay (veh.min/ segment)	Delay (veh.min/ segment)	Mean Arriving Vehicle Delay (min)
08:45-09:00	B-AC	1.15	6.17	0.186	-	0.23	0.23	-	3.4	0.20
	C-AB	2.62	8.50	0.308	-	0.53	0.53	-	8.0	0.17
	C-A	-	-	-	-	-	-	-	-	-
	A-B	0.00	-	-	-	-	-	-	-	-
	A-C	2.75	-	-	-	-	-	-	-	-

Demand Set: 2022 Opening Year Without Proposed Development - PM Peak Hour
Modelling Period: 17:00-18:00

Segment	Stream	Demand (veh/min)	Capacity (veh/min)	RFC	Ped. Flow (ped/min)	Start Queue (veh)	End Queue (veh)	Geometric Delay (veh.min/ segment)	Delay (veh.min/ segment)	Mean Arriving Vehicle Delay (min)
17:00-17:15	B-AC	1.15	5.45	0.211	-	0.00	0.26	-	3.7	0.23
	C-AB	1.53	7.75	0.198	-	0.00	0.29	-	4.2	0.16
	C-A	-	-	-	-	-	-	-	-	-
	A-B	0.00	-	-	-	-	-	-	-	-
	A-C	6.03	-	-	-	-	-	-	-	-

Segment	Stream	Demand (veh/min)	Capacity (veh/min)	RFC	Ped. Flow (ped/min)	Start Queue (veh)	End Queue (veh)	Geometric Delay (veh.min/ segment)	Delay (veh.min/ segment)	Mean Arriving Vehicle Delay (min)
17:15-17:30	B-AC	1.15	5.45	0.211	-	0.26	0.26	-	4.0	0.23
	C-AB	1.53	7.75	0.198	-	0.29	0.29	-	4.4	0.16
	C-A	-	-	-	-	-	-	-	-	-
	A-B	0.00	-	-	-	-	-	-	-	-
	A-C	6.03	-	-	-	-	-	-	-	-

Segment	Stream	Demand (veh/min)	Capacity (veh/min)	RFC	Ped. Flow (ped/min)	Start Queue (veh)	End Queue (veh)	Geometric Delay (veh.min/ segment)	Delay (veh.min/ segment)	Mean Arriving Vehicle Delay (min)
17:30-17:45	B-AC	1.15	5.45	0.211	-	0.26	0.27	-	4.0	0.23
	C-AB	1.53	7.75	0.198	-	0.29	0.29	-	4.4	0.16
	C-A	-	-	-	-	-	-	-	-	-
	A-B	0.00	-	-	-	-	-	-	-	-
	A-C	6.03	-	-	-	-	-	-	-	-

Segment	Stream	Demand (veh/min)	Capacity (veh/min)	RFC	Ped. Flow (ped/min)	Start Queue (veh)	End Queue (veh)	Geometric Delay (veh.min/ segment)	Delay (veh.min/ segment)	Mean Arriving Vehicle Delay (min)
17:45-18:00	B-AC	1.15	5.45	0.211	-	0.27	0.27	-	4.0	0.23
	C-AB	1.53	7.75	0.198	-	0.29	0.29	-	4.4	0.16
	C-A	-	-	-	-	-	-	-	-	-
	A-B	0.00	-	-	-	-	-	-	-	-
	A-C	6.03	-	-	-	-	-	-	-	-

Demand Set: 2022 Opening Year With Proposed Development - AM Peak Hour
Modelling Period: 08:00-09:00

Segment	Stream	Demand (veh/min)	Capacity (veh/min)	RFC	Ped. Flow (ped/min)	Start Queue (veh)	End Queue (veh)	Geometric Delay (veh.min/ segment)	Delay (veh.min/ segment)	Mean Arriving Vehicle Delay (min)
08:00-08:15	B-AC	1.35	6.27	0.215	-	0.00	0.27	-	3.8	0.20
	C-AB	3.00	8.44	0.356	-	0.00	0.67	-	9.9	0.18
	C-A	-	-	-	-	-	-	-	-	-
	A-B	0.00	-	-	-	-	-	-	-	-
	A-C	3.02	-	-	-	-	-	-	-	-

Segment	Stream	Demand (veh/min)	Capacity (veh/min)	RFC	Ped. Flow (ped/min)	Start Queue (veh)	End Queue (veh)	Geometric Delay (veh.min/ segment)	Delay (veh.min/ segment)	Mean Arriving Vehicle Delay (min)
08:15-08:30	B-AC	1.35	6.25	0.216	-	0.27	0.27	-	4.1	0.20
	C-AB	3.00	8.44	0.356	-	0.67	0.68	-	10.4	0.18
	C-A	-	-	-	-	-	-	-	-	-
	A-B	0.00	-	-	-	-	-	-	-	-
	A-C	3.02	-	-	-	-	-	-	-	-

Segment	Stream	Demand (veh/min)	Capacity (veh/min)	RFC	Ped. Flow (ped/min)	Start Queue (veh)	End Queue (veh)	Geometric Delay (veh.min/ segment)	Delay (veh.min/ segment)	Mean Arriving Vehicle Delay (min)
08:30-08:45	B-AC	1.35	6.25	0.216	-	0.27	0.27	-	4.1	0.20
	C-AB	3.00	8.44	0.356	-	0.68	0.69	-	10.4	0.18
	C-A	-	-	-	-	-	-	-	-	-
	A-B	0.00	-	-	-	-	-	-	-	-
	A-C	3.02	-	-	-	-	-	-	-	-

Segment	Stream	Demand (veh/min)	Capacity (veh/min)	RFC	Ped. Flow (ped/min)	Start Queue (veh)	End Queue (veh)	Geometric Delay (veh.min/ segment)	Delay (veh.min/ segment)	Mean Arriving Vehicle Delay (min)
08:45-09:00	B-AC	1.35	6.25	0.216	-	0.27	0.27	-	4.1	0.20
	C-AB	3.00	8.44	0.356	-	0.69	0.69	-	10.4	0.18
	C-A	-	-	-	-	-	-	-	-	-
	A-B	0.00	-	-	-	-	-	-	-	-
	A-C	3.02	-	-	-	-	-	-	-	-

Demand Set: 2022 Opening Year With Proposed Development - PM Peak Hour
Modelling Period: 17:00-18:00

Segment	Stream	Demand (veh/min)	Capacity (veh/min)	RFC	Ped. Flow (ped/min)	Start Queue (veh)	End Queue (veh)	Geometric Delay (veh.min/ segment)	Delay (veh.min/ segment)	Mean Arriving Vehicle Delay (min)
17:00-17:15	B-AC	1.52	5.77	0.264	-	0.00	0.35	-	4.9	0.23
	C-AB	1.78	7.64	0.233	-	0.00	0.37	-	5.4	0.17
	C-A	-	-	-	-	-	-	-	-	-
	A-B	0.00	-	-	-	-	-	-	-	-
	A-C	6.53	-	-	-	-	-	-	-	-

Segment	Stream	Demand (veh/min)	Capacity (veh/min)	RFC	Ped. Flow (ped/min)	Start Queue (veh)	End Queue (veh)	Geometric Delay (veh.min/ segment)	Delay (veh.min/ segment)	Mean Arriving Vehicle Delay (min)
17:15-17:30	B-AC	1.52	5.76	0.264	-	0.35	0.35	-	5.3	0.24
	C-AB	1.78	7.64	0.233	-	0.37	0.37	-	5.6	0.17
	C-A	-	-	-	-	-	-	-	-	-
	A-B	0.00	-	-	-	-	-	-	-	-
	A-C	6.53	-	-	-	-	-	-	-	-

Segment	Stream	Demand (veh/min)	Capacity (veh/min)	RFC	Ped. Flow (ped/min)	Start Queue (veh)	End Queue (veh)	Geometric Delay (veh.min/ segment)	Delay (veh.min/ segment)	Mean Arriving Vehicle Delay (min)
17:30-17:45	B-AC	1.52	5.76	0.264	-	0.35	0.36	-	5.3	0.24
	C-AB	1.78	7.64	0.233	-	0.37	0.37	-	5.6	0.17
	C-A	-	-	-	-	-	-	-	-	-
	A-B	0.00	-	-	-	-	-	-	-	-
	A-C	6.53	-	-	-	-	-	-	-	-

Segment	Stream	Demand (veh/min)	Capacity (veh/min)	RFC	Ped. Flow (ped/min)	Start Queue (veh)	End Queue (veh)	Geometric Delay (veh.min/ segment)	Delay (veh.min/ segment)	Mean Arriving Vehicle Delay (min)
17:45-18:00	B-AC	1.52	5.76	0.264	-	0.36	0.36	-	5.3	0.24
	C-AB	1.78	7.64	0.233	-	0.37	0.37	-	5.6	0.17
	C-A	-	-	-	-	-	-	-	-	-
	A-B	0.00	-	-	-	-	-	-	-	-
	A-C	6.53	-	-	-	-	-	-	-	-

Demand Set: 2037 Opening Year Without Proposed Development - AM Peak Hour
Modelling Period: 08:00-09:00

Segment	Stream	Demand (veh/min)	Capacity (veh/min)	RFC	Ped. Flow (ped/min)	Start Queue (veh)	End Queue (veh)	Geometric Delay (veh.min/ segment)	Delay (veh.min/ segment)	Mean Arriving Vehicle Delay (min)
08:00-08:15	B-AC	1.33	5.76	0.231	-	0.00	0.29	-	4.2	0.22
	C-AB	3.05	8.39	0.363	-	0.00	0.71	-	10.4	0.18
	C-A	-	-	-	-	-	-	-	-	-
	A-B	0.00	-	-	-	-	-	-	-	-
	A-C	3.21	-	-	-	-	-	-	-	-

Segment	Stream	Demand (veh/min)	Capacity (veh/min)	RFC	Ped. Flow (ped/min)	Start Queue (veh)	End Queue (veh)	Geometric Delay (veh.min/ segment)	Delay (veh.min/ segment)	Mean Arriving Vehicle Delay (min)
08:15-08:30	B-AC	1.33	5.75	0.231	-	0.29	0.30	-	4.4	0.23
	C-AB	3.05	8.39	0.363	-	0.71	0.72	-	10.9	0.19
	C-A	-	-	-	-	-	-	-	-	-
	A-B	0.00	-	-	-	-	-	-	-	-
	A-C	3.21	-	-	-	-	-	-	-	-

Segment	Stream	Demand (veh/min)	Capacity (veh/min)	RFC	Ped. Flow (ped/min)	Start Queue (veh)	End Queue (veh)	Geometric Delay (veh.min/ segment)	Delay (veh.min/ segment)	Mean Arriving Vehicle Delay (min)
08:30-08:45	B-AC	1.33	5.75	0.231	-	0.30	0.30	-	4.5	0.23
	C-AB	3.05	8.39	0.363	-	0.72	0.72	-	11.0	0.19
	C-A	-	-	-	-	-	-	-	-	-
	A-B	0.00	-	-	-	-	-	-	-	-
	A-C	3.21	-	-	-	-	-	-	-	-

Segment	Stream	Demand (veh/min)	Capacity (veh/min)	RFC	Ped. Flow (ped/min)	Start Queue (veh)	End Queue (veh)	Geometric Delay (veh.min/ segment)	Delay (veh.min/ segment)	Mean Arriving Vehicle Delay (min)
08:45-09:00	B-AC	1.33	5.75	0.231	-	0.30	0.30	-	4.5	0.23
	C-AB	3.05	8.39	0.363	-	0.72	0.72	-	11.0	0.19
	C-A	-	-	-	-	-	-	-	-	-
	A-B	0.00	-	-	-	-	-	-	-	-
	A-C	3.21	-	-	-	-	-	-	-	-

Demand Set: 2037 Opening Year With Proposed Development - AM Peak Hour
Modelling Period: 08:00-09:00

Segment	Stream	Demand (veh/min)	Capacity (veh/min)	RFC	Ped. Flow (ped/min)	Start Queue (veh)	End Queue (veh)	Geometric Delay (veh.min/ segment)	Delay (veh.min/ segment)	Mean Arriving Vehicle Delay (min)
08:00-08:15	B-AC	1.53	5.81	0.264	-	0.00	0.35	-	4.9	0.23
	C-AB	3.43	8.33	0.412	-	0.00	0.91	-	13.3	0.20
	C-A	-	-	-	-	-	-	-	-	-
	A-B	0.00	-	-	-	-	-	-	-	-
	A-C	3.48	-	-	-	-	-	-	-	-

Segment	Stream	Demand (veh/min)	Capacity (veh/min)	RFC	Ped. Flow (ped/min)	Start Queue (veh)	End Queue (veh)	Geometric Delay (veh.min/ segment)	Delay (veh.min/ segment)	Mean Arriving Vehicle Delay (min)
08:15-08:30	B-AC	1.53	5.78	0.264	-	0.35	0.36	-	5.3	0.24
	C-AB	3.43	8.33	0.412	-	0.91	0.93	-	14.1	0.21
	C-A	-	-	-	-	-	-	-	-	-
	A-B	0.00	-	-	-	-	-	-	-	-
	A-C	3.48	-	-	-	-	-	-	-	-

Segment	Stream	Demand (veh/min)	Capacity (veh/min)	RFC	Ped. Flow (ped/min)	Start Queue (veh)	End Queue (veh)	Geometric Delay (veh.min/ segment)	Delay (veh.min/ segment)	Mean Arriving Vehicle Delay (min)
08:30-08:45	B-AC	1.53	5.78	0.265	-	0.36	0.36	-	5.3	0.24
	C-AB	3.43	8.33	0.412	-	0.93	0.93	-	14.2	0.21
	C-A	-	-	-	-	-	-	-	-	-
	A-B	0.00	-	-	-	-	-	-	-	-
	A-C	3.48	-	-	-	-	-	-	-	-

Segment	Stream	Demand (veh/min)	Capacity (veh/min)	RFC	Ped. Flow (ped/min)	Start Queue (veh)	End Queue (veh)	Geometric Delay (veh.min/ segment)	Delay (veh.min/ segment)	Mean Arriving Vehicle Delay (min)
08:45-09:00	B-AC	1.53	5.78	0.265	-	0.36	0.36	-	5.4	0.24
	C-AB	3.43	8.33	0.412	-	0.93	0.94	-	14.2	0.21
	C-A	-	-	-	-	-	-	-	-	-
	A-B	0.00	-	-	-	-	-	-	-	-
	A-C	3.48	-	-	-	-	-	-	-	-

Demand Set: 2037 Opening Year Without Proposed Development - PM Peak Hour
Modelling Period: 17:00-18:00

Segment	Stream	Demand (veh/min)	Capacity (veh/min)	RFC	Ped. Flow (ped/min)	Start Queue (veh)	End Queue (veh)	Geometric Delay (veh.min/ segment)	Delay (veh.min/ segment)	Mean Arriving Vehicle Delay (min)
17:00-17:15	B-AC	1.35	4.93	0.274	-	0.00	0.37	-	5.1	0.28
	C-AB	1.78	7.52	0.237	-	0.00	0.38	-	5.6	0.17
	C-A	-	-	-	-	-	-	-	-	-
	A-B	0.00	-	-	-	-	-	-	-	-
	A-C	7.03	-	-	-	-	-	-	-	-

Segment	Stream	Demand (veh/min)	Capacity (veh/min)	RFC	Ped. Flow (ped/min)	Start Queue (veh)	End Queue (veh)	Geometric Delay (veh.min/ segment)	Delay (veh.min/ segment)	Mean Arriving Vehicle Delay (min)
17:15-17:30	B-AC	1.35	4.92	0.274	-	0.37	0.37	-	5.6	0.28
	C-AB	1.78	7.52	0.237	-	0.38	0.39	-	5.9	0.17
	C-A	-	-	-	-	-	-	-	-	-
	A-B	0.00	-	-	-	-	-	-	-	-
	A-C	7.03	-	-	-	-	-	-	-	-

Segment	Stream	Demand (veh/min)	Capacity (veh/min)	RFC	Ped. Flow (ped/min)	Start Queue (veh)	End Queue (veh)	Geometric Delay (veh.min/ segment)	Delay (veh.min/ segment)	Mean Arriving Vehicle Delay (min)
17:30-17:45	B-AC	1.35	4.92	0.274	-	0.37	0.37	-	5.6	0.28
	C-AB	1.78	7.52	0.237	-	0.39	0.39	-	5.9	0.17
	C-A	-	-	-	-	-	-	-	-	-
	A-B	0.00	-	-	-	-	-	-	-	-
	A-C	7.03	-	-	-	-	-	-	-	-

Segment	Stream	Demand (veh/min)	Capacity (veh/min)	RFC	Ped. Flow (ped/min)	Start Queue (veh)	End Queue (veh)	Geometric Delay (veh.min/ segment)	Delay (veh.min/ segment)	Mean Arriving Vehicle Delay (min)
17:45-18:00	B-AC	1.35	4.92	0.274	-	0.37	0.38	-	5.6	0.28
	C-AB	1.78	7.52	0.237	-	0.39	0.39	-	5.9	0.17
	C-A	-	-	-	-	-	-	-	-	-
	A-B	0.00	-	-	-	-	-	-	-	-
	A-C	7.03	-	-	-	-	-	-	-	-

Demand Set: 2037 Opening Year With Proposed Development - PM Peak Hour
Modelling Period: 17:00-18:00

Segment	Stream	Demand (veh/min)	Capacity (veh/min)	RFC	Ped. Flow (ped/min)	Start Queue (veh)	End Queue (veh)	Geometric Delay (veh.min/ segment)	Delay (veh.min/ segment)	Mean Arriving Vehicle Delay (min)
17:00-17:15	B-AC	1.70	5.16	0.329	-	0.00	0.48	-	6.6	0.28
	C-AB	2.05	7.41	0.277	-	0.00	0.49	-	7.2	0.18
	C-A	-	-	-	-	-	-	-	-	-
	A-B	0.00	-	-	-	-	-	-	-	-
	A-C	7.53	-	-	-	-	-	-	-	-

Segment	Stream	Demand (veh/min)	Capacity (veh/min)	RFC	Ped. Flow (ped/min)	Start Queue (veh)	End Queue (veh)	Geometric Delay (veh.min/ segment)	Delay (veh.min/ segment)	Mean Arriving Vehicle Delay (min)
17:15-17:30	B-AC	1.70	5.15	0.330	-	0.48	0.49	-	7.2	0.29
	C-AB	2.05	7.41	0.277	-	0.49	0.50	-	7.6	0.19
	C-A	-	-	-	-	-	-	-	-	-
	A-B	0.00	-	-	-	-	-	-	-	-
	A-C	7.53	-	-	-	-	-	-	-	-

Segment	Stream	Demand (veh/min)	Capacity (veh/min)	RFC	Ped. Flow (ped/min)	Start Queue (veh)	End Queue (veh)	Geometric Delay (veh.min/ segment)	Delay (veh.min/ segment)	Mean Arriving Vehicle Delay (min)
17:30-17:45	B-AC	1.70	5.15	0.330	-	0.49	0.49	-	7.3	0.29
	C-AB	2.05	7.41	0.277	-	0.50	0.50	-	7.6	0.19
	C-A	-	-	-	-	-	-	-	-	-
	A-B	0.00	-	-	-	-	-	-	-	-
	A-C	7.53	-	-	-	-	-	-	-	-

Segment	Stream	Demand (veh/min)	Capacity (veh/min)	RFC	Ped. Flow (ped/min)	Start Queue (veh)	End Queue (veh)	Geometric Delay (veh.min/ segment)	Delay (veh.min/ segment)	Mean Arriving Vehicle Delay (min)
17:45-18:00	B-AC	1.70	5.15	0.330	-	0.49	0.49	-	7.3	0.29
	C-AB	2.05	7.41	0.277	-	0.50	0.50	-	7.6	0.19
	C-A	-	-	-	-	-	-	-	-	-
	A-B	0.00	-	-	-	-	-	-	-	-
	A-C	7.53	-	-	-	-	-	-	-	-

Entry capacities marked with an '(X)' are dominated by a pedestrian crossing in that time segment.
In time segments marked with a '(B)', traffic leaving the junction may block back from a crossing so impairing normal operation of the junction.
Delays marked with '##' could not be calculated.

Overall Queues & Delays

Queueing Delay Information Over Whole Period

Demand Set: 2022 Opening Year Without Proposed Development - AM Peak Hour
Modelling Period: 08:00-09:00

Stream	Total Demand (veh)	Total Demand (veh/h)	Queueing Delay (min)	Queueing Delay (min/veh)	Inclusive Delay (min)	Inclusive Delay (min/veh)
B-AC	69.0	69.0	13.4	0.2	13.4	0.2
C-AB	157.0	157.0	31.7	0.2	31.7	0.2
C-A	-	-	-	-	-	-
A-B	0.0	0.0	-	-	-	-
A-C	165.0	165.0	-	-	-	-
All	**726.0**	**726.0**	**45.2**	**0.1**	**45.2**	**0.1**

Demand Set: 2022 Opening Year Without Proposed Development - PM Peak Hour
Modelling Period: 17:00-18:00

Stream	Total Demand (veh)	Total Demand (veh/h)	Queueing Delay (min)	Queueing Delay (min/veh)	Inclusive Delay (min)	Inclusive Delay (min/veh)
B-AC	69.0	69.0	15.6	0.2	15.6	0.2
C-AB	92.0	92.0	17.3	0.2	17.3	0.2
C-A	-	-	-	-	-	-
A-B	0.0	0.0	-	-	-	-
A-C	361.8	361.8	-	-	-	-
All	**948.0**	**948.0**	**33.0**	**0.0**	**33.0**	**0.0**

Demand Set: 2022 Opening Year With Proposed Development - AM Peak Hour
Modelling Period: 08:00-09:00

Stream	Total Demand (veh)	Total Demand (veh/h)	Queueing Delay (min)	Queueing Delay (min/veh)	Inclusive Delay (min)	Inclusive Delay (min/veh)
B-AC	81.0	81.0	16.1	0.2	16.1	0.2
C-AB	180.1	180.1	41.1	0.2	41.1	0.2
C-A	-	-	-	-	-	-
A-B	0.0	0.0	-	-	-	-
A-C	181.2	181.2	-	-	-	-
All	**809.4**	**809.4**	**57.2**	**0.1**	**57.3**	**0.1**

Demand Set: 2022 Opening Year With Proposed Development - PM Peak Hour
Modelling Period: 17:00-18:00

Stream	Total Demand (veh)	Total Demand (veh/h)	Queueing Delay (min)	Queueing Delay (min/veh)	Inclusive Delay (min)	Inclusive Delay (min/veh)
B-AC	91.2	91.2	20.9	0.2	20.9	0.2
C-AB	107.0	107.0	22.2	0.2	22.2	0.2
C-A	-	-	-	-	-	-
A-B	0.0	0.0	-	-	-	-
A-C	391.8	391.8	-	-	-	-
All	**1036.8**	**1036.8**	**43.1**	**0.0**	**43.1**	**0.0**

Demand Set: 2037 Opening Year Without Proposed Development - AM Peak Hour
Modelling Period: 08:00-09:00

Stream	Total Demand (veh)	Total Demand (veh/h)	Queueing Delay (min)	Queueing Delay (min/veh)	Inclusive Delay (min)	Inclusive Delay (min/veh)
B-AC	79.8	79.8	17.6	0.2	17.6	0.2
C-AB	182.9	182.9	43.2	0.2	43.3	0.2
C-A	-	-	-	-	-	-
A-B	0.0	0.0	-	-	-	-
A-C	192.6	192.6	-	-	-	-
All	**846.0**	**846.0**	**60.8**	**0.1**	**60.8**	**0.1**

Demand Set: 2037 Opening Year With Proposed Development - AM Peak Hour
Modelling Period: 08:00-09:00

Stream	Total Demand (veh)	Total Demand (veh/h)	Queueing Delay (min)	Queueing Delay (min/veh)	Inclusive Delay (min)	Inclusive Delay (min/veh)
B-AC	91.8	91.8	21.0	0.2	21.0	0.2
C-AB	205.9	205.9	55.8	0.3	55.8	0.3
C-A	-	-	-	-	-	-
A-B	0.0	0.0	-	-	-	-
A-C	208.8	208.8	-	-	-	-
All	**929.4**	**929.4**	**76.7**	**0.1**	**76.8**	**0.1**

Demand Set: 2037 Opening Year Without Proposed Development - PM Peak Hour
Modelling Period: 17:00-18:00

Stream	Total Demand (veh)	Total Demand (veh/h)	Queueing Delay (min)	Queueing Delay (min/veh)	Inclusive Delay (min)	Inclusive Delay (min/veh)
B-AC	81.0	81.0	22.0	0.3	22.0	0.3
C-AB	107.0	107.0	23.2	0.2	23.2	0.2
C-A	-	-	-	-	-	-
A-B	0.0	0.0	-	-	-	-
A-C	421.8	421.8	-	-	-	-
All	**1105.8**	**1105.8**	**45.2**	**0.0**	**45.2**	**0.0**

Demand Set: 2037 Opening Year With Proposed Development - PM Peak Hour
Modelling Period: 17:00-18:00

Stream	Total Demand (veh)	Total Demand (veh/h)	Queueing Delay (min)	Queueing Delay (min/veh)	Inclusive Delay (min)	Inclusive Delay (min/veh)
B-AC	102.0	102.0	28.5	0.3	28.5	0.3
C-AB	123.0	123.0	29.9	0.2	29.9	0.2
C-A	-	-	-	-	-	-
A-B	0.0	0.0	-	-	-	-
A-C	451.8	451.8	-	-	-	-
All	**1194.6**	**1194.6**	**58.4**	**0.0**	**58.4**	**0.0**

Delay is that occurring only within the time period.
Inclusive delay includes delay suffered by vehicles which are still queuing after the end of the time period.
These will only be significantly different if there is a large queue remaining at the end of the time period.

PICADY 5 Run Successful

PICADY

GUI Version: 5.1 AE
Analysis Program Release: 5.0 (MAY 2010)

For sales and distribution information, program advice and maintenance, contact:

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E-mail: software@trl.co.uk
Web: www.trlsoftware.co.uk

Run Analysis

Parameter	Values
File Run	I:\..\Shanakiel Road Sundays Well Road\St Kevins - Shanakiel Road Sundays Well Road Junction-Dec 2020.vpi
Date Run	04 December 2020
Time Run	19:16:26
Driving Side	Drive On The Left

Arm Names and Flow Scaling Factors

Arm	Arm Name	Flow Scaling Factor (%)
Arm A	Arm A - Sundays Well Road West	100
Arm B	Arm B - Shanakiel Road	100
Arm C	Arm C - Sundays Well Road East	100

Stream Labelling Convention

Stream A-B contains traffic going from A to B etc.

Run Information

Parameter	Values
Run Title	St Kevins SHD - Junction of Shanakiel Road and Sundays Well Road
Location	Junction of Shanakiel Road and Sundays Well Road
Date	23 April 2020
Enumerator	administrator [ILTP023]
Job Number	STKEVINS
Status	TIA
Client	LDA
Description	Capacity assessment of Shanakiel Road / Sundays Well Road priority junction for 2022 Opening Year and 2037 Design Year without and with proposed development

Errors and Warnings

Parameter	Values
Warning	No Errors Or Warnings

Geometric Data

Geometric Parameters

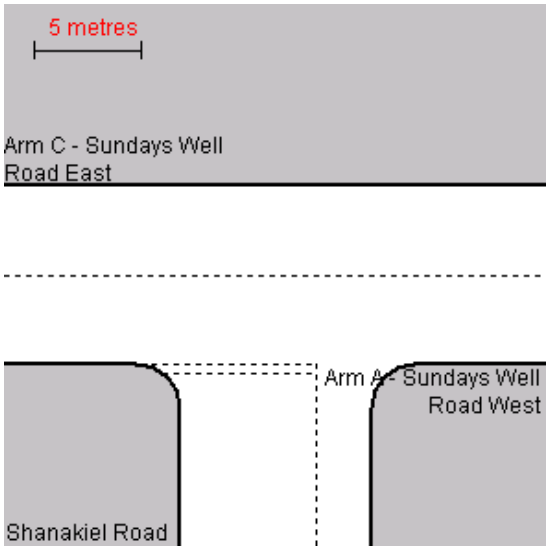
Parameter	Minor Arm B
Major Road Carriageway Width (m)	6.00
Major Road Kerbed Central Reserve Width (m)	0.00
Major Road Right Turning Lane Width (m)	2.20
Minor Road Width 0m Back from Junction (m)	6.25
Minor Road Width 5m Back from Junction (m)	4.65
Minor Road Width 10m Back from Junction (m)	3.70
Minor Road Width 15m Back from Junction (m)	3.30
Minor Road Width 20m Back from Junction (m)	3.30
Minor Road Flare Length (veh)	2
Minor Road Visibility To Right (m)	70
Minor Road Visibility To Left (m)	50
Major Road Right Turn Visibility (m)	70
Major Road Right Turn Blocks Traffic	Yes (if over 1 veh)

Slope and Intercept Values

Stream	Intercept for Stream	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
B-A	0.000	0.000	0.000	0.000	0.000
B-C	0.000	0.000	0.000	-	-
C-B	614.501	0.238	0.238	-	-

Note: Streams may be combined in which case capacity will be adjusted
These values do not allow for any site-specific corrections

Junction Diagram



Demand Data

Modelling Periods

Parameter	Period	Duration (min)	Segment Length (min)
First Modelling Period	07:45-09:15	90	15
Second Modelling Period	16:45-18:15	90	15

Direct Entry Flows

Demand Set: 2022 Opening Year Without Proposed Development - AM Peak Hour
Modelling Period: 07:45-09:15

Segment: 07:45-08:00

Arm	Flow (veh/min)
Arm A	10.10
Arm B	3.97
Arm C	6.18

Segment: 08:00-08:15

Arm	Flow (veh/min)
Arm A	10.10
Arm B	3.97
Arm C	6.18

Segment: 08:15-08:30

Arm	Flow (veh/min)
Arm A	10.10
Arm B	3.97
Arm C	6.18

Segment: 08:30-08:45

Arm	Flow (veh/min)
Arm A	10.10
Arm B	3.97
Arm C	6.18

Segment: 08:45-09:00

Arm	Flow (veh/min)
Arm A	10.10
Arm B	3.97
Arm C	6.18

Segment: 09:00-09:15

Arm	Flow (veh/min)
Arm A	10.10
Arm B	3.97
Arm C	6.18

Demand Set: 2022 Opening Year Without Proposed Development - PM Peak Hour
Modelling Period: 16:45-18:15

Segment: 16:45-17:00

Arm	Flow (veh/min)
Arm A	10.73
Arm B	6.00
Arm C	7.87

Segment: 17:00-17:15

Arm	Flow (veh/min)
Arm A	10.73
Arm B	6.00
Arm C	7.87

Segment: 17:15-17:30

Arm	Flow (veh/min)
Arm A	10.73
Arm B	6.00
Arm C	7.87

Segment: 17:30-17:45

Arm	Flow (veh/min)
Arm A	10.73
Arm B	6.00
Arm C	7.87

Segment: 17:45-18:00

Arm	Flow (veh/min)
Arm A	10.73
Arm B	6.00
Arm C	7.87

Segment: 18:00-18:15

Arm	Flow (veh/min)
Arm A	10.73
Arm B	6.00
Arm C	7.87

Demand Set: 2022 Opening Year With Proposed Development - AM Peak Hour
Modelling Period: 07:45-09:15

Segment: 07:45-08:00

Arm	Flow (veh/min)
Arm A	10.37
Arm B	4.58
Arm C	6.25

Segment: 08:00-08:15

Arm	Flow (veh/min)
Arm A	10.37
Arm B	4.58
Arm C	6.25

Segment: 08:15-08:30

Arm	Flow (veh/min)
Arm A	10.37
Arm B	4.58
Arm C	6.25

Segment: 08:30-08:45

Arm	Flow (veh/min)
Arm A	10.37
Arm B	4.58
Arm C	6.25

Segment: 08:45-09:00

Arm	Flow (veh/min)
Arm A	10.37
Arm B	4.58
Arm C	6.25

Segment: 09:00-09:15

Arm	Flow (veh/min)
Arm A	10.37
Arm B	4.58
Arm C	6.25

Demand Set: 2022 Opening Year With Proposed Development - PM Peak Hour
Modelling Period: 16:45-18:15

Segment: 16:45-17:00

Arm	Flow (veh/min)
Arm A	11.17
Arm B	6.42
Arm C	8.00

Segment: 17:00-17:15

Arm	Flow (veh/min)
Arm A	11.17
Arm B	6.42
Arm C	8.00

Segment: 17:15-17:30

Arm	Flow (veh/min)
Arm A	11.17
Arm B	6.42
Arm C	8.00

Segment: 17:30-17:45

Arm	Flow (veh/min)
Arm A	11.17
Arm B	6.42
Arm C	8.00

Segment: 17:45-18:00

Arm	Flow (veh/min)
Arm A	11.17
Arm B	6.42
Arm C	8.00

Segment: 18:00-18:15

Arm	Flow (veh/min)
Arm A	11.17
Arm B	6.42
Arm C	8.00

Demand Set: 2037 Opening Year Without Proposed Development - AM Peak Hour
Modelling Period: 07:45-09:15

Segment: 07:45-08:00

Arm	Flow (veh/min)
Arm A	11.83
Arm B	4.61
Arm C	7.21

Segment: 08:00-08:15

Arm	Flow (veh/min)
Arm A	11.83
Arm B	4.61
Arm C	7.21

Segment: 08:15-08:30

Arm	Flow (veh/min)
Arm A	11.83
Arm B	4.61
Arm C	7.21

Segment: 08:30-08:45

Arm	Flow (veh/min)
Arm A	11.83
Arm B	4.61
Arm C	7.21

Segment: 08:45-09:00

Arm	Flow (veh/min)
Arm A	11.83
Arm B	4.61
Arm C	7.21

Segment: 09:00-09:15

Arm	Flow (veh/min)
Arm A	11.83
Arm B	4.61
Arm C	7.21

Demand Set: 2037 Opening Year With Proposed Development - AM Peak Hour
Modelling Period: 07:45-09:15

Segment: 07:45-08:00

Arm	Flow (veh/min)
Arm A	12.06
Arm B	5.25
Arm C	7.30

Segment: 08:00-08:15

Arm	Flow (veh/min)
Arm A	12.06
Arm B	5.25
Arm C	7.30

Segment: 08:15-08:30

Arm	Flow (veh/min)
Arm A	12.06
Arm B	5.25
Arm C	7.30

Segment: 08:30-08:45

Arm	Flow (veh/min)
Arm A	12.06
Arm B	5.25
Arm C	7.30

Segment: 08:45-09:00

Arm	Flow (veh/min)
Arm A	12.06
Arm B	5.25
Arm C	7.30

Segment: 09:00-09:15

Arm	Flow (veh/min)
Arm A	12.06
Arm B	5.25
Arm C	7.30

Demand Set: 2037 Opening Year Without Proposed Development - PM Peak Hour
Modelling Period: 16:45-18:15

Segment: 16:45-17:00

Arm	Flow (veh/min)
Arm A	12.53
Arm B	7.00
Arm C	9.18

Segment: 17:00-17:15

Arm	Flow (veh/min)
Arm A	12.53
Arm B	7.00
Arm C	9.18

Segment: 17:15-17:30

Arm	Flow (veh/min)
Arm A	12.53
Arm B	7.00
Arm C	9.18

Segment: 17:30-17:45

Arm	Flow (veh/min)
Arm A	12.53
Arm B	7.00
Arm C	9.18

Segment: 17:45-18:00

Arm	Flow (veh/min)
Arm A	12.53
Arm B	7.00
Arm C	9.18

Segment: 18:00-18:15

Arm	Flow (veh/min)
Arm A	12.53
Arm B	7.00
Arm C	9.18

Demand Set: 2037 Opening Year With Proposed Development - PM Peak Hour
Modelling Period: 16:45-18:15

Segment: 16:45-17:00

Arm	Flow (veh/min)
Arm A	12.96
Arm B	7.41
Arm C	9.30

Segment: 17:00-17:15

Arm	Flow (veh/min)
Arm A	12.96
Arm B	7.41
Arm C	9.30

Segment: 17:15-17:30

Arm	Flow (veh/min)
Arm A	12.96
Arm B	7.41
Arm C	9.30

Segment: 17:30-17:45

Arm	Flow (veh/min)
Arm A	12.96
Arm B	7.41
Arm C	9.30

Segment: 17:45-18:00

Arm	Flow (veh/min)
Arm A	12.96
Arm B	7.41
Arm C	9.30

Segment: 18:00-18:15

Arm	Flow (veh/min)
Arm A	12.96
Arm B	7.41
Arm C	9.30

Turning Counts

Demand Set: 2022 Opening Year Without Proposed Development - AM Peak Hour
Modelling Period: 07:45-09:15

From/To	Arm A	Arm B	Arm C
Arm A	-	434	174
Arm B	223	-	15
Arm C	347	24	-

Demand Set: 2022 Opening Year Without Proposed Development - PM Peak Hour
Modelling Period: 16:45-18:15

From/To	Arm A	Arm B	Arm C
Arm A	-	475	169
Arm B	340	-	20
Arm C	412	60	-

Demand Set: 2022 Opening Year With Proposed Development - AM Peak Hour
Modelling Period: 07:45-09:15

From/To	Arm A	Arm B	Arm C
Arm A	-	448	174
Arm B	250	-	25
Arm C	347	28	-

Demand Set: 2022 Opening Year With Proposed Development - PM Peak Hour
Modelling Period: 16:45-18:15

From/To	Arm A	Arm B	Arm C
Arm A	-	501	169
Arm B	359	-	26
Arm C	412	68	-

Demand Set: 2037 Opening Year Without Proposed Development - AM Peak Hour
Modelling Period: 07:45-09:15

From/To	Arm A	Arm B	Arm C
Arm A	-	507	203
Arm B	260	-	18
Arm C	406	28	-

Demand Set: 2037 Opening Year With Proposed Development - AM Peak Hour
Modelling Period: 07:45-09:15

From/To	Arm A	Arm B	Arm C
Arm A	-	520	203
Arm B	288	-	27
Arm C	406	32	-

Demand Set: 2037 Opening Year Without Proposed Development - PM Peak Hour
Modelling Period: 16:45-18:15

From/To	Arm A	Arm B	Arm C
Arm A	-	555	197
Arm B	397	-	23
Arm C	481	70	-

Demand Set: 2037 Opening Year With Proposed Development - PM Peak Hour
Modelling Period: 16:45-18:15

From/To	Arm A	Arm B	Arm C
Arm A	-	581	197
Arm B	416	-	29
Arm C	481	78	-

Turning proportions are calculated from turning count data

Turning Proportions

Demand Set: 2022 Opening Year Without Proposed Development - AM Peak Hour
Modelling Period: 07:45-09:15

From/To	Arm A	Arm B	Arm C
Arm A	0.000	0.714	0.286
Arm B	0.937	0.000	0.063
Arm C	0.935	0.065	0.000

Demand Set: 2022 Opening Year Without Proposed Development - PM Peak Hour
Modelling Period: 16:45-18:15

From/To	Arm A	Arm B	Arm C
Arm A	0.000	0.738	0.262
Arm B	0.944	0.000	0.056
Arm C	0.873	0.127	0.000

Demand Set: 2022 Opening Year With Proposed Development - AM Peak Hour
Modelling Period: 07:45-09:15

From/To	Arm A	Arm B	Arm C
Arm A	0.000	0.720	0.280
Arm B	0.909	0.000	0.091
Arm C	0.925	0.075	0.000

Demand Set: 2022 Opening Year With Proposed Development - PM Peak Hour
Modelling Period: 16:45-18:15

From/To	Arm A	Arm B	Arm C
Arm A	0.000	0.748	0.252
Arm B	0.932	0.000	0.068
Arm C	0.858	0.142	0.000

Demand Set: 2037 Opening Year Without Proposed Development - AM Peak Hour
Modelling Period: 07:45-09:15

From/To	Arm A	Arm B	Arm C
Arm A	0.000	0.714	0.286
Arm B	0.935	0.000	0.065
Arm C	0.935	0.065	0.000

Demand Set: 2037 Opening Year With Proposed Development - AM Peak Hour
Modelling Period: 07:45-09:15

From/To	Arm A	Arm B	Arm C
Arm A	0.000	0.719	0.281
Arm B	0.914	0.000	0.086
Arm C	0.927	0.073	0.000

Demand Set: 2037 Opening Year Without Proposed Development - PM Peak Hour
Modelling Period: 16:45-18:15

From/To	Arm A	Arm B	Arm C
Arm A	0.000	0.738	0.262
Arm B	0.945	0.000	0.055
Arm C	0.873	0.127	0.000

Demand Set: 2037 Opening Year With Proposed Development - PM Peak Hour
Modelling Period: 16:45-18:15

From/To	Arm A	Arm B	Arm C
Arm A	0.000	0.747	0.253
Arm B	0.935	0.000	0.065
Arm C	0.860	0.140	0.000

Heavy Vehicles Percentages

Demand Set: 2022 Opening Year Without Proposed Development - AM Peak Hour
Modelling Period: 07:45-09:15

From/To	Arm A	Arm B	Arm C
Arm A	-	1.7	0.0
Arm B	0.0	-	3.2
Arm C	0.9	0.0	-

Demand Set: 2022 Opening Year Without Proposed Development - PM Peak Hour
Modelling Period: 16:45-18:15

From/To	Arm A	Arm B	Arm C
Arm A	-	1.1	0.6
Arm B	0.0	-	1.5
Arm C	0.3	0.0	-

Demand Set: 2022 Opening Year With Proposed Development - AM Peak Hour
Modelling Period: 07:45-09:15

From/To	Arm A	Arm B	Arm C
Arm A	-	1.7	0.0
Arm B	0.0	-	3.2
Arm C	0.9	0.0	-

Demand Set: 2022 Opening Year With Proposed Development - PM Peak Hour
Modelling Period: 16:45-18:15

From/To	Arm A	Arm B	Arm C
Arm A	-	1.1	0.6
Arm B	0.0	-	1.5
Arm C	0.3	0.0	-

Demand Set: 2037 Opening Year Without Proposed Development - AM Peak Hour
Modelling Period: 07:45-09:15

From/To	Arm A	Arm B	Arm C
Arm A	-	1.7	0.0
Arm B	0.0	-	3.2
Arm C	0.9	0.0	-

Demand Set: 2037 Opening Year With Proposed Development - AM Peak Hour
Modelling Period: 07:45-09:15

From/To	Arm A	Arm B	Arm C
Arm A	-	1.7	0.0
Arm B	0.0	-	3.2
Arm C	0.9	0.0	-

Demand Set: 2037 Opening Year Without Proposed Development - PM Peak Hour
Modelling Period: 16:45-18:15

From/To	Arm A	Arm B	Arm C
Arm A	-	1.1	0.6
Arm B	0.0	-	1.5
Arm C	0.3	0.0	-

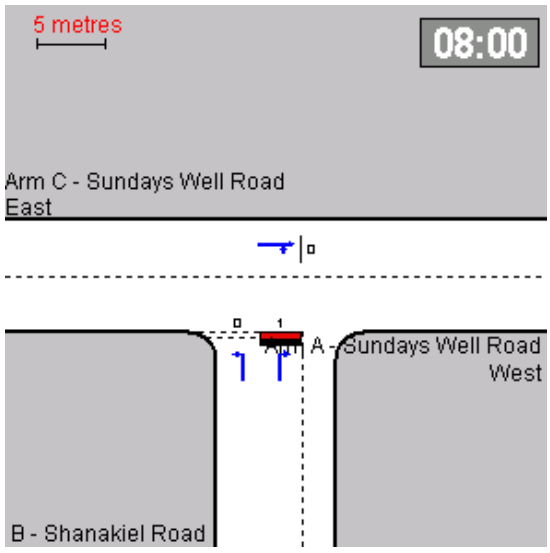
Demand Set: 2037 Opening Year With Proposed Development - PM Peak Hour
Modelling Period: 16:45-18:15

From/To	Arm A	Arm B	Arm C
Arm A	-	1.1	0.6
Arm B	0.0	-	1.5
Arm C	0.3	0.0	-

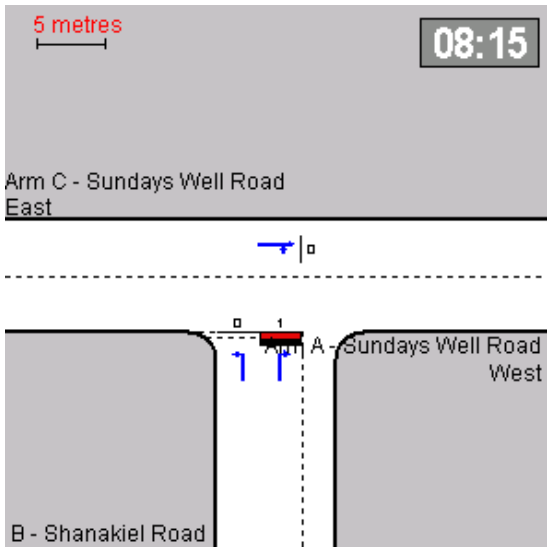
Queue Diagrams

Demand Set: 2022 Opening Year Without Proposed Development - AM Peak Hour
Modelling Period: 07:45-09:15
View Extent: 40m

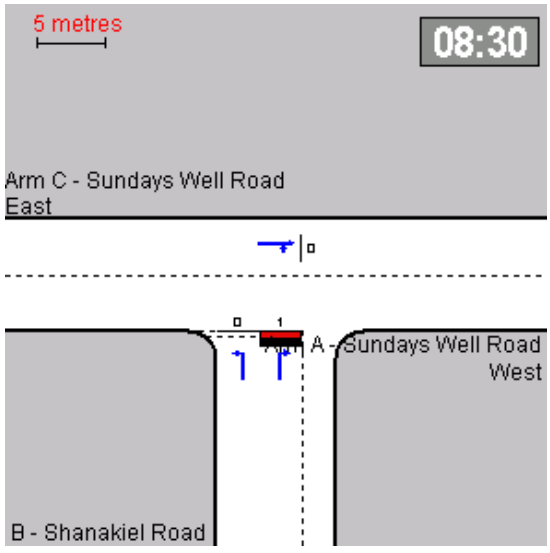
Queue Interval 1: 07:45-08:00



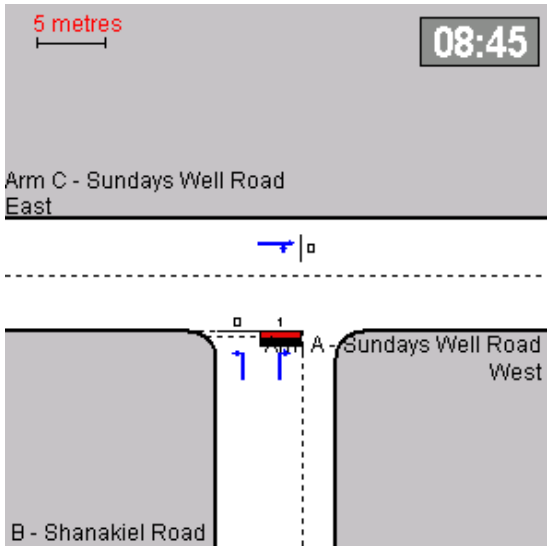
Queue Interval 2: 08:00-08:15



Queue Interval 3: 08:15-08:30

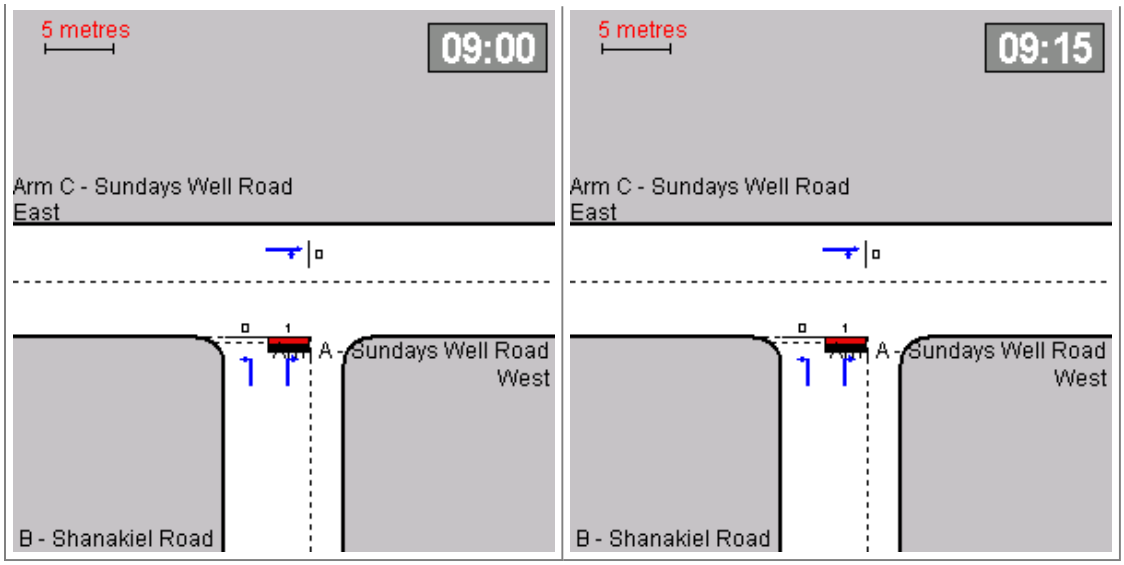


Queue Interval 4: 08:30-08:45



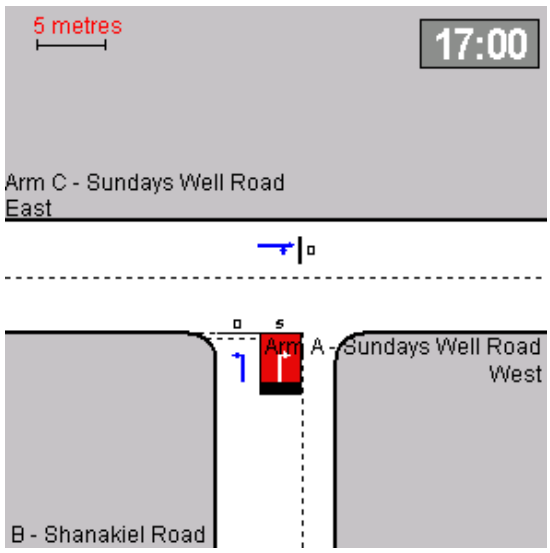
Queue Interval 5: 08:45-09:00

Queue Interval 6: 09:00-09:15

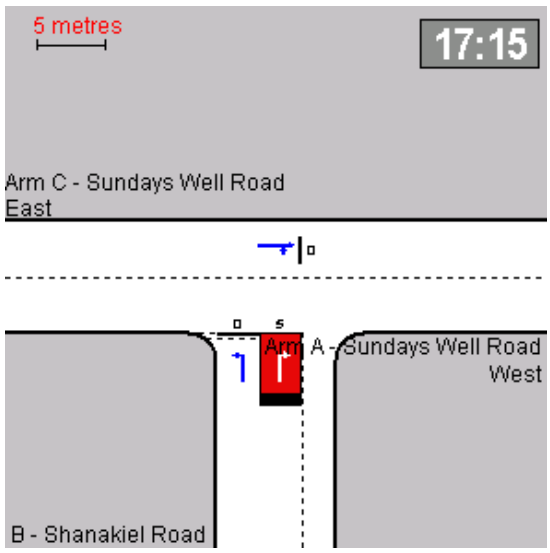

5 metres
09:00
Arm C - Sundays Well Road
East
A - Sundays Well Road
West
B - Shanakiel Road
5 metres
09:15
Arm C - Sundays Well Road
East
A - Sundays Well Road
West
B - Shanakiel Road

Demand Set: 2022 Opening Year Without Proposed Development - PM Peak Hour
Modelling Period: 16:45-18:15
View Extent: 40m

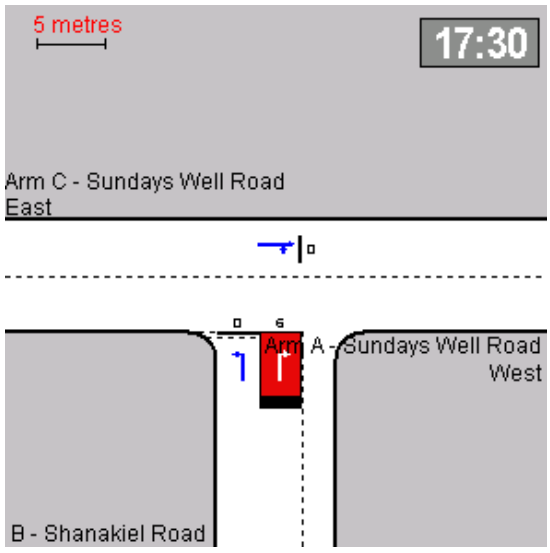
Queue Interval 1: 16:45-17:00



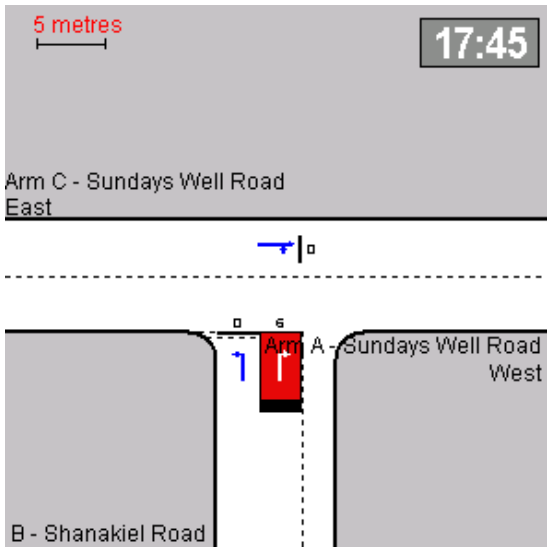
Queue Interval 2: 17:00-17:15



Queue Interval 3: 17:15-17:30

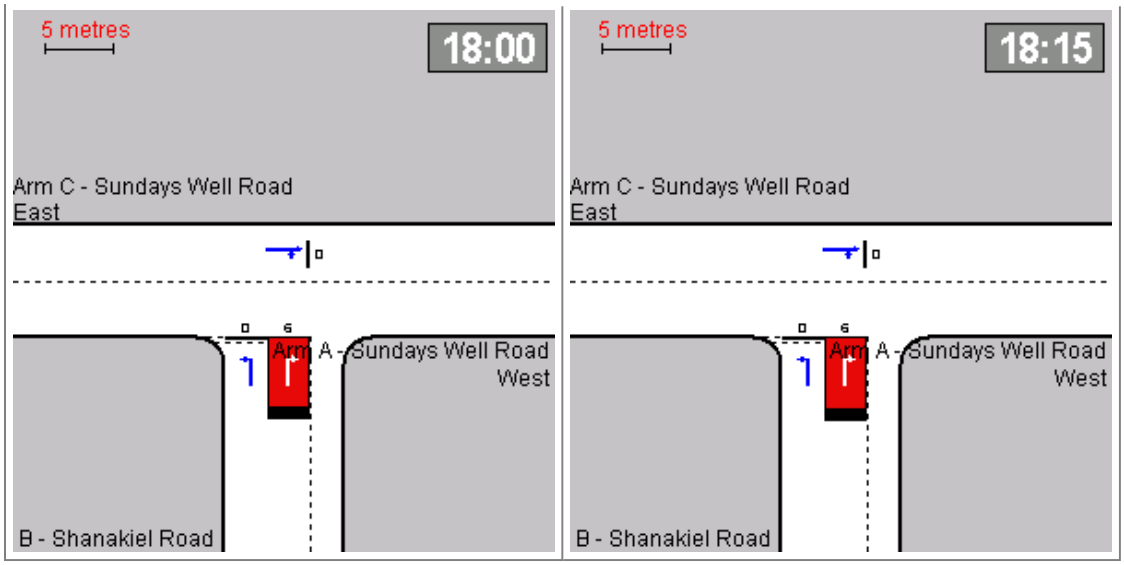


Queue Interval 4: 17:30-17:45



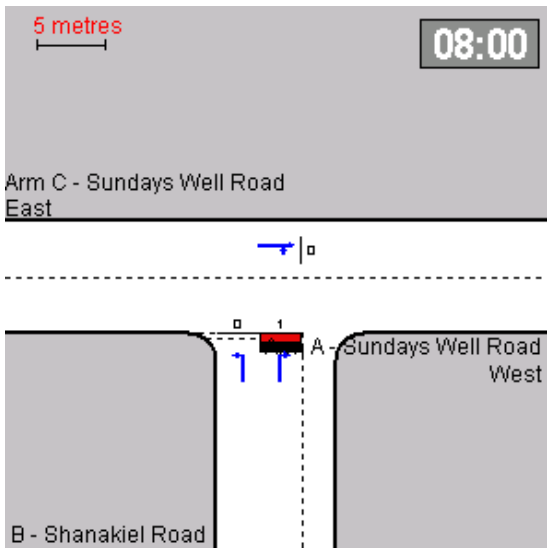
Queue Interval 5: 17:45-18:00

Queue Interval 6: 18:00-18:15

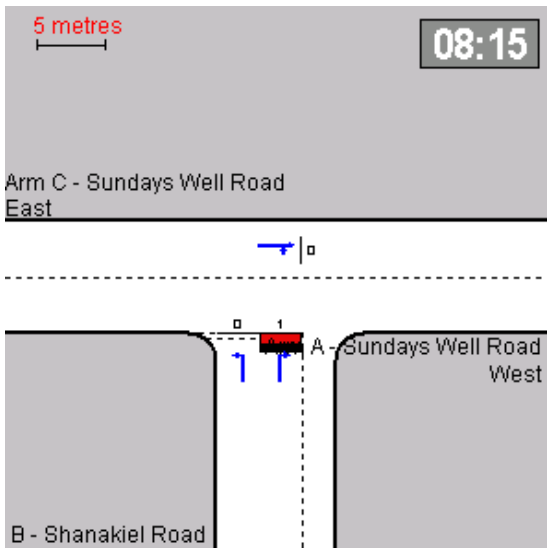

5 metres
18:00
Arm C - Sundays Well Road East
Arm A - Sundays Well Road West
B - Shanakiel Road
5 metres
18:15
Arm C - Sundays Well Road East
Arm A - Sundays Well Road West
B - Shanakiel Road

Demand Set: 2022 Opening Year With Proposed Development - AM Peak Hour
Modelling Period: 07:45-09:15
View Extent: 40m

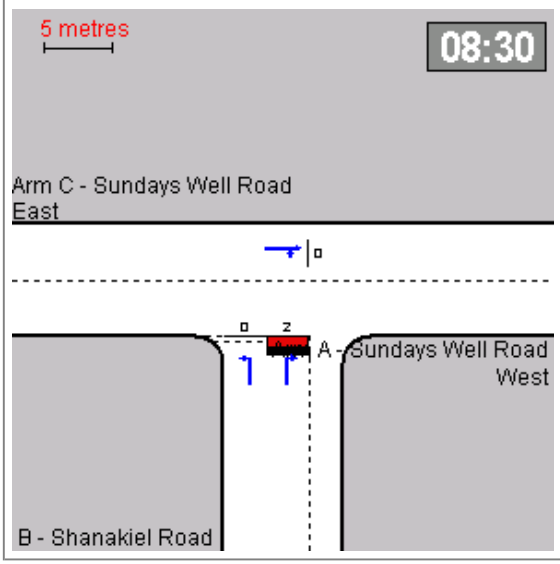
Queue Interval 1: 07:45-08:00



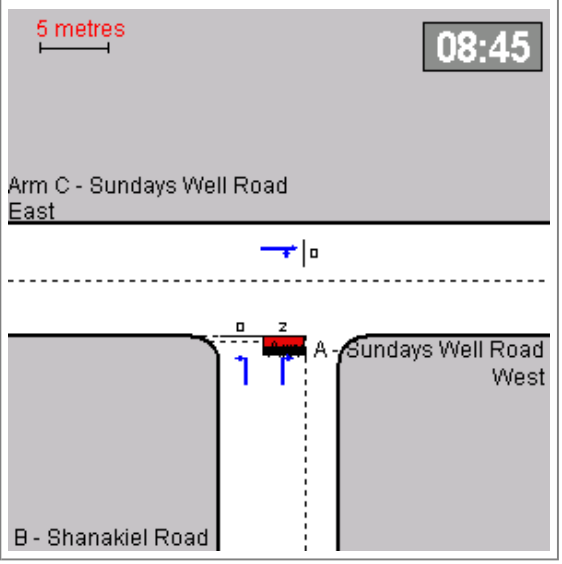
Queue Interval 2: 08:00-08:15



Queue Interval 3: 08:15-08:30

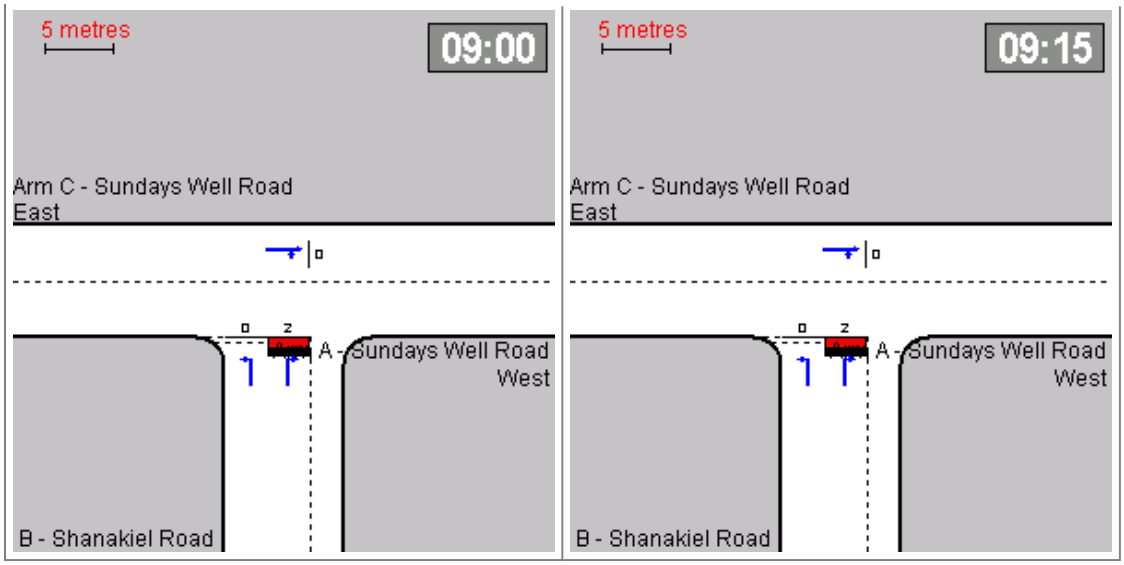


Queue Interval 4: 08:30-08:45



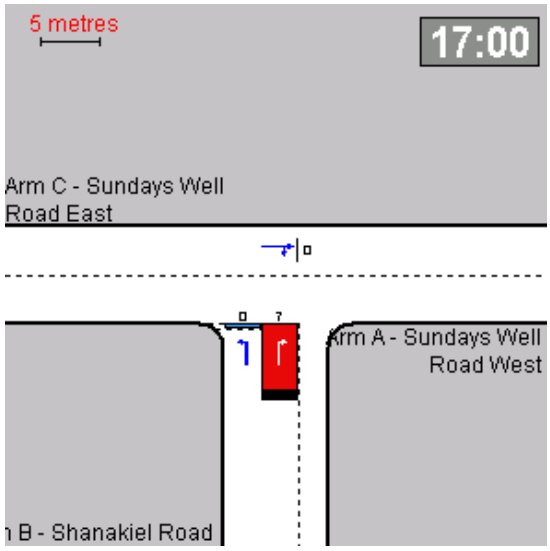
Queue Interval 5: 08:45-09:00

Queue Interval 6: 09:00-09:15

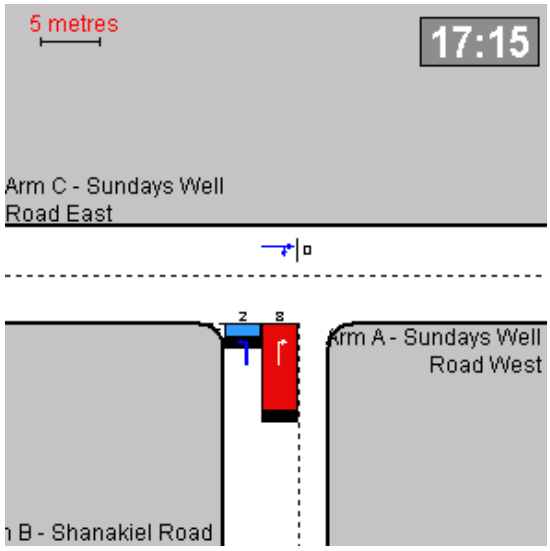

5 metres
09:00
Arm C - Sundays Well Road East
A - Sundays Well Road West
B - Shanakiel Road
5 metres
09:15
Arm C - Sundays Well Road East
A - Sundays Well Road West
B - Shanakiel Road

Demand Set: 2022 Opening Year With Proposed Development - PM Peak Hour
Modelling Period: 16:45-18:15
View Extent: 46m

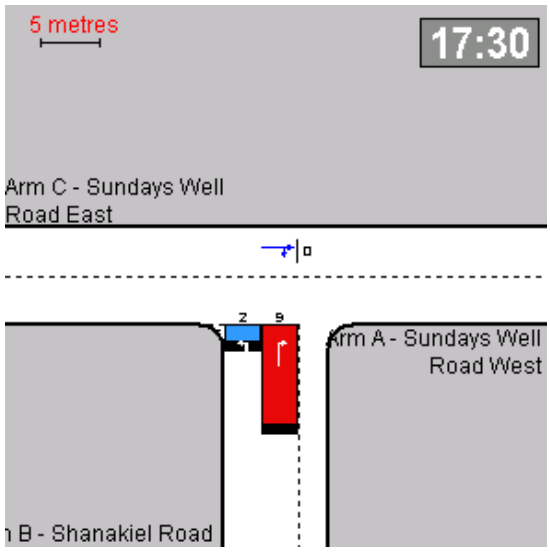
Queue Interval 1: 16:45-17:00



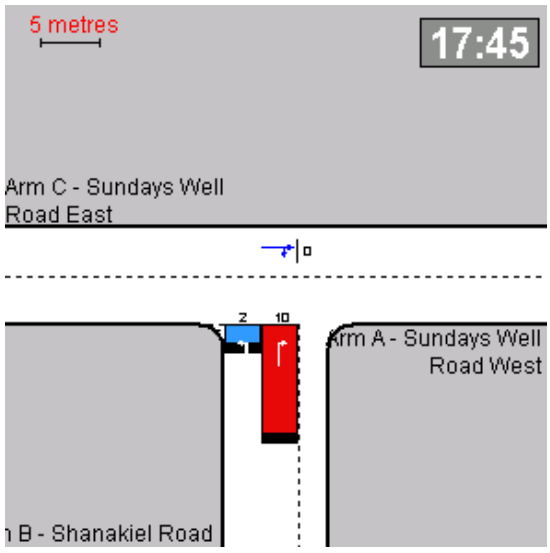
Queue Interval 2: 17:00-17:15



Queue Interval 3: 17:15-17:30

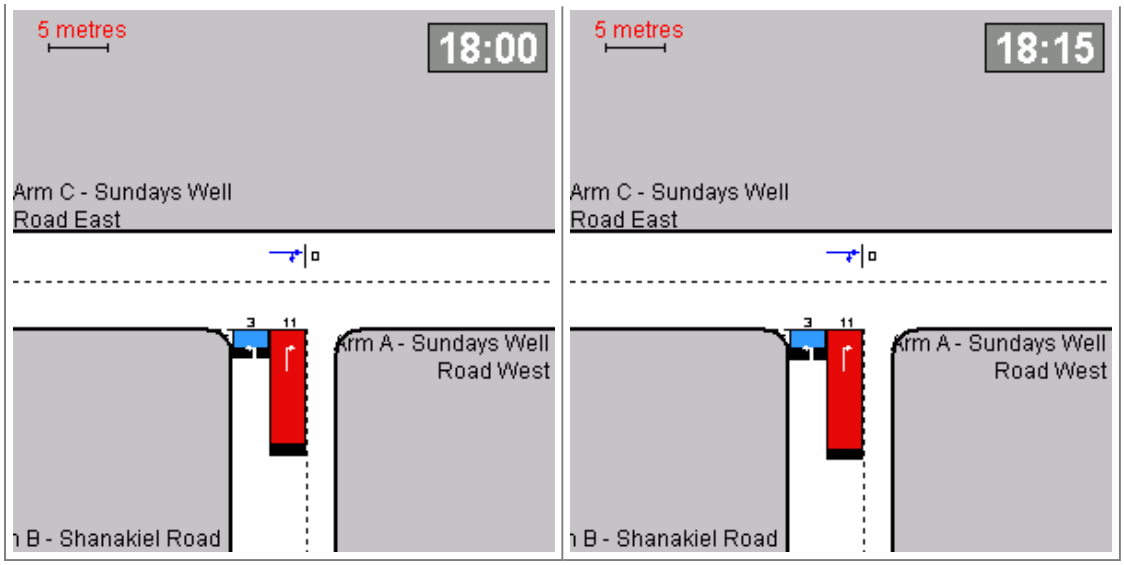


Queue Interval 4: 17:30-17:45



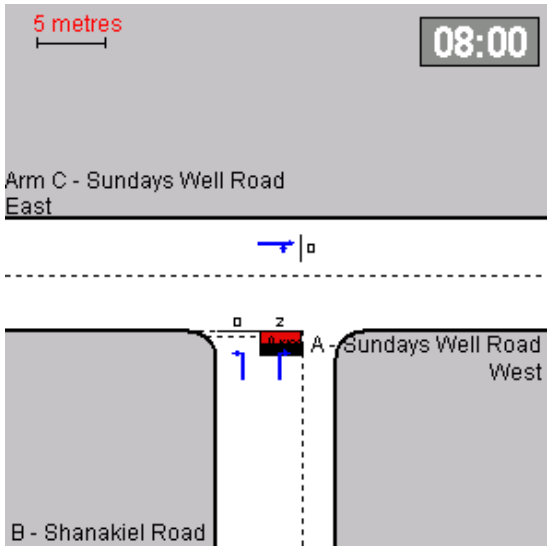
Queue Interval 5: 17:45-18:00

Queue Interval 6: 18:00-18:15

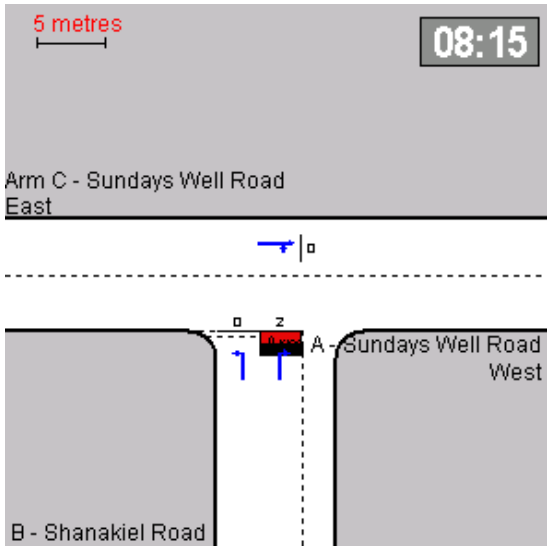

5 metres
18:00
Arm C - Sundays Well Road East
3
11
Arm A - Sundays Well Road West
B - Shanakiel Road
5 metres
18:15
Arm C - Sundays Well Road East
3
11
Arm A - Sundays Well Road West
B - Shanakiel Road

Demand Set: 2037 Opening Year Without Proposed Development - AM Peak Hour
Modelling Period: 07:45-09:15
View Extent: 40m

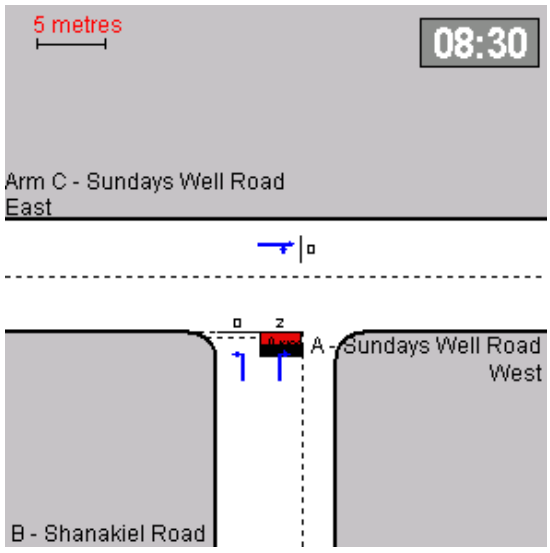
Queue Interval 1: 07:45-08:00



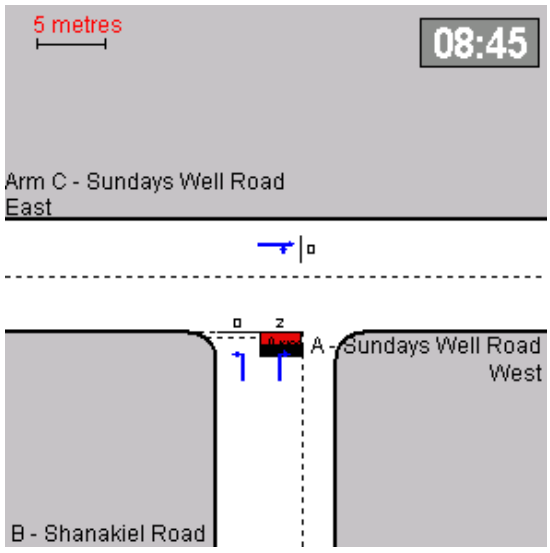
Queue Interval 2: 08:00-08:15



Queue Interval 3: 08:15-08:30

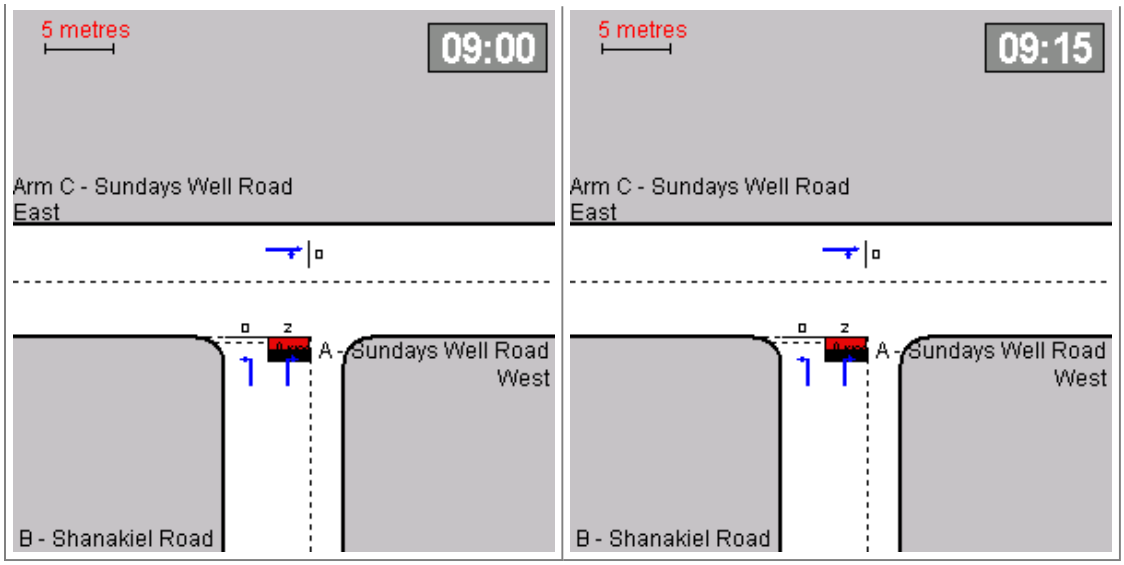


Queue Interval 4: 08:30-08:45



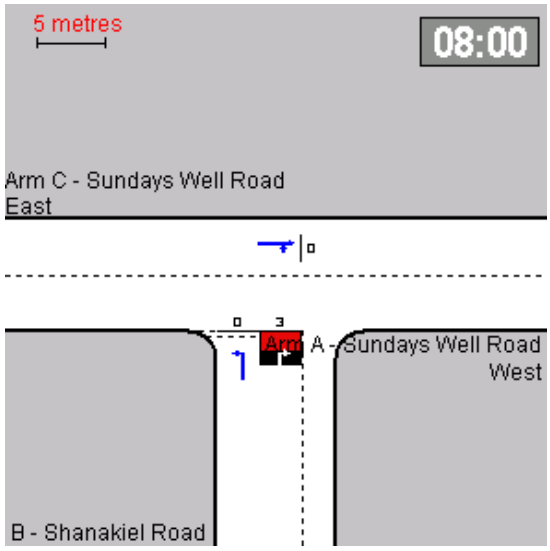
Queue Interval 5: 08:45-09:00

Queue Interval 6: 09:00-09:15

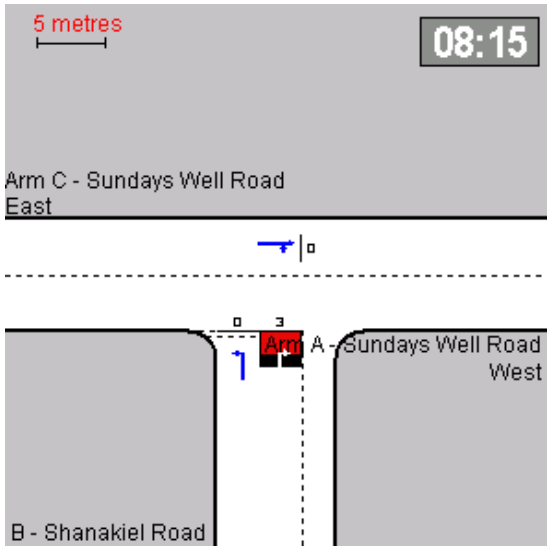

5 metres
09:00
Arm C - Sundays Well Road
East
A - Sundays Well Road
West
B - Shanakiel Road
5 metres
09:15
Arm C - Sundays Well Road
East
A - Sundays Well Road
West
B - Shanakiel Road

Demand Set: 2037 Opening Year With Proposed Development - AM Peak Hour
Modelling Period: 07:45-09:15
View Extent: 40m

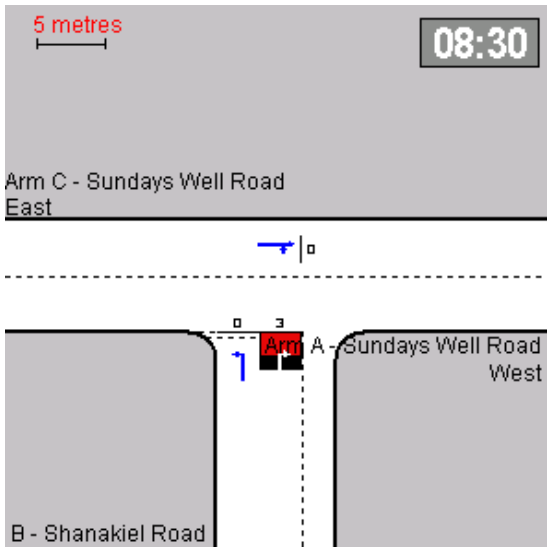
Queue Interval 1: 07:45-08:00



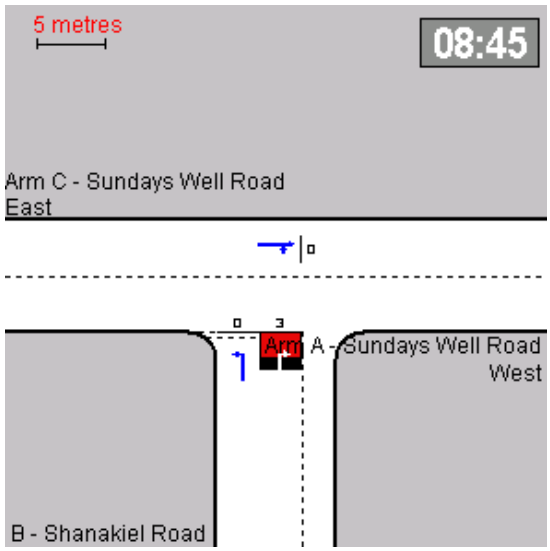
Queue Interval 2: 08:00-08:15



Queue Interval 3: 08:15-08:30

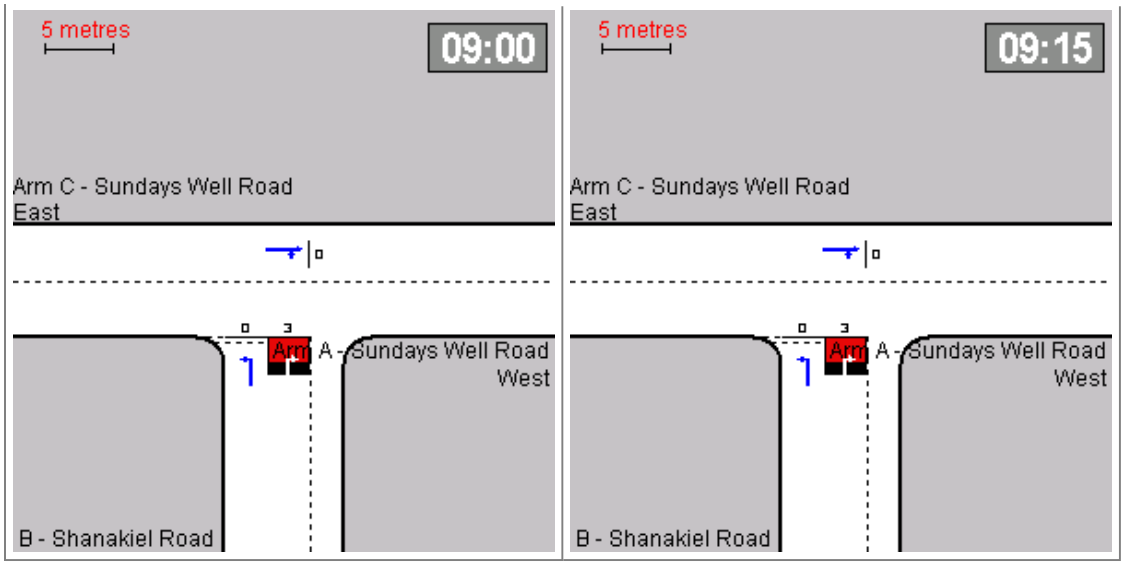


Queue Interval 4: 08:30-08:45



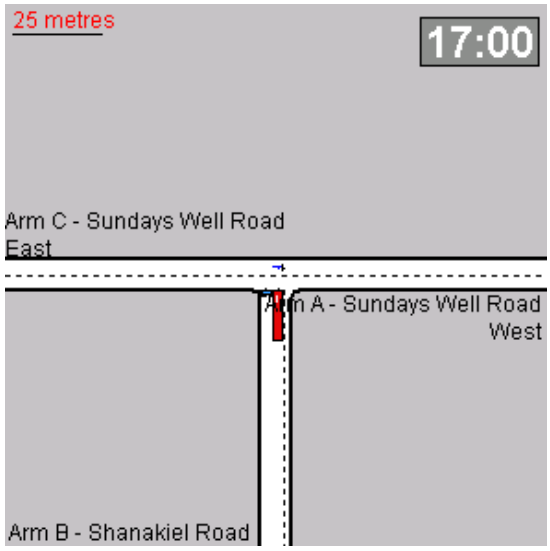
Queue Interval 5: 08:45-09:00

Queue Interval 6: 09:00-09:15

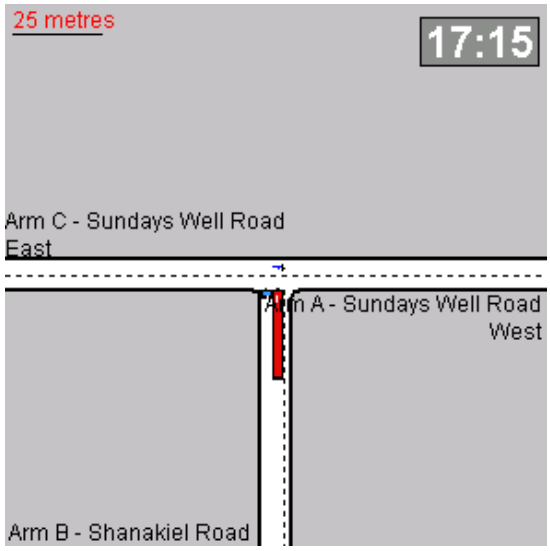

5 metres
09:00
Arm C - Sundays Well Road
East
Arm A - Sundays Well Road
West
B - Shanakiel Road
5 metres
09:15
Arm C - Sundays Well Road
East
Arm A - Sundays Well Road
West
B - Shanakiel Road

Demand Set: 2037 Opening Year Without Proposed Development - PM Peak Hour
Modelling Period: 16:45-18:15
View Extent: 155m

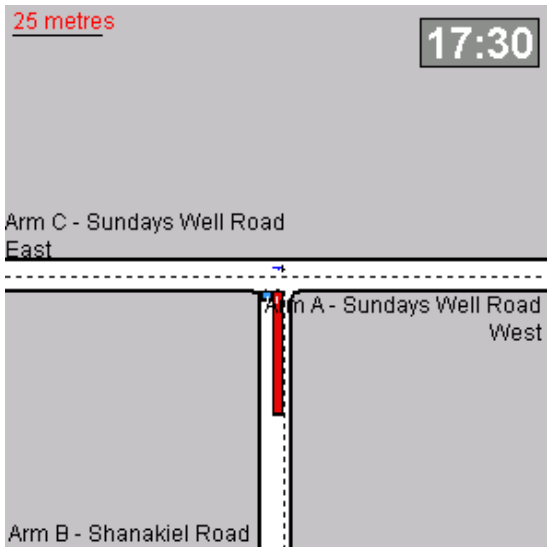
Queue Interval 1: 16:45-17:00



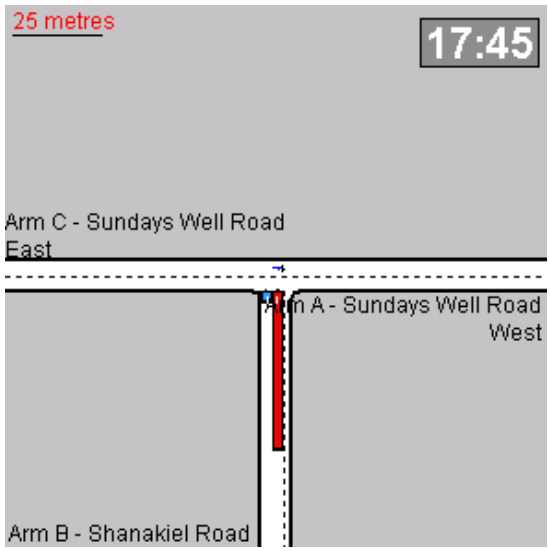
Queue Interval 2: 17:00-17:15



Queue Interval 3: 17:15-17:30

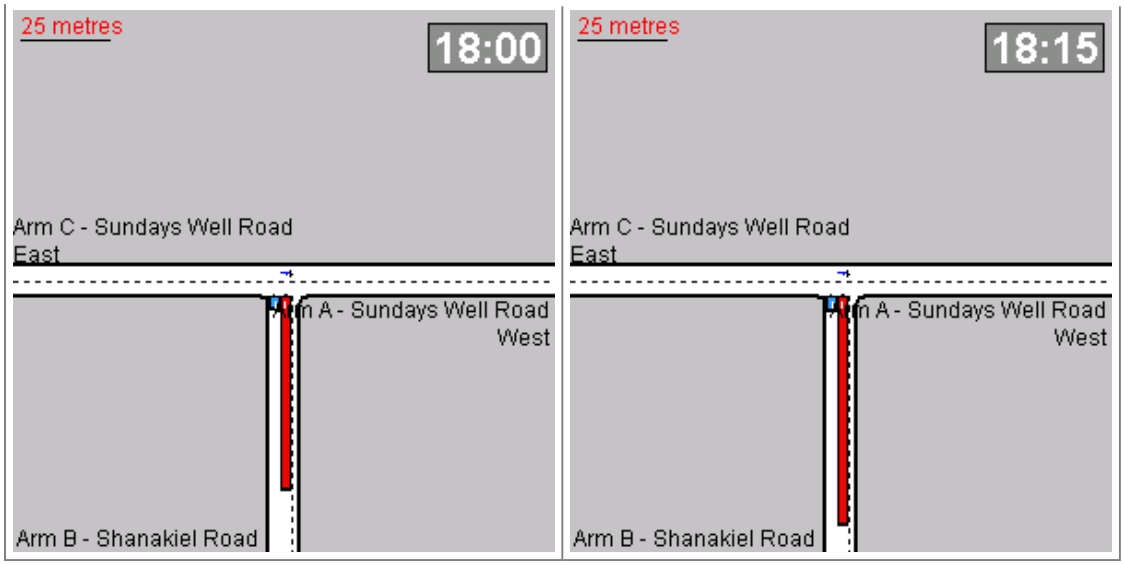


Queue Interval 4: 17:30-17:45



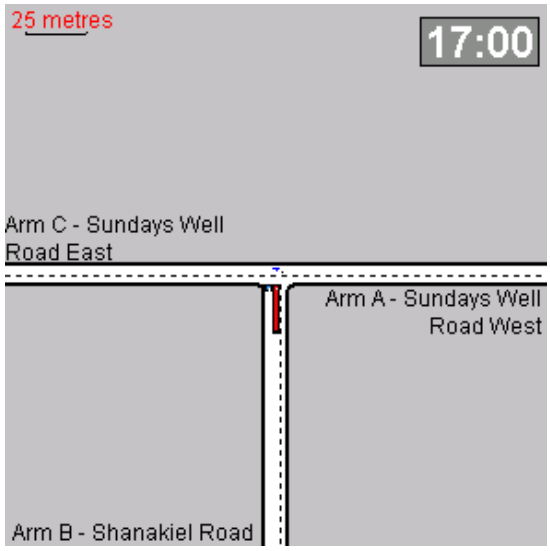
Queue Interval 5: 17:45-18:00

Queue Interval 6: 18:00-18:15

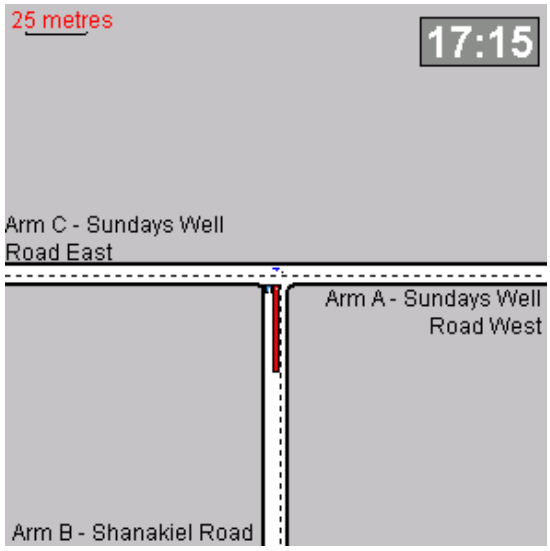

25 metres
18:00
Arm C - Sundays Well Road East
Arm A - Sundays Well Road West
Arm B - Shanakiel Road
25 metres
18:15
Arm C - Sundays Well Road East
Arm A - Sundays Well Road West
Arm B - Shanakiel Road

Demand Set: 2037 Opening Year With Proposed Development - PM Peak Hour
Modelling Period: 16:45-18:15
View Extent: 224m

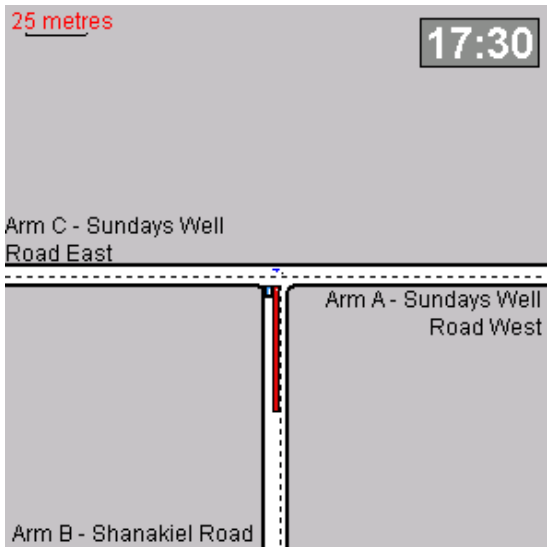
Queue Interval 1: 16:45-17:00



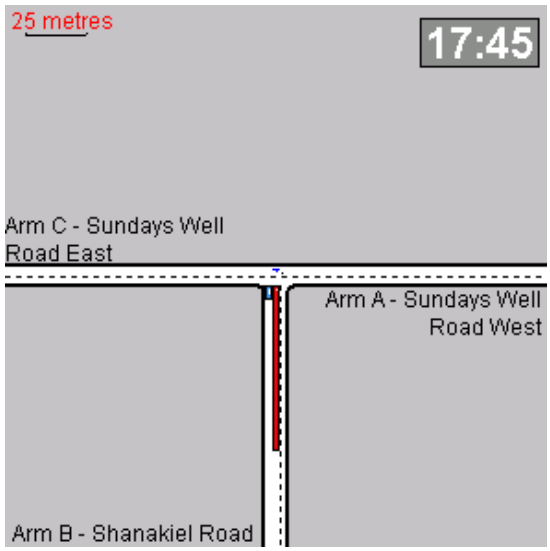
Queue Interval 2: 17:00-17:15



Queue Interval 3: 17:15-17:30

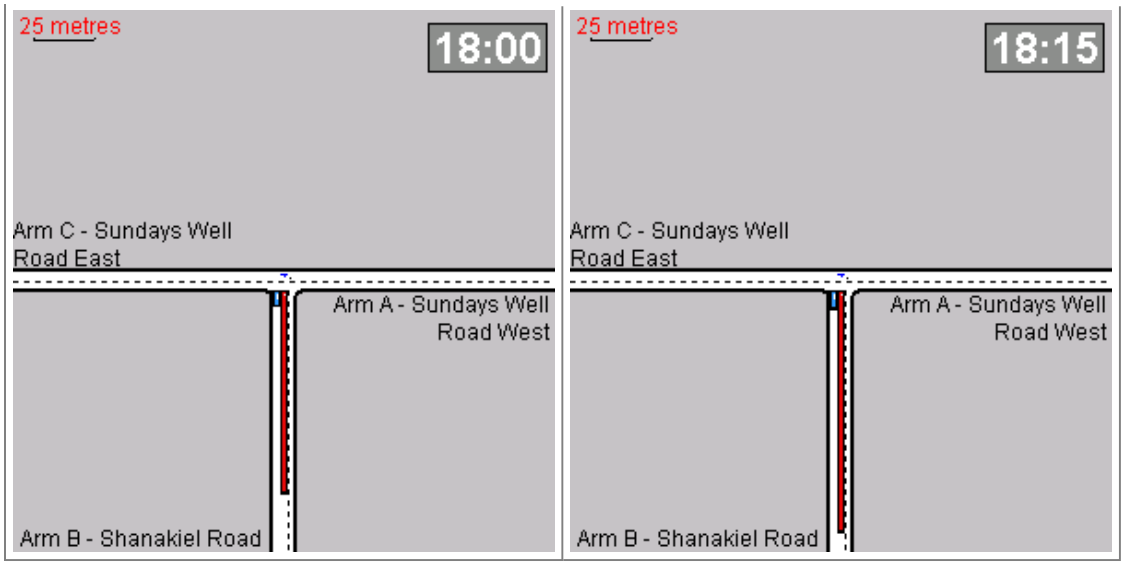


Queue Interval 4: 17:30-17:45



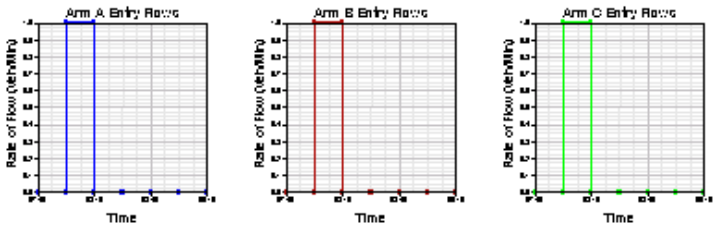
Queue Interval 5: 17:45-18:00

Queue Interval 6: 18:00-18:15

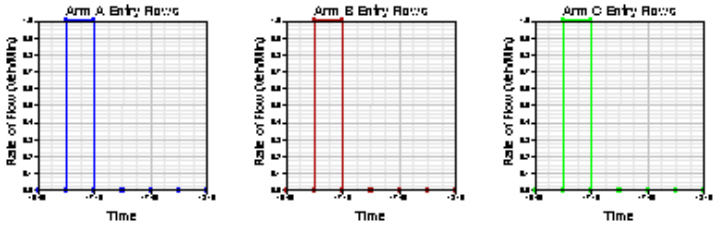

25 metres
18:00
Arm C - Sundays Well Road East
Arm A - Sundays Well Road West
Arm B - Shanakiel Road
25 metres
18:15
Arm C - Sundays Well Road East
Arm A - Sundays Well Road West
Arm B - Shanakiel Road

Demand Data Graph

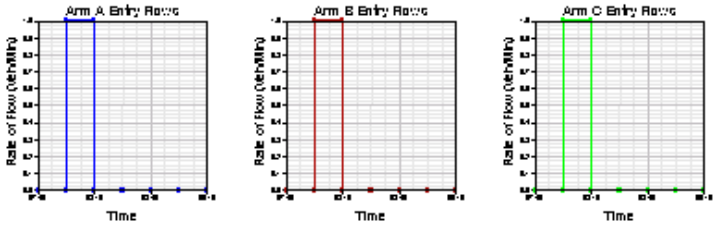
Demand Set: 2022 Opening Year Without Proposed Development - AM Peak Hour
Modelling Period: 07:45-09:15



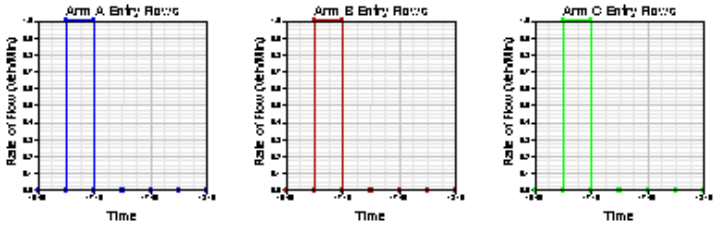
Demand Set: 2022 Opening Year Without Proposed Development - PM Peak Hour
Modelling Period: 16:45-18:15



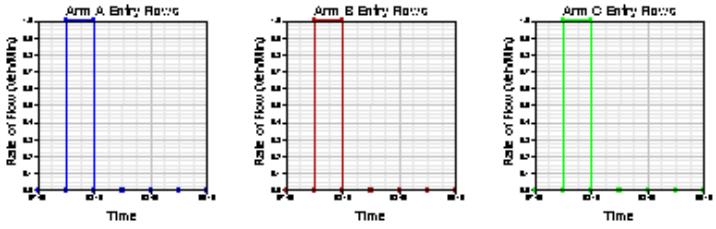
Demand Set: 2022 Opening Year With Proposed Development - AM Peak Hour
Modelling Period: 07:45-09:15



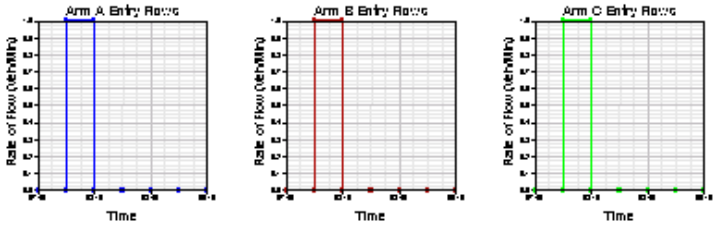
Demand Set: 2022 Opening Year With Proposed Development - PM Peak Hour
Modelling Period: 16:45-18:15



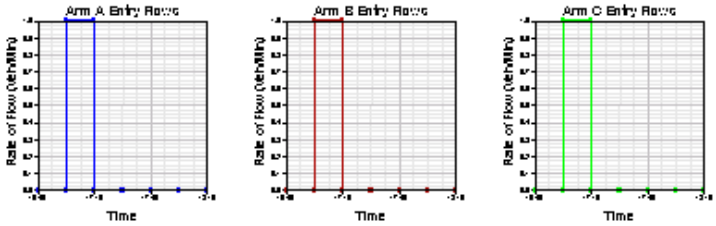
Demand Set: 2037 Opening Year Without Proposed Development - AM Peak Hour
Modelling Period: 07:45-09:15



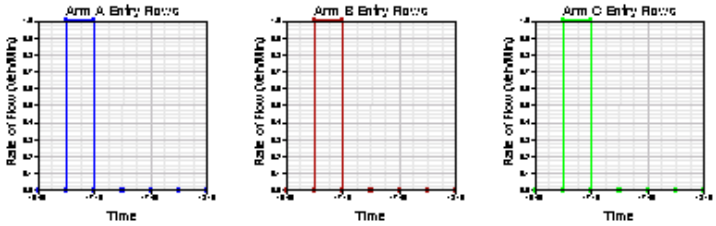
Demand Set: 2037 Opening Year With Proposed Development - AM Peak Hour
Modelling Period: 07:45-09:15



Demand Set: 2037 Opening Year Without Proposed Development - PM Peak Hour
Modelling Period: 16:45-18:15

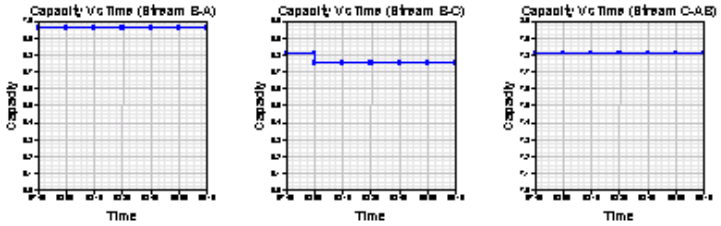


Demand Set: 2037 Opening Year With Proposed Development - PM Peak Hour
Modelling Period: 16:45-18:15

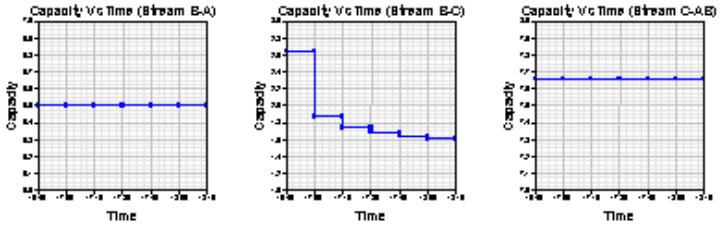


Capacity Graph

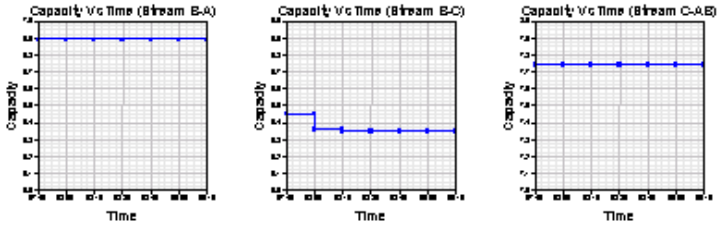
Demand Set: 2022 Opening Year Without Proposed Development - AM Peak Hour
Modelling Period: 07:45-09:15



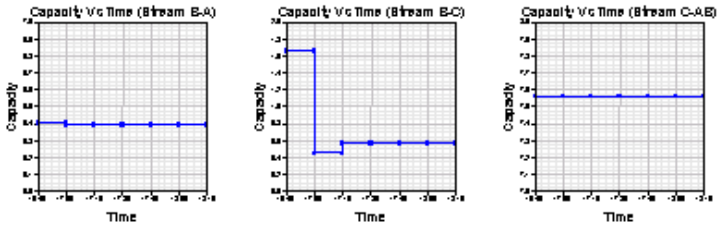
Demand Set: 2022 Opening Year Without Proposed Development - PM Peak Hour
Modelling Period: 16:45-18:15



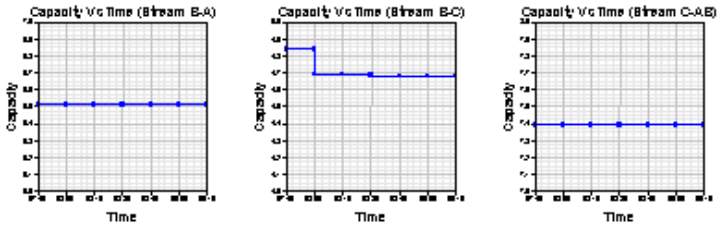
Demand Set: 2022 Opening Year With Proposed Development - AM Peak Hour
Modelling Period: 07:45-09:15



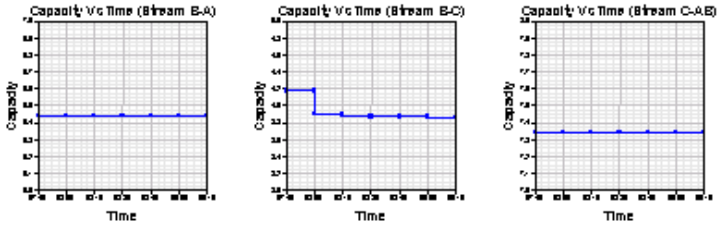
Demand Set: 2022 Opening Year With Proposed Development - PM Peak Hour
Modelling Period: 16:45-18:15



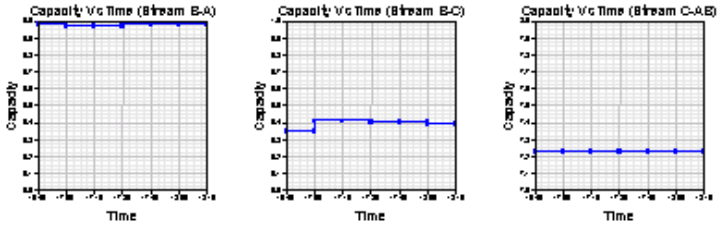
Demand Set: 2037 Opening Year Without Proposed Development - AM Peak Hour
Modelling Period: 07:45-09:15



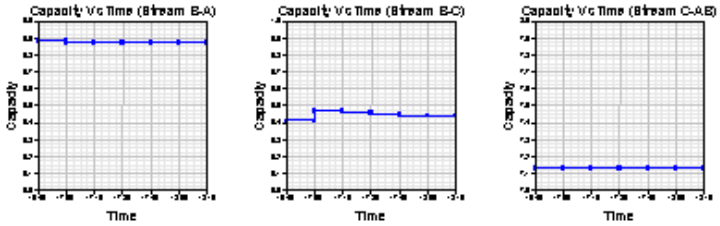
Demand Set: 2037 Opening Year With Proposed Development - AM Peak Hour
Modelling Period: 07:45-09:15



Demand Set: 2037 Opening Year Without Proposed Development - PM Peak Hour
Modelling Period: 16:45-18:15

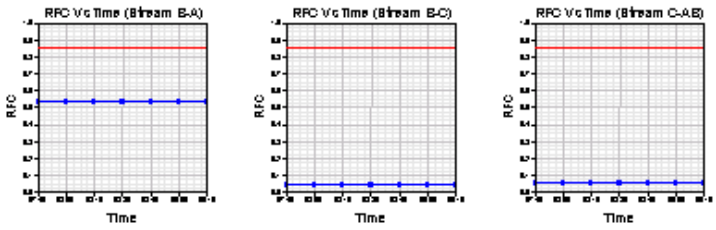


Demand Set: 2037 Opening Year With Proposed Development - PM Peak Hour
Modelling Period: 16:45-18:15

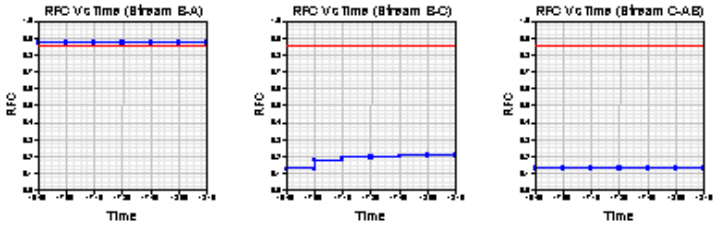


RFC Graph

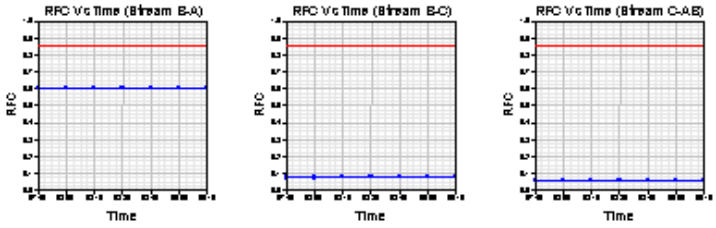
Demand Set: 2022 Opening Year Without Proposed Development - AM Peak Hour
Modelling Period: 07:45-09:15



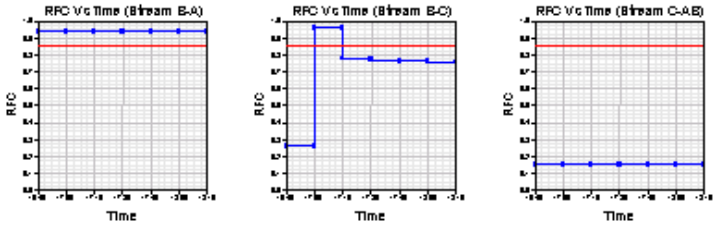
Demand Set: 2022 Opening Year Without Proposed Development - PM Peak Hour
Modelling Period: 16:45-18:15



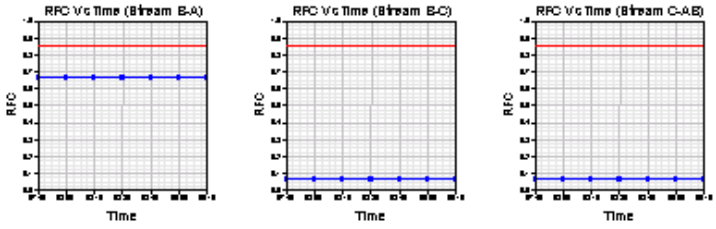
Demand Set: 2022 Opening Year With Proposed Development - AM Peak Hour
Modelling Period: 07:45-09:15



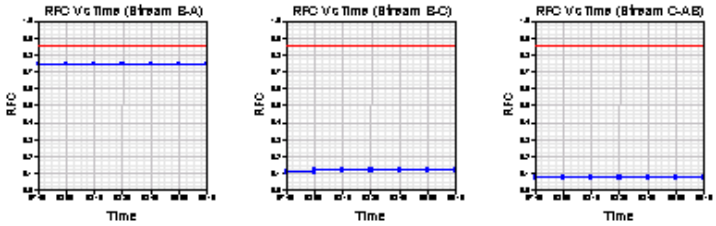
Demand Set: 2022 Opening Year With Proposed Development - PM Peak Hour
Modelling Period: 16:45-18:15



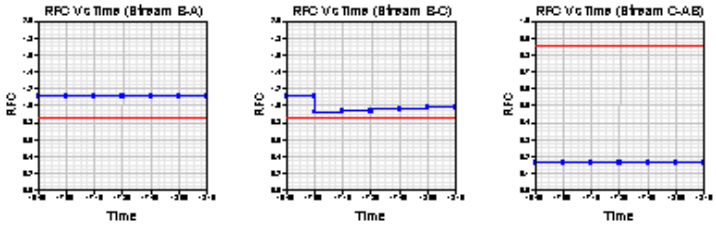
Demand Set: 2037 Opening Year Without Proposed Development - AM Peak Hour
Modelling Period: 07:45-09:15



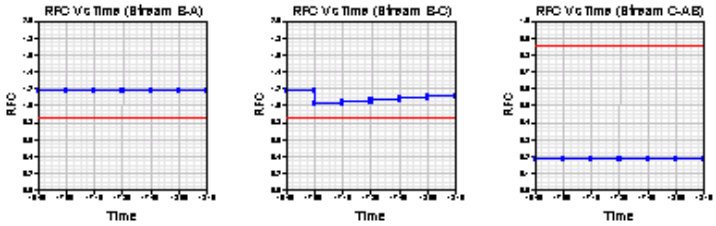
Demand Set: 2037 Opening Year With Proposed Development - AM Peak Hour
Modelling Period: 07:45-09:15



Demand Set: 2037 Opening Year Without Proposed Development - PM Peak Hour
Modelling Period: 16:45-18:15

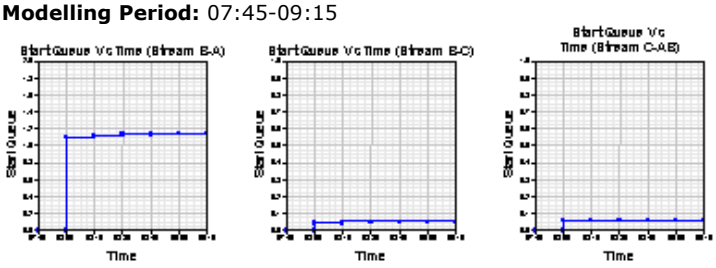


Demand Set: 2037 Opening Year With Proposed Development - PM Peak Hour
Modelling Period: 16:45-18:15

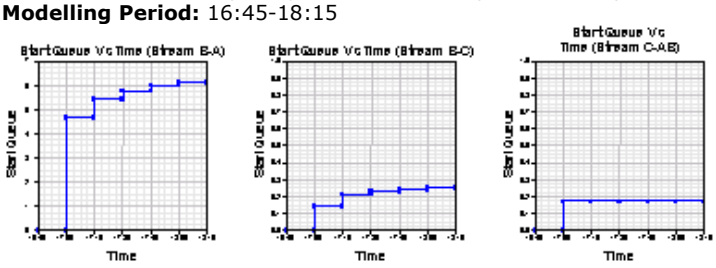


Start Queue Graph

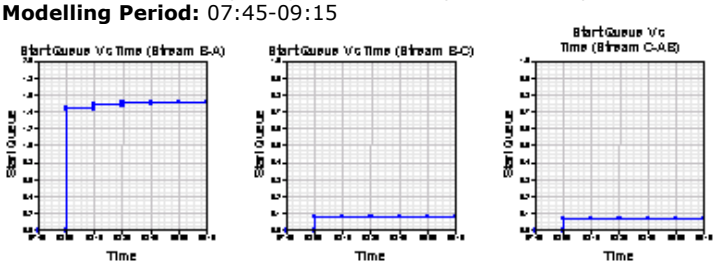
Demand Set: 2022 Opening Year Without Proposed Development - AM Peak Hour
Modelling Period: 07:45-09:15



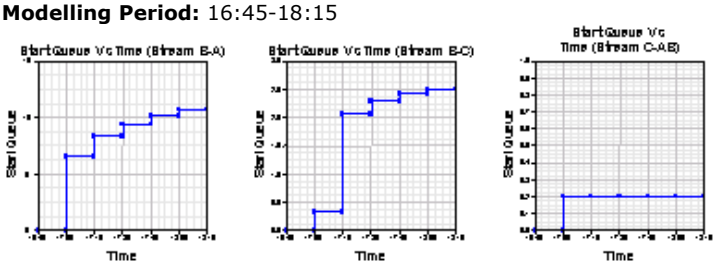
Demand Set: 2022 Opening Year Without Proposed Development - PM Peak Hour
Modelling Period: 16:45-18:15



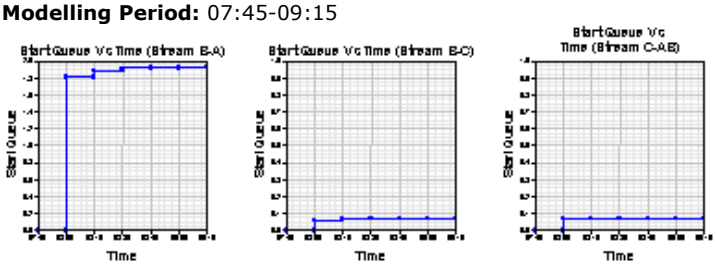
Demand Set: 2022 Opening Year With Proposed Development - AM Peak Hour
Modelling Period: 07:45-09:15



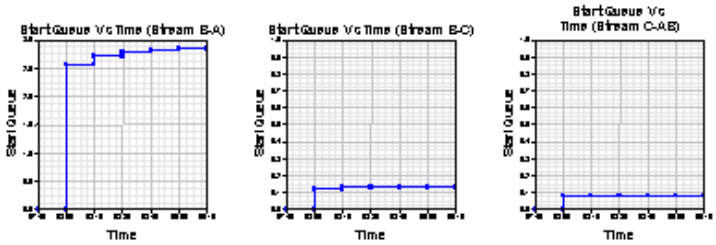
Demand Set: 2022 Opening Year With Proposed Development - PM Peak Hour
Modelling Period: 16:45-18:15



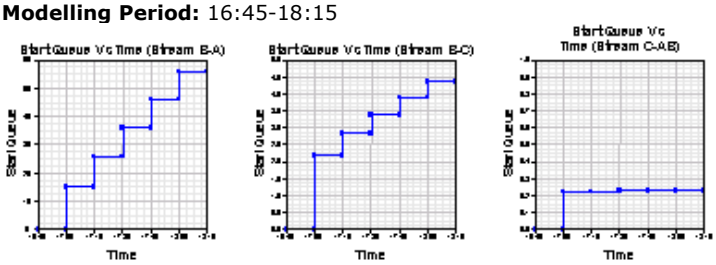
Demand Set: 2037 Opening Year Without Proposed Development - AM Peak Hour
Modelling Period: 07:45-09:15



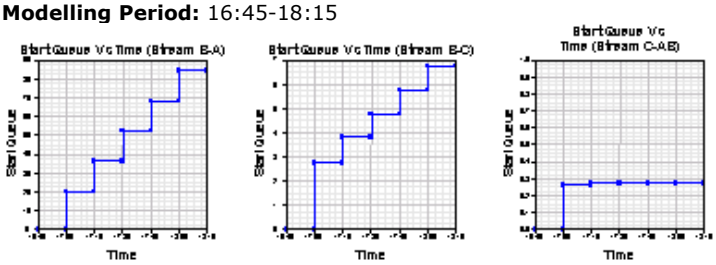
Demand Set: 2037 Opening Year With Proposed Development - AM Peak Hour
Modelling Period: 07:45-09:15



Demand Set: 2037 Opening Year Without Proposed Development - PM Peak Hour
Modelling Period: 16:45-18:15

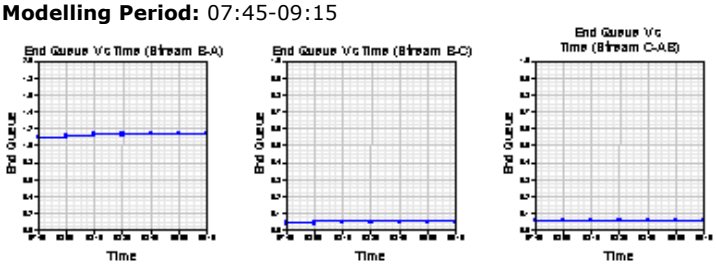


Demand Set: 2037 Opening Year With Proposed Development - PM Peak Hour
Modelling Period: 16:45-18:15

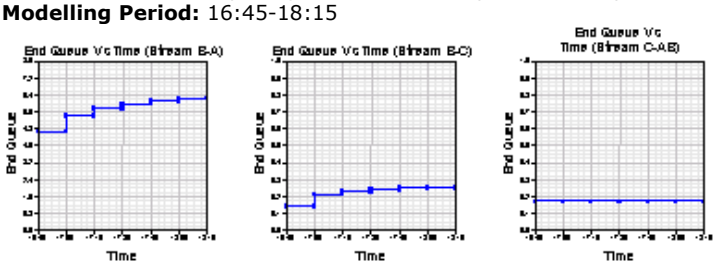


End Queue Graph

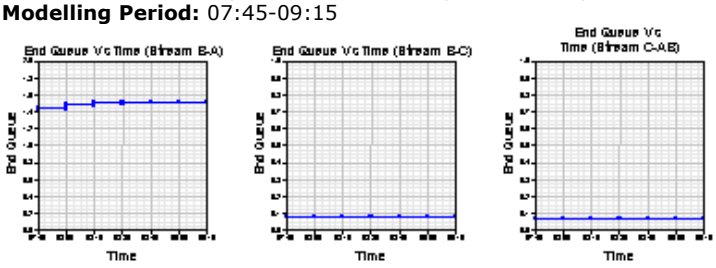
Demand Set: 2022 Opening Year Without Proposed Development - AM Peak Hour
Modelling Period: 07:45-09:15



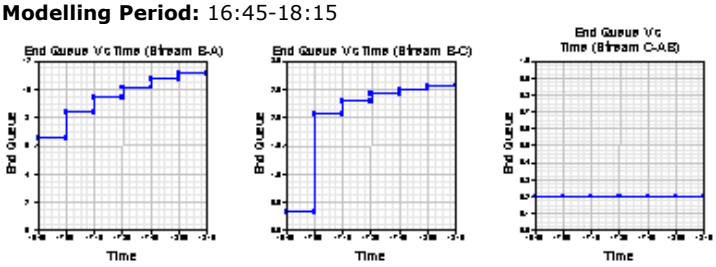
Demand Set: 2022 Opening Year Without Proposed Development - PM Peak Hour
Modelling Period: 16:45-18:15



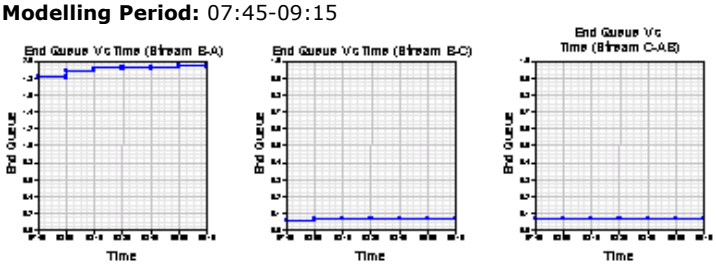
Demand Set: 2022 Opening Year With Proposed Development - AM Peak Hour
Modelling Period: 07:45-09:15



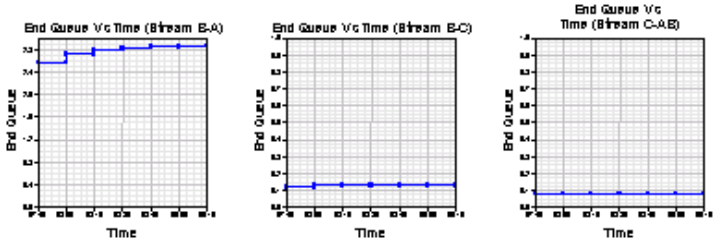
Demand Set: 2022 Opening Year With Proposed Development - PM Peak Hour
Modelling Period: 16:45-18:15



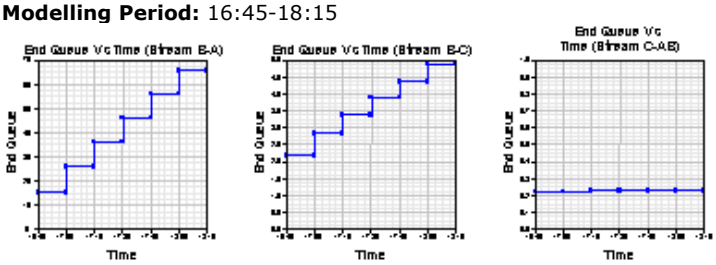
Demand Set: 2037 Opening Year Without Proposed Development - AM Peak Hour
Modelling Period: 07:45-09:15



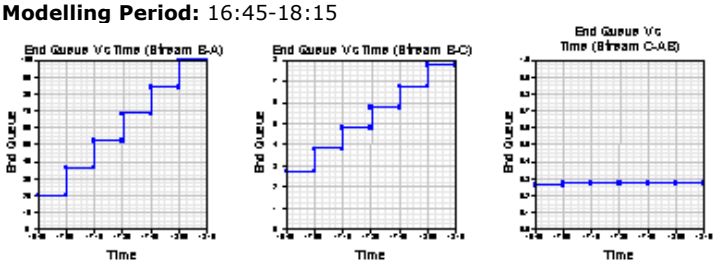
Demand Set: 2037 Opening Year With Proposed Development - AM Peak Hour
Modelling Period: 07:45-09:15



Demand Set: 2037 Opening Year Without Proposed Development - PM Peak Hour
Modelling Period: 16:45-18:15

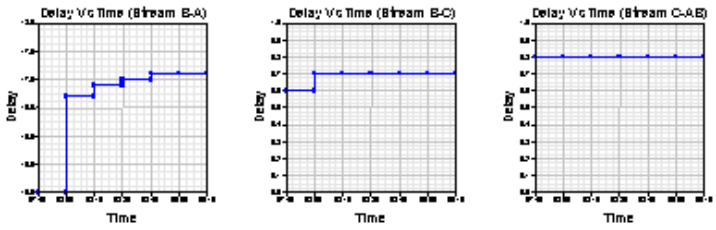


Demand Set: 2037 Opening Year With Proposed Development - PM Peak Hour
Modelling Period: 16:45-18:15

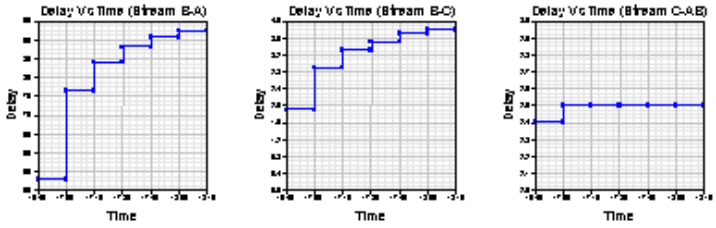


Delay Graph

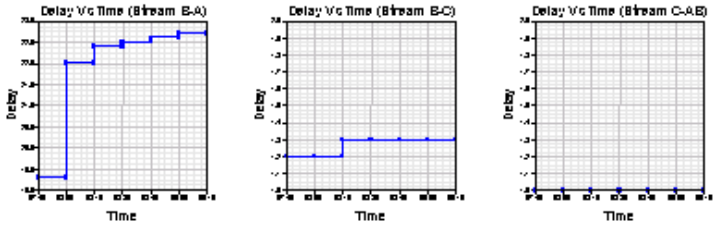
Demand Set: 2022 Opening Year Without Proposed Development - AM Peak Hour
Modelling Period: 07:45-09:15



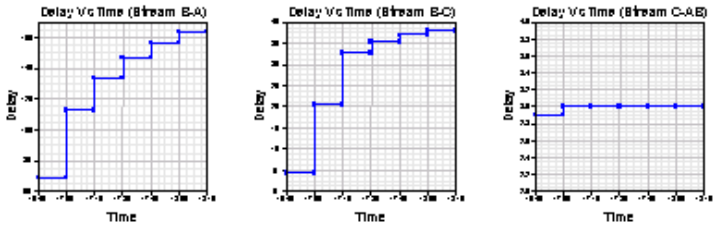
Demand Set: 2022 Opening Year Without Proposed Development - PM Peak Hour
Modelling Period: 16:45-18:15



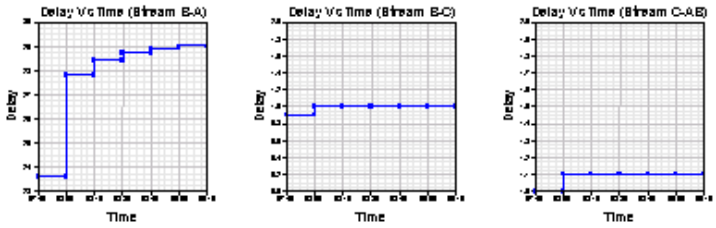
Demand Set: 2022 Opening Year With Proposed Development - AM Peak Hour
Modelling Period: 07:45-09:15



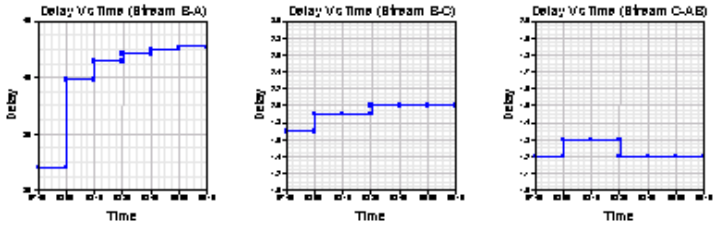
Demand Set: 2022 Opening Year With Proposed Development - PM Peak Hour
Modelling Period: 16:45-18:15



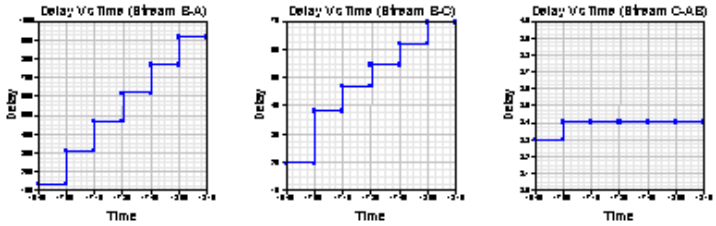
Demand Set: 2037 Opening Year Without Proposed Development - AM Peak Hour
Modelling Period: 07:45-09:15



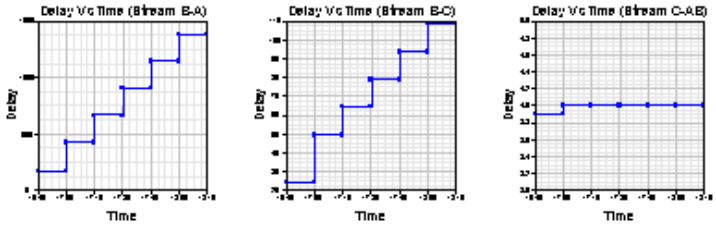
Demand Set: 2037 Opening Year With Proposed Development - AM Peak Hour
Modelling Period: 07:45-09:15



Demand Set: 2037 Opening Year Without Proposed Development - PM Peak Hour
Modelling Period: 16:45-18:15



Demand Set: 2037 Opening Year With Proposed Development - PM Peak Hour
Modelling Period: 16:45-18:15



Queues & Delays

Demand Set: 2022 Opening Year Without Proposed Development - AM Peak Hour
Modelling Period: 07:45-09:15

Segment	Stream	Demand (veh/min)	Capacity (veh/min)	RFC	Ped. Flow (ped/min)	Start Queue (veh)	End Queue (veh)	Geometric Delay (veh.min/ segment)	Delay (veh.min/ segment)	Mean Arriving Vehicle Delay (min)
07:45-08:00	B-A	3.72	6.96	0.534	-	0.00	1.10	-	15.0	0.30
	B-C	0.25	5.81	0.043	-	0.00	0.04	-	0.6	0.18
	C-AB	0.40	7.81	0.051	-	0.00	0.06	-	0.8	0.13
	C-A	-	-	-	-	-	-	-	-	-
	A-B	7.21	-	-	-	-	-	-	-	-
	A-C	2.89	-	-	-	-	-	-	-	-

Segment	Stream	Demand (veh/min)	Capacity (veh/min)	RFC	Ped. Flow (ped/min)	Start Queue (veh)	End Queue (veh)	Geometric Delay (veh.min/ segment)	Delay (veh.min/ segment)	Mean Arriving Vehicle Delay (min)
08:00-08:15	B-A	3.72	6.96	0.535	-	1.10	1.12	-	16.7	0.31
	B-C	0.25	5.75	0.043	-	0.04	0.05	-	0.7	0.18
	C-AB	0.40	7.81	0.051	-	0.06	0.06	-	0.8	0.13
	C-A	-	-	-	-	-	-	-	-	-
	A-B	7.21	-	-	-	-	-	-	-	-
	A-C	2.89	-	-	-	-	-	-	-	-

Segment	Stream	Demand (veh/min)	Capacity (veh/min)	RFC	Ped. Flow (ped/min)	Start Queue (veh)	End Queue (veh)	Geometric Delay (veh.min/ segment)	Delay (veh.min/ segment)	Mean Arriving Vehicle Delay (min)
08:15-08:30	B-A	3.72	6.96	0.535	-	1.12	1.13	-	16.9	0.31
	B-C	0.25	5.75	0.044	-	0.05	0.05	-	0.7	0.18
	C-AB	0.40	7.81	0.051	-	0.06	0.06	-	0.8	0.13
	C-A	-	-	-	-	-	-	-	-	-
	A-B	7.21	-	-	-	-	-	-	-	-
	A-C	2.89	-	-	-	-	-	-	-	-

Segment	Stream	Demand (veh/min)	Capacity (veh/min)	RFC	Ped. Flow (ped/min)	Start Queue (veh)	End Queue (veh)	Geometric Delay (veh.min/ segment)	Delay (veh.min/ segment)	Mean Arriving Vehicle Delay (min)
08:30-08:45	B-A	3.72	6.96	0.535	-	1.13	1.14	-	17.0	0.31
	B-C	0.25	5.75	0.044	-	0.05	0.05	-	0.7	0.18
	C-AB	0.40	7.81	0.051	-	0.06	0.06	-	0.8	0.13
	C-A	-	-	-	-	-	-	-	-	-
	A-B	7.21	-	-	-	-	-	-	-	-
	A-C	2.89	-	-	-	-	-	-	-	-

Segment	Stream	Demand (veh/min)	Capacity (veh/min)	RFC	Ped. Flow (ped/min)	Start Queue (veh)	End Queue (veh)	Geometric Delay (veh.min/ segment)	Delay (veh.min/ segment)	Mean Arriving Vehicle Delay (min)
08:45-09:00	B-A	3.72	6.96	0.535	-	1.14	1.14	-	17.1	0.31
	B-C	0.25	5.75	0.044	-	0.05	0.05	-	0.7	0.18
	C-AB	0.40	7.81	0.051	-	0.06	0.06	-	0.8	0.13
	C-A	-	-	-	-	-	-	-	-	-
	A-B	7.21	-	-	-	-	-	-	-	-
	A-C	2.89	-	-	-	-	-	-	-	-

Segment	Stream	Demand (veh/min)	Capacity (veh/min)	RFC	Ped. Flow (ped/min)	Start Queue (veh)	End Queue (veh)	Geometric Delay (veh.min/ segment)	Delay (veh.min/ segment)	Mean Arriving Vehicle Delay (min)
09:00-09:15	B-A	3.72	6.96	0.535	-	1.14	1.14	-	17.1	0.31
	B-C	0.25	5.75	0.044	-	0.05	0.05	-	0.7	0.18
	C-AB	0.40	7.81	0.051	-	0.06	0.06	-	0.8	0.13
	C-A	-	-	-	-	-	-	-	-	-
	A-B	7.21	-	-	-	-	-	-	-	-
	A-C	2.89	-	-	-	-	-	-	-	-

Demand Set: 2022 Opening Year Without Proposed Development - PM Peak Hour
Modelling Period: 16:45-18:15

Segment	Stream	Demand (veh/min)	Capacity (veh/min)	RFC	Ped. Flow (ped/min)	Start Queue (veh)	End Queue (veh)	Geometric Delay (veh.min/ segment)	Delay (veh.min/ segment)	Mean Arriving Vehicle Delay (min)
16:45-17:00	B-A	5.67	6.50	**0.871**	-	0.00	4.66	-	52.9	0.74
	B-C	0.33	2.64	0.126	-	0.00	0.14	-	1.9	0.43
	C-AB	1.00	7.66	0.131	-	0.00	0.17	-	2.4	0.15
	C-A	-	-	-	-	-	-	-	-	-
	A-B	7.91	-	-	-	-	-	-	-	-
	A-C	2.82	-	-	-	-	-	-	-	-

Segment	Stream	Demand (veh/min)	Capacity (veh/min)	RFC	Ped. Flow (ped/min)	Start Queue (veh)	End Queue (veh)	Geometric Delay (veh.min/ segment)	Delay (veh.min/ segment)	Mean Arriving Vehicle Delay (min)
17:00-17:15	B-A	5.67	6.50	**0.872**	-	4.66	5.41	-	76.4	1.03
	B-C	0.33	1.87	0.178	-	0.14	0.21	-	2.9	0.65
	C-AB	1.00	7.66	0.131	-	0.17	0.17	-	2.5	0.15
	C-A	-	-	-	-	-	-	-	-	-
	A-B	7.91	-	-	-	-	-	-	-	-
	A-C	2.82	-	-	-	-	-	-	-	-

Segment	Stream	Demand (veh/min)	Capacity (veh/min)	RFC	Ped. Flow (ped/min)	Start Queue (veh)	End Queue (veh)	Geometric Delay (veh.min/ segment)	Delay (veh.min/ segment)	Mean Arriving Vehicle Delay (min)
17:15-17:30	B-A	5.67	6.50	**0.872**	-	5.41	5.76	-	84.0	1.09
	B-C	0.33	1.74	0.192	-	0.21	0.23	-	3.3	0.71
	C-AB	1.00	7.66	0.131	-	0.17	0.17	-	2.5	0.15
	C-A	-	-	-	-	-	-	-	-	-
	A-B	7.91	-	-	-	-	-	-	-	-
	A-C	2.82	-	-	-	-	-	-	-	-

Segment	Stream	Demand (veh/min)	Capacity (veh/min)	RFC	Ped. Flow (ped/min)	Start Queue (veh)	End Queue (veh)	Geometric Delay (veh.min/ segment)	Delay (veh.min/ segment)	Mean Arriving Vehicle Delay (min)
17:30-17:45	B-A	5.67	6.50	**0.872**	-	5.76	5.97	-	88.1	1.11
	B-C	0.33	1.68	0.199	-	0.23	0.24	-	3.5	0.74
	C-AB	1.00	7.66	0.131	-	0.17	0.17	-	2.5	0.15
	C-A	-	-	-	-	-	-	-	-	-
	A-B	7.91	-	-	-	-	-	-	-	-
	A-C	2.82	-	-	-	-	-	-	-	-

Segment	Stream	Demand (veh/min)	Capacity (veh/min)	RFC	Ped. Flow (ped/min)	Start Queue (veh)	End Queue (veh)	Geometric Delay (veh.min/ segment)	Delay (veh.min/ segment)	Mean Arriving Vehicle Delay (min)
17:45-18:00	B-A	5.67	6.50	**0.872**	-	5.97	6.11	-	90.7	1.13
	B-C	0.33	1.64	0.203	-	0.24	0.25	-	3.7	0.76
	C-AB	1.00	7.66	0.131	-	0.17	0.17	-	2.5	0.15
	C-A	-	-	-	-	-	-	-	-	-
	A-B	7.91	-	-	-	-	-	-	-	-
	A-C	2.82	-	-	-	-	-	-	-	-

Segment	Stream	Demand (veh/min)	Capacity (veh/min)	RFC	Ped. Flow (ped/min)	Start Queue (veh)	End Queue (veh)	Geometric Delay (veh.min/ segment)	Delay (veh.min/ segment)	Mean Arriving Vehicle Delay (min)
18:00-18:15	B-A	5.67	6.50	**0.872**	-	6.11	6.21	-	92.4	1.14
	B-C	0.33	1.61	0.206	-	0.25	0.25	-	3.8	0.78
	C-AB	1.00	7.66	0.131	-	0.17	0.17	-	2.5	0.15
	C-A	-	-	-	-	-	-	-	-	-
	A-B	7.91	-	-	-	-	-	-	-	-
	A-C	2.82	-	-	-	-	-	-	-	-

Demand Set: 2022 Opening Year With Proposed Development - AM Peak Hour
Modelling Period: 07:45-09:15

Segment	Stream	Demand (veh/min)	Capacity (veh/min)	RFC	Ped. Flow (ped/min)	Start Queue (veh)	End Queue (veh)	Geometric Delay (veh.min/ segment)	Delay (veh.min/ segment)	Mean Arriving Vehicle Delay (min)
07:45-08:00	B-A	4.16	6.89	0.605	-	0.00	1.44	-	19.3	0.34
	B-C	0.42	5.45	0.076	-	0.00	0.08	-	1.2	0.20
	C-AB	0.47	7.74	0.060	-	0.00	0.07	-	1.0	0.14
	C-A	-	-	-	-	-	-	-	-	-
	A-B	7.47	-	-	-	-	-	-	-	-
	A-C	2.90	-	-	-	-	-	-	-	-

Segment	Stream	Demand (veh/min)	Capacity (veh/min)	RFC	Ped. Flow (ped/min)	Start Queue (veh)	End Queue (veh)	Geometric Delay (veh.min/ segment)	Delay (veh.min/ segment)	Mean Arriving Vehicle Delay (min)
08:00-08:15	B-A	4.16	6.89	0.605	-	1.44	1.48	-	22.0	0.37
	B-C	0.42	5.36	0.078	-	0.08	0.08	-	1.2	0.20
	C-AB	0.47	7.74	0.060	-	0.07	0.07	-	1.0	0.14
	C-A	-	-	-	-	-	-	-	-	-
	A-B	7.47	-	-	-	-	-	-	-	-
	A-C	2.90	-	-	-	-	-	-	-	-

Segment	Stream	Demand (veh/min)	Capacity (veh/min)	RFC	Ped. Flow (ped/min)	Start Queue (veh)	End Queue (veh)	Geometric Delay (veh.min/ segment)	Delay (veh.min/ segment)	Mean Arriving Vehicle Delay (min)
08:15-08:30	B-A	4.16	6.89	0.605	-	1.48	1.50	-	22.4	0.37
	B-C	0.42	5.35	0.078	-	0.08	0.08	-	1.3	0.20
	C-AB	0.47	7.74	0.060	-	0.07	0.07	-	1.0	0.14
	C-A	-	-	-	-	-	-	-	-	-
	A-B	7.47	-	-	-	-	-	-	-	-
	A-C	2.90	-	-	-	-	-	-	-	-

Segment	Stream	Demand (veh/min)	Capacity (veh/min)	RFC	Ped. Flow (ped/min)	Start Queue (veh)	End Queue (veh)	Geometric Delay (veh.min/ segment)	Delay (veh.min/ segment)	Mean Arriving Vehicle Delay (min)
08:30-08:45	B-A	4.16	6.89	0.605	-	1.50	1.51	-	22.5	0.37
	B-C	0.42	5.35	0.078	-	0.08	0.08	-	1.3	0.20
	C-AB	0.47	7.74	0.060	-	0.07	0.07	-	1.0	0.14
	C-A	-	-	-	-	-	-	-	-	-
	A-B	7.47	-	-	-	-	-	-	-	-
	A-C	2.90	-	-	-	-	-	-	-	-

Segment	Stream	Demand (veh/min)	Capacity (veh/min)	RFC	Ped. Flow (ped/min)	Start Queue (veh)	End Queue (veh)	Geometric Delay (veh.min/ segment)	Delay (veh.min/ segment)	Mean Arriving Vehicle Delay (min)
08:45-09:00	B-A	4.16	6.89	0.605	-	1.51	1.51	-	22.6	0.37
	B-C	0.42	5.35	0.078	-	0.08	0.08	-	1.3	0.20
	C-AB	0.47	7.74	0.060	-	0.07	0.07	-	1.0	0.14
	C-A	-	-	-	-	-	-	-	-	-
	A-B	7.47	-	-	-	-	-	-	-	-
	A-C	2.90	-	-	-	-	-	-	-	-

Segment	Stream	Demand (veh/min)	Capacity (veh/min)	RFC	Ped. Flow (ped/min)	Start Queue (veh)	End Queue (veh)	Geometric Delay (veh.min/ segment)	Delay (veh.min/ segment)	Mean Arriving Vehicle Delay (min)
09:00-09:15	B-A	4.16	6.89	0.605	-	1.51	1.51	-	22.7	0.37
	B-C	0.42	5.35	0.078	-	0.08	0.08	-	1.3	0.20
	C-AB	0.47	7.74	0.060	-	0.07	0.07	-	1.0	0.14
	C-A	-	-	-	-	-	-	-	-	-
	A-B	7.47	-	-	-	-	-	-	-	-
	A-C	2.90	-	-	-	-	-	-	-	-

Demand Set: 2022 Opening Year With Proposed Development - PM Peak Hour
Modelling Period: 16:45-18:15

Segment	Stream	Demand (veh/min)	Capacity (veh/min)	RFC	Ped. Flow (ped/min)	Start Queue (veh)	End Queue (veh)	Geometric Delay (veh.min/ segment)	Delay (veh.min/ segment)	Mean Arriving Vehicle Delay (min)
16:45-17:00	B-A	5.99	6.40	**0.936**	-	0.00	6.54	-	69.0	0.93
	B-C	0.43	1.66	0.261	-	0.00	0.33	-	4.3	0.79
	C-AB	1.13	7.56	0.150	-	0.00	0.20	-	2.9	0.16
	C-A	-	-	-	-	-	-	-	-	-
	A-B	8.35	-	-	-	-	-	-	-	-
	A-C	2.82	-	-	-	-	-	-	-	-

Segment	Stream	Demand (veh/min)	Capacity (veh/min)	RFC	Ped. Flow (ped/min)	Start Queue (veh)	End Queue (veh)	Geometric Delay (veh.min/ segment)	Delay (veh.min/ segment)	Mean Arriving Vehicle Delay (min)
17:00-17:15	B-A	5.99	6.39	**0.936**	-	6.54	8.33	-	112.9	1.49
	B-C	0.43	0.45	**0.956**	-	0.33	2.06	-	20.4	5.38
	C-AB	1.13	7.56	0.150	-	0.20	0.20	-	3.0	0.16
	C-A	-	-	-	-	-	-	-	-	-
	A-B	8.35	-	-	-	-	-	-	-	-
	A-C	2.82	-	-	-	-	-	-	-	-

Segment	Stream	Demand (veh/min)	Capacity (veh/min)	RFC	Ped. Flow (ped/min)	Start Queue (veh)	End Queue (veh)	Geometric Delay (veh.min/ segment)	Delay (veh.min/ segment)	Mean Arriving Vehicle Delay (min)
17:15-17:30	B-A	5.99	6.39	**0.937**	-	8.33	9.40	-	133.5	1.68
	B-C	0.43	0.56	0.778	-	2.06	2.29	-	32.7	6.01
	C-AB	1.13	7.56	0.150	-	0.20	0.20	-	3.0	0.16
	C-A	-	-	-	-	-	-	-	-	-
	A-B	8.35	-	-	-	-	-	-	-	-
	A-C	2.82	-	-	-	-	-	-	-	-

Segment	Stream	Demand (veh/min)	Capacity (veh/min)	RFC	Ped. Flow (ped/min)	Start Queue (veh)	End Queue (veh)	Geometric Delay (veh.min/ segment)	Delay (veh.min/ segment)	Mean Arriving Vehicle Delay (min)
17:30-17:45	B-A	5.99	6.39	**0.937**	-	9.40	10.14	-	146.8	1.81
	B-C	0.43	0.57	0.766	-	2.29	2.42	-	35.3	6.15
	C-AB	1.13	7.56	0.150	-	0.20	0.20	-	3.0	0.16
	C-A	-	-	-	-	-	-	-	-	-
	A-B	8.35	-	-	-	-	-	-	-	-
	A-C	2.82	-	-	-	-	-	-	-	-

Segment	Stream	Demand (veh/min)	Capacity (veh/min)	RFC	Ped. Flow (ped/min)	Start Queue (veh)	End Queue (veh)	Geometric Delay (veh.min/ segment)	Delay (veh.min/ segment)	Mean Arriving Vehicle Delay (min)
17:45-18:00	B-A	5.99	6.39	**0.937**	-	10.14	10.69	-	156.4	1.89
	B-C	0.43	0.57	0.760	-	2.42	2.50	-	36.9	6.29
	C-AB	1.13	7.56	0.150	-	0.20	0.20	-	3.0	0.16
	C-A	-	-	-	-	-	-	-	-	-
	A-B	8.35	-	-	-	-	-	-	-	-
	A-C	2.82	-	-	-	-	-	-	-	-

Segment	Stream	Demand (veh/min)	Capacity (veh/min)	RFC	Ped. Flow (ped/min)	Start Queue (veh)	End Queue (veh)	Geometric Delay (veh.min/ segment)	Delay (veh.min/ segment)	Mean Arriving Vehicle Delay (min)
18:00-18:15	B-A	5.99	6.39	**0.937**	-	10.69	11.12	-	163.7	1.96
	B-C	0.43	0.57	0.758	-	2.50	2.56	-	37.9	6.39
	C-AB	1.13	7.56	0.150	-	0.20	0.20	-	3.0	0.16
	C-A	-	-	-	-	-	-	-	-	-
	A-B	8.35	-	-	-	-	-	-	-	-
	A-C	2.82	-	-	-	-	-	-	-	-

Demand Set: 2037 Opening Year Without Proposed Development - AM Peak Hour
Modelling Period: 07:45-09:15

Segment	Stream	Demand (veh/min)	Capacity (veh/min)	RFC	Ped. Flow (ped/min)	Start Queue (veh)	End Queue (veh)	Geometric Delay (veh.min/ segment)	Delay (veh.min/ segment)	Mean Arriving Vehicle Delay (min)
07:45-08:00	B-A	4.31	6.51	0.662	-	0.00	1.81	-	23.6	0.41
	B-C	0.30	4.84	0.062	-	0.00	0.06	-	0.9	0.22
	C-AB	0.47	7.39	0.063	-	0.00	0.07	-	1.0	0.14
	C-A	-	-	-	-	-	-	-	-	-
	A-B	8.45	-	-	-	-	-	-	-	-
	A-C	3.38	-	-	-	-	-	-	-	-

Segment	Stream	Demand (veh/min)	Capacity (veh/min)	RFC	Ped. Flow (ped/min)	Start Queue (veh)	End Queue (veh)	Geometric Delay (veh.min/ segment)	Delay (veh.min/ segment)	Mean Arriving Vehicle Delay (min)
08:00-08:15	B-A	4.31	6.51	0.663	-	1.81	1.88	-	27.8	0.45
	B-C	0.30	4.69	0.064	-	0.06	0.07	-	1.0	0.23
	C-AB	0.47	7.39	0.063	-	0.07	0.07	-	1.1	0.14
	C-A	-	-	-	-	-	-	-	-	-
	A-B	8.45	-	-	-	-	-	-	-	-
	A-C	3.38	-	-	-	-	-	-	-	-

Segment	Stream	Demand (veh/min)	Capacity (veh/min)	RFC	Ped. Flow (ped/min)	Start Queue (veh)	End Queue (veh)	Geometric Delay (veh.min/ segment)	Delay (veh.min/ segment)	Mean Arriving Vehicle Delay (min)
08:15-08:30	B-A	4.31	6.51	0.663	-	1.88	1.91	-	28.4	0.45
	B-C	0.30	4.69	0.064	-	0.07	0.07	-	1.0	0.23
	C-AB	0.47	7.39	0.063	-	0.07	0.07	-	1.1	0.14
	C-A	-	-	-	-	-	-	-	-	-
	A-B	8.45	-	-	-	-	-	-	-	-
	A-C	3.38	-	-	-	-	-	-	-	-

Segment	Stream	Demand (veh/min)	Capacity (veh/min)	RFC	Ped. Flow (ped/min)	Start Queue (veh)	End Queue (veh)	Geometric Delay (veh.min/ segment)	Delay (veh.min/ segment)	Mean Arriving Vehicle Delay (min)
08:30-08:45	B-A	4.31	6.51	0.663	-	1.91	1.92	-	28.7	0.45
	B-C	0.30	4.68	0.064	-	0.07	0.07	-	1.0	0.23
	C-AB	0.47	7.39	0.063	-	0.07	0.07	-	1.1	0.14
	C-A	-	-	-	-	-	-	-	-	-
	A-B	8.45	-	-	-	-	-	-	-	-
	A-C	3.38	-	-	-	-	-	-	-	-

Segment	Stream	Demand (veh/min)	Capacity (veh/min)	RFC	Ped. Flow (ped/min)	Start Queue (veh)	End Queue (veh)	Geometric Delay (veh.min/ segment)	Delay (veh.min/ segment)	Mean Arriving Vehicle Delay (min)
08:45-09:00	B-A	4.31	6.51	0.663	-	1.92	1.93	-	28.9	0.45
	B-C	0.30	4.68	0.064	-	0.07	0.07	-	1.0	0.23
	C-AB	0.47	7.39	0.063	-	0.07	0.07	-	1.1	0.14
	C-A	-	-	-	-	-	-	-	-	-
	A-B	8.45	-	-	-	-	-	-	-	-
	A-C	3.38	-	-	-	-	-	-	-	-

Segment	Stream	Demand (veh/min)	Capacity (veh/min)	RFC	Ped. Flow (ped/min)	Start Queue (veh)	End Queue (veh)	Geometric Delay (veh.min/ segment)	Delay (veh.min/ segment)	Mean Arriving Vehicle Delay (min)
09:00-09:15	B-A	4.31	6.51	0.663	-	1.93	1.94	-	29.0	0.45
	B-C	0.30	4.68	0.064	-	0.07	0.07	-	1.0	0.23
	C-AB	0.47	7.39	0.063	-	0.07	0.07	-	1.1	0.14
	C-A	-	-	-	-	-	-	-	-	-
	A-B	8.45	-	-	-	-	-	-	-	-
	A-C	3.38	-	-	-	-	-	-	-	-

Demand Set: 2037 Opening Year With Proposed Development - AM Peak Hour
Modelling Period: 07:45-09:15

Segment	Stream	Demand (veh/min)	Capacity (veh/min)	RFC	Ped. Flow (ped/min)	Start Queue (veh)	End Queue (veh)	Geometric Delay (veh.min/ segment)	Delay (veh.min/ segment)	Mean Arriving Vehicle Delay (min)
07:45-08:00	B-A	4.80	6.44	0.745	-	0.00	2.56	-	32.0	0.51
	B-C	0.45	4.17	0.108	-	0.00	0.12	-	1.7	0.27
	C-AB	0.53	7.34	0.073	-	0.00	0.08	-	1.2	0.15
	C-A	-	-	-	-	-	-	-	-	-
	A-B	8.67	-	-	-	-	-	-	-	-
	A-C	3.39	-	-	-	-	-	-	-	-

Segment	Stream	Demand (veh/min)	Capacity (veh/min)	RFC	Ped. Flow (ped/min)	Start Queue (veh)	End Queue (veh)	Geometric Delay (veh.min/ segment)	Delay (veh.min/ segment)	Mean Arriving Vehicle Delay (min)
08:00-08:15	B-A	4.80	6.44	0.746	-	2.56	2.72	-	39.8	0.60
	B-C	0.45	3.90	0.116	-	0.12	0.13	-	1.9	0.29
	C-AB	0.53	7.34	0.073	-	0.08	0.08	-	1.3	0.15
	C-A	-	-	-	-	-	-	-	-	-
	A-B	8.67	-	-	-	-	-	-	-	-
	A-C	3.39	-	-	-	-	-	-	-	-

Segment	Stream	Demand (veh/min)	Capacity (veh/min)	RFC	Ped. Flow (ped/min)	Start Queue (veh)	End Queue (veh)	Geometric Delay (veh.min/ segment)	Delay (veh.min/ segment)	Mean Arriving Vehicle Delay (min)
08:15-08:30	B-A	4.80	6.44	0.746	-	2.72	2.79	-	41.4	0.60
	B-C	0.45	3.88	0.116	-	0.13	0.13	-	1.9	0.29
	C-AB	0.53	7.34	0.073	-	0.08	0.08	-	1.3	0.15
	C-A	-	-	-	-	-	-	-	-	-
	A-B	8.67	-	-	-	-	-	-	-	-
	A-C	3.39	-	-	-	-	-	-	-	-

Segment	Stream	Demand (veh/min)	Capacity (veh/min)	RFC	Ped. Flow (ped/min)	Start Queue (veh)	End Queue (veh)	Geometric Delay (veh.min/ segment)	Delay (veh.min/ segment)	Mean Arriving Vehicle Delay (min)
08:30-08:45	B-A	4.80	6.44	0.746	-	2.79	2.82	-	42.1	0.61
	B-C	0.45	3.87	0.116	-	0.13	0.13	-	2.0	0.29
	C-AB	0.53	7.34	0.073	-	0.08	0.08	-	1.2	0.15
	C-A	-	-	-	-	-	-	-	-	-
	A-B	8.67	-	-	-	-	-	-	-	-
	A-C	3.39	-	-	-	-	-	-	-	-

Segment	Stream	Demand (veh/min)	Capacity (veh/min)	RFC	Ped. Flow (ped/min)	Start Queue (veh)	End Queue (veh)	Geometric Delay (veh.min/ segment)	Delay (veh.min/ segment)	Mean Arriving Vehicle Delay (min)
08:45-09:00	B-A	4.80	6.44	0.746	-	2.82	2.84	-	42.5	0.61
	B-C	0.45	3.87	0.116	-	0.13	0.13	-	2.0	0.29
	C-AB	0.53	7.34	0.073	-	0.08	0.08	-	1.2	0.15
	C-A	-	-	-	-	-	-	-	-	-
	A-B	8.67	-	-	-	-	-	-	-	-
	A-C	3.39	-	-	-	-	-	-	-	-

Segment	Stream	Demand (veh/min)	Capacity (veh/min)	RFC	Ped. Flow (ped/min)	Start Queue (veh)	End Queue (veh)	Geometric Delay (veh.min/ segment)	Delay (veh.min/ segment)	Mean Arriving Vehicle Delay (min)
09:00-09:15	B-A	4.80	6.44	0.746	-	2.84	2.86	-	42.7	0.61
	B-C	0.45	3.86	0.116	-	0.13	0.13	-	2.0	0.29
	C-AB	0.53	7.34	0.073	-	0.08	0.08	-	1.2	0.15
	C-A	-	-	-	-	-	-	-	-	-
	A-B	8.67	-	-	-	-	-	-	-	-
	A-C	3.39	-	-	-	-	-	-	-	-

Demand Set: 2037 Opening Year Without Proposed Development - PM Peak Hour
Modelling Period: 16:45-18:15

Segment	Stream	Demand (veh/min)	Capacity (veh/min)	RFC	Ped. Flow (ped/min)	Start Queue (veh)	End Queue (veh)	Geometric Delay (veh.min/ segment)	Delay (veh.min/ segment)	Mean Arriving Vehicle Delay (min)
16:45-17:00	B-A	6.62	5.98	**1.106**	-	0.00	15.10	-	132.5	1.70
	B-C	0.38	0.35	**1.106**	-	0.00	2.18	-	19.5	6.54
	C-AB	1.17	7.23	0.161	-	0.00	0.22	-	3.3	0.16
	C-A	-	-	-	-	-	-	-	-	-
	A-B	9.25	-	-	-	-	-	-	-	-
	A-C	3.28	-	-	-	-	-	-	-	-

Segment	Stream	Demand (veh/min)	Capacity (veh/min)	RFC	Ped. Flow (ped/min)	Start Queue (veh)	End Queue (veh)	Geometric Delay (veh.min/ segment)	Delay (veh.min/ segment)	Mean Arriving Vehicle Delay (min)
17:00-17:15	B-A	6.62	5.97	**1.107**	-	15.10	25.85	-	308.2	3.83
	B-C	0.38	0.41	**0.925**	-	2.18	2.84	-	38.0	9.19
	C-AB	1.17	7.23	0.161	-	0.22	0.22	-	3.4	0.16
	C-A	-	-	-	-	-	-	-	-	-
	A-B	9.25	-	-	-	-	-	-	-	-
	A-C	3.28	-	-	-	-	-	-	-	-

Segment	Stream	Demand (veh/min)	Capacity (veh/min)	RFC	Ped. Flow (ped/min)	Start Queue (veh)	End Queue (veh)	Geometric Delay (veh.min/ segment)	Delay (veh.min/ segment)	Mean Arriving Vehicle Delay (min)
17:15-17:30	B-A	6.62	5.97	**1.107**	-	25.85	36.06	-	464.7	5.53
	B-C	0.38	0.41	**0.934**	-	2.84	3.38	-	46.8	10.68
	C-AB	1.17	7.23	0.161	-	0.22	0.23	-	3.4	0.16
	C-A	-	-	-	-	-	-	-	-	-
	A-B	9.25	-	-	-	-	-	-	-	-
	A-C	3.28	-	-	-	-	-	-	-	-

Segment	Stream	Demand (veh/min)	Capacity (veh/min)	RFC	Ped. Flow (ped/min)	Start Queue (veh)	End Queue (veh)	Geometric Delay (veh.min/ segment)	Delay (veh.min/ segment)	Mean Arriving Vehicle Delay (min)
17:30-17:45	B-A	6.62	5.98	**1.107**	-	36.06	46.05	-	616.0	7.17
	B-C	0.38	0.40	**0.951**	-	3.38	3.88	-	54.5	12.13
	C-AB	1.17	7.23	0.161	-	0.23	0.23	-	3.4	0.16
	C-A	-	-	-	-	-	-	-	-	-
	A-B	9.25	-	-	-	-	-	-	-	-
	A-C	3.28	-	-	-	-	-	-	-	-

Segment	Stream	Demand (veh/min)	Capacity (veh/min)	RFC	Ped. Flow (ped/min)	Start Queue (veh)	End Queue (veh)	Geometric Delay (veh.min/ segment)	Delay (veh.min/ segment)	Mean Arriving Vehicle Delay (min)
17:45-18:00	B-A	6.62	5.98	**1.107**	-	46.05	55.93	-	764.9	8.81
	B-C	0.38	0.40	**0.968**	-	3.88	4.37	-	62.0	13.50
	C-AB	1.17	7.23	0.161	-	0.23	0.23	-	3.4	0.16
	C-A	-	-	-	-	-	-	-	-	-
	A-B	9.25	-	-	-	-	-	-	-	-
	A-C	3.28	-	-	-	-	-	-	-	-

Segment	Stream	Demand (veh/min)	Capacity (veh/min)	RFC	Ped. Flow (ped/min)	Start Queue (veh)	End Queue (veh)	Geometric Delay (veh.min/ segment)	Delay (veh.min/ segment)	Mean Arriving Vehicle Delay (min)
18:00-18:15	B-A	6.62	5.98	**1.107**	-	55.93	65.73	-	912.5	10.44
	B-C	0.38	0.39	**0.983**	-	4.37	4.87	-	69.4	14.93
	C-AB	1.17	7.23	0.161	-	0.23	0.23	-	3.4	0.16
	C-A	-	-	-	-	-	-	-	-	-
	A-B	9.25	-	-	-	-	-	-	-	-
	A-C	3.28	-	-	-	-	-	-	-	-

Demand Set: 2037 Opening Year With Proposed Development - PM Peak Hour
Modelling Period: 16:45-18:15

Segment	Stream	Demand (veh/min)	Capacity (veh/min)	RFC	Ped. Flow (ped/min)	Start Queue (veh)	End Queue (veh)	Geometric Delay (veh.min/ segment)	Delay (veh.min/ segment)	Mean Arriving Vehicle Delay (min)
16:45-17:00	B-A	6.93	5.88	**1.178**	-	0.00	19.90	-	166.7	2.11
	B-C	0.48	0.41	**1.178**	-	0.00	2.74	-	24.1	6.34
	C-AB	1.30	7.13	0.182	-	0.00	0.26	-	3.9	0.17
	C-A	-	-	-	-	-	-	-	-	-
	A-B	9.68	-	-	-	-	-	-	-	-
	A-C	3.28	-	-	-	-	-	-	-	-

Segment	Stream	Demand (veh/min)	Capacity (veh/min)	RFC	Ped. Flow (ped/min)	Start Queue (veh)	End Queue (veh)	Geometric Delay (veh.min/ segment)	Delay (veh.min/ segment)	Mean Arriving Vehicle Delay (min)
17:00-17:15	B-A	6.93	5.87	**1.179**	-	19.90	36.23	-	421.6	5.15
	B-C	0.48	0.47	**1.020**	-	2.74	3.80	-	49.3	9.81
	C-AB	1.30	7.13	0.182	-	0.26	0.27	-	4.0	0.17
	C-A	-	-	-	-	-	-	-	-	-
	A-B	9.68	-	-	-	-	-	-	-	-
	A-C	3.28	-	-	-	-	-	-	-	-

Segment	Stream	Demand (veh/min)	Capacity (veh/min)	RFC	Ped. Flow (ped/min)	Start Queue (veh)	End Queue (veh)	Geometric Delay (veh.min/ segment)	Delay (veh.min/ segment)	Mean Arriving Vehicle Delay (min)
17:15-17:30	B-A	6.93	5.87	**1.179**	-	36.23	52.26	-	663.8	7.85
	B-C	0.48	0.46	**1.044**	-	3.80	4.77	-	64.4	12.21
	C-AB	1.30	7.13	0.182	-	0.27	0.27	-	4.0	0.17
	C-A	-	-	-	-	-	-	-	-	-
	A-B	9.68	-	-	-	-	-	-	-	-
	A-C	3.28	-	-	-	-	-	-	-	-

Segment	Stream	Demand (veh/min)	Capacity (veh/min)	RFC	Ped. Flow (ped/min)	Start Queue (veh)	End Queue (veh)	Geometric Delay (veh.min/ segment)	Delay (veh.min/ segment)	Mean Arriving Vehicle Delay (min)
17:30-17:45	B-A	6.93	5.87	**1.179**	-	52.26	68.19	-	903.4	10.54
	B-C	0.48	0.45	**1.069**	-	4.77	5.75	-	79.0	14.64
	C-AB	1.30	7.13	0.182	-	0.27	0.27	-	4.0	0.17
	C-A	-	-	-	-	-	-	-	-	-
	A-B	9.68	-	-	-	-	-	-	-	-
	A-C	3.28	-	-	-	-	-	-	-	-

Segment	Stream	Demand (veh/min)	Capacity (veh/min)	RFC	Ped. Flow (ped/min)	Start Queue (veh)	End Queue (veh)	Geometric Delay (veh.min/ segment)	Delay (veh.min/ segment)	Mean Arriving Vehicle Delay (min)
17:45-18:00	B-A	6.93	5.87	**1.179**	-	68.19	84.06	-	1141.9	13.23
	B-C	0.48	0.44	**1.089**	-	5.75	6.74	-	93.7	17.01
	C-AB	1.30	7.13	0.182	-	0.27	0.27	-	4.0	0.17
	C-A	-	-	-	-	-	-	-	-	-
	A-B	9.68	-	-	-	-	-	-	-	-
	A-C	3.28	-	-	-	-	-	-	-	-

Segment	Stream	Demand (veh/min)	Capacity (veh/min)	RFC	Ped. Flow (ped/min)	Start Queue (veh)	End Queue (veh)	Geometric Delay (veh.min/ segment)	Delay (veh.min/ segment)	Mean Arriving Vehicle Delay (min)
18:00-18:15	B-A	6.93	5.87	**1.179**	-	84.06	99.91	-	1379.8	15.91
	B-C	0.48	0.44	**1.105**	-	6.74	7.75	-	108.7	19.26
	C-AB	1.30	7.13	0.182	-	0.27	0.27	-	4.0	0.17
	C-A	-	-	-	-	-	-	-	-	-
	A-B	9.68	-	-	-	-	-	-	-	-
	A-C	3.28	-	-	-	-	-	-	-	-

Entry capacities marked with an '(X)' are dominated by a pedestrian crossing in that time segment.
In time segments marked with a '(B)', traffic leaving the junction may block back from a crossing so impairing normal operation of the junction.
Delays marked with '##' could not be calculated.

Overall Queues & Delays

Queueing Delay Information Over Whole Period

Demand Set: 2022 Opening Year Without Proposed Development - AM Peak Hour
Modelling Period: 07:45-09:15

Stream	Total Demand (veh)	Total Demand (veh/h)	Queueing Delay (min)	Queueing Delay (min/veh)	Inclusive Delay (min)	Inclusive Delay (min/veh)
B-A	334.8	223.2	99.8	0.3	99.9	0.3
B-C	22.5	15.0	4.0	0.2	4.0	0.2
C-AB	36.0	24.0	5.0	0.1	5.0	0.1
C-A	-	-	-	-	-	-
A-B	648.9	432.6	-	-	-	-
A-C	260.1	173.4	-	-	-	-
All	**1822.5**	**1215.0**	**108.9**	**0.1**	**109.0**	**0.1**

Demand Set: 2022 Opening Year Without Proposed Development - PM Peak Hour
Modelling Period: 16:45-18:15

Stream	Total Demand (veh)	Total Demand (veh/h)	Queueing Delay (min)	Queueing Delay (min/veh)	Inclusive Delay (min)	Inclusive Delay (min/veh)
B-A	510.0	340.0	484.5	0.9	487.4	1.0
B-C	30.0	20.0	19.1	0.6	19.1	0.6
C-AB	90.0	60.0	15.0	0.2	15.0	0.2
C-A	-	-	-	-	-	-
A-B	712.3	474.9	-	-	-	-
A-C	253.4	168.9	-	-	-	-
All	**2214.0**	**1476.0**	**518.6**	**0.2**	**521.6**	**0.2**

Demand Set: 2022 Opening Year With Proposed Development - AM Peak Hour
Modelling Period: 07:45-09:15

Stream	Total Demand (veh)	Total Demand (veh/h)	Queueing Delay (min)	Queueing Delay (min/veh)	Inclusive Delay (min)	Inclusive Delay (min/veh)
B-A	374.7	249.8	131.6	0.4	131.7	0.4
B-C	37.5	25.0	7.4	0.2	7.4	0.2
C-AB	42.0	28.0	6.0	0.1	6.0	0.1
C-A	-	-	-	-	-	-
A-B	672.2	448.1	-	-	-	-
A-C	261.1	174.1	-	-	-	-
All	**1908.0**	**1272.0**	**145.0**	**0.1**	**145.2**	**0.1**

Demand Set: 2022 Opening Year With Proposed Development - PM Peak Hour
Modelling Period: 16:45-18:15

Stream	Total Demand (veh)	Total Demand (veh/h)	Queueing Delay (min)	Queueing Delay (min/veh)	Inclusive Delay (min)	Inclusive Delay (min/veh)
B-A	538.8	359.2	782.3	1.5	792.0	1.5
B-C	39.0	26.0	167.5	4.3	173.2	4.4
C-AB	102.0	68.0	17.9	0.2	17.9	0.2
C-A	-	-	-	-	-	-
A-B	751.7	501.1	-	-	-	-
A-C	253.6	169.1	-	-	-	-
All	**2303.1**	**1535.4**	**967.7**	**0.4**	**983.1**	**0.4**

Demand Set: 2037 Opening Year Without Proposed Development - AM Peak Hour
Modelling Period: 07:45-09:15

Stream	Total Demand (veh)	Total Demand (veh/h)	Queueing Delay (min)	Queueing Delay (min/veh)	Inclusive Delay (min)	Inclusive Delay (min/veh)
B-A	388.0	258.7	166.4	0.4	166.7	0.4
B-C	26.9	17.9	6.0	0.2	6.0	0.2
C-AB	41.9	27.9	6.4	0.2	6.4	0.2
C-A	-	-	-	-	-	-
A-B	760.3	506.9	-	-	-	-
A-C	304.4	202.9	-	-	-	-
All	**2128.5**	**1419.0**	**178.7**	**0.1**	**179.0**	**0.1**

Demand Set: 2037 Opening Year With Proposed Development - AM Peak Hour
Modelling Period: 07:45-09:15

Stream	Total Demand (veh)	Total Demand (veh/h)	Queueing Delay (min)	Queueing Delay (min/veh)	Inclusive Delay (min)	Inclusive Delay (min/veh)
B-A	432.0	288.0	240.4	0.6	241.1	0.6
B-C	40.5	27.0	11.4	0.3	11.4	0.3
C-AB	48.0	32.0	7.5	0.2	7.5	0.2
C-A	-	-	-	-	-	-
A-B	780.6	520.4	-	-	-	-
A-C	304.8	203.2	-	-	-	-
All	**2214.9**	**1476.6**	**259.3**	**0.1**	**259.9**	**0.1**

Demand Set: 2037 Opening Year Without Proposed Development - PM Peak Hour
Modelling Period: 16:45-18:15

Stream	Total Demand (veh)	Total Demand (veh/h)	Queueing Delay (min)	Queueing Delay (min/veh)	Inclusive Delay (min)	Inclusive Delay (min/veh)
B-A	595.5	397.0	3198.9	5.4	3560.4	6.0
B-C	34.5	23.0	290.1	8.4	320.5	9.3
C-AB	105.0	70.0	20.3	0.2	20.3	0.2
C-A	-	-	-	-	-	-
A-B	832.3	554.9	-	-	-	-
A-C	295.4	196.9	-	-	-	-
All	**2583.9**	**1722.6**	**3509.2**	**1.4**	**3901.2**	**1.5**

Demand Set: 2037 Opening Year With Proposed Development - PM Peak Hour
Modelling Period: 16:45-18:15

Stream	Total Demand (veh)	Total Demand (veh/h)	Queueing Delay (min)	Queueing Delay (min/veh)	Inclusive Delay (min)	Inclusive Delay (min/veh)
B-A	623.4	415.6	4677.3	7.5	5527.0	8.9
B-C	43.5	29.0	419.3	9.6	488.0	11.2
C-AB	116.8	77.9	24.0	0.2	24.0	0.2
C-A	-	-	-	-	-	-
A-B	871.1	580.7	-	-	-	-
A-C	295.3	196.9	-	-	-	-
All	**2670.3**	**1780.2**	**5120.6**	**1.9**	**6038.9**	**2.3**

Delay is that occurring only within the time period.
Inclusive delay includes delay suffered by vehicles which are still queuing after the end of the time period.
These will only be significantly different if there is a large queue remaining at the end of the time period.

PICADY 5 Run Successful

B APPENDIX

B.1 Traffic Data used in TTA

Data Analysis Services
Traffic-Transportation- Commercial-Innovation

031 20030 Cork City

with compliments

IDASO

Survey Name: 031 20030 Cork City
Site: Site 1
Location: Shanakiel Road / Unnamed Road
Date: Thu 27-Feb-2020

	A => A										A => B									
TIME	**P/C**	**M/C**	**CAR**	**TAXI**	**LGV**	**OGV1**	**OGV2**	**PSV**	**TOT**	**PCU**	**P/C**	**M/C**	**CAR**	**TAXI**	**LGV**	**OGV1**	**OGV2**	**PSV**	**TOT**	**PCU**
07:00	0	0	0	0	0	0	0	0	0	0	0	0	66	3	8	3	0	0	80	81.5
07:15	0	0	0	0	0	0	0	0	0	0	0	1	57	1	16	5	0	0	80	81.9
07:30	0	0	0	0	0	0	0	0	0	0	0	0	60	1	9	0	0	2	72	74
07:45	0	0	0	0	0	0	0	0	0	0	0	0	39	0	4	4	1	1	49	53.3
H/TOT	0	0	0	0	0	0	0	0	0	0	0	1	222	5	37	12	1	3	281	290.7
08:00	0	0	0	0	0	0	0	0	0	0	0	0	29	0	4	2	2	0	37	40.6
08:15	0	0	0	0	0	0	0	0	0	0	0	0	34	0	3	0	0	1	38	39
08:30	0	0	0	0	0	0	0	0	0	0	1	0	38	1	6	0	0	0	46	45.2
08:45	0	0	0	0	0	0	0	0	0	0	1	0	22	2	5	1	1	0	32	33
H/TOT	0	0	0	0	0	0	0	0	0	0	2	0	123	3	18	3	3	1	153	157.8
09:00	0	0	0	0	0	0	0	0	0	0	1	0	61	1	8	0	1	0	72	72.5
09:15	0	0	0	0	0	0	0	0	0	0	0	0	72	1	9	1	1	0	84	85.8
09:30	0	0	0	0	0	0	0	0	0	0	0	0	69	5	6	3	1	1	85	88.8
09:45	0	0	0	0	0	0	0	0	0	0	0	0	67	3	10	2	1	0	83	85.3
H/TOT	0	0	0	0	0	0	0	0	0	0	1	0	269	10	33	6	4	1	324	332.4
3 TOT	0	0	0	0	0	0	0	0	0	0	3	1	614	18	88	21	8	5	758	780.9

	A => A										A => B									
TIME	**P/C**	**M/C**	**CAR**	**TAXI**	**LGV**	**OGV1**	**OGV2**	**PSV**	**TOT**	**PCU**	**P/C**	**M/C**	**CAR**	**TAXI**	**LGV**	**OGV1**	**OGV2**	**PSV**	**TOT**	**PCU**
16:00	0	0	0	0	0	0	0	0	0	0	0	0	68	3	6	1	2	1	81	85.1
16:15	0	0	0	0	0	0	0	0	0	0	0	0	52	2	8	2	0	0	64	65
16:30	0	0	0	0	0	0	0	0	0	0	0	1	81	1	3	0	0	1	87	87.4
16:45	0	0	0	0	0	0	0	0	0	0	1	0	81	3	6	2	0	0	93	93.2
H/TOT	0	0	0	0	0	0	0	0	0	0	1	1	282	9	23	5	2	2	325	330.7
17:00	0	0	0	0	0	0	0	0	0	0	0	0	80	2	2	2	0	0	86	87
17:15	0	0	0	0	0	0	0	0	0	0	0	1	65	2	5	1	0	0	74	73.9
17:30	0	0	0	0	0	0	0	0	0	0	0	1	77	1	6	2	0	0	87	87.4
17:45	0	0	0	0	0	0	0	0	0	0	2	0	74	4	5	0	0	1	86	85.4
H/TOT	0	0	0	0	0	0	0	0	0	0	2	2	296	9	18	5	0	1	333	333.7
18:00	0	0	0	0	0	0	0	0	0	0	0	0	63	2	2	0	0	1	68	69
18:15	0	0	0	0	0	0	0	0	0	0	0	0	82	3	1	1	0	0	87	87.5
18:30	0	0	0	0	0	0	0	0	0	0	0	0	61	1	5	0	0	0	67	67
18:45	0	0	0	0	0	0	0	0	0	0	0	0	73	1	1	0	0	0	75	75
H/TOT	0	0	0	0	0	0	0	0	0	0	0	0	279	7	9	1	0	1	297	298.5
3 TOT	0	0	0	0	0	0	0	0	0	0	3	3	857	25	50	11	2	4	955	962.9

IDASO

Survey Name: 031 20030 Cork City
Site: Site 1
Location: Shanakiel Road / Unnamed Road
Date: Thu 27-Feb-2020

	A => C										B => A									
TIME	**P/C**	**M/C**	**CAR**	**TAXI**	**LGV**	**OGV1**	**OGV2**	**PSV**	**TOT**	**PCU**	**P/C**	**M/C**	**CAR**	**TAXI**	**LGV**	**OGV1**	**OGV2**	**PSV**	**TOT**	**PCU**
07:00	0	0	0	0	0	0	0	0	0	0	0	0	53	2	6	0	0	0	61	61
07:15	0	0	0	0	0	0	0	0	0	0	0	1	81	2	14	1	0	0	99	98.9
07:30	0	0	0	1	0	0	0	0	1	1	0	1	111	7	9	3	0	0	131	131.9
07:45	0	0	1	1	0	0	0	0	2	2	0	0	127	2	18	1	2	0	150	153.1
H/TOT	0	0	1	2	0	0	0	0	3	3	0	2	372	13	47	5	2	0	441	444.9
08:00	0	0	3	0	0	0	0	0	3	3	0	0	99	1	8	1	0	0	109	109.5
08:15	0	0	3	0	0	0	0	0	3	3	1	1	96	4	6	1	0	1	110	110.1
08:30	0	0	2	0	0	0	0	0	2	2	0	0	99	4	5	2	3	0	113	117.9
08:45	0	0	3	0	0	0	0	0	3	3	0	0	84	3	6	1	0	0	94	94.5
H/TOT	0	0	11	0	0	0	0	0	11	11	1	1	378	12	25	5	3	1	426	432
09:00	0	0	4	0	0	0	0	0	4	4	0	0	66	4	14	1	0	0	85	85.5
09:15	0	0	8	0	0	0	0	0	8	8	0	0	62	1	4	3	0	0	70	71.5
09:30	0	0	0	1	0	0	0	0	1	1	0	0	54	3	11	3	0	0	71	72.5
09:45	0	0	3	0	0	0	0	0	3	3	0	0	63	5	7	1	3	1	80	85.4
H/TOT	0	0	15	1	0	0	0	0	16	16	0	0	245	13	36	8	3	1	306	314.9
3 TOT	0	0	27	3	0	0	0	0	30	30	1	3	995	38	108	18	8	2	1173	1191.8

	A => C										B => A									
TIME	**P/C**	**M/C**	**CAR**	**TAXI**	**LGV**	**OGV1**	**OGV2**	**PSV**	**TOT**	**PCU**	**P/C**	**M/C**	**CAR**	**TAXI**	**LGV**	**OGV1**	**OGV2**	**PSV**	**TOT**	**PCU**
16:00	0	0	3	0	0	0	0	0	3	3	0	1	102	1	15	4	0	0	123	124.4
16:15	0	0	3	1	0	0	0	0	4	4	1	0	113	3	13	1	0	0	131	130.7
16:30	0	0	4	0	1	0	0	0	5	5	0	0	110	0	10	1	0	0	121	121.5
16:45	0	0	3	0	0	0	0	0	3	3	0	1	98	1	12	1	0	1	114	114.9
H/TOT	0	0	13	1	1	0	0	0	15	15	1	2	423	5	50	7	0	1	489	491.5
17:00	0	0	5	0	1	0	0	0	6	6	0	0	112	1	12	3	0	0	128	129.5
17:15	0	0	6	0	1	0	0	0	7	7	1	0	108	0	7	0	1	0	117	117.5
17:30	0	0	5	0	1	0	0	0	6	6	0	0	106	1	9	0	0	0	116	116
17:45	0	0	3	0	1	0	0	0	4	4	0	0	105	4	10	1	0	0	120	120.5
H/TOT	0	0	19	0	4	0	0	0	23	23	1	0	431	6	38	4	1	0	481	483.5
18:00	0	0	4	0	1	0	0	0	5	5	0	0	109	2	7	3	0	0	121	122.5
18:15	0	0	4	0	0	0	0	0	4	4	0	1	97	0	5	1	0	0	104	103.9
18:30	0	0	4	0	0	0	0	0	4	4	0	1	62	2	4	1	0	1	71	71.9
18:45	0	0	6	0	0	0	0	0	6	6	0	0	78	1	6	1	0	2	88	90.5
H/TOT	0	0	18	0	1	0	0	0	19	19	0	2	346	5	22	6	0	3	384	388.8
3 TOT	0	0	50	1	6	0	0	0	57	57	2	4	1200	16	110	17	1	4	1354	1363.8

IDASO

Survey Name: 031 20030 Cork City
Site: Site 1
Location: Shanakiel Road / Unnamed Road
Date: Thu 27-Feb-2020

	B => B										B => C									
TIME	P/C	M/C	CAR	TAXI	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C	CAR	TAXI	LGV	OGV1	OGV2	PSV	TOT	PCU
07:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:30	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	2	2
07:45	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	2	2
H/TOT	0	0	0	0	0	0	0	0	0	0	0	0	4	0	0	0	0	0	4	4
08:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:30	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	1
08:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	1
09:00	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	2	2
09:15	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	1
09:30	0	0	0	0	0	0	0	0	0	0	1	0	2	0	1	0	0	0	4	3.2
09:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	1
H/TOT	0	0	0	0	0	0	0	0	0	0	1	0	4	0	3	0	0	0	8	7.2
3 TOT	0	0	0	0	0	0	0	0	0	0	1	0	9	0	3	0	0	0	13	12.2

	B => B										B => C									
TIME	P/C	M/C	CAR	TAXI	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C	CAR	TAXI	LGV	OGV1	OGV2	PSV	TOT	PCU
16:00	0	0	0	0	0	0	0	0	0	0	0	0	4	1	0	0	0	0	5	5
16:15	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	2	2
16:30	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	1
16:45	0	0	0	0	0	0	0	0	0	0	0	0	2	1	0	0	0	0	3	3
H/TOT	0	0	0	0	0	0	0	0	0	0	0	0	9	2	0	0	0	0	11	11
17:00	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	0	3	3
17:15	0	0	0	0	0	0	0	0	0	0	0	0	3	0	1	0	0	0	4	4
17:30	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	0	3	3
17:45	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	2	2
H/TOT	0	0	0	0	0	0	0	0	0	0	0	0	11	0	1	0	0	0	12	12
18:00	0	0	0	0	0	0	0	0	0	0	0	0	4	0	1	0	0	0	5	5
18:15	0	0	0	0	0	0	0	0	0	0	1	0	5	0	0	0	0	0	6	5.2
18:30	0	0	0	0	0	0	0	0	0	0	0	0	2	0	1	0	0	0	3	3
18:45	0	0	0	0	0	0	0	0	0	0	0	0	4	0	0	0	0	0	4	4
H/TOT	0	0	0	0	0	0	0	0	0	0	1	0	15	0	2	0	0	0	18	17.2
3 TOT	0	0	0	0	0	0	0	0	0	0	1	0	35	2	3	0	0	0	41	40.2

IDASO

Survey Name: 031 20030 Cork City
Site: Site 1
Location: Shanakiel Road / Unnamed Road
Date: Thu 27-Feb-2020

	C => A										C => B									
TIME	P/C	M/C	CAR	TAXI	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C	CAR	TAXI	LGV	OGV1	OGV2	PSV	TOT	PCU
07:00	0	0	0	0	0	0	0	0	0	0	0	0	5	0	0	0	0	0	5	5
07:15	0	0	4	0	0	0	0	0	4	4	0	0	1	0	1	0	0	0	2	2
07:30	0	0	6	0	3	0	0	0	9	9	0	0	3	0	0	0	0	0	3	3
07:45	0	0	4	2	1	0	0	0	7	7	0	0	2	0	0	0	0	0	2	2
H/TOT	0	0	14	2	4	0	0	0	20	20	0	0	11	0	1	0	0	0	12	12
08:00	0	0	5	1	0	0	0	0	6	6	0	0	2	0	0	0	0	0	2	2
08:15	0	0	13	0	2	0	0	0	15	15	0	0	1	0	0	0	0	0	1	1
08:30	0	0	19	0	0	0	0	0	19	19	0	0	1	0	0	0	0	0	1	1
08:45	0	0	9	0	0	0	0	0	9	9	0	0	0	0	0	0	0	0	0	0
H/TOT	0	0	46	1	2	0	0	0	49	49	0	0	4	0	0	0	0	0	4	4
09:00	0	0	2	0	1	0	0	0	3	3	0	0	0	0	0	0	0	0	0	0
09:15	1	0	2	0	1	0	0	0	4	3.2	0	0	4	0	0	0	0	0	4	4
09:30	0	0	4	1	1	0	0	0	6	6	0	1	4	0	0	0	0	0	5	4.4
09:45	0	0	3	0	0	0	0	0	3	3	0	1	0	0	0	0	0	0	1	0.4
H/TOT	1	0	11	1	3	0	0	0	16	15.2	0	2	8	0	0	0	0	0	10	8.8
3 TOT	1	0	71	4	9	0	0	0	85	84.2	0	2	23	0	1	0	0	0	26	24.8

	C => A										C => B									
TIME	P/C	M/C	CAR	TAXI	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C	CAR	TAXI	LGV	OGV1	OGV2	PSV	TOT	PCU
16:00	0	0	7	1	0	0	0	0	8	8	0	0	1	0	0	0	0	0	1	1
16:15	0	0	3	0	0	0	0	0	3	3	0	0	1	0	0	0	0	0	1	1
16:30	0	0	3	0	0	0	0	0	3	3	0	0	2	0	0	0	0	0	2	2
16:45	0	0	4	0	0	0	0	0	4	4	0	0	0	1	0	0	0	0	1	1
H/TOT	0	0	17	1	0	0	0	0	18	18	0	0	4	1	0	0	0	0	5	5
17:00	0	0	2	0	1	0	0	0	3	3	0	0	1	0	0	0	0	0	1	1
17:15	0	0	3	0	0	0	0	0	3	3	0	0	0	0	0	0	0	0	0	0
17:30	0	0	5	0	0	0	0	0	5	5	0	0	2	0	0	0	0	0	2	2
17:45	0	0	4	0	1	0	0	0	5	5	0	0	5	0	0	0	0	0	5	5
H/TOT	0	0	14	0	2	0	0	0	16	16	0	0	8	0	0	0	0	0	8	8
18:00	0	0	4	0	0	0	0	0	4	4	0	0	0	0	0	0	0	0	0	0
18:15	0	0	2	0	0	0	0	0	2	2	1	0	1	0	0	0	0	0	2	1.2
18:30	0	0	10	0	1	0	0	0	11	11	0	0	2	0	0	0	0	0	2	2
18:45	0	0	4	0	0	0	0	0	4	4	0	0	3	0	0	0	0	0	3	3
H/TOT	0	0	20	0	1	0	0	0	21	21	1	0	6	0	0	0	0	0	7	6.2
3 TOT	0	0	51	1	3	0	0	0	55	55	1	0	18	1	0	0	0	0	20	19.2

IDASO

Survey Name: 031 20030 Cork City
Site: Site 1
Location: Shanakiel Road / Unnamed Road
Date: Thu 27-Feb-2020

	C => C									
TIME	**P/C**	**M/C**	**CAR**	**TAXI**	**LGV**	**OGV1**	**OGV2**	**PSV**	**TOT**	**PCU**
07:00	0	0	0	0	0	0	0	0	0	0
07:15	0	0	0	0	0	0	0	0	0	0
07:30	0	0	0	0	0	0	0	0	0	0
07:45	0	0	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0	0	0
08:00	0	0	0	0	0	0	0	0	0	0
08:15	0	0	0	0	0	0	0	0	0	0
08:30	0	0	0	0	0	0	0	0	0	0
08:45	0	0	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0	0	0
09:00	0	0	0	0	0	0	0	0	0	0
09:15	0	0	0	0	0	0	0	0	0	0
09:30	0	0	0	0	0	0	0	0	0	0
09:45	0	0	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0	0	0
3 TOT	0	0	0	0	0	0	0	0	0	0

	C => C									
TIME	**P/C**	**M/C**	**CAR**	**TAXI**	**LGV**	**OGV1**	**OGV2**	**PSV**	**TOT**	**PCU**
16:00	0	0	0	0	0	0	0	0	0	0
16:15	0	0	0	0	0	0	0	0	0	0
16:30	0	0	0	0	0	0	0	0	0	0
16:45	0	0	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0	0	0
17:00	0	0	0	0	0	0	0	0	0	0
17:15	0	0	0	0	0	0	0	0	0	0
17:30	0	0	0	0	0	0	0	0	0	0
17:45	0	0	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0	0	0
18:00	0	0	0	0	0	0	0	0	0	0
18:15	0	0	0	0	0	0	0	0	0	0
18:30	0	0	0	0	0	0	0	0	0	0
18:45	0	0	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0	0	0
3 TOT	0	0	0	0	0	0	0	0	0	0

IDASO

Survey Name: 031 20030 Cork City
Site: Site 2
Location: Blarney Road / Shanakiel Road
Date: Thu 27-Feb-2020

	A => A										A => B									
TIME	**P/C**	**M/C**	**CAR**	**TAXI**	**LGV**	**OGV1**	**OGV2**	**PSV**	**TOT**	**PCU**	**P/C**	**M/C**	**CAR**	**TAXI**	**LGV**	**OGV1**	**OGV2**	**PSV**	**TOT**	**PCU**
07:00	0	0	0	0	0	0	0	0	0	0	1	0	18	0	6	0	0	0	25	24.2
07:15	0	0	0	0	0	0	0	0	0	0	0	0	34	0	5	0	0	0	39	39
07:30	0	0	0	0	0	0	0	0	0	0	1	0	47	1	5	1	0	0	55	54.7
07:45	0	0	0	0	0	0	0	0	0	0	0	0	61	4	8	2	0	0	75	76
H/TOT	0	0	0	0	0	0	0	0	0	0	2	0	160	5	24	3	0	0	194	193.9
08:00	0	0	0	0	0	0	0	0	0	0	1	0	78	2	8	0	0	0	89	88.2
08:15	0	0	0	0	0	0	0	0	0	0	1	0	81	2	5	1	0	0	90	89.7
08:30	0	0	0	0	0	0	0	0	0	0	0	0	105	4	4	0	0	0	113	113
08:45	0	0	0	0	0	0	0	0	0	0	0	0	108	3	1	0	0	0	112	112
H/TOT	0	0	0	0	0	0	0	0	0	0	2	0	372	11	18	1	0	0	404	402.9
09:00	0	0	0	0	0	0	0	0	0	0	0	0	58	1	5	1	0	0	65	65.5
09:15	0	0	0	0	0	0	0	0	0	0	0	0	35	0	4	0	0	0	39	39
09:30	0	0	0	0	0	0	0	0	0	0	0	0	46	1	3	1	0	0	51	51.5
09:45	0	0	0	0	0	0	0	0	0	0	0	0	33	0	7	0	0	0	40	40
H/TOT	0	0	0	0	0	0	0	0	0	0	0	0	172	2	19	2	0	0	195	196
3 TOT	0	0	0	0	0	0	0	0	0	0	4	0	704	18	61	6	0	0	793	792.8

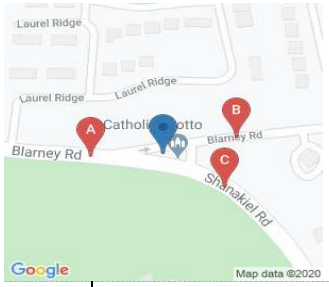
	A => A										A => B									
TIME	**P/C**	**M/C**	**CAR**	**TAXI**	**LGV**	**OGV1**	**OGV2**	**PSV**	**TOT**	**PCU**	**P/C**	**M/C**	**CAR**	**TAXI**	**LGV**	**OGV1**	**OGV2**	**PSV**	**TOT**	**PCU**
16:00	0	0	0	0	0	0	0	0	0	0	0	0	23	1	1	0	0	0	25	25
16:15	0	0	0	0	0	0	0	0	0	0	1	0	32	4	7	0	0	0	44	43.2
16:30	0	0	0	0	0	0	0	0	0	0	1	0	46	2	7	0	0	0	56	55.2
16:45	0	0	0	0	0	0	0	0	0	0	0	1	44	1	4	0	0	0	50	49.4
H/TOT	0	0	0	0	0	0	0	0	0	0	2	1	145	8	19	0	0	0	175	172.8
17:00	0	0	0	0	0	0	0	0	0	0	2	0	38	2	6	0	0	0	48	46.4
17:15	0	0	0	0	0	0	0	0	0	0	1	0	48	0	2	0	0	0	51	50.2
17:30	0	0	0	0	0	0	0	0	0	0	3	0	45	1	8	0	0	0	57	54.6
17:45	0	0	0	0	0	0	0	0	0	0	1	0	45	0	5	2	0	0	53	53.2
H/TOT	0	0	0	0	0	0	0	0	0	0	7	0	176	3	21	2	0	0	209	204.4
18:00	0	0	0	0	0	0	0	0	0	0	1	0	52	2	2	0	0	0	57	56.2
18:15	0	0	0	0	0	0	0	0	0	0	0	0	44	2	3	1	0	0	50	50.5
18:30	0	0	0	0	0	0	0	0	0	0	3	1	43	1	3	1	0	0	52	49.5
18:45	0	0	0	0	0	0	0	0	0	0	0	0	41	0	2	1	0	0	44	44.5
H/TOT	0	0	0	0	0	0	0	0	0	0	4	1	180	5	10	3	0	0	203	200.7
3 TOT	0	0	0	0	0	0	0	0	0	0	13	2	501	16	50	5	0	0	587	577.9

IDASO

Survey Name: 031 20030 Cork City
Site: Site 2
Location: Blarney Road / Shanakiel Road
Date: Thu 27-Feb-2020

	A => C										B => A									
TIME	**P/C**	**M/C**	**CAR**	**TAXI**	**LGV**	**OGV1**	**OGV2**	**PSV**	**TOT**	**PCU**	**P/C**	**M/C**	**CAR**	**TAXI**	**LGV**	**OGV1**	**OGV2**	**PSV**	**TOT**	**PCU**
07:00	0	0	71	3	12	2	0	0	88	89	2	0	1	0	0	0	0	0	3	1.4
07:15	0	1	57	2	15	5	0	1	81	83.9	1	0	2	1	0	0	0	0	4	3.2
07:30	0	0	58	3	9	0	0	1	71	72	1	0	4	0	0	0	0	0	5	4.2
07:45	0	0	34	1	2	5	0	1	43	46.5	0	0	7	0	0	1	0	0	8	8.5
H/TOT	0	1	220	9	38	12	0	3	283	291.4	4	0	14	1	0	1	0	0	20	17.3
08:00	0	0	34	0	5	2	2	1	44	48.6	1	0	9	0	2	0	0	0	12	11.2
08:15	0	0	34	0	2	0	0	0	36	36	0	0	8	1	0	0	0	0	9	9
08:30	0	0	39	0	5	0	0	0	44	44	2	0	10	0	2	0	0	0	14	12.4
08:45	1	0	28	1	5	1	1	0	37	38	1	0	25	0	3	0	0	0	29	28.2
H/TOT	1	0	135	1	17	3	3	1	161	166.6	4	0	52	1	7	0	0	0	64	60.8
09:00	1	0	69	1	6	1	0	0	78	77.7	0	0	10	0	0	0	0	0	10	10
09:15	0	0	87	1	6	1	1	1	97	99.8	0	0	8	0	0	1	0	0	9	9.5
09:30	0	0	83	0	6	3	1	0	93	95.8	0	0	8	0	2	0	0	0	10	10
09:45	0	0	64	0	7	2	1	0	74	76.3	0	0	8	0	0	0	0	0	8	8
H/TOT	1	0	303	2	25	7	3	1	342	349.6	0	0	34	0	2	1	0	0	37	37.5
3 TOT	2	1	658	12	80	22	6	5	786	807.6	8	0	100	2	9	2	0	0	121	115.6

	A => C										B => A									
TIME	**P/C**	**M/C**	**CAR**	**TAXI**	**LGV**	**OGV1**	**OGV2**	**PSV**	**TOT**	**PCU**	**P/C**	**M/C**	**CAR**	**TAXI**	**LGV**	**OGV1**	**OGV2**	**PSV**	**TOT**	**PCU**
16:00	0	0	66	3	7	1	2	1	80	84.1	0	0	6	2	1	0	0	0	9	9
16:15	0	0	53	3	8	2	0	0	66	67	0	0	10	3	4	0	0	0	17	17
16:30	1	1	82	1	4	0	0	1	90	89.6	1	0	14	1	4	0	1	0	21	21.5
16:45	0	0	87	2	6	2	0	0	97	98	0	0	11	2	1	0	0	0	14	14
H/TOT	1	1	288	9	25	5	2	2	333	338.7	1	0	41	8	10	0	1	0	61	61.5
17:00	0	0	82	2	4	2	0	0	90	91	0	0	13	0	4	0	0	0	17	17
17:15	0	1	71	1	6	1	0	0	80	79.9	2	0	16	1	0	0	0	0	19	17.4
17:30	0	1	76	3	7	2	0	0	89	89.4	0	0	15	1	1	0	0	0	17	17
17:45	2	0	81	4	6	0	0	1	94	93.4	0	0	9	0	1	0	0	0	10	10
H/TOT	2	2	310	10	23	5	0	1	353	353.7	2	0	53	2	6	0	0	0	63	61.4
18:00	0	0	65	2	3	0	0	1	71	72	0	1	17	0	1	0	0	0	19	18.4
18:15	0	0	78	3	2	0	0	0	83	83	0	0	12	1	2	0	0	0	15	15
18:30	0	0	62	0	5	0	0	0	67	67	0	0	9	0	1	0	0	0	10	10
18:45	0	0	73	1	0	0	0	0	74	74	0	0	5	1	1	0	0	0	7	7
H/TOT	0	0	278	6	10	0	0	1	295	296	0	1	43	2	5	0	0	0	51	50.4
3 TOT	3	3	876	25	58	10	2	4	981	988.4	3	1	137	12	21	0	1	0	175	173.3

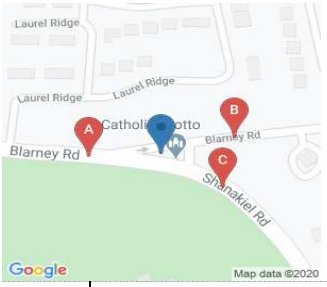


IDASO

Survey Name: 031 20030 Cork City
Site: Site 2
Location: Blarney Road / Shanakiel Road
Date: Thu 27-Feb-2020

	B => B										B => C									
TIME	**P/C**	**M/C**	**CAR**	**TAXI**	**LGV**	**OGV1**	**OGV2**	**PSV**	**TOT**	**PCU**	**P/C**	**M/C**	**CAR**	**TAXI**	**LGV**	**OGV1**	**OGV2**	**PSV**	**TOT**	**PCU**
07:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	1
07:15	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	2	2
07:30	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	2	2
07:45	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	1
H/TOT	0	0	0	0	0	0	0	0	0	0	0	0	4	0	2	0	0	0	6	6
08:00	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	0	3	3
08:15	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	1
08:30	0	0	0	0	0	0	0	0	0	0	1	0	2	0	0	0	0	0	3	2.2
08:45	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	1
H/TOT	0	0	0	0	0	0	0	0	0	0	1	0	7	0	0	0	0	0	8	7.2
09:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
09:15	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	1
09:30	0	0	0	0	0	0	0	0	0	0	0	0	4	0	0	0	0	0	4	4
09:45	0	0	0	0	0	0	0	0	0	0	0	0	4	0	0	0	0	0	4	4
H/TOT	0	0	0	0	0	0	0	0	0	0	0	0	9	0	0	0	0	0	9	9
3 TOT	0	0	0	0	0	0	0	0	0	0	1	0	20	0	2	0	0	0	23	22.2

	B => B										B => C									
TIME	**P/C**	**M/C**	**CAR**	**TAXI**	**LGV**	**OGV1**	**OGV2**	**PSV**	**TOT**	**PCU**	**P/C**	**M/C**	**CAR**	**TAXI**	**LGV**	**OGV1**	**OGV2**	**PSV**	**TOT**	**PCU**
16:00	0	0	0	0	0	0	0	0	0	0	0	0	4	0	0	0	0	0	4	4
16:15	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	0	3	3
16:30	0	0	0	0	0	0	0	0	0	0	0	0	2	1	0	0	0	0	3	3
16:45	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	2	2
H/TOT	0	0	0	0	0	0	0	0	0	0	0	0	11	1	0	0	0	0	12	12
17:00	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	2	2
17:15	0	0	0	0	0	0	0	0	0	0	0	0	2	0	1	0	0	0	3	3
17:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17:45	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	1
H/TOT	0	0	0	0	0	0	0	0	0	0	0	0	5	0	1	0	0	0	6	6
18:00	0	0	0	0	0	0	0	0	0	0	0	0	2	1	0	0	0	0	3	3
18:15	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	1	0	0	4	4.5
18:30	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	0	3	3
18:45	0	0	0	0	0	0	0	0	0	0	0	0	2	0	1	0	0	0	3	3
H/TOT	0	0	0	0	0	0	0	0	0	0	0	0	10	1	1	1	0	0	13	13.5
3 TOT	0	0	0	0	0	0	0	0	0	0	0	0	26	2	2	1	0	0	31	31.5



IDASO

Survey Name: 031 20030 Cork City
Site: Site 2
Location: Blarney Road / Shanakiel Road
Date: Thu 27-Feb-2020

	C => A										C => B									
TIME	**P/C**	**M/C**	**CAR**	**TAXI**	**LGV**	**OGV1**	**OGV2**	**PSV**	**TOT**	**PCU**	**P/C**	**M/C**	**CAR**	**TAXI**	**LGV**	**OGV1**	**OGV2**	**PSV**	**TOT**	**PCU**
07:00	1	0	45	1	5	0	0	0	52	51.2	0	0	2	0	0	0	0	0	2	2
07:15	0	1	66	3	13	1	0	0	84	83.9	0	0	10	0	3	0	0	0	13	13
07:30	1	1	105	4	9	1	0	0	121	120.1	0	0	13	1	2	2	0	0	18	19
07:45	1	0	128	4	15	1	2	0	151	153.3	0	0	18	0	6	0	0	0	24	24
H/TOT	3	2	344	12	42	3	2	0	408	408.5	0	0	43	1	11	2	0	0	57	58
08:00	0	0	75	0	5	1	0	0	81	81.5	0	0	28	1	3	0	0	0	32	32
08:15	1	1	69	3	5	1	0	1	81	81.1	0	0	44	0	2	0	0	0	46	46
08:30	0	0	74	7	4	1	3	0	89	93.4	0	0	39	2	3	0	0	0	44	44
08:45	0	0	65	2	6	2	0	0	75	76	0	0	28	2	0	0	0	0	30	30
H/TOT	1	1	283	12	20	5	3	1	326	332	0	0	139	5	8	0	0	0	152	152
09:00	0	0	41	3	11	1	0	0	56	56.5	0	0	20	1	1	0	0	0	22	22
09:15	0	0	57	2	6	3	0	0	68	69.5	1	0	13	0	0	0	0	0	14	13.2
09:30	0	0	37	2	9	3	0	0	51	52.5	0	0	16	2	3	0	0	0	21	21
09:45	0	0	57	5	5	1	3	0	71	75.4	0	0	17	1	2	0	0	1	21	22
H/TOT	0	0	192	12	31	8	3	0	246	253.9	1	0	66	4	6	0	0	1	78	78.2
3 TOT	4	3	819	36	93	16	8	1	980	994.4	1	0	248	10	25	2	0	1	287	288.2

	C => A										C => B									
TIME	**P/C**	**M/C**	**CAR**	**TAXI**	**LGV**	**OGV1**	**OGV2**	**PSV**	**TOT**	**PCU**	**P/C**	**M/C**	**CAR**	**TAXI**	**LGV**	**OGV1**	**OGV2**	**PSV**	**TOT**	**PCU**
16:00	0	1	91	0	14	4	0	0	110	111.4	0	0	17	2	1	0	0	0	20	20
16:15	0	0	100	2	12	1	0	0	115	115.5	0	0	20	1	2	0	0	0	23	23
16:30	0	0	100	0	10	1	0	0	111	111.5	0	0	17	1	0	0	0	0	18	18
16:45	0	1	79	0	12	1	0	1	94	94.9	0	0	14	2	0	0	0	0	16	16
H/TOT	0	2	370	2	48	7	0	1	430	433.3	0	0	68	6	3	0	0	0	77	77
17:00	0	0	95	0	10	3	0	0	108	109.5	0	0	19	1	3	0	0	0	23	23
17:15	1	0	99	0	7	0	1	0	108	108.5	0	0	19	0	1	0	0	0	20	20
17:30	0	0	91	1	5	0	0	0	97	97	0	0	15	0	4	0	0	0	19	19
17:45	0	0	87	4	8	1	0	0	100	100.5	0	0	24	0	3	0	0	0	27	27
H/TOT	1	0	372	5	30	4	1	0	413	415.5	0	0	77	1	11	0	0	0	89	89
18:00	0	0	91	1	6	3	0	0	101	102.5	0	0	22	1	2	0	0	0	25	25
18:15	0	1	85	1	4	0	0	0	91	90.4	0	0	16	0	1	0	0	0	17	17
18:30	0	1	57	0	3	2	0	1	64	65.4	0	0	16	1	1	0	0	0	18	18
18:45	0	0	67	0	4	1	0	2	74	76.5	0	0	20	0	1	0	0	0	21	21
H/TOT	0	2	300	2	17	6	0	3	330	334.8	0	0	74	2	5	0	0	0	81	81
3 TOT	1	4	1042	9	95	17	1	4	1173	1183.6	0	0	219	9	19	0	0	0	247	247

IDASO

Survey Name: 031 20030 Cork City
Site: Site 2
Location: Blarney Road / Shanakiel Road
Date: Thu 27-Feb-2020

	C => C									
TIME	**P/C**	**M/C**	**CAR**	**TAXI**	**LGV**	**OGV1**	**OGV2**	**PSV**	**TOT**	**PCU**
07:00	0	0	0	0	0	0	0	0	0	0
07:15	0	0	0	0	0	0	0	0	0	0
07:30	0	0	0	0	0	0	0	0	0	0
07:45	0	0	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0	0	0
08:00	0	0	0	0	0	0	0	0	0	0
08:15	0	0	0	0	0	0	0	0	0	0
08:30	0	0	0	0	0	0	0	0	0	0
08:45	0	0	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0	0	0
09:00	0	0	0	0	0	0	0	0	0	0
09:15	0	0	0	0	0	0	0	0	0	0
09:30	0	0	0	0	0	0	0	0	0	0
09:45	0	0	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0	0	0
3 TOT	0	0	0	0	0	0	0	0	0	0

	C => C									
TIME	**P/C**	**M/C**	**CAR**	**TAXI**	**LGV**	**OGV1**	**OGV2**	**PSV**	**TOT**	**PCU**
16:00	0	0	0	0	0	0	0	0	0	0
16:15	0	0	0	0	0	0	0	0	0	0
16:30	0	0	0	0	0	0	0	0	0	0
16:45	0	0	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0	0	0
17:00	0	0	0	0	0	0	0	0	0	0
17:15	0	0	0	0	0	0	0	0	0	0
17:30	0	0	0	0	0	0	0	0	0	0
17:45	0	0	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0	0	0
18:00	0	0	0	0	0	0	0	0	0	0
18:15	0	0	0	0	0	0	0	0	0	0
18:30	0	0	0	0	0	0	0	0	0	0
18:45	0	0	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0	0	0
3 TOT	0	0	0	0	0	0	0	0	0	0

IDASO

Survey Name: 031 20030 Cork City
Site: Site 4
Location: Shanakiel Road / R846 Sunday's Well Road/R846
Date: Thu 27-Feb-2020

	A => A										A => B									
TIME	**P/C**	**M/C**	**CAR**	**TAXI**	**LGV**	**OGV1**	**OGV2**	**PSV**	**TOT**	**PCU**	**P/C**	**M/C**	**CAR**	**TAXI**	**LGV**	**OGV1**	**OGV2**	**PSV**	**TOT**	**PCU**
07:00	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	1
07:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:30	0	0	0	0	0	0	0	0	0	0	0	0	2	0	1	0	0	0	3	3
07:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0	0	0	0	0	3	0	1	0	0	0	4	4
08:00	0	0	0	0	0	0	0	0	0	0	0	0	6	0	0	0	0	0	6	6
08:15	0	0	0	0	0	0	0	0	0	0	0	0	4	0	0	0	0	0	4	4
08:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:45	0	0	0	0	0	0	0	0	0	0	0	0	4	0	1	0	0	0	5	5
H/TOT	0	0	0	0	0	0	0	0	0	0	0	0	14	0	1	0	0	0	15	15
09:00	0	0	0	0	0	0	0	0	0	0	0	0	5	0	1	0	0	0	6	6
09:15	0	0	0	0	0	0	0	0	0	0	0	0	5	0	0	0	0	0	5	5
09:30	0	0	0	0	0	0	0	0	0	0	1	1	4	0	0	0	0	0	6	4.6
09:45	0	0	0	0	0	0	0	0	0	0	0	0	6	0	1	0	0	0	7	7
H/TOT	0	0	0	0	0	0	0	0	0	0	1	1	20	0	2	0	0	0	24	22.6
3 TOT	0	0	0	0	0	0	0	0	0	0	1	1	37	0	4	0	0	0	43	41.6

	A => A										A => B									
TIME	**P/C**	**M/C**	**CAR**	**TAXI**	**LGV**	**OGV1**	**OGV2**	**PSV**	**TOT**	**PCU**	**P/C**	**M/C**	**CAR**	**TAXI**	**LGV**	**OGV1**	**OGV2**	**PSV**	**TOT**	**PCU**
16:00	0	0	0	0	0	0	0	0	0	0	0	0	4	0	0	0	0	0	4	4
16:15	0	0	0	0	0	0	0	0	0	0	0	0	4	1	0	0	0	0	5	5
16:30	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	0	3	3
16:45	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	2	2
H/TOT	0	0	0	0	0	0	0	0	0	0	0	0	12	2	0	0	0	0	14	14
17:00	0	0	0	0	0	0	0	0	0	0	0	0	6	1	0	0	0	0	7	7
17:15	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	0	3	3
17:30	0	0	0	0	0	0	0	0	0	0	0	0	4	0	1	0	0	0	5	5
17:45	0	0	0	0	0	0	0	0	0	0	0	0	4	0	0	0	0	0	4	4
H/TOT	0	0	0	0	0	0	0	0	0	0	0	0	17	1	1	0	0	0	19	19
18:00	0	0	0	0	0	0	0	0	0	0	0	0	5	1	0	0	0	0	6	6
18:15	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	0	3	3
18:30	0	0	0	0	0	0	0	0	0	0	0	0	3	0	1	0	0	0	4	4
18:45	0	0	0	0	0	0	0	0	0	0	0	0	7	0	0	0	0	0	7	7
H/TOT	0	0	0	0	0	0	0	0	0	0	0	0	18	1	1	0	0	0	20	20
3 TOT	0	0	0	0	0	0	0	0	0	0	0	0	47	4	2	0	0	0	53	53

IDASO

Survey Name: 031 20030 Cork City
Site: Site 4
Location: Shanakiel Road / R846 Sunday's Well Road/R846
Date: Thu 27-Feb-2020

	A => C										B => A									
TIME	**P/C**	**M/C**	**CAR**	**TAXI**	**LGV**	**OGV1**	**OGV2**	**PSV**	**TOT**	**PCU**	**P/C**	**M/C**	**CAR**	**TAXI**	**LGV**	**OGV1**	**OGV2**	**PSV**	**TOT**	**PCU**
07:00	0	0	84	4	10	3	0	0	101	102.5	0	0	4	0	0	0	0	0	4	4
07:15	1	1	60	2	13	5	0	0	82	83.1	0	0	5	1	1	1	0	0	8	8.5
07:30	0	0	68	1	13	0	0	2	84	86	0	0	6	0	0	0	0	0	6	6
07:45	1	0	56	2	3	5	0	1	68	70.7	0	0	3	0	0	0	0	0	3	3
H/TOT	2	1	268	9	39	13	0	3	335	342.3	0	0	18	1	1	1	0	0	21	21.5
08:00	1	0	54	0	6	4	2	0	67	70.8	0	0	4	2	1	0	0	0	7	7
08:15	0	0	44	0	3	0	0	1	48	49	0	0	1	0	0	0	0	0	1	1
08:30	1	0	45	3	3	0	0	0	52	51.2	0	0	3	1	0	0	0	0	4	4
08:45	3	0	42	1	7	1	0	0	54	52.1	0	0	9	0	2	0	0	0	11	11
H/TOT	5	0	185	4	19	5	2	1	221	223.1	0	0	17	3	3	0	0	0	23	23
09:00	1	0	71	3	8	0	1	0	84	84.5	0	0	5	0	0	0	0	0	5	5
09:15	0	0	73	1	8	1	1	0	84	85.8	0	0	7	0	1	0	0	0	8	8
09:30	0	0	76	3	8	2	1	1	91	94.3	0	0	6	0	0	0	0	0	6	6
09:45	1	1	70	6	9	3	1	0	91	92.4	0	0	6	1	2	0	0	0	9	9
H/TOT	2	1	290	13	33	6	4	1	350	357	0	0	24	1	3	0	0	0	28	28
3 TOT	9	2	743	26	91	24	6	5	906	922.4	0	0	59	5	7	1	0	0	72	72.5

	A => C										B => A									
TIME	**P/C**	**M/C**	**CAR**	**TAXI**	**LGV**	**OGV1**	**OGV2**	**PSV**	**TOT**	**PCU**	**P/C**	**M/C**	**CAR**	**TAXI**	**LGV**	**OGV1**	**OGV2**	**PSV**	**TOT**	**PCU**
16:00	0	0	66	3	5	1	1	1	77	79.8	0	0	13	0	2	0	0	0	15	15
16:15	0	0	63	1	12	1	1	0	78	79.8	1	0	12	1	1	0	0	0	15	14.2
16:30	0	1	80	1	3	4	0	0	89	90.4	0	0	17	1	2	1	0	0	21	21.5
16:45	1	0	91	4	7	2	0	1	106	107.2	0	1	6	2	2	0	0	0	11	10.4
H/TOT	1	1	300	9	27	8	2	2	350	357.2	1	1	48	4	7	1	0	0	62	61.1
17:00	0	0	62	2	2	2	0	0	68	69	2	0	14	1	2	0	0	0	19	17.4
17:15	0	1	88	3	4	0	0	0	96	95.4	0	0	16	0	1	0	0	0	17	17
17:30	1	0	75	1	5	2	0	0	84	84.2	0	0	12	0	1	0	0	0	13	13
17:45	2	1	72	2	6	1	0	1	85	84.3	0	0	11	0	0	0	0	0	11	11
H/TOT	3	2	297	8	17	5	0	1	333	332.9	2	0	53	1	4	0	0	0	60	58.4
18:00	0	0	79	2	4	0	0	1	86	87	1	0	17	1	1	0	0	0	20	19.2
18:15	1	0	79	5	1	1	0	0	87	86.7	1	0	12	0	0	0	0	0	13	12.2
18:30	0	0	68	0	3	0	0	0	71	71	1	0	13	1	0	0	0	0	15	14.2
18:45	0	0	91	2	2	0	0	0	95	95	0	0	9	0	1	0	0	0	10	10
H/TOT	1	0	317	9	10	1	0	1	339	339.7	3	0	51	2	2	0	0	0	58	55.6
3 TOT	5	3	914	26	54	14	2	4	1022	1029.8	6	1	152	7	13	1	0	0	180	175.1

IDASO

Survey Name: 031 20030 Cork City
Site: Site 4
Location: Shanakiel Road / R846 Sunday's Well Road/R846
Date: Thu 27-Feb-2020

	B => B										B => C									
TIME	**P/C**	**M/C**	**CAR**	**TAXI**	**LGV**	**OGV1**	**OGV2**	**PSV**	**TOT**	**PCU**	**P/C**	**M/C**	**CAR**	**TAXI**	**LGV**	**OGV1**	**OGV2**	**PSV**	**TOT**	**PCU**
07:00	0	0	0	0	0	0	0	0	0	0	2	0	58	5	6	0	0	0	71	69.4
07:15	0	0	0	0	0	0	0	0	0	0	1	0	82	2	11	0	0	0	96	95.2
07:30	0	0	0	0	0	0	0	0	0	0	0	0	129	4	12	0	0	0	145	145
07:45	0	0	0	0	0	0	0	0	0	0	1	0	113	1	21	1	0	0	137	136.7
H/TOT	0	0	0	0	0	0	0	0	0	0	4	0	382	12	50	1	0	0	449	446.3
08:00	0	0	0	0	0	0	0	0	0	0	1	0	93	0	7	0	0	0	101	100.2
08:15	0	0	0	0	0	0	0	0	0	0	0	0	64	1	4	1	0	0	70	70.5
08:30	0	0	0	0	0	0	0	0	0	0	0	0	78	0	5	0	0	0	83	83
08:45	0	0	0	0	0	0	0	0	0	0	2	0	76	1	5	2	0	0	86	85.4
H/TOT	0	0	0	0	0	0	0	0	0	0	3	0	311	2	21	3	0	0	340	339.1
09:00	0	0	0	0	0	0	0	0	0	0	2	0	61	3	4	0	0	0	70	68.4
09:15	0	0	0	0	0	0	0	0	0	0	0	0	70	3	8	0	0	0	81	81
09:30	0	0	0	0	0	0	0	0	0	0	1	0	75	2	2	0	0	0	80	79.2
09:45	0	0	0	0	0	0	0	0	0	0	0	2	54	4	6	1	0	0	67	66.3
H/TOT	0	0	0	0	0	0	0	0	0	0	3	2	260	12	20	1	0	0	298	294.9
3 TOT	0	0	0	0	0	0	0	0	0	0	10	2	953	26	91	5	0	0	1087	1080.3

	B => B										B => C									
TIME	**P/C**	**M/C**	**CAR**	**TAXI**	**LGV**	**OGV1**	**OGV2**	**PSV**	**TOT**	**PCU**	**P/C**	**M/C**	**CAR**	**TAXI**	**LGV**	**OGV1**	**OGV2**	**PSV**	**TOT**	**PCU**
16:00	0	0	0	0	0	0	0	0	0	0	0	0	78	3	9	0	0	0	90	90
16:15	0	0	0	0	0	0	0	0	0	0	2	0	50	6	5	2	0	0	65	64.4
16:30	0	0	0	0	0	0	0	0	0	0	0	0	80	1	9	0	0	0	90	90
16:45	0	0	0	0	0	0	0	0	0	0	0	0	80	4	10	0	0	0	94	94
H/TOT	0	0	0	0	0	0	0	0	0	0	2	0	288	14	33	2	0	0	339	338.4
17:00	0	0	0	0	0	0	0	0	0	0	1	0	93	1	12	0	0	0	107	106.2
17:15	0	0	0	0	0	0	0	0	0	0	1	1	89	2	7	0	0	0	100	98.6
17:30	0	0	0	0	0	0	0	0	0	0	0	0	92	0	8	0	0	0	100	100
17:45	0	0	0	0	0	0	0	0	0	0	0	0	86	2	6	1	0	0	95	95.5
H/TOT	0	0	0	0	0	0	0	0	0	0	2	1	360	5	33	1	0	0	402	400.3
18:00	0	0	0	0	0	0	0	0	0	0	1	1	79	3	6	0	0	0	90	88.6
18:15	0	0	0	0	0	0	0	0	0	0	1	0	59	2	3	0	0	0	65	64.2
18:30	0	0	0	0	0	0	0	0	0	0	2	1	74	0	2	1	0	0	80	78.3
18:45	0	0	0	0	0	0	0	0	0	0	2	0	55	1	2	0	0	0	60	58.4
H/TOT	0	0	0	0	0	0	0	0	0	0	6	2	267	6	13	1	0	0	295	289.5
3 TOT	0	0	0	0	0	0	0	0	0	0	10	3	915	25	79	4	0	0	1036	1028.2

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Survey Name: 031 20030 Cork City
Site: Site 4
Location: Shanakiel Road / R846 Sunday's Well Road/R846
Date: Thu 27-Feb-2020

	C => A										C => B									
TIME	**P/C**	**M/C**	**CAR**	**TAXI**	**LGV**	**OGV1**	**OGV2**	**PSV**	**TOT**	**PCU**	**P/C**	**M/C**	**CAR**	**TAXI**	**LGV**	**OGV1**	**OGV2**	**PSV**	**TOT**	**PCU**
07:00	0	0	50	1	5	0	0	0	56	56	0	0	12	2	1	0	0	0	15	15
07:15	0	1	82	3	11	1	0	0	98	97.9	1	0	15	0	4	1	0	0	21	20.7
07:30	1	1	108	5	10	2	2	0	129	131.2	0	0	22	2	5	0	0	0	29	29
07:45	0	0	126	2	14	2	0	0	144	145	1	0	20	0	6	0	0	0	27	26.2
H/TOT	1	2	366	11	40	5	2	0	427	430.1	2	0	69	4	16	1	0	0	92	90.9
08:00	0	0	96	1	8	0	0	0	105	105	1	0	25	1	4	0	0	0	31	30.2
08:15	1	1	95	5	7	2	0	1	112	112.6	1	0	33	0	5	0	0	0	39	38.2
08:30	0	0	111	2	7	1	3	0	124	128.4	0	0	42	2	1	0	0	0	45	45
08:45	1	0	73	3	4	1	0	0	82	81.7	0	0	51	4	1	0	0	0	56	56
H/TOT	2	1	375	11	26	4	3	1	423	427.7	2	0	151	7	11	0	0	0	171	169.4
09:00	0	0	66	3	14	1	0	0	84	84.5	0	0	45	3	3	1	0	0	52	52.5
09:15	1	0	59	3	3	3	0	0	69	69.7	0	0	38	2	4	0	0	0	44	44
09:30	0	0	47	4	11	4	0	1	67	70	0	0	21	1	1	0	0	0	23	23
09:45	0	0	69	6	7	3	3	1	89	95.4	0	0	29	0	2	0	0	0	31	31
H/TOT	1	0	241	16	35	11	3	2	309	319.6	0	0	133	6	10	1	0	0	150	150.5
3 TOT	4	3	982	38	101	20	8	3	1159	1177.4	4	0	353	17	37	2	0	0	413	410.8

	C => A										C => B									
TIME	**P/C**	**M/C**	**CAR**	**TAXI**	**LGV**	**OGV1**	**OGV2**	**PSV**	**TOT**	**PCU**	**P/C**	**M/C**	**CAR**	**TAXI**	**LGV**	**OGV1**	**OGV2**	**PSV**	**TOT**	**PCU**
16:00	0	1	98	0	13	3	0	0	115	115.9	0	0	44	1	2	0	0	0	47	47
16:15	0	0	108	2	10	1	0	0	121	121.5	3	0	42	3	3	0	0	0	51	48.6
16:30	0	0	109	0	9	0	0	0	118	118	0	0	33	1	2	1	0	0	37	37.5
16:45	0	0	98	0	7	1	0	1	107	108.5	0	0	38	2	3	0	0	0	43	43
H/TOT	0	1	413	2	39	5	0	1	461	463.9	3	0	157	7	10	1	0	0	178	176.1
17:00	0	0	104	0	11	3	0	0	118	119.5	0	0	32	0	4	1	0	0	37	37.5
17:15	0	0	109	0	6	0	1	0	116	117.3	0	0	43	1	2	0	0	0	46	46
17:30	0	0	99	1	10	0	0	0	110	110	0	0	44	1	1	0	0	0	46	46
17:45	0	0	102	4	10	1	0	0	117	117.5	1	0	31	2	2	0	0	0	36	35.2
H/TOT	0	0	414	5	37	4	1	0	461	464.3	1	0	150	4	9	1	0	0	165	164.7
18:00	0	0	100	2	5	3	0	0	110	111.5	0	0	33	3	1	0	0	0	37	37
18:15	0	1	93	0	6	1	0	0	101	100.9	0	0	46	0	1	1	0	0	48	48.5
18:30	0	1	62	0	4	1	0	2	70	71.9	2	0	32	1	3	0	0	0	38	36.4
18:45	0	0	75	0	3	2	0	1	81	83	0	2	38	0	3	0	0	0	43	41.8
H/TOT	0	2	330	2	18	7	0	3	362	367.3	2	2	149	4	8	1	0	0	166	163.7
3 TOT	0	3	1157	9	94	16	1	4	1284	1295.5	6	2	456	15	27	3	0	0	509	504.5

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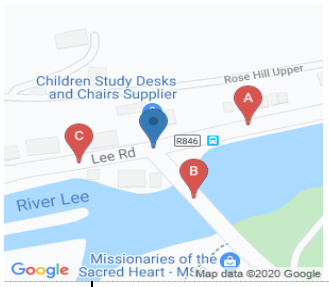
Survey Name: 031 20030 Cork City
Site: Site 4
Location: Shanakiel Road / R846 Sunday's Well Road/R846
Date: Thu 27-Feb-2020

	C => C									
TIME	**P/C**	**M/C**	**CAR**	**TAXI**	**LGV**	**OGV1**	**OGV2**	**PSV**	**TOT**	**PCU**
07:00	0	0	0	0	0	0	0	0	0	0
07:15	0	0	0	0	0	0	0	0	0	0
07:30	0	0	0	0	0	0	0	0	0	0
07:45	0	0	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0	0	0
08:00	0	0	0	0	0	0	0	0	0	0
08:15	0	0	0	0	0	0	0	0	0	0
08:30	0	0	0	0	0	0	0	0	0	0
08:45	0	0	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0	0	0
09:00	0	0	0	0	0	0	0	0	0	0
09:15	0	0	0	0	0	0	0	0	0	0
09:30	0	0	0	0	0	0	0	0	0	0
09:45	0	0	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0	0	0
3 TOT	0	0	0	0	0	0	0	0	0	0

	C => C									
TIME	**P/C**	**M/C**	**CAR**	**TAXI**	**LGV**	**OGV1**	**OGV2**	**PSV**	**TOT**	**PCU**
16:00	0	0	0	0	0	0	0	0	0	0
16:15	0	0	0	0	0	0	0	0	0	0
16:30	0	0	0	0	0	0	0	0	0	0
16:45	0	0	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0	0	0
17:00	0	0	0	0	0	0	0	0	0	0
17:15	0	0	0	0	0	0	0	0	0	0
17:30	0	0	0	0	0	0	0	0	0	0
17:45	0	0	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0	0	0
18:00	0	0	0	0	0	0	0	0	0	0
18:15	0	0	0	0	0	0	0	0	0	0
18:30	0	0	0	0	0	0	0	0	0	0
18:45	0	0	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0	0	0
3 TOT	0	0	0	0	0	0	0	0	0	0

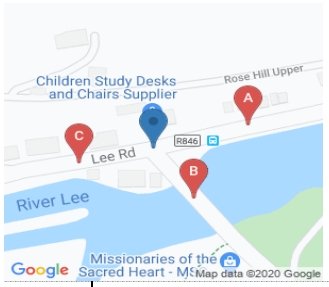


IDASO

Survey Name: 031 20030 Cork City
Site: Site 5
Location: R846 Sunday's Well Road / R846Western Road / L2781 Lee Road
Date: Thu 27-Feb-2020

	A => A										A => B									
TIME	P/C	M/C	CAR	TAXI	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C	CAR	TAXI	LGV	OGV1	OGV2	PSV	TOT	PCU
07:00	0	0	0	0	0	0	0	0	0	0	3	0	145	10	15	2	0	0	175	173.6
07:15	0	0	0	0	0	0	0	0	0	0	1	1	128	3	27	5	0	0	165	166.1
07:30	0	0	0	0	0	0	0	0	0	0	0	0	179	6	18	1	0	2	206	208.5
07:45	0	0	0	0	0	0	0	0	0	0	1	0	169	2	19	4	0	1	196	198.2
H/TOT	0	0	0	0	0	0	0	0	0	0	5	1	621	21	79	12	0	3	742	746.4
08:00	0	0	0	0	0	0	0	0	0	0	1	0	125	0	12	4	2	0	144	147.8
08:15	0	0	0	0	0	0	0	0	0	0	0	0	97	0	6	0	1	1	105	107.3
08:30	0	0	0	0	0	0	0	0	0	0	1	0	133	1	10	1	0	0	146	145.7
08:45	0	0	0	0	0	0	0	0	0	0	1	0	103	4	8	1	1	0	118	119
H/TOT	0	0	0	0	0	0	0	0	0	0	3	0	458	5	36	6	4	1	513	519.8
09:00	0	0	0	0	0	0	0	0	0	0	4	1	158	10	13	1	0	0	187	183.7
09:15	0	0	0	0	0	0	0	0	0	0	0	0	143	4	17	1	2	0	167	170.1
09:30	0	0	0	0	0	0	0	0	0	0	1	0	144	5	10	2	1	1	164	166.5
09:45	0	0	0	0	0	0	0	0	0	0	2	1	132	10	12	4	0	0	161	160.8
H/TOT	0	0	0	0	0	0	0	0	0	0	7	2	577	29	52	8	3	1	679	681.1
3 TOT	0	0	0	0	0	0	0	0	0	0	15	3	1656	55	167	26	7	5	1934	1947.3

	A => A										A => B									
TIME	P/C	M/C	CAR	TAXI	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C	CAR	TAXI	LGV	OGV1	OGV2	PSV	TOT	PCU
16:00	0	0	0	0	0	0	0	0	0	0	0	1	109	3	8	0	1	1	123	124.7
16:15	0	0	0	0	0	0	0	0	0	0	1	0	129	6	18	4	1	0	159	161.5
16:30	0	0	0	0	0	0	0	0	0	0	0	1	128	4	10	4	0	0	147	148.4
16:45	0	0	0	0	0	0	0	0	0	0	1	0	153	5	13	1	0	1	174	174.7
H/TOT	0	0	0	0	0	0	0	0	0	0	2	2	519	18	49	9	2	2	603	609.3
17:00	0	0	0	0	0	0	0	0	0	0	1	0	136	3	11	3	0	0	154	154.7
17:15	0	0	0	0	0	0	0	0	0	0	1	1	150	4	10	0	0	0	166	164.6
17:30	0	0	0	0	0	0	0	0	0	0	1	0	151	2	12	2	0	0	168	168.2
17:45	0	0	0	0	0	0	0	0	0	0	4	1	141	4	12	1	0	1	164	161.7
H/TOT	0	0	0	0	0	0	0	0	0	0	7	2	578	13	45	6	0	1	652	649.2
18:00	0	0	0	0	0	0	0	0	0	0	1	1	145	4	8	0	0	1	160	159.6
18:15	0	0	0	0	0	0	0	0	0	0	3	1	124	6	3	1	0	0	138	135.5
18:30	0	0	0	0	0	0	0	0	0	0	1	0	129	0	3	1	0	0	134	133.7
18:45	0	0	0	0	0	0	0	0	0	0	1	0	145	4	5	0	0	0	155	154.2
H/TOT	0	0	0	0	0	0	0	0	0	0	6	2	543	14	19	2	0	1	587	583
3 TOT	0	0	0	0	0	0	0	0	0	0	15	6	1640	45	113	17	2	4	1842	1841.5

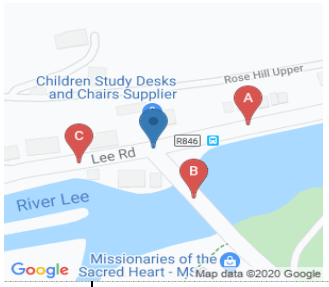


IDASO

Survey Name: 031 20030 Cork City
Site: Site 5
Location: R846 Sunday's Well Road / R846Western Road / L2781 Lee Road
Date: Thu 27-Feb-2020

	A => C										B => A									
TIME	P/C	M/C	CAR	TAXI	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C	CAR	TAXI	LGV	OGV1	OGV2	PSV	TOT	PCU
07:00	0	0	3	0	2	0	0	0	5	5	0	0	54	3	7	0	0	0	64	64
07:15	0	0	6	0	0	0	0	0	6	6	1	1	96	2	13	2	0	0	115	114.6
07:30	0	0	4	0	1	0	0	0	5	5	1	1	122	8	16	1	2	0	151	152.7
07:45	0	0	6	1	3	0	0	0	10	10	0	0	127	1	15	2	0	0	145	146
H/TOT	0	0	19	1	6	0	0	0	26	26	2	2	399	14	51	5	2	0	475	477.3
08:00	0	0	1	0	1	0	0	0	2	2	0	0	111	2	15	1	0	0	129	129.5
08:15	0	0	2	0	0	0	0	0	2	2	1	1	102	4	8	2	0	1	119	119.6
08:30	0	0	2	0	2	0	0	0	4	4	0	0	110	4	7	0	3	0	124	127.9
08:45	0	0	3	0	1	1	0	0	5	5.5	1	0	89	7	5	1	0	0	103	102.7
H/TOT	0	0	8	0	4	1	0	0	13	13.5	2	1	412	17	35	4	3	1	475	479.7
09:00	0	0	1	0	2	0	0	0	3	3	0	0	90	3	14	1	0	0	108	108.5
09:15	0	0	6	0	0	0	0	0	6	6	1	0	77	6	6	3	0	0	93	93.7
09:30	0	0	5	0	0	0	0	0	5	5	0	0	74	4	11	4	0	1	94	97
09:45	0	0	2	1	0	0	0	0	3	3	0	0	81	5	12	3	3	2	106	113.4
H/TOT	0	0	14	1	2	0	0	0	17	17	1	0	322	18	43	11	3	3	401	412.6
3 TOT	0	0	41	2	12	1	0	0	56	56.5	5	3	1133	49	129	20	8	4	1351	1369.6

	A => C										B => A									
TIME	P/C	M/C	CAR	TAXI	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C	CAR	TAXI	LGV	OGV1	OGV2	PSV	TOT	PCU
16:00	0	0	9	1	4	0	0	0	14	14	0	1	138	2	15	3	0	0	159	159.9
16:15	0	0	12	0	1	0	0	0	13	13	3	0	135	5	10	1	0	0	154	152.1
16:30	0	0	18	0	1	0	0	0	19	19	0	0	126	0	13	1	0	0	140	140.5
16:45	0	0	11	2	3	0	0	0	16	16	0	0	133	1	13	2	0	1	150	152
H/TOT	0	0	50	3	9	0	0	0	62	62	3	1	532	8	51	7	0	1	603	604.5
17:00	0	0	14	1	3	0	0	0	18	18	1	0	120	0	11	3	1	0	136	138
17:15	0	1	30	0	1	0	0	0	32	31.4	0	0	133	0	8	0	0	0	141	141
17:30	0	0	18	0	1	0	0	0	19	19	0	0	134	2	10	0	0	0	146	146
17:45	0	0	15	0	0	0	0	0	15	15	1	0	127	5	11	1	0	0	145	144.7
H/TOT	0	1	77	1	5	0	0	0	84	83.4	2	0	514	7	40	4	1	0	568	569.7
18:00	0	0	18	0	3	0	0	0	21	21	0	0	124	5	7	3	0	0	139	140.5
18:15	0	0	8	1	1	0	0	0	10	10	0	1	119	1	8	2	0	0	131	131.4
18:30	0	1	7	0	0	0	0	0	8	7.4	2	1	96	1	8	1	0	2	111	111.3
18:45	0	0	4	0	2	0	0	0	6	6	1	1	98	1	6	2	0	1	110	110.6
H/TOT	0	1	37	1	6	0	0	0	45	44.4	3	3	437	8	29	8	0	3	491	493.8
3 TOT	0	2	164	5	20	0	0	0	191	189.8	8	4	1483	23	120	19	1	4	1662	1668

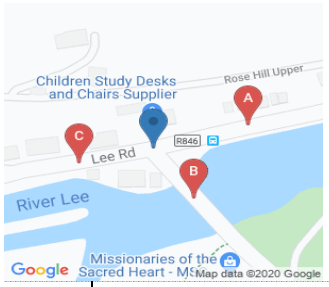


IDASO

Survey Name: 031 20030 Cork City
Site: Site 5
Location: R846 Sunday's Well Road / R846Western Road / L2781 Lee Road
Date: Thu 27-Feb-2020

	B => B										B => C									
TIME	P/C	M/C	CAR	TAXI	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C	CAR	TAXI	LGV	OGV1	OGV2	PSV	TOT	PCU
07:00	0	0	0	0	0	0	0	0	0	0	0	0	2	0	1	0	0	0	3	3
07:15	0	0	0	0	0	0	0	0	0	0	0	0	5	2	0	0	0	0	7	7
07:30	0	0	0	0	0	0	0	0	0	0	0	0	6	2	1	0	1	0	10	11.3
07:45	0	0	0	0	0	0	0	0	0	0	0	0	10	2	0	0	0	0	12	12
H/TOT	0	0	0	0	0	0	0	0	0	0	0	0	23	6	2	0	1	0	32	33.3
08:00	0	0	0	0	0	0	0	0	0	0	0	0	12	0	3	0	0	0	15	15
08:15	0	0	0	0	0	0	0	0	0	0	1	0	10	0	0	0	0	0	11	10.2
08:30	0	0	0	0	0	0	0	0	0	0	1	0	10	0	5	1	1	0	18	19
08:45	0	0	0	0	0	0	0	0	0	0	1	1	19	1	2	1	0	0	25	24.1
H/TOT	0	0	0	0	0	0	0	0	0	0	3	1	51	1	10	2	1	0	69	68.3
09:00	0	0	0	0	0	0	0	0	0	0	0	0	26	1	2	0	1	0	30	31.3
09:15	0	0	0	0	0	0	0	0	0	0	1	0	11	1	2	1	0	0	16	15.7
09:30	0	0	0	0	0	0	0	0	0	0	2	0	10	1	1	0	0	0	14	12.4
09:45	0	0	0	0	0	0	0	0	0	0	2	0	13	0	2	0	1	1	19	19.7
H/TOT	0	0	0	0	0	0	0	0	0	0	5	0	60	3	7	1	2	1	79	79.1
3 TOT	0	0	0	0	0	0	0	0	0	0	8	1	134	10	19	3	4	1	180	180.7

	B => B										B => C									
TIME	P/C	M/C	CAR	TAXI	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C	CAR	TAXI	LGV	OGV1	OGV2	PSV	TOT	PCU
16:00	0	0	0	0	0	0	0	0	0	0	2	0	18	0	2	0	0	0	22	20.4
16:15	0	0	0	0	1	0	0	0	1	1	1	0	19	1	0	0	0	0	21	20.2
16:30	0	0	0	0	0	0	0	0	0	0	0	0	22	1	1	0	0	0	24	24
16:45	0	0	0	0	0	0	0	0	0	0	0	0	26	1	2	0	0	0	29	29
H/TOT	0	0	0	0	1	0	0	0	1	1	3	0	85	3	5	0	0	0	96	93.6
17:00	0	0	0	0	0	0	0	0	0	0	2	0	21	0	1	0	0	0	24	22.4
17:15	0	0	0	0	0	0	0	0	0	0	2	0	24	1	3	0	0	0	30	28.4
17:30	0	0	0	0	0	0	0	0	0	0	5	0	28	1	0	0	0	0	34	30
17:45	0	0	0	0	0	0	0	0	0	0	6	0	22	1	0	0	0	0	29	24.2
H/TOT	0	0	0	0	0	0	0	0	0	0	15	0	95	3	4	0	0	0	117	105
18:00	0	0	0	0	0	0	0	0	0	0	2	0	24	2	1	0	0	0	29	27.4
18:15	0	0	0	0	0	0	0	0	0	0	3	0	31	1	0	0	0	0	35	32.6
18:30	0	0	0	0	0	0	0	0	0	0	3	0	20	2	1	0	0	0	26	23.6
18:45	0	0	0	0	0	0	0	0	0	0	0	0	20	3	0	0	0	0	23	23
H/TOT	0	0	0	0	0	0	0	0	0	0	8	0	95	8	2	0	0	0	113	106.6
3 TOT	0	0	0	0	1	0	0	0	1	1	26	0	275	14	11	0	0	0	326	305.2

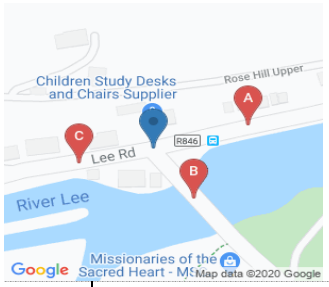


IDASO

Survey Name: 031 20030 Cork City
Site: Site 5
Location: R846 Sunday's Well Road / R846Western Road / L2781 Lee Road
Date: Thu 27-Feb-2020

	C => A										C => B									
TIME	P/C	M/C	CAR	TAXI	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C	CAR	TAXI	LGV	OGV1	OGV2	PSV	TOT	PCU
07:00	0	0	4	0	0	0	0	0	4	4	2	0	14	0	0	0	0	0	16	14.4
07:15	0	0	6	0	3	0	0	0	9	9	1	1	25	1	2	0	0	0	30	28.6
07:30	0	0	15	1	1	1	0	0	18	18.5	1	0	33	0	4	0	0	0	38	37.2
07:45	1	0	15	0	2	0	0	0	18	17.2	1	0	57	1	5	1	0	0	65	64.7
H/TOT	1	0	40	1	6	1	0	0	49	48.7	5	1	129	2	11	1	0	0	149	144.9
08:00	0	0	17	1	0	0	0	0	18	18	2	0	81	1	4	0	0	0	88	86.4
08:15	0	0	29	0	2	0	0	0	31	31	1	0	97	1	1	0	1	0	101	101.5
08:30	0	0	42	0	1	0	0	0	43	43	3	0	78	0	4	0	0	0	85	82.6
08:45	0	0	28	0	0	0	0	0	28	28	3	0	81	1	3	0	0	0	88	85.6
H/TOT	0	0	116	1	3	0	0	0	120	120	9	0	337	3	12	0	1	0	362	356.1
09:00	0	0	23	2	3	1	0	0	29	29.5	3	0	55	1	3	0	0	0	62	59.6
09:15	0	0	16	0	0	0	0	0	16	16	4	0	29	1	0	2	0	0	36	33.8
09:30	0	0	6	1	0	0	0	0	7	7	0	0	21	0	2	0	0	0	23	23
09:45	0	0	6	1	0	0	0	0	7	7	3	0	21	1	0	0	0	0	25	22.6
H/TOT	0	0	51	4	3	1	0	0	59	59.5	10	0	126	3	5	2	0	0	146	139
3 TOT	1	0	207	6	12	2	0	0	228	228.2	24	1	592	8	28	3	1	0	657	640

	C => A										C => B									
TIME	P/C	M/C	CAR	TAXI	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C	CAR	TAXI	LGV	OGV1	OGV2	PSV	TOT	PCU
16:00	0	0	9	0	0	0	0	0	9	9	0	0	14	0	4	0	1	0	19	20.3
16:15	1	0	11	0	4	0	0	0	16	15.2	1	0	14	2	3	0	1	0	21	21.5
16:30	0	0	8	0	1	0	0	0	9	9	0	0	22	0	2	0	0	0	24	24
16:45	0	0	6	1	1	0	0	0	8	8	2	0	18	1	2	0	0	0	23	21.4
H/TOT	1	0	34	1	6	0	0	0	42	41.2	3	0	68	3	11	0	2	0	87	87.2
17:00	1	0	8	1	3	0	0	0	13	12.2	0	1	23	1	3	0	0	1	29	29.4
17:15	0	0	17	1	0	0	0	0	18	18	1	0	14	1	2	0	0	0	18	17.2
17:30	0	0	9	0	0	0	0	0	9	9	4	0	19	0	0	0	0	0	23	19.8
17:45	0	0	13	1	1	0	0	0	15	15	1	0	19	0	1	1	0	0	22	21.7
H/TOT	1	0	47	3	4	0	0	0	55	54.2	6	1	75	2	6	1	0	1	92	88.1
18:00	0	0	11	0	0	0	0	0	11	11	0	1	11	1	1	0	0	0	14	13.4
18:15	0	0	18	1	0	0	0	0	19	19	0	0	13	2	2	0	0	0	17	17
18:30	0	0	5	0	0	0	0	0	5	5	0	0	20	2	0	0	0	0	22	22
18:45	0	1	5	0	0	0	0	0	6	5.4	0	0	21	1	4	0	0	0	26	26
H/TOT	0	1	39	1	0	0	0	0	41	40.4	0	1	65	6	7	0	0	0	79	78.4
3 TOT	2	1	120	5	10	0	0	0	138	135.8	9	2	208	11	24	1	2	1	258	253.7

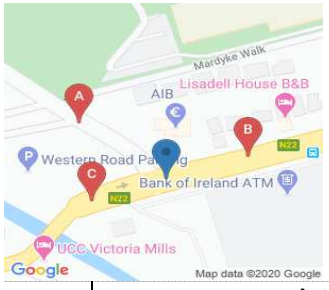


IDASO

Survey Name: 031 20030 Cork City
Site: Site 5
Location: R846 Sunday's Well Road / R846Western Road / L2781 Lee Road
Date: Thu 27-Feb-2020

	C => C									
TIME	**P/C**	**M/C**	**CAR**	**TAXI**	**LGV**	**OGV1**	**OGV2**	**PSV**	**TOT**	**PCU**
07:00	0	0	0	0	0	0	0	0	0	0
07:15	0	0	0	0	0	0	0	0	0	0
07:30	0	0	0	0	0	0	0	0	0	0
07:45	0	0	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0	0	0
08:00	0	0	0	0	0	0	0	0	0	0
08:15	0	0	0	0	0	0	0	0	0	0
08:30	0	0	0	0	0	0	0	0	0	0
08:45	0	0	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0	0	0
09:00	0	0	0	0	0	0	0	0	0	0
09:15	0	0	0	0	0	0	0	0	0	0
09:30	0	0	0	0	0	0	0	0	0	0
09:45	0	0	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0	0	0
3 TOT	0	0	0	0	0	0	0	0	0	0

	C => C									
TIME	**P/C**	**M/C**	**CAR**	**TAXI**	**LGV**	**OGV1**	**OGV2**	**PSV**	**TOT**	**PCU**
16:00	0	0	0	0	0	0	0	0	0	0
16:15	0	0	0	0	0	0	0	0	0	0
16:30	0	0	0	0	0	0	0	0	0	0
16:45	0	0	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0	0	0
17:00	0	0	0	0	0	0	0	0	0	0
17:15	0	0	0	0	0	0	0	0	0	0
17:30	0	0	0	0	0	0	0	0	0	0
17:45	0	0	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0	0	0
18:00	0	0	0	0	0	0	0	0	0	0
18:15	0	0	0	0	0	0	0	0	0	0
18:30	0	0	0	0	0	0	0	0	0	0
18:45	0	0	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0	0	0
3 TOT	0	0	0	0	0	0	0	0	0	0

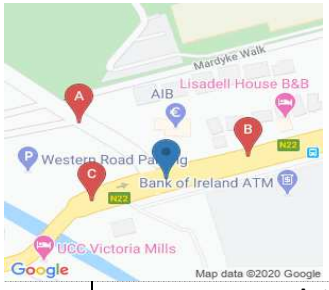


IDASO

Survey Name: 031 20030 Cork City
Site: Site 6
Location: N22 Western Road / R846 Western Road
Date: Thu 27-Feb-2020

	A => A										A => B									
TIME	**P/C**	**M/C**	**CAR**	**TAXI**	**LGV**	**OGV1**	**OGV2**	**PSV**	**TOT**	**PCU**	**P/C**	**M/C**	**CAR**	**TAXI**	**LGV**	**OGV1**	**OGV2**	**PSV**	**TOT**	**PCU**
07:00	0	0	0	0	0	0	0	0	0	0	0	0	18	3	2	1	0	0	24	24.5
07:15	0	0	0	0	0	0	0	0	0	0	0	0	29	0	3	2	0	0	34	35
07:30	0	0	0	0	0	0	0	0	0	0	0	0	24	3	4	0	0	0	31	31
07:45	0	0	0	0	0	0	0	0	0	0	0	0	48	1	5	3	0	0	57	58.5
H/TOT	0	0	0	0	0	0	0	0	0	0	0	0	119	7	14	6	0	0	146	149
08:00	0	0	0	0	0	0	0	0	0	0	0	0	54	0	2	0	0	0	56	56
08:15	0	0	0	0	0	0	0	0	0	0	0	0	58	0	0	0	0	0	58	58
08:30	0	0	0	0	0	0	0	0	0	0	0	0	55	0	4	0	0	0	59	59
08:45	0	0	0	0	0	0	0	0	0	0	0	0	62	3	0	0	0	0	65	65
H/TOT	0	0	0	0	0	0	0	0	0	0	0	0	229	3	6	0	0	0	238	238
09:00	0	0	0	0	0	0	0	0	0	0	2	0	46	3	5	0	0	0	56	54.4
09:15	0	0	0	0	0	0	0	0	0	0	0	0	38	1	0	1	0	0	40	40.5
09:30	0	0	0	0	0	0	0	0	0	0	0	0	43	3	3	0	0	0	49	49
09:45	0	0	0	0	0	0	0	0	0	0	0	2	39	5	0	0	0	0	46	44.8
H/TOT	0	0	0	0	0	0	0	0	0	0	2	2	166	12	8	1	0	0	191	188.7
3 TOT	0	0	0	0	0	0	0	0	0	0	2	2	514	22	28	7	0	0	575	575.7

	A => A										A => B									
TIME	**P/C**	**M/C**	**CAR**	**TAXI**	**LGV**	**OGV1**	**OGV2**	**PSV**	**TOT**	**PCU**	**P/C**	**M/C**	**CAR**	**TAXI**	**LGV**	**OGV1**	**OGV2**	**PSV**	**TOT**	**PCU**
16:00	0	0	0	0	0	0	0	0	0	0	0	0	31	0	1	0	0	0	32	32
16:15	0	0	0	0	0	0	0	0	0	0	0	0	50	1	8	1	0	0	60	60.5
16:30	0	0	0	0	0	0	0	0	0	0	0	0	44	0	3	1	0	0	48	48.5
16:45	0	0	0	0	0	0	0	0	0	0	0	0	43	2	2	0	0	0	47	47
H/TOT	0	0	0	0	0	0	0	0	0	0	0	0	168	3	14	2	0	0	187	188
17:00	0	0	0	0	0	0	0	0	0	0	0	0	46	6	4	0	0	1	57	58
17:15	0	0	0	0	0	0	0	0	0	0	0	0	34	1	2	0	0	0	37	37
17:30	0	0	0	0	0	0	0	0	0	0	0	0	61	1	3	0	0	0	65	65
17:45	0	0	0	0	0	0	0	0	0	0	1	0	46	0	3	0	0	0	50	49.2
H/TOT	0	0	0	0	0	0	0	0	0	0	1	0	187	8	12	0	0	1	209	209.2
18:00	0	0	0	0	0	0	0	0	0	0	0	1	47	1	2	0	0	0	51	50.4
18:15	0	0	0	0	0	0	0	0	0	0	2	0	47	4	1	0	0	0	54	52.4
18:30	0	0	0	0	0	0	0	0	0	0	0	0	34	1	1	0	0	0	36	36
18:45	0	0	0	0	0	0	0	0	0	0	0	0	33	1	1	0	0	0	35	35
H/TOT	0	0	0	0	0	0	0	0	0	0	2	1	161	7	5	0	0	0	176	173.8
3 TOT	0	0	0	0	0	0	0	0	0	0	3	1	516	18	31	2	0	1	572	571

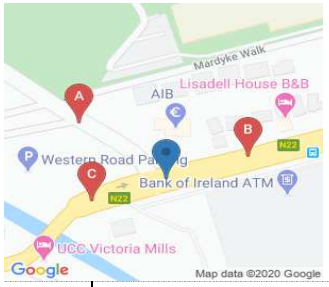


IDASO

Survey Name: 031 20030 Cork City
Site: Site 6
Location: N22 Western Road / R846 Western Road
Date: Thu 27-Feb-2020

	A => C										B => A									
TIME	**P/C**	**M/C**	**CAR**	**TAXI**	**LGV**	**OGV1**	**OGV2**	**PSV**	**TOT**	**PCU**	**P/C**	**M/C**	**CAR**	**TAXI**	**LGV**	**OGV1**	**OGV2**	**PSV**	**TOT**	**PCU**
07:00	2	0	121	9	11	1	0	0	144	142.9	0	0	14	1	1	0	0	0	16	16
07:15	1	2	137	6	23	2	0	0	171	170	0	0	20	2	4	0	0	0	26	26
07:30	1	0	165	2	16	3	0	2	189	191.7	0	0	35	3	1	1	0	0	40	40.5
07:45	0	0	193	3	19	2	0	1	218	220	0	0	38	1	1	0	0	0	40	40
H/TOT	4	2	616	20	69	8	0	3	722	724.6	0	0	107	7	7	1	0	0	122	122.5
08:00	1	0	141	0	10	4	1	0	157	159.5	0	0	35	0	7	0	0	0	42	42
08:15	6	0	153	1	7	1	2	1	171	170.3	0	0	35	3	2	0	0	0	40	40
08:30	3	0	160	2	12	1	0	0	178	176.1	0	0	30	1	5	1	0	0	37	37.5
08:45	5	0	112	2	10	0	0	0	129	125	1	1	22	3	2	1	0	0	30	29.1
H/TOT	15	0	566	5	39	6	3	1	635	630.9	1	1	122	7	16	2	0	0	149	148.6
09:00	2	1	158	7	12	2	1	0	183	183.1	0	0	41	1	3	0	0	0	45	45
09:15	0	0	116	4	15	2	2	0	139	142.6	0	0	19	3	3	1	0	0	26	26.5
09:30	2	0	141	3	11	2	0	1	160	160.4	0	0	26	3	0	0	0	0	29	29
09:45	1	0	98	7	15	3	1	0	125	127	0	0	18	1	6	0	0	0	25	25
H/TOT	5	1	513	21	53	9	4	1	607	613.1	0	0	104	8	12	1	0	0	125	125.5
3 TOT	24	3	1695	46	161	23	7	5	1964	1968.6	1	1	333	22	35	4	0	0	396	396.6

	A => C										B => A									
TIME	**P/C**	**M/C**	**CAR**	**TAXI**	**LGV**	**OGV1**	**OGV2**	**PSV**	**TOT**	**PCU**	**P/C**	**M/C**	**CAR**	**TAXI**	**LGV**	**OGV1**	**OGV2**	**PSV**	**TOT**	**PCU**
16:00	2	1	94	4	8	0	1	1	111	111.1	0	1	36	1	7	0	0	0	45	44.4
16:15	1	0	116	6	14	2	3	0	142	146.1	0	0	34	2	2	0	0	0	38	38
16:30	0	2	119	4	10	4	0	0	139	139.8	0	0	29	0	3	0	0	0	32	32
16:45	2	0	122	1	12	1	0	1	139	138.9	0	0	34	0	3	1	0	0	38	38.5
H/TOT	5	3	451	15	44	7	4	2	531	535.9	0	1	133	3	15	1	0	0	153	152.9
17:00	1	0	144	1	13	3	0	0	162	162.7	1	0	23	1	3	0	0	0	28	27.2
17:15	2	1	133	1	7	0	0	0	144	141.8	0	0	31	0	1	0	0	0	32	32
17:30	3	0	138	2	11	2	0	0	156	154.6	2	0	45	3	0	0	0	0	50	48.4
17:45	2	1	114	3	11	2	0	0	133	131.8	1	0	37	2	1	0	0	0	41	40.2
H/TOT	8	2	529	7	42	7	0	0	595	590.9	4	0	136	6	5	0	0	0	151	147.8
18:00	2	1	134	3	7	0	0	2	149	148.8	1	0	37	4	1	0	0	0	43	42.2
18:15	2	1	103	4	4	1	0	0	115	113.3	0	0	30	1	1	0	0	0	32	32
18:30	1	0	138	1	3	1	0	0	144	143.7	2	0	40	1	3	0	0	0	46	44.4
18:45	0	0	143	2	5	0	0	0	150	150	1	0	29	1	1	0	0	0	32	31.2
H/TOT	5	2	518	10	19	2	0	2	558	555.8	4	0	136	7	6	0	0	0	153	149.8
3 TOT	18	7	1498	32	105	16	4	4	1684	1682.6	8	1	405	16	26	1	0	0	457	450.5

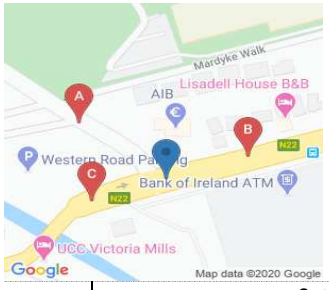


IDASO

Survey Name: 031 20030 Cork City
Site: Site 6
Location: N22 Western Road / R846 Western Road
Date: Thu 27-Feb-2020

	B => B										B => C									
TIME	**P/C**	**M/C**	**CAR**	**TAXI**	**LGV**	**OGV1**	**OGV2**	**PSV**	**TOT**	**PCU**	**P/C**	**M/C**	**CAR**	**TAXI**	**LGV**	**OGV1**	**OGV2**	**PSV**	**TOT**	**PCU**
07:00	0	0	0	0	0	0	0	0	0	0	1	0	48	0	9	4	1	0	63	65.5
07:15	0	0	0	0	0	0	0	0	0	0	6	0	51	2	15	2	2	4	82	84.8
07:30	0	0	0	0	0	0	0	0	0	0	0	0	78	6	13	1	0	7	105	112.5
07:45	0	0	0	0	0	0	0	0	0	0	3	2	70	2	7	3	0	7	94	98.9
H/TOT	0	0	0	0	0	0	0	0	0	0	10	2	247	10	44	10	3	18	344	361.7
08:00	0	0	0	0	0	0	0	0	0	0	3	3	104	8	12	1	0	1	132	129.3
08:15	0	0	0	0	0	0	0	0	0	0	7	0	116	4	3	2	0	2	134	131.4
08:30	0	0	0	0	0	0	0	0	0	0	1	1	77	2	7	0	1	7	96	102.9
08:45	0	0	0	0	0	0	0	0	0	0	3	1	89	5	12	2	1	5	118	122.3
H/TOT	0	0	0	0	0	0	0	0	0	0	14	5	386	19	34	5	2	15	480	485.9
09:00	0	0	0	0	0	0	0	0	0	0	3	0	86	5	8	2	0	3	107	108.6
09:15	0	0	0	0	0	0	0	0	0	0	2	0	63	9	7	2	0	5	88	92.4
09:30	0	0	0	0	0	0	0	0	0	0	2	0	57	5	6	3	0	5	78	82.9
09:45	0	0	0	0	0	0	0	0	0	0	1	0	82	2	10	2	0	4	101	105.2
H/TOT	0	0	0	0	0	0	0	0	0	0	8	0	288	21	31	9	0	17	374	389.1
3 TOT	0	0	0	0	0	0	0	0	0	0	32	7	921	50	109	24	5	50	1198	1236.7

	B => B										B => C									
TIME	**P/C**	**M/C**	**CAR**	**TAXI**	**LGV**	**OGV1**	**OGV2**	**PSV**	**TOT**	**PCU**	**P/C**	**M/C**	**CAR**	**TAXI**	**LGV**	**OGV1**	**OGV2**	**PSV**	**TOT**	**PCU**
16:00	0	0	0	0	0	0	0	0	0	0	3	1	135	3	6	2	0	2	152	152
16:15	0	0	0	0	0	0	0	0	0	0	4	1	133	6	12	2	0	4	162	163.2
16:30	0	0	0	0	0	0	0	0	0	0	4	0	122	4	8	1	0	3	142	142.3
16:45	0	0	0	0	0	0	0	0	0	0	2	1	116	6	11	2	0	6	144	148.8
H/TOT	0	0	0	0	0	0	0	0	0	0	13	3	506	19	37	7	0	15	600	606.3
17:00	0	0	0	0	0	0	0	0	0	0	8	0	111	1	14	1	0	1	136	131.1
17:15	0	0	0	0	0	0	0	0	0	0	2	0	132	3	7	0	0	3	147	148.4
17:30	0	0	0	0	0	0	0	0	0	0	9	1	125	7	7	2	0	1	152	146.2
17:45	0	0	0	0	0	0	0	0	0	0	5	0	113	3	4	0	0	10	135	141
H/TOT	0	0	0	0	0	0	0	0	0	0	24	1	481	14	32	3	0	15	570	566.7
18:00	0	0	0	0	0	0	0	0	0	0	7	0	99	3	8	3	0	4	124	123.9
18:15	0	0	0	0	0	0	0	0	0	0	3	0	127	3	5	1	0	3	142	143.1
18:30	0	0	0	0	0	0	0	0	0	0	1	1	106	1	3	0	0	6	118	122.6
18:45	0	0	0	0	0	0	0	0	0	0	1	0	99	2	4	0	0	3	109	111.2
H/TOT	0	0	0	0	0	0	0	0	0	0	12	1	431	9	20	4	0	16	493	500.8
3 TOT	0	0	0	0	0	0	0	0	0	0	49	5	1418	42	89	14	0	46	1663	1673.8

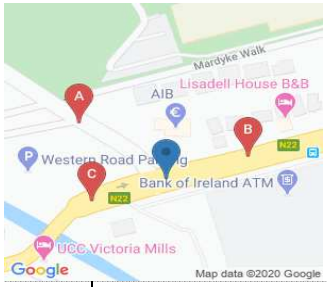


IDASO

Survey Name: 031 20030 Cork City
Site: Site 6
Location: N22 Western Road / R846 Western Road
Date: Thu 27-Feb-2020

	C => A										C => B									
TIME	**P/C**	**M/C**	**CAR**	**TAXI**	**LGV**	**OGV1**	**OGV2**	**PSV**	**TOT**	**PCU**	**P/C**	**M/C**	**CAR**	**TAXI**	**LGV**	**OGV1**	**OGV2**	**PSV**	**TOT**	**PCU**
07:00	1	0	68	2	7	1	0	0	79	78.7	1	0	73	3	15	1	0	5	98	102.7
07:15	1	1	91	2	9	2	0	0	106	105.6	3	0	86	3	13	3	0	4	112	115.1
07:30	0	1	115	7	17	0	3	0	143	146.3	1	0	133	4	16	1	0	5	160	164.7
07:45	1	0	111	3	13	2	0	0	130	130.2	2	0	134	2	18	2	0	4	162	165.4
H/TOT	3	2	385	14	46	5	3	0	458	460.8	7	0	426	12	62	7	0	18	532	547.9
08:00	0	0	96	1	13	1	0	0	111	111.5	3	0	176	6	10	3	0	5	203	207.1
08:15	3	1	94	1	4	2	2	1	108	109.6	8	0	105	5	7	1	1	2	129	126.4
08:30	0	0	94	4	6	0	1	0	105	106.3	3	1	105	7	9	2	0	6	133	137
08:45	3	0	111	5	7	1	0	0	127	125.1	9	0	133	7	13	2	0	5	169	167.8
H/TOT	6	1	395	11	30	4	3	1	451	452.5	23	1	519	25	39	8	1	18	634	638.3
09:00	2	0	83	3	12	1	1	0	102	102.2	4	0	109	5	10	1	1	4	134	136.6
09:15	3	0	93	5	6	3	0	0	110	109.1	2	1	123	11	9	2	0	3	151	152.8
09:30	0	0	78	1	11	4	0	1	95	98	3	0	108	6	12	2	0	4	135	137.6
09:45	0	0	93	5	8	3	4	3	116	125.7	3	0	116	6	12	4	0	5	146	150.6
H/TOT	5	0	347	14	37	11	5	4	423	435	12	1	456	28	43	9	1	16	566	577.6
3 TOT	14	3	1127	39	113	20	11	5	1332	1348.3	42	2	1401	65	144	24	2	52	1732	1763.8

	C => A										C => B									
TIME	**P/C**	**M/C**	**CAR**	**TAXI**	**LGV**	**OGV1**	**OGV2**	**PSV**	**TOT**	**PCU**	**P/C**	**M/C**	**CAR**	**TAXI**	**LGV**	**OGV1**	**OGV2**	**PSV**	**TOT**	**PCU**
16:00	1	0	135	3	10	2	0	0	151	151.2	7	0	119	8	12	1	0	2	149	145.9
16:15	1	0	114	3	12	2	0	0	132	132.2	3	0	124	9	11	0	0	6	153	156.6
16:30	0	0	132	0	10	0	0	0	142	142	4	0	121	9	12	1	0	5	152	154.3
16:45	0	0	114	2	13	2	0	1	132	134	6	0	113	3	8	1	0	1	132	128.7
H/TOT	2	0	495	8	45	6	0	1	557	559.4	20	0	477	29	43	3	0	14	586	585.5
17:00	0	0	123	0	6	2	1	0	132	134.3	2	2	84	4	7	1	0	0	100	97.7
17:15	0	0	121	0	8	0	0	0	129	129	5	1	107	7	8	3	0	7	138	141.9
17:30	2	0	114	1	12	0	0	0	129	127.4	5	2	115	2	7	1	0	5	137	137.3
17:45	2	0	124	3	8	1	0	0	138	136.9	1	0	106	8	9	0	0	4	128	131.2
H/TOT	4	0	482	4	34	3	1	0	528	527.6	13	5	412	21	31	5	0	16	503	508.1
18:00	3	0	116	4	7	3	0	0	133	132.1	3	0	114	8	10	0	0	5	140	142.6
18:15	1	1	120	2	10	2	0	0	136	135.6	3	0	112	10	8	0	0	3	136	136.6
18:30	5	1	94	0	7	1	0	2	110	107.9	0	2	109	1	1	0	0	2	115	115.8
18:45	3	1	110	3	6	2	0	1	126	125	1	3	145	2	5	0	0	1	157	155.4
H/TOT	12	3	440	9	30	8	0	3	505	500.6	7	5	480	21	24	0	0	11	548	550.4
3 TOT	18	3	1417	21	109	17	1	4	1590	1587.6	40	10	1369	71	98	8	0	41	1637	1644

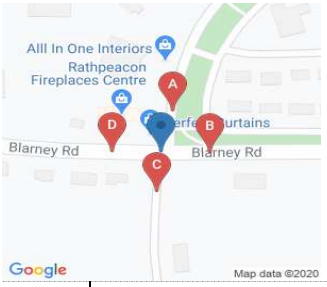


IDASO

Survey Name: 031 20030 Cork City
Site: Site 6
Location: N22 Western Road / R846 Western Road
Date: Thu 27-Feb-2020

	C => C									
TIME	**P/C**	**M/C**	**CAR**	**TAXI**	**LGV**	**OGV1**	**OGV2**	**PSV**	**TOT**	**PCU**
07:00	0	0	0	0	0	0	0	0	0	0
07:15	0	0	0	0	0	0	0	0	0	0
07:30	0	0	0	0	0	0	0	0	0	0
07:45	0	0	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0	0	0
08:00	0	0	0	0	0	0	0	0	0	0
08:15	0	0	0	0	0	0	0	0	0	0
08:30	0	0	0	0	0	0	0	0	0	0
08:45	0	0	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0	0	0
09:00	0	0	0	0	0	0	0	0	0	0
09:15	0	0	0	0	0	0	0	0	0	0
09:30	0	0	1	0	0	0	0	0	1	1
09:45	0	0	0	0	0	0	0	0	0	0
H/TOT	0	0	1	0	0	0	0	0	1	1
3 TOT	0	0	1	0	0	0	0	0	1	1

	C => C									
TIME	**P/C**	**M/C**	**CAR**	**TAXI**	**LGV**	**OGV1**	**OGV2**	**PSV**	**TOT**	**PCU**
16:00	0	0	0	0	0	0	0	0	0	0
16:15	0	0	0	0	0	0	0	0	0	0
16:30	0	0	0	0	0	0	0	0	0	0
16:45	0	0	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0	0	0
17:00	0	0	0	0	0	0	0	0	0	0
17:15	0	0	0	0	0	0	0	0	0	0
17:30	0	0	0	0	0	0	0	0	0	0
17:45	0	0	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0	0	0
18:00	0	0	0	0	0	0	0	0	0	0
18:15	0	0	0	0	0	0	0	0	0	0
18:30	0	0	0	0	0	0	0	0	0	0
18:45	0	0	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0	0	0
3 TOT	0	0	0	0	0	0	0	0	0	0

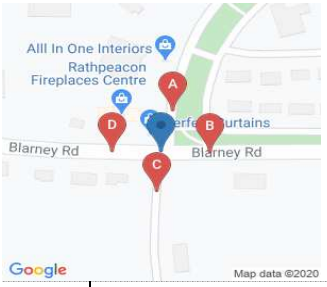


IDASO

Survey Name: 031 20030 Cork City
Site: Site 7
Location: Blanery Road / Harbour View Road / Mile Stream
Date: Thu 27-Feb-2020

	A => A										A => B									
TIME	**P/C**	**M/C**	**CAR**	**TAXI**	**LGV**	**OGV1**	**OGV2**	**PSV**	**TOT**	**PCU**	**P/C**	**M/C**	**CAR**	**TAXI**	**LGV**	**OGV1**	**OGV2**	**PSV**	**TOT**	**PCU**
07:00	0	0	0	0	0	0	0	0	0	0	0	0	26	3	5	0	0	0	34	34
07:15	0	0	0	0	0	0	0	0	0	0	0	1	24	1	7	3	0	1	37	38.9
07:30	0	0	0	0	0	0	0	0	0	0	1	0	30	3	6	2	0	1	43	44.2
07:45	0	0	0	0	0	0	0	0	0	0	0	0	38	4	5	2	0	1	50	52
H/TOT	0	0	0	0	0	0	0	0	0	0	1	1	118	11	23	7	0	3	164	169.1
08:00	0	0	0	0	0	0	0	0	0	0	0	0	28	0	5	0	2	1	36	39.6
08:15	0	0	0	0	0	0	0	0	0	0	0	0	32	1	2	0	1	0	36	37.3
08:30	0	0	0	0	0	0	0	0	0	0	0	0	63	5	3	1	1	0	73	74.8
08:45	0	0	0	0	0	0	0	0	0	0	0	0	68	3	1	0	0	0	72	72
H/TOT	0	0	0	0	0	0	0	0	0	0	0	0	191	9	11	1	4	1	217	223.7
09:00	0	0	0	0	0	0	0	0	0	0	0	0	40	1	6	1	1	0	49	50.8
09:15	0	0	0	0	0	0	0	0	0	0	0	0	36	2	6	0	1	1	46	48.3
09:30	0	0	0	0	0	0	0	0	0	0	0	0	31	5	7	3	1	0	47	49.8
09:45	0	0	0	0	0	0	0	0	0	0	0	0	35	3	9	2	1	0	50	52.3
H/TOT	0	0	0	0	0	0	0	0	0	0	0	0	142	11	28	6	4	1	192	201.2
3 TOT	0	0	0	0	0	0	0	0	0	0	1	1	451	31	62	14	8	5	573	594

	A => A										A => B									
TIME	**P/C**	**M/C**	**CAR**	**TAXI**	**LGV**	**OGV1**	**OGV2**	**PSV**	**TOT**	**PCU**	**P/C**	**M/C**	**CAR**	**TAXI**	**LGV**	**OGV1**	**OGV2**	**PSV**	**TOT**	**PCU**
16:00	0	0	0	0	0	0	0	0	0	0	0	0	59	2	4	0	2	1	68	71.6
16:15	0	0	0	0	0	0	0	0	0	0	1	0	54	2	10	3	0	0	70	70.7
16:30	0	0	0	0	0	0	0	0	0	0	2	1	84	4	6	0	0	0	97	94.8
16:45	0	0	0	0	0	0	0	0	0	0	0	0	71	2	5	1	0	0	79	79.5
H/TOT	0	0	0	0	0	0	0	0	0	0	3	1	268	10	25	4	2	1	314	316.6
17:00	0	0	0	0	0	0	0	0	0	0	2	1	78	1	5	1	0	1	89	88.3
17:15	0	0	0	0	0	0	0	0	0	0	1	0	68	1	1	1	0	0	72	71.7
17:30	0	0	0	0	0	0	0	0	0	0	2	1	71	1	8	2	0	0	85	83.8
17:45	0	0	0	0	0	0	0	0	0	0	2	0	77	3	6	2	0	0	90	89.4
H/TOT	0	0	0	0	0	0	0	0	0	0	7	2	294	6	20	6	0	1	336	333.2
18:00	0	0	0	0	0	0	0	0	0	0	1	0	68	1	3	0	0	1	74	74.2
18:15	0	0	0	0	0	0	0	0	0	0	2	0	83	3	2	1	0	0	91	89.9
18:30	0	0	0	0	0	0	0	0	0	0	1	1	71	0	3	0	0	0	76	74.6
18:45	0	0	0	0	0	0	0	0	0	0	0	0	65	1	3	1	0	0	70	70.5
H/TOT	0	0	0	0	0	0	0	0	0	0	4	1	287	5	11	2	0	1	311	309.2
3 TOT	0	0	0	0	0	0	0	0	0	0	14	4	849	21	56	12	2	3	961	959

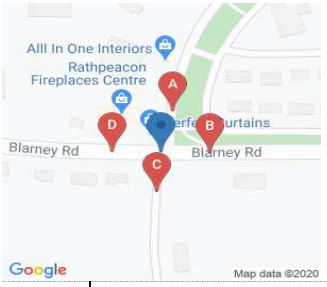


IDASO

Survey Name: 031 20030 Cork City
Site: Site 7
Location: Blanery Road / Harbour View Road / Mile Stream
Date: Thu 27-Feb-2020

	A => C										A => D									
TIME	**P/C**	**M/C**	**CAR**	**TAXI**	**LGV**	**OGV1**	**OGV2**	**PSV**	**TOT**	**PCU**	**P/C**	**M/C**	**CAR**	**TAXI**	**LGV**	**OGV1**	**OGV2**	**PSV**	**TOT**	**PCU**
07:00	0	0	3	0	0	0	0	0	3	3	0	0	14	0	5	0	0	0	19	19
07:15	0	0	5	2	1	0	0	0	8	8	0	0	11	1	8	1	0	0	21	21.5
07:30	0	0	6	0	1	0	0	0	7	7	0	0	21	2	12	1	0	0	36	36.5
07:45	0	0	5	1	0	0	0	0	6	6	0	0	45	1	10	0	0	0	56	56
H/TOT	0	0	19	3	2	0	0	0	24	24	0	0	91	4	35	2	0	0	132	133
08:00	0	0	6	0	0	0	0	0	6	6	0	0	32	1	4	0	0	0	37	37
08:15	0	0	8	0	0	0	0	0	8	8	0	0	63	1	3	0	1	0	68	69.3
08:30	0	0	3	2	0	0	0	0	5	5	0	0	38	1	6	0	2	0	47	49.6
08:45	0	0	8	1	1	0	0	0	10	10	0	0	46	0	4	2	0	0	52	53
H/TOT	0	0	25	3	1	0	0	0	29	29	0	0	179	3	17	2	3	0	204	208.9
09:00	0	0	9	0	1	0	0	0	10	10	0	0	25	0	11	2	0	0	38	39
09:15	0	0	4	0	0	0	0	0	4	4	0	0	23	0	5	1	0	0	29	29.5
09:30	0	1	2	0	1	0	0	0	4	3.4	0	0	22	0	7	0	0	0	29	29
09:45	0	0	2	0	1	0	0	0	3	3	0	0	25	2	6	0	0	0	33	33
H/TOT	0	1	17	0	3	0	0	0	21	20.4	0	0	95	2	29	3	0	0	129	130.5
3 TOT	0	1	61	6	6	0	0	0	74	73.4	0	0	365	9	81	7	3	0	465	472.4

	A => C										A => D									
TIME	**P/C**	**M/C**	**CAR**	**TAXI**	**LGV**	**OGV1**	**OGV2**	**PSV**	**TOT**	**PCU**	**P/C**	**M/C**	**CAR**	**TAXI**	**LGV**	**OGV1**	**OGV2**	**PSV**	**TOT**	**PCU**
16:00	1	0	7	0	0	0	0	0	8	7.2	1	0	73	1	4	1	1	1	82	84
16:15	0	0	8	0	1	0	0	0	9	9	0	0	51	0	4	2	0	0	57	58
16:30	0	0	13	0	1	0	0	0	14	14	0	0	89	1	10	1	0	0	101	101.5
16:45	0	0	13	0	1	0	0	0	14	14	0	0	88	1	14	0	1	0	104	105.3
H/TOT	1	0	41	0	3	0	0	0	45	44.2	1	0	301	3	32	4	2	1	344	348.8
17:00	0	1	6	0	3	0	0	0	10	9.4	0	0	84	1	7	0	0	0	92	92
17:15	0	0	16	0	1	0	0	0	17	17	0	0	96	2	5	1	1	0	105	106.8
17:30	0	0	12	0	1	0	0	0	13	13	0	0	92	0	12	0	1	0	105	106.3
17:45	0	0	6	2	1	0	0	0	9	9	0	0	82	2	2	0	0	0	86	86
H/TOT	0	1	40	2	6	0	0	0	49	48.4	0	0	354	5	26	1	2	0	388	391.1
18:00	0	0	13	0	0	2	0	0	15	16	1	0	81	0	7	0	0	0	89	88.2
18:15	1	0	8	0	0	0	0	0	9	8.2	0	2	74	0	6	2	0	0	84	83.8
18:30	0	0	7	0	1	0	0	0	8	8	0	0	48	0	2	0	0	0	50	50
18:45	0	0	8	1	0	0	0	0	9	9	0	0	38	1	2	0	0	0	41	41
H/TOT	1	0	36	1	1	2	0	0	41	41.2	1	2	241	1	17	2	0	0	264	263
3 TOT	2	1	117	3	10	2	0	0	135	133.8	2	2	896	9	75	7	4	1	996	1002.9

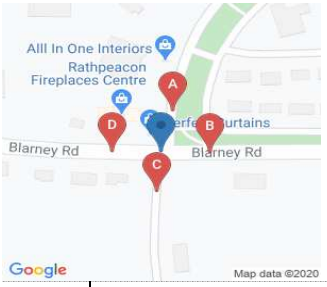


IDASO

Survey Name: 031 20030 Cork City
Site: Site 7
Location: Blanery Road / Harbour View Road / Mile Stream
Date: Thu 27-Feb-2020

	B => A										B => B									
TIME	**P/C**	**M/C**	**CAR**	**TAXI**	**LGV**	**OGV1**	**OGV2**	**PSV**	**TOT**	**PCU**	**P/C**	**M/C**	**CAR**	**TAXI**	**LGV**	**OGV1**	**OGV2**	**PSV**	**TOT**	**PCU**
07:00	1	0	31	0	4	0	0	0	36	35.2	0	0	0	0	0	0	0	0	0	0
07:15	0	1	56	3	8	0	0	0	68	67.4	0	0	0	0	0	0	0	0	0	0
07:30	1	1	74	4	3	1	0	0	84	83.1	0	0	0	0	0	0	0	0	0	0
07:45	0	0	94	3	10	2	2	0	111	114.6	0	0	0	0	0	0	0	0	0	0
H/TOT	2	2	255	10	25	3	2	0	299	300.3	0	0	0	0	0	0	0	0	0	0
08:00	1	0	60	0	2	1	0	0	64	63.7	0	0	0	0	0	0	0	0	0	0
08:15	1	1	45	2	3	1	0	1	54	54.1	0	0	0	0	0	0	0	0	0	0
08:30	1	0	59	3	4	1	3	0	71	74.6	0	0	0	0	0	0	0	0	0	0
08:45	1	0	47	1	7	2	0	0	58	58.2	0	0	0	0	0	0	0	0	0	0
H/TOT	4	1	211	6	16	5	3	1	247	250.6	0	0	0	0	0	0	0	0	0	0
09:00	1	0	32	2	5	0	0	0	40	39.2	0	0	0	0	0	0	0	0	0	0
09:15	0	0	45	1	3	1	0	0	50	50.5	0	0	0	0	0	0	0	0	0	0
09:30	0	0	32	2	5	2	0	0	41	42	0	0	0	0	0	0	0	0	0	0
09:45	0	0	46	2	3	1	1	0	53	54.8	0	0	0	0	0	0	0	0	0	0
H/TOT	1	0	155	7	16	4	1	0	184	186.5	0	0	0	0	0	0	0	0	0	0
3 TOT	7	3	621	23	57	12	6	1	730	737.4	0	0	0	0	0	0	0	0	0	0

	B => A										B => B									
TIME	**P/C**	**M/C**	**CAR**	**TAXI**	**LGV**	**OGV1**	**OGV2**	**PSV**	**TOT**	**PCU**	**P/C**	**M/C**	**CAR**	**TAXI**	**LGV**	**OGV1**	**OGV2**	**PSV**	**TOT**	**PCU**
16:00	0	0	37	0	3	2	0	0	42	43	0	0	0	0	0	0	0	0	0	0
16:15	0	0	30	1	8	1	0	0	40	40.5	0	0	0	0	0	0	0	0	0	0
16:30	0	0	40	0	3	1	0	0	44	44.5	0	0	0	0	0	0	0	0	0	0
16:45	0	0	31	0	2	1	0	1	35	36.5	0	0	0	0	0	0	0	0	0	0
H/TOT	0	0	138	1	16	5	0	1	161	164.5	0	0	0	0	0	0	0	0	0	0
17:00	0	0	25	0	6	1	0	0	32	32.5	0	0	0	0	0	0	0	0	0	0
17:15	0	0	26	1	3	0	1	0	31	32.3	0	0	0	0	0	0	0	0	0	0
17:30	0	0	25	1	1	0	0	0	27	27	0	0	0	0	0	0	0	0	0	0
17:45	0	0	22	2	2	1	0	0	27	27.5	0	0	0	0	0	0	0	0	0	0
H/TOT	0	0	98	4	12	2	1	0	117	119.3	0	0	0	0	0	0	0	0	0	0
18:00	0	0	27	1	2	0	0	0	30	30	0	0	0	0	0	0	0	0	0	0
18:15	0	1	26	1	2	0	0	0	30	29.4	0	0	0	0	0	0	0	0	0	0
18:30	0	0	19	0	0	1	0	1	21	22.5	0	0	0	0	0	0	0	0	0	0
18:45	0	0	13	0	2	0	0	2	17	19	0	0	0	0	0	0	0	0	0	0
H/TOT	0	1	85	2	6	1	0	3	98	100.9	0	0	0	0	0	0	0	0	0	0
3 TOT	0	1	321	7	34	8	1	4	376	384.7	0	0	0	0	0	0	0	0	0	0

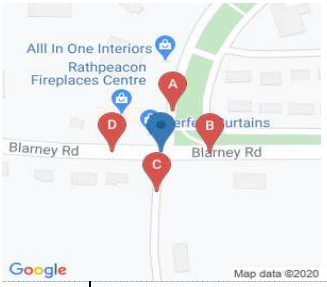


IDASO

Survey Name: 031 20030 Cork City
Site: Site 7
Location: Blanery Road / Harbour View Road / Mile Stream
Date: Thu 27-Feb-2020

	B => C										B => D									
TIME	**P/C**	**M/C**	**CAR**	**TAXI**	**LGV**	**OGV1**	**OGV2**	**PSV**	**TOT**	**PCU**	**P/C**	**M/C**	**CAR**	**TAXI**	**LGV**	**OGV1**	**OGV2**	**PSV**	**TOT**	**PCU**
07:00	1	0	2	1	0	0	0	0	4	3.2	0	0	17	1	2	0	0	0	20	20
07:15	0	0	1	0	0	1	0	0	2	2.5	0	0	13	0	4	1	0	0	18	18.5
07:30	0	0	4	0	1	0	0	0	5	5	0	0	24	0	6	0	0	0	30	30
07:45	0	0	3	1	0	0	0	0	4	4	0	0	29	1	5	0	0	0	35	35
H/TOT	1	0	10	2	1	1	0	0	15	14.7	0	0	83	2	17	1	0	0	103	103.5
08:00	0	0	6	0	0	0	0	0	6	6	0	0	33	0	4	0	0	0	37	37
08:15	0	0	5	0	0	0	0	0	5	5	0	0	27	1	1	0	0	0	29	29
08:30	0	0	2	0	0	0	0	0	2	2	0	0	26	0	1	0	0	0	27	27
08:45	0	0	11	1	0	0	0	0	12	12	0	0	35	0	4	0	0	0	39	39
H/TOT	0	0	24	1	0	0	0	0	25	25	0	0	121	1	10	0	0	0	132	132
09:00	0	0	6	0	0	0	0	0	6	6	0	0	18	0	5	1	0	0	24	24.5
09:15	0	0	1	0	1	0	0	0	2	2	0	0	17	0	4	2	0	0	23	24
09:30	0	0	2	0	0	0	0	0	2	2	0	0	13	0	4	2	0	0	19	20
09:45	0	0	2	0	0	0	0	0	2	2	0	0	16	0	3	0	1	0	20	21.3
H/TOT	0	0	11	0	1	0	0	0	12	12	0	0	64	0	16	5	1	0	86	89.8
3 TOT	1	0	45	3	2	1	0	0	52	51.7	0	0	268	3	43	6	1	0	321	325.3

	B => C										B => D									
TIME	**P/C**	**M/C**	**CAR**	**TAXI**	**LGV**	**OGV1**	**OGV2**	**PSV**	**TOT**	**PCU**	**P/C**	**M/C**	**CAR**	**TAXI**	**LGV**	**OGV1**	**OGV2**	**PSV**	**TOT**	**PCU**
16:00	0	0	4	0	1	0	0	0	5	5	0	1	63	2	7	3	0	0	76	76.9
16:15	0	0	2	1	1	0	0	0	4	4	0	0	71	2	7	0	0	0	80	80
16:30	1	0	4	0	1	0	0	0	6	5.2	0	0	75	0	4	1	0	0	80	80.5
16:45	0	0	3	0	0	0	0	0	3	3	0	1	64	1	11	0	0	0	77	76.4
H/TOT	1	0	13	1	3	0	0	0	18	17.2	0	2	273	5	29	4	0	0	313	313.8
17:00	0	0	6	0	0	0	0	0	6	6	0	0	74	0	6	2	0	1	83	85
17:15	0	0	6	0	0	0	0	0	6	6	2	0	70	0	5	0	0	0	77	75.4
17:30	0	0	10	0	0	0	0	0	10	10	0	0	74	1	4	0	0	0	79	79
17:45	0	0	5	0	0	0	0	0	5	5	0	0	81	2	4	0	0	0	87	87
H/TOT	0	0	27	0	0	0	0	0	27	27	2	0	299	3	19	2	0	1	326	326.4
18:00	0	0	4	0	0	0	0	0	4	4	0	1	70	1	4	3	0	0	79	79.9
18:15	0	0	4	0	0	0	0	0	4	4	0	0	70	0	5	0	0	0	75	75
18:30	0	0	4	0	0	0	0	0	4	4	0	1	43	0	4	0	0	0	48	47.4
18:45	0	0	5	0	0	0	0	0	5	5	0	0	50	0	3	2	0	0	55	56
H/TOT	0	0	17	0	0	0	0	0	17	17	0	2	233	1	16	5	0	0	257	258.3
3 TOT	1	0	57	1	3	0	0	0	62	61.2	2	4	805	9	64	11	0	1	896	898.5

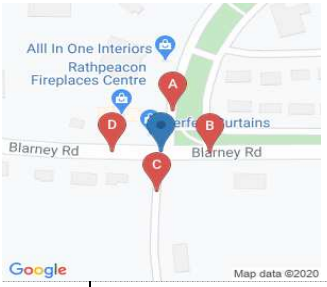


IDASO

Survey Name: 031 20030 Cork City
Site: Site 7
Location: Blanery Road / Harbour View Road / Mile Stream
Date: Thu 27-Feb-2020

	C => A										C => B									
TIME	**P/C**	**M/C**	**CAR**	**TAXI**	**LGV**	**OGV1**	**OGV2**	**PSV**	**TOT**	**PCU**	**P/C**	**M/C**	**CAR**	**TAXI**	**LGV**	**OGV1**	**OGV2**	**PSV**	**TOT**	**PCU**
07:00	0	0	1	1	1	0	0	0	3	3	0	0	1	0	0	0	0	0	1	1
07:15	1	0	4	0	0	0	0	0	5	4.2	0	0	6	1	0	0	0	0	7	7
07:30	1	0	17	0	0	0	0	0	18	17.2	0	0	12	1	1	0	0	0	14	14
07:45	0	0	6	0	0	1	0	0	7	7.5	0	0	3	1	2	0	0	0	6	6
H/TOT	2	0	28	1	1	1	0	0	33	31.9	0	0	22	3	3	0	0	0	28	28
08:00	0	0	12	2	2	0	0	0	16	16	0	0	11	1	2	0	0	0	14	14
08:15	0	0	14	0	1	0	0	0	15	15	0	0	10	0	0	0	0	0	10	10
08:30	0	0	16	3	0	0	0	0	19	19	0	0	5	0	0	0	0	0	5	5
08:45	0	0	7	1	0	0	0	0	8	8	0	0	8	0	2	0	0	0	10	10
H/TOT	0	0	49	6	3	0	0	0	58	58	0	0	34	1	4	0	0	0	39	39
09:00	0	0	10	0	1	0	0	0	11	11	0	0	7	0	0	0	0	0	7	7
09:15	0	1	6	0	1	0	0	0	8	7.4	0	0	4	0	0	0	0	0	4	4
09:30	1	0	3	0	0	0	0	0	4	3.2	0	0	5	0	0	0	0	0	5	5
09:45	0	0	8	1	0	0	0	0	9	9	0	0	1	0	0	0	0	0	1	1
H/TOT	1	1	27	1	2	0	0	0	32	30.6	0	0	17	0	0	0	0	0	17	17
3 TOT	3	1	104	8	6	1	0	0	123	120.5	0	0	73	4	7	0	0	0	84	84

	C => A										C => B									
TIME	**P/C**	**M/C**	**CAR**	**TAXI**	**LGV**	**OGV1**	**OGV2**	**PSV**	**TOT**	**PCU**	**P/C**	**M/C**	**CAR**	**TAXI**	**LGV**	**OGV1**	**OGV2**	**PSV**	**TOT**	**PCU**
16:00	0	0	4	0	1	0	0	0	5	5	0	0	1	0	0	0	0	0	1	1
16:15	0	0	3	0	0	0	0	0	3	3	0	0	4	2	0	0	0	0	6	6
16:30	0	0	5	0	1	0	0	0	6	6	0	0	5	0	0	0	0	0	5	5
16:45	0	1	6	0	1	0	0	0	8	7.4	0	0	3	0	0	0	0	0	3	3
H/TOT	0	1	18	0	3	0	0	0	22	21.4	0	0	13	2	0	0	0	0	15	15
17:00	0	0	7	0	1	0	0	0	8	8	0	0	2	1	0	0	0	0	3	3
17:15	0	0	4	0	0	0	0	0	4	4	0	0	5	0	0	0	0	0	5	5
17:30	0	0	6	0	0	0	0	0	6	6	0	0	10	0	1	0	0	0	11	11
17:45	0	0	9	1	0	0	0	0	10	10	0	0	6	0	0	0	0	0	6	6
H/TOT	0	0	26	1	1	0	0	0	28	28	0	0	23	1	1	0	0	0	25	25
18:00	0	0	6	0	0	2	0	0	8	9	0	0	5	1	0	0	0	0	6	6
18:15	0	0	6	0	0	0	0	0	6	6	0	0	5	0	0	0	0	0	5	5
18:30	0	0	3	0	0	0	0	0	3	3	0	0	1	1	0	0	0	0	2	2
18:45	0	0	12	0	0	0	0	0	12	12	0	0	1	0	0	0	0	0	1	1
H/TOT	0	0	27	0	0	2	0	0	29	30	0	0	12	2	0	0	0	0	14	14
3 TOT	0	1	71	1	4	2	0	0	79	79.4	0	0	48	5	1	0	0	0	54	54

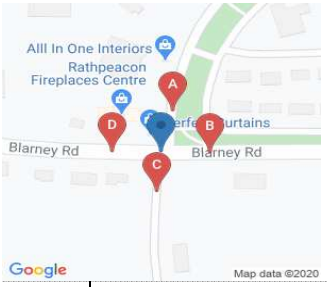


IDASO

Survey Name: 031 20030 Cork City
Site: Site 7
Location: Blanery Road / Harbour View Road / Mile Stream
Date: Thu 27-Feb-2020

	C => C										C => D									
TIME	**P/C**	**M/C**	**CAR**	**TAXI**	**LGV**	**OGV1**	**OGV2**	**PSV**	**TOT**	**PCU**	**P/C**	**M/C**	**CAR**	**TAXI**	**LGV**	**OGV1**	**OGV2**	**PSV**	**TOT**	**PCU**
07:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:30	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	1	3	4
07:45	0	0	0	0	0	0	0	0	0	0	0	0	2	0	2	0	0	0	4	4
H/TOT	0	0	0	0	0	0	0	0	0	0	0	0	4	0	2	0	0	1	7	8
08:00	0	0	0	0	0	0	0	0	0	0	0	0	6	0	0	0	0	0	6	6
08:15	0	0	0	0	0	0	0	0	0	0	0	0	5	0	1	0	0	0	6	6
08:30	0	0	0	0	0	0	0	0	0	0	0	0	5	0	0	0	0	0	5	5
08:45	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	0	3	3
H/TOT	0	0	0	0	0	0	0	0	0	0	0	0	19	0	1	0	0	0	20	20
09:00	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	0	3	3
09:15	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	2	2
09:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	1
09:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0	0	0	0	0	5	0	1	0	0	0	6	6
3 TOT	0	0	0	0	0	0	0	0	0	0	0	0	28	0	4	0	0	1	33	34

	C => C										C => D									
TIME	**P/C**	**M/C**	**CAR**	**TAXI**	**LGV**	**OGV1**	**OGV2**	**PSV**	**TOT**	**PCU**	**P/C**	**M/C**	**CAR**	**TAXI**	**LGV**	**OGV1**	**OGV2**	**PSV**	**TOT**	**PCU**
16:00	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	2	2
16:15	0	0	0	0	0	0	0	0	0	0	0	0	6	0	1	0	0	0	7	7
16:30	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	2	2
16:45	0	0	0	0	0	0	0	0	0	0	0	0	5	0	0	0	0	0	5	5
H/TOT	0	0	0	0	0	0	0	0	0	0	0	0	15	0	1	0	0	0	16	16
17:00	0	0	0	0	0	0	0	0	0	0	0	0	8	0	1	0	0	0	9	9
17:15	0	0	0	0	0	0	0	0	0	0	0	0	4	0	1	0	0	0	5	5
17:30	0	0	0	0	0	0	0	0	0	0	0	0	5	0	0	0	0	0	5	5
17:45	0	0	0	0	0	0	0	0	0	0	0	0	6	0	0	0	0	0	6	6
H/TOT	0	0	0	0	0	0	0	0	0	0	0	0	23	0	2	0	0	0	25	25
18:00	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	0	3	3
18:15	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	1
18:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0	0	0	0	0	4	0	0	0	0	0	4	4
3 TOT	0	0	0	0	0	0	0	0	0	0	0	0	42	0	3	0	0	0	45	45

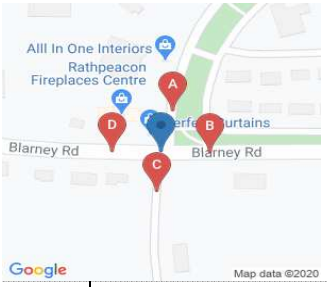


IDASO

Survey Name: 031 20030 Cork City
Site: Site 7
Location: Blanery Road / Harbour View Road / Mile Stream
Date: Thu 27-Feb-2020

	D => A										D => B									
TIME	**P/C**	**M/C**	**CAR**	**TAXI**	**LGV**	**OGV1**	**OGV2**	**PSV**	**TOT**	**PCU**	**P/C**	**M/C**	**CAR**	**TAXI**	**LGV**	**OGV1**	**OGV2**	**PSV**	**TOT**	**PCU**
07:00	0	0	31	1	4	0	0	0	36	36	0	0	60	0	13	1	0	0	74	74.5
07:15	0	0	46	1	6	1	1	0	55	56.8	0	0	60	0	11	2	0	0	73	74
07:30	0	1	72	0	10	0	0	0	83	82.4	0	0	63	0	5	0	0	0	68	68
07:45	0	1	105	2	8	1	0	0	117	116.9	0	0	49	1	5	5	0	0	60	62.5
H/TOT	0	2	254	4	28	2	1	0	291	292.1	0	0	232	1	34	8	0	0	275	279
08:00	0	0	116	0	10	1	1	0	128	129.8	1	0	70	0	5	2	0	0	78	78.2
08:15	0	0	119	5	11	1	0	0	136	136.5	0	0	73	1	4	0	0	0	78	78
08:30	0	1	112	0	4	0	0	0	117	116.4	0	0	66	0	6	0	0	0	72	72
08:45	2	0	123	1	8	0	0	0	134	132.4	0	0	70	2	7	0	0	0	79	79
H/TOT	2	1	470	6	33	2	1	0	515	515.1	1	0	279	3	22	2	0	0	307	307.2
09:00	0	0	92	2	7	2	0	0	103	104	0	0	67	1	5	0	0	0	73	73
09:15	0	0	84	1	5	2	0	0	92	93	0	0	80	1	7	1	0	0	89	89.5
09:30	0	0	45	1	2	1	0	0	49	49.5	0	0	77	1	3	1	0	0	82	82.5
09:45	0	0	42	0	3	0	0	0	45	45	0	0	58	0	6	0	0	0	64	64
H/TOT	0	0	263	4	17	5	0	0	289	291.5	0	0	282	3	21	2	0	0	308	309
3 TOT	2	3	987	14	78	9	2	0	1095	1098.7	1	0	793	7	77	12	0	0	890	895.2

	D => A										D => B									
TIME	**P/C**	**M/C**	**CAR**	**TAXI**	**LGV**	**OGV1**	**OGV2**	**PSV**	**TOT**	**PCU**	**P/C**	**M/C**	**CAR**	**TAXI**	**LGV**	**OGV1**	**OGV2**	**PSV**	**TOT**	**PCU**
16:00	0	0	26	0	5	3	0	0	34	35.5	0	0	32	2	3	1	0	0	38	38.5
16:15	0	0	37	1	10	1	0	0	49	49.5	0	0	31	2	7	0	0	0	40	40
16:30	0	0	43	1	8	1	0	0	53	53.5	0	0	45	0	4	0	0	1	50	51
16:45	0	0	43	2	9	2	0	0	56	57	0	1	50	1	6	1	0	0	59	58.9
H/TOT	0	0	149	4	32	7	0	0	192	195.5	0	1	158	5	20	2	0	1	187	188.4
17:00	0	0	42	1	14	0	1	0	58	59.3	0	0	39	1	5	1	0	0	46	46.5
17:15	0	0	54	1	14	0	1	0	70	71.3	0	0	55	2	8	0	0	0	65	65
17:30	0	0	50	0	8	1	0	0	59	59.5	0	0	38	2	6	0	0	0	46	46
17:45	0	0	43	2	7	0	0	0	52	52	0	0	45	0	2	0	0	1	48	49
H/TOT	0	0	189	4	43	1	2	0	239	242.1	0	0	177	5	21	1	0	1	205	206.5
18:00	0	0	38	0	11	1	0	0	50	50.5	0	0	38	2	2	0	0	0	42	42
18:15	0	0	29	2	5	1	0	0	37	37.5	0	0	41	1	2	0	0	0	44	44
18:30	0	0	19	1	3	0	0	0	23	23	0	0	33	1	6	1	0	0	41	41.5
18:45	0	0	26	1	5	0	0	0	32	32	0	0	35	1	0	1	0	0	37	37.5
H/TOT	0	0	112	4	24	2	0	0	142	143	0	0	147	5	10	2	0	0	164	165
3 TOT	0	0	450	12	99	10	2	0	573	580.6	0	1	482	15	51	5	0	2	556	559.9

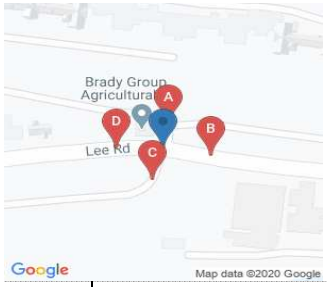


IDASO

Survey Name: 031 20030 Cork City
Site: Site 7
Location: Blanery Road / Harbour View Road / Mile Stream
Date: Thu 27-Feb-2020

	D => C										D => D									
TIME	**P/C**	**M/C**	**CAR**	**TAXI**	**LGV**	**OGV1**	**OGV2**	**PSV**	**TOT**	**PCU**	**P/C**	**M/C**	**CAR**	**TAXI**	**LGV**	**OGV1**	**OGV2**	**PSV**	**TOT**	**PCU**
07:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:15	0	0	1	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0
07:30	0	0	3	0	0	0	0	0	3	3	0	0	0	0	0	0	0	0	0	0
07:45	0	0	6	0	1	0	0	0	7	7	0	0	0	0	0	0	0	0	0	0
H/TOT	0	0	10	0	1	0	0	0	11	11	0	0	0	0	0	0	0	0	0	0
08:00	0	0	5	0	0	0	0	0	5	5	0	0	0	0	0	0	0	0	0	0
08:15	0	0	5	0	0	0	0	0	5	5	0	0	0	0	0	0	0	0	0	0
08:30	0	0	8	0	0	0	0	0	8	8	0	0	0	0	0	0	0	0	0	0
08:45	0	0	7	0	0	0	0	0	7	7	0	0	0	0	0	0	0	0	0	0
H/TOT	0	0	25	0	0	0	0	0	25	25	0	0	0	0	0	0	0	0	0	0
09:00	0	0	4	0	0	0	0	0	4	4	0	0	0	0	0	0	0	0	0	0
09:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
09:30	0	0	4	0	0	0	0	0	4	4	0	0	0	0	0	0	0	0	0	0
09:45	0	0	2	0	0	0	0	0	2	2	0	0	0	0	0	0	0	0	0	0
H/TOT	0	0	10	0	0	0	0	0	10	10	0	0	0	0	0	0	0	0	0	0
3 TOT	0	0	45	0	1	0	0	0	46	46	0	0	0	0	0	0	0	0	0	0

	D => C										D => D									
TIME	**P/C**	**M/C**	**CAR**	**TAXI**	**LGV**	**OGV1**	**OGV2**	**PSV**	**TOT**	**PCU**	**P/C**	**M/C**	**CAR**	**TAXI**	**LGV**	**OGV1**	**OGV2**	**PSV**	**TOT**	**PCU**
16:00	0	0	2	0	0	0	0	0	2	2	0	0	0	0	0	0	0	0	0	0
16:15	0	0	2	0	1	0	0	0	3	3	0	0	0	0	0	0	0	0	0	0
16:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16:45	0	0	3	0	1	0	0	0	4	4	0	0	0	0	0	0	0	0	0	0
H/TOT	0	0	7	0	2	0	0	0	9	9	0	0	0	0	0	0	0	0	0	0
17:00	0	0	3	0	0	0	0	0	3	3	0	0	0	0	0	0	0	0	0	0
17:15	0	0	3	0	0	0	0	0	3	3	0	0	0	0	0	0	0	0	0	0
17:30	0	0	4	0	0	0	0	1	5	6	0	0	0	0	0	0	0	0	0	0
17:45	0	0	1	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0
H/TOT	0	0	11	0	0	0	0	1	12	13	0	0	0	0	0	0	0	0	0	0
18:00	0	0	2	0	0	0	0	0	2	2	0	0	0	0	0	0	0	0	0	0
18:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18:30	0	0	3	0	0	0	0	0	3	3	0	0	0	0	0	0	0	0	0	0
18:45	0	0	1	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0
H/TOT	0	0	6	0	0	0	0	0	6	6	0	0	0	0	0	0	0	0	0	0
3 TOT	0	0	24	0	2	0	0	1	27	28	0	0	0	0	0	0	0	0	0	0

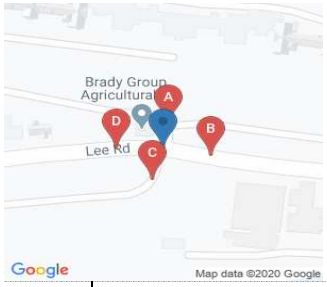


IDASO

Survey Name: 031 20030 Cork City
Site: Site 8
Location: Lee Road / Unnamed Road
Date: Thu 27-Feb-2020

	A => A										A => B									
TIME	**P/C**	**M/C**	**CAR**	**TAXI**	**LGV**	**OGV1**	**OGV2**	**PSV**	**TOT**	**PCU**	**P/C**	**M/C**	**CAR**	**TAXI**	**LGV**	**OGV1**	**OGV2**	**PSV**	**TOT**	**PCU**
07:00	0	0	0	0	0	0	0	0	0	0	2	0	10	0	0	0	0	0	12	10.4
07:15	0	0	0	0	0	0	0	0	0	0	1	0	11	1	0	0	0	0	13	12.2
07:30	0	0	0	0	0	0	0	0	0	0	1	0	18	1	0	0	0	0	20	19.2
07:45	0	0	0	0	0	0	0	0	0	0	1	0	16	1	0	0	0	0	18	17.2
H/TOT	0	0	0	0	0	0	0	0	0	0	5	0	55	3	0	0	0	0	63	59
08:00	0	0	0	0	0	0	0	0	0	0	3	0	14	2	1	0	0	0	20	17.6
08:15	0	0	0	0	0	0	0	0	0	0	0	0	20	0	2	0	0	0	22	22
08:30	0	0	0	0	0	0	0	0	0	0	4	0	16	0	0	0	0	0	20	16.8
08:45	0	0	0	0	0	0	0	0	0	0	0	0	7	0	0	0	0	0	7	7
H/TOT	0	0	0	0	0	0	0	0	0	0	7	0	57	2	3	0	0	0	69	63.4
09:00	0	0	0	0	0	0	0	0	0	0	2	0	5	0	0	0	0	0	7	5.4
09:15	0	0	0	0	0	0	0	0	0	0	2	0	4	0	0	0	0	0	6	4.4
09:30	0	0	0	0	0	0	0	0	0	0	1	0	2	1	0	0	0	0	4	3.2
09:45	0	0	0	0	0	0	0	0	0	0	1	0	6	1	0	0	0	0	8	7.2
H/TOT	0	0	0	0	0	0	0	0	0	0	6	0	17	2	0	0	0	0	25	20.2
3 TOT	0	0	0	0	0	0	0	0	0	0	18	0	129	7	3	0	0	0	157	142.6

	A => A										A => B									
TIME	**P/C**	**M/C**	**CAR**	**TAXI**	**LGV**	**OGV1**	**OGV2**	**PSV**	**TOT**	**PCU**	**P/C**	**M/C**	**CAR**	**TAXI**	**LGV**	**OGV1**	**OGV2**	**PSV**	**TOT**	**PCU**
16:00	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	2	2
16:15	0	0	0	0	0	0	0	0	0	0	0	0	4	0	0	0	0	0	4	4
16:30	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	2	2
16:45	0	0	0	0	0	0	0	0	0	0	1	0	2	2	0	0	0	0	5	4.2
H/TOT	0	0	0	0	0	0	0	0	0	0	1	0	9	2	1	0	0	0	13	12.2
17:00	0	0	0	0	0	0	0	0	0	0	1	0	8	0	0	0	0	0	9	8.2
17:15	0	0	0	0	0	0	0	0	0	0	0	0	4	1	0	0	0	0	5	5
17:30	0	0	0	0	0	0	0	0	0	0	1	0	5	0	0	0	0	0	6	5.2
17:45	0	0	0	0	0	0	0	0	0	0	0	0	6	1	0	1	0	0	8	8.5
H/TOT	0	0	0	0	0	0	0	0	0	0	2	0	23	2	0	1	0	0	28	26.9
18:00	0	0	0	0	0	0	0	0	0	0	0	0	3	1	0	0	0	0	4	4
18:15	0	0	0	0	0	0	0	0	0	0	0	0	6	1	0	0	0	0	7	7
18:30	0	0	0	0	0	0	0	0	0	0	0	0	3	2	0	0	0	0	5	5
18:45	0	0	0	0	0	0	0	0	0	0	0	1	6	1	1	0	0	0	9	8.4
H/TOT	0	0	0	0	0	0	0	0	0	0	0	1	18	5	1	0	0	0	25	24.4
3 TOT	0	0	0	0	0	0	0	0	0	0	3	1	50	9	2	1	0	0	66	63.5

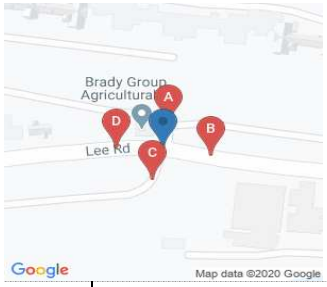


IDASO

Survey Name: 031 20030 Cork City
Site: Site 8
Location: Lee Road / Unnamed Road
Date: Thu 27-Feb-2020

	A => C										A => D									
TIME	**P/C**	**M/C**	**CAR**	**TAXI**	**LGV**	**OGV1**	**OGV2**	**PSV**	**TOT**	**PCU**	**P/C**	**M/C**	**CAR**	**TAXI**	**LGV**	**OGV1**	**OGV2**	**PSV**	**TOT**	**PCU**
07:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:30	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	1
07:45	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	1
H/TOT	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	2	2
08:00	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	1
08:15	0	0	0	0	1	0	0	0	1	1	0	0	1	0	0	0	0	0	1	1
08:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1.5
08:45	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	1
H/TOT	0	0	0	0	1	0	0	0	1	1	0	0	3	0	0	1	0	0	4	4.5
09:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
09:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
09:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
09:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3 TOT	0	0	0	0	1	0	0	0	1	1	0	0	5	0	0	1	0	0	6	6.5

	A => C										A => D									
TIME	**P/C**	**M/C**	**CAR**	**TAXI**	**LGV**	**OGV1**	**OGV2**	**PSV**	**TOT**	**PCU**	**P/C**	**M/C**	**CAR**	**TAXI**	**LGV**	**OGV1**	**OGV2**	**PSV**	**TOT**	**PCU**
16:00	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	1
16:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16:30	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	2	2
16:45	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	2	2
H/TOT	0	0	0	0	0	0	0	0	0	0	0	0	4	0	1	0	0	0	5	5
17:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17:15	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	2	2
17:30	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	2	2
17:45	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	2	2
H/TOT	0	0	0	0	0	0	0	0	0	0	0	0	5	0	1	0	0	0	6	6
18:00	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	2	2
18:15	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	2	2
18:30	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	1
18:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	1
H/TOT	0	0	0	0	0	0	0	0	0	0	0	0	5	0	1	0	0	0	6	6
3 TOT	0	0	0	0	0	0	0	0	0	0	0	0	14	0	3	0	0	0	17	17

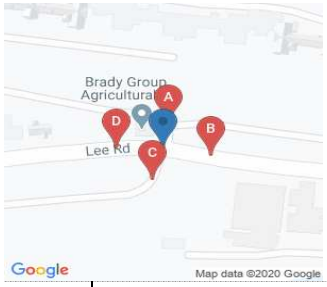


IDASO

Survey Name: 031 20030 Cork City
Site: Site 8
Location: Lee Road / Unnamed Road
Date: Thu 27-Feb-2020

	B => A										B => B									
TIME	**P/C**	**M/C**	**CAR**	**TAXI**	**LGV**	**OGV1**	**OGV2**	**PSV**	**TOT**	**PCU**	**P/C**	**M/C**	**CAR**	**TAXI**	**LGV**	**OGV1**	**OGV2**	**PSV**	**TOT**	**PCU**
07:00	0	0	2	0	0	0	0	0	2	2	0	0	0	0	0	0	0	0	0	0
07:15	0	0	2	2	0	0	0	0	4	4	0	0	0	0	0	0	0	0	0	0
07:30	0	0	1	1	0	0	0	0	2	2	0	0	0	0	0	0	0	0	0	0
07:45	0	0	1	0	1	0	0	0	2	2	0	0	0	0	0	0	0	0	0	0
H/TOT	0	0	6	3	1	0	0	0	10	10	0	0	0	0	0	0	0	0	0	0
08:00	0	0	1	0	1	0	0	0	2	2	0	0	0	0	0	0	0	0	0	0
08:15	0	0	4	0	0	0	0	0	4	4	0	0	0	0	0	0	0	0	0	0
08:30	0	0	0	0	1	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0
08:45	0	0	6	0	0	0	0	0	6	6	0	0	0	0	0	0	0	0	0	0
H/TOT	0	0	11	0	2	0	0	0	13	13	0	0	0	0	0	0	0	0	0	0
09:00	0	0	2	0	0	0	0	0	2	2	0	0	0	1	0	0	0	0	1	1
09:15	0	0	3	0	0	0	0	0	3	3	0	0	0	0	0	1	0	0	1	1.5
09:30	0	0	1	1	0	0	0	0	2	2	0	0	0	0	1	0	0	0	1	1
09:45	0	0	2	1	1	0	0	0	4	4	0	0	0	0	0	0	0	0	0	0
H/TOT	0	0	8	2	1	0	0	0	11	11	0	0	0	1	1	1	0	0	3	3.5
3 TOT	0	0	25	5	4	0	0	0	34	34	0	0	0	1	1	1	0	0	3	3.5

	B => A										B => B									
TIME	**P/C**	**M/C**	**CAR**	**TAXI**	**LGV**	**OGV1**	**OGV2**	**PSV**	**TOT**	**PCU**	**P/C**	**M/C**	**CAR**	**TAXI**	**LGV**	**OGV1**	**OGV2**	**PSV**	**TOT**	**PCU**
16:00	0	0	8	0	1	0	0	0	9	9	0	0	0	0	0	0	0	0	0	0
16:15	0	0	4	0	0	0	0	0	4	4	0	0	3	0	0	0	0	0	3	3
16:30	0	0	11	0	0	0	0	0	11	11	0	0	2	0	0	0	0	0	2	2
16:45	0	0	11	2	0	0	0	0	13	13	0	0	0	1	0	0	0	0	1	1
H/TOT	0	0	34	2	1	0	0	0	37	37	0	0	5	1	0	0	0	0	6	6
17:00	0	0	7	1	0	0	0	0	8	8	0	0	0	0	0	0	0	0	0	0
17:15	1	0	12	0	2	0	0	0	15	14.2	0	0	0	0	0	0	0	0	0	0
17:30	3	0	11	1	0	0	0	0	15	12.6	0	0	0	0	0	0	0	0	0	0
17:45	3	0	9	0	0	0	0	0	12	9.6	0	0	0	0	0	0	0	0	0	0
H/TOT	7	0	39	2	2	0	0	0	50	44.4	0	0	0	0	0	0	0	0	0	0
18:00	1	0	12	1	1	0	0	0	15	14.2	0	0	1	1	0	0	0	0	2	2
18:15	1	0	14	1	1	0	0	0	17	16.2	0	0	0	0	0	0	0	0	0	0
18:30	3	0	14	2	0	0	0	0	19	16.6	0	0	0	0	0	0	0	0	0	0
18:45	2	0	9	1	0	0	0	0	12	10.4	0	0	0	0	0	0	0	0	0	0
H/TOT	7	0	49	5	2	0	0	0	63	57.4	0	0	1	1	0	0	0	0	2	2
3 TOT	14	0	122	9	5	0	0	0	150	138.8	0	0	6	2	0	0	0	0	8	8

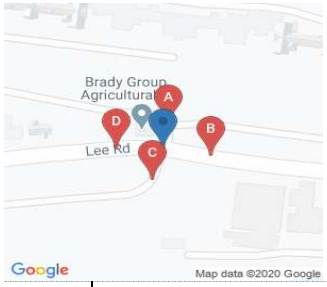


IDASO

Survey Name: 031 20030 Cork City
Site: Site 8
Location: Lee Road / Unnamed Road
Date: Thu 27-Feb-2020

	B => C										B => D									
TIME	**P/C**	**M/C**	**CAR**	**TAXI**	**LGV**	**OGV1**	**OGV2**	**PSV**	**TOT**	**PCU**	**P/C**	**M/C**	**CAR**	**TAXI**	**LGV**	**OGV1**	**OGV2**	**PSV**	**TOT**	**PCU**
07:00	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	2	2
07:15	0	0	2	0	0	0	0	0	2	2	0	0	3	0	1	0	0	0	4	4
07:30	0	0	0	0	0	0	0	0	0	0	0	0	7	1	1	0	0	0	9	9
07:45	0	0	2	0	0	0	0	0	2	2	0	0	10	3	2	0	0	0	15	15
H/TOT	0	0	4	0	0	0	0	0	4	4	0	0	21	4	5	0	0	0	30	30
08:00	0	0	1	0	0	0	0	0	1	1	0	0	9	1	2	0	0	0	12	12
08:15	1	0	1	0	0	0	0	0	2	1.2	0	0	9	0	0	0	0	0	9	9
08:30	1	0	0	0	0	0	0	0	1	0.2	0	0	12	0	3	0	0	0	15	15
08:45	1	1	4	0	0	0	0	0	6	4.6	0	0	12	1	3	2	0	0	18	19
H/TOT	3	1	6	0	0	0	0	0	10	7	0	0	42	2	8	2	0	0	54	55
09:00	0	0	6	0	0	0	0	0	6	6	2	0	15	0	2	0	0	0	19	17.4
09:15	0	0	4	0	1	0	0	0	5	5	0	0	11	1	0	0	0	0	12	12
09:30	1	0	10	0	0	0	0	0	11	10.2	2	0	5	0	0	0	0	0	7	5.4
09:45	1	0	3	0	0	0	0	0	4	3.2	0	0	12	0	2	0	0	1	15	16
H/TOT	2	0	23	0	1	0	0	0	26	24.4	4	0	43	1	4	0	0	1	53	50.8
3 TOT	5	1	33	0	1	0	0	0	40	35.4	4	0	106	7	17	2	0	1	137	135.8

	B => C										B => D									
TIME	**P/C**	**M/C**	**CAR**	**TAXI**	**LGV**	**OGV1**	**OGV2**	**PSV**	**TOT**	**PCU**	**P/C**	**M/C**	**CAR**	**TAXI**	**LGV**	**OGV1**	**OGV2**	**PSV**	**TOT**	**PCU**
16:00	0	0	0	0	0	0	0	0	0	0	2	0	19	0	5	0	0	0	26	24.4
16:15	0	0	0	0	0	0	0	0	0	0	0	0	37	1	0	0	0	0	38	38
16:30	0	0	0	0	0	0	0	0	0	0	1	0	31	1	1	0	0	0	34	33.2
16:45	0	0	0	0	0	0	0	0	0	0	0	0	33	0	5	0	0	0	38	38
H/TOT	0	0	0	0	0	0	0	0	0	0	3	0	120	2	11	0	0	0	136	133.6
17:00	0	0	0	0	0	0	0	0	0	0	1	0	29	0	5	0	0	0	35	34.2
17:15	0	0	0	0	0	0	0	0	0	0	1	0	50	1	3	0	0	0	55	54.2
17:30	0	0	1	0	0	0	0	0	1	1	0	0	33	0	0	0	0	0	33	33
17:45	1	0	0	0	0	0	0	0	1	0.2	0	0	26	1	1	0	0	0	28	28
H/TOT	1	0	1	0	0	0	0	0	2	1.2	2	0	138	2	9	0	0	0	151	149.4
18:00	1	0	2	0	0	0	0	0	3	2.2	0	0	27	1	2	0	0	0	30	30
18:15	0	0	1	0	0	0	0	0	1	1	1	0	31	0	0	0	0	0	32	31.2
18:30	0	0	0	0	0	0	0	0	0	0	0	0	16	1	2	0	0	0	19	19
18:45	0	0	0	0	0	0	0	0	0	0	0	0	11	2	1	0	0	0	14	14
H/TOT	1	0	3	0	0	0	0	0	4	3.2	1	0	85	4	5	0	0	0	95	94.2
3 TOT	2	0	4	0	0	0	0	0	6	4.4	6	0	343	8	25	0	0	0	382	377.2

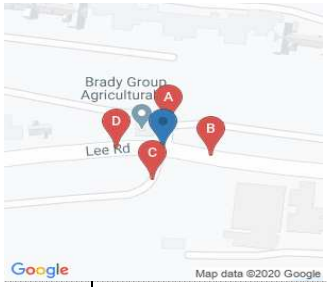


IDASO

Survey Name: 031 20030 Cork City
Site: Site 8
Location: Lee Road / Unnamed Road
Date: Thu 27-Feb-2020

	C => A										C => B									
TIME	P/C	M/C	CAR	TAXI	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C	CAR	TAXI	LGV	OGV1	OGV2	PSV	TOT	PCU
07:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:15	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	1
07:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	1
08:00	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	1
08:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	1
09:00	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	2	2
09:15	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	2	0.4
09:30	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	1
09:45	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1	0.2
H/TOT	0	0	0	0	0	0	0	0	0	0	3	0	3	0	0	0	0	0	6	3.6
3 TOT	0	0	0	0	0	0	0	0	0	0	3	0	5	0	0	0	0	0	8	5.6

	C => A										C => B									
TIME	P/C	M/C	CAR	TAXI	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C	CAR	TAXI	LGV	OGV1	OGV2	PSV	TOT	PCU
16:00	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	2	2
16:15	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	2	1.2
16:30	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	0	3	3
16:45	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	1
H/TOT	0	0	0	0	0	0	0	0	0	0	1	0	7	0	0	0	0	0	8	7.2
17:00	0	0	0	0	0	0	0	0	0	0	1	0	2	0	0	0	0	0	3	2.2
17:15	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	0	3	3
17:30	0	0	0	0	0	0	0	0	0	0	3	0	1	0	0	0	0	0	4	1.6
17:45	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	2	2
H/TOT	0	0	0	0	0	0	0	0	0	0	4	0	8	0	0	0	0	0	12	8.8
18:00	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	1
18:15	0	0	1	0	0	0	0	0	1	1	0	0	5	0	0	0	0	0	5	5
18:30	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	1
18:45	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	0	3	3
H/TOT	0	0	1	0	0	0	0	0	1	1	0	0	10	0	0	0	0	0	10	10
3 TOT	0	0	1	0	0	0	0	0	1	1	5	0	25	0	0	0	0	0	30	26

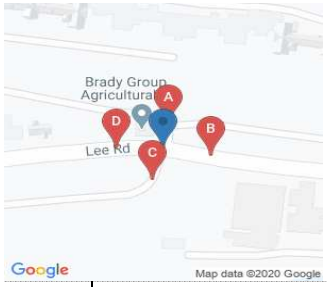


IDASO

Survey Name: 031 20030 Cork City
Site: Site 8
Location: Lee Road / Unnamed Road
Date: Thu 27-Feb-2020

	C => C										C => D									
TIME	**P/C**	**M/C**	**CAR**	**TAXI**	**LGV**	**OGV1**	**OGV2**	**PSV**	**TOT**	**PCU**	**P/C**	**M/C**	**CAR**	**TAXI**	**LGV**	**OGV1**	**OGV2**	**PSV**	**TOT**	**PCU**
07:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	1
08:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	1
09:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
09:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
09:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
09:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3 TOT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	1

	C => C										C => D									
TIME	**P/C**	**M/C**	**CAR**	**TAXI**	**LGV**	**OGV1**	**OGV2**	**PSV**	**TOT**	**PCU**	**P/C**	**M/C**	**CAR**	**TAXI**	**LGV**	**OGV1**	**OGV2**	**PSV**	**TOT**	**PCU**
16:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16:15	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	2	2
16:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16:45	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	1
H/TOT	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	0	3	3
17:00	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	1
17:15	0	0	0	0	0	0	0	0	0	0	0	0	6	0	0	0	0	0	6	6
17:30	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	2	2
17:45	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	2	2
H/TOT	0	0	0	0	0	0	0	0	0	0	0	0	11	0	0	0	0	0	11	11
18:00	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	2	2
18:15	0	0	0	0	0	0	0	0	0	0	0	0	4	0	0	0	0	0	4	4
18:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18:45	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	1
H/TOT	0	0	0	0	0	0	0	0	0	0	0	0	7	0	0	0	0	0	7	7
3 TOT	0	0	0	0	0	0	0	0	0	0	0	0	21	0	0	0	0	0	21	21

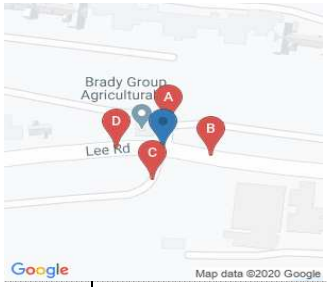


IDASO

Survey Name: 031 20030 Cork City
Site: Site 8
Location: Lee Road / Unnamed Road
Date: Thu 27-Feb-2020

	D => A										D => B									
TIME	**P/C**	**M/C**	**CAR**	**TAXI**	**LGV**	**OGV1**	**OGV2**	**PSV**	**TOT**	**PCU**	**P/C**	**M/C**	**CAR**	**TAXI**	**LGV**	**OGV1**	**OGV2**	**PSV**	**TOT**	**PCU**
07:00	0	0	0	0	0	0	0	0	0	0	0	0	10	0	1	0	0	0	11	11
07:15	0	0	0	0	0	0	0	0	0	0	0	0	24	0	3	0	0	0	27	27
07:30	0	0	1	0	0	0	0	0	1	1	0	0	34	0	5	0	0	0	39	39
07:45	0	0	1	1	0	0	0	0	2	2	0	0	56	1	3	0	0	0	60	60
H/TOT	0	0	2	1	0	0	0	0	3	3	0	0	124	1	12	0	0	0	137	137
08:00	0	0	0	1	0	0	0	0	1	1	0	0	112	1	1	0	0	0	114	114
08:15	0	0	2	0	0	1	0	0	3	3.5	0	0	101	1	3	0	0	0	105	105
08:30	0	0	0	0	1	0	0	0	1	1	0	0	92	1	4	0	0	0	97	97
08:45	0	0	1	0	0	0	0	0	1	1	1	0	96	0	3	0	0	0	100	99.2
H/TOT	0	0	3	1	1	1	0	0	6	6.5	1	0	401	3	11	0	0	0	416	415.2
09:00	0	0	0	0	0	0	0	0	0	0	1	0	73	2	6	0	0	0	82	81.2
09:15	0	0	1	0	0	0	0	0	1	1	0	0	33	1	0	1	0	0	35	35.5
09:30	0	0	0	0	0	0	0	0	0	0	0	0	22	0	0	0	0	0	22	22
09:45	0	0	0	0	0	0	0	0	0	0	0	0	19	1	1	0	0	1	22	23
H/TOT	0	0	1	0	0	0	0	0	1	1	1	0	147	4	7	1	0	1	161	161.7
3 TOT	0	0	6	2	1	1	0	0	10	10.5	2	0	672	8	30	1	0	1	714	713.9

	D => A										D => B									
TIME	**P/C**	**M/C**	**CAR**	**TAXI**	**LGV**	**OGV1**	**OGV2**	**PSV**	**TOT**	**PCU**	**P/C**	**M/C**	**CAR**	**TAXI**	**LGV**	**OGV1**	**OGV2**	**PSV**	**TOT**	**PCU**
16:00	0	0	0	0	0	0	0	0	0	0	0	0	20	0	2	0	0	0	22	22
16:15	0	0	0	0	0	0	0	0	0	0	1	0	14	1	4	0	0	0	20	19.2
16:30	0	0	1	0	0	0	0	0	1	1	0	0	23	0	2	0	0	0	25	25
16:45	0	0	0	0	0	0	0	0	0	0	0	0	19	0	3	0	0	0	22	22
H/TOT	0	0	1	0	0	0	0	0	1	1	1	0	76	1	11	0	0	0	89	88.2
17:00	1	0	0	0	0	0	0	0	1	0.2	0	0	21	1	3	0	0	1	26	27
17:15	0	0	0	0	0	0	0	0	0	0	1	0	20	0	0	0	0	0	21	20.2
17:30	0	0	3	0	0	0	0	0	3	3	0	0	23	0	0	0	0	0	23	23
17:45	0	0	1	0	0	0	0	0	1	1	0	0	18	0	0	0	0	0	18	18
H/TOT	1	0	4	0	0	0	0	0	5	4.2	1	0	82	1	3	0	0	1	88	88.2
18:00	0	0	1	0	0	0	0	0	1	1	0	1	14	0	1	0	0	0	16	15.4
18:15	0	0	2	0	0	0	0	0	2	2	0	0	21	0	1	0	0	0	22	22
18:30	0	0	1	0	0	0	0	0	1	1	0	0	21	0	0	0	0	0	21	21
18:45	0	0	0	0	0	0	0	0	0	0	0	0	12	2	1	0	0	0	15	15
H/TOT	0	0	4	0	0	0	0	0	4	4	0	1	68	2	3	0	0	0	74	73.4
3 TOT	1	0	9	0	0	0	0	0	10	9.2	2	1	226	4	17	0	0	1	251	249.8



IDASO

Survey Name: 031 20030 Cork City
Site: Site 8
Location: Lee Road / Unnamed Road
Date: Thu 27-Feb-2020

	D => C										D => D									
TIME	**P/C**	**M/C**	**CAR**	**TAXI**	**LGV**	**OGV1**	**OGV2**	**PSV**	**TOT**	**PCU**	**P/C**	**M/C**	**CAR**	**TAXI**	**LGV**	**OGV1**	**OGV2**	**PSV**	**TOT**	**PCU**
07:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:00	0	0	1	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0
08:15	0	0	3	0	0	0	0	0	3	3	0	0	0	0	0	0	0	0	0	0
08:30	0	0	2	0	0	0	0	0	2	2	0	0	0	0	0	0	0	0	0	0
08:45	0	0	2	0	0	0	0	0	2	2	0	0	1	0	0	0	0	0	1	1
H/TOT	0	0	8	0	0	0	0	0	8	8	0	0	1	0	0	0	0	0	1	1
09:00	0	0	5	0	0	0	0	0	5	5	0	0	0	0	0	0	0	0	0	0
09:15	0	0	5	0	0	0	0	0	5	5	0	0	0	0	0	0	0	0	0	0
09:30	0	0	2	0	0	0	0	0	2	2	0	0	0	0	0	0	0	0	0	0
09:45	0	0	3	0	0	0	0	0	3	3	0	0	0	0	0	0	0	0	0	0
H/TOT	0	0	15	0	0	0	0	0	15	15	0	0	0	0	0	0	0	0	0	0
3 TOT	0	0	23	0	0	0	0	0	23	23	0	0	1	0	0	0	0	0	1	1

	D => C										D => D									
TIME	**P/C**	**M/C**	**CAR**	**TAXI**	**LGV**	**OGV1**	**OGV2**	**PSV**	**TOT**	**PCU**	**P/C**	**M/C**	**CAR**	**TAXI**	**LGV**	**OGV1**	**OGV2**	**PSV**	**TOT**	**PCU**
16:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16:30	0	0	1	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0
16:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
H/TOT	0	0	1	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0
17:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3 TOT	0	0	1	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0