Traffic and Transport Assessment

for **Proposed Development at Rosshill, Galway City**

On behalf of **Kegata Ltd.**

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Civil
Structural
Traffic

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Revision History

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Purpose of Issue: P=Preliminary PG=Progress C=Comment I=Information FC=Fire Cert Q=Quotation PL=Planning T=Tender CN=construction CT=Contract	P	P	P	P	P	P	P	P		
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Approved By:	FF					SS	SS	SS		

Report By: ..... Date: 14th January 2020

Francis Fidgeon
Chartered Engineer

Approved By: ..... Date: 14th January 2020

Stuart Summerfield
Partner

1 Non-Technical Summary

Planning permission is being sought for a residential development consisting of 342 no. units comprising 185 no. houses and 157 no. apartments, including a ground-floor community space, office, cafe and retail unit.

Manual classified traffic counts and capacity analysis was carried out at the following junctions:

- Junction 1: R338 Dublin Rd.-Rosshill Rd. Junction
- Junction 2: R338 Dublin Road-R338 Coast Road Junction
- Junction 3: R921 Old Dublin Road-Doughiska Road
- Junction 4: R338 Coast Road-Rosshill Road Junction
- Junction 5: Rosshill Road-Rosshill Farm Stud Junction

Predicted development traffic and committed development traffic was added to the existing flows at the junctions as well as traffic growth figures up to a design year of 2039.

Traffic generation has been included on the road network assuming full occupation of permitted adjacent development. Some junctions will be above capacity before the design year. These junctions are predicted to be above capacity in any case without the development, but one will occur earlier.

The proposed Galway Bypass will ultimately reduce traffic flow at these junctions. The development is being phased and this will allow some additional time towards implantation of the bypass.

2 Introduction

2.1 Background

CST Group Chartered Consulting Engineers were commissioned by Tobin Consulting Engineers to carry out a TTA for a Residential Development at Rosshill, approximately 5km from Galway City Centre. The assessment has been carried out in accordance with TII's Traffic and Transport Assessment Guidelines PE-PDV-02045 (May 2014) and refers to the Design Manual for Urban Roads & Streets (DMURS), Smarter Travel – A Sustainable Transport Future (2009-2020). Sections from the Galway City Council Development Plan have been used to help describe the development location and its local context.

The purpose of the TTA report is to assess the potential impact of the proposed development on the existing local transport network and to ensure that the proposed site access and the existing junctions which fall within the scope of the study will have adequate capacity to carry the development traffic and the future growth in existing road traffic to the design year and beyond. An assessment of the accessibility of the site for cyclists, pedestrians and public transport users has also been made.

The first phase of the development is estimated to be completed and occupied by 2022. It is estimated that the construction of the final phase will be completed and ready for occupation in 2024.

2.2 Scoping

Tobin Consulting Engineers initially carried out a Traffic Scoping exercise with Galway City Council's Roads Department in relation to the proposed development in May 2019. Galway City Council requested that analysis be carried out at the following junctions (as shown on Figure 3.4):

- Junction 1: R338 Dublin Rd.-Rosshill Rd. Junction
- Junction 2: R338 Dublin Road-R338 Coast Road Junction
- Junction 3: R921 Old Dublin Road-Doughiska Road
- Junction 4: R338 Coast Road-Rosshill Road Junction
- Junction 5: Rosshill Road-Rosshill Farm Stud Junction

The outcomes of this exercise were incorporated into the draft Traffic and Transport Assessment and draft design drawings. The design and access options were further reviewed and discussed at the Stage 1 meeting held between the Client / Design Team and Galway City Council in May 2019. Again, the resulting comments were taken on board and amendments to the design were incorporated where possible.

Galway City Councils Roads Department had further comments on the final draft design submitted prior to the Pre-Application Consultation Meeting. These were discussed at the Pre-Application Consultation Meeting held on the 27th of September 2019. Following on from this, a second meeting was held between Galway City Council's Roads Department and Tobin Consulting Engineers to further discuss the items raised and to allow Tobin Consulting Engineers to pose solutions and provide mitigation measures to the items raised by the Roads Department.

The main items raised by the Roads Department (and Design Team responses as discussed) are outlined as follows:

- A lack of pedestrian, cycling and public transport in the area resulting in high levels of commuting by car causing further traffic congestion in the area.
    - Tobin Consulting Engineers identified the pedestrian, cycling and public transport linkages to the site on drawings 10690-2013 and 2014. This information was tabled at the second meeting with Galway City Council's Roads Department. The information is also included in this final revision of the Traffic and Transport Assessment (refer to Section 14 of this Report). This shows that currently, there are public transport links within 1.1 km (a 12-minute walking time from the proposed development) with plans for future upgrading of the Dublin Road to incorporate bus lanes on both sides as part of the strategy to provide a better bus service in Galway City. Cycle lanes will also be provided on both sides of the road which will further enhance the linkages of the site to the City centre.
    - To further enhance the linkage to the site, the Developer has proposed to carry out maintenance works on the existing footpath network linking the site with the Dublin Road and the existing Bus Stops.
    - Consultation has also commenced between the Developer and the City Direct Bus Company in relation to the provision of a new bus service in the vicinity of the proposed development to serve the proposed development and surrounding residential developments in the area. A letter stating same is provided from City Direct and is appended to this Report.

- Clarification required regarding the proposed realignment of the Rosshill Stud Farm Road and its relationship with the existing road alignment.
    - The realignment of the access road has been clarified and is now clearly shown on drawing number 10690-2014 and the Architect's layout drawings. These identify the section of existing road which is to be decommissioned and closed off. The proposed realigned section of road is also identified on this drawing. The procedure to close this section of road will be undertaken and carried out in accordance with Galway City Council's requirements.

- That the proposed cycle parking facilities have not been given due consideration during the design process.
    - The rationale behind the bicycle parking was to provide ample parking for the apartment blocks to facilitate cyclists living in and people visiting these apartments. The cycle parking to be provided will be of a high standard and in accordance with the City Council's guidelines. It is envisaged that those living in houses can utilise their back gardens to store their bicycles.

- There is concern that the traffic analysis, particularly in relation to the Doughiska Rd / Dublin Road junction, is inadequate and doesn't reflect the current or expected situation in the area.
    - The analysis which was carried out for the draft revision of the Traffic and Transport Assessment reflected the queue lengths averaged out over the peak hour, not the peak 15 min period. This resulted in the outputs which were obtained from the LinSig analysis and the discrepancy with the expected outcomes. The analysis has been updated to reflect the current situation more accurately and the timeframes have also changed to reflect 15 min periods.
    - Also, the analysis has assumed the trip distribution will match current patterns and has not yet incorporated an allowance for traffic which will utilise the Oranmore Train Station to commute into the City.

3 Existing Conditions

3.1 Site Location

The development site is located 5km to the East of Galway City Centre. The proposed development site is an existing greenfield site located immediately to the south of the Galway-Dublin Rail Line. The site location in relation to the wider road network is detailed in Figure 3.1 & Figure 3.2 below. The area of the proposed development, Rosshill, falls within the boundary of the Galway City Development Plan (2017-2023), in which it has been zoned low density residential.

Figure 3.1: Location map of Proposed Development and surrounding road network ***©OpenStreetMap contributors***

3.2 Existing Road Network

The layout of the local road network is presented in Figures 3.1 and 3.2. The proposed development is bounded to the north by the Rosshill Road and the Galway Dublin Rail Line, and to the East by the Rosshill Farm Stud Road. A brief description of the local road network and associated junctions is provided below:

3.2.1 Rosshill Road

The Rosshill road is a single carriageway road with one lane in each direction. The Rosshill Road connects to the R338 Coast Road at its eastern end and the R338 Dublin Road at its western ends. Both junctions are priority-controlled T-Junctions that include right turning lanes on the regional road. There is a footway along the majority of the Northern Side of the Rosshill Road. It is constructed from an unbound material and is in a state of disrepair.

3.2.2 R338 Coast Road

The R338 Coast Road is a single carriageway road with one lane in each direction. The R338 links to the R338 Dublin Road via a signalised T-Junction at its western end and to the Oranmore region to the East. There are no footways provided on the Coast Road. There is a hard-shoulder along both sides of the R338 Coast Road.

3.2.3 R338 Dublin Road

The R338 Dublin Road is a single carriageway road with one lane in each direction and a segregated bus lane on the westbound (citybound) direction. The R338 Dublin Road links to the City Centre to the west and to the R338 Coast Road and R921 Old Dublin Road to the east (via a signalised T-Junction). There is a footway provided along the southern side of this road which connects to pedestrian infrastructure to the west (city centre) and to the east (Roscam and Doughiska residential areas).

3.2.4 Rosshill Farm Stud Road

The Rosshill Farm Stud Road is a single carriageway county lane that runs southerly from the Rosshill Road via a Priority-Controlled T-Junction. There are no pedestrian or cyclist facilities provided on this road. The existing road meets Rosshill Road at an angle more than 70 degrees and is not ideal for the increased usage as motorist are required to undertake a sharp turn at this junction. Also, elderly users can experience difficulty when attempting to look over their shoulder to observe oncoming traffic when exiting at such a sharp junction. As a result of this, the existing Rosshill Farm Stud/Rosshill Road Junction is to be realigned as part of the proposed development. This will involve construction of new carriageway from the proposed entrance to the development to the intersection with the Rosshill Road. A footway and cycleway will be provided along this new section of roadway as shown on Figure 3.3.

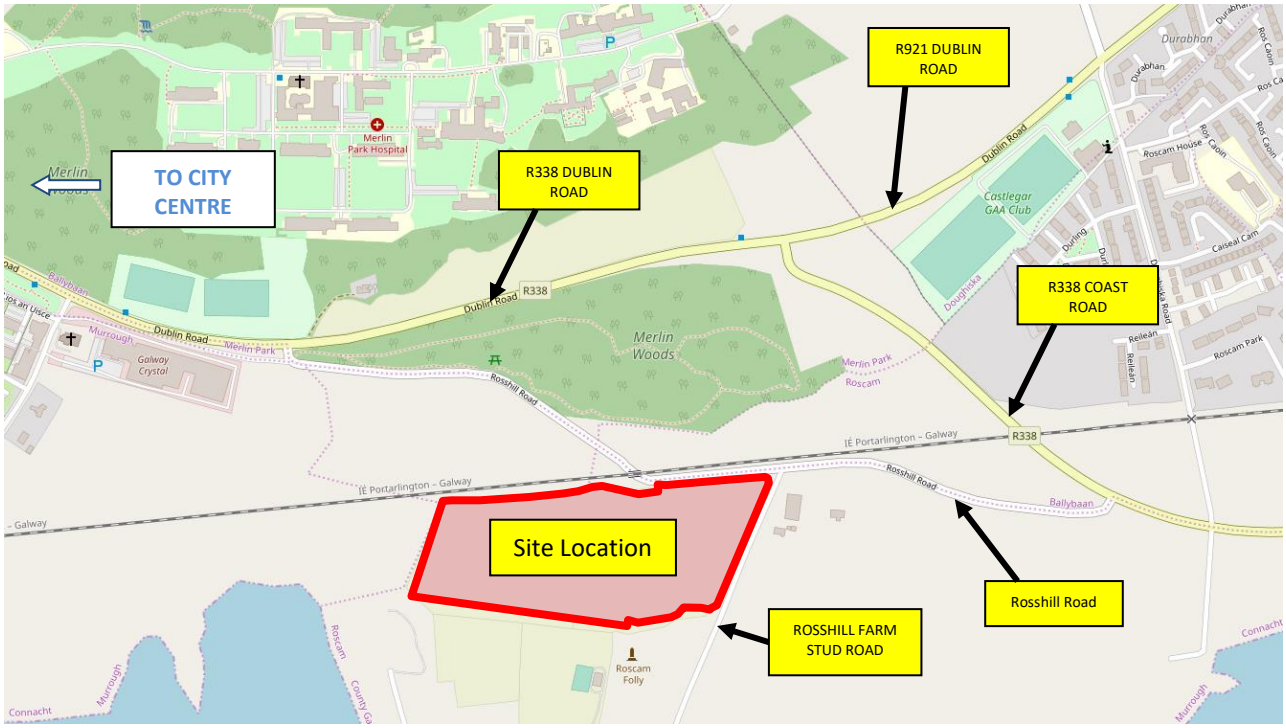


Figure 3.2: Site location and surrounding road network ***©OpenStreetMap contributors***

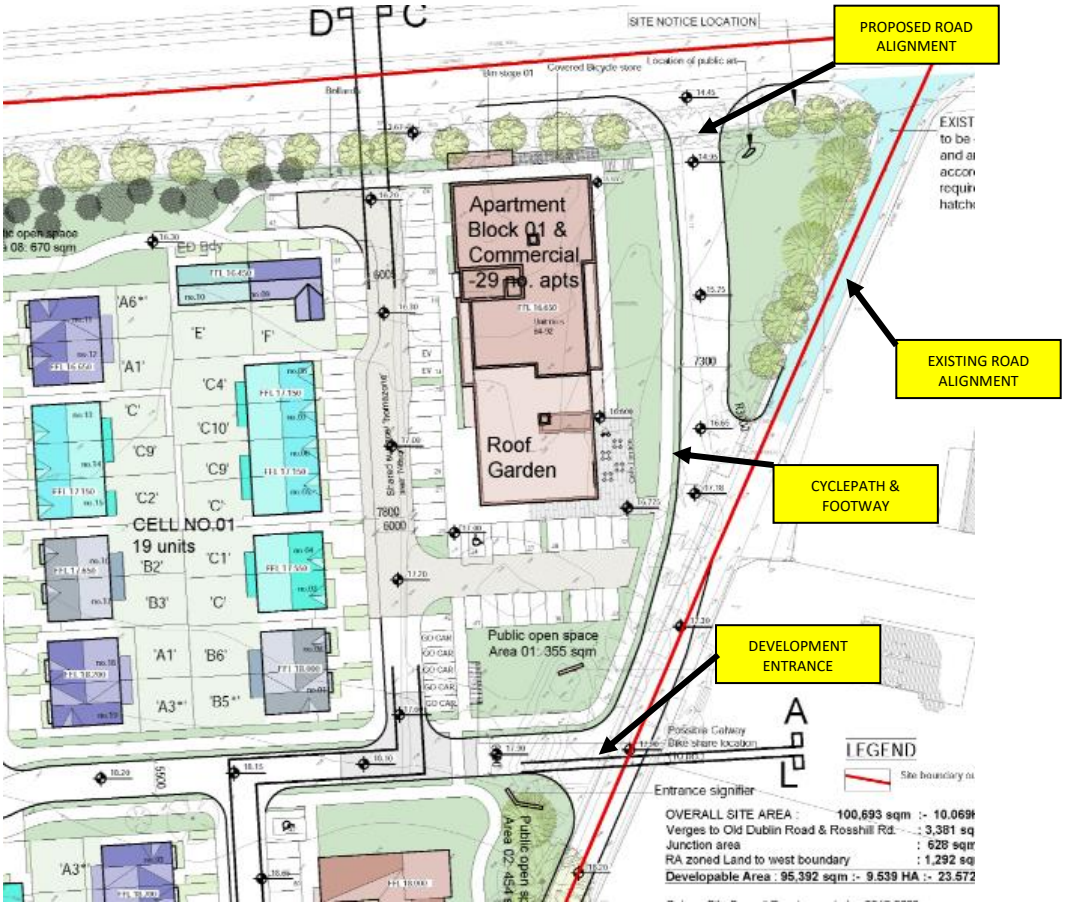


Figure 3.3: Realignment of Rosshill Farm Stud Road

3.3 Existing Traffic Flows

As mentioned in Section 2.2, the TTA was scoped with Galway City Council Roads and Transportation Dept on the 22nd of May 2019. The junctions to be analysed are:

- Junction 1: R338 Dublin Rd.-Rosshill Rd. Junction
- Junction 2: R338 Dublin Road-R338 Coast Road Junction
- Junction 3: R921 Old Dublin Road-Doughiska Road
- Junction 4: R338 Coast Road-Rosshill Road Junction
- Junction 5: Rosshill Road-Rosshill Farm Stud Junction

The location of these Junctions is shown on Figure 3.4. To determine the existing traffic volumes on the road network in the vicinity of the proposed development a manual classified traffic turning count survey was carried out at these junctions.

These counts were undertaken by IDASO on 20th September 2018 for a 12-hour period from 7.00am to 7.00pm, and on the 15th of November 2018 for a 24-hour period from 00:00 to 24:00. The surveys found that the mean morning peak hour traffic flow at Junction 1 occurred between 07:30am and 08:30am and the evening peak hour occurred between 5:15pm and 6:15pm. The surveys found that the mean morning peak hour traffic flow at Junction 2 occurred between 07:45am and 08:45am and the evening peak hour occurred between 4:45 and

5:45pm. The surveys found that the mean morning peak hour traffic flow at Junction 3 occurred between 08:15am and 09:15am and the evening peak hour occurred between 5:15pm and 6:15pm. The surveys found that the mean morning peak hour traffic flow at Junction 4 occurred between 07:30am and 08:30am and the evening peak hour occurred between 5:00pm and 6:00pm. Junction 5 occurred between 07:30am and 08:30am and the evening peak hour occurred between 5:00pm and 6:00pm.

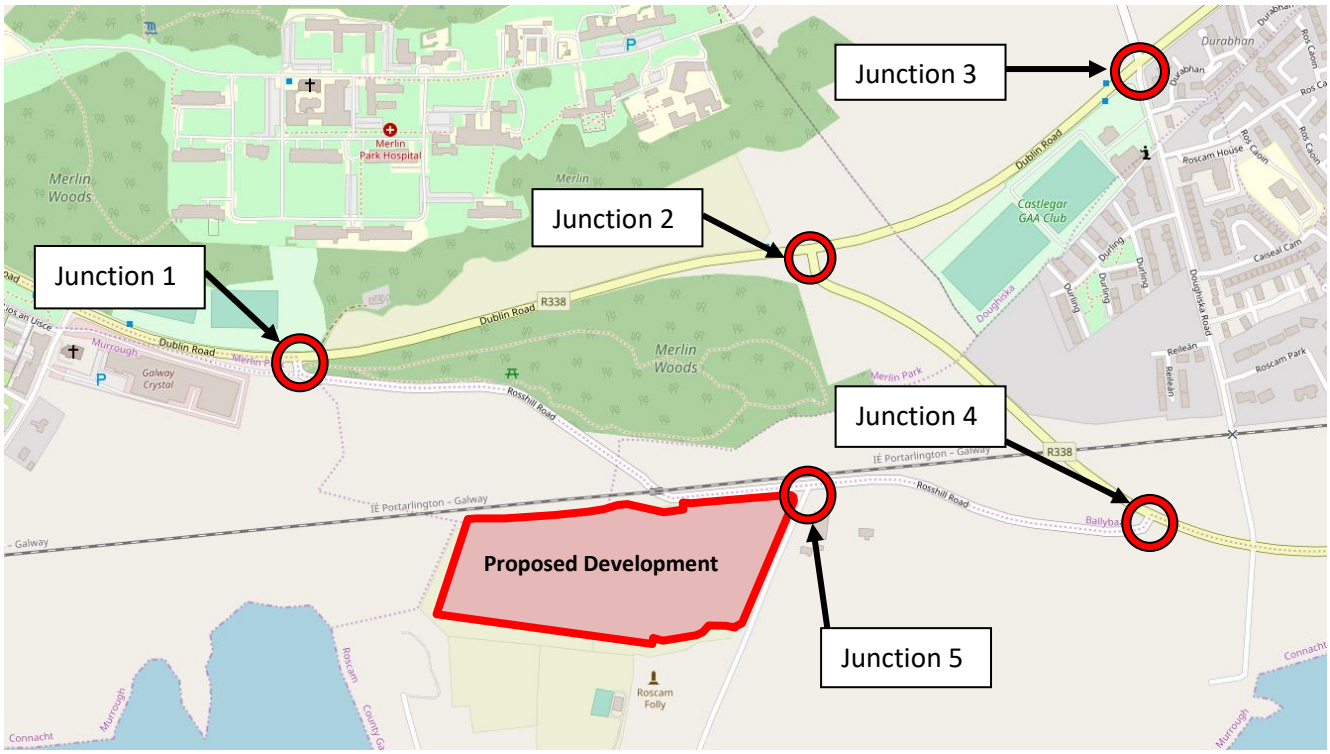


Figure 3.4: Identified Junctions for Analysis (© OpenStreetMap contributor)

The results of the surveys have been reproduced in full as **Appendix A** to this report. The calculated morning and evening peak hour turning count flows at the development are detailed in the traffic flow diagrams presented in **Appendix C**.

3.4 Transport Proposals

As part of the traffic and transport assessment for the proposed development, a study of the transport proposals that could impact on the development was undertaken. These are outlined below.

3.4.1 N6 Galway City Ring Road

The N6 Galway City Ring Road (GCRR) comprises the construction of approximately 6km of a single carriageway from the western side of Barna Village as far as Ballymoneen Road and approximately 12km of dual carriageway from Ballymoneen Road to the eastern tie-in with the existing N6 at Coolagh, Briarhill, and associated link roads, side roads, junctions and structures. The Application for the N6 Galway City Ring Road (GCRR) was lodged with An Bord Pleanála (ABP) in October 2018. Following that, approximately 300 submissions/objections were received by ABP. The N6 GCRR Project Team are now assessing these and preparing responses. In addition, ABP have requested further information seeking clarifications and again the N6 GCRR Project Team are preparing a response to this.

It is expected that this scheme will have significant beneficial impact on the traffic distribution throughout the Galway City and Environs. It should reduce through traffic on the roads in the vicinity of the proposed development.

A schematic of the scheme is shown in Figure 3.5 below.

Figure 3.5: Proposed N6 Galway Ring Road Route (© Galway Transport Strategy)

4 Proposed Development

4.1 Description

The application is for a residential development consisting of 342 no. units comprising 185 no. houses and 157 no. apartments, including a ground-floor community space, office, cafe and retail unit. The residential dwelling units are a combination of 2-bed, 3-bed and 4-bed terraced, semi and detached houses. The apartment units consist of a combination of 1-bed and 2-bed apartments. A two-storey childcare facility is also included. The provision of public realm landscaping including shared public open space and play areas, public art, public lighting, resident and visitor parking including car rental bays, electric vehicle charging points and bike rental spaces. There are pedestrian, cyclist and vehicular links throughout the development. Access road and junction improvements at Rosshill Road/Old Dublin Road. Provision of all associated surface water and foul drainage services and connections including pumping station. All associated site works and ancillary services. A Natura Impact Statement ('NIS') and Environmental Impact Assessment Report ('EIAR') have been prepared and accompany the application. The application is also accompanied by a Statement of Material Contravention of the Development Plan.

The land surrounding the immediate site is mixed low-density residential, consisting primarily of one-off housing. Rosshill Farm Stud is located to the south of the proposed development site, with the Galway-Dublin Rail line bounding the north of the site.

The proposed layout for the development has been reproduced in sketch format in Figure 4.1 and is detailed in the series of drawings as submitted with this application.

Figure 4.1: Proposed Site Layout

4.2 Internal Layout

The site is very near Galway Bay and is a relatively level site. It is immediately south of the Dublin-Galway railway line which has a railway bridge over the Rosshill Road. The site is 10 ha and approximates to a rectangle measuring 500m east/west and 200m north/south. The existing access point is off Rosshill Farm Stud Road. The proposed access point is also off Rosshill Farm Stud Road, which is to be realigned and upgraded from Rosshill Road to the proposed access. DMURS principles and best practice has been used for the layout design.

The scheme has a spine road running east-west for a large part from the site access. However, this road has been designed not to form a long straight but rather is deviated slightly through sharp curves at various intervals to provide traffic calming and so that it does not appear as a long road. Buildings thus come into view at the end of sections of the road.

Some homezone areas are provided where pedestrians and motorists share the carriageway to slow speeds.

Secondary roads either loop with each other so not turning/reversing is required or are provided with turning areas.

4.3 Service and Delivery Trips

Service and delivery trips to and from the development will be via the site entrance at the east of the development. It is envisaged that most delivery and service trips for the commercial element will occur during off-peak times.

An AutoTrack swept path analysis for the largest delivery vehicle type (16.5m articulated vehicle) accessing the development from the entrance junction and the realigned junction with the Rosshill Road should be carried out. The swept path of the maximum legal vehicle should not cross any proposed parking spaces.

5 Cumulative Impacts

Pre-planning discussions were held with Galway City Council in relation to the proposed development. There is one proposed development to the northwest of the site that was highlighted – Merlin Park.

5.1 Development at Merlin Park

5.1.1 Housing Development

The proposed Merlin Park development consists of 16 No. 2-storey, 5-bedroom, detached houses, together with individual garages. This development was granted planning permission in 2017. The Merlin Park development will be accessed via a new priority junction along the Rosshill Road to the northwest of the site. Work has commenced on this development. A new footway is also being constructed along the road frontage of the site.

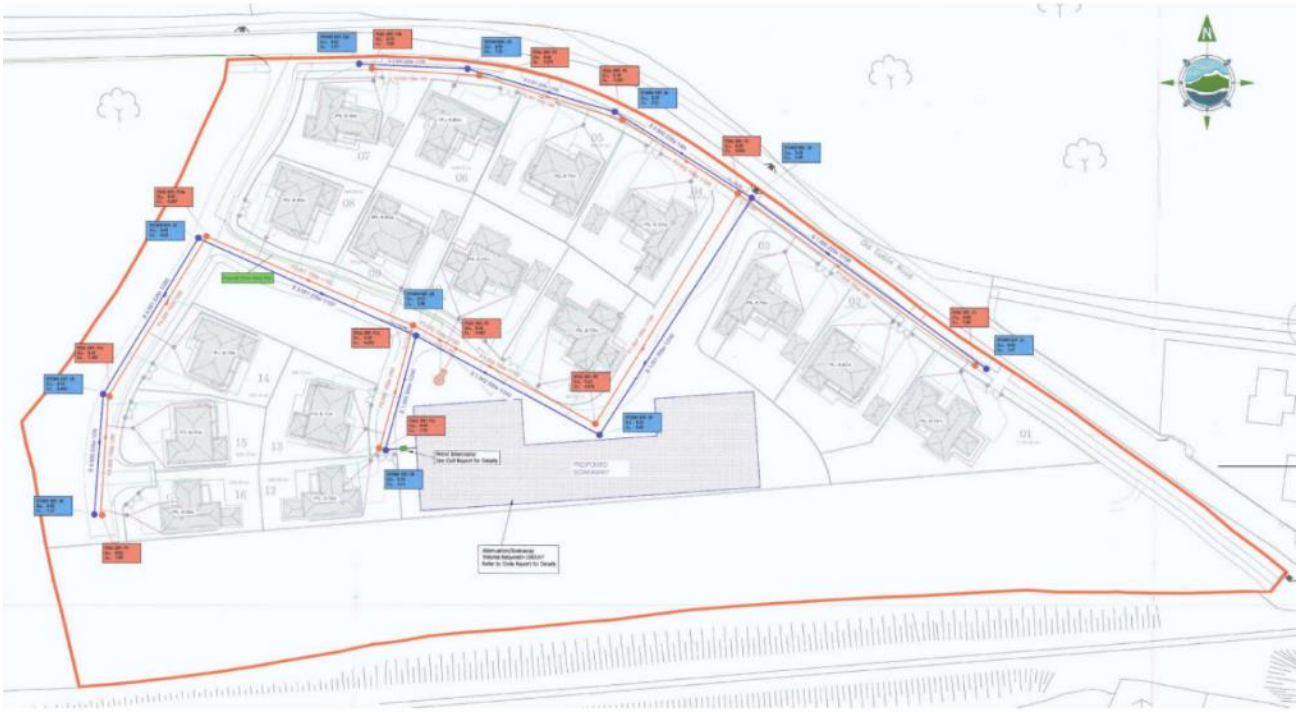


Figure 5.1: Proposed Merlin Park Layout

6 Trip Generation

6.1 General

The purpose of this section is to determine the overall number of trips that will be generated by the proposed development and adjacent committed developments. Following the quantification of the trip generation, these trips will be distributed onto the adjoining roads in order to provide the necessary traffic flows to allow an assessment of the traffic impact by the proposed development to be undertaken.

In order to estimate the likely volumes of traffic that will be generated by the proposed development, Galway City Council indicated that trip rates recommended by TRICS (Trip Rate Computer Information System) were not acceptable for the proposed development. Therefore, a traffic count was undertaken at a similar development (An Réileán Development) to calculate the turn-in rates at the proposed development. The similar development consists of 82 housing units and 2 apartment blocks (24 apartments). These figures were applied pro-rata to the relevant number of housing and apartment units within the proposed development. The estimated total number of vehicular trips generated by the proposed development is shown in **Table 6.1.**

TRICS was used to estimate the volume of traffic that will be generated by the recently commenced housing nearby (Merlin Park) and is also included in Table 6.1.

Landuse		Number of Trips			
	Residential Units	AM Arrivals	AM Departures	PM Arrivals	PM Departures
Proposed Mixed Residential (Apartments & Houses) Ph 1	51	8	27	20	8
Proposed Mixed Residential (Apartments & Houses) Ph 2	53	8	28	21	8
Proposed Mixed Residential (Apartments & Houses) Ph 3	143	22	76	57	22
Proposed Mixed Residential (Apartments & Houses) Ph 4	95	14	50	38	14
Adjacent Development Houses Privately Owned (TRICS)	*16*	*4*	*9*	*8*	*5*
TOTAL		**56**	**190**	**143**	**57**

Table 6.1: Predicted Traffic Generated by Proposed Development & Merlin Park

7 Traffic Forecasting

7.1 Future Baseline Traffic Growth

In the absence of any specific local traffic growth information it was assumed that baseline traffic will continue to grow at the levels recommended by TII in the Project Appraisal Guidelines (PAG) – Unit 5.3 'Travel Demand Projections' publication (PE-PAG-02017). The Project Appraisal Guidelines describe three levels of transport model functionality. The simple model, which reflects traffic volumes on the basis of link flows, is best suited to the proposed development. Such models do not attempt any route assignment, and hence are applicable for networks where no change in traffic flows will result from a proposed scheme. Growth rates recommended in PAG – Unit 5.3 have been used to determine future traffic flows on the road network within the vicinity of the development. We have used figures from it for the Mid-West area which includes Galway City.

The year of opening of the scheme was assumed to be 2024. The central growth factors from the Project Appraisal Guidelines – Unit 5.3 publication were used and are detailed below: -

- TII Link Based Growth Rates: Annual Growth Factor for 2013-2030 = 1.0099 (LVs) and 1.0237 (HVs);
- TII Link Based Growth Rates: Annual Growth Factor for 2030-2050 = 1.0000 (LVs) and 1.0176 (HVs).

The annual growth factors for Light Vehicles (LVs) and Heavy Vehicles (HV) were applied to surveyed values of vehicles counted.

With regards to the volume of traffic using the road, the passenger car is adopted as the standard unit and other vehicles are assessed in terms of PCU's. Cars and Light Goods Vehicles are grouped together as Light Vehicles (LV). All other Goods Vehicles, Buses and Coaches are defined as Heavy Vehicles (HV).

The classification of vehicles in PCU's is shown below:

Vehicle	PCU
Car	1
Light Goods Vehicle	1
Other Goods Vehicle (2 – 3 axle)	1.5
Other Goods Vehicle (4 – 5 axle)	2.3
Bus	2
Cycle	0.4

Table 7.1: Classification of Passenger Car Units

Estimated future baseline traffic flows on the road network in the vicinity of the proposed development were calculated by applying these factors to the 2019 surveyed flows. The resulting projected flows are detailed in the traffic flow diagrams in **Appendix C**.

8 Construction Stage Traffic

8.1 Introduction

As with any construction project, the contractor will be obliged to prepare a comprehensive traffic management plan for the construction phase. The purpose of such a plan is to outline the measures to manage the expected construction traffic activity during the construction period. In the interim, however, this section will provide an overview of the likely volume and routing of construction vehicles, based on a most likely scenario of construction.

8.2 Likely Construction Programme

The site as proposed would be expected to require approximately 5 years to complete from occupation of the site. It is planned that the development will be complete over 3 Phases as shown on the phasing drawings accompanying this application. Activities would include:

- Site Clearance;
- Excavation and Spoil Removal;
- Construction of Substructure;
- Construction of Superstructure; and
- Fitting and finishing.

The site will exhibit distinct characteristics during each stage of the construction programme, with varying demands for site deliveries, spoil removal, and car parking by site operatives. A phasing plan for the development has been prepared by the architect and accompanies this application. An indicative construction compound arrangement has been included as part of the phasing plan accompanying this application.

8.3 Parking and Construction Staff

Parking for site operatives will be a requirement throughout the contract. It would be expected that a site of this size would generate a requirement for in the region of 40-50 site operatives during the peak period of construction, and which would lead to a parking requirement for about 30 vehicles.

During the early stages parking will be available on the areas of site where construction of blocks has yet to begin. Due to the large area of the site the parking demand will be accommodated wholly within the site.

A Traffic Management Plan for the construction stage would include parking arrangements and be agreed with Galway City Council prior to commencement of the works on site.

8.4 Deliveries to Site

The Traffic Management Plan for the construction stage would identify haulage routes and restrictions as appropriate in discussion with the Local Authority. There is a height restriction where the railway line goes over Rosshill Road.

8.5 Spoil Removal

It is anticipated that spoil removal from the site will be minimal.

8.6 Mitigation Measures

Construction debris (particularly site clearance, spoil removal and dirty water runoff such as dewatering or 'wash' from concreting activities) can have a significant impact on footpaths and roads adjoining a construction site, if not adequately dealt with. There will, therefore, be a requirement for comprehensive measures as part of the construction management, such as:

- Routine sweeping/cleaning of the road and footpaths in front of the site; and
- No uncontrolled runoff to the public road from dewatering/pumping carried out during construction activity.

The mitigation measures will therefore ensure that the presence of construction traffic will not lead to any significant safety concerns in the vicinity of the proposed works.

9 Modal Split

Government policy stated in the document published by the Department of Transport entitled, 'Smarter Travel, A Sustainable Transport Future 2009-2020' sets targets for modal split. The first goal is to achieve a mode split of 45% trips by car drivers (maximum) and 55% trips by walking, cycling and public transport and other sustainable modes (minimum targets) for persons in the proposed development who are travelling to work.

The Central Statistics Office (CSO) has previously established a modal split in the Galway City Area as shown below.

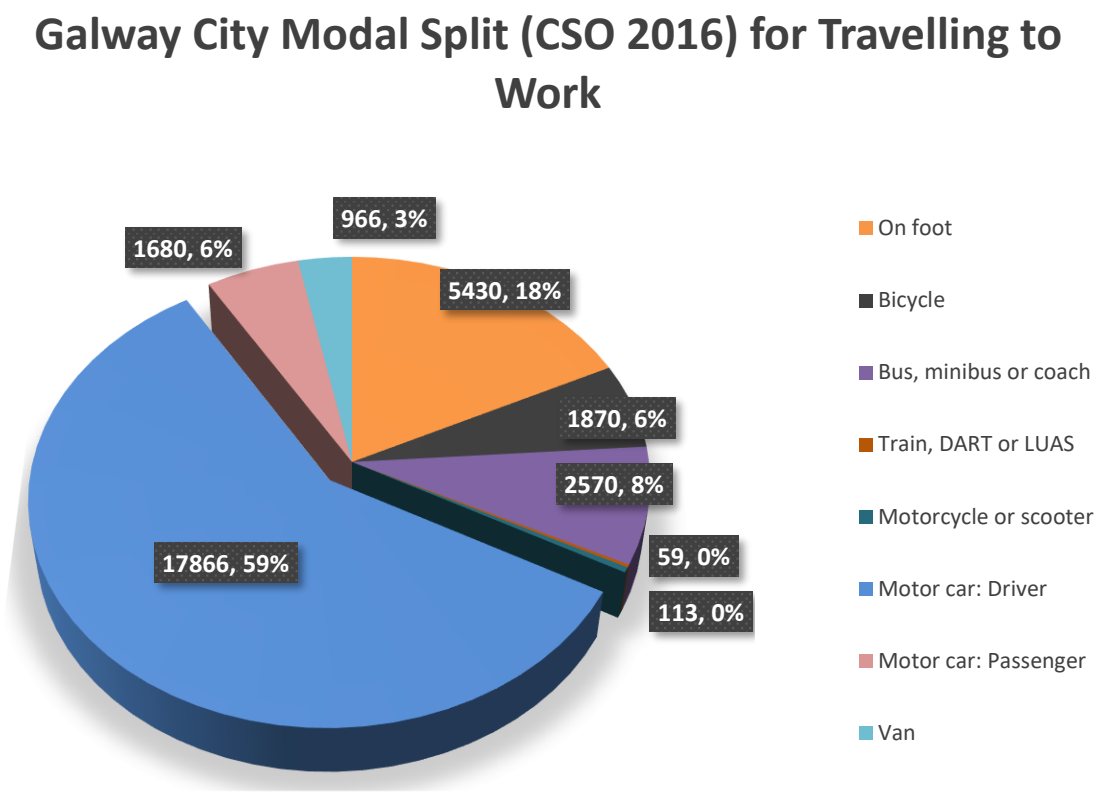


Figure 9.1: 2016 Modal Split

As shown in the above chart, car is the dominant mode of transport in Galway City, accounting for 65% of all trips. Walking provides for a high proportion of trips, amounting to nearly 18% overall mode share. It should be noted that the proposed development is located 5km from Galway City Centre, so the numbers of walking commuters could be expected to be less than shown on the CSO data due to the distance of the development from the City Centre. However, the aim should be to provide adequate cycling and public transport commuting through the provision of appropriate infrastructure.

9.1 Existing Site Infrastructure Audit

A site audit was carried out on the existing infrastructure in the vicinity of the development and established the following:

- Existing Sustainable Transport Infrastructure: There is an existing bus stop located at the junction of the development access and the Rosshill Road. However, there are no public bus routes servicing this stop at present. The nearest bus stop to the proposed development that is currently in use is the Dublin Road Coast Road Bus Stop which is serviced by the 404 & 409 bus routes which service the City Centre. This stop is a 1.2km walk from the proposed development and as discussed above, the route is not serviced with footways. There is another stop located 1.3km to the west of the development, on the R338 Dublin road, which is also serviced by the 404 & 409 routes. There is a footway along the majority of the route from the proposed development to this bus stop, along the northern side of the Rosshill Road, however it is unbound, and sections of the footway are missing.
  The existing Oranmore train station on the Galway-Dublin line is 2.8km away from the site and is accessed via the R338 Coast Road. There are no pedestrian facilities from the development to this train station. See Chapter 14 for further details on Public Transport.

- Existing Cycling facilities: There are no existing cycle lanes on the Rosshill Road. Cyclists are required to share the carriageway with vehicular traffic. There are no existing cycling facilities along the R338 Dublin Road. However, there is a bus lane along the westbound carriageway which cyclists are permitted to use. There are no existing cycling facilities along the R338 Coast Road, however there is a hard shoulder in both directions which cyclists are permitted to use.

- Existing Pedestrian facilities: There is an existing footway along the northern boundary of the Rosshill Road at the junction of the development. However, it is unbound and in a poor condition. From the junction between the Rosshill Farm Stud-Rosshill Road junction this footway runs easterly along the Rosshill Road towards the R338 Coast Road. It terminates before the junction with the R338 Coast Road. In a westerly direction, the footway runs until terminating at the railway underbridge on the Rosshill Road. A footway then re-emerges 260m west of the Railway underbridge and continues to the intersection with the R338 Dublin Road, before terminating around 40m from the junction. A footway is provided along the southern boundary of the R388 Dublin Road which connects in a westerly direction with the city centre and in an easterly direction where it links with Doughiska/Roscam.

9.2 Proposed Development

As part of the proposed development it is proposed to implement the following changes to encourage a modal split in line with the Smarter travel objectives.

- **Proposed Sustainable Infrastructure:** Preliminary discussions have been held by the applicant with local Bus Operators to ascertain the feasibility of the commencement of an active route servicing the development via the existing bus stop. A letter from "City Direct" reproduced in **Appendix D** confirms their interest in this.

- **Proposed Cycling facilities:** It is proposed to provide an off-road cycle track from the proposed development to the realigned junction with the Rosshill Road. From this intersection, cyclists travelling along the Rosshill Road will then share the carriageway with vehicular traffic to the intersection of the R338 Dublin Road, where a bus lane is available for cyclists, or the R338 Coast Road, where a hard shoulder is provided. Furthermore, bike rental stands are being provided within the development.
- **Proposed Pedestrian Facilities:** It is proposed to provide a pedestrian footway from the development to the junction with the Rosshill Road. Pedestrians can then cross this roadway to use the existing Pedestrian Footway along the Northern Boundary of the Rosshill Road. This footway is under the control of Galway City Council. As noted above, sections of this footway are in a state of disrepair and some key linkages are missing. It is proposed to improve these pedestrian facilities as part of the development by providing a full continuous footpath and repairing existing paths. This would provide access to the existing pedestrian facilities provided on the R338 Dublin Road.
- **GoCar Scheme:** The development management company will include a GoCar scheme on the apartment blocks.
- **Electric Vehicles:** Charging points for electric vehicles are being provided for the apartments.

9.3 Neighbouring Development

Existing local shops are located to the east and north of the proposed development, some 12 minutes walking (approx. 1km). A café/restaurant/homewares area is located a 10-minute walk away (800m). Roscam residential estate is 1km to the east and Murrough residential estate 1.2km west. Merlin Park University Hospital is just over 2km from the site. The existing Oranmore train station on the Galway-Dublin line is 2.8km away. Figure 9.2 overleaf provides contextual analysis of the site in relation to surrounding developments.

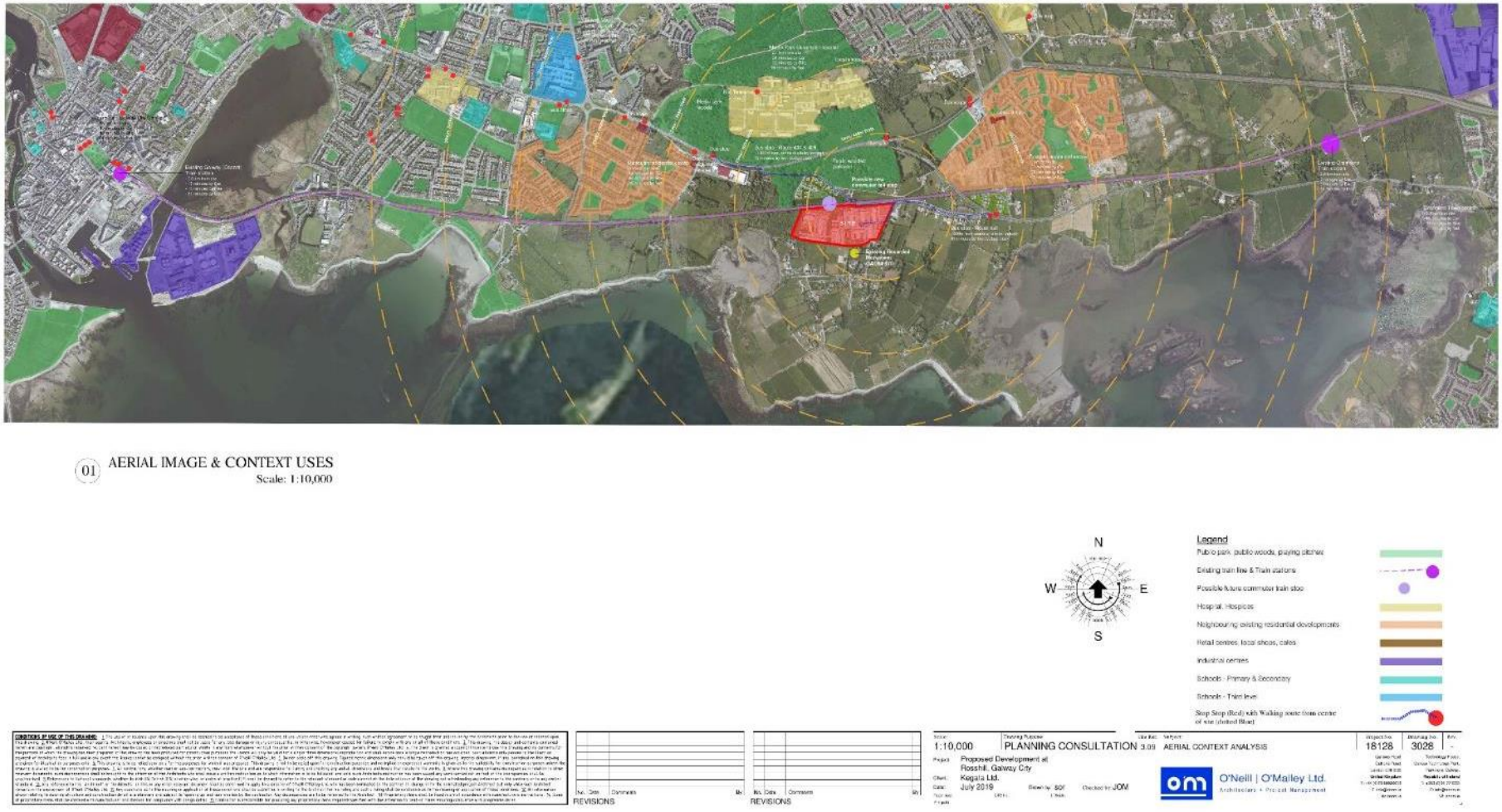


Figure 9.2: Contextual Analysis

10 Trip Assignment and Distribution

The trips generated by the proposed development were distributed on the study area road network typically using existing turning proportions observed from the traffic surveys at the junctions in the area. One exception is that all traffic arriving at the Dublin Road from the Coast Road is assumed to turn right and vice versa all traffic arriving at this junction is expected to turn left off the Dublin Road.

The assumed percentage distributions at the existing junctions and proposed junction in the vicinity of the development site and the resulting AM and PM peak hour traffic turning flows generated by the proposed development are detailed in the diagrams presented in **Appendix C.**

11 Assessment and Road Impact

11.1 Description

The impact on the local road network has been assessed by examining the projected traffic flows on the local road network both 'with' and 'without' the proposed development in place. The morning peak period and the evening peak period have been examined in order to assess the busiest case in terms of local traffic on the road network and traffic generated by the proposed development.

11.2 Junction Analysis

Capacity analysis was carried out using the JCT Consultancy Traffic Signal Design & Analysis Software package LinSig and also with the TRL software package PICADY.

LinSig was used to carry out an analysis of traffic signal controls at the existing junctions:

- Junction 2: R338 Dublin Road-R338 Coast Road Junction
- Junction 3: R921 Old Dublin Road-Doughiska Road

PICADY was used for the following existing priority-controlled T-Junctions:

- Junction 1: R338 Dublin Rd.-Rosshill Rd. Junction
- Junction 4: R338 Coast Road-Rosshill Road Junction
- Junction 5: Rosshill Road-Rosshill Farm Stud Junction

These 5 No. junctions are shown in Figure 11.1 and were analysed for the following traffic flow scenarios:

- 2024 Opening Year AM and PM peak hour flows without proposed development in place;
- 2024 Opening Year AM and PM peak hour flows with proposed development in place;
- 2029 Opening Year + 5 Years AM and PM peak hour flows without proposed development in place;
- 2029 Opening Year + 5 Years AM and PM peak hour flows with proposed development in place.
- 2039 Opening Year + 15 Years AM and PM peak hour flows without proposed development in place;
- 2039 Opening Year + 15 Years AM and PM peak hour flows with proposed development in place.

The existing junctions were also analysed in the current year, 2019, without the development in place.

Estimated turning movements for each of the above scenarios were calculated by summing the predicted generated flows and the expanded baseflows. Total traffic turning flow diagrams for each analysis scenario have been reproduced in the traffic flow diagrams in Appendix B. The following sections summarise the findings of the junction capacity modelling for each of the junctions within the study area.

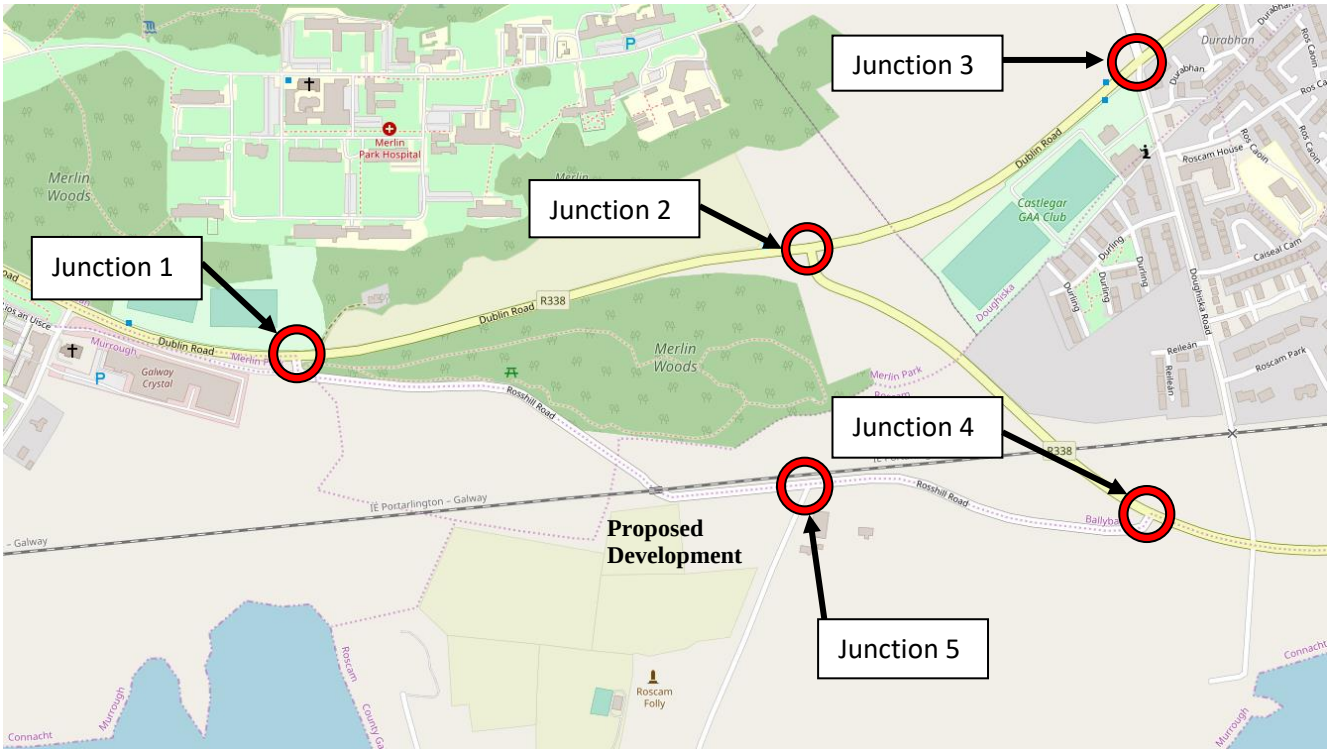


Figure 11.1: Identified Junctions for Analysis (© OpenStreetMap contributor)

PICADY Note:

The ratio of flow to capacity (RFC) is an indicator of the likely performance of a junction under design year loading. Due to site to site variation, there may be a standard error of prediction of the entry capacity by the formulae of + or - 15% for any site. Thus, queuing should not occur in the various turning movements in the chosen design year peak hour in 5 out of 6 peak hour periods or sites if a maximum RFC of about 85% is used.

LinSig Analysis Note:

The Degree of Saturation (DOS) is defined as the ratio of demand flow to the maximum flow which can be passed through the intersection from a particular approach.

Practical Capacity is the level of capacity above which the junction is assumed to work inefficiently (90% saturated).

Practical Reserve Capacity (PRC) is the amount by which traffic demand can grow before Practical Capacity is reached.

11.2.1 Junction between Old Dublin Road R338-Rosshill Rd. (Junction 1)

This Junction is the first junction accessing the development that is encountered by traffic travelling from Galway City Centre along the R338 (in an easterly direction) and takes the form of a priority-controlled T-Junction. The main road through the junction is the R338 which runs in an east-west direction linking Galway City Centre to the N67.

There is a right turn lane on the eastbound carriageway of the R338 which provides a safe dwell area for right turners into Rosshill Rd. from the R338. There is a bus lane on the westbound carriageway of the R338 from which a dedicated left turn lane onto the Rosshill Rd. is developed 40m from the junction. There is one exit lane from the Rosshill Rd.

Figure 11.2: Existing Junction (Looking Eastward)

The results of the PICADY analysis for the junction have been summarised in the tables overleaf and are reproduced in full in **Appendix E1**.

Approach Arm/Turning Movement	RFC (%)	Delay (s)	Max. Queue (PCU)
	Without Dev.	Without Dev.	Without Dev.
Rosshill Road	90.1	63	6.9
Old Dublin Road West	5.1	9	0.1

Table 11.1: 2019 AM Peak Period – Junction between Old Dublin Road R338-Rosshill Rd

Approach Arm/Turning Movement	RFC (%)		Delay (s)		Max. Queue (PCU)	
	Without Dev.	With Dev.	Without Dev.	With Dev.	Without Dev.	With Dev.
Rosshill Road	101.9	122.3	136	402	17.5	59.3
Old Dublin Road West	5.9	11.7	9	10	0.1	0.2

Table 11.2: 2024 AM Peak Period – Junction between Old Dublin Road R338-Rosshill Rd

Approach Arm/Turning Movement	RFC (%)		Delay (s)		Max. Queue (PCU)	
	Without Dev.	With Dev.	Without Dev.	With Dev.	Without Dev.	With Dev.
Rosshill Road	116.0	137.3	289	714	42.4	96.9
Old Dublin Road West	6.7	12.8	10	11	0.1	0.2

Table 11.3: 2029 AM Peak Period – Junction between Old Dublin Road R338-Rosshill Rd

Approach Arm/Turning Movement	RFC (%)		Delay (s)		Max. Queue (PCU)	
	Without Dev.	With Dev.	Without Dev.	With Dev.	Without Dev.	With Dev.
Rosshill Road	137.7	161.4	596	1262	88.3	152.7
Old Dublin Road West	8.1	14.6	11	10	0.1	0.2

Table 11.4: 2039 AM Peak Period – Junction between Old Dublin Road R338-Rosshill Rd

Approach Arm/Turning Movement	RFC (%)	Delay (s)	Max. Queue (PCU)
	Without Dev.	Without Dev.	Without Dev.
Rosshill Road	10.4	10	0.1
Old Dublin Road West	34.0	14	0.5

Table 11.5: 2019 PM Peak Period – Junction between Old Dublin Road R338-Rosshill Rd

Approach Arm/Turning Movement	RFC (%)		Delay (s)		Max. Queue (PCU)	
	Without Dev.	With Dev.	Without Dev.	With Dev.	Without Dev.	With Dev.
Rosshill Road	12.2	16.8	11	12	0.1	0.2
Old Dublin Road West	38.5	55.1	15	21	0.6	1.3

Table 11.6: 2024 PM Peak Period – Junction between Old Dublin Road R338-Rosshill Rd

Approach Arm/Turning Movement	RFC (%)		Delay (s)		Max. Queue (PCU)	
	Without Dev.	With Dev.	Without Dev.	With Dev.	Without Dev.	With Dev.
Rosshill Road	16.7	***	14	937	0.2	26.5
Old Dublin Road West	44.3	61.9	17	25	0.8	1.6

Table 11.7: 2029 PM Peak Period – Junction between Old Dublin Road R338-Rosshill Rd

Approach Arm/Turning Movement	RFC (%)		Delay (s)		Max. Queue (PCU)	
	Without Dev.	With Dev.	Without Dev.	With Dev.	Without Dev.	With Dev.
Rosshill Road	***	***	655	1456	28.2	36.0
Old Dublin Road West	53.6	72.4	23	39	1.2	3.0

Table 11.8: 2039 PM Peak Period – Junction between Old Dublin Road R338-Rosshill Rd

*** No result given

This analysis demonstrates that the existing priority-controlled junction in its current format is predicted to operate at 161.4% RFC in the AM peak hour in the design year 2039 with a delay of 1262 seconds and queues of approximately 153 vehicles on the Rosshill Road. The junction is predicted to operate at >200% RFC in the PM peak hour with a 1456 second delay and queues of 36 vehicles on the Rosshill Road. Albeit the queue in the PM is smaller than the AM the analysis does not produce results as the delay becomes significant. It is noteworthy that the junction would fail without the development, but the development traffic will mean this failure occurs earlier.

It is noteworthy that we have used an existing housing estate for traffic generation, as per the local authority request, which we understand does not implement a Mobility Management Plan (MMP). A MMP will be

operational for this development and hence the traffic results above are a worst case scenario. Also, the number of residential units in the estate counted is smaller than the proposed development and larger developments generate a smaller percentage of traffic. Finally, the Galway Bypass will reduce flows on this and other junctions in the area.

The development access will be off Rosshill Farm Stud Road from where all traffic must use the Rosshill Road/Rosshill Farm Stud Road junction (proposed to be upgraded as part of this development) before splitting to use the Dublin Road/Rosshill Road or R338/Rosshill Road junctions. These latter junctions are at a remove from the development and outside the development planning application redline and improvements are not proposed as part of this application.

11.2.2 Signal-controlled Junction between R338 Dublin Road-R338 Coast Road (Junction 2)

The junction is a signalised T-Junction. This is the second access to the development that is encountered by traffic travelling from Galway City Centre along the R338 (in an easterly direction).

The R338 Approach (Eastbound) is a single lane approach which flares into two lanes on approach to the junction, a straight ahead and right turn lane. The 'Old Dublin Road' Approach (Westbound) is a single lane approach with a dedicated bus lane. A left turn lane is developed from this bus lane approximately 40m from the junction. The R338 Coast Road, to the south of the junction, is a single lane approach flaring into two lanes, a segregated right turn and left turn.

There is a signalised pedestrian crossing on the southern arm of the junction. There are no signalised pedestrian facilities on the eastern or western arms of the junction. There are advanced stop lines for cyclists on all arms of the junction.

Figure 11.3: Existing Junction (Looking Eastward)

The cycle time used during the analysis of this junction is 120 seconds which includes the pedestrian stage which has been set to run every cycle (120s).

The results of the LINSIG analysis for the Signal-controlled Junction between R338 Dublin Road-R338 Coast Road (Junction 2) have been summarised in the tables below and are reproduced in full in **Appendix E2**.

Approach Arm/Turning Movement	Degree of Saturation (%)	Average Delay per Vehicle (s/pcu)	Queue (pcu)
	Without Dev.	Without Dev.	Without Dev.
Dublin Rd East/Left/Ahead	60.0	41.3	10.9
R338 Coast Road Right/Left	60.7	38.5	8.1
Dublin Rd West Ahead/Right	60.9	23.3	6.4

Table 11.9: 2019 AM Peak Period – Signal-controlled Junction between R338 Dublin Road-R338 Coast Rd (Junction 2)

Approach Arm	Degree of Saturation (%)		Average Delay per Vehicle (s/pcu)		Queue (pcu)	
	Without Dev.	With Dev.	Without Dev.	With Dev.	Without Dev.	With Dev.
Dublin Rd East/Left/Ahead	65.6	67.3	43.2	44.7	12.4	12.6
R338 Coast Road Right/Left	65.9	66.7	39.8	39.4	9.1	9.0
Dublin Rd West Ahead/Right	65.9	64.7	24.2	24.1	7.1	7.1

Table 11.10: 2024 AM Peak Period – Signal-controlled Junction between R338 Dublin Road-R338 Coast Road

Approach Arm	Degree of Saturation (%)		Average Delay per Vehicle (s/pcu)		Queue (pcu)	
	Without Dev.	With Dev.	Without Dev.	With Dev.	Without Dev.	With Dev.
Dublin Rd East/Left/Ahead	71.7	73.6	45.8	47.6.	14.0	14.3
R338 Coast Road Right/Left	71.7	72.4	41.6	41.2	10.3	10.2
Dublin Rd West Ahead/Right	71.5	69.9	25.4	25.2	8.0	8.0

Table 11.11: 2029 AM Peak Period – Signal-controlled Junction between R338 Dublin Road-R338 Coast Road

Approach Arm	Degree of Saturation (%)		Average Delay per Vehicle (s/pcu)		Queue (pcu)	
	Without Dev.	With Dev.	Without Dev.	With Dev.	Without Dev.	With Dev.
Dublin Rd East/Left/Ahead	80.6	80.6	51.5	51.5	17.0	17.0
R338 Coast Road Right/Left	76.9	81.6	45.2	46.7	13.0	13.3
Dublin Rd West Ahead/Right	79.0	79.0	27.9	27.9	9.5	9.5

Table 11.12: 2039 AM Peak Period – Signal-controlled Junction between R338 Dublin Road-R338 Coast Road

Approach Arm/Turning Movement	Degree of Saturation (%)	Average Delay per Vehicle (s/pcu)	Queue (pcu)
	Without Dev.	Without Dev.	Without Dev.
Dublin Rd East/Left/Ahead	80.7	41.8	21.2
R338 Coast Road Right/Left	37.0	39.9	5.1
Dublin Rd West Ahead/Right	81.6	24.1	11.2

Table 11.13: 2019 PM Peak Period – Signal-controlled Junction between R338 Dublin Road-R338 Coast Rd (Junction 2)

Approach Arm	Degree of Saturation (%)		Average Delay per Vehicle (s/pcu)		Queue (pcu)	
	Without Dev.	With Dev.	Without Dev.	With Dev.	Without Dev.	With Dev.
Dublin Rd East/Left/Ahead	87.9	89.0	49.2	50.6	25.3	26.0
R338 Coast Road Right/Left	40.2	40.2	40.5	40.5	5.6	5.6
Dublin Rd West Ahead/Right	89.0	89.0	29.8	29.8	13.8	13.8

Table 11.14: 2024 PM Peak Period – Signal-controlled Junction between R338 Dublin Road-R338 Coast Road

Approach Arm	Degree of Saturation (%)		Average Delay per Vehicle (s/pcu)		Queue (pcu)	
	Without Dev.	With Dev.	Without Dev.	With Dev.	Without Dev.	With Dev.
Dublin Rd East/Left/Ahead	95.9	96.9	70.3	75.4	33.1	34.7
R338 Coast Road Right/Left	43.7	43.7	41.2	41.2	6.2	6.2
Dublin Rd West Ahead/Right	96.8	96.8	48.9	48.9	20.9	20.9

Table 11.15: 2029 PM Peak Period – Signal-controlled Junction between R338 Dublin Road-R338 Coast Road

Approach Arm	Degree of Saturation (%)		Average Delay per Vehicle (s/pcu)		Queue (pcu)	
	Without Dev.	With Dev.	Without Dev.	With Dev.	Without Dev.	With Dev.
Dublin Rd East/Left/Ahead	107.2	108.2	193.5	208.6	67.7	71.9
R338 Coast Road Right/Left	48.5	48.5	42.3	42.3	7.0	7.0
Dublin Rd West Ahead/Right	107.7	107.7	166.9	166.9	62.1	62.1

Table 11.16: 2039 PM Peak Period – Signal-controlled Junction between R338 Dublin Road-R338 Coast Road

The LinSig analysis predicts that by 2039 the junction could be operating at 22.6% PRC (cycle time = 120s) during the morning peak hour and 1.7% PRC (cycle time = 120s) during the evening peak hour. For the purposes of our analysis a full pedestrian stage has been called every cycle. This may not happen in practice which will increase the capacity of the junction.

As the next traffic signals further from the city at Doughiska Road is over capacity, and causes queuing in the morning that is likely suppressing the demand at this junction, this junction may appear to work better than it would if the Duoghiska signals were improved.

11.2.3 Junction between R921 Old Dublin Road-Doughiska Road (Junction 3)

This Junction is a signalised crossroads. This Junction is encountered by traffic travelling from the development to access Oranmore and the Oranmore Business Park and the M6/M18 intersection. The eastbound approach is a single lane which flares into three lanes on approach to the junction, a left turn, straight ahead and right turn lane. The Westbound approach is a single lane carriageway which glares into three lanes on approach to the junction, a left turn, straight ahead and right turn lane.

The northbound approach is a single lane carriageway which flares into two lanes on approach to the junction, a left turn and a straight ahead/right turn lane. The Southbound approach is a single carriageway which flares into two lanes on approach to the junction, a left turn and straight ahead/right turn lane.

There are advanced stop lines for cyclists provided at three arms of the junction, the northern, eastern and western arms.

Signal Controlled pedestrian crossings are provided on the northern, southern and eastern arms of the junction. There are no pedestrian crossing signals on the eastern arm of the junction.

The Old Dublin Road continues eastwards to the 'Martin Roundabout' located 190m to the east of the development.

Figure 11.4: Existing Junction (Looking Northwards)

The cycle time used during the analysis of this junction is 120 seconds which includes pedestrians.

The results of the LinSig analysis for the junction have been summarised in the tables overleaf and are reproduced in full in **Appendix E3**.

Approach Arm/Turning Movement	RFC (%)	Delay (s)	Max. Queue (PCU)
	Without Dev.	Without Dev.	Without Dev.
Old Dublin Rd East Left	11.6	22.9	1.1
Old Dublin Rd East Ahead/Right	91.7	59.9	17.7
Doughiska Rd South Right/Left/Ahead	92.0	99.5	13.5
Old Dublin Rd West Ahead/Left	66.0	39.4	8.7
Old Dublin Rd West Right	31.2	67.2	1.8
Doughiska Rd North Left/Ahead/Right	90.0	85.3	7.5

Table 11.17: 2019 AM Peak Period – Junction between R921 Old Dublin Road-Doughiska Road

Approach Arm/Turning Movement	RFC (%)		Delay (s)		Max. Queue (PCU)	
	Without Dev.	With Dev.	Without Dev.	With Dev.	Without Dev.	With Dev.
Old Dublin Rd East Left	12.8	12.8	23.0	23.0	1.3	1.3
Old Dublin Rd East Ahead/Right	100.0	100.0	103.6	103.6	29.1	29.1
Doughiska Rd South Right/Left/Ahead	100.2	100.2	150.6	150.6	19.4	19.4
Old Dublin Rd West Ahead/Left	72.0	73.0	41.5	42.0	10.4	10.6
Old Dublin Rd West Right	33.7	34.3	67.9	68.1	1.9	2.0
Doughiska Rd North Left/Ahead/Right	98.2	98.2	127.6	127.6	12.0	12.0

Table 11.18: 2024 AM Peak Period – Junction between R921 Old Dublin Road-Doughiska Road

Approach Arm/Turning Movement	RFC (%)		Delay (s)		Max. Queue (PCU)	
	Without Dev.	With Dev.	Without Dev.	With Dev.	Without Dev.	With Dev.
Old Dublin Rd East Left	13.9	13.9	23.1	23.1	1.4	1.4
Old Dublin Rd East Ahead/Right	108.9	108.9	222.5	222.5	57.1	57.1
Doughiska Rd South Right/Left/Ahead	109.0	109.0	261.0	261.0	31.8	31.8
Old Dublin Rd West Ahead/Left	78.4	79.4	44.9	45.6	12.5	12.8
Old Dublin Rd West Right	36.8	37.4	68.9	69.1	2.1	2.2
Doughiska Rd North Left/Ahead/Right	107.2	107.2	224.7	224.7	22.2	22.2

Table 11.19: 2029 AM Peak Period – Junction between R921 Old Dublin Road-Doughiska Road

Approach Arm/Turning Movement	RFC (%)		Delay (s)		Max. Queue (PCU)	
	Without Dev.	With Dev.	Without Dev.	With Dev.	Without Dev.	With Dev.
Old Dublin Rd East Left	15.9	15.9	23.3	23.3	1.6	1.6
Old Dublin Rd East Ahead/Right	121.6	121.6	398.6	398.6	104.0	104.0
Doughiska Rd South Right/Left/Ahead	121.2	121.2	427.2	427.2	53.8	53.8
Old Dublin Rd West Ahead/Left	87.9	88.9	54.5	56.2	16.7	17.3
Old Dublin Rd West Right	41.1	41.8	70.4	70.6	2.4	2.5
Doughiska Rd North Left/Ahead/Right	119.9	119.9	389.4	389.4	42.3	42.3

Table 11.20: 2039 AM Peak Period – Junction between R921 Old Dublin Road-Doughiska Road

Approach Arm/Turning Movement	RFC (%)	Delay (s)	Max. Queue (PCU)
	Without Dev.	Without Dev.	Without Dev.
Old Dublin Rd East Left	40.5	23.4	4.7
Old Dublin Rd East Ahead/Right	79.5	48.8	17.4
Doughiska Rd South Right/Left/Ahead	77.4	72.9	6.7
Old Dublin Rd West Ahead/Left	75.2	41.6	16.3
Old Dublin Rd West Right	65.5	84.1	4.3
Doughiska Rd North Left/Ahead/Right	77.7	50.7	10.0

Table 11.21: 2019 PM Peak Period – Junction between R921 Old Dublin Road-Doughiska Road

Approach Arm/Turning Movement	RFC (%)		Delay (s)		Max. Queue (PCU)	
	Without Dev.	With Dev.	Without Dev.	With Dev.	Without Dev.	With Dev.
Old Dublin Rd East Left	44.0	43.0	24.0	23.2	5.3	5.2
Old Dublin Rd East Ahead/Right	86.6	85.8	55.5	53.7	20.8	20.7
Doughiska Rd South Right/Left/Ahead	84.2	84.3	82.9	83.0	8.1	8.2
Old Dublin Rd West Ahead/Left	81.8	80.0	46.3	44.0	19.0	18.6
Old Dublin Rd West Right	71.1	71.1	89.9	89.9	4.8	4.8
Doughiska Rd North Left/Ahead/Right	84.6	87.4	58.1	63.9	12.2	13.0

Table 11.22: 2024 PM Peak Period – Junction between R921 Old Dublin Road-Doughiska Road

Approach Arm/Turning Movement	RFC (%)		Delay (s)		Max. Queue (PCU)	
	Without Dev.	With Dev.	Without Dev.	With Dev.	Without Dev.	With Dev.
Old Dublin Rd East Left	48.0	46.8	24.7	23.9	5.8	5.7
Old Dublin Rd East Ahead/Right	94.4	93.4	73.1	68.6	26.9	26.5
Doughiska Rd South Right/Left/Ahead	91.6	91.7	103.3	103.7	10.6	10.7
Old Dublin Rd West Ahead/Left	89.3	87.3	55.8	51.6	22.9	22.1
Old Dublin Rd West Right	77.3	77.3	98.8	98.8	5.6	5.6
Doughiska Rd North Left/Ahead/Right	92.1	95.1	74.2	87.9	16.0	17.8

Table 11.23: 2029 PM Peak Period – Junction between R921 Old Dublin Road-Doughiska Road

Approach Arm/Turning Movement	RFC (%)		Delay (s)		Max. Queue (PCU)	
	Without Dev.	With Dev.	Without Dev.	With Dev.	Without Dev.	With Dev.
Old Dublin Rd East Left	53.3	52.0	25.8	24.9	6.7	6.6
Old Dublin Rd East Ahead/Right	105.5	104.3	178.0	159.6	53.9	50.7
Doughiska Rd South Right/Left/Ahead	101.5	101.7	170.0	171.3	17.3	17.5
Old Dublin Rd West Ahead/Left	99.6	97.4	100.3	83.0	35.2	31.8
Old Dublin Rd West Right	85.4	85.4	117.4	117.4	6.9	6.9
Doughiska Rd North Left/Ahead/Right	102.6	106.0	148.7	193.7	29.5	36.2

Table 11.24: 2039 PM Peak Period – Junction between R921 Old Dublin Road-Doughiska Road

The LinSig analysis predicts that by 2039 the junction could be operating at -6.5% PRC (cycle time = 120s) during the morning peak hour and 5.0% PRC (cycle time = 120s) during the evening peak hour. For the purposes of our analysis a full pedestrian stage has been called every cycle. This may not happen in practice which will increase the capacity of the junction.

This junction has been modelled with the actual flows currently going through the junction. Any suppressed demand within the morning peak hour has not been added. Furthermore, the analysis results are for the average peak hour and peaks within the peak hour will result in less capacity than depicted.

In any case, the primary focus is to determine the impact of the development traffic on the junction, even though the junction is already operating above acceptable limits. As this is a residential development most of the AM generated traffic will route towards the city and the existing traffic distribution shows likewise. The model shows that the only morning peak hour traffic generated at this junction is 7 trips and these are all heading away from the city against the tidal traffic flow. The model results show that the overall capacity of the junction is not impacted by the development as there is some spare capacity away from the city.

As stated earlier a MMP will be operational for this development and hence the traffic results above are a worst case scenario. The Galway Bypass will also reduce flows at this junction. As per earlier this junction is also at a remove from the development and outside the development planning application redline and improvements are not proposed as part of this application.

11.2.4 Junction between R338 Coast Road-Rosshill Road (Junction 4)

This Junction takes the form of a priority-controlled T-Junction. The main road through the junction is the R338 Coast Road which runs in a northwest-southeast direction linking the Old Dublin road to Oranmore.
The eastbound carriageway of the R338 Coast Road is a single lane with a right turning pocket provided at the junction with the Rosshill Road.

The westbound carriageway of the R338 Coast Road is a single lane. The southern approach to the junction consists of a single exit.

Figure 11.5: Existing Junction (Facing Eastwards)

The results of the PICADY analysis for the junction have been summarised in the tables overleaf and are reproduced in full in **Appendix E4**.

Approach Arm/Turning Movement	RFC (%)	Delay (s)	Max. Queue (PCU)
	Without Dev.	Without Dev.	Without Dev.
Rosshill Road Left	10.0	0	13.2
Rosshill Road Right	0.6	0	10.8
Coast Road R338	0.9	0	9.6

Table 11.25: 2019 AM Peak Period –Junction between R338-Rosshill Rd. (Junction 1)

Approach Arm/Turning Movement	RFC (%)		Delay (s)		Max. Queue (PCU)	
	Without Dev.	With Dev.	Without Dev.	With Dev.	Without Dev.	With Dev.
Rosshill Road Left	11.4	50.5	14	26	0.1	1.0
Rosshill Road Right	0.7	3.9	11	15	0.0	0.0
Coast Road R338	0.9	0.9	10	10	0.0	0.0

Table 11.26: 2024 AM Peak Period – Junction between Coast Road R338 and Rosshill Road

Approach Arm/Turning Movement	RFC (%)		Delay (s)		Max. Queue (PCU)	
	Without Dev.	With Dev.	Without Dev.	With Dev.	Without Dev.	With Dev.
Rosshill Road Left	13.5	55.5	16	31	0.2	1.2
Rosshill Road Right	0.7	4.9	12	17	0.0	0.1
Coast Road R338	1.3	1.4	11	11	0.0	0.0

Table 11.27: 2029 AM Peak Period – Junction between Coast Road R338 and Rosshill Road

Approach Arm/Turning Movement	RFC (%)		Delay (s)		Max. Queue (PCU)	
	Without Dev.	With Dev.	Without Dev.	With Dev.	Without Dev.	With Dev.
Rosshill Road Left	16.6	64.1	09	43	0.2	1.7
Rosshill Road Right	1.1	6.1	13	22	0.0	0.1
Coast Road R338	1.5	1.5	13	13	0.0	0.0

Table 11.28: 2039 AM Peak Period – Junction between Coast Road R338 and Rosshill Road

Approach Arm/Turning Movement	RFC (%)	Delay (s)	Max. Queue (PCU)
	Without Dev.	Without Dev.	Without Dev.
Rosshill Road Left	39.3	14	0.6
Rosshill Road Right	0.3	10	0.0
Coast Road R338	1.1	6	0.0

Table 11.29: 2019 PM Peak Period –Junction between R338-Rosshill Rd. (Junction 1)

Approach Arm/Turning Movement	RFC (%)		Delay (s)		Max. Queue (PCU)	
	Without Dev.	With Dev.	Without Dev.	With Dev.	Without Dev.	With Dev.
Rosshill Road Left	43.5	57.1	16	22	0.8	1.3
Rosshill Road Right	0.3	0.4	10	12	0.0	0.0
Coast Road R338	1.3	3.1	6	7	0.0	0.0

Table 11.30: 2024 PM Peak Period – Junction between Coast Road R338 and Rosshill Road

Approach Arm/Turning Movement	RFC (%)		Delay (s)		Max. Queue (PCU)	
	Without Dev.	With Dev.	Without Dev.	With Dev.	Without Dev.	With Dev.
Rosshill Road Left	48.6	62.5	18	26	0.6	1.6
Rosshill Road Right	0.3	0.4	10	13	0.0	0.0
Coast Road R338	1.3	3.4	6	7	0.0	0.0

Table 11.31: 2029 PM Peak Period – Junction between Coast Road R338 and Rosshill Road

Approach Arm/Turning Movement	RFC (%)		Delay (s)		Max. Queue (PCU)	
	Without Dev.	With Dev.	Without Dev.	With Dev.	Without Dev.	With Dev.
Rosshill Road Left	55.8	70.8	22	34	1.2	2.3
Rosshill Road Right	0.4	1.0	12	17	0.0	0.0
Coast Road R338	1.6	3.4	7	7	0.0	0.0

Table 11.32: 2039 PM Peak Period – Junction between Coast Road R338 and Rosshill Road

This analysis demonstrates that the existing priority-controlled junction in its current format is predicted to operate at 64.1% RFC in the AM peak hour in the design year 2039 with a delay of 43 seconds and queues no greater than 2 vehicles occurring on the Rosshill Road. The junction is predicted to operate at 70.8% RFC in the PM peak hour with a 34 second delay and minimal queuing on the Rosshill Road in 2039 with the proposed development operational.

11.2.5 Development Junction (Junction between Rosshill Rd.-Rosshill Farm Stud Junction (Junction 5))

This is the main access road to the development. The existing junction is a priority-controlled T-Junction. The main road through the junction is the Rosshill Road which runs in a northwest-southeast direction and links the R338 old Dublin Road with the R338 Coast Road.

There are no pedestrian facilities provided at the junction.

As part of the proposed development this junction is to be realigned and pedestrian/cycling facilities are to be provided. The revised layout is shown on the drawings accompanying this application.

Figure 11.6: Existing Access Junction to Development (Facing Eastwards)

The results of the PICADY analysis for the junction have been summarised in the tables overleaf and are reproduced in full in **Appendix E5**.

Approach Arm/Turning Movement	RFC (%)	Delay (s)	Max. Queue (PCU)
	Without Dev.	Without Dev.	Without Dev.
Rosshill Farm Stud Road	7.8	10	0.1
Rosshill Road	1.9	8	0.0

Table 11.33: 2019 AM Peak Period – Development Junction (Junction between Rosshill Rd.-Rosshill Farm Stud Junction

Approach Arm/Turning Movement	RFC (%)		Delay (s)		Max. Queue (PCU)	
	Without Dev.	With Dev.	Without Dev.	With Dev.	Without Dev.	With Dev.
Rosshill Farm Stud Road	8.6	62.9	10	25	0.1	1.6
Rosshill Road	2.2	7.8	8	9	0.0	0.1

Table 11.34: 2024 AM Peak Period – Development Junction (Junction between Rosshill Rd.-Rosshill Farm Stud Junction

Approach Arm/Turning Movement	RFC (%)		Delay (s)		Max. Queue (PCU)	
	Without Dev.	With Dev.	Without Dev.	With Dev.	Without Dev.	With Dev.
Rosshill Farm Stud Road	9.7	65.7	10	28	0.1	1.8
Rosshill Road	2.3	8.3	8	9	0.0	0.1

Table 11.35: 2029 AM Peak Period – Development Junction (Junction between Rosshill Rd.-Rosshill Farm Stud Junction

Approach Arm/Turning Movement	RFC (%)		Delay (s)		Max. Queue (PCU)	
	Without Dev.	With Dev.	Without Dev.	With Dev.	Without Dev.	With Dev.
Rosshill Farm Stud Road	11.3	69.9	11	33	0.1	2.2
Rosshill Road	2.6	8.9	9	10	0.0	0.1

Table 11.36: 2039 AM Peak Period – Development Junction (Junction between Rosshill Rd.-Rosshill Farm Stud Junction

Approach Arm/Turning Movement	RFC (%)	Delay (s)	Max. Queue (PCU)
	Without Dev.	Without Dev.	Without Dev.
Rosshill Farm Stud Road	6.8	8	0.1
Rosshill Road	3.4	7	0.0

Table 11.37: 2019 PM Peak Period – Development Junction (Junction between Rosshill Rd.-Rosshill Farm Stud Junction

Approach Arm/Turning Movement	RFC (%)		Delay (s)		Max. Queue (PCU)	
	Without Dev.	With Dev.	Without Dev.	With Dev.	Without Dev.	With Dev.
Rosshill Farm Stud Road	7.5	22.1	8	9	0.1	0.2
Rosshill Road	3.6	16.1	7	8	0.0	0.1

Table 11.38: 2024 PM Peak Period – Development Junction (Junction between Rosshill Rd.-Rosshill Farm Stud Junction

Approach Arm/Turning Movement	RFC (%)		Delay (s)		Max. Queue (PCU)	
	Without Dev.	With Dev.	Without Dev.	With Dev.	Without Dev.	With Dev.
Rosshill Farm Stud Road	8.1	23.0	8	11	0.1	0.3
Rosshill Road	4.0	16.4	7	8	0.0	0.2

Table 11.39: 2029 PM Peak Period – Development Junction (Junction between Rosshill Rd.-Rosshill Farm Stud Junction

Approach Arm/Turning Movement	RFC (%)		Delay (s)		Max. Queue (PCU)	
	Without Dev.	With Dev.	Without Dev.	With Dev.	Without Dev.	With Dev.
Rosshill Farm Stud Road	9.1	24.3	8	11	0.1	0.3
Rosshill Road	4.4	17.1	7	8	0.0	0.2

Table 11.40: 2039 PM Peak Period – Development Junction (Junction between Rosshill Rd.-Rosshill Farm Stud Junction

This analysis demonstrates that the proposed realigned priority-controlled T-junction is predicted to operate at 69.9% RFC in the AM peak hour in the design year 2039 with a delay of 33 seconds and queues no greater than 3 vehicles. The junction is predicted to operate at 24.3% RFC in the PM peak hour with minimal queuing and delays on all arms in 2039 with the proposed development operational.

11.3 Analysis Summary

- Junction 1: R338 Dublin Rd.-Rosshill Rd. Junction

This junction will fail where traffic from the minor arm (Rosshill Road) will find it very difficult to join the Dublin Road. The junction is predicted to fail without the development but will fail earlier due to it.

- Junction 2: R338 Dublin Road-R338 Coast Road Junction

This signalised junction is predicted to operate satisfactorily in the design year with the development operational.

- Junction 3: R921 Old Dublin Road-Doughiska Road

This junction currently experiences congestion in the morning. The analysis is based on the observed flows through the junction ion the morning peak hour and thus does not represent peak traffic within that hour and any suppressed demand. Even though the junction will fail our analysis shows that the 7 vehicles arriving in the AM peak hour will not decrease it further as they are opposing the predominant flow.

- Junction 4: R338 Coast Road-Rosshill Road Junction

This junction will operate satisfactorily in the design year with the development operational.

- Junction 5: Rosshill Road-Rosshill Farm Stud Junction

This junction will operate satisfactorily in the design year with the development operational.

The proposed Galway Bypass will ultimately reduce traffic flow at these junctions. The development is being phased and this will allow some additional time towards implementation of the bypass.

12 Road Safety

The only change to the network proposed is the provision of a realigned junction between the Rosshill Road and Rosshill Stud Farm Road. An element of the existing road will thus become redundant. This realignment has been agreed with Galway City Council.

Two major elements of road safety are visibility and provision for all users. The design team have ensured adequate sightlines are achieved and pedestrian and vulnerable users are adequately catered for.

A Road Safety Audit was carried out by CST Group Chartered Consulting Engineers as part of this planning application. Recommendations made as part of this Road Safety Audit have been included within the design submitted with this application.

13 Parking

13.1 Car Parking

Car parking serving the subject development is provided in front of the residential dwelling units and in the immediate vicinity of the apartment blocks.

The Galway City Development Plan outlines that the car parking provision for houses is 2. The Design Standards for New Apartments, published by the Department of Housing, Planning and Local Government is 1 space per apartment plus 1 visitor space per 4 apartments. For commercial development, the Galway City Development Plan requires 1 space per 15m^2. For Childcare/Creche facilities, the Galway City Development Plan requires 1 space every 20m^2.

It is proposed that each house is provided with 2 no. on curtilage car parking spaces at the front of the property. For the apartments, 1 space per apartment plus 1 visitor space per 4 apartments has been provided. 6 no. Spaces are being provided for the Crèche. The Galway City Development Plan requires 14 no. spaces for a premises of this size, however as there are apartment spaces adjacent that will be vacant during the day during normal business hours, i.e. similar hours to creche operation, the provision of spaces has been reduced from 14 to 6 by the developer. The shared spaces are adjacent the apartments and crèche. 23 no. spaces are being provided for the commercial premises. The Galway City Development Plan requires 23 no. spaces for a development of this size.

Type of Development	Car Parking Standard	GFA (m^2) of Dev. / No. of Res. Units within Dev.	Parking Required	Provision
Houses	2 spaces per unit	185 units	370	370
Apartments	1 space per unit plus 1 visitor space per 4 units	157 units	189	198
Office	1 space per 25m^2	90.9m^2	3.63	2
Commercial Retail	1 space per 15m^2	185.1m^2	12.34	6
Crèche	1 space per 20m^2	399m^2	14.41	16
Café Space	1 space per 15m^2	67.8m^2	4.52	2
Community Café Space	1 space per 15m^2	30m^2	1	1
TOTAL			**595**	**595**

Table 13.1: Galway City Car Parking Standards for Residential/Commercial Development

The parking proposal for the proposed development meets the requirements of the Galway City Development Plan where relevant, and the Design Standards for New Apartments (March 2018) where relevant. It is noted that a percentage of these spaces will be allocated for wheelchair accessible use in accordance with the Development Plan.

A GoCar scheme and Galway Coke bike share scheme are proposed, and this should reduce the standard requirement for parking provision in any case.

13.2 Bicycle Parking

It is proposed that bicycle spaces are provided to the apartment and commercial blocks with houses storing in rear gardens. The Design Standards for New Apartments (March 2018) sets out the following Cycle Parking Standards:

Type of Development	Bicycle Parking Standard	GFA (m^2) of Dev / No. of Res. Units within Dev	Parking Standard	Provision
Apartments	1 cycle storage space per bedroom and 1 space per 2 residential units	157 units	355	361
Commercial	1 cycle stand (5 spaces) per 20 carpark spaces		7.25	10
Houses		185 units		370
TOTAL			**362.25**	**741**

Table 13.2: Bicycle Parking Standards

The Design Standards for New Apartments (March 2018) requires that 386 no. spaces be provided for cyclists as shown in Table 13.2 above. It is proposed that 398 no. spaces shall be provided. Bike parking shall be of a type that complies with the standard dictated in Section 4.17 of the Design Standards for New Apartments (March 2018). Cycle parking facilities are illustrated on the architect's site plans, submitted with this application.

A possible Bike Share location, as part of the Galway bike share scheme is shown adjacent to the commercial development at the entrance to the site and would consist of approximately 10 no. spaces. The location is shown on the drawings accompanying this application.

14 Mobility Management

To ensure future transport sustainability and to endeavour to make new developments as accessible as possible to travel by other modes of transport, an assessment has been made of the proposed and existing pedestrian, cyclist and public transport facilities.

14.1 Public Transport-Bus

Bus transport forms an important means of transport within the Galway region. The closest operating bus stop to the development is the Rosshill Cross Bus Stop, at the R338 Coast Rd/Rosshill Rd junction, which is served by the 434 bus route between the City Centre and Gort on weekdays by a morning bus to the city and an evening bus out. The next nearest bus stop is the Dublin Road Coast Road Bus Stop which is serviced by the 404 and 409 bus routes which service the City Centre (Newcastle-Eyre Square-Oranmore & Eyre Square-GMIT-Parkmore respectively). The 404 is a half hourly service. The 409 service runs every 10 minutes Monday to Saturday and quarter hourly on a Sunday. This stop is a 1.2km walk from the proposed development and as discussed above, the route is not serviced with footways. There is another stop located 1.3km to the west of the development, on the R338 Dublin Road, which is also serviced by the 404 and 409 routes. The footway from the proposed development to this bus stop, along the northern side of the Rosshill Road is unbound and sections are missing at present. The existing bus network in the Galway area is shown in Figure 14.1. Preliminary discussions have been held by the applicant with local Bus Operators to ascertain the feasibility of the commencement of an active route servicing the development via the bus stop on the Rosshill Road, which is immediately outside the development.

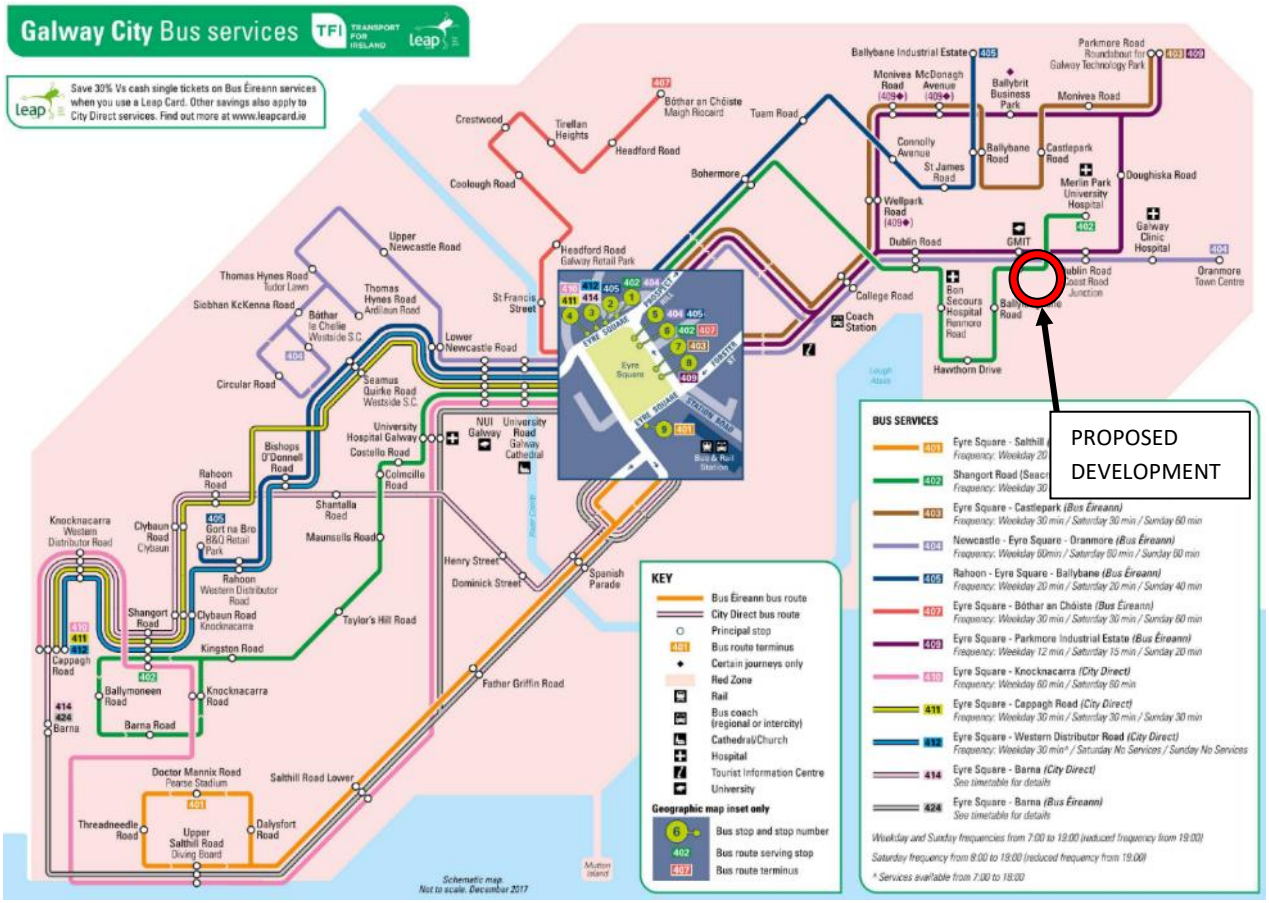


Figure 14.1: Galway City Bus Services ©TFI Transport for Ireland

14.2 Public Transport-Train

Oranmore Train station on the Galway-Dublin line is 2.8km away from the site and is accessed via the R338 Coast Road and there are regular train services between Galway and Dublin, as follows:

		Mon to Sat	Mon to Sat	Mon to Sat	Not on Fri	Fri Only	Fri Only	Mon to Sat	Mon to Sat	Mon to Sat	Mon to Sat	Mon to Sat	Mon to Sat	Mon to Sat	Mon to Sat	Mon to Sat	Mon to Sat	Not on Fri	Fri Only	Mon to Sat	Mon to Sat	Mon to Sat	Mon to Sat	Mon to Sat	Mon to Sat
DUBLIN Heuston BLA	Dep	....	....	....	07.35	07.35	....	....	09.25	11.25	12.45	13.25	....	....	14.45	15.35	16.30	17.10	17.10	17.30	....	18.15	18.30	....	19.35
Hazelhatch & Celbridge	Dep	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Sallins & Naas	Dep	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	17.47	....	....	....	....	....
Newbridge	Dep	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	16.51	17.31	17.31	17.55	..	..	..	..	..
Kildare	Dep	....	....	....	08.00	08.00	....	....	....	....	....	....	....	....	....	....	16.58	17.38	17.38	....	....	....	....	....	....
Monasterevin	Dep	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	17.45	17.45	..	..	..	19.04	..	..
Portarlington	Dep	....	....	....	08.14	08.14	....	....	10.01	12.00	13.21	14.02	....	....	15.22	16.13	....	17.55	17.55	18.12	....	....	19.13	....	20.09
Tullamore	Dep	..	..	..	08.31	08.31	..	..	10.18	12.17	13.38	14.19	..	..	15.41	16.31	17.26	18.12	18.12	18.29	..	19.07	..	..	20.31
Clara	Dep	....	....	....	08.40	08.40	....	....	10.26	....	13.46	....	....	....	15.49	16.41	....	18.22	18.22	18.40	....	....	19.37	....	....
ATHLONE	Arr	..	..	..	08.59	08.59	..	..	10.49	12.41	14.03	14.41	..	..	16.05	16.58	17.49	18.45	18.45	18.58	..	19.29	19.52	..	21.02
ATHLONE	Dep	From Limerick	07.30	....	09.05	To Westport	09.05	From Limerick	10.50	12.41	14.04	14.42	From Limerick	....	16.05	16.59	17.49	....	18.48	18.58	From Limerick	19.29	19.52	From Limerick	21.02
Ballinasloe	Dep		07.44	..	09.20		09.20		11.05	12.58	To Westport	14.57		..	To Westport	17.14	18.08	..	To Westport	19.14		To Westport	20.08		21.18
Woodlawn	Dep		07.56	....	09.30		09.30		....	13.08		15.07		....		17.24	18.18	....		....			....		21.28
Attymon	Dep		08.08	..	09.37		09.37		..	..		..		..		..	..	..		..			..		..
Athenry	Dep	07.48	08.17	09.05	09.48	....	09.48	10.54	11.27	13.22		15.21	15.54	16.55		17.38	18.32	....		19.36	20.07		20.29	21.23	21.41
Oranmore	Dep	08.00	08.28	09.16	09.59	..	09.59	11.05	11.39	13.34	..	..	16.05	17.05	..	..	..	..	..	19.49	20.18	..	20.42	21.34	21.52
GALWAY Ceannt	Arr	08.10	08.35	09.25	10.08	....	10.08	11.14	11.48	13.43	....	15.40	16.14	17.15	....	17.58	18.50	....	....	19.57	20.28	....	20.50	21.45	22.00

Figure 14.2: Galway City Train Services © Iarnród Éireann

Tentative discussions have been held on locating a new rail stop outside the development at the location shown on the Drawings accompanying this application. At present there is no agreement in place.

14.3 Pedestrians

As the potential for pedestrian trips to and from the development is moderate it is important that the development is properly integrated into the existing footpath network as discussed in Chapter 9. As stated earlier there is a footway along the majority of the Northern Side of the Rosshill Road. However, there is no footway on Rosshill Farm Stud Road. The design includes the provision of a continuous footway that will link the Rosshill Road to the proposed site access road by inclusion of a footway in the realigned section of Rosshill Farm Stud Road. Pedestrians can then cross this Rosshill Road to use the existing Pedestrian Footway along the Northern Boundary of the Rosshill Road. As noted previously, sections of this footway are in a state of disrepair and some key linkages are missing. Improving this pedestrian footway is proposed as part of the development. This would provide access to the existing pedestrian facilities provided on the R338 Dublin Road which link to the City Centre and the Roscam/Doughiska residential areas.

As part of the proposed development, drop kerbs and tactile paving will be provided at points where the internal footpath joins the public network. Crossing points to the internal site footways and pedestrian crossing points are proposed.

The roads layout has been designed to DMURS, which has a strong focus on pedestrian safety. Signage throughout will be in accordance with the Traffic Signs Manual. Overall the Galway City Council development plan objectives have been adhered to and the Galway Transport Strategy referred to for roads – see the road drawings by Tobin Consulting Engineers as part of the application.

A network of footpaths throughout the proposed development will provide easy access to the commercial near the entrance and onwards to local facilities beyond the development via the proposed new path along Rosshill Road and the exiting public paths to be upgraded. The inclusion of these paths will encourage pedestrians to access the local facilities on foot as opposed to taking their personal vehicles.

The development is adjacent an old bus stop which is located on Rosshill Road. As stated earlier the developer is working with the local bus provider to get this reinstated. Irrespective, there are regular bus services that are accessible within the wider area.

It is proposed to provide a network of footpaths that will permeate through the residential area and provide a high degree of accessibility to the local facilities including bus transport.

14.4 Cycling

Cycling is to be encouraged as part of the development. The city centre has cycle lanes and designated routes for the use of cyclists in line with DMURS. Galway City Council propose that these will be extended to include combined bus/cycle lanes on the R338 Dublin Rd which is very close to the proposed development. Cyclists travelling along the Rosshill Road will share the carriageway with vehicular traffic to the intersection of the R338 Dublin Road, where a bus lane is available for cyclists travelling to the City Centre or the R338 Coast Road, where a hard shoulder is provided in both directions. Within the development cyclists share the carriageway with vehicles and this is in line with the National Cycle Manual.

Oranmore rail station is approximately 2.8km from the site. It is likely that a number of commuters to Galway City will use a combination of rail and cycling as a means of travelling. Cycling enthusiasts and regular cyclists will likely cycle rather than use vehicle transport.

The development will provide bike parking to the relevant standards as outlined in Section 13.2. A possible Bike Share location, as part of the Galway bikeshare scheme is shown adjacent to the commercial development at the entrance to the site and would consist of approximately 10 no. spaces. The location is shown on the drawings accompanying this application (see O'Neill O'Malley Part 02 Site Layout Plan for possible location).

15 Access for People with Disabilities

Parking facilities for disabled users is provided in line with the Galway City Development Plan. Disabled friendly accesses to the proposed development are designed to the Technical Guidance Document M of the Building Regulations.

16 Mitigation

16.1 As stated earlier the existing T-junction of Rosshill Farm Stud Road and Rosshill Road is not ideal for the proposed increased in usage. It is proposed to realign this junction.

16.2 Further to the above it is proposed to widen Rosshill Farm Stud Road from the realigned junction to the proposed development access.

16.3 A 2m wide footpath is proposed to connect from the proposed access to the footpath being constructed as part of the planning reference 16/228 on Rosshill Road.

16.4 The existing footpaths on Rosshill Road are in poor condition. It is proposed to repair these as part of the development.

16.5 See Figure 16.1 “Proposed Pedestrian, Cycle & Public Transport Linkage” which shows all of the mitigation measures.

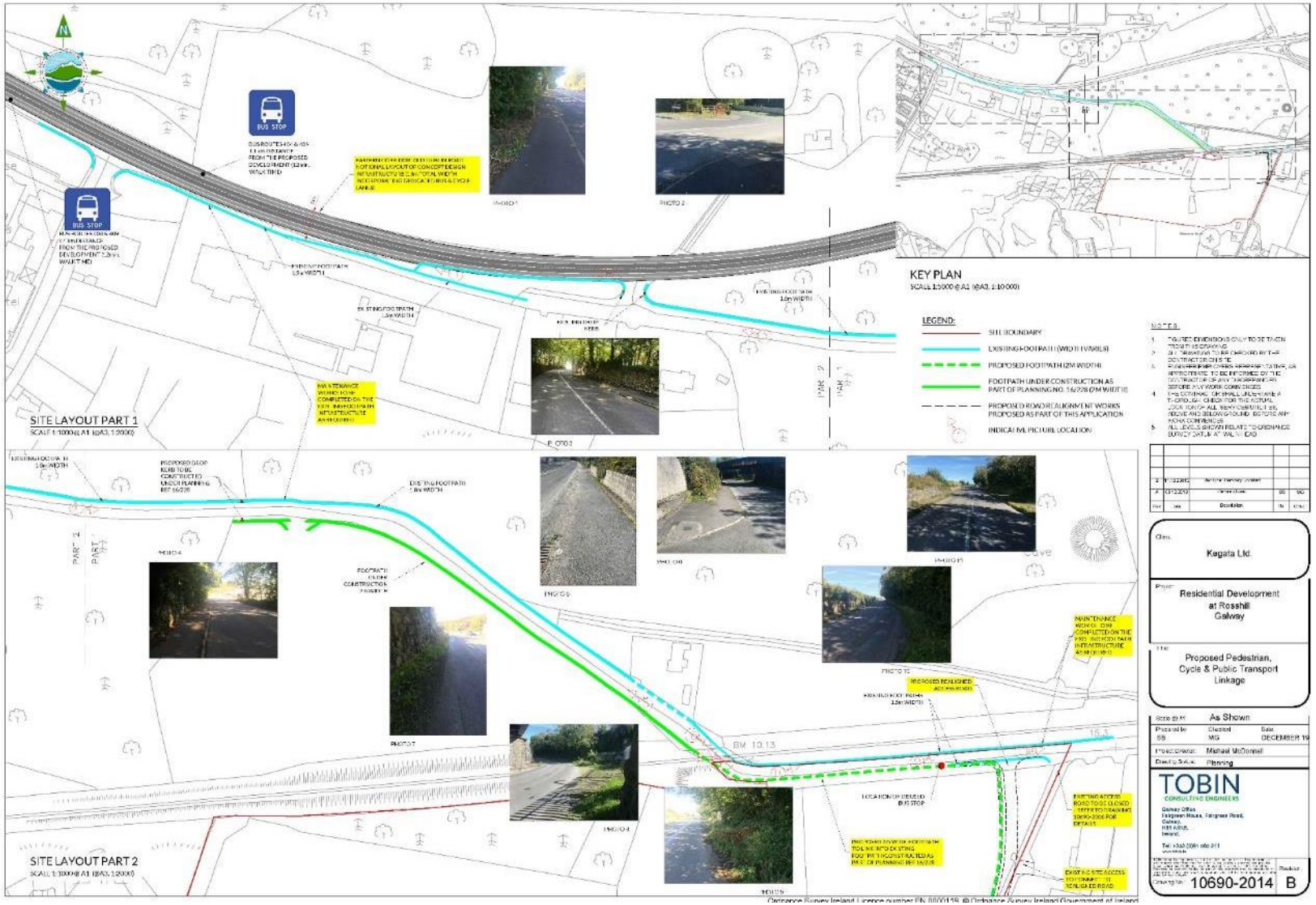


Figure 16.1: Proposed Pedestrian, Cycle & Public Transport Linkage

17 Summary and Conclusion

Planning permission is being sought for a residential development consisting of 342 no. units comprising 185 no. houses and 157 no. apartments, including a ground-floor community space, office, cafe and retail unit.

Manual classified traffic counts were carried out at the following junctions:

- Junction 1: R338 Dublin Rd.-Rosshill Rd. Junction
- Junction 2: R338 Dublin Road-R338 Coast Road Junction
- Junction 3: R921 Old Dublin Road-Doughiska Road
- Junction 4: R338 Coast Road-Rosshill Road Junction
- Junction 5: Rosshill Road-Rosshill Farm Stud Junction

The survey found that the peak hour traffic flow occurred between 7.30 and 9.15 in the AM and between 4.45 and 6.15 in the PM.

In order to estimate the likely volumes of traffic that will be generated by the proposed development, Galway City Council indicated that trip rates recommended by TRICS (Trip Rate Computer Information System) were not acceptable for the proposed development. Therefore, a traffic count was undertaken at a similar development (An Réileán Development) to calculate the turn-in rates at the proposed development. The similar development consists of 82 housing units and 2 apartment blocks (24 apartments). These figures were applied pro-rata to the relevant number of housing and apartment units within the proposed development.

The traffic generated by nearby permitted development was added to the existing flows as well as traffic growth figures for the opening year of 2024 as well as 2029 and 2039.

Some junctions will be above capacity before the design year. These junctions are predicted to be above capacity in any case without the development, but one will occur earlier. Whilst the Dublin Road/Doughika Road traffic signals is over capacity in the AM only 7 trips are added to it from the development and those are all away from the city. As they are going against the traffic entering the city they do not decrease the capacity. The Dublin Road/Rosshill Road priority junction will be above capacity earlier due to the development.

The proposed Galway Bypass will ultimately reduce traffic flow at these junctions. The development is being phased and this will allow some additional time towards implementation of the bypass.

Mitigation measures in relation to roads and footpaths are proposed including realignment of the Rosshill Farm Stud Road junction with Rosshill Road and footpath provision and repair on Rosshill Road.

APPENDIX A

Traffic Survey Results

SUMMARY SHEET

PROJECT TITLE: Roshill Housing Development

DATE OF SURVEY: 14/5/19 WEATHER: Dry

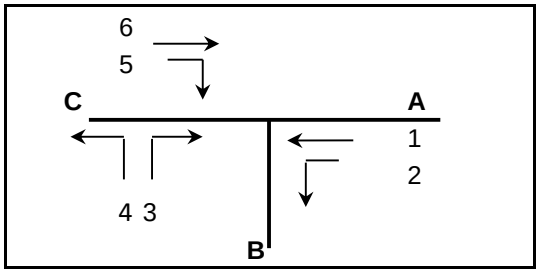
JUNCTION REF/LOCATION: 1 - Roshill Rd

NAME: S Fahy CHECKED BY: MG

A:

B:

C:



Priority junction [3P]

	1		2		3		4		5		6		
TIME	Cars	HGV	Cars	HGV	Cars	HGV	Cars	HGV	Cars	HGV	Cars	HGV	**Totals**
7.30-7.45	0	0	1	0	3	0	4	0	0	0	0	0	**8**
7.45-8.00	0	0	5	0	4	0	3	0	0	0	0	0	**12**
8.00-8.15	0	0	3	0	3	0	4	0	1	0	0	0	**11**
8.15-8.30	0	0	5	0	6	0	2	0	2	0	0	0	**15**
8.30-8.45	0	0	0	0	3	0	5	0	1	0	0	0	**9**
8.45-9.00	0	0	4	0	4	0	2	0	4	0	0	0	**14**
9.00-9.15	0	0	1	0	0	0	0	0	0	0	0	0	**1**
9.15-9.30	0	0	3	0	1	0	0	0	1	0	0	0	**5**
TOTALS	**0**	**0**	**22**	**0**	**24**	**0**	**20**	**0**	**9**	**0**	**0**	**0**	**75**

	1		2		3		4		5		6		
TIME	Cars	HGV	Cars	HGV	Cars	HGV	Cars	HGV	Cars	HGV	Cars	HGV	**Totals**
16.30-16.45	0	0	4	0	5	0	2	0	3	0	0	0	**14**
16.45-17.00	0	0	1	0	2	0	2	0	3	0	0	0	**8**
17.00-17.15	0	0	5	0	3	0	1	0	6	0	0	0	**15**
17.15-17.30	0	0	4	0	6	0	3	0	3	0	0	0	**16**
17.30-17.45	0	0	9	0	9	0	2	0	5	0	0	0	**25**
17.45-18.00	0	0	6	0	4	0	1	0	3	0	0	0	**14**
18.00-18.15	0	0	0	0	0	0	2	0	3	0	0	0	**5**
18.15-18.30	0	0	2	0	0	0	1	0	2	0	0	0	**5**
TOTALS	**0**	**0**	**31**	**0**	**29**	**0**	**14**	**0**	**28**	**0**	**0**	**0**	**102**

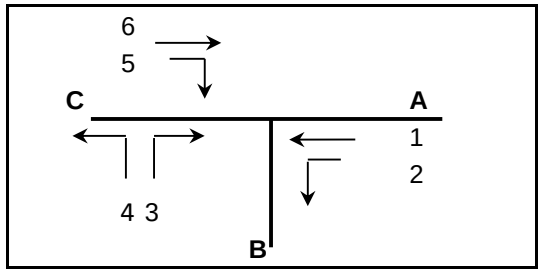
SUMMARY SHEET

PROJECT TITLE Roshill Housing Development A:

DATE OF SURVEY 29/5/19 WEATHER Wet B:

JUNCTION REF/LOCATION 2 - Réileán Estate C:

NAME S Fahy CHECKED BY MG



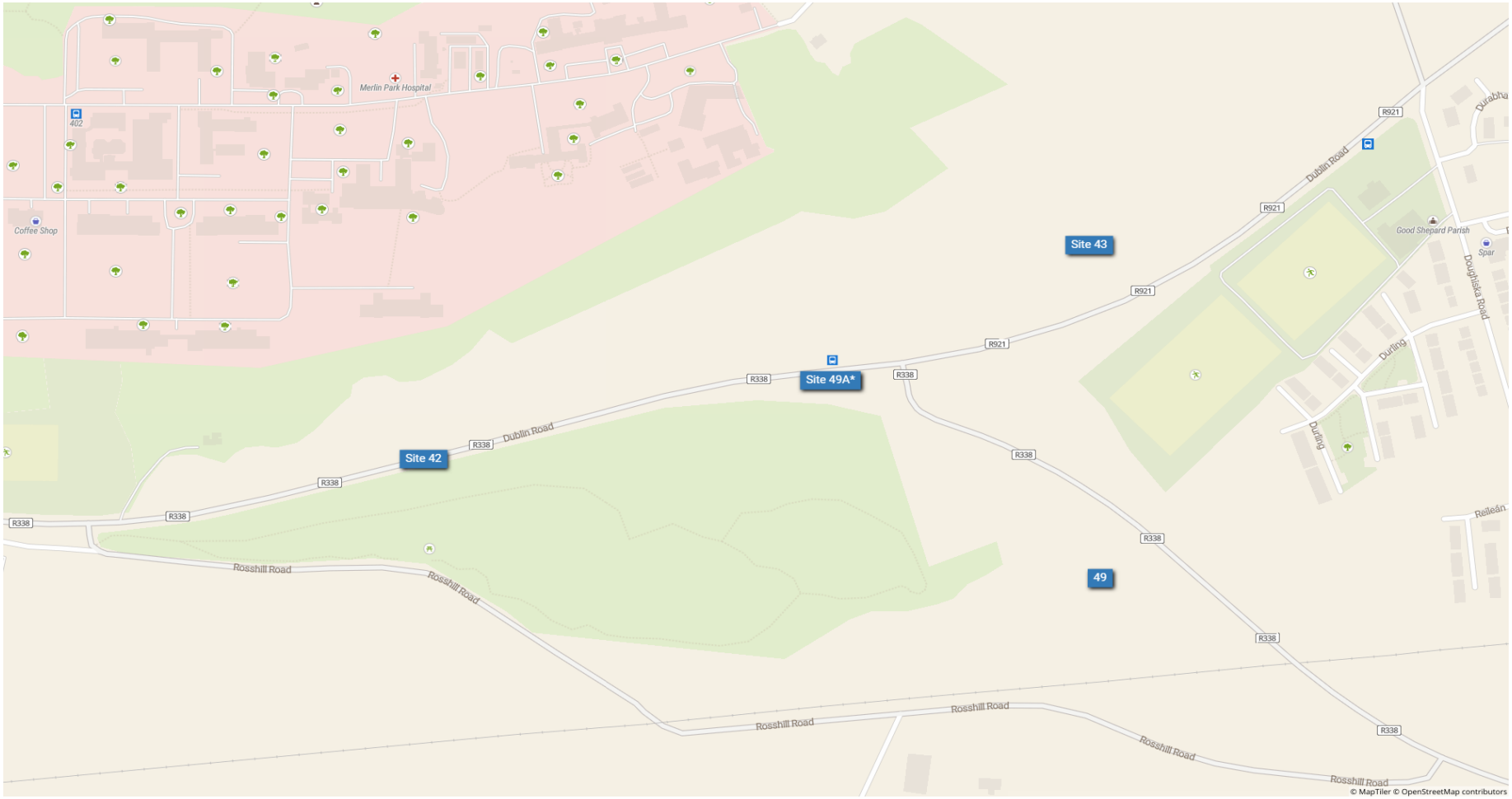
Priority junction [3P]

	1		2		3		4		5		6		
TIME	Cars	HGV	Cars	HGV	Cars	HGV	Cars	HGV	Cars	HGV	Cars	HGV	**Totals**
7.30-7.45	0	0	0	0	6	0	7	0	4	0	0	0	**17**
7.45-8.00	0	0	0	0	3	0	9	0	3	0	0	0	**15**
8.00-8.15	0	0	0	0	2	0	8	0	6	0	0	0	**16**
8.15-8.30	0	0	0	0	11	0	9	0	4	0	0	0	**24**
8.30-8.45	0	0	1	0	8	0	6	0	2	0	0	0	**17**
8.45-9.00	0	0	0	0	1	0	5	0	1	0	0	0	**7**
9.00-9.15	0	0	1	0	1	0	4	0	7	0	0	0	**13**
9.15-9.30	0	0	0	0	4	0	5	0	3	0	0	0	**12**
TOTALS	**0**	**0**	**2**	**0**	**36**	**0**	**53**	**0**	**30**	**0**	**0**	**0**	**121**

	1		2		3		4		5		6		
TIME	Cars	HGV	Cars	HGV	Cars	HGV	Cars	HGV	Cars	HGV	Cars	HGV	**Totals**
16.30-16.45	0	0	0	0	0	0	5	0	7	0	0	0	**12**
16.45-17.00	0	0	3	0	2	0	5	0	3	0	0	0	**13**
17.00-17.15	0	0	0	0	0	0	5	0	4	0	0	0	**9**
17.15-17.30	0	0	2	0	2	0	3	0	9	0	0	0	**16**
17.30-17.45	0	0	3	0	2	0	2	0	6	0	0	0	**13**
17.45-18.00	0	0	3	0	1	0	3	0	9	0	0	0	**16**
18.00-18.15	0	0	1	0	1	0	2	0	9	0	0	0	**13**
18.15-18.30	0	0	2	0	0	0	2	0	7	0	0	0	**11**
TOTALS	**0**	**0**	**14**	**0**	**8**	**0**	**27**	**0**	**54**	**0**	**0**	**0**	**103**

IDASO

Survey Name: Dublin Road, Galway Survey 2018 MCC Data
Date: 15 Nov 2018



IDASO

Survey Name: Dublin Road, Galway Survey 2018 MCC Data
Site: Site 42
Location: Old Dublin Rd / Coast Rd
Date: 15-Nov-2018

	A => A										A => B										A => C									
TIME	BUS	CAR	LGV	MCL	OGV1	OGV2	PCL	TAXI	TOT	PCU	BUS	CAR	LGV	MCL	OGV1	OGV2	PCL	TAXI	TOT	PCU	BUS	CAR	LGV	MCL	OGV1	OGV2	PCL	TAXI	TOT	PCU
00:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
00:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
00:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
00:45	0	0	0	0	0	0	0	0	0	0	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	0	0	0	0	0	0	0	0	0	0
01:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:45	0	0	0	0	0	0	0	0	0	0	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	0	0	0	0	0	0	0	0	0	0
02:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:45	0	0	0	0	0	0	0	0	0	0	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	0	0	0	0	0	0	0	0	0	0
03:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:45	0	0	0	0	0	0	0	0	0	0	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	0	0	0	0	0	0	0	0	0	0
04:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:45	0	0	0	0	0	0	0	0	0	0	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	0	0	0	0	0	0	0	0	0	0
05:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:45	0	0	0	0	0	0	0	0	0	0	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	0	0	0	0	0	0	0	0	0	0
06:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
06:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
06:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
06:45	0	0	0	0	0	0	0	0	0	0	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	0	0	0	0	0	0	0	0	0	0
07:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	18	2	0	0	0	0	0	20	20
07:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1	0	53	6	0	2	0	2	0	63	63
07:30	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	0	2	2	0	95	13	0	0	0	0	1	109	109
07:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	88	5	0	0	0	0	1	94	94
H/TOT	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	2	0	3	3	0	254	26	0	2	0	2	2	286	286
08:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	86	6	0	2	0	1	0	95	95
08:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	87	3	0	0	0	0	0	90	90
08:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	75	4	0	0	0	2	1	82	82
08:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	69	6	0	2	0	1	0	78	78
H/TOT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	317	19	0	4	0	4	1	345	345
09:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	55	3	0	0	0	1	0	59	59
09:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	47	3	0	1	0	0	0	51	51
09:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	45	1	0	0	0	0	0	46	46
09:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	20	4	0	1	0	1	0	26	26
H/TOT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	167	11	0	2	0	2	0	182	182
10:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	10	3	0	0	0	0	0	13	13
10:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	10	0	0	0	0	0	0	10	10
10:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	10	1	0	0	0	0	0	11	11
10:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	14	1	0	0	0	0	0	15	15
H/TOT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	44	5	0	0	0	0	0	49	49
11:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7	1	0	0	0	0	1	9	9
11:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	10	1	0	0	0	0	0	11	11
11:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	1	0	0	0	0	0	6	6
11:45	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1	1	0	10	3	0	0	0	0	0	13	13
H/TOT	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1	1	0	32	6	0	0	0	0	1	39	39
12:00	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1	1	0	8	0	0	0	0	0	0	8	8
12:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	9	0	0	0	0	0	1	10	10
12:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	9	0	0	0	0	0	0	9	9
12:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	3	0	0	0	0	0	4	4
H/TOT	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1	1	0	27	3	0	0	0	0	1	31	31
13:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	10	0	0	0	0	1	2	13	13
13:15	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1	1	0	6	0	0	0	0	0	0	6	6
13:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	10	2	0	0	0	0	0	12	12
13:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	16	0	0	1	0	0	1	18	18
H/TOT	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1	1	0	42	2	0	1	0	1	3	49	49
14:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8	3	0	0	0	0	0	11	11
14:15	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1	1	0	11	1	0	1	0	0	0	13	13
14:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	12	0	0	0	0	0	0	12	12
14:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8	1	0	0	0	0	0	9	9
H/TOT	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1	1	0	39	5	0	1	0	0	0	45	45
15:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1	0	4	0	0	0	0	0	1	5	5
15:15	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	1	0	5	1	0	0	0	0	0	6	6
15:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6	2	0	0	0	1	0	9	9
15:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	9	1	0	0	0	0	0	10	10
H/TOT	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	2	2	0	24	4	0	0	0	1	1	30	30
16:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6	0	0	0	0	0	0	6	6
16:15	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	1	0	16	3	0	0	0	0	0	19	19
16:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	1	0	0	0	0	0	5	5
16:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8	2	0	0	0	0	0	10	10
H/TOT	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	1	0	34	6	0	0	0	0	0	40	40
17:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	1	0	0	0	0	0	6	6
17:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1	0	9	0	0	0	0	0	0	9	9
17:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8	1	0	0	0	0	0	9	9
17:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8	1	0	0	0	0	0	9	9
H/TOT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1	0	30	3	0	0	0	0	0	33	33
18:00	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1	1	0	9	1	0	0	0	0	1	11	11
18:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	0	0	0	0	0	0	5	5
18:30	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1	1	0	4	0	0	0	0	0	0	4	4
18:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6	0	0	0	0	0	0	6	6
H/TOT	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	2	2	0	24	1	0	0	0	0	1	26	26
19:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
19:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
19:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
19:45	0	0	0	0	0	0	0	0	0	0	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	0	0	0	0	0	0	0	0	0	0
20:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
20:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
20:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
20:45	0	0	0	0	0	0	0	0	0	0	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	0	0	0	0	0	0	0	0	0	0
21:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
21:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
21:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
21:45	0	0	0	0	0	0	0	0	0	0	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	0	0	0	0	0	0	0	0	0	0
22:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
22:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
22:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
22:45	0	0	0	0	0	0	0	0	0	0	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	0	0	0	0	0	0	0	0	0	0
23:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23:45	0	0	0	0	0	0	0	0	0	0	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	0	0	0	0	0	0	0	0	0	0
24 TOT	0	0	0	0	0	0	0	0	0	0	0	7	2	0	0	0	4	0	13	13	0	1034	91	0	10	0	10	10	1155	1155

	B => A										B => B										B => C									
TIME	BUS	CAR	LGV	MCL	OGV1	OGV2	PCL	TAXI	TOT	PCU	BUS	CAR	LGV	MCL	OGV1	OGV2	PCL	TAXI	TOT	PCU	BUS	CAR	LGV	MCL	OGV1	OGV2	PCL	TAXI	TOT	PCU
00:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
00:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
00:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
00:45	0	0	0	0	0	0	0	0	0	0	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	0	0	0	0	0	0	0	0	0	0
01:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:45	0	0	0	0	0	0	0	0	0	0	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	0	0	0	0	0	0	0	0	0	0
02:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:45	0	0	0	0	0	0	0	0	0	0	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	0	0	0	0	0	0	0	0	0	0
03:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:45	0	0	0	0	0	0	0	0	0	0	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	0	0	0	0	0	0	0	0	0	0
04:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:45	0	0	0	0	0	0	0	0	0	0	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	0	0	0	0	0	0	0	0	0	0
05:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:45	0	0	0	0	0	0	0	0	0	0	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	0	0	0	0	0	0	0	0	0	0
06:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
06:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
06:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
06:45	0	0	0	0	0	0	0	0	0	0	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	0	0	0	0	0	0	0	0	0	0
07:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	163	16	0	3	2	0	0	184	184
07:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	154	20	1	5	1	1	1	185	185
07:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	135	13	0	4	1	2	7	167	167
07:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	129	12	1	2	1	5	2	155	155
H/TOT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	10	581	61	2	14	5	8	10	691	691
08:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6	122	8	0	4	2	0	7	149	149
08:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6	132	16	0	1	2	3	9	169	169
08:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8	86	13	2	2	0	1	6	118	118
08:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8	129	16	0	1	1	4	12	171	171
H/TOT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	28	469	53	2	8	5	8	34	607	607
09:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	137	16	0	2	4	2	4	169	169
09:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	139	13	0	3	3	2	6	168	168
09:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	8	152	11	0	7	2	1	3	184	184
09:45	0	0	1	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	4	176	22	0	1	0	2	6	211	211
H/TOT	0	0	1	0	0	0	0	0	1	1	0	0	0	0	0	0	0	1	1	1	18	604	62	0	13	9	7	19	732	732
10:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	142	19	0	1	1	0	7	173	173
10:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8	147	15	0	1	0	0	7	178	178
10:30	0	0	0	0	0	0	0	1	1	1	0	0	0	0	0	0	0	0	0	0	7	135	12	0	1	1	1	7	164	164
10:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	111	11	1	2	0	0	7	135	135
H/TOT	0	0	0	0	0	0	0	1	1	1	0	0	0	0	0	0	0	0	0	0	21	535	57	1	5	2	1	28	650	650
11:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	157	24	1	1	2	0	7	195	195
11:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6	126	11	0	1	3	0	5	152	152
11:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6	136	15	1	4	2	0	6	170	170
11:45	0	1	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	4	127	11	0	5	1	0	4	152	152
H/TOT	0	1	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	19	546	61	2	11	8	0	22	669	669
12:00	0	1	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	2	124	14	0	3	2	0	3	148	148
12:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	130	22	0	2	1	0	9	169	169
12:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7	142	12	1	4	0	1	6	173	173
12:45	0	1	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	2	130	18	0	1	1	0	4	156	156
H/TOT	0	2	0	0	0	0	0	0	2	2	0	0	0	0	0	0	0	0	0	0	16	526	66	1	10	4	1	22	646	646
13:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	159	14	0	3	0	0	2	180	180
13:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	137	16	0	0	0	1	5	162	162
13:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7	120	12	0	3	0	0	2	144	144
13:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	161	26	0	0	3	0	3	195	195
H/TOT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	14	577	68	0	6	3	1	12	681	681
14:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	139	24	0	2	3	0	5	178	178
14:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	131	17	1	0	1	0	6	160	160
14:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8	119	15	0	3	0	0	4	149	149
14:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	133	13	0	2	1	0	6	160	160
H/TOT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	22	522	69	1	7	5	0	21	647	647
15:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	118	14	0	0	0	0	2	138	138
15:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7	123	17	0	2	2	1	3	155	155
15:30	0	1	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	4	139	15	0	2	1	2	4	167	167
15:45	0	0	0	0	0	0	1	0	1	1	0	0	0	0	0	0	0	0	0	0	5	118	15	1	3	0	0	4	146	146
H/TOT	0	1	0	0	0	0	1	0	2	2	0	0	0	0	0	0	0	0	0	0	20	498	61	1	7	3	3	13	606	606
16:00	0	1	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	3	137	15	1	0	1	2	4	163	163
16:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	154	12	0	0	2	1	5	174	174
16:30	0	0	1	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	8	123	15	1	0	0	2	4	153	153
16:45	0	1	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	4	135	17	0	2	0	0	2	160	160
H/TOT	0	2	1	0	0	0	0	0	3	3	0	0	0	0	0	0	0	0	0	0	15	549	59	2	2	3	5	15	650	650
17:00	0	1	0	0	0	0	1	0	2	2	0	0	0	0	0	0	0	0	0	0	5	115	12	0	1	0	0	1	134	134
17:15	0	1	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	7	146	10	1	2	0	0	1	167	167
17:30	0	1	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	12	148	10	0	1	0	0	3	174	174
17:45	0	1	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	3	174	19	0	0	0	1	5	202	202
H/TOT	0	4	0	0	0	0	1	0	5	5	0	0	0	0	0	0	0	0	0	0	27	583	51	1	4	0	1	10	677	677
18:00	0	1	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	4	157	12	0	3	0	0	3	179	179
18:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	162	8	0	0	0	1	5	180	180
18:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	196	11	0	1	0	0	2	214	214
18:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	186	11	0	1	0	2	5	210	210
H/TOT	0	1	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	17	701	42	0	5	0	3	15	783	783
19:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
19:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
19:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
19:45	0	0	0	0	0	0	0	0	0	0	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	0	0	0	0	0	0	0	0	0	0
20:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
20:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
20:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
20:45	0	0	0	0	0	0	0	0	0	0	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	0	0	0	0	0	0	0	0	0	0
21:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
21:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
21:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
21:45	0	0	0	0	0	0	0	0	0	0	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	0	0	0	0	0	0	0	0	0	0
22:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
22:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
22:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
22:45	0	0	0	0	0	0	0	0	0	0	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	0	0	0	0	0	0	0	0	0	0
23:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23:45	0	0	0	0	0	0	0	0	0	0	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	0	0	0	0	0	0	0	0	0	0
24 TOT	0	11	2	0	0	0	2	1	16	16	0	0	0	0	0	0	0	1	1	1	227	6691	710	13	92	47	38	221	8039	8039

	C => A										C => B										C => C									
TIME	BUS	CAR	LGV	MCL	OGV1	OGV2	PCL	TAXI	TOT	PCU	BUS	CAR	LGV	MCL	OGV1	OGV2	PCL	TAXI	TOT	PCU	BUS	CAR	LGV	MCL	OGV1	OGV2	PCL	TAXI	TOT	PCU
00:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
00:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
00:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
00:45	0	0	0	0	0	0	0	0	0	0	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	0	0	0	0	0	0	0	0	0	0
01:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
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01:45	0	0	0	0	0	0	0	0	0	0	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	0	0	0	0	0	0	0	0	0	0
02:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:45	0	0	0	0	0	0	0	0	0	0	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	0	0	0	0	0	0	0	0	0	0
03:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:45	0	0	0	0	0	0	0	0	0	0	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	0	0	0	0	0	0	0	0	0	0
04:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
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04:45	0	0	0	0	0	0	0	0	0	0	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	0	0	0	0	0	0	0	0	0	0
05:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
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H/TOT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
06:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
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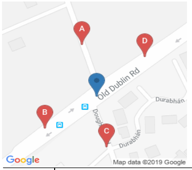
H/TOT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:00	0	1	0	0	0	0	0	0	1	1	3	49	9	0	0	1	0	0	62	62	0	0	0	0	0	0	0	0	0	0
07:15	0	1	1	0	0	0	0	0	2	2	4	71	12	0	2	0	0	0	89	89	0	0	0	0	0	0	0	0	0	0
07:30	0	2	4	0	0	0	0	1	7	7	4	83	19	0	2	1	0	1	110	110	0	0	0	0	0	0	0	0	0	0
07:45	0	2	0	0	0	1	0	0	3	3	4	109	10	0	1	0	1	0	125	125	0	0	0	0	0	0	0	0	0	0
H/TOT	0	6	5	0	0	1	0	1	13	13	15	312	50	0	5	2	1	1	386	386	0	0	0	0	0	0	0	0	0	0
08:00	0	6	0	0	0	0	0	0	6	6	2	112	11	1	0	0	0	1	127	127	0	0	0	0	0	0	0	0	0	0
08:15	0	2	1	0	0	0	0	0	3	3	5	125	14	0	4	0	1	1	150	150	0	0	0	0	0	0	0	0	0	0
08:30	0	4	0	0	0	0	0	0	4	4	2	115	9	0	2	1	3	0	132	132	0	0	0	0	0	0	0	0	0	0
08:45	0	10	3	0	0	0	0	0	13	13	3	89	11	0	2	2	0	1	108	108	0	0	0	0	0	0	0	0	0	0
H/TOT	0	22	4	0	0	0	0	0	26	26	12	441	45	1	8	3	4	3	517	517	0	0	0	0	0	0	0	0	0	0
09:00	0	6	1	0	0	0	0	1	8	8	2	89	12	0	2	2	1	3	111	111	0	0	0	0	0	0	0	0	0	0
09:15	0	4	0	0	0	0	0	0	4	4	6	70	14	1	2	3	1	2	99	99	0	0	0	0	0	0	0	0	0	0
09:30	0	3	1	0	0	0	1	0	5	5	3	82	12	0	3	1	1	5	107	107	0	0	0	0	0	0	0	0	0	0
09:45	0	4	0	0	0	0	0	0	4	4	3	83	14	0	3	3	0	3	109	109	0	0	0	0	0	0	0	0	0	0
H/TOT	0	17	2	0	0	0	1	1	21	21	14	324	52	1	10	9	3	13	426	426	0	0	0	0	0	0	0	0	0	0
10:00	0	5	1	0	0	0	0	0	6	6	4	106	9	0	3	3	1	5	131	131	0	0	0	0	0	0	0	0	0	0
10:15	0	6	3	0	1	0	0	0	10	10	9	94	11	0	3	0	0	2	119	119	0	0	0	0	0	0	0	0	0	0
10:30	0	6	2	0	0	0	0	0	8	8	6	97	11	0	7	0	0	4	125	125	0	0	0	0	0	0	0	0	0	0
10:45	0	4	0	0	0	0	0	0	4	4	3	90	12	0	2	1	0	5	113	113	0	0	0	0	0	0	0	0	0	0
H/TOT	0	21	6	0	1	0	0	0	28	28	22	387	43	0	15	4	1	16	488	488	0	0	0	0	0	0	0	0	0	0
11:00	0	4	2	0	0	0	0	0	6	6	2	94	13	0	2	0	1	2	114	114	0	0	0	0	0	0	0	0	0	0
11:15	0	5	0	0	0	0	0	0	5	5	6	102	16	1	4	0	0	4	133	133	0	0	0	0	0	0	0	0	0	0
11:30	0	6	1	0	0	0	0	0	7	7	4	119	10	0	1	1	0	4	139	139	0	0	0	0	0	0	0	0	0	0
11:45	0	8	1	0	0	0	1	0	10	10	5	124	9	0	3	2	0	5	148	148	0	0	0	0	0	0	0	0	0	0
H/TOT	0	23	4	0	0	0	1	0	28	28	17	439	48	1	10	3	1	15	534	534	0	0	0	0	0	0	0	0	0	0
12:00	0	5	2	0	0	0	0	0	7	7	4	128	14	1	3	2	0	3	155	155	0	0	0	0	0	0	0	0	0	0
12:15	0	17	3	0	0	0	0	0	20	20	3	120	16	1	4	1	0	3	148	148	0	0	0	0	0	0	0	0	0	0
12:30	0	12	3	0	0	0	0	0	15	15	2	137	11	0	5	2	0	4	161	161	0	0	0	0	0	0	0	0	0	0
12:45	0	8	0	0	0	0	0	0	8	8	2	98	12	0	3	1	0	3	119	119	0	0	0	0	0	0	0	0	0	0
H/TOT	0	42	8	0	0	0	0	0	50	50	11	483	53	2	15	6	0	13	583	583	0	0	0	0	0	0	0	0	0	0
13:00	0	10	1	0	0	0	0	0	11	11	2	95	7	0	4	1	1	2	112	112	0	0	0	0	0	0	0	0	0	0
13:15	0	9	0	0	0	0	0	0	9	9	7	128	19	0	1	1	0	1	157	157	0	0	0	0	0	0	0	0	0	0
13:30	0	7	0	0	0	0	0	0	7	7	3	119	15	0	2	0	0	0	139	139	0	0	0	0	0	0	0	0	0	0
13:45	0	14	1	0	0	0	1	0	16	16	3	121	15	0	2	0	0	9	150	150	0	0	0	0	0	0	0	0	0	0
H/TOT	0	40	2	0	0	0	1	0	43	43	15	463	56	0	9	2	1	12	558	558	0	0	0	0	0	0	0	0	0	0
14:00	0	13	0	0	0	0	0	0	13	13	3	148	12	0	6	2	0	3	174	174	0	0	0	0	0	0	0	0	0	0
14:15	0	13	1	0	0	0	0	0	14	14	5	156	17	0	1	0	0	3	182	182	0	0	0	0	0	0	0	0	0	0
14:30	0	16	1	0	0	0	0	0	17	17	2	156	9	0	3	1	1	1	173	173	0	0	0	0	0	0	0	0	0	0
14:45	0	11	3	0	0	0	0	0	14	14	6	156	13	0	2	0	1	2	180	180	0	0	0	0	0	0	0	0	0	0
H/TOT	0	53	5	0	0	0	0	0	58	58	16	616	51	0	12	3	2	9	709	709	0	0	0	0	0	0	0	0	0	0
15:00	0	18	1	0	0	0	0	0	19	19	4	162	17	0	2	3	0	1	189	189	0	0	1	0	0	0	0	0	1	1
15:15	0	11	5	0	0	0	0	0	16	16	4	168	19	1	2	2	0	4	200	200	0	0	0	0	0	0	0	0	0	0
15:30	0	17	0	0	0	0	0	0	17	17	1	169	16	0	2	0	0	5	193	193	0	0	0	0	0	0	0	0	0	0
15:45	0	24	3	0	0	0	0	0	27	27	7	163	23	0	0	0	1	3	197	197	0	0	0	0	0	0	0	0	0	0
H/TOT	0	70	9	0	0	0	0	0	79	79	16	662	75	1	6	5	1	13	779	779	0	0	1	0	0	0	0	0	1	1
16:00	0	20	2	0	0	0	0	0	22	22	4	177	20	0	1	2	2	1	207	207	0	1	0	0	0	0	0	0	1	1
16:15	0	24	1	0	0	0	0	0	25	25	6	200	13	0	0	1	1	5	226	226	0	0	0	0	0	0	0	0	0	0
16:30	0	33	1	0	0	0	0	0	34	34	3	179	26	0	0	0	2	7	217	217	0	0	0	0	0	0	0	0	0	0
16:45	0	34	1	0	0	0	0	0	35	35	5	206	15	1	1	0	0	3	231	231	0	0	0	0	0	0	0	0	0	0
H/TOT	0	111	5	0	0	0	0	0	116	116	18	762	74	1	2	3	5	16	881	881	0	1	0	0	0	0	0	0	1	1
17:00	0	31	7	0	2	0	3	0	43	43	4	188	17	1	4	0	2	1	217	217	0	0	0	0	0	0	0	0	0	0
17:15	0	34	0	0	1	0	0	0	35	35	4	195	20	2	2	0	1	1	225	225	0	0	0	0	0	0	0	0	0	0
17:30	0	29	1	0	0	0	0	0	30	30	5	182	14	0	3	0	4	0	208	208	0	0	0	0	0	0	0	0	0	0
17:45	0	26	2	0	0	0	0	0	28	28	7	201	12	0	1	0	2	0	223	223	0	0	0	0	0	0	0	0	0	0
H/TOT	0	120	10	0	3	0	3	0	136	136	20	766	63	3	10	0	9	2	873	873	0	0	0	0	0	0	0	0	0	0
18:00	0	30	1	0	0	0	1	0	32	32	5	206	18	0	1	0	1	0	231	231	0	0	0	0	0	0	0	0	0	0
18:15	0	14	1	0	0	0	0	0	15	15	7	187	9	0	0	0	3	0	206	206	0	0	0	0	0	0	0	0	0	0
18:30	0	6	0	0	0	0	0	0	6	6	1	171	9	0	2	0	3	1	187	187	0	0	0	0	0	0	0	0	0	0
18:45	0	8	0	0	0	0	0	0	8	8	4	138	9	0	0	0	1	0	152	152	0	1	0	0	0	0	0	0	1	1
H/TOT	0	58	2	0	0	0	1	0	61	61	17	702	45	0	3	0	8	1	776	776	0	1	0	0	0	0	0	0	1	1
19:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
19:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
19:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
19:45	0	0	0	0	0	0	0	0	0	0	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	0	0	0	0	0	0	0	0	0	0
20:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
20:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
20:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
20:45	0	0	0	0	0	0	0	0	0	0	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	0	0	0	0	0	0	0	0	0	0
21:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
21:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
21:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
21:45	0	0	0	0	0	0	0	0	0	0	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	0	0	0	0	0	0	0	0	0	0
22:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
22:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
22:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
22:45	0	0	0	0	0	0	0	0	0	0	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	0	0	0	0	0	0	0	0	0	0
23:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23:45	0	0	0	0	0	0	0	0	0	0	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	0	0	0	0	0	0	0	0	0	0
24 TOT	0	583	62	0	4	1	7	2	659	659	193	6357	655	10	105	40	36	114	7510	7510	0	2	1	0	0	0	0	0	3	3



IDASO

Survey Name: Dublin Road, Galway Survey 2018 MCC Data
Site: Site 43
Location: Doughiska Road / Old Dublin Rd
Date: 15-Nov-2018

	A => A										A => B										A => C									
TIME	BUS	CAR	LGV	MCL	OGV1	OGV2	PCL	TAXI	TOT	PCU	BUS	CAR	LGV	MCL	OGV1	OGV2	PCL	TAXI	TOT	PCU	BUS	CAR	LGV	MCL	OGV1	OGV2	PCL	TAXI	TOT	PCU
00:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
00:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
00:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
00:45	0	0	0	0	0	0	0	0	0	0	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	0	0	0	0	0	0	0	0	0	0
01:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:45	0	0	0	0	0	0	0	0	0	0	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	0	0	0	0	0	0	0	0	0	0
02:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:45	0	0	0	0	0	0	0	0	0	0	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	0	0	0	0	0	0	0	0	0	0
03:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
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H/TOT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
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H/TOT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
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H/TOT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
06:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
06:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
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H/TOT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:00	0	0	0	0	0	0	0	0	0	0	1	5	0	0	1	0	0	1	8	8	0	1	1	0	1	0	0	0	3	3
07:15	0	0	0	0	0	0	0	0	0	0	0	5	1	0	0	0	1	2	9	9	0	6	1	0	0	0	0	0	7	7
07:30	0	0	0	0	0	0	0	0	0	0	2	6	0	0	0	0	0	1	9	9	0	4	1	0	1	0	0	0	6	6
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H/TOT	0	0	0	0	0	0	0	0	0	0	6	19	2	0	1	0	1	5	34	34	0	16	3	0	2	0	0	0	21	21
08:00	0	0	0	0	0	0	0	0	0	0	2	4	0	0	0	0	0	3	9	9	0	12	2	0	0	0	0	0	14	14
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08:30	0	0	0	0	0	0	0	0	0	0	1	9	1	0	0	0	0	4	15	15	1	19	3	0	0	0	0	0	23	23
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H/TOT	0	0	0	0	0	0	0	0	0	0	7	27	2	0	2	0	0	13	51	51	1	54	8	0	0	0	2	1	66	66
09:00	0	0	0	0	0	0	0	0	0	0	1	2	0	0	0	0	0	1	4	4	0	15	1	0	0	0	0	0	16	16
09:15	0	0	0	0	0	0	0	0	0	0	2	4	1	0	0	0	1	2	10	10	0	11	1	0	0	0	0	1	13	13
09:30	0	0	0	0	0	0	0	0	0	0	1	4	0	0	0	0	0	0	5	5	0	10	0	0	0	0	0	0	10	10
09:45	0	0	0	0	0	0	0	0	0	0	2	4	1	0	0	0	0	1	8	8	0	7	4	0	1	0	0	0	12	12
H/TOT	0	0	0	0	0	0	0	0	0	0	6	14	2	0	0	0	1	4	27	27	0	43	6	0	1	0	0	1	51	51
10:00	0	0	0	0	0	0	0	0	0	0	2	9	1	0	0	0	0	1	13	13	0	12	4	0	0	0	0	1	17	17
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10:30	0	0	0	0	0	0	0	0	0	0	2	8	1	0	0	1	1	2	15	15	0	20	2	0	0	0	0	1	23	23
10:45	0	0	0	0	0	0	0	0	0	0	1	8	1	0	1	0	0	2	13	13	0	10	4	0	0	0	0	0	14	14
H/TOT	0	0	0	0	0	0	0	0	0	0	6	35	4	0	2	1	1	6	55	55	0	48	12	0	0	0	0	2	62	62
11:00	0	0	0	0	0	0	0	0	0	0	2	17	1	0	1	0	0	0	21	21	0	9	1	0	2	0	0	0	12	12
11:15	0	0	0	0	0	0	0	0	0	0	1	10	0	0	0	0	0	2	13	13	0	11	2	0	2	0	0	2	17	17
11:30	0	0	0	0	0	0	0	0	0	0	3	6	1	0	0	0	0	1	11	11	0	15	2	0	0	0	0	0	17	17
11:45	0	0	0	0	0	0	0	0	0	0	1	15	1	0	0	0	0	1	18	18	0	11	0	0	0	0	0	1	12	12
H/TOT	0	0	0	0	0	0	0	0	0	0	7	48	3	0	1	0	0	4	63	63	0	46	5	0	4	0	0	3	58	58
12:00	0	0	0	0	0	0	0	0	0	0	2	15	1	0	1	0	0	0	19	19	0	17	1	0	1	0	0	2	21	21
12:15	0	0	0	0	0	0	0	0	0	0	1	11	1	0	0	0	0	0	13	13	0	14	0	0	0	0	0	0	14	14
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12:45	0	0	0	0	0	0	0	0	0	0	1	15	0	0	0	0	0	2	18	18	1	9	0	0	0	0	0	0	10	10
H/TOT	0	0	0	0	0	0	0	0	0	0	6	52	2	0	1	0	0	2	63	63	1	70	5	0	3	0	0	3	82	82
13:00	0	0	0	0	0	0	0	0	0	0	1	17	0	0	0	0	0	2	20	20	0	24	4	0	0	0	0	0	28	28
13:15	0	0	0	0	0	0	0	0	0	0	2	12	1	0	0	0	0	2	17	17	0	21	4	0	0	0	0	1	26	26
13:30	0	0	0	0	0	0	0	0	0	0	2	9	1	0	0	0	0	0	12	12	0	25	2	0	0	0	0	0	27	27
13:45	0	0	0	0	0	0	0	0	0	0	1	18	3	0	0	0	0	1	23	23	0	19	3	0	2	0	1	0	25	25
H/TOT	0	0	0	0	0	0	0	0	0	0	6	56	5	0	0	0	0	5	72	72	0	89	13	0	2	0	1	1	106	106
14:00	0	0	0	0	0	0	0	0	0	0	3	14	0	0	0	0	0	3	20	20	0	15	2	0	0	0	0	1	18	18
14:15	0	0	0	0	0	0	0	0	0	0	0	12	3	0	0	0	0	1	16	16	0	19	2	0	0	0	1	0	22	22
14:30	0	0	0	0	0	0	0	0	0	0	3	11	0	0	1	0	1	1	17	17	0	21	3	0	1	0	0	0	25	25
14:45	0	0	0	0	0	0	0	0	0	0	1	20	3	0	0	0	0	3	27	27	0	14	2	0	0	0	0	1	17	17
H/TOT	0	0	0	0	0	0	0	0	0	0	7	57	6	0	1	0	1	8	80	80	0	69	9	0	1	0	1	2	82	82
15:00	0	0	0	0	0	0	0	0	0	0	2	9	1	0	0	0	0	1	13	13	0	20	1	0	1	0	0	0	22	22
15:15	0	0	0	0	0	0	0	0	0	0	1	10	1	0	0	0	1	5	18	18	1	31	3	0	0	0	0	0	35	35
15:30	0	0	0	0	0	0	0	0	0	0	1	14	0	0	0	0	0	1	16	16	0	28	5	0	0	0	0	0	33	33
15:45	0	0	0	0	0	0	0	0	0	0	2	15	0	0	0	0	1	1	19	19	0	21	0	0	0	0	0	0	21	21
H/TOT	0	0	0	0	0	0	0	0	0	0	6	48	2	0	0	0	2	8	66	66	1	100	9	0	1	0	0	0	111	111
16:00	0	0	0	0	0	0	0	0	0	0	2	10	1	0	0	0	3	4	20	20	0	48	2	0	0	0	0	0	50	50
16:15	0	0	0	0	0	0	0	0	0	0	0	9	0	0	0	0	0	0	9	9	0	28	6	0	0	0	1	0	35	35
16:30	0	0	0	0	0	0	0	0	0	0	3	10	1	1	0	0	0	0	15	15	0	33	3	0	0	0	0	1	37	37
16:45	0	0	0	0	0	0	0	0	0	0	1	9	0	0	0	0	1	3	14	14	0	31	0	0	0	0	1	0	32	32
H/TOT	0	0	0	0	0	0	0	0	0	0	6	38	2	1	0	0	4	7	58	58	0	140	11	0	0	0	2	1	154	154
17:00	0	0	0	0	0	0	0	0	0	0	2	8	1	0	0	0	1	0	12	12	0	42	2	0	0	0	0	0	44	44
17:15	0	0	0	0	0	0	0	0	0	0	1	10	1	0	0	0	0	0	12	12	0	39	0	0	0	0	0	0	39	39
17:30	0	0	0	0	0	0	0	0	0	0	3	15	1	0	0	0	0	0	19	19	0	28	5	0	0	0	0	0	33	33
17:45	0	0	0	0	0	0	0	0	0	0	0	11	0	0	0	0	0	0	11	11	0	34	1	0	0	0	1	0	36	36
H/TOT	0	0	0	0	0	0	0	0	0	0	6	44	3	0	0	0	1	0	54	54	0	143	8	0	0	0	1	0	152	152
18:00	0	0	0	0	0	0	0	0	0	0	1	10	0	0	0	0	0	0	11	11	0	30	0	0	0	0	0	0	30	30
18:15	0	0	0	0	0	0	0	0	0	0	2	14	0	0	0	0	1	0	17	17	0	13	0	0	0	0	0	0	13	13
18:30	0	0	0	0	0	0	0	0	0	0	2	17	0	0	0	0	0	0	19	19	0	26	1	0	0	0	0	0	27	27
18:45	0	0	0	0	0	0	0	0	0	0	1	24	2	0	0	0	1	0	28	28	0	22	1	0	0	0	0	0	23	23
H/TOT	0	0	0	0	0	0	0	0	0	0	6	65	2	0	0	0	2	0	75	75	0	91	2	0	0	0	0	0	93	93
19:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
19:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
19:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
19:45	0	0	0	0	0	0	0	0	0	0	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	0	0	0	0	0	0	0	0	0	0
20:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
20:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
20:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
20:45	0	0	0	0	0	0	0	0	0	0	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	0	0	0	0	0	0	0	0	0	0
21:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
21:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
21:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
21:45	0	0	0	0	0	0	0	0	0	0	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	0	0	0	0	0	0	0	0	0	0
22:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
22:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
22:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
22:45	0	0	0	0	0	0	0	0	0	0	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	0	0	0	0	0	0	0	0	0	0
23:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23:45	0	0	0	0	0	0	0	0	0	0	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	0	0	0	0	0	0	0	0	0	0
24 TOT	0	0	0	0	0	0	0	0	0	0	75	503	35	1	8	1	13	62	698	698	3	909	91	0	14	0	7	14	1038	1038

	A => D										B => A										B => B									
TIME	BUS	CAR	LGV	MCL	OGV1	OGV2	PCL	TAXI	TOT	PCU	BUS	CAR	LGV	MCL	OGV1	OGV2	PCL	TAXI	TOT	PCU	BUS	CAR	LGV	MCL	OGV1	OGV2	PCL	TAXI	TOT	PCU
00:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
00:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
00:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
00:45	0	0	0	0	0	0	0	0	0	0	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	0	0	0	0	0	0	0	0	0	0
01:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:45	0	0	0	0	0	0	0	0	0	0	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	0	0	0	0	0	0	0	0	0	0
02:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:45	0	0	0	0	0	0	0	0	0	0	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	0	0	0	0	0	0	0	0	0	0
03:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:45	0	0	0	0	0	0	0	0	0	0	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	0	0	0	0	0	0	0	0	0	0
04:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:45	0	0	0	0	0	0	0	0	0	0	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	0	0	0	0	0	0	0	0	0	0
05:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
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H/TOT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
06:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
06:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
06:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
06:45	0	0	0	0	0	0	0	0	0	0	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	0	0	0	0	0	0	0	0	0	0
07:00	0	14	3	0	0	0	0	0	17	17	1	5	1	0	0	0	1	0	8	8	0	0	0	0	0	0	0	0	0	0
07:15	0	17	1	0	0	0	0	0	18	18	2	8	2	0	0	0	0	1	13	13	0	0	0	0	0	0	0	0	0	0
07:30	0	10	2	0	0	0	1	0	13	13	2	28	1	0	0	0	0	0	31	31	0	0	0	0	0	0	0	0	0	0
07:45	0	27	2	0	0	1	0	0	30	30	1	49	3	0	0	0	0	0	53	53	0	0	0	0	0	0	0	0	0	0
H/TOT	0	68	8	0	0	1	1	0	78	78	6	90	7	0	0	0	1	1	105	105	0	0	0	0	0	0	0	0	0	0
08:00	0	30	0	0	0	0	0	0	30	30	3	57	3	0	0	0	0	0	63	63	0	0	0	0	0	0	0	0	0	0
08:15	0	33	5	0	0	0	0	0	38	38	1	45	2	0	0	0	0	0	48	48	0	0	0	0	0	0	0	0	0	0
08:30	0	44	4	0	0	0	0	0	48	48	1	30	4	0	0	0	0	0	35	35	0	0	0	0	0	0	0	0	0	0
08:45	0	24	3	0	3	1	0	0	31	31	1	37	2	0	0	1	0	2	43	43	0	0	0	0	0	0	0	0	0	0
H/TOT	0	131	12	0	3	1	0	0	147	147	6	169	11	0	0	1	0	2	189	189	0	0	0	0	0	0	0	0	0	0
09:00	0	18	1	0	1	1	0	0	21	21	1	27	3	0	0	0	0	0	31	31	0	0	0	0	0	0	0	0	0	0
09:15	0	15	1	0	1	0	0	0	17	17	3	14	3	0	0	0	1	0	21	21	0	0	0	0	0	0	0	0	0	0
09:30	0	12	1	0	2	0	0	0	15	15	1	8	0	0	0	0	0	0	9	9	0	0	0	0	0	0	0	0	0	0
09:45	0	18	1	0	0	0	0	0	19	19	1	8	1	0	0	0	0	1	11	11	0	0	0	0	0	0	0	0	0	0
H/TOT	0	63	4	0	4	1	0	0	72	72	6	57	7	0	0	0	1	1	72	72	0	0	0	0	0	0	0	0	0	0
10:00	0	12	1	0	1	0	0	0	14	14	1	10	1	0	0	0	0	0	12	12	0	0	0	0	0	0	0	0	0	0
10:15	1	7	2	0	2	0	0	0	12	12	3	9	1	0	1	0	0	0	14	14	0	0	0	0	0	0	0	0	0	0
10:30	0	12	1	0	0	1	0	0	14	14	3	8	2	0	2	0	0	2	17	17	0	0	0	0	0	0	0	0	0	0
10:45	0	14	3	0	3	0	0	1	21	21	2	13	2	0	2	0	0	1	20	20	0	0	0	0	0	0	0	0	0	0
H/TOT	1	45	7	0	6	1	0	1	61	61	9	40	6	0	5	0	0	3	63	63	0	0	0	0	0	0	0	0	0	0
11:00	1	14	5	0	1	0	0	0	21	21	1	14	1	0	0	0	0	1	17	17	0	0	0	0	0	0	0	0	0	0
11:15	0	16	1	0	1	0	0	0	18	18	2	17	1	1	1	0	0	0	22	22	0	0	0	0	0	0	0	0	0	0
11:30	0	15	1	0	1	1	0	0	18	18	0	13	0	0	0	0	0	3	16	16	0	0	0	0	0	0	0	0	0	0
11:45	0	15	2	0	2	0	0	1	20	20	2	15	0	0	1	0	0	1	19	19	0	0	0	0	0	0	0	0	0	0
H/TOT	1	60	9	0	5	1	0	1	77	77	5	59	2	1	2	0	0	5	74	74	0	0	0	0	0	0	0	0	0	0
12:00	0	16	1	0	0	0	0	0	17	17	1	15	1	0	0	0	0	0	17	17	0	0	0	0	0	0	0	0	0	0
12:15	0	14	1	0	4	0	0	0	19	19	1	18	1	0	0	0	0	0	20	20	0	0	0	0	0	0	0	0	0	0
12:30	0	11	2	0	1	0	0	0	14	14	2	9	1	0	1	0	0	2	15	15	0	0	0	0	0	0	0	0	0	0
12:45	0	13	4	0	0	0	0	0	17	17	1	11	0	0	1	0	0	1	14	14	0	0	0	0	0	0	0	0	0	0
H/TOT	0	54	8	0	5	0	0	0	67	67	5	53	3	0	2	0	0	3	66	66	0	0	0	0	0	0	0	0	0	0
13:00	0	20	4	0	1	0	0	0	25	25	1	9	0	0	0	0	0	1	11	11	0	0	0	0	0	0	0	0	0	0
13:15	0	23	1	0	1	0	0	0	25	25	2	14	1	0	0	0	0	0	17	17	0	0	0	0	0	0	0	0	0	0
13:30	0	21	2	0	2	1	0	0	26	26	2	12	1	0	1	0	0	0	16	16	0	0	0	0	0	0	0	0	0	0
13:45	0	34	5	0	0	1	0	0	40	40	1	13	2	0	1	0	0	2	19	19	0	0	0	0	0	0	0	0	0	0
H/TOT	0	98	12	0	4	2	0	0	116	116	6	48	4	0	2	0	0	3	63	63	0	0	0	0	0	0	0	0	0	0
14:00	0	18	3	0	2	0	0	0	23	23	2	14	1	0	1	0	0	0	18	18	0	0	0	0	0	0	0	0	0	0
14:15	0	44	4	0	1	0	0	0	49	49	1	12	3	0	0	0	0	1	17	17	0	0	0	0	0	0	0	0	0	0
14:30	0	19	3	0	1	0	0	0	23	23	1	20	1	0	0	0	0	1	23	23	0	0	0	0	0	0	0	0	0	0
14:45	0	32	3	0	0	0	0	0	35	35	2	11	1	0	0	0	0	1	15	15	0	0	0	0	0	0	0	0	0	0
H/TOT	0	113	13	0	4	0	0	0	130	130	6	57	6	0	1	0	0	3	73	73	0	0	0	0	0	0	0	0	0	0
15:00	1	19	3	0	0	0	0	1	24	24	1	22	1	0	1	0	0	0	25	25	0	0	0	0	0	0	0	0	0	0
15:15	0	32	3	0	0	1	0	0	36	36	2	12	3	0	1	0	0	1	19	19	0	0	0	0	0	0	0	0	0	0
15:30	0	29	6	0	0	0	0	0	35	35	1	10	0	0	0	0	0	1	12	12	0	0	0	0	0	0	0	0	0	0
15:45	0	43	5	0	0	0	0	0	48	48	2	14	3	0	1	0	0	1	21	21	0	0	0	0	0	0	0	0	0	0
H/TOT	1	123	17	0	0	1	0	1	143	143	6	58	7	0	3	0	0	3	77	77	0	0	0	0	0	0	0	0	0	0
16:00	0	56	4	0	2	0	0	2	64	64	2	10	0	0	0	0	0	0	12	12	0	0	0	0	0	0	0	0	0	0
16:15	0	50	6	0	0	1	0	0	57	57	1	12	2	0	0	0	0	2	17	17	0	0	0	0	0	0	0	0	0	0
16:30	1	58	7	0	1	0	0	0	67	67	1	7	1	0	0	0	0	1	10	10	0	0	0	0	0	0	0	0	0	0
16:45	0	50	4	0	0	1	0	0	55	55	2	3	0	0	0	0	0	0	5	5	0	0	0	0	0	0	0	0	0	0
H/TOT	1	214	21	0	3	2	0	2	243	243	6	32	3	0	0	0	0	3	44	44	0	0	0	0	0	0	0	0	0	0
17:00	0	53	2	0	1	0	0	0	56	56	3	3	1	0	0	0	0	0	7	7	0	0	0	0	0	0	0	0	0	0
17:15	0	48	4	0	0	0	0	0	52	52	0	3	0	0	0	0	1	0	4	4	0	0	0	0	0	0	0	0	0	0
17:30	0	53	4	0	0	0	0	0	57	57	1	8	0	0	0	0	0	1	10	10	0	0	0	0	0	0	0	0	0	0
17:45	0	45	5	0	0	0	0	0	50	50	3	9	1	0	0	0	0	0	13	13	0	0	0	0	0	0	0	0	0	0
H/TOT	0	199	15	0	1	0	0	0	215	215	7	23	2	0	0	0	1	1	34	34	0	0	0	0	0	0	0	0	0	0
18:00	0	40	3	0	0	0	0	0	43	43	2	11	1	0	0	0	0	0	14	14	0	0	0	0	0	0	0	0	0	0
18:15	0	21	0	0	0	0	0	0	21	21	1	15	0	0	0	0	0	0	16	16	0	0	0	0	0	0	0	0	0	0
18:30	0	29	1	0	0	0	0	0	30	30	0	20	1	0	0	0	0	0	21	21	0	0	0	0	0	0	0	0	0	0
18:45	0	31	1	0	0	1	0	0	33	33	0	19	3	0	0	0	0	0	22	22	0	0	0	0	0	0	0	0	0	0
H/TOT	0	121	5	0	0	1	0	0	127	127	3	65	5	0	0	0	0	0	73	73	0	0	0	0	0	0	0	0	0	0
19:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
19:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
19:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
19:45	0	0	0	0	0	0	0	0	0	0	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	0	0	0	0	0	0	0	0	0	0
20:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
20:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
20:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
20:45	0	0	0	0	0	0	0	0	0	0	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	0	0	0	0	0	0	0	0	0	0
21:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
21:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
21:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
21:45	0	0	0	0	0	0	0	0	0	0	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	0	0	0	0	0	0	0	0	0	0
22:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
22:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
22:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
22:45	0	0	0	0	0	0	0	0	0	0	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	0	0	0	0	0	0	0	0	0	0
23:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23:45	0	0	0	0	0	0	0	0	0	0	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	0	0	0	0	0	0	0	0	0	0
24 TOT	4	1289	131	0	35	11	1	5	1476	1476	71	751	63	1	15	1	3	28	933	933	0	0	0	0	0	0	0	0	0	0

	B => C										B => D										C => A									
TIME	BUS	CAR	LGV	MCL	OGV1	OGV2	PCL	TAXI	TOT	PCU	BUS	CAR	LGV	MCL	OGV1	OGV2	PCL	TAXI	TOT	PCU	BUS	CAR	LGV	MCL	OGV1	OGV2	PCL	TAXI	TOT	PCU
00:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
00:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
00:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
00:45	0	0	0	0	0	0	0	0	0	0	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	0	0	0	0	0	0	0	0	0	0
01:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:45	0	0	0	0	0	0	0	0	0	0	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	0	0	0	0	0	0	0	0	0	0
02:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:45	0	0	0	0	0	0	0	0	0	0	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	0	0	0	0	0	0	0	0	0	0
03:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:45	0	0	0	0	0	0	0	0	0	0	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	0	0	0	0	0	0	0	0	0	0
04:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:45	0	0	0	0	0	0	0	0	0	0	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	0	0	0	0	0	0	0	0	0	0
05:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
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H/TOT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
06:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
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06:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
06:45	0	0	0	0	0	0	0	0	0	0	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	0	0	0	0	0	0	0	0	0	0
07:00	0	5	1	0	0	0	0	0	6	6	1	36	5	0	0	1	1	0	44	44	0	9	1	0	0	0	0	1	11	11
07:15	0	3	1	0	0	0	0	1	5	5	0	42	7	0	2	0	0	0	51	51	0	18	3	0	0	0	0	0	21	21
07:30	0	13	0	0	0	0	0	0	13	13	1	44	11	0	0	0	0	0	56	56	0	60	10	0	1	0	0	0	71	71
07:45	0	9	1	0	0	0	0	2	12	12	3	74	10	0	1	0	0	1	89	89	1	59	2	0	0	0	0	0	62	62
H/TOT	0	30	3	0	0	0	0	3	36	36	5	196	33	0	3	1	1	1	240	240	1	146	16	0	1	0	0	1	165	165
08:00	0	9	1	0	0	0	0	1	11	11	1	80	5	1	0	0	0	0	87	87	0	48	2	0	2	0	2	0	54	54
08:15	0	4	2	0	0	0	0	1	7	7	2	63	6	0	2	0	1	1	75	75	0	64	2	0	0	0	0	0	66	66
08:30	0	8	2	0	0	0	0	0	10	10	2	65	3	0	1	1	0	0	72	72	0	44	2	0	0	0	2	0	48	48
08:45	0	17	1	0	0	0	0	0	18	18	1	31	4	0	0	1	1	3	41	41	0	28	3	0	0	0	0	0	31	31
H/TOT	0	38	6	0	0	0	0	2	46	46	6	239	18	1	3	2	2	4	275	275	0	184	9	0	2	0	4	0	199	199
09:00	0	12	3	0	0	0	0	0	15	15	2	50	9	0	1	2	1	0	65	65	0	35	2	0	0	0	1	0	38	38
09:15	0	7	1	0	1	0	0	1	10	10	2	45	10	1	1	3	0	4	66	66	0	22	2	0	0	0	0	1	25	25
09:30	0	4	3	0	1	0	0	2	10	10	2	55	4	0	2	0	2	2	67	67	0	16	2	0	0	0	0	2	20	20
09:45	0	14	1	0	1	0	0	2	18	18	0	45	13	0	1	2	0	1	62	62	0	13	1	0	0	0	0	1	15	15
H/TOT	0	37	8	0	3	0	0	5	53	53	6	195	36	1	5	7	3	7	260	260	0	86	7	0	0	0	1	4	98	98
10:00	0	5	2	0	0	0	0	1	8	8	1	55	7	0	2	2	0	2	69	69	0	12	3	0	0	0	0	0	15	15
10:15	0	10	2	0	0	0	0	0	12	12	4	60	9	0	2	2	0	2	79	79	0	14	4	0	0	0	0	0	18	18
10:30	0	5	0	0	1	0	0	1	7	7	3	53	10	0	5	0	0	2	73	73	0	6	2	0	0	0	0	1	9	9
10:45	0	5	1	0	0	0	0	2	8	8	2	59	7	0	0	2	0	4	74	74	0	15	1	0	1	0	0	0	17	17
H/TOT	0	25	5	0	1	0	0	4	35	35	10	227	33	0	9	6	0	10	295	295	0	47	10	0	1	0	0	1	59	59
11:00	0	8	2	0	0	0	0	1	11	11	1	45	11	0	3	0	0	0	60	60	0	13	1	0	1	0	0	1	16	16
11:15	0	10	3	0	0	0	0	1	14	14	2	58	11	1	3	0	0	0	75	75	0	5	1	0	0	0	0	0	6	6
11:30	0	10	0	0	0	0	0	0	10	10	2	63	9	0	1	1	0	2	78	78	0	13	2	0	0	0	0	1	16	16
11:45	0	16	0	0	0	0	0	1	17	17	4	64	3	0	2	2	0	1	76	76	0	16	3	0	0	0	0	0	19	19
H/TOT	0	44	5	0	0	0	0	3	52	52	9	230	34	1	9	3	0	3	289	289	0	47	7	0	1	0	0	2	57	57
12:00	0	17	2	0	0	0	0	2	21	21	0	60	9	0	2	2	0	4	77	77	0	9	0	1	0	0	0	2	12	12
12:15	0	13	3	1	1	0	0	1	19	19	3	63	9	0	2	0	0	0	77	77	0	14	1	0	0	0	0	0	15	15
12:30	0	9	0	0	1	0	0	0	10	10	0	63	9	0	3	2	0	2	79	79	0	11	1	0	0	0	0	2	14	14
12:45	0	10	2	0	0	0	0	0	12	12	1	60	6	0	1	2	0	2	72	72	0	12	3	0	0	0	0	1	16	16
H/TOT	0	49	7	1	2	0	0	3	62	62	4	246	33	0	8	6	0	8	305	305	0	46	5	1	0	0	0	5	57	57
13:00	0	17	2	0	0	0	0	1	20	20	1	54	3	0	1	1	0	0	60	60	0	11	3	0	0	0	0	0	14	14
13:15	0	7	2	0	0	0	0	0	9	9	1	69	10	0	1	1	0	1	83	83	0	15	2	0	0	0	0	0	17	17
13:30	0	10	2	0	0	0	0	0	12	12	2	74	6	0	1	0	0	0	83	83	0	8	4	0	0	0	0	0	12	12
13:45	0	7	1	0	0	0	0	3	11	11	2	58	8	0	0	0	0	4	72	72	0	18	0	0	0	0	1	2	21	21
H/TOT	0	41	7	0	0	0	0	4	52	52	6	255	27	0	3	2	0	5	298	298	0	52	9	0	0	0	1	2	64	64
14:00	0	13	3	0	0	0	0	1	17	17	1	74	6	0	4	2	0	1	88	88	0	11	1	0	0	0	0	2	14	14
14:15	0	12	1	0	0	0	0	0	13	13	2	64	11	0	1	0	0	0	78	78	0	15	2	0	0	0	0	0	17	17
14:30	0	22	0	0	0	0	0	1	23	23	0	94	11	0	3	2	0	0	110	110	0	14	2	0	0	0	0	1	17	17
14:45	0	20	0	0	0	0	0	0	20	20	3	92	10	0	3	0	0	1	109	109	0	16	3	0	1	0	0	0	20	20
H/TOT	0	67	4	0	0	0	0	2	73	73	6	324	38	0	11	4	0	2	385	385	0	56	8	0	1	0	0	3	68	68
15:00	0	17	1	0	0	0	0	1	19	19	3	91	7	0	0	3	0	0	104	104	0	14	2	0	0	0	0	0	16	16
15:15	0	14	3	0	0	0	0	1	18	18	2	96	14	1	1	1	0	2	117	117	0	12	0	0	0	0	0	0	12	12
15:30	0	13	5	0	0	0	0	0	18	18	0	86	9	0	1	1	0	2	99	99	0	13	3	0	0	0	0	0	16	16
15:45	0	18	4	0	0	0	0	1	23	23	3	91	14	0	0	0	0	2	110	110	0	19	2	0	0	0	0	0	21	21
H/TOT	0	62	13	0	0	0	0	3	78	78	8	364	44	1	2	5	0	6	430	430	0	58	7	0	0	0	0	0	65	65
16:00	0	20	2	0	1	0	0	1	24	24	1	92	11	0	0	1	1	1	107	107	0	17	0	0	0	0	0	0	17	17
16:15	0	18	3	0	0	0	0	0	21	21	2	101	8	0	0	2	0	3	116	116	1	25	1	0	0	0	0	3	30	30
16:30	0	17	1	0	0	0	0	0	18	18	0	98	16	0	0	0	0	4	118	118	0	15	0	0	0	0	0	0	15	15
16:45	0	16	0	0	0	0	0	0	16	16	2	127	12	0	0	0	0	1	142	142	0	11	0	0	0	0	0	0	11	11
H/TOT	0	71	6	0	1	0	0	1	79	79	5	418	47	0	0	3	1	9	483	483	1	68	1	0	0	0	0	3	73	73
17:00	0	22	1	0	0	0	0	1	24	24	2	110	9	0	2	0	0	1	124	124	0	20	2	0	0	0	0	0	22	22
17:15	0	25	0	0	0	0	0	0	25	25	4	97	18	2	1	0	0	1	123	123	0	16	1	0	0	0	0	0	17	17
17:30	0	19	1	0	0	0	1	0	21	21	2	103	9	0	2	0	0	0	116	116	0	11	0	0	0	0	1	0	12	12
17:45	0	31	1	0	0	0	0	0	32	32	3	104	6	0	1	0	0	0	114	114	0	16	0	0	0	0	1	0	17	17
H/TOT	0	97	3	0	0	0	1	1	102	102	11	414	42	2	6	0	0	2	477	477	0	63	3	0	0	0	2	0	68	68
18:00	0	23	3	0	1	0	0	0	27	27	3	109	10	0	0	0	0	0	122	122	0	11	1	0	0	0	1	0	13	13
18:15	0	29	1	0	0	0	0	0	30	30	2	78	7	0	0	0	0	0	87	87	0	17	1	0	0	0	0	0	18	18
18:30	0	17	1	0	0	0	0	1	19	19	1	97	3	0	1	0	0	0	102	102	0	9	0	1	0	0	0	0	10	10
18:45	0	16	1	0	0	0	0	0	17	17	1	70	2	0	0	0	0	0	73	73	0	31	0	0	0	0	0	0	31	31
H/TOT	0	85	6	0	1	0	0	1	93	93	7	354	22	0	1	0	0	0	384	384	0	68	2	1	0	0	1	0	72	72
19:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
19:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
19:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
19:45	0	0	0	0	0	0	0	0	0	0	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	0	0	0	0	0	0	0	0	0	0
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H/TOT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
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H/TOT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
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H/TOT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
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H/TOT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
24 TOT	0	646	73	1	8	0	1	32	761	761	83	3462	407	6	60	39	7	57	4121	4121	2	921	84	2	6	0	9	21	1045	1045

C => B										C => C										C => D										D => A										D => B										D => C										D => D									
BUS	CAR	LGV	MCL	OGV1	OGV2	PCL	TAXI	TOT	PCU	BUS	CAR	LGV	MCL	OGV1	OGV2	PCL	TAXI	TOT	PCU	BUS	CAR	LGV	MCL	OGV1	OGV2	PCL	TAXI	TOT	PCU	BUS	CAR	LGV	MCL	OGV1	OGV2	PCL	TAXI	TOT	PCU	BUS	CAR	LGV	MCL	OGV1	OGV2	PCL	TAXI	TOT	PCU	BUS	CAR	LGV	MCL	OGV1	OGV2	PCL	TAXI	TOT	PCU	BUS	CAR	LGV	MCL	OGV1	OGV2	PCL	TAXI	TOT	PCU
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0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
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0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
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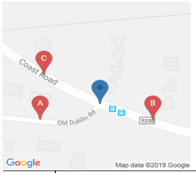
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1	643	83	2	10	2	8	43	792	792	0	0	0	0	0	0	0	0	0	0	0	776	96	2	24	9	5	9	921	921	9	1169	138	0	35	9	0	13	1373	1373	121	3857	413	6	54	44	4	83	4582	4582	0	972	93	2	34	28	0	15	1144	1144	0	0	0	0	0	0	0	0	0	0



IDASO

Survey Name: Dublin Road, Galway Survey 2018 MCC Data
Site: 49
Location: Doughiska, Rosshill Cross
Date: 15-Nov-2018

A => A

TIME	BUS	CAR	LGV	MCL	OGV1	OGV2	PCL	TAXI	BEB	OB	TOT	PCU
00:00	0	0	0	0	0	0	0	0	0	0	0	0
00:15	0	0	0	0	0	0	0	0	0	0	0	0
00:30	0	0	0	0	0	0	0	0	0	0	0	0
00:45	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
01:00	0	0	0	0	0	0	0	0	0	0	0	0
01:15	0	0	0	0	0	0	0	0	0	0	0	0
01:30	0	0	0	0	0	0	0	0	0	0	0	0
01:45	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
02:00	0	0	0	0	0	0	0	0	0	0	0	0
02:15	0	0	0	0	0	0	0	0	0	0	0	0
02:30	0	0	0	0	0	0	0	0	0	0	0	0
02:45	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
03:00	0	0	0	0	0	0	0	0	0	0	0	0
03:15	0	0	0	0	0	0	0	0	0	0	0	0
03:30	0	0	0	0	0	0	0	0	0	0	0	0
03:45	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
04:00	0	0	0	0	0	0	0	0	0	0	0	0
04:15	0	0	0	0	0	0	0	0	0	0	0	0
04:30	0	0	0	0	0	0	0	0	0	0	0	0
04:45	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
05:00	0	0	0	0	0	0	0	0	0	0	0	0
05:15	0	0	0	0	0	0	0	0	0	0	0	0
05:30	0	0	0	0	0	0	0	0	0	0	0	0
05:45	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
06:00	0	0	0	0	0	0	0	0	0	0	0	0
06:15	0	0	0	0	0	0	0	0	0	0	0	0
06:30	0	0	0	0	0	0	0	0	0	0	0	0
06:45	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
07:00	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
07:30	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
H/TOT	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
08:15	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
08:45	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
09:00	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
09:30	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
H/TOT	0	0	0	0	0	0	0	0	0	0	0	0
10:00	0	0	0	0	0	0	0	0	0	0	0	0
10:15	0	0	0	0	0	0	0	0	0	0	0	0
10:30	0	0	0	0	0	0	0	0	0	0	0	0
10:45	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
11:00	0	0	0	0	0	0	0	0	0	0	0	0
11:15	0	0	0	0	0	0	0	0	0	0	0	0
11:30	0	0	0	0	0	0	0	0	0	0	0	0
11:45	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
12:00	0	0	0	0	0	0	0	0	0	0	0	0
12:15	0	0	0	0	0	0	0	0	0	0	0	0
12:30	0	0	0	0	0	0	0	0	0	0	0	0
12:45	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
13:00	0	0	0	0	0	0	0	0	0	0	0	0
13:15	0	0	0	0	0	0	0	0	0	0	0	0
13:30	0	0	0	0	0	0	0	0	0	0	0	0
13:45	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
14:00	0	0	0	0	0	0	0	0	0	0	0	0
14:15	0	0	0	0	0	0	0	0	0	0	0	0
14:30	0	0	0	0	0	0	0	0	0	0	0	0
14:45	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
15:00	0	0	0	0	0	0	0	0	0	0	0	0
15:15	0	0	0	0	0	0	0	0	0	0	0	0
15:30	0	0	0	0	0	0	0	0	0	0	0	0
15:45	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
16:00	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
16:30	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
H/TOT	0	0	0	0	0	0	0	0	0	0	0	0
17:00	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
17:30	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
H/TOT	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
18:15	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
18:45	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
19:00	0	0	0	0	0	0	0	0	0	0	0	0
19:15	0	0	0	0	0	0	0	0	0	0	0	0
19:30	0	0	0	0	0	0	0	0	0	0	0	0
19:45	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
20:00	0	0	0	0	0	0	0	0	0	0	0	0
20:15	0	0	0	0	0	0	0	0	0	0	0	0
20:30	0	0	0	0	0	0	0	0	0	0	0	0
20:45	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
21:00	0	0	0	0	0	0	0	0	0	0	0	0
21:15	0	0	0	0	0	0	0	0	0	0	0	0
21:30	0	0	0	0	0	0	0	0	0	0	0	0
21:45	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
22:00	0	0	0	0	0	0	0	0	0	0	0	0
22:15	0	0	0	0	0	0	0	0	0	0	0	0
22:30	0	0	0	0	0	0	0	0	0	0	0	0
22:45	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
23:00	0	0	0	0	0	0	0	0	0	0	0	0
23:15	0	0	0	0	0	0	0	0	0	0	0	0
23:30	0	0	0	0	0	0	0	0	0	0	0	0
23:45	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
24 TOT	0	0	0	0	0	0	0	0	0	0	0	0

A => B

TIME	BUS	CAR	LGV	MCL	OGV1	OGV2	PCL	TAXI	BEB	OB	TOT	PCU
00:00	0	0	0	0	0	0	0	0	0	0	0	0
00:15	0	0	0	0	0	0	0	0	0	0	0	0
00:30	0	0	0	0	0	0	0	0	0	0	0	0
00:45	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
01:00	0	0	0	0	0	0	0	0	0	0	0	0
01:15	0	0	0	0	0	0	0	0	0	0	0	0
01:30	0	0	0	0	0	0	0	0	0	0	0	0
01:45	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
02:00	0	0	0	0	0	0	0	0	0	0	0	0
02:15	0	0	0	0	0	0	0	0	0	0	0	0
02:30	0	0	0	0	0	0	0	0	0	0	0	0
02:45	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
03:00	0	0	0	0	0	0	0	0	0	0	0	0
03:15	0	0	0	0	0	0	0	0	0	0	0	0
03:30	0	0	0	0	0	0	0	0	0	0	0	0
03:45	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
04:00	0	0	0	0	0	0	0	0	0	0	0	0
04:15	0	0	0	0	0	0	0	0	0	0	0	0
04:30	0	0	0	0	0	0	0	0	0	0	0	0
04:45	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
05:00	0	0	0	0	0	0	0	0	0	0	0	0
05:15	0	0	0	0	0	0	0	0	0	0	0	0
05:30	0	0	0	0	0	0	0	0	0	0	0	0
05:45	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
06:00	0	0	0	0	0	0	0	0	0	0	0	0
06:15	0	0	0	0	0	0	0	0	0	0	0	0
06:30	0	0	0	0	0	0	0	0	0	0	0	0
06:45	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
07:00	0	2	0	0	0	0	0	0	0	0	2	2
07:15	0	3	1	0	1	0	0	0	0	0	5	5
07:30	0	1	2	0	0	0	0	1	0	0	4	4
07:45	0	4	2	0	0	0	0	0	0	0	6	6
H/TOT	0	10	5	0	1	0	0	1	0	0	17	17
08:00	0	9	1	0	0	0	0	0	0	0	10	10
08:15	0	7	0	0	0	0	0	0	0	0	7	7
08:30	0	12	2	0	1	0	0	0	0	0	15	15
08:45	0	9	3	0	0	0	0	0	0	0	12	12
H/TOT	0	37	6	0	1	0	0	0	0	0	44	44
09:00	0	5	3	0	1	0	1	0	0	0	10	10
09:15	0	2	0	0	0	0	0	0	0	0	2	2
09:30	0	3	1	0	0	0	1	0	0	0	5	5
09:45	0	2	3	0	0	0	0	0	0	0	5	5
H/TOT	0	12	7	0	1	0	2	0	0	0	22	22
10:00	0	3	2	0	0	0	0	0	0	0	5	5
10:15	0	4	2	0	0	0	0	0	0	0	6	6
10:30	0	4	1	0	0	0	0	1	0	0	6	6
10:45	0	6	1	0	0	0	0	0	0	0	7	7
H/TOT	0	17	6	0	0	0	0	1	0	0	24	24
11:00	0	2	1	0	0	0	0	0	0	0	3	3
11:15	0	7	0	0	0	1	0	0	0	0	8	8
11:30	0	7	1	0	0	0	0	0	0	0	8	8
11:45	0	4	1	0	0	0	0	0	0	0	5	5
H/TOT	0	20	3	0	0	1	0	0	0	0	24	24
12:00	0	5	1	0	0	0	1	1	0	0	8	8
12:15	1	11	4	0	0	0	0	0	0	0	16	16
12:30	0	11	2	0	0	0	0	0	0	0	13	13
12:45	0	6	0	0	1	0	1	0	0	0	8	8
H/TOT	1	33	7	0	1	0	2	1	0	0	45	45
13:00	0	12	1	0	1	0	0	1	0	0	15	15
13:15	0	6	0	0	0	0	0	0	0	0	6	6
13:30	0	6	0	0	0	0	0	0	0	0	6	6
13:45	0	15	1	0	0	0	0	0	0	0	16	16
H/TOT	0	39	2	0	1	0	0	1	0	0	43	43
14:00	0	19	0	0	0	0	0	0	0	0	19	19
14:15	0	9	1	0	0	0	0	0	0	0	10	10
14:30	0	13	0	0	0	0	0	0	0	0	13	13
14:45	0	16	1	0	0	0	0	0	0	0	17	17
H/TOT	0	57	2	0	0	0	0	0	0	0	59	59
15:00	0	14	1	0	0	0	0	0	0	0	15	15
15:15	0	8	4	0	0	0	0	0	0	0	12	12
15:30	0	18	4	0	0	0	0	0	0	0	22	22
15:45	0	22	5	0	0	0	0	0	0	0	27	27
H/TOT	0	62	14	0	0	0	0	0	0	0	76	76
16:00	0	17	2	0	0	0	0	1	0	0	20	20
16:15	0	26	2	0	0	0	0	0	0	0	28	28
16:30	0	30	3	0	1	0	0	0	0	0	34	34
16:45	0	33	3	0	0	0	0	1	0	0	37	37
H/TOT	0	106	10	0	1	0	0	2	0	0	119	119
17:00	0	36	7	0	1	0	1	0	0	0	45	45
17:15	0	34	2	0	0	0	2	0	0	0	38	38
17:30	0	31	1	0	0	0	0	0	0	0	32	32
17:45	0	30	1	0	0	0	0	0	0	0	31	31
H/TOT	0	131	11	0	1	0	3	0	0	0	146	146
18:00	0	27	2	0	0	0	1	0	0	0	30	30
18:15	0	18	2	0	1	0	0	0	0	0	21	21
18:30	0	8	0	0	0	0	0	0	0	0	8	8
18:45	0	6	0	0	0	0	0	0	0	0	6	6
H/TOT	0	59	4	0	1	0	1	0	0	0	65	65
19:00	0	0	0	0	0	0	0	0	0	0	0	0
19:15	0	0	0	0	0	0	0	0	0	0	0	0
19:30	0	0	0	0	0	0	0	0	0	0	0	0
19:45	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
20:00	0	0	0	0	0	0	0	0	0	0	0	0
20:15	0	0	0	0	0	0	0	0	0	0	0	0
20:30	0	0	0	0	0	0	0	0	0	0	0	0
20:45	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
21:00	0	0	0	0	0	0	0	0	0	0	0	0
21:15	0	0	0	0	0	0	0	0	0	0	0	0
21:30	0	0	0	0	0	0	0	0	0	0	0	0
21:45	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
22:00	0	0	0	0	0	0	0	0	0	0	0	0
22:15	0	0	0	0	0	0	0	0	0	0	0	0
22:30	0	0	0	0	0	0	0	0	0	0	0	0
22:45	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
23:00	0	0	0	0	0	0	0	0	0	0	0	0
23:15	0	0	0	0	0	0	0	0	0	0	0	0
23:30	0	0	0	0	0	0	0	0	0	0	0	0
23:45	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
24 TOT	1	583	77	0	8	1	8	6	0	0	684	684

A => C

TIME	BUS	CAR	LGV	MCL	OGV1	OGV2	PCL	TAXI	BEB	OB	TOT	PCU
00:00	0	0	0	0	0	0	0	0	0	0	0	0
00:15	0	0	0	0	0	0	0	0	0	0	0	0
00:30	0	0	0	0	0	0	0	0	0	0	0	0
00:45	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
01:00	0	0	0	0	0	0	0	0	0	0	0	0
01:15	0	0	0	0	0	0	0	0	0	0	0	0
01:30	0	0	0	0	0	0	0	0	0	0	0	0
01:45	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
02:00	0	0	0	0	0	0	0	0	0	0	0	0
02:15	0	0	0	0	0	0	0	0	0	0	0	0
02:30	0	0	0	0	0	0	0	0	0	0	0	0
02:45	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
03:00	0	0	0	0	0	0	0	0	0	0	0	0
03:15	0	0	0	0	0	0	0	0	0	0	0	0
03:30	0	0	0	0	0	0	0	0	0	0	0	0
03:45	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
04:00	0	0	0	0	0	0	0	0	0	0	0	0
04:15	0	0	0	0	0	0	0	0	0	0	0	0
04:30	0	0	0	0	0	0	0	0	0	0	0	0
04:45	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
05:00	0	0	0	0	0	0	0	0	0	0	0	0
05:15	0	0	0	0	0	0	0	0	0	0	0	0
05:30	0	0	0	0	0	0	0	0	0	0	0	0
05:45	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
06:00	0	0	0	0	0	0	0	0	0	0	0	0
06:15	0	0	0	0	0	0	0	0	0	0	0	0
06:30	0	0	0	0	0	0	0	0	0	0	0	0
06:45	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
07:00	0	0	0	0	0	0	0	0	0	0	0	0
07:15	0	1	0	0	0	0	0	0	0	0	1	1
07:30	0	0	0	0	0	0	0	0	0	0	0	0
07:45	0	0	1	0	0	0	1	0	0	0	2	2
H/TOT	0	1	1	0	0	0	1	0	0	0	3	3
08:00	0	1	0	0	0	0	0	0	0	0	1	1
08:15	0	0	0	0	0	0	1	0	0	0	1	1
08:30	0	1	0	0	0	0	0	0	0	0	1	1
08:45	0	1	0	0	0	0	0	0	0	0	1	1
H/TOT	0	3	0	0	0	0	1	0	0	0	4	4
09:00	0	0	1	0	0	1	0	0	0	0	2	2
09:15	0	2	0	0	0	0	0	0	0	0	2	2
09:30	0	0	1	0	0	0	0	0	0	0	1	1
09:45	0	0	0	0	0	0	0	0	0	0	0	0
H/TOT	0	2	2	0	0	1	0	0	0	0	5	5
10:00	0	0	0	0	0	0	0	0	0	0	0	0
10:15	0	0	0	0	0	0	0	0	0	0	0	0
10:30	0	1	0	0	0	0	0	0	0	0	1	1
10:45	0	1	0	0	0	0	0	0	0	0	1	1
H/TOT	0	2	0	0	0	0	0	0	0	0	2	2
11:00	0	1	1	0	0	0	0	0	0	0	2	2
11:15	0	0	0	0	0	0	0	0	0	0	0	0
11:30	0	0	0	0	0	0	0	0	0	0	0	0
11:45	0	0	0	0	0	0	0	0	0	0	0	0
H/TOT	0	1	1	0	0	0	0	0	0	0	2	2
12:00	0	0	0	0	0	0	0	0	0	0	0	0
12:15	0	1	0	0	0	0	0	0	0	0	1	1
12:30	0	0	0	0	0	0	0	0	0	0	0	0
12:45	0	1	0	0	0	0	0	0	0	0	1	1
H/TOT	0	2	0	0	0	0	0	0	0	0	2	2
13:00	0	0	0	0	0	0	0	0	0	0	0	0
13:15	0	0	0	0	0	0	0	0	0	0	0	0
13:30	0	1	0	0	1	0	0	0	0	0	2	2
13:45	0	0	0	0	0	0	0	0	0	0	0	0
H/TOT	0	1	0	0	1	0	0	0	0	0	2	2
14:00	0	0	0	0	0	0	0	0	0	0	0	0
14:15	0	0	0	0	0	0	0	0	0	0	0	0
14:30	0	1	0	0	0	0	0	0	0	0	1	1
14:45	0	0	1	0	0	0	0	0	0	0	1	1
H/TOT	0	1	1	0	0	0	0	0	0	0	2	2
15:00	0	2	0	0	0	0	0	0	0	0	2	2
15:15	0	0	1	0	0	0	0	0	0	0	1	1
15:30	0	1	0	0	0	0	0	0	0	0	1	1
15:45	0	0	0	0	0	0	1	0	0	0	1	1
H/TOT	0	3	1	0	0	0	1	0	0	0	5	5
16:00	0	2	0	0	0	0	0	0	0	0	2	2
16:15	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
16:45	0	0	0	0	0	0	0	0	0	0	0	0
H/TOT	0	2	0	0	0	0	0	0	0	0	2	2
17:00	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
17:30	0	1	0	0	0	0	0	0	0	0	1	1
17:45	0	0	0	0	0	0	0	0	0	0	0	0
H/TOT	0	1	0	0	0	0	0	0	0	0	1	1
18:00	0	0	0	0	0	0	0	0	0	0	0	0
18:15	0	1	0	0	0	0	0	0	0	0	1	1
18:30	0	1	0	0	0	0	0	0	0	0	1	1
18:45	0	1	0	0	0	0	0	0	0	0	1	1
H/TOT	0	3	0	0	0	0	0	0	0	0	3	3
19:00	0	0	0	0	0	0	0	0	0	0	0	0
19:15	0	0	0	0	0	0	0	0	0	0	0	0
19:30	0	0	0	0	0	0	0	0	0	0	0	0
19:45	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
20:00	0	0	0	0	0	0	0	0	0	0	0	0
20:15	0	0	0	0	0	0	0	0	0	0	0	0
20:30	0	0	0	0	0	0	0	0	0	0	0	0
20:45	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
21:00	0	0	0	0	0	0	0	0	0	0	0	0
21:15	0	0	0	0	0	0	0	0	0	0	0	0
21:30	0	0	0	0	0	0	0	0	0	0	0	0
21:45	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
22:00	0	0	0	0	0	0	0	0	0	0	0	0
22:15	0	0	0	0	0	0	0	0	0	0	0	0
22:30	0	0	0	0	0	0	0	0	0	0	0	0
22:45	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
23:00	0	0	0	0	0	0	0	0	0	0	0	0
23:15	0	0	0	0	0	0	0	0	0	0	0	0
23:30	0	0	0	0	0	0	0	0	0	0	0	0
23:45	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
24 TOT	0	22	6	0	1	1	3	0	0	0	33	33

B => A

TIME	BUS	CAR	LGV	MCL	OGV1	OGV2	PCL	TAXI	BEB	OB	TOT	PCU
00:00	0	0	0	0	0	0	0	0	0	0	0	0
00:15	0	0	0	0	0	0	0	0	0	0	0	0
00:30	0	0	0	0	0	0	0	0	0	0	0	0
00:45	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
01:00	0	0	0	0	0	0	0	0	0	0	0	0
01:15	0	0	0	0	0	0	0	0	0	0	0	0
01:30	0	0	0	0	0	0	0	0	0	0	0	0
01:45	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
02:00	0	0	0	0	0	0	0	0	0	0	0	0
02:15	0	0	0	0	0	0	0	0	0	0	0	0
02:30	0	0	0	0	0	0	0	0	0	0	0	0
02:45	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
03:00	0	0	0	0	0	0	0	0	0	0	0	0
03:15	0	0	0	0	0	0	0	0	0	0	0	0
03:30	0	0	0	0	0	0	0	0	0	0	0	0
03:45	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
04:00	0	0	0	0	0	0	0	0	0	0	0	0
04:15	0	0	0	0	0	0	0	0	0	0	0	0
04:30	0	0	0	0	0	0	0	0	0	0	0	0
04:45	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
05:00	0	0	0	0	0	0	0	0	0	0	0	0
05:15	0	0	0	0	0	0	0	0	0	0	0	0
05:30	0	0	0	0	0	0	0	0	0	0	0	0
05:45	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
06:00	0	0	0	0	0	0	0	0	0	0	0	0
06:15	0	0	0	0	0	0	0	0	0	0	0	0
06:30	0	0	0	0	0	0	0	0	0	0	0	0
06:45	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
07:00	0	21	1	0	0	0	1	0	0	0	23	23
07:15	0	62	4	0	1	0	0	0	0	0	67	67
07:30	0	122	19	0	0	0	0	0	0	0	141	141
07:45	0	91	8	0	0	0	0	0	0	0	99	99
H/TOT	0	296	32	0	1	0	1	0	0	0	330	330
08:00	0	103	2	0	1	0	1	0	0	0	107	107
08:15	0	81	1	0	1	0	1	0	0	0	84	84
08:30	0	51	7	0	0	0	2	0	0	0	60	60
08:45	0	44	4	0	1	0	0	0	0	0	49	49
H/TOT	0	279	14	0	3	0	4	0	0	0	300	300
09:00	0	48	5	0	1	0	1	0	0	0	55	55
09:15	0	45	3	0	1	0	0	0	0	0	49	49
09:30	0	37	1	0	1	0	1	0	0	0	40	40
09:45	0	16	2	0	0	0	0	0	0	0	18	18
H/TOT	0	146	11	0	3	0	2	0	0	0	162	162
10:00	0	9	2	0	0	0	0	0	0	0	11	11
10:15	1	9	0	0	0	0	0	0	0	0	10	10
10:30	0	10	1	0	0	0	0	0	0	0	11	11
10:45	0	11	1	0	0	0	0	0	0	0	12	12
H/TOT	1	39	4	0	0	0	0	0	0	0	44	44
11:00	0	3	2	0	0	0	0	0	0	0	5	5
11:15	0	7	0	0	1	0	0	0	0	0	8	8
11:30	0	2	0	0	0	0	0	0	0	0	2	2
11:45	0	10	2	0	0	0	1	1	0	0	14	14
H/TOT	0	22	4	0	1	0	1	1	0	0	29	29
12:00	0	8	0	0	1	0	0	0	0	0	9	9
12:15	0	4	0	0	0	0	0	0	0	0	4	4
12:30	0	8	0	0	0	0	0	0	0	0	8	8
12:45	0	3	3	0	0	0	0	1	0	0	7	7
H/TOT	0	23	3	0	1	0	0	1	0	0	28	28
13:00	0	11	0	0	0	0	1	1	0	0	13	13
13:15	0	7	0	0	0	0	0	0	0	0	7	7
13:30	0	10	1	0	0	0	0	0	0	0	11	11
13:45	0	13	1	0	1	0	0	1	0	0	16	16
H/TOT	0	41	2	0	1	0	1	2	0	0	47	47
14:00	0	12	3	0	0	0	0	0	0	0	15	15
14:15	0	14	0	0	0	0	0	0	0	0	14	14
14:30	0	8	0	0	0	0	0	0	0	0	8	8
14:45	0	9	0	0	0	0	0	1	0	0	10	10
H/TOT	0	43	3	0	0	0	0	1	0	0	47	47
15:00	0	6	2	0	1	0	0	0	0	0	9	9
15:15	0	9	1	0	0	0	1	0	0	0	11	11
15:30	0	3	3	0	0	0	0	0	0	0	6	6
15:45	0	10	3	0	0	0	0	0	0	0	13	13
H/TOT	0	28	9	0	1	0	1	0	0	0	39	39
16:00	0	9	0	0	1	0	0	0	0	0	10	10
16:15	0	16	3	0	0	0	1	0	0	0	20	20
16:30	0	11	1	0	0	0	0	0	0	0	12	12
16:45	0	7	1	0	0	0	0	1	0	0	9	9
H/TOT	0	43	5	0	1	0	1	1	0	0	51	51
17:00	0	8	1	0	1	0	0	0	0	0	10	10
17:15	0	12	2	0	0	1	0	0	0	0	15	15
17:30	0	8	0	0	0	0	0	0	0	0	8	8
17:45	0	10	2	0	0	0	0	0	0	0	12	12
H/TOT	0	38	5	0	1	1	0	0	0	0	45	45
18:00	0	8	1	0	0	0	0	0	0	0	9	9
18:15	0	2	0	0	0	0	0	0	0	0	2	2
18:30	0	4	0	0	0	0	0	0	0	0	4	4
18:45	0	4	0	0	0	0	0	0	0	0	4	4
H/TOT	0	18	1	0	0	0	0	0	0	0	19	19
19:00	0	0	0	0	0	0	0	0	0	0	0	0
19:15	0	0	0	0	0	0	0	0	0	0	0	0
19:30	0	0	0	0	0	0	0	0	0	0	0	0
19:45	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
20:00	0	0	0	0	0	0	0	0	0	0	0	0
20:15	0	0	0	0	0	0	0	0	0	0	0	0
20:30	0	0	0	0	0	0	0	0	0	0	0	0
20:45	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
21:00	0	0	0	0	0	0	0	0	0	0	0	0
21:15	0	0	0	0	0	0	0	0	0	0	0	0
21:30	0	0	0	0	0	0	0	0	0	0	0	0
21:45	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
22:00	0	0	0	0	0	0	0	0	0	0	0	0
22:15	0	0	0	0	0	0	0	0	0	0	0	0
22:30	0	0	0	0	0	0	0	0	0	0	0	0
22:45	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
23:00	0	0	0	0	0	0	0	0	0	0	0	0
23:15	0	0	0	0	0	0	0	0	0	0	0	0
23:30	0	0	0	0	0	0	0	0	0	0	0	0
23:45	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
24 TOT	1	1016	93	0	13	1	11	6	0	0	1141	1141

B => B

TIME	BUS	CAR	LGV	MCL	OGV1	OGV2	PCL	TAXI	BEB	OB	TOT	PCU
00:00	0	0	0	0	0	0	0	0	0	0	0	0
00:15	0	0	0	0	0	0	0	0	0	0	0	0
00:30	0	0	0	0	0	0	0	0	0	0	0	0
00:45	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
01:00	0	0	0	0	0	0	0	0	0	0	0	0
01:15	0	0	0	0	0	0	0	0	0	0	0	0
01:30	0	0	0	0	0	0	0	0	0	0	0	0
01:45	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
02:00	0	0	0	0	0	0	0	0	0	0	0	0
02:15	0	0	0	0	0	0	0	0	0	0	0	0
02:30	0	0	0	0	0	0	0	0	0	0	0	0
02:45	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
03:00	0	0	0	0	0	0	0	0	0	0	0	0
03:15	0	0	0	0	0	0	0	0	0	0	0	0
03:30	0	0	0	0	0	0	0	0	0	0	0	0
03:45	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
04:00	0	0	0	0	0	0	0	0	0	0	0	0
04:15	0	0	0	0	0	0	0	0	0	0	0	0
04:30	0	0	0	0	0	0	0	0	0	0	0	0
04:45	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
05:00	0	0	0	0	0	0	0	0	0	0	0	0
05:15	0	0	0	0	0	0	0	0	0	0	0	0
05:30	0	0	0	0	0	0	0	0	0	0	0	0
05:45	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
06:00	0	0	0	0	0	0	0	0	0	0	0	0
06:15	0	0	0	0	0	0	0	0	0	0	0	0
06:30	0	0	0	0	0	0	0	0	0	0	0	0
06:45	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
07:00	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
07:30	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
H/TOT	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
08:15	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
08:45	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
09:00	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
09:30	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
H/TOT	0	0	0	0	0	0	0	0	0	0	0	0
10:00	0	0	0	0	0	0	0	0	0	0	0	0
10:15	0	0	0	0	0	0	0	0	0	0	0	0
10:30	0	0	0	0	0	0	0	0	0	0	0	0
10:45	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
11:00	0	0	0	0	0	0	0	0	0	0	0	0
11:15	0	0	0	0	0	0	0	0	0	0	0	0
11:30	0	0	0	0	0	0	0	0	0	0	0	0
11:45	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
12:00	0	0	0	0	0	0	0	0	0	0	0	0
12:15	0	0	0	0	0	0	0	0	0	0	0	0
12:30	0	0	0	0	0	0	0	0	0	0	0	0
12:45	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
13:00	0	0	0	0	0	0	0	0	0	0	0	0
13:15	0	0	0	0	0	0	0	0	0	0	0	0
13:30	0	0	0	0	0	0	0	0	0	0	0	0
13:45	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
14:00	0	0	0	0	0	0	0	0	0	0	0	0
14:15	0	0	0	0	0	0	0	0	0	0	0	0
14:30	0	0	0	0	0	0	0	0	0	0	0	0
14:45	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
15:00	0	0	0	0	0	0	0	0	0	0	0	0
15:15	0	0	0	0	0	0	0	0	0	0	0	0
15:30	0	0	0	0	0	0	0	0	0	0	0	0
15:45	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
16:00	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
16:30	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
H/TOT	0	0	0	0	0	0	0	0	0	0	0	0
17:00	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
17:30	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
H/TOT	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
18:15	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
18:45	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
19:00	0	0	0	0	0	0	0	0	0	0	0	0
19:15	0	0	0	0	0	0	0	0	0	0	0	0
19:30	0	0	0	0	0	0	0	0	0	0	0	0
19:45	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
20:00	0	0	0	0	0	0	0	0	0	0	0	0
20:15	0	0	0	0	0	0	0	0	0	0	0	0
20:30	0	0	0	0	0	0	0	0	0	0	0	0
20:45	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
21:00	0	0	0	0	0	0	0	0	0	0	0	0
21:15	0	0	0	0	0	0	0	0	0	0	0	0
21:30	0	0	0	0	0	0	0	0	0	0	0	0
21:45	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
22:00	0	0	0	0	0	0	0	0	0	0	0	0
22:15	0	0	0	0	0	0	0	0	0	0	0	0
22:30	0	0	0	0	0	0	0	0	0	0	0	0
22:45	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
23:00	0	0	0	0	0	0	0	0	0	0	0	0
23:15	0	0	0	0	0	0	0	0	0	0	0	0
23:30	0	0	0	0	0	0	0	0	0	0	0	0
23:45	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
24 TOT	0	0	0	0	0	0	0	0	0	0	0	0

B => C

TIME	BUS	CAR	LGV	MCL	OGV1	OGV2	PCL	TAXI	BEB	OB	TOT	PCU
00:00	0	0	0	0	0	0	0	0	0	0	0	0
00:15	0	0	0	0	0	0	0	0	0	0	0	0
00:30	0	0	0	0	0	0	0	0	0	0	0	0
00:45	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
01:00	0	0	0	0	0	0	0	0	0	0	0	0
01:15	0	0	0	0	0	0	0	0	0	0	0	0
01:30	0	0	0	0	0	0	0	0	0	0	0	0
01:45	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
02:00	0	0	0	0	0	0	0	0	0	0	0	0
02:15	0	0	0	0	0	0	0	0	0	0	0	0
02:30	0	0	0	0	0	0	0	0	0	0	0	0
02:45	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
03:00	0	0	0	0	0	0	0	0	0	0	0	0
03:15	0	0	0	0	0	0	0	0	0	0	0	0
03:30	0	0	0	0	0	0	0	0	0	0	0	0
03:45	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
04:00	0	0	0	0	0	0	0	0	0	0	0	0
04:15	0	0	0	0	0	0	0	0	0	0	0	0
04:30	0	0	0	0	0	0	0	0	0	0	0	0
04:45	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
05:00	0	0	0	0	0	0	0	0	0	0	0	0
05:15	0	0	0	0	0	0	0	0	0	0	0	0
05:30	0	0	0	0	0	0	0	0	0	0	0	0
05:45	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
06:00	0	0	0	0	0	0	0	0	0	0	0	0
06:15	0	0	0	0	0	0	0	0	0	0	0	0
06:30	0	0	0	0	0	0	0	0	0	0	0	0
06:45	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
07:00	0	56	1	0	1	0	0	0	0	0	58	58
07:15	0	76	2	0	3	0	0	0	0	0	81	81
07:30	1	90	9	0	1	0	2	0	0	0	103	103
07:45	1	108	8	0	0	0	0	0	0	0	117	117
H/TOT	2	330	20	0	5	0	2	0	0	0	359	359
08:00	4	142	7	0	0	1	0	0	0	0	154	154
08:15	3	108	7	0	0	0	2	1	0	0	121	121
08:30	2	69	9	0	2	0	1	2	0	0	85	85
08:45	0	74	8	0	0	1	0	2	0	0	85	85
H/TOT	9	393	31	0	2	2	3	5	0	0	445	445
09:00	0	57	3	0	0	0	1	1	0	0	62	62
09:15	1	60	3	0	3	0	1	0	0	0	68	68
09:30	3	40	4	0	1	0	2	1	0	0	51	51
09:45	0	29	4	0	0	0	0	1	0	0	34	34
H/TOT	4	186	14	0	4	0	4	3	0	0	215	215
10:00	1	28	4	0	1	1	0	0	0	0	35	35
10:15	1	29	2	0	0	0	0	1	0	0	33	33
10:30	2	29	3	0	1	0	0	1	0	0	36	36
10:45	0	37	3	0	0	0	0	2	0	0	42	42
H/TOT	4	123	12	0	2	1	0	4	0	0	146	146
11:00	0	24	5	1	0	0	0	1	0	0	31	31
11:15	0	35	3	0	0	0	0	0	0	0	38	38
11:30	1	38	2	0	0	1	0	0	0	0	42	42
11:45	0	24	4	0	3	0	0	0	0	0	31	31
H/TOT	1	121	14	1	3	1	0	1	0	0	142	142
12:00	0	33	3	0	1	1	0	1	0	0	39	39
12:15	0	27	3	0	1	0	0	1	0	0	32	32
12:30	3	32	8	1	0	1	0	0	0	0	45	45
12:45	0	35	5	0	0	0	0	0	0	0	40	40
H/TOT	3	127	19	1	2	2	0	2	0	0	156	156
13:00	0	40	4	0	1	0	0	0	0	0	45	45
13:15	1	29	5	0	0	0	1	1	0	0	37	37
13:30	1	26	3	0	2	1	0	0	0	0	33	33
13:45	0	33	5	0	0	0	0	0	0	0	38	38
H/TOT	2	128	17	0	3	1	1	1	0	0	153	153
14:00	0	22	4	0	1	2	0	1	0	0	30	30
14:15	0	29	3	0	0	1	0	1	0	0	34	34
14:30	2	34	5	0	1	0	0	0	0	0	42	42
14:45	1	34	5	0	0	0	0	1	0	0	41	41
H/TOT	3	119	17	0	2	3	0	3	0	0	147	147
15:00	0	29	3	0	1	0	0	0	0	0	33	33
15:15	4	29	3	0	1	0	0	1	0	0	38	38
15:30	0	33	5	0	1	1	1	0	0	0	41	41
15:45	0	32	2	1	1	0	0	1	0	0	37	37
H/TOT	4	123	13	1	4	1	1	2	0	0	149	149
16:00	0	40	4	1	0	0	0	0	0	0	45	45
16:15	0	56	2	0	0	2	0	0	0	0	60	60
16:30	1	21	2	0	0	0	0	0	0	0	24	24
16:45	0	25	1	0	0	0	0	0	0	0	26	26
H/TOT	1	142	9	1	0	2	0	0	0	0	155	155
17:00	0	37	5	0	0	1	0	0	0	0	43	43
17:15	0	34	3	0	0	0	0	0	0	0	37	37
17:30	2	39	1	0	0	1	0	0	0	0	43	43
17:45	0	48	0	0	0	0	0	0	0	0	48	48
H/TOT	2	158	9	0	0	2	0	0	0	0	171	171
18:00	0	43	0	0	0	0	0	0	0	0	43	43
18:15	0	38	0	0	0	0	0	0	0	0	38	38
18:30	0	56	0	0	0	0	1	0	0	0	57	57
18:45	0	45	0	0	1	0	0	0	0	0	46	46
H/TOT	0	182	0	0	1	0	1	0	0	0	184	184
19:00	0	0	0	0	0	0	0	0	0	0	0	0
19:15	0	0	0	0	0	0	0	0	0	0	0	0
19:30	0	0	0	0	0	0	0	0	0	0	0	0
19:45	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
20:00	0	0	0	0	0	0	0	0	0	0	0	0
20:15	0	0	0	0	0	0	0	0	0	0	0	0
20:30	0	0	0	0	0	0	0	0	0	0	0	0
20:45	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
21:00	0	0	0	0	0	0	0	0	0	0	0	0
21:15	0	0	0	0	0	0	0	0	0	0	0	0
21:30	0	0	0	0	0	0	0	0	0	0	0	0
21:45	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
22:00	0	0	0	0	0	0	0	0	0	0	0	0
22:15	0	0	0	0	0	0	0	0	0	0	0	0
22:30	0	0	0	0	0	0	0	0	0	0	0	0
22:45	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
23:00	0	0	0	0	0	0	0	0	0	0	0	0
23:15	0	0	0	0	0	0	0	0	0	0	0	0
23:30	0	0	0	0	0	0	0	0	0	0	0	0
23:45	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
24 TOT	35	2132	175	4	28	15	12	21	0	0	2422	2422

C => A

TIME	BUS	CAR	LGV	MCL	OGV1	OGV2	PCL	TAXI	BEB	OB	TOT	PCU
00:00	0	0	0	0	0	0	0	0	0	0	0	0
00:15	0	0	0	0	0	0	0	0	0	0	0	0
00:30	0	0	0	0	0	0	0	0	0	0	0	0
00:45	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
01:00	0	0	0	0	0	0	0	0	0	0	0	0
01:15	0	0	0	0	0	0	0	0	0	0	0	0
01:30	0	0	0	0	0	0	0	0	0	0	0	0
01:45	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
02:00	0	0	0	0	0	0	0	0	0	0	0	0
02:15	0	0	0	0	0	0	0	0	0	0	0	0
02:30	0	0	0	0	0	0	0	0	0	0	0	0
02:45	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
03:00	0	0	0	0	0	0	0	0	0	0	0	0
03:15	0	0	0	0	0	0	0	0	0	0	0	0
03:30	0	0	0	0	0	0	0	0	0	0	0	0
03:45	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
04:00	0	0	0	0	0	0	0	0	0	0	0	0
04:15	0	0	0	0	0	0	0	0	0	0	0	0
04:30	0	0	0	0	0	0	0	0	0	0	0	0
04:45	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
05:00	0	0	0	0	0	0	0	0	0	0	0	0
05:15	0	0	0	0	0	0	0	0	0	0	0	0
05:30	0	0	0	0	0	0	0	0	0	0	0	0
05:45	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
06:00	0	0	0	0	0	0	0	0	0	0	0	0
06:15	0	0	0	0	0	0	0	0	0	0	0	0
06:30	0	0	0	0	0	0	0	0	0	0	0	0
06:45	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
07:00	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
07:30	0	2	0	0	0	0	0	0	0	0	2	2
07:45	0	1	0	0	0	0	0	0	0	0	1	1
H/TOT	0	3	0	0	0	0	0	0	0	0	3	3
08:00	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
08:30	0	0	0	0	0	0	0	0	0	0	0	0
08:45	0	0	1	0	0	0	0	0	0	0	1	1
H/TOT	0	0	1	0	0	0	0	0	0	0	1	1
09:00	0	1	0	0	0	0	0	0	0	0	1	1
09:15	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
09:45	0	0	1	0	0	0	0	0	0	0	1	1
H/TOT	0	1	1	0	0	0	0	0	0	0	2	2
10:00	0	1	0	0	0	0	0	0	0	0	1	1
10:15	0	0	0	0	0	0	0	0	0	0	0	0
10:30	0	2	0	0	0	0	0	0	0	0	2	2
10:45	0	0	0	0	0	1	0	0	0	0	1	1
H/TOT	0	3	0	0	0	1	0	0	0	0	4	4
11:00	0	0	1	0	0	0	0	0	0	0	1	1
11:15	0	0	0	0	0	0	0	0	0	0	0	0
11:30	0	0	0	0	0	0	0	0	0	0	0	0
11:45	0	0	1	0	0	0	0	0	0	0	1	1
H/TOT	0	0	2	0	0	0	0	0	0	0	2	2
12:00	0	0	0	0	0	0	0	0	0	0	0	0
12:15	0	1	0	0	0	0	0	0	0	0	1	1
12:30	0	0	0	0	0	0	0	0	0	0	0	0
12:45	0	0	0	0	0	0	0	0	0	0	0	0
H/TOT	0	1	0	0	0	0	0	0	0	0	1	1
13:00	0	0	0	0	0	0	0	0	0	0	0	0
13:15	0	0	0	0	0	0	0	0	0	0	0	0
13:30	0	1	0	0	0	0	1	0	0	0	2	2
13:45	0	1	0	0	0	0	0	0	0	0	1	1
H/TOT	0	2	0	0	0	0	1	0	0	0	3	3
14:00	0	1	0	0	0	0	0	0	0	0	1	1
14:15	0	0	0	0	0	0	0	0	0	0	0	0
14:30	0	1	0	0	0	0	0	0	0	0	1	1
14:45	0	0	0	0	0	0	0	0	0	0	0	0
H/TOT	0	2	0	0	0	0	0	0	0	0	2	2
15:00	0	0	0	0	0	0	0	0	0	0	0	0
15:15	0	2	0	0	0	0	0	0	0	0	2	2
15:30	0	0	0	0	0	0	0	0	0	0	0	0
15:45	0	1	0	0	0	0	0	0	0	0	1	1
H/TOT	0	3	0	0	0	0	0	0	0	0	3	3
16:00	0	2	0	0	0	0	0	0	0	0	2	2
16:15	0	0	0	0	0	0	0	0	0	0	0	0
16:30	0	0	0	0	0	0	1	0	0	0	1	1
16:45	0	2	0	0	0	0	0	0	0	0	2	2
H/TOT	0	4	0	0	0	0	1	0	0	0	5	5
17:00	0	1	0	0	0	0	0	0	0	0	1	1
17:15	0	1	0	0	0	0	0	0	0	0	1	1
17:30	0	1	1	0	0	0	0	0	0	0	2	2
17:45	0	2	0	0	0	0	0	0	0	0	2	2
H/TOT	0	5	1	0	0	0	0	0	0	0	6	6
18:00	0	3	0	1	0	0	0	0	0	0	4	4
18:15	0	1	0	0	0	0	0	0	0	0	1	1
18:30	0	0	0	0	0	0	0	0	0	0	0	0
18:45	0	1	0	0	0	0	0	0	0	0	1	1
H/TOT	0	5	0	1	0	0	0	0	0	0	6	6
19:00	0	0	0	0	0	0	0	0	0	0	0	0
19:15	0	0	0	0	0	0	0	0	0	0	0	0
19:30	0	0	0	0	0	0	0	0	0	0	0	0
19:45	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
20:00	0	0	0	0	0	0	0	0	0	0	0	0
20:15	0	0	0	0	0	0	0	0	0	0	0	0
20:30	0	0	0	0	0	0	0	0	0	0	0	0
20:45	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
21:00	0	0	0	0	0	0	0	0	0	0	0	0
21:15	0	0	0	0	0	0	0	0	0	0	0	0
21:30	0	0	0	0	0	0	0	0	0	0	0	0
21:45	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
22:00	0	0	0	0	0	0	0	0	0	0	0	0
22:15	0	0	0	0	0	0	0	0	0	0	0	0
22:30	0	0	0	0	0	0	0	0	0	0	0	0
22:45	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
23:00	0	0	0	0	0	0	0	0	0	0	0	0
23:15	0	0	0	0	0	0	0	0	0	0	0	0
23:30	0	0	0	0	0	0	0	0	0	0	0	0
23:45	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
24 TOT	0	29	5	1	0	1	2	0	0	0	38	38

C => B												C => C											
BUS	CAR	LGV	MCL	OGV1	OGV2	PCL	TAXI	BEB	OB	TOT	PCU	BUS	CAR	LGV	MCL	OGV1	OGV2	PCL	TAXI	BEB	OB	TOT	PCU
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	6	0	0	0	0	0	0	0	0	6	6	0	0	0	0	0	0	0	0	0	0	0	0
1	11	1	0	0	0	0	0	0	0	13	13	0	0	0	0	0	0	0	0	0	0	0	0
2	18	4	0	2	0	0	0	0	0	26	26	0	0	0	0	0	0	0	0	0	0	0	0
0	27	2	0	1	0	0	0	0	0	30	30	0	0	0	0	0	0	0	0	0	0	0	0
3	62	7	0	3	0	0	0	0	0	75	75	0	0	0	0	0	0	0	0	0	0	0	0
0	38	2	0	0	2	0	0	0	0	42	42	0	0	0	0	0	0	0	0	0	0	0	0
2	46	3	0	0	0	0	1	0	0	52	52	0	0	0	0	0	0	0	0	0	0	0	0
0	44	3	0	1	0	1	1	0	0	50	50	0	0	0	0	0	0	0	0	0	0	0	0
0	33	3	0	1	3	0	0	0	0	40	40	0	0	0	0	0	0	0	0	0	0	0	0
2	161	11	0	2	5	1	2	0	0	184	184	0	0	0	0	0	0	0	0	0	0	0	0
0	17	0	0	0	0	0	1	0	0	18	18	0	0	0	0	0	0	0	0	0	0	0	0
1	18	2	0	0	1	0	0	0	0	22	22	0	0	0	0	0	0	0	0	0	0	0	0
0	17	3	0	1	0	0	2	0	0	23	23	0	0	0	0	0	0	0	0	0	0	0	0
1	15	2	0	2	1	0	1	0	0	22	22	0	0	0	0	0	0	0	0	0	0	0	0
2	67	7	0	3	2	0	4	0	0	85	85	0	0	0	0	0	0	0	0	0	0	0	0
0	20	2	0	1	0	0	0	0	0	23	23	0	0	0	0	0	0	0	0	0	0	0	0
3	22	1	0	2	0	1	1	0	0	30	30	0	0	0	0	0	0	0	0	0	0	0	0
0	18	3	0	0	0	0	1	0	0	22	22	0	0	0	0	0	0	0	0	0	0	0	0
0	23	4	0	0	0	0	0	0	0	27	27	0	0	0	0	0	0	0	0	0	0	0	0
3	83	10	0	3	0	1	2	0	0	102	102	0	0	0	0	0	0	0	0	0	0	0	0
0	15	2	0	1	0	0	0	0	0	18	18	0	0	0	0	0	0	0	0	0	0	0	0
1	26	2	0	0	1	0	1	0	0	31	31	0	0	0	0	0	0	0	0	0	0	0	0
0	25	2	0	0	0	0	0	0	0	27	27	0	0	0	0	0	0	0	0	0	0	0	0
0	30	4	0	0	0	0	0	0	0	34	34	0	0	0	0	0	0	0	0	0	0	0	0
1	96	10	0	1	1	0	1	0	0	110	110	0	0	0	0	0	0	0	0	0	0	0	0
1	39	4	1	0	0	0	1	0	0	46	46	0	0	0	0	0	0	0	0	0	0	0	0
1	28	3	0	1	0	0	0	0	0	33	33	0	0	0	0	0	0	0	0	0	0	0	0
0	35	2	0	2	0	0	2	0	0	41	41	0	0	0	0	0	0	0	0	0	0	0	0
0	31	6	0	0	1	0	1	0	0	39	39	0	0	0	0	0	0	0	0	0	0	0	0
2	133	15	1	3	1	0	4	0	0	159	159	0	0	0	0	0	0	0	0	0	0	0	0
0	25	4	0	3	1	1	1	0	0	35	35	0	0	0	0	0	0	0	0	0	0	0	0
2	31	5	0	0	1	0	3	0	0	42	42	0	0	0	0	0	0	0	0	0	0	0	0
1	30	5	0	2	1	0	0	0	0	39	39	0	0	0	0	0	0	0	0	0	0	0	0
0	31	0	0	1	0	0	1	0	0	33	33	0	0	0	0	0	0	0	0	0	0	0	0
3	117	14	0	6	3	1	5	0	0	149	149	0	0	0	0	0	0	0	0	0	0	0	0
0	57	3	0	1	1	0	1	0	0	63	63	0	0	0	0	0	0	0	0	0	0	0	0
2	39	3	0	0	2	0	1	0	0	47	47	0	0	0	0	0	0	0	0	0	0	0	0
0	37	3	0	0	0	0	0	0	0	40	40	0	0	0	0	0	0	0	0	0	0	0	0
0	36	3	0	1	2	1	0	0	0	43	43	0	0	0	0	0	0	0	0	0	0	0	0
2	169	12	0	2	5	1	2	0	0	193	193	0	0	0	0	0	0	0	0	0	0	0	0
0	35	7	0	0	1	0	0	0	0	43	43	0	0	0	0	0	0	0	0	0	0	0	0
2	45	4	0	1	0	0	0	0	0	52	52	0	0	0	0	0	0	0	0	0	0	0	0
0	47	2	0	1	1	0	0	0	0	51	51	0	0	0	0	0	0	0	0	0	0	0	0
2	47	2	1	0	1	0	0	0	0	53	53	0	0	0	0	0	0	0	0	0	0	0	0
4	174	15	1	2	3	0	0	0	0	199	199	0	0	0	0	0	0	0	0	0	0	0	0
0	57	10	0	0	0	1	1	0	0	69	69	0	0	0	0	0	0	0	0	0	0	0	0
3	57	6	0	0	0	0	1	0	0	67	67	0	0	0	0	0	0	0	0	0	0	0	0
2	53	6	0	0	1	1	1	0	0	64	64	0	0	0	0	0	0	0	0	0	0	0	0
0	62	7	1	1	0	0	0	0	0	71	71	0	0	0	0	0	0	0	0	0	0	0	0
5	229	29	1	1	1	2	3	0	0	271	271	0	0	0	0	0	0	0	0	0	0	0	0
0	64	3	0	1	0	0	0	0	0	68	68	0	0	0	0	0	0	0	0	0	0	0	0
1	82	2	0	0	0	0	0	0	0	85	85	0	0	0	0	0	0	0	0	0	0	0	0
2	64	0	0	0	0	0	0	0	0	66	66	0	0	0	0	0	0	0	0	0	0	0	0
1	70	0	1	0	0	0	0	0	0	72	72	0	0	0	0	0	0	0	0	0	0	0	0
4	280	5	1	1	0	0	0	0	0	291	291	0	0	0	0	0	0	0	0	0	0	0	0
0	68	0	0	0	0	0	0	0	0	68	68	0	0	0	0	0	0	0	0	0	0	0	0
3	65	0	1	0	0	0	0	0	0	69	69	0	0	0	0	0	0	0	0	0	0	0	0
1	60	0	0	0	0	0	0	0	0	61	61	0	0	0	0	0	0	0	0	0	0	0	0
0	43	0	0	0	0	0	0	0	0	43	43	0	0	0	0	0	0	0	0	0	0	0	0
4	236	0	1	0	0	0	0	0	0	241	241	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
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0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
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0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
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0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
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0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
35	1807	135	5	27	21	6	23	0	0	2059	2059	0	0	0	0	0	0	0	0	0	0	0	0

APPENDIX B

TRICS Analysis

Calculation Reference: AUDIT-363901-190628-0637

TRIP RATE CALCULATION SELECTION PARAMETERS:

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

Selected regions and areas:

12	CONNAUGHT		
	CS	SLIGO	1 days
	RO	ROSCOMMON	3 days
14	LEINSTER		
	CC	CARLOW	1 days
	WC	WICKLOW	1 days
	WX	WEXFORD	1 days
16	ULSTER (REPUBLIC OF IRELAND)		
	CV	CAVAN	1 days
	DN	DONEGAL	2 days

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

Secondary Filtering selection:

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

Parameter: Number of dwellings
Actual Range: 6 to 50 (units:)
Range Selected by User: 4 to 50 (units:)

Parking Spaces Range: All Surveys Included

Percentage of dwellings privately owned: All Surveys Included

Public Transport Provision:
Selection by: Include all surveys

Date Range: 01/01/11 to 10/10/18

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

Selected survey days:

Monday	3 days
Wednesday	2 days
Thursday	4 days
Friday	1 days

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

Selected survey types:

Manual count	10 days
Directional ATC Count	0 days

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

Selected Locations:

Suburban Area (PPS6 Out of Centre)	3
Edge of Town	6
Neighbourhood Centre (PPS6 Local Centre)	1

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

Selected Location Sub Categories:

Residential Zone	5
Village	1
No Sub Category	4

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

Secondary Filtering selection:

Use Class:

C3	10 days

This data displays the number of surveys per Use Class classification within the selected set. The Use Classes Order 2005 has been used for this purpose, which can be found within the Library module of TRICS®.

Population within 1 mile:

1,000 or Less	1 days
1,001 to 5,000	5 days
5,001 to 10,000	2 days
10,001 to 15,000	1 days
15,001 to 20,000	1 days

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

Population within 5 miles:

5,000 or Less	4 days
5,001 to 25,000	4 days
25,001 to 50,000	2 days

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

Car ownership within 5 miles:

0.6 to 1.0	4 days
1.1 to 1.5	5 days
1.6 to 2.0	1 days

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

Travel Plan:

No	10 days

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

PTAL Rating:

No PTAL Present	10 days

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

LIST OF SITES relevant to selection parameters

1 CC-03-A-01 DETACHED HOUSES CARLOW
R417 ANTHY ROAD
CARLOW

Edge of Town
Residential Zone
Total Number of dwellings: 23
Survey date: WEDNESDAY *25/05/16* *Survey Type: MANUAL*

2 CS-03-A-03 MIXED HOUSES SLIGO
TOP ROAD
STRANDHILL
STRANDHILL
Neighbourhood Centre (PPS6 Local Centre)
Village
Total Number of dwellings: 30
Survey date: THURSDAY *27/10/16* *Survey Type: MANUAL*

3 CV-03-A-03 DETACHED HOUSES CAVAN
R212 DUBLIN ROAD
CAVAN
PULLAMORE NEAR
Edge of Town
No Sub Category
Total Number of dwellings: 37
Survey date: MONDAY *22/05/17* *Survey Type: MANUAL*

4 DN-03-A-03 DETACHED/SEMI-DETACHED DONEGAL
THE GRANGE
LETTERKENNY
GLENCAR IRISH
Edge of Town
Residential Zone
Total Number of dwellings: 50
Survey date: MONDAY *01/09/14* *Survey Type: MANUAL*

5 DN-03-A-06 DETACHED HOUSING DONEGAL
GLENFIN ROAD
BALLYBOFEY

Edge of Town
Residential Zone
Total Number of dwellings: 6
Survey date: WEDNESDAY *10/10/18* *Survey Type: MANUAL*

6 RO-03-A-02 SEMI DET. & BUNGALOWS ROSCOMMON
SLIGO ROAD
BALLAGHADERREEN

Suburban Area (PPS6 Out of Centre)
Residential Zone
Total Number of dwellings: 31
Survey date: THURSDAY *14/07/11* *Survey Type: MANUAL*

7 RO-03-A-03 DETACHED HOUSES ROSCOMMON
N61
BOYLE
GREATMEADOW
Edge of Town
No Sub Category
Total Number of dwellings: 23
Survey date: THURSDAY *25/09/14* *Survey Type: MANUAL*

8 RO-03-A-04 SEMI DET. & BUNGALOWS ROSCOMMON
EAGLE COURT
ROSCOMMON
ARDNANAGH
Suburban Area (PPS6 Out of Centre)
Residential Zone
Total Number of dwellings: 39
Survey date: FRIDAY *26/09/14* *Survey Type: MANUAL*

LIST OF SITES relevant to selection parameters (Cont.)

9	WC-03-A-01 DETACHED HOUSES		WICKLOW
	STATION ROAD		
	WICKLOW		
	CORPORATION MURRAGH		
	Edge of Town		
	No Sub Category		
	Total Number of dwellings:	50	
	Survey date: MONDAY	*28/05/18*	*Survey Type: MANUAL*
10	WX-03-A-01 SEMI-DETACHED		WEXFORD
	CLONARD ROAD		
	WEXFORD		
	Suburban Area (PPS6 Out of Centre)		
	No Sub Category		
	Total Number of dwellings:	34	
	Survey date: THURSDAY	*25/09/14*	*Survey Type: MANUAL*

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

TRIP RATE for Land Use 03 - RESIDENTIAL/A - HOUSES PRIVATELY OWNED
VEHICLES
Calculation factor: 1 DWELLS
BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	10	32	0.043	10	32	0.183	10	32	0.226
08:00 - 09:00	10	32	0.198	10	32	0.560	10	32	0.758
09:00 - 10:00	10	32	0.266	10	32	0.334	10	32	0.600
10:00 - 11:00	10	32	0.223	10	32	0.257	10	32	0.480
11:00 - 12:00	10	32	0.189	10	32	0.223	10	32	0.412
12:00 - 13:00	10	32	0.269	10	32	0.207	10	32	0.476
13:00 - 14:00	10	32	0.347	10	32	0.328	10	32	0.675
14:00 - 15:00	10	32	0.303	10	32	0.378	10	32	0.681
15:00 - 16:00	10	32	0.418	10	32	0.328	10	32	0.746
16:00 - 17:00	10	32	0.406	10	32	0.291	10	32	0.697
17:00 - 18:00	10	32	0.483	10	32	0.316	10	32	0.799
18:00 - 19:00	10	32	0.390	10	32	0.316	10	32	0.706
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			3.535			3.721			7.256

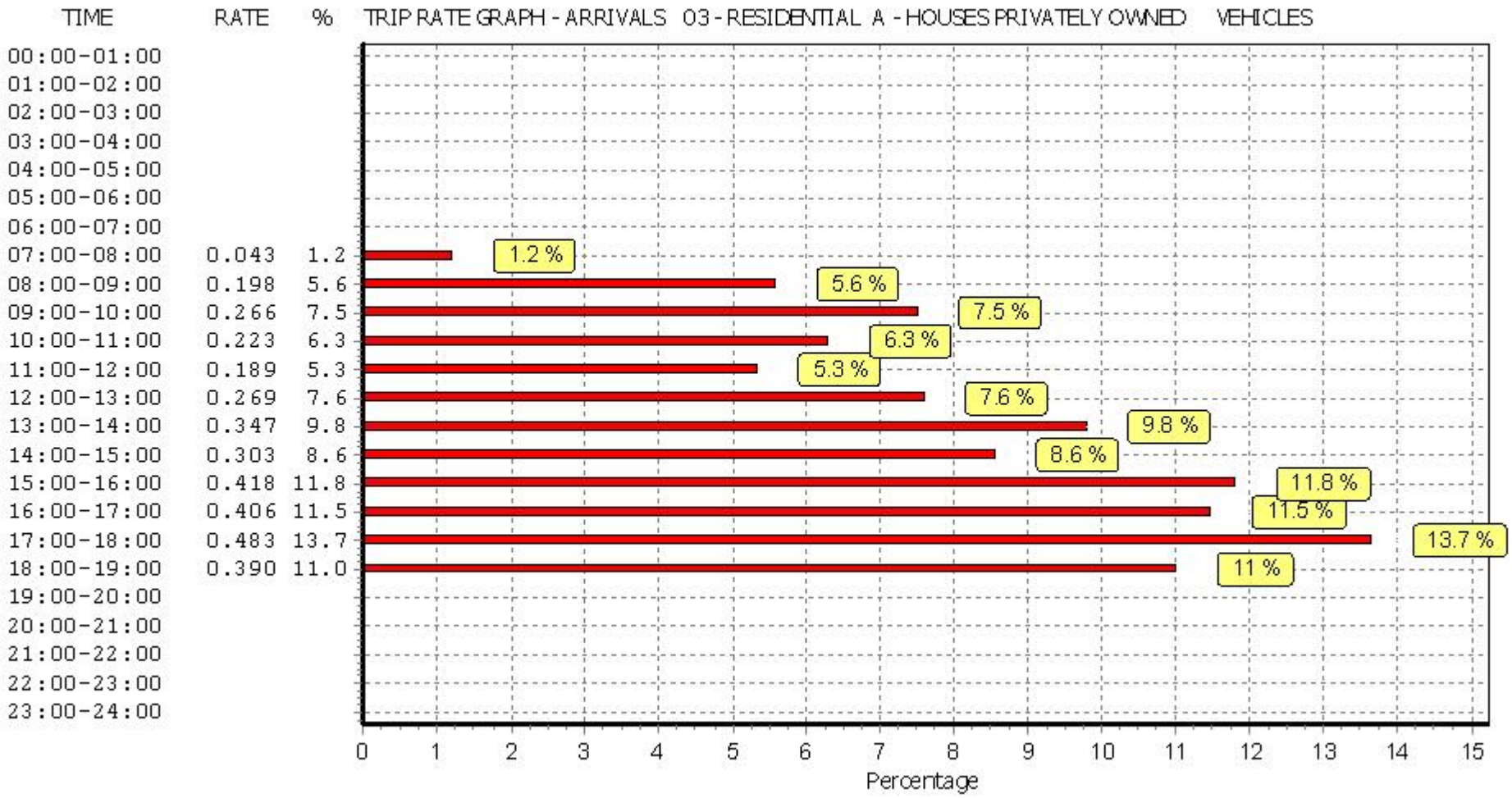
This section displays the trip rate results based on the selected set of surveys and the selected count type (shown just above the table). It is split by three main columns, representing arrivals trips, departures trips, and total trips (arrivals plus departures). Within each of these main columns are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

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

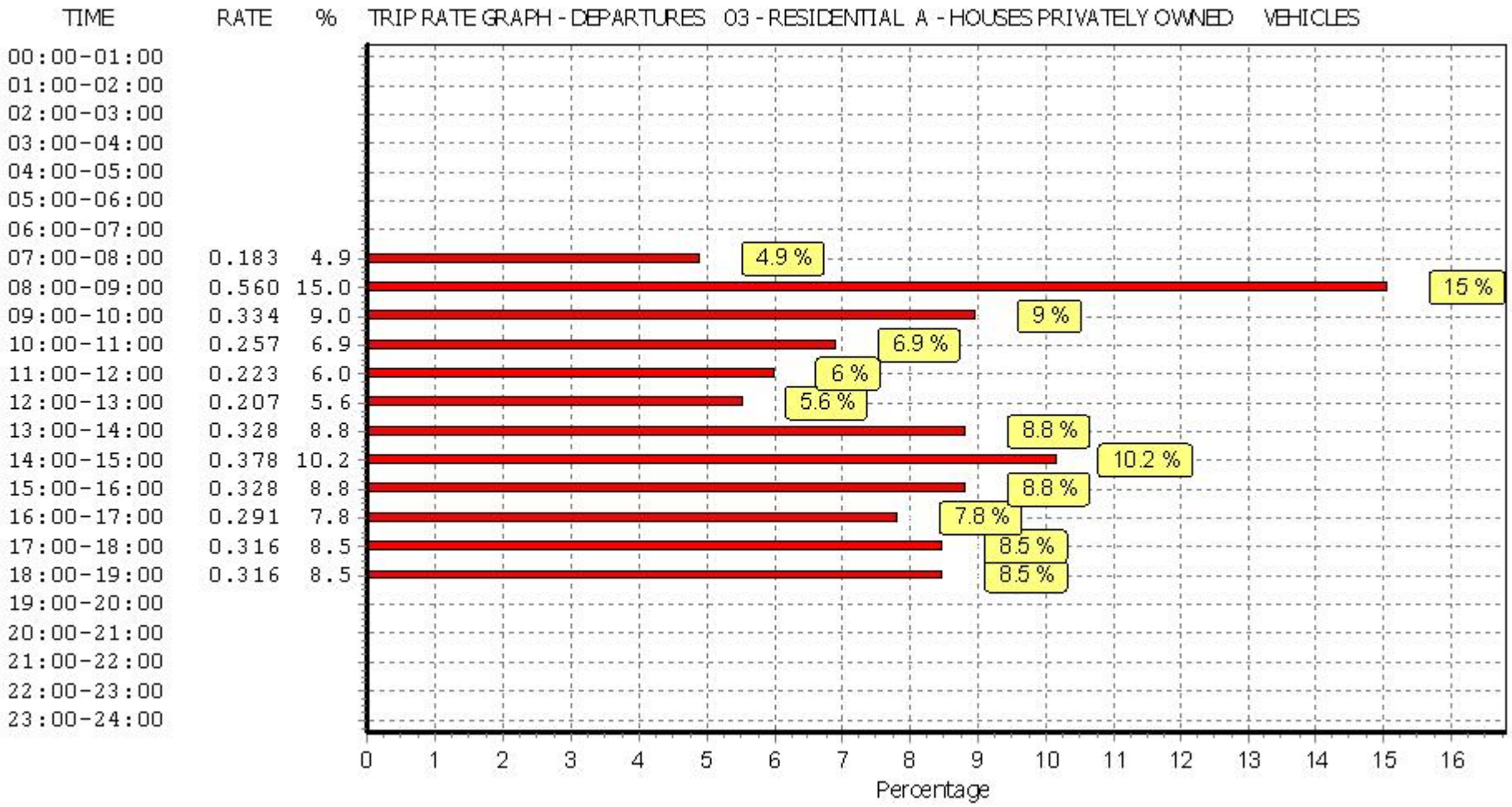
Parameter summary

Trip rate parameter range selected:	6 - 50 (units:)
Survey date date range:	01/01/11 - 10/10/18
Number of weekdays (Monday-Friday):	10
Number of Saturdays:	0
Number of Sundays:	0
Surveys automatically removed from selection:	2
Surveys manually removed from selection:	0

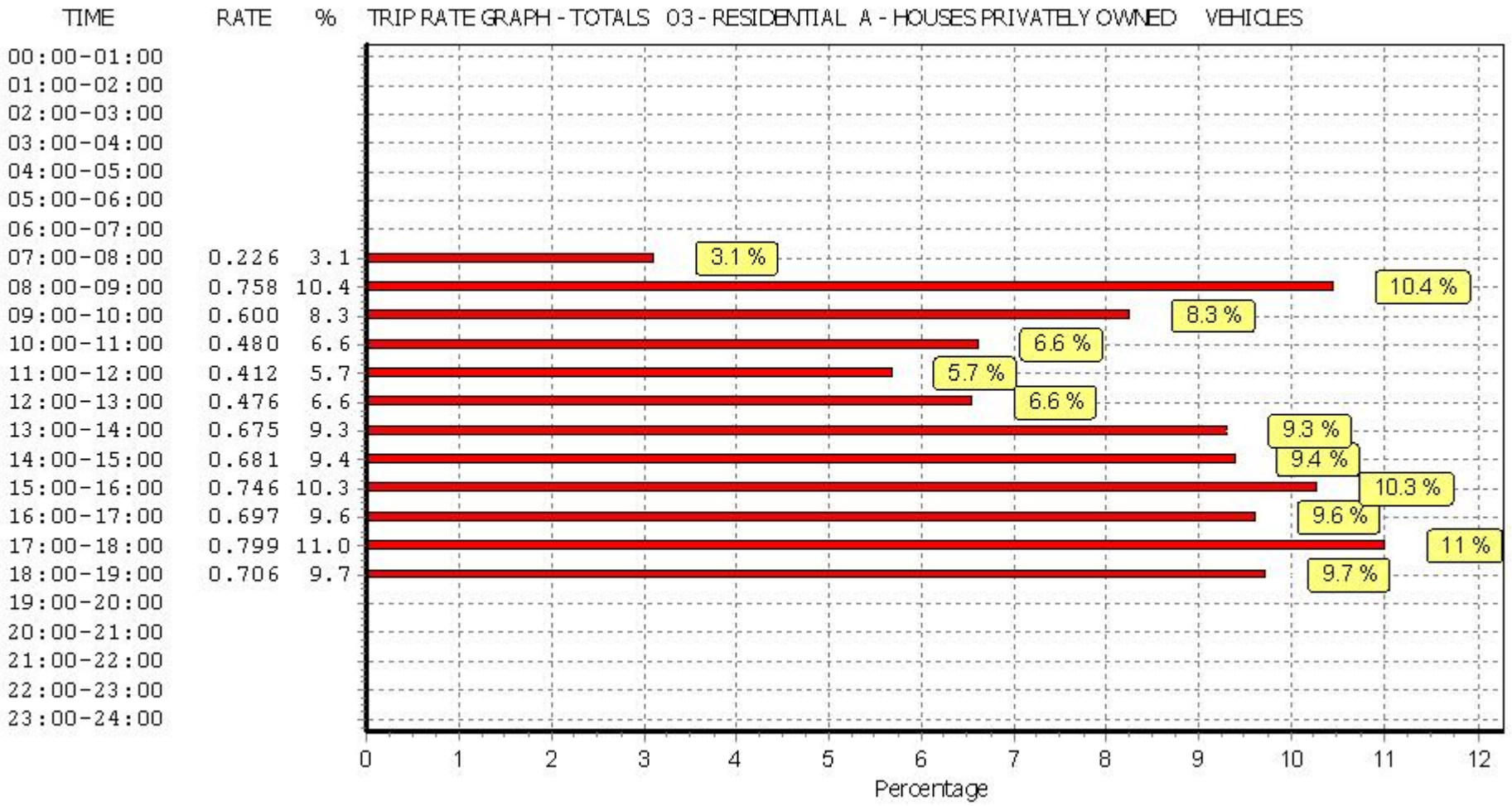
This section displays a quick summary of some of the data filtering selections made by the TRICS® user. The trip rate calculation parameter range of all selected surveys is displayed first, followed by the range of minimum and maximum survey dates selected by the user. Then, the total number of selected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



This graph is a visual representation of the trip rate calculation results screen. The same time periods and trip rates are displayed, but in addition there is an additional column showing the percentage of the total trip rate by individual time period, allowing peak periods to be easily identified through observation. Note that the type of count and the selected direction is shown at the top of the graph.



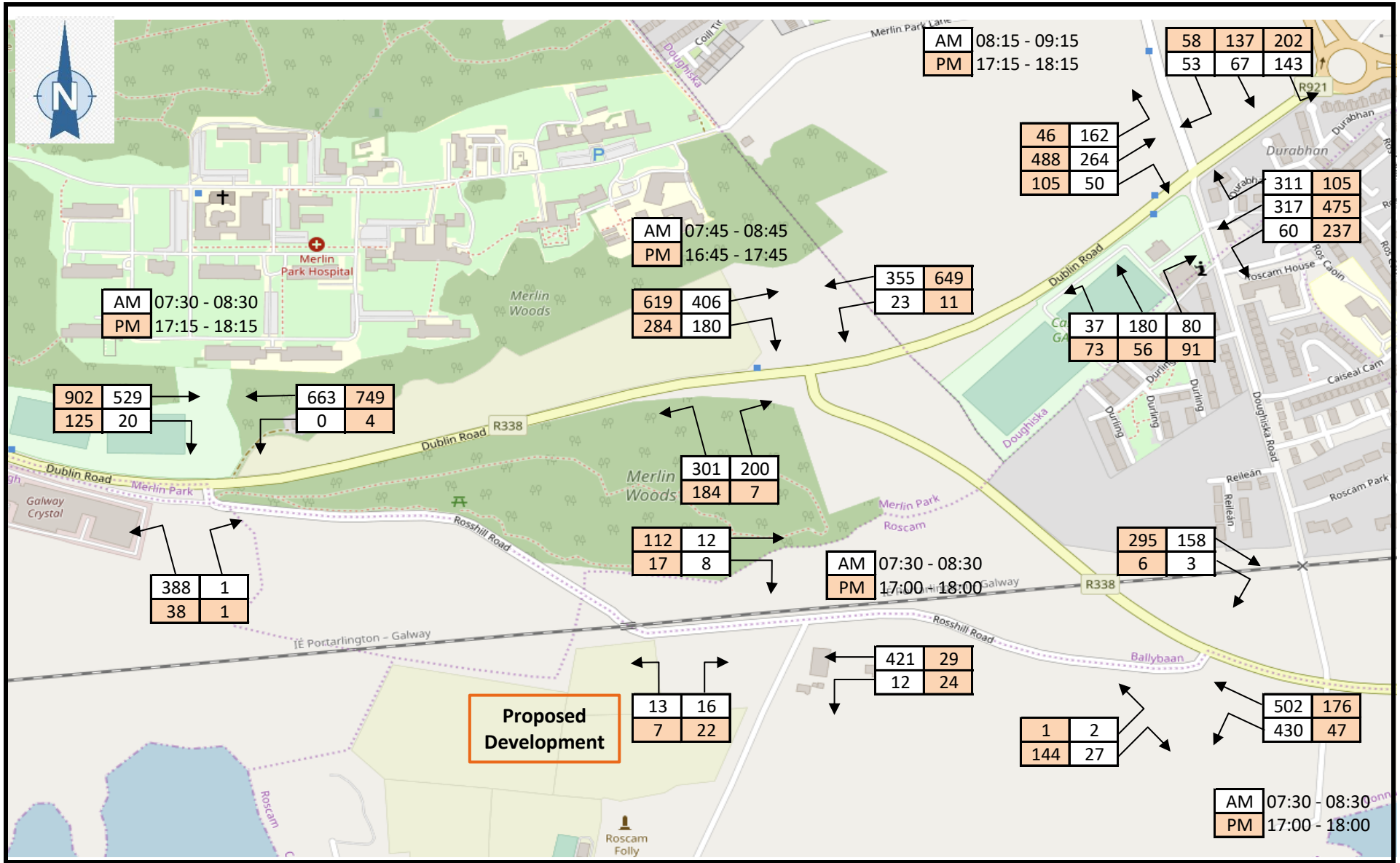
This graph is a visual representation of the trip rate calculation results screen. The same time periods and trip rates are displayed, but in addition there is an additional column showing the percentage of the total trip rate by individual time period, allowing peak periods to be easily identified through observation. Note that the type of count and the selected direction is shown at the top of the graph.



This graph is a visual representation of the trip rate calculation results screen. The same time periods and trip rates are displayed, but in addition there is an additional column showing the percentage of the total trip rate by individual time period, allowing peak periods to be easily identified through observation. Note that the type of count and the selected direction is shown at the top of the graph.

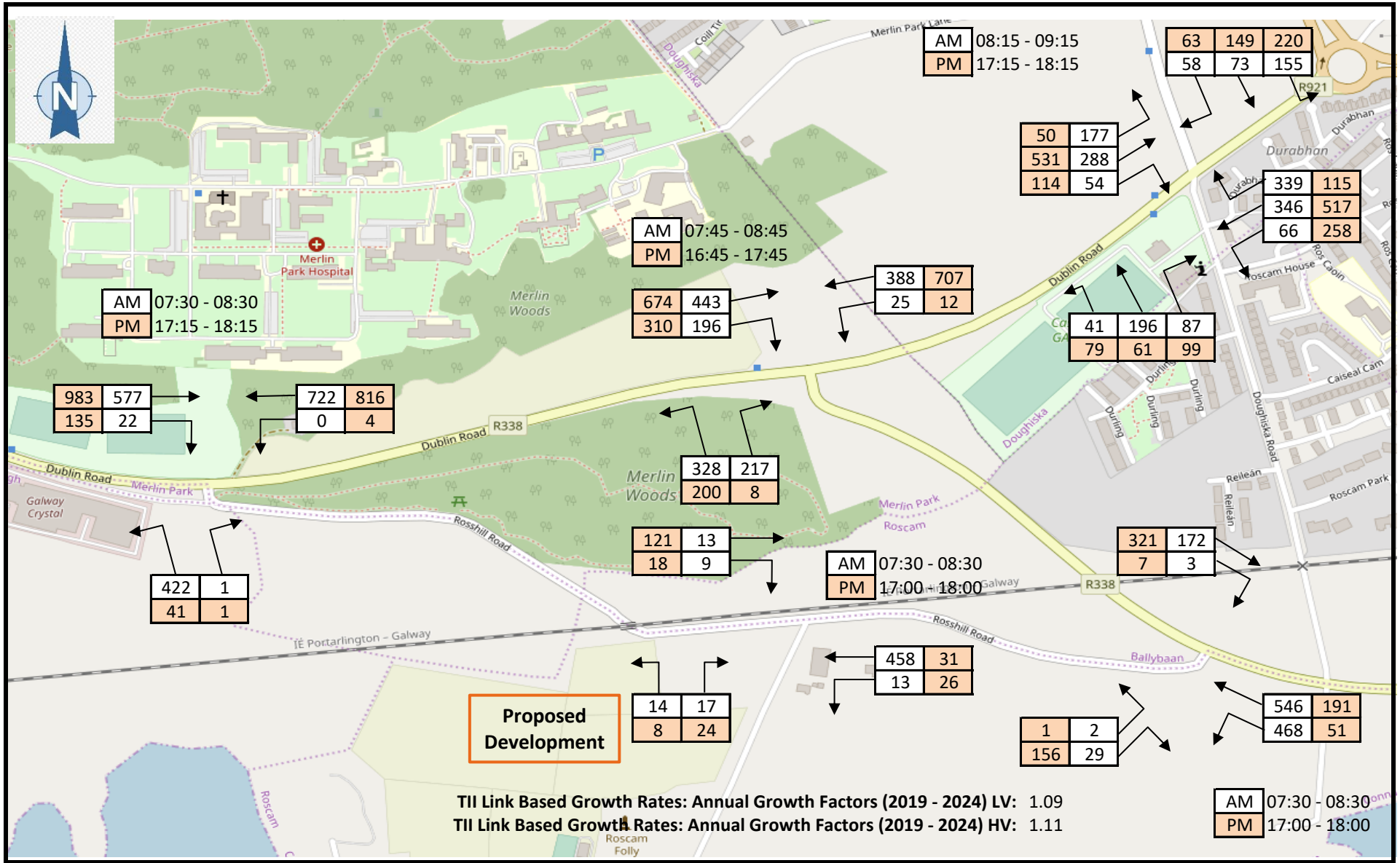
APPENDIX C

Traffic Flow Calculations



Job No:	119209
Job Title:	TTA - Proposed Residential Development, Rosshill, Galway

2019 SURVEYED PEAK HOUR TRAFFIC FLOWS

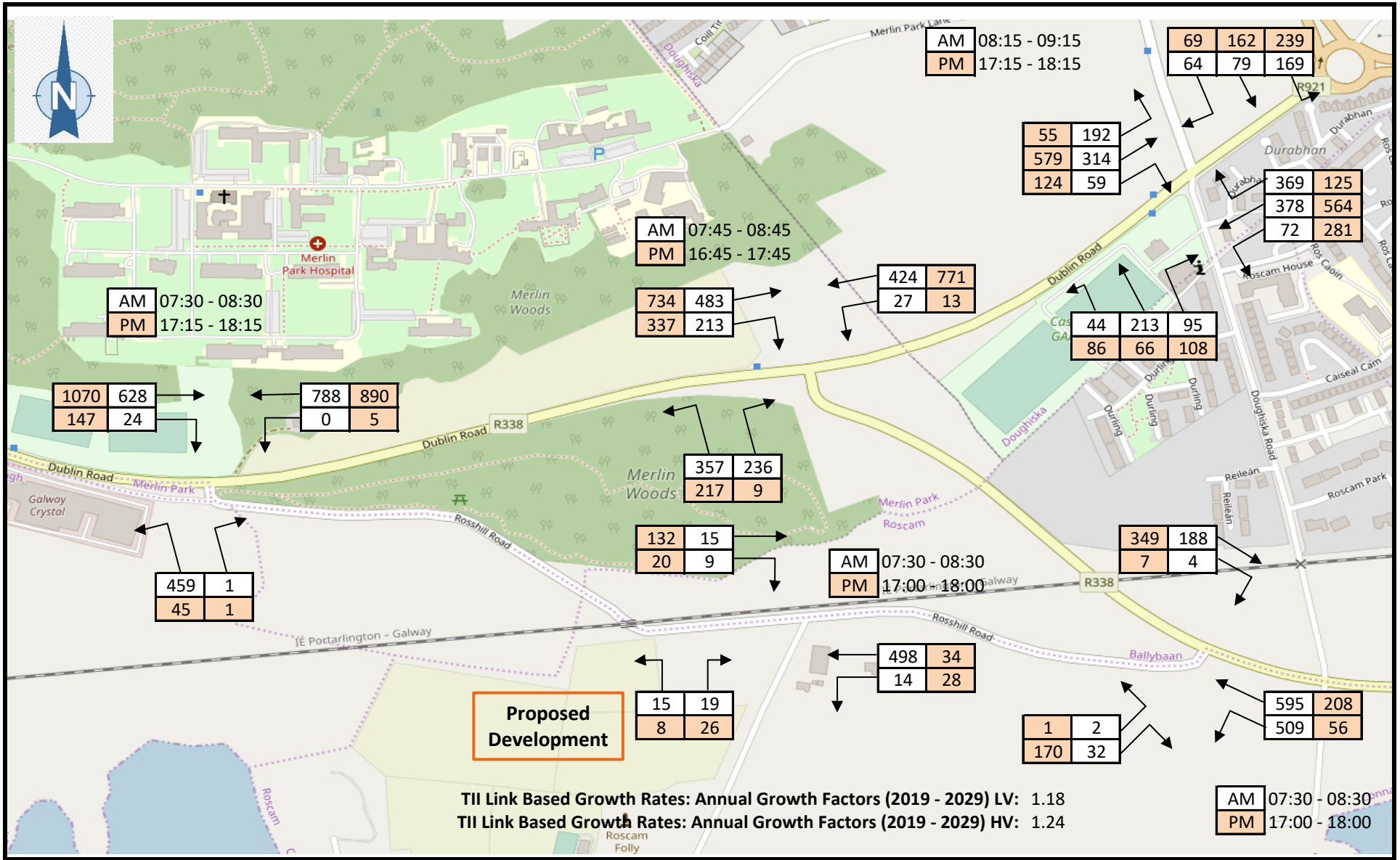


CST Group
Chartered Consulting Engineers

Job No: 119209

Job Title: TTA - Proposed Residential Development, Rosshill, Galway

2024 FULL DEVELOPMENT OPENING YEAR PEAK HOUR TRAFFIC FLOWS WITHOUT DEVELOPMENT

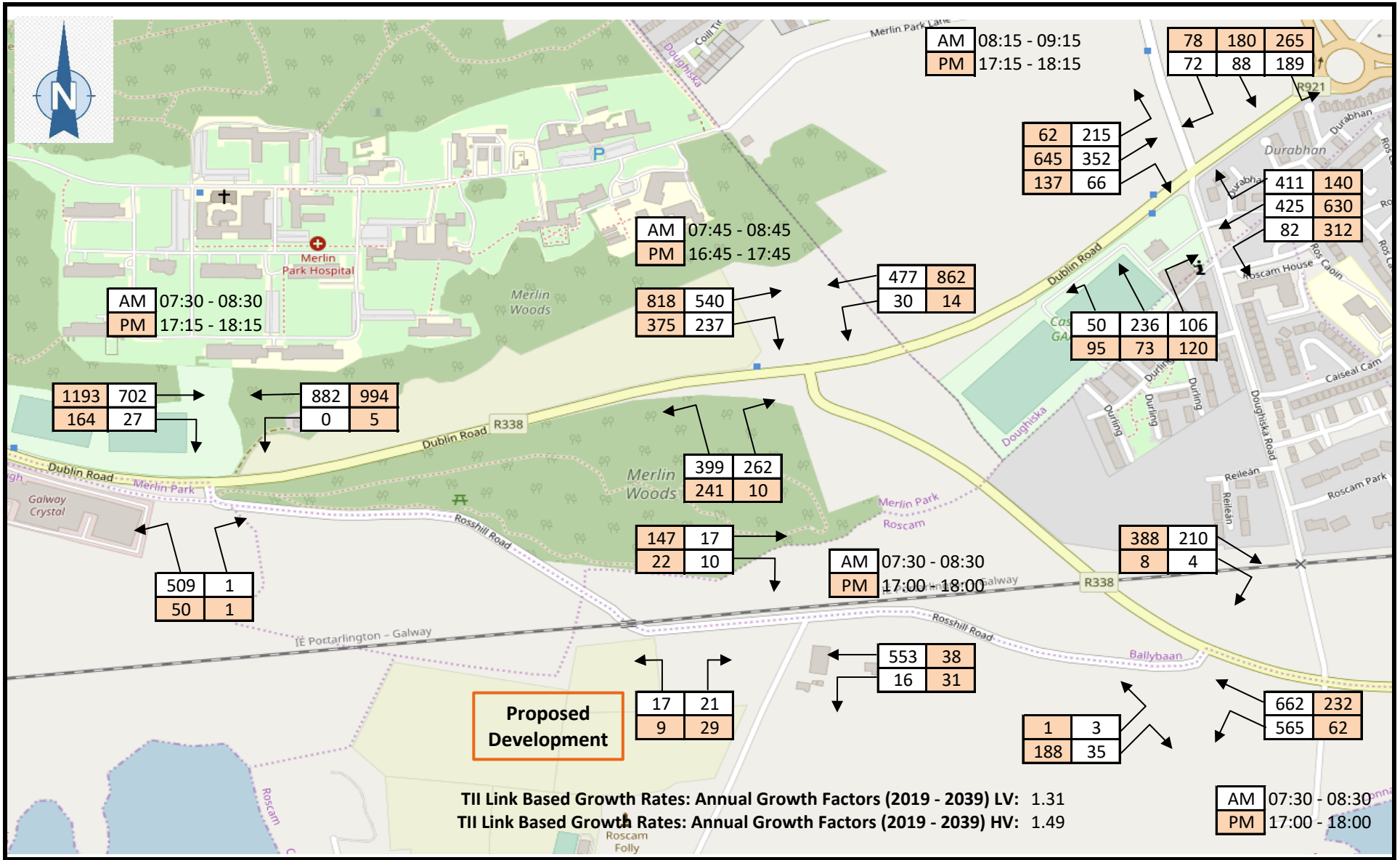


CST Group
Chartered Consulting Engineers

Job No: 119209

Job Title: TTA - Proposed Residential Development, Rosshill, Galway

2029 FULL DEVELOPMENT OPENING YEAR +5 YEARS PEAK HOUR TRAFFIC FLOWS WITHOUT DEVELOPMENT



CST Group
Chartered Consulting Engineers

Job No: 119209

Job Title: TTA - Proposed Residential Development, Rosshill, Galway

2039 FULL DEVELOPMENT OPENING YEAR +15 YEARS PEAK HOUR TRAFFIC FLOWS WITHOUT DEVELOPMENT

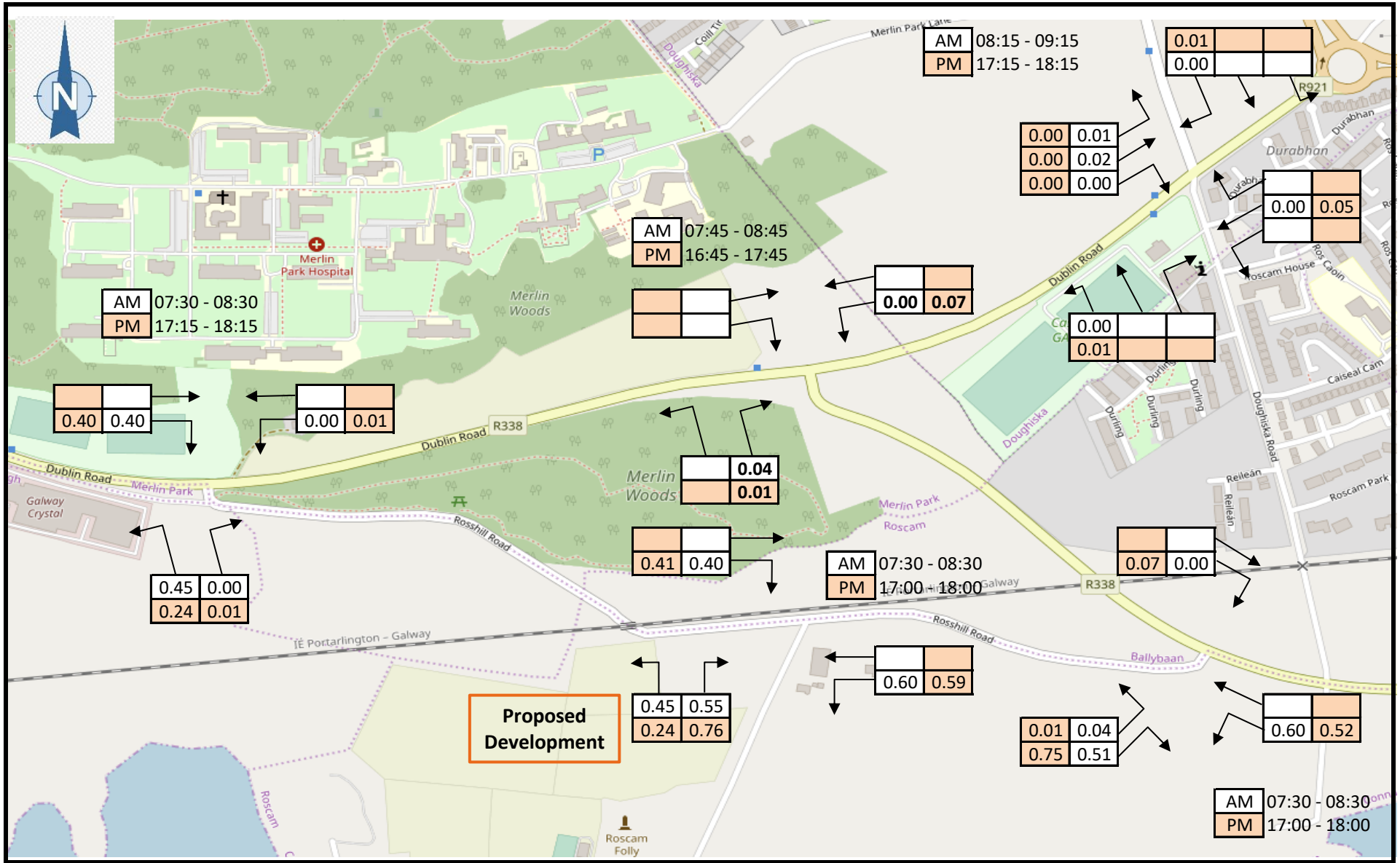
	Calculation Factor	Trip Rate per dwelling unit				Number of Trips			
Landuse	Residential Units	AM Arrivals	AM Departures	PM Arrivals	PM Departures	AM Arrivals	AM Departures	PM Arrivals	PM Departures
Réileán Estate (48 Apartments & 82 houses)	*106*	*0.1509*	*0.5283*	*0.3962*	*0.1509*	*16*	*56*	*42*	*16*
Mixed Residential (Apartments & House) Ph 1	51	0.151	0.528	0.396	0.151	8	27	20	8
Mixed Residential (Apartments & House) Ph 2	53	0.151	0.528	0.396	0.151	8	28	21	8
Mixed Residential (Apartments & House) Ph 3	143	0.151	0.528	0.396	0.151	22	76	57	22
Mixed Residential (Apartments & House) Ph 4	95	0.151	0.528	0.396	0.151	14	50	38	14
Houses Privately Owned (TRICS) Adjacent Development	16	0.266	0.560	0.483	0.316	4	9	8	5
TOTAL						**56**	**190**	**143**	**57**

Note:
Trip rates for proposed development based on trip rates calculated from traffic count survey at nearby Réileán Estate as per scoping meeting with GCC

CST Group
Chartered Consulting Engineers

Job No: 119209
Job Title: TTA - Proposed Residential Development, Rosshill, Galway

PROPOSED DEVELOPMENT TRAFFIC GENERATION

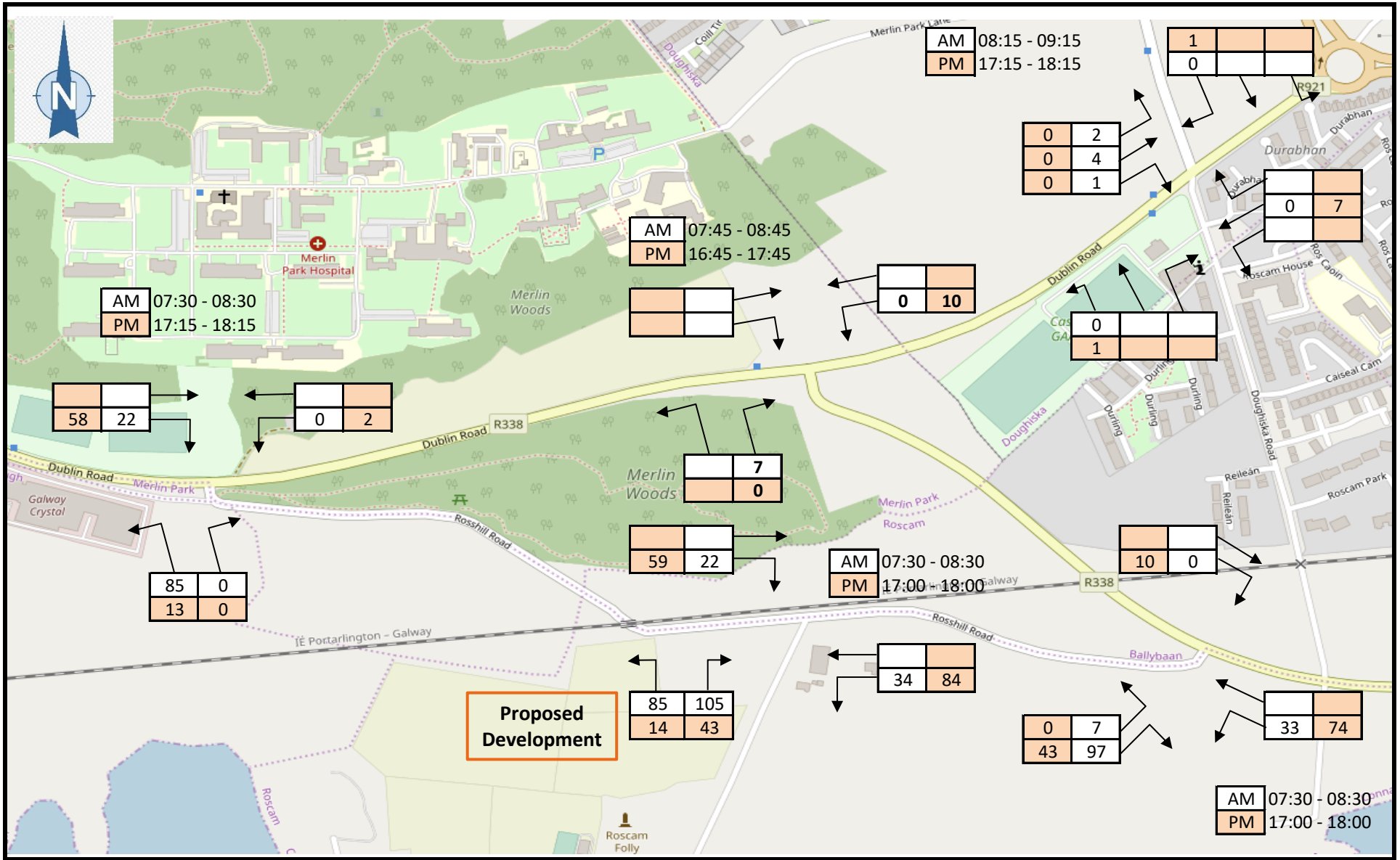


CST Group
Chartered Consulting Engineers

Job No: 119209

Job Title: TTA - Proposed Residential Development, Rosshill, Galway

PROPOSED DEVELOPMENT GENERATED TRAFFIC DISTRIBUTION

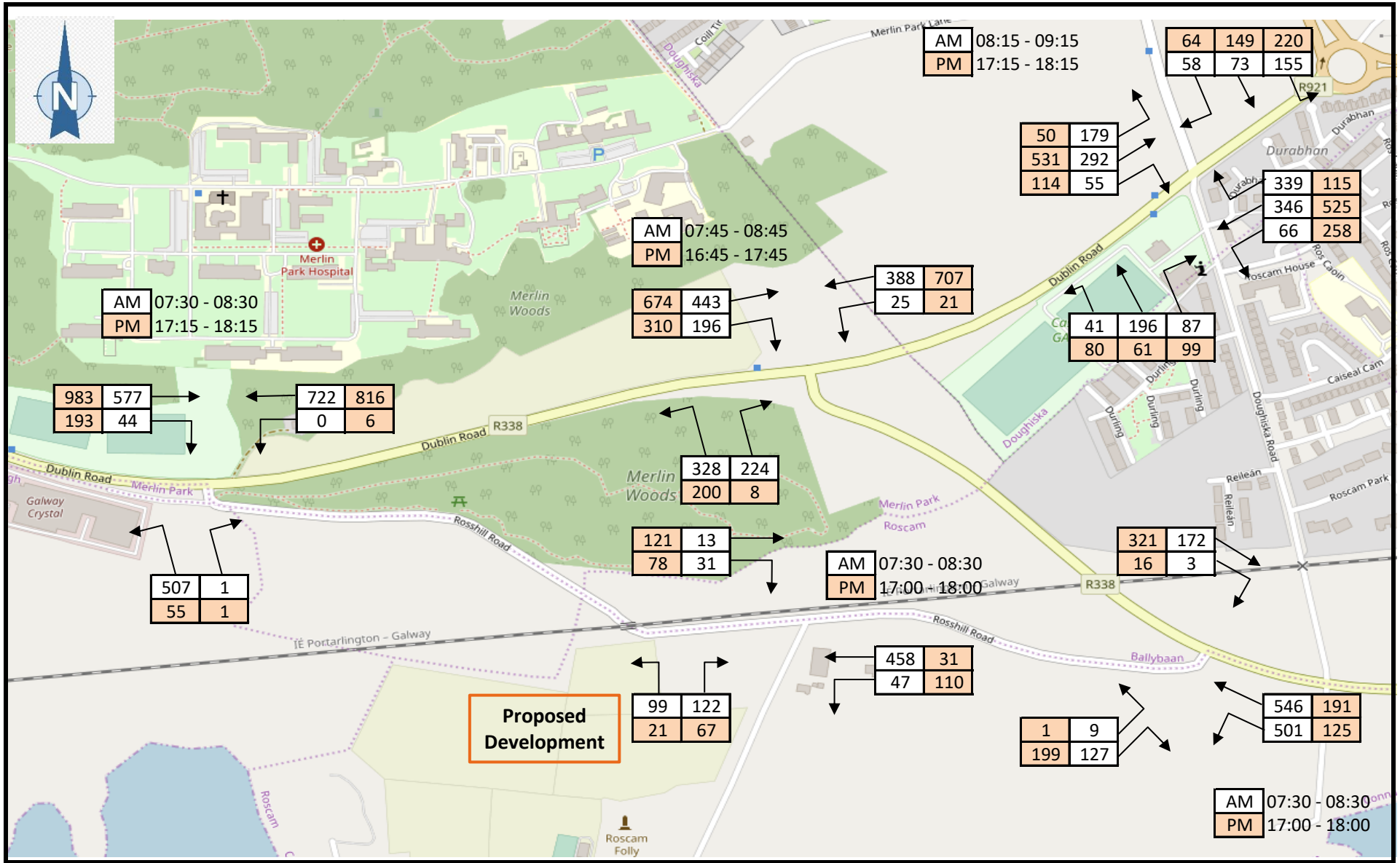


CST Group
Chartered Consulting Engineers

Job No: 119209

Job Title: TTA - Proposed Residential Development, Rosshill, Galway

PROPOSED DEVELOPMENT GENERATED TRAFFIC FLOWS

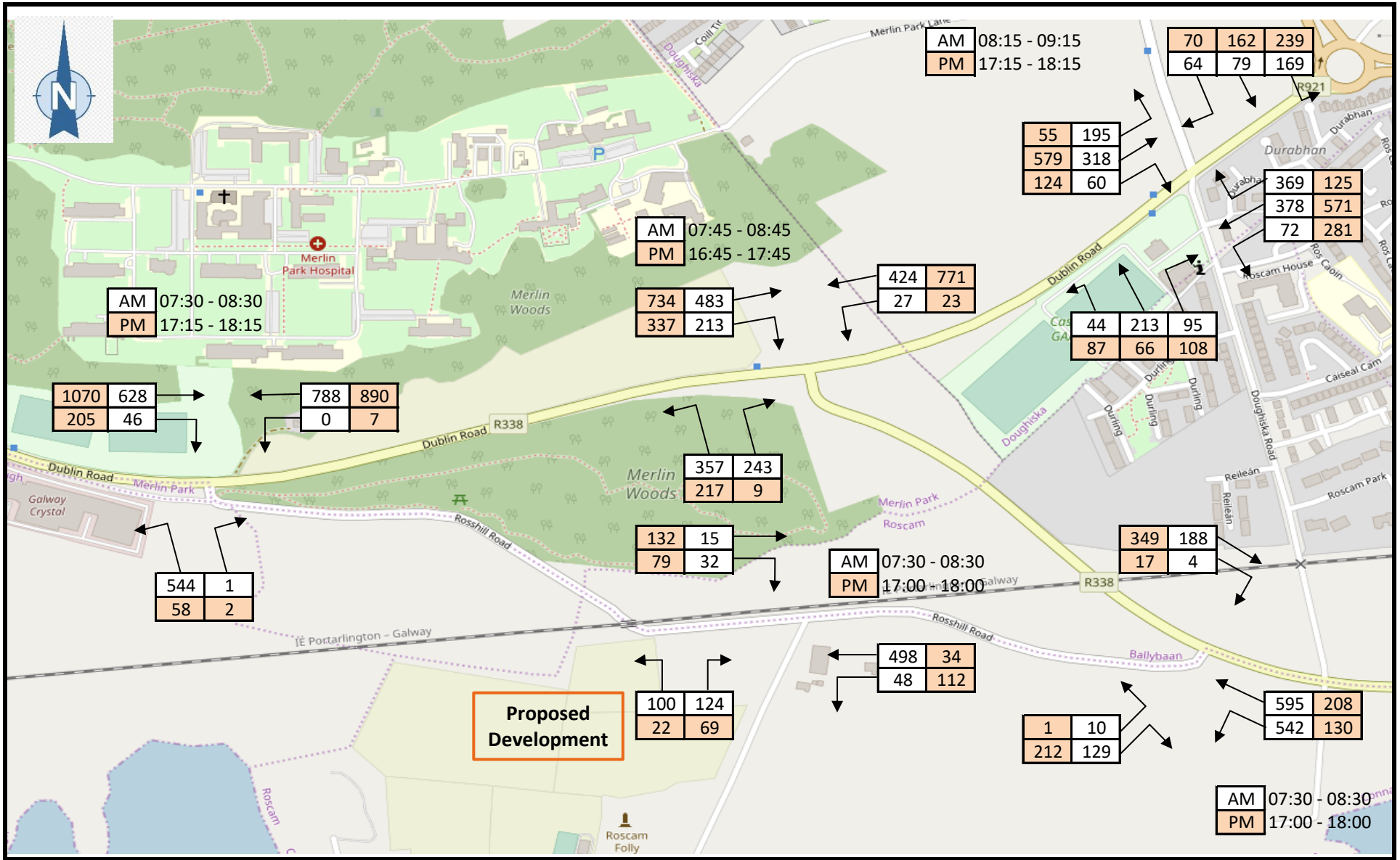


CST Group
Chartered Consulting Engineers

Job No: 119209

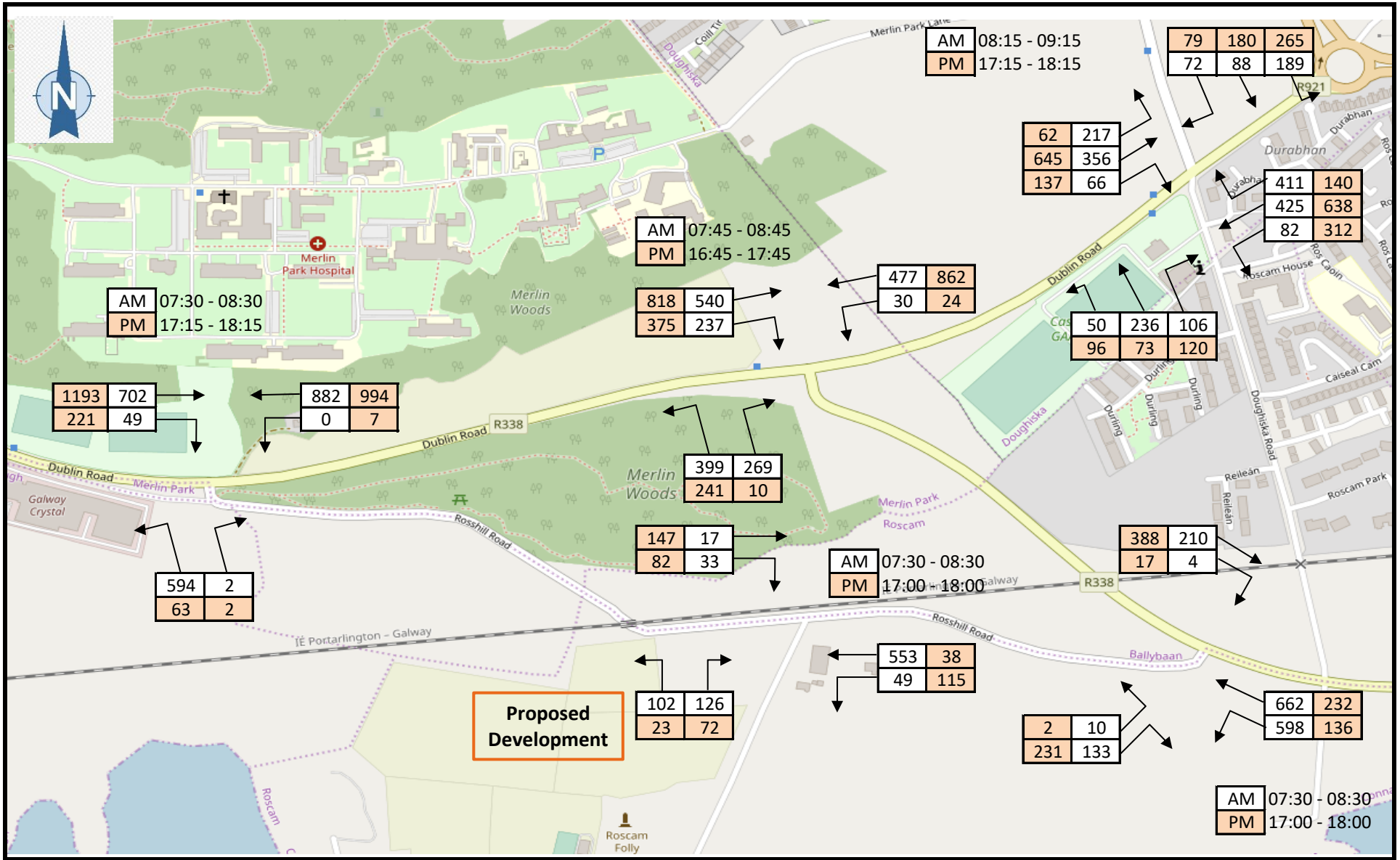
Job Title: TTA - Proposed Residential Development, Rosshill, Galway

2024 FULL DEVELOPMENT OPENING YEAR PEAK HOUR TRAFFIC FLOWS WITH DEVELOPMENT FULLY OPERATIONAL



Job No:	119209
Job Title:	TTA - Proposed Residential Development, Rosshill, Galway

2029 FULL DEVELOPMENT OPENING YEAR +5 YEARS PEAK HOUR TRAFFIC FLOWS WITH DEVELOPMENT FULLY OPERATIONAL



CST Group
Chartered Consulting Engineers

Job No: 119209

Job Title: TTA - Proposed Residential Development, Rosshill, Galway

2039 FULL DEVELOPMENT OPENING YEAR +15 YEARS PEAK HOUR TRAFFIC FLOWS WITH DEVELOPMENT FULLY OPERATIONAL

APPENDIX D

City Bus Direct Ltd Letter

The difference is our service

City Direct

City Direct Bus Limited,

Lough Atalia Road,

Galway City,

H91 CDD8.

Ref: GB/CDBL/12-11

Date 12th November 2019

RE: Roshill SHD Planning Application

To Whom it concerns,

We have carried out preliminary consultation with the Applicant, Kegata Ltd regarding the commercial feasibility of providing a bus service in the vicinity of the proposed development on Rosshill Road. There is an existing bus stop on the Rosshill road which is currently not in use due to low demand for same.

We confirm that we are reviewing the proposal in light of the proposed development with a view to serving the proposed development and surrounding residential developments in the area when the demand for a bus stop arises. The bus corridor proposals for the Dublin Road and Lough Atalia will also be considered as part of the commercial review process.

Yours sincerely,

Gerard Bartley

Gerard Bartley

General Manager

Our charity of choice

Tel: (091) 564 776
Email: info@citydirect.ie
Web: www.citydirect.ie

City Direct Bus Ltd.,
Lough Atalia Road,
Galway H91 CDD8.

Unit 14, The Exchange,
Calmount Business Park,
Ballymount,
Dublin 12.

APPENDIX E1

PICADY Analysis - Junction between Old Dublin Road R338-Rosshill Rd

PICADY
GUI Version: 5.1 AD Analysis Program Release: 4.0 (SEPT 2008) © Copyright TRL Limited, 2008 Adapted from PICADY/3 which is Crown Copyright by permission of the controller of HMSO
For sales and distribution information, program advice and maintenance, contact:
TRL Limited Crowthorne House Nine Mile Ride Wokingham, Berks. RG40 3GA, UK Tel: +44 (0)1344 770758 Fax:+44 (0)1344 770864 E-mail: software@trl.co.uk Web: www.trlsoftware.co.uk
The user of this computer program for the solution of an engineering problem is in no way relieved of their responsibility for the correctness of the solution

Run Analysis

Parameter	Values
File Run	I:\..\Old Dublin Rd_Rosshill Rd\119209 Old Dublin Rd_Rosshill Rd PICADY Analysis.vpi
Date Run	13 December 2019
Time Run	13:37:27
Driving Side	Drive On The Left

Arm Names and Flow Scaling Factors

Arm	Arm Name	Flow Scaling Factor (%)
Arm A	Old Dublin Rd East	100
Arm B	Rosshill Rd	100
Arm C	Old Dublin Rd West	100

Stream Labelling Convention

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

Run Information

Parameter	Values
Run Title	Old Dublin Road/Rosshill Road T-junction
Location	Rosshill, Galway City
Date	18 July 2019
Enumerator	J Noone
Job Number	119209
Status	Preliminary
Client	Alber Homes
Description	-

Geometric Data

Geometric Parameters

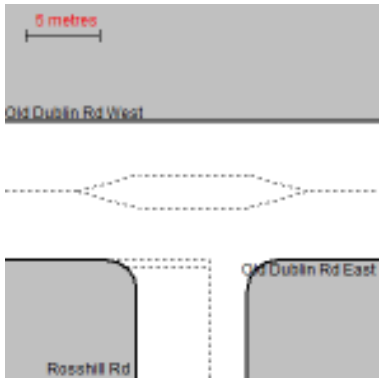
Parameter	Minor Arm B
Major Road Carriageway Width (m)	6.90
Major Road Kerbed Central Reserve Width (m)	0.00
Major Road Right Turning Lane Width (m)	2.30
Minor Road First Lane Width (m)	4.80
Minor Road Visibility To Right (m)	15
Minor Road Visibility To Left (m)	15
Major Road Right Turn Visibility (m)	160
Major Road Right Turn Blocks Traffic	Yes

Slope and Intercept Values

Stream	Intercept for Stream B-A	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
B-A	578.163	0.101	0.256	0.161	0.365
B-C	747.522	0.110	0.278	-	-
C-B	673.876	0.251	0.251	-	-

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	07:15-08:45	90	15
Second Modelling Period	17:00-18:30	90	15

ODTAB Turning Counts

Demand Set: 2019 AM Survey Year
Modelling Period: 07:15-08:45

From/To	Arm A	Arm B	Arm C
Arm A	0.0	0.0	663.0
Arm B	1.0	0.0	388.0
Arm C	529.0	20.0	0.0

Demand Set: 2019 PM Survey Year
Modelling Period: 17:00-18:30

From/To	Arm A	Arm B	Arm C
Arm A	0.0	4.0	749.0
Arm B	1.0	0.0	38.0
Arm C	902.0	125.0	0.0

Demand Set: 2024 AM without Dev
Modelling Period: 07:15-08:45

From/To	Arm A	Arm B	Arm C
Arm A	0.0	0.0	722.0
Arm B	1.0	0.0	422.0
Arm C	577.0	22.0	0.0

Demand Set: 2024 PM without Dev
Modelling Period: 17:00-18:30

From/To	Arm A	Arm B	Arm C
Arm A	0.0	4.0	816.0
Arm B	1.0	0.0	41.0
Arm C	983.0	135.0	0.0

Demand Set: 2029 AM without Dev
Modelling Period: 07:15-08:45

From/To	Arm A	Arm B	Arm C
Arm A	0.0	0.0	788.0
Arm B	1.0	0.0	459.0
Arm C	628.0	24.0	0.0

Demand Set: 2029 PM without Dev
Modelling Period: 17:00-18:30

From/To	Arm A	Arm B	Arm C
Arm A	0.0	5.0	890.0
Arm B	1.0	0.0	45.0
Arm C	1070.0	147.0	0.0

Demand Set: 2039 AM without Dev
Modelling Period: 07:15-08:45

From/To	Arm A	Arm B	Arm C
Arm A	0.0	0.0	882.0
Arm B	1.0	0.0	509.0
Arm C	702.0	27.0	0.0

Demand Set: 2039 PM without Dev
Modelling Period: 17:00-18:30

From/To	Arm A	Arm B	Arm C
Arm A	0.0	5.0	994.0
Arm B	1.0	0.0	50.0
Arm C	1193.0	164.0	0.0

Demand Set: 2024 AM with Dev
Modelling Period: 07:15-08:45

From/To	Arm A	Arm B	Arm C
Arm A	0.0	0.0	722.0
Arm B	1.0	0.0	507.0
Arm C	577.0	44.0	0.0

Demand Set: 2024 PM with Dev
Modelling Period: 17:00-18:30

From/To	Arm A	Arm B	Arm C
Arm A	0.0	6.0	816.0
Arm B	1.0	0.0	55.0
Arm C	983.0	193.0	0.0

Demand Set: 2029 AM with Dev
Modelling Period: 07:15-08:45

From/To	Arm A	Arm B	Arm C
Arm A	0.0	0.0	788.0
Arm B	1.0	0.0	544.0
Arm C	628.0	46.0	0.0

Demand Set: 2029 PM with Dev
Modelling Period: 17:00-18:30

From/To	Arm A	Arm B	Arm C
Arm A	0.0	7.0	890.0
Arm B	2.0	0.0	58.0
Arm C	1070.0	205.0	0.0

Demand Set: 2039 AM with Dev
Modelling Period: 07:15-08:45

From/To	Arm A	Arm B	Arm C
Arm A	0.0	0.0	882.0
Arm B	2.0	0.0	594.0
Arm C	702.0	49.0	0.0

Demand Set: 2039 PM with Dev
Modelling Period: 17:00-18:30

From/To	Arm A	Arm B	Arm C
Arm A	0.0	7.0	994.0
Arm B	2.0	0.0	63.0
Arm C	1193.0	221.0	0.0

ODTAB Synthesised Flows

Demand Set: 2019 AM Survey Year
Modelling Period: 07:15-08:45

Arm	Rising Time	Rising Flow (veh/min)	Peak Time	Peak Flow (veh/min)	Falling Time	Falling Flow (veh/min)
Arm A	07:30	8.288	08:00	12.431	08:30	8.288
Arm B	07:30	4.863	08:00	7.294	08:30	4.863
Arm C	07:30	6.863	08:00	10.294	08:30	6.863

Heavy Vehicles Percentages

Demand Set: 2019 AM Survey Year
Modelling Period: 07:15-08:45

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: 2019 PM Survey Year
Modelling Period: 17:00-18:30

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: 2024 AM without Dev
Modelling Period: 07:15-08:45

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: 2024 PM without Dev
Modelling Period: 17:00-18:30

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: 2029 AM without Dev
Modelling Period: 07:15-08:45

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: 2029 PM without Dev
Modelling Period: 17:00-18:30

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: 2039 AM without Dev
Modelling Period: 07:15-08:45

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: 2039 PM without Dev
Modelling Period: 17:00-18:30

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: 2024 AM with Dev
Modelling Period: 07:15-08:45

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: 2024 PM with Dev
Modelling Period: 17:00-18:30

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: 2029 AM with Dev
Modelling Period: 07:15-08:45

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: 2029 PM with Dev
Modelling Period: 17:00-18:30

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: 2039 AM with Dev
Modelling Period: 07:15-08:45

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: 2039 PM with Dev
Modelling Period: 17:00-18:30

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

Queues & Delays

Demand Set: 2019 AM Survey Year
Modelling Period: 07:15-08:45

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)
07:15-07:30	B-AC	4.88	9.00	0.543	-	0.00	1.15	-	15.8	0.23
	C-AB	0.25	8.12	0.031	-	0.00	0.03	-	0.5	0.13
	C-A	-	-	-	-	-	-	-	-	-
	A-B	0.00	-	-	-	-	-	-	-	-
	A-C	8.32	-	-	-	-	-	-	-	-

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)
07:30-07:45	B-AC	5.83	8.54	0.682	-	1.15	2.01	-	27.5	0.35
	C-AB	0.30	7.72	0.039	-	0.03	0.04	-	0.6	0.13
	C-A	-	-	-	-	-	-	-	-	-
	A-B	0.00	-	-	-	-	-	-	-	-
	A-C	9.93	-	-	-	-	-	-	-	-

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-AC	7.14	7.92	**0.901**	-	2.01	5.90	-	69.3	0.81
	C-AB	0.37	7.16	0.051	-	0.04	0.05	-	0.8	0.15
	C-A	-	-	-	-	-	-	-	-	-
	A-B	0.00	-	-	-	-	-	-	-	-
	A-C	12.17	-	-	-	-	-	-	-	-

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	7.14	7.92	**0.901**	-	5.90	6.89	-	96.9	1.04
	C-AB	0.37	7.16	0.051	-	0.05	0.05	-	0.8	0.15
	C-A	-	-	-	-	-	-	-	-	-
	A-B	0.00	-	-	-	-	-	-	-	-
	A-C	12.17	-	-	-	-	-	-	-	-

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	5.83	8.54	0.682	-	6.89	2.31	-	43.2	0.46
	C-AB	0.30	7.72	0.039	-	0.05	0.04	-	0.6	0.13
	C-A	-	-	-	-	-	-	-	-	-
	A-B	0.00	-	-	-	-	-	-	-	-
	A-C	9.93	-	-	-	-	-	-	-	-

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	4.88	9.00	0.543	-	2.31	1.23	-	19.7	0.25
	C-AB	0.25	8.12	0.031	-	0.04	0.03	-	0.5	0.13
	C-A	-	-	-	-	-	-	-	-	-
	A-B	0.00	-	-	-	-	-	-	-	-
	A-C	8.32	-	-	-	-	-	-	-	-

Demand Set: 2019 PM Survey Year
Modelling Period: 17:00-18:30

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	0.49	8.45	0.058	-	0.00	0.06	-	0.9	0.13
	C-AB	1.57	7.84	0.200	-	0.00	0.25	-	3.7	0.16
	C-A	-	-	-	-	-	-	-	-	-
	A-B	0.05	-	-	-	-	-	-	-	-
	A-C	9.40	-	-	-	-	-	-	-	-

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	0.58	7.85	0.074	-	0.06	0.08	-	1.2	0.14
	C-AB	1.87	7.38	0.254	-	0.25	0.33	-	5.0	0.18
	C-A	-	-	-	-	-	-	-	-	-
	A-B	0.06	-	-	-	-	-	-	-	-
	A-C	11.22	-	-	-	-	-	-	-	-

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	0.72	6.90	0.104	-	0.08	0.11	-	1.7	0.16
	C-AB	2.29	6.74	0.340	-	0.33	0.50	-	7.5	0.22
	C-A	-	-	-	-	-	-	-	-	-
	A-B	0.07	-	-	-	-	-	-	-	-
	A-C	13.74	-	-	-	-	-	-	-	-

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	0.72	6.90	0.104	-	0.11	0.12	-	1.7	0.16
	C-AB	2.29	6.74	0.340	-	0.50	0.51	-	7.7	0.22
	C-A	-	-	-	-	-	-	-	-	-
	A-B	0.07	-	-	-	-	-	-	-	-

	A-C	13.74	-	-	-	-	-	-	-	-

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-AC	0.58	7.85	0.074	-	0.12	0.08	-	1.3	0.14
	C-AB	1.87	7.38	0.254	-	0.51	0.35	-	5.2	0.18
	C-A	-	-	-	-	-	-	-	-	-
	A-B	0.06	-	-	-	-	-	-	-	-
	A-C	11.22	-	-	-	-	-	-	-	-

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)
18:15-18:30	B-AC	0.49	8.44	0.058	-	0.08	0.06	-	1.0	0.13
	C-AB	1.57	7.84	0.200	-	0.35	0.25	-	3.8	0.16
	C-A	-	-	-	-	-	-	-	-	-
	A-B	0.05	-	-	-	-	-	-	-	-
	A-C	9.40	-	-	-	-	-	-	-	-

Demand Set: 2024 AM without Dev
Modelling Period: 07:15-08:45

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)
07:15-07:30	B-AC	5.31	8.79	0.604	-	0.00	1.46	-	19.8	0.27
	C-AB	0.28	7.94	0.035	-	0.00	0.04	-	0.5	0.13
	C-A	-	-	-	-	-	-	-	-	-
	A-B	0.00	-	-	-	-	-	-	-	-
	A-C	9.06	-	-	-	-	-	-	-	-

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)
07:30-07:45	B-AC	6.34	8.30	0.764	-	1.46	2.88	-	38.0	0.47
	C-AB	0.33	7.50	0.044	-	0.04	0.05	-	0.7	0.14
	C-A	-	-	-	-	-	-	-	-	-
	A-B	0.00	-	-	-	-	-	-	-	-
	A-C	10.82	-	-	-	-	-	-	-	-

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)
07:45-08:00	B-AC	7.76	7.62	1.019	-	2.88	11.97	-	122.2	1.37
	C-AB	0.40	6.89	0.059	-	0.05	0.06	-	0.9	0.15
	C-A	-	-	-	-	-	-	-	-	-
	A-B	0.00	-	-	-	-	-	-	-	-
	A-C	13.25	-	-	-	-	-	-	-	-

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	7.76	7.62	1.019	-	11.97	17.46	-	222.5	2.26
	C-AB	0.40	6.89	0.059	-	0.06	0.06	-	0.9	0.15
	C-A	-	-	-	-	-	-	-	-	-
	A-B	0.00	-	-	-	-	-	-	-	-
	A-C	13.25	-	-	-	-	-	-	-	-

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	6.34	8.30	0.764	-	17.46	3.85	-	121.0	1.20
	C-AB	0.33	7.50	0.044	-	0.06	0.05	-	0.7	0.14
	C-A	-	-	-	-	-	-	-	-	-
	A-B	0.00	-	-	-	-	-	-	-	-
	A-C	10.82	-	-	-	-	-	-	-	-

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)
08:30-08:45	B-AC	5.31	8.79	0.604	-	3.85	1.59	-	26.8	0.31
	C-AB	0.28	7.94	0.035	-	0.05	0.04	-	0.5	0.13
	C-A	-	-	-	-	-	-	-	-	-
	A-B	0.00	-	-	-	-	-	-	-	-
	A-C	9.06	-	-	-	-	-	-	-	-

Demand Set: 2024 PM without Dev
Modelling Period: 17:00-18:30

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	0.53	8.20	0.064	-	0.00	0.07	-	1.0	0.13
	C-AB	1.69	7.63	0.222	-	0.00	0.28	-	4.2	0.17
	C-A	-	-	-	-	-	-	-	-	-
	A-B	0.05	-	-	-	-	-	-	-	-
	A-C	10.24	-	-	-	-	-	-	-	-

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	0.63	7.53	0.084	-	0.07	0.09	-	1.3	0.14
	C-AB	2.02	7.13	0.284	-	0.28	0.39	-	5.8	0.20
	C-A	-	-	-	-	-	-	-	-	-
	A-B	0.06	-	-	-	-	-	-	-	-

	A-C	12.23	-	-	-	-	-	-	-	-

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	0.77	6.33	0.122	-	0.09	0.14	-	2.0	0.18
	C-AB	2.48	6.44	0.385	-	0.39	0.61	-	9.1	0.25
	C-A	-	-	-	-	-	-	-	-	-
	A-B	0.07	-	-	-	-	-	-	-	-
	A-C	14.97	-	-	-	-	-	-	-	-

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	0.77	6.32	0.122	-	0.14	0.14	-	2.1	0.18
	C-AB	2.48	6.44	0.385	-	0.61	0.62	-	9.4	0.25
	C-A	-	-	-	-	-	-	-	-	-
	A-B	0.07	-	-	-	-	-	-	-	-
	A-C	14.97	-	-	-	-	-	-	-	-

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-AC	0.63	7.53	0.084	-	0.14	0.09	-	1.4	0.15
	C-AB	2.02	7.13	0.284	-	0.62	0.40	-	6.1	0.20
	C-A	-	-	-	-	-	-	-	-	-
	A-B	0.06	-	-	-	-	-	-	-	-
	A-C	12.23	-	-	-	-	-	-	-	-

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)
18:15-18:30	B-AC	0.53	8.20	0.064	-	0.09	0.07	-	1.1	0.13
	C-AB	1.69	7.63	0.222	-	0.40	0.29	-	4.4	0.17
	C-A	-	-	-	-	-	-	-	-	-
	A-B	0.05	-	-	-	-	-	-	-	-
	A-C	10.24	-	-	-	-	-	-	-	-

Demand Set: 2029 AM without Dev
Modelling Period: 07:15-08:45

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)
07:15-07:30	B-AC	5.77	8.56	0.674	-	0.00	1.93	-	25.6	0.33
	C-AB	0.30	7.73	0.039	-	0.00	0.04	-	0.6	0.13
	C-A	-	-	-	-	-	-	-	-	-
	A-B	0.00	-	-	-	-	-	-	-	-
	A-C	9.89	-	-	-	-	-	-	-	-

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)
07:30-07:45	B-AC	6.89	8.02	**0.859**	-	1.93	4.66	-	57.5	0.68
	C-AB	0.36	7.25	0.050	-	0.04	0.05	-	0.8	0.15
	C-A	-	-	-	-	-	-	-	-	-
	A-B	0.00	-	-	-	-	-	-	-	-
	A-C	11.81	-	-	-	-	-	-	-	-

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-AC	8.44	7.28	**1.160**	-	4.66	24.46	-	224.8	2.41
	C-AB	0.44	6.58	0.067	-	0.05	0.07	-	1.1	0.16
	C-A	-	-	-	-	-	-	-	-	-
	A-B	0.00	-	-	-	-	-	-	-	-
	A-C	14.46	-	-	-	-	-	-	-	-

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	8.44	7.28	**1.160**	-	24.46	42.40	-	502.0	4.81
	C-AB	0.44	6.58	0.067	-	0.07	0.07	-	1.1	0.16
	C-A	-	-	-	-	-	-	-	-	-
	A-B	0.00	-	-	-	-	-	-	-	-
	A-C	14.46	-	-	-	-	-	-	-	-

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	6.89	8.02	**0.859**	-	42.40	28.20	-	529.5	4.53
	C-AB	0.36	7.25	0.050	-	0.07	0.05	-	0.8	0.15
	C-A	-	-	-	-	-	-	-	-	-
	A-B	0.00	-	-	-	-	-	-	-	-
	A-C	11.81	-	-	-	-	-	-	-	-

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	5.77	8.56	0.674	-	28.20	2.39	-	170.5	1.54
	C-AB	0.30	7.73	0.039	-	0.05	0.04	-	0.6	0.13
	C-A	-	-	-	-	-	-	-	-	-
	A-B	0.00	-	-	-	-	-	-	-	-

	A-C	9.89	-	-	-	-	-	-	-	-

Demand Set: 2029 PM without Dev
Modelling Period: 17:00-18:30

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	0.58	7.92	0.073	-	0.00	0.08	-	1.1	0.14
	C-AB	1.84	7.39	0.249	-	0.00	0.33	-	4.8	0.18
	C-A	-	-	-	-	-	-	-	-	-
	A-B	0.06	-	-	-	-	-	-	-	-
	A-C	11.17	-	-	-	-	-	-	-	-

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	0.69	7.16	0.096	-	0.08	0.11	-	1.5	0.15
	C-AB	2.20	6.85	0.322	-	0.33	0.47	-	7.0	0.21
	C-A	-	-	-	-	-	-	-	-	-
	A-B	0.07	-	-	-	-	-	-	-	-
	A-C	13.33	-	-	-	-	-	-	-	-

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	0.84	5.09	0.166	-	0.11	0.20	-	2.8	0.23
	C-AB	2.70	6.09	0.443	-	0.47	0.77	-	11.5	0.29
	C-A	-	-	-	-	-	-	-	-	-
	A-B	0.09	-	-	-	-	-	-	-	-
	A-C	16.33	-	-	-	-	-	-	-	-

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	0.84	5.06	0.167	-	0.20	0.20	-	3.0	0.24
	C-AB	2.70	6.09	0.443	-	0.77	0.79	-	11.9	0.29
	C-A	-	-	-	-	-	-	-	-	-
	A-B	0.09	-	-	-	-	-	-	-	-
	A-C	16.33	-	-	-	-	-	-	-	-

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-AC	0.69	7.15	0.096	-	0.20	0.11	-	1.7	0.16
	C-AB	2.20	6.85	0.322	-	0.79	0.48	-	7.4	0.22
	C-A	-	-	-	-	-	-	-	-	-
	A-B	0.07	-	-	-	-	-	-	-	-
	A-C	13.33	-	-	-	-	-	-	-	-

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)
18:15-18:30	B-AC	0.58	7.92	0.073	-	0.11	0.08	-	1.2	0.14
	C-AB	1.84	7.39	0.249	-	0.48	0.34	-	5.1	0.18
	C-A	-	-	-	-	-	-	-	-	-
	A-B	0.06	-	-	-	-	-	-	-	-
	A-C	11.17	-	-	-	-	-	-	-	-

Demand Set: 2039 AM without Dev
Modelling Period: 07:15-08:45

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)
07:15-07:30	B-AC	6.40	8.23	0.777	-	0.00	3.04	-	38.1	0.45
	C-AB	0.34	7.43	0.046	-	0.00	0.05	-	0.7	0.14
	C-A	-	-	-	-	-	-	-	-	-
	A-B	0.00	-	-	-	-	-	-	-	-
	A-C	11.07	-	-	-	-	-	-	-	-

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)
07:30-07:45	B-AC	7.64	7.63	**1.001**	-	3.04	10.86	-	114.4	1.31
	C-AB	0.40	6.89	0.059	-	0.05	0.06	-	0.9	0.15
	C-A	-	-	-	-	-	-	-	-	-
	A-B	0.00	-	-	-	-	-	-	-	-
	A-C	13.21	-	-	-	-	-	-	-	-

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)
07:45-08:00	B-AC	9.36	6.80	**1.377**	-	10.86	49.77	-	456.2	4.80
	C-AB	0.50	6.15	0.081	-	0.06	0.09	-	1.3	0.18
	C-A	-	-	-	-	-	-	-	-	-
	A-B	0.00	-	-	-	-	-	-	-	-
	A-C	16.18	-	-	-	-	-	-	-	-

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	9.36	6.80	**1.377**	-	49.77	88.27	-	1035.4	9.94
	C-AB	0.50	6.15	0.081	-	0.09	0.09	-	1.3	0.18
	C-A	-	-	-	-	-	-	-	-	-
	A-B	0.00	-	-	-	-	-	-	-	-

	A-C	16.18	-	-	-	-	-	-	-	-

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	7.64	7.63	**1.001**	-	88.27	89.03	-	1329.8	11.45
	C-AB	0.40	6.89	0.059	-	0.09	0.06	-	0.9	0.15
	C-A	-	-	-	-	-	-	-	-	-
	A-B	0.00	-	-	-	-	-	-	-	-
	A-C	13.21	-	-	-	-	-	-	-	-

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	6.40	8.23	0.777	-	89.03	62.91	-	1139.6	9.36
	C-AB	0.34	7.43	0.046	-	0.06	0.05	-	0.7	0.14
	C-A	-	-	-	-	-	-	-	-	-
	A-B	0.00	-	-	-	-	-	-	-	-
	A-C	11.07	-	-	-	-	-	-	-	-

Demand Set: 2039 PM without Dev
Modelling Period: 17:00-18:30

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	0.64	7.51	0.085	-	0.00	0.09	-	1.3	0.15
	C-AB	2.06	7.07	0.291	-	0.00	0.40	-	5.9	0.20
	C-A	-	-	-	-	-	-	-	-	-
	A-B	0.06	-	-	-	-	-	-	-	-
	A-C	12.47	-	-	-	-	-	-	-	-

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	0.76	6.51	0.117	-	0.09	0.13	-	1.9	0.17
	C-AB	2.46	6.46	0.381	-	0.40	0.60	-	9.0	0.25
	C-A	-	-	-	-	-	-	-	-	-
	A-B	0.07	-	-	-	-	-	-	-	-
	A-C	14.89	-	-	-	-	-	-	-	-

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)
17:30-17:45	B-AC	0.94	0.00	***	-	0.13	14.17	-	107.3	23.76
	C-AB	3.01	5.61	0.536	-	0.60	1.12	-	16.4	0.37
	C-A	-	-	-	-	-	-	-	-	-
	A-B	0.09	-	-	-	-	-	-	-	-
	A-C	18.24	-	-	-	-	-	-	-	-

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	0.94	0.00	***	-	14.17	28.21	-	317.8	10.92
	C-AB	3.01	5.61	0.536	-	1.12	1.15	-	17.7	0.38
	C-A	-	-	-	-	-	-	-	-	-
	A-B	0.09	-	-	-	-	-	-	-	-
	A-C	18.24	-	-	-	-	-	-	-	-

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-AC	0.76	6.50	0.118	-	28.21	0.14	-	73.6	0.45
	C-AB	2.46	6.46	0.381	-	1.15	0.63	-	9.7	0.25
	C-A	-	-	-	-	-	-	-	-	-
	A-B	0.07	-	-	-	-	-	-	-	-
	A-C	14.89	-	-	-	-	-	-	-	-

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)
18:15-18:30	B-AC	0.64	7.51	0.085	-	0.14	0.09	-	1.5	0.15
	C-AB	2.06	7.07	0.291	-	0.63	0.42	-	6.3	0.20
	C-A	-	-	-	-	-	-	-	-	-
	A-B	0.06	-	-	-	-	-	-	-	-
	A-C	12.47	-	-	-	-	-	-	-	-

Demand Set: 2024 AM with Dev
Modelling Period: 07:15-08:45

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)
07:15-07:30	B-AC	6.37	8.79	0.725	-	0.00	2.41	-	31.2	0.37
	C-AB	0.55	7.94	0.070	-	0.00	0.07	-	1.1	0.14
	C-A	-	-	-	-	-	-	-	-	-
	A-B	0.00	-	-	-	-	-	-	-	-
	A-C	9.06	-	-	-	-	-	-	-	-

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)
07:30-07:45	B-AC	7.61	8.30	**0.917**	-	2.41	6.60	-	77.2	0.85
	C-AB	0.66	7.50	0.088	-	0.07	0.10	-	1.4	0.15
	C-A	-	-	-	-	-	-	-	-	-
	A-B	0.00	-	-	-	-	-	-	-	-

	A-C	10.82	-	-	-	-	-	-	-	-

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)
07:45-08:00	B-AC	9.32	7.62	**1.223**	-	6.60	33.53	-	305.1	3.00
	C-AB	0.81	6.89	0.117	-	0.10	0.13	-	2.0	0.16
	C-A	-	-	-	-	-	-	-	-	-
	A-B	0.00	-	-	-	-	-	-	-	-
	A-C	13.25	-	-	-	-	-	-	-	-

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	9.32	7.62	**1.223**	-	33.53	59.31	-	696.6	6.22
	C-AB	0.81	6.89	0.117	-	0.13	0.13	-	2.0	0.16
	C-A	-	-	-	-	-	-	-	-	-
	A-B	0.00	-	-	-	-	-	-	-	-
	A-C	13.25	-	-	-	-	-	-	-	-

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	7.61	8.30	**0.917**	-	59.31	51.03	-	827.6	6.70
	C-AB	0.66	7.50	0.088	-	0.13	0.10	-	1.5	0.15
	C-A	-	-	-	-	-	-	-	-	-
	A-B	0.00	-	-	-	-	-	-	-	-
	A-C	10.82	-	-	-	-	-	-	-	-

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)
08:30-08:45	B-AC	6.37	8.79	0.725	-	51.03	17.30	-	512.5	4.07
	C-AB	0.55	7.94	0.070	-	0.10	0.08	-	1.1	0.14
	C-A	-	-	-	-	-	-	-	-	-
	A-B	0.00	-	-	-	-	-	-	-	-
	A-C	9.06	-	-	-	-	-	-	-	-

Demand Set: 2024 PM with Dev
Modelling Period: 17:00-18:30

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	0.70	8.23	0.085	-	0.00	0.09	-	1.3	0.13
	C-AB	2.42	7.62	0.318	-	0.00	0.46	-	6.7	0.19
	C-A	-	-	-	-	-	-	-	-	-
	A-B	0.08	-	-	-	-	-	-	-	-
	A-C	10.24	-	-	-	-	-	-	-	-

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	0.84	7.56	0.111	-	0.09	0.12	-	1.8	0.15
	C-AB	2.89	7.12	0.406	-	0.46	0.67	-	10.0	0.23
	C-A	-	-	-	-	-	-	-	-	-
	A-B	0.09	-	-	-	-	-	-	-	-
	A-C	12.23	-	-	-	-	-	-	-	-

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	1.03	6.15	0.167	-	0.12	0.20	-	2.9	0.19
	C-AB	3.54	6.43	0.551	-	0.67	1.19	-	17.5	0.34
	C-A	-	-	-	-	-	-	-	-	-
	A-B	0.11	-	-	-	-	-	-	-	-
	A-C	14.97	-	-	-	-	-	-	-	-

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	1.03	6.13	0.168	-	0.20	0.20	-	3.0	0.20
	C-AB	3.54	6.43	0.551	-	1.19	1.22	-	18.7	0.35
	C-A	-	-	-	-	-	-	-	-	-
	A-B	0.11	-	-	-	-	-	-	-	-
	A-C	14.97	-	-	-	-	-	-	-	-

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-AC	0.84	7.56	0.111	-	0.20	0.13	-	2.0	0.15
	C-AB	2.89	7.12	0.406	-	1.22	0.70	-	10.7	0.24
	C-A	-	-	-	-	-	-	-	-	-
	A-B	0.09	-	-	-	-	-	-	-	-
	A-C	12.23	-	-	-	-	-	-	-	-

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)
18:15-18:30	B-AC	0.70	8.23	0.085	-	0.13	0.09	-	1.4	0.13
	C-AB	2.42	7.62	0.318	-	0.70	0.47	-	7.2	0.19
	C-A	-	-	-	-	-	-	-	-	-
	A-B	0.08	-	-	-	-	-	-	-	-

	A-C	10.24	-	-	-	-	-	-	-	-

Demand Set: 2029 AM with Dev
Modelling Period: 07:15-08:45

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)
07:15-07:30	B-AC	6.84	8.56	0.799	-	0.00	3.39	-	41.9	0.47
	C-AB	0.58	7.73	0.075	-	0.00	0.08	-	1.2	0.14
	C-A	-	-	-	-	-	-	-	-	-
	A-B	0.00	-	-	-	-	-	-	-	-
	A-C	9.89	-	-	-	-	-	-	-	-

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)
07:30-07:45	B-AC	8.17	8.03	**1.017**	-	3.39	12.38	-	128.3	1.37
	C-AB	0.69	7.25	0.095	-	0.08	0.10	-	1.6	0.15
	C-A	-	-	-	-	-	-	-	-	-
	A-B	0.00	-	-	-	-	-	-	-	-
	A-C	11.81	-	-	-	-	-	-	-	-

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-AC	10.00	7.28	**1.373**	-	12.38	53.61	-	496.3	4.85
	C-AB	0.84	6.58	0.128	-	0.10	0.15	-	2.2	0.17
	C-A	-	-	-	-	-	-	-	-	-
	A-B	0.00	-	-	-	-	-	-	-	-
	A-C	14.46	-	-	-	-	-	-	-	-

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	10.00	7.28	**1.373**	-	53.61	94.47	-	1110.7	10.00
	C-AB	0.84	6.58	0.128	-	0.15	0.15	-	2.2	0.17
	C-A	-	-	-	-	-	-	-	-	-
	A-B	0.00	-	-	-	-	-	-	-	-
	A-C	14.46	-	-	-	-	-	-	-	-

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	8.17	8.03	1.017	-	94.47	96.92	-	1435.4	11.79
	C-AB	0.69	7.25	0.095	-	0.15	0.11	-	1.6	0.15
	C-A	-	-	-	-	-	-	-	-	-
	A-B	0.00	-	-	-	-	-	-	-	-
	A-C	11.81	-	-	-	-	-	-	-	-

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	6.84	8.56	0.799	-	96.92	72.38	-	1269.7	10.02
	C-AB	0.58	7.73	0.075	-	0.11	0.08	-	1.2	0.14
	C-A	-	-	-	-	-	-	-	-	-
	A-B	0.00	-	-	-	-	-	-	-	-
	A-C	9.89	-	-	-	-	-	-	-	-

Demand Set: 2029 PM with Dev
Modelling Period: 17:00-18:30

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	0.75	7.71	0.098	-	0.00	0.11	-	1.5	0.14
	C-AB	2.57	7.39	0.348	-	0.00	0.52	-	7.7	0.20
	C-A	-	-	-	-	-	-	-	-	-
	A-B	0.09	-	-	-	-	-	-	-	-
	A-C	11.17	-	-	-	-	-	-	-	-

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	0.90	6.77	0.133	-	0.11	0.15	-	2.2	0.17
	C-AB	3.07	6.84	0.449	-	0.52	0.79	-	11.8	0.26
	C-A	-	-	-	-	-	-	-	-	-
	A-B	0.10	-	-	-	-	-	-	-	-
	A-C	13.33	-	-	-	-	-	-	-	-

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	1.10	0.48	2.274	-	0.15	10.01	-	78.8	15.61
	C-AB	3.76	6.08	0.619	-	0.79	1.59	-	23.0	0.41
	C-A	-	-	-	-	-	-	-	-	-
	A-B	0.13	-	-	-	-	-	-	-	-
	A-C	16.33	-	-	-	-	-	-	-	-

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	1.10	0.00	***	-	10.01	26.52	-	274.0	10.35
	C-AB	3.76	6.08	0.619	-	1.59	1.66	-	25.5	0.43
	C-A	-	-	-	-	-	-	-	-	-
	A-B	0.13	-	-	-	-	-	-	-	-

	A-C	16.33	-	-	-	-	-	-	-	-

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-AC	0.90	6.76	0.133	-	26.52	0.16	-	64.4	0.39
	C-AB	3.07	6.84	0.449	-	1.66	0.84	-	13.0	0.27
	C-A	-	-	-	-	-	-	-	-	-
	A-B	0.10	-	-	-	-	-	-	-	-
	A-C	13.33	-	-	-	-	-	-	-	-

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)
18:15-18:30	B-AC	0.75	7.71	0.098	-	0.16	0.11	-	1.7	0.14
	C-AB	2.57	7.39	0.348	-	0.84	0.55	-	8.3	0.21
	C-A	-	-	-	-	-	-	-	-	-
	A-B	0.09	-	-	-	-	-	-	-	-
	A-C	11.17	-	-	-	-	-	-	-	-

Demand Set: 2039 AM with Dev
Modelling Period: 07:15-08:45

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)
07:15-07:30	B-AC	7.48	8.22	0.910	-	0.00	6.14	-	67.8	0.72
	C-AB	0.61	7.43	0.083	-	0.00	0.09	-	1.3	0.15
	C-A	-	-	-	-	-	-	-	-	-
	A-B	0.00	-	-	-	-	-	-	-	-
	A-C	11.07	-	-	-	-	-	-	-	-

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)
07:30-07:45	B-AC	8.93	7.62	1.172	-	6.14	27.74	-	259.1	2.66
	C-AB	0.73	6.89	0.106	-	0.09	0.12	-	1.8	0.16
	C-A	-	-	-	-	-	-	-	-	-
	A-B	0.00	-	-	-	-	-	-	-	-
	A-C	13.21	-	-	-	-	-	-	-	-

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)
07:45-08:00	B-AC	10.94	6.77	**1.614**	-	27.74	90.27	-	885.3	8.97
	C-AB	0.90	6.15	0.146	-	0.12	0.17	-	2.5	0.19
	C-A	-	-	-	-	-	-	-	-	-
	A-B	0.00	-	-	-	-	-	-	-	-
	A-C	16.18	-	-	-	-	-	-	-	-

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	10.94	6.77	**1.614**	-	90.27	152.72	-	1822.4	16.91
	C-AB	0.90	6.15	0.146	-	0.17	0.17	-	2.6	0.19
	C-A	-	-	-	-	-	-	-	-	-
	A-B	0.00	-	-	-	-	-	-	-	-
	A-C	16.18	-	-	-	-	-	-	-	-

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	8.93	7.62	**1.172**	-	152.72	172.44	-	2438.7	21.03
	C-AB	0.73	6.89	0.106	-	0.17	0.12	-	1.8	0.16
	C-A	-	-	-	-	-	-	-	-	-
	A-B	0.00	-	-	-	-	-	-	-	-
	A-C	13.21	-	-	-	-	-	-	-	-

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	7.48	8.22	**0.910**	-	172.44	162.01	-	2508.4	20.47
	C-AB	0.61	7.43	0.083	-	0.12	0.09	-	1.4	0.15
	C-A	-	-	-	-	-	-	-	-	-
	A-B	0.00	-	-	-	-	-	-	-	-
	A-C	11.07	-	-	-	-	-	-	-	-

Demand Set: 2039 PM with Dev
Modelling Period: 17:00-18:30

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	0.82	7.25	0.112	-	0.00	0.13	-	1.8	0.15
	C-AB	2.77	7.06	0.393	-	0.00	0.63	-	9.2	0.23
	C-A	-	-	-	-	-	-	-	-	-
	A-B	0.09	-	-	-	-	-	-	-	-
	A-C	12.47	-	-	-	-	-	-	-	-

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	0.97	5.82	0.167	-	0.13	0.20	-	2.9	0.21
	C-AB	3.31	6.45	0.514	-	0.63	1.03	-	15.2	0.31
	C-A	-	-	-	-	-	-	-	-	-
	A-B	0.10	-	-	-	-	-	-	-	-

	A-C	14.89	-	-	-	-	-	-	-	-

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)
17:30-17:45	B-AC	1.19	0.00	***	-	0.20	18.09	-	137.2	24.27
	C-AB	4.06	5.60	0.724	-	1.03	2.71	-	36.5	0.58
	C-A	-	-	-	-	-	-	-	-	-
	A-B	0.13	-	-	-	-	-	-	-	-
	A-C	18.24	-	-	-	-	-	-	-	-

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	1.19	0.00	***	-	18.09	35.98	-	405.5	12.39
	C-AB	4.06	5.60	0.724	-	2.71	2.98	-	46.1	0.65
	C-A	-	-	-	-	-	-	-	-	-
	A-B	0.13	-	-	-	-	-	-	-	-
	A-C	18.24	-	-	-	-	-	-	-	-

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-AC	0.97	5.73	0.170	-	35.98	0.21	-	142.3	1.26
	C-AB	3.31	6.45	0.514	-	2.98	1.12	-	17.8	0.34
	C-A	-	-	-	-	-	-	-	-	-
	A-B	0.10	-	-	-	-	-	-	-	-
	A-C	14.89	-	-	-	-	-	-	-	-

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)
18:15-18:30	B-AC	0.82	7.24	0.113	-	0.21	0.13	-	2.0	0.16
	C-AB	2.77	7.06	0.393	-	1.12	0.66	-	10.1	0.24
	C-A	-	-	-	-	-	-	-	-	-
	A-B	0.09	-	-	-	-	-	-	-	-
	A-C	12.47	-	-	-	-	-	-	-	-

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: 2019 AM Survey Year
Modelling Period: 07:15-08:45

Stream	Total Demand (veh)	Total Demand (veh/h)	Queueing Delay (min)	Queueing Delay (min/veh)	Inclusive Delay (min)	Inclusive Delay (min/veh)
B-AC	535.4	357.0	272.5	0.5	272.6	0.5
C-AB	27.5	18.4	3.8	0.1	3.8	0.1
C-A	-	-	-	-	-	-
A-B	0.0	0.0	-	-	-	-
A-C	912.6	608.4	-	-	-	-
All	**2203.7**	**1469.1**	**276.3**	**0.1**	**276.4**	**0.1**

Demand Set: 2019 PM Survey Year
Modelling Period: 17:00-18:30

Stream	Total Demand (veh)	Total Demand (veh/h)	Queueing Delay (min)	Queueing Delay (min/veh)	Inclusive Delay (min)	Inclusive Delay (min/veh)
B-AC	53.7	35.8	7.6	0.1	7.6	0.1
C-AB	172.1	114.7	33.0	0.2	33.0	0.2
C-A	-	-	-	-	-	-
A-B	5.5	3.7	-	-	-	-
A-C	1030.9	687.3	-	-	-	-
All	**2503.7**	**1669.1**	**40.6**	**0.0**	**40.6**	**0.0**

Demand Set: 2024 AM without Dev
Modelling Period: 07:15-08:45

Stream	Total Demand (veh)	Total Demand (veh/h)	Queueing Delay (min)	Queueing Delay (min/veh)	Inclusive Delay (min)	Inclusive Delay (min/veh)
B-AC	582.2	388.2	550.2	0.9	550.4	0.9
C-AB	30.3	20.2	4.3	0.1	4.3	0.1
C-A	-	-	-	-	-	-
A-B	0.0	0.0	-	-	-	-
A-C	993.8	662.5	-	-	-	-
All	**2400.5**	**1600.3**	**554.5**	**0.2**	**554.7**	**0.2**

Demand Set: 2024 PM without Dev
Modelling Period: 17:00-18:30

Stream	Total Demand (veh)	Total Demand (veh/h)	Queueing Delay (min)	Queueing Delay (min/veh)	Inclusive Delay (min)	Inclusive Delay (min/veh)
B-AC	57.8	38.5	8.8	0.2	8.8	0.2
C-AB	185.8	123.9	39.0	0.2	39.0	0.2
C-A	-	-	-	-	-	-
A-B	5.5	3.7	-	-	-	-
A-C	1123.2	748.8	-	-	-	-
All	**2725.3**	**1816.9**	**47.8**	**0.0**	**47.8**	**0.0**

Demand Set: 2029 AM without Dev
Modelling Period: 07:15-08:45

Stream	Total Demand (veh)	Total Demand (veh/h)	Queueing Delay (min)	Queueing Delay (min/veh)	Inclusive Delay (min)	Inclusive Delay (min/veh)
B-AC	633.2	422.1	1509.9	2.4	1510.2	2.4
C-AB	33.0	22.0	4.9	0.1	4.9	0.1
C-A	-	-	-	-	-	-
A-B	0.0	0.0	-	-	-	-
A-C	1084.6	723.1	-	-	-	-
All	**2615.2**	**1743.5**	**1514.8**	**0.6**	**1515.2**	**0.6**

Demand Set: 2029 PM without Dev
Modelling Period: 17:00-18:30

Stream	Total Demand (veh)	Total Demand (veh/h)	Queueing Delay (min)	Queueing Delay (min/veh)	Inclusive Delay (min)	Inclusive Delay (min/veh)
B-AC	63.3	42.2	11.3	0.2	11.3	0.2
C-AB	202.3	134.9	47.7	0.2	47.7	0.2
C-A	-	-	-	-	-	-
A-B	6.9	4.6	-	-	-	-
A-C	1225.0	816.7	-	-	-	-
All	**2970.3**	**1980.2**	**59.0**	**0.0**	**59.0**	**0.0**

Demand Set: 2039 AM without Dev
Modelling Period: 07:15-08:45

Stream	Total Demand (veh)	Total Demand (veh/h)	Queueing Delay (min)	Queueing Delay (min/veh)	Inclusive Delay (min)	Inclusive Delay (min/veh)
B-AC	702.0	468.0	4113.4	5.9	4353.8	6.2
C-AB	37.2	24.8	5.9	0.2	5.9	0.2
C-A	-	-	-	-	-	-
A-B	0.0	0.0	-	-	-	-
A-C	1214.0	809.3	-	-	-	-
All	**2919.4**	**1946.3**	**4119.3**	**1.4**	**4359.7**	**1.5**

Demand Set: 2039 PM without Dev
Modelling Period: 17:00-18:30

Stream	Total Demand (veh)	Total Demand (veh/h)	Queueing Delay (min)	Queueing Delay (min/veh)	Inclusive Delay (min)	Inclusive Delay (min/veh)
B-AC	70.2	46.8	503.3	7.2	503.3	7.2
C-AB	225.7	150.5	65.0	0.3	65.0	0.3
C-A	-	-	-	-	-	-
A-B	6.9	4.6	-	-	-	-
A-C	1368.2	912.1	-	-	-	-
All	**3313.1**	**2208.7**	**568.4**	**0.2**	**568.4**	**0.2**

Demand Set: 2024 AM with Dev
Modelling Period: 07:15-08:45

Stream	Total Demand (veh)	Total Demand (veh/h)	Queueing Delay (min)	Queueing Delay (min/veh)	Inclusive Delay (min)	Inclusive Delay (min/veh)
B-AC	699.2	466.1	2450.2	3.5	2467.2	3.5
C-AB	60.6	40.4	9.1	0.2	9.1	0.2
C-A	-	-	-	-	-	-
A-B	0.0	0.0	-	-	-	-
A-C	993.8	662.5	-	-	-	-
All	**2547.8**	**1698.5**	**2459.3**	**1.0**	**2476.3**	**1.0**

Demand Set: 2024 PM with Dev
Modelling Period: 17:00-18:30

Stream	Total Demand (veh)	Total Demand (veh/h)	Queueing Delay (min)	Queueing Delay (min/veh)	Inclusive Delay (min)	Inclusive Delay (min/veh)
B-AC	77.1	51.4	12.4	0.2	12.4	0.2
C-AB	265.7	177.1	70.9	0.3	70.9	0.3
C-A	-	-	-	-	-	-
A-B	8.3	5.5	-	-	-	-
A-C	1123.2	748.8	-	-	-	-
All	**2827.2**	**1884.8**	**83.3**	**0.0**	**83.3**	**0.0**

Demand Set: 2029 AM with Dev
Modelling Period: 07:15-08:45

Stream	Total Demand (veh)	Total Demand (veh/h)	Queueing Delay (min)	Queueing Delay (min/veh)	Inclusive Delay (min)	Inclusive Delay (min/veh)
B-AC	750.2	500.1	4482.3	6.0	4788.2	6.4
C-AB	63.3	42.2	10.0	0.2	10.0	0.2
C-A	-	-	-	-	-	-
A-B	0.0	0.0	-	-	-	-
A-C	1084.6	723.1	-	-	-	-
All	**2762.5**	**1841.7**	**4492.3**	**1.6**	**4798.2**	**1.7**

Demand Set: 2029 PM with Dev
Modelling Period: 17:00-18:30

Stream	Total Demand (veh)	Total Demand (veh/h)	Queueing Delay (min)	Queueing Delay (min/veh)	Inclusive Delay (min)	Inclusive Delay (min/veh)
B-AC	82.6	55.1	422.6	5.1	422.6	5.1
C-AB	282.2	188.1	89.3	0.3	89.3	0.3
C-A	-	-	-	-	-	-
A-B	9.6	6.4	-	-	-	-
A-C	1225.0	816.7	-	-	-	-
All	**3072.2**	**2048.1**	**511.9**	**0.2**	**511.9**	**0.2**

Demand Set: 2039 AM with Dev
Modelling Period: 07:15-08:45

Stream	Total Demand (veh)	Total Demand (veh/h)	Queueing Delay (min)	Queueing Delay (min/veh)	Inclusive Delay (min)	Inclusive Delay (min/veh)
B-AC	820.4	546.9	7981.6	9.7	9578.0	11.7
C-AB	67.4	45.0	11.4	0.2	11.4	0.2
C-A	-	-	-	-	-	-
A-B	0.0	0.0	-	-	-	-
A-C	1214.0	809.3	-	-	-	-
All	**3068.1**	**2045.4**	**7992.9**	**2.6**	**9589.4**	**3.1**

Demand Set: 2039 PM with Dev
Modelling Period: 17:00-18:30

Stream	Total Demand (veh)	Total Demand (veh/h)	Queueing Delay (min)	Queueing Delay (min/veh)	Inclusive Delay (min)	Inclusive Delay (min/veh)
B-AC	89.5	59.6	691.7	7.7	691.7	7.7
C-AB	304.2	202.8	135.0	0.4	135.0	0.4
C-A	-	-	-	-	-	-
A-B	9.6	6.4	-	-	-	-
A-C	1368.2	912.1	-	-	-	-
All	**3413.5**	**2275.7**	**826.6**	**0.2**	**826.7**	**0.2**

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

APPENDIX E2

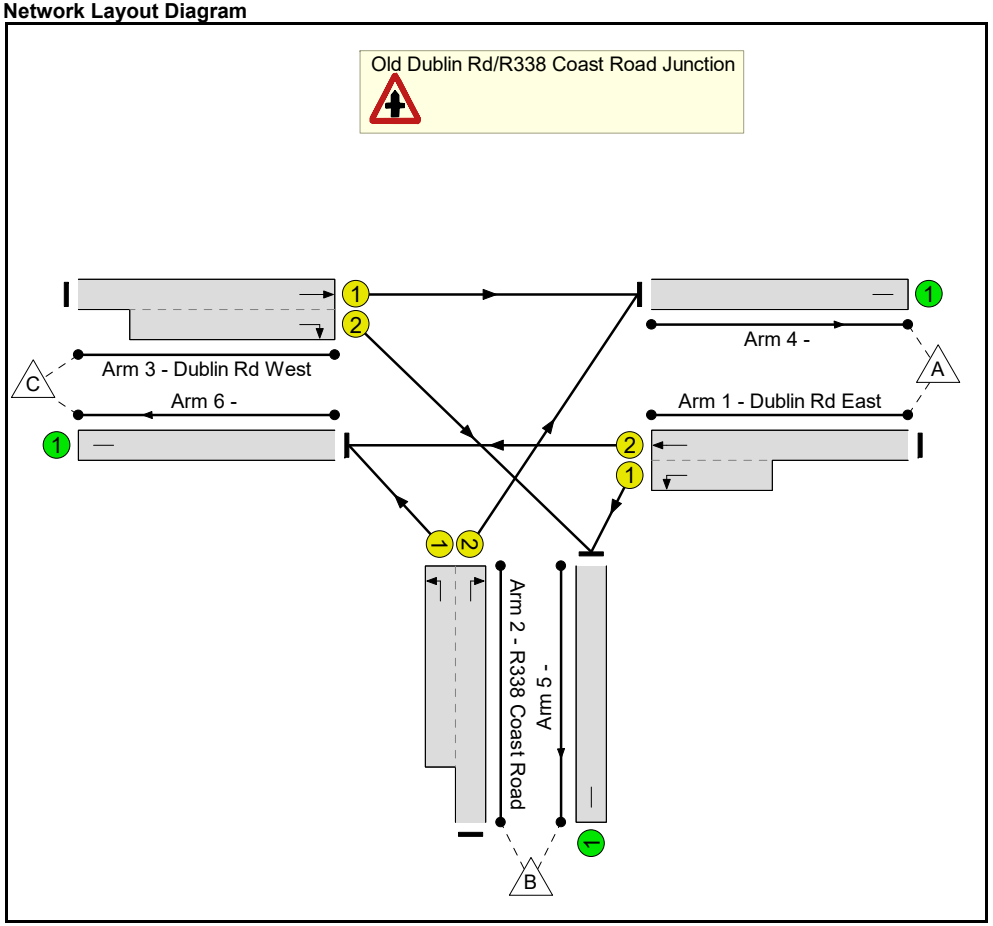
LinSig Analysis – Signal-controlled Junction between R338 Dublin Rd-R338 Coast Road

Full Input Data And Results

User and Project Details

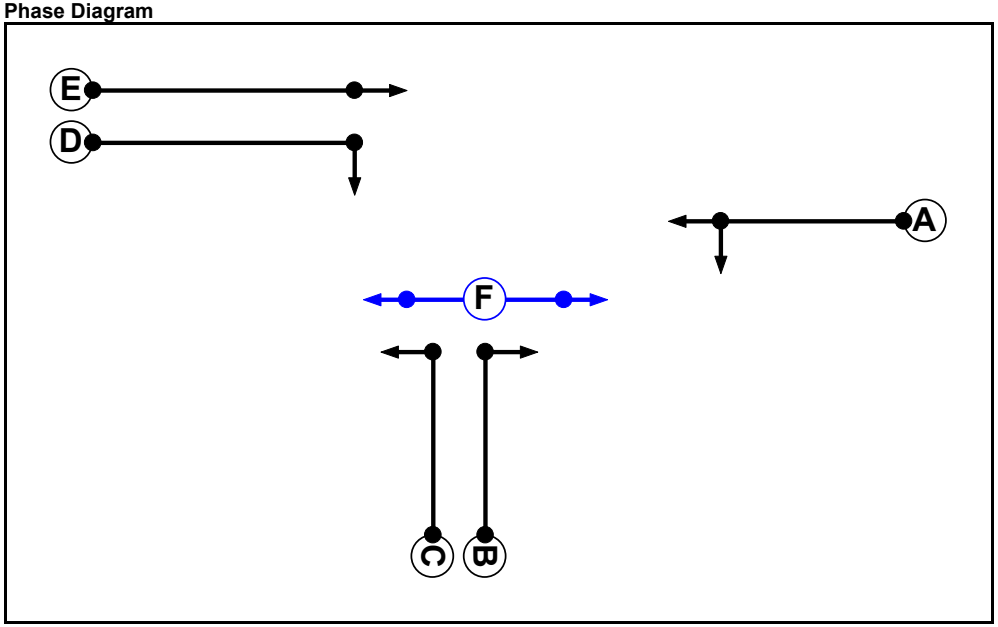
Project:	**Proposed Residential Development at Rosshill, Galway City**
Title:	**Dublin Rd_R338 Junction**
Location:	Rosshill, Galway City
File name:	119209 Dublin Rd_R338 Signalised Junction.lsg3x
Author:	J Noone
Company:	CST Group
Address:	1 O'Connell Street, Sligo
Notes:	

Network Layout Diagram



Full Input Data And Results

Phase Diagram



Phase Input Data

Phase Name	Phase type	Assoc Phase	Street Min	Cont Min
A	Traffic		7	7
B	Traffic		7	7
C	Traffic		7	7
D	Traffic		7	7
E	Traffic		7	7
F	Pedestrian		8	8

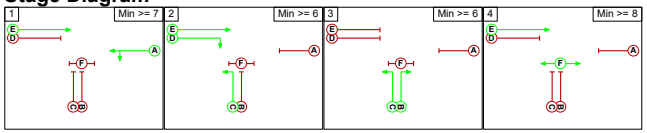
Phase Intergreens Matrix

Terminating Phase \ Starting Phase	A	B	C	D	E	F
A		5	6	5	-	7
B	5		-	5	5	5
C	5	-		-	-	5
D	6	5	-		-	8
E	-	5	-	-		-
F	18	18	18	18	-	

Phases in Stage

Stage No.	Phases in Stage
1	A E
2	C D E
3	B C
4	E F

Stage Diagram



Full Input Data And Results

Lane Input Data

Junction: Old Dublin Rd/R338 Coast Road Junction												
Lane	**Lane Type**	**Phases**	**Start Disp.**	**End Disp.**	**Physical Length (PCU)**	**Sat Flow Type**	**Def User Saturation Flow (PCU/Hr)**	**Lane Width (m)**	**Gradient**	**Nearside Lane**	**Turns**	**Turning Radius (m)**
1/1 (Dublin Rd East)	U	A	2	3	6.0	Geom	-	3.40	0.00	Y	Arm 5 Left	20.00
1/2 (Dublin Rd East)	U	A	2	3	60.0	Geom	-	3.40	0.00	Y	Arm 6 Ahead	Inf
2/1 (R338 Coast Road)	U	C	2	3	10.0	Geom	-	3.60	0.00	Y	Arm 6 Left	12.00
2/2 (R338 Coast Road)	U	B	2	3	60.0	Geom	-	3.40	0.00	Y	Arm 4 Right	15.00
3/1 (Dublin Rd West)	U	E	2	3	60.0	Geom	-	3.40	0.00	Y	Arm 4 Ahead	Inf
3/2 (Dublin Rd West)	U	D	2	3	19.0	Geom	-	3.00	0.00	Y	Arm 5 Right	15.00
4/1	U		2	3	60.0	Inf	-	-	-	-	-	-
5/1	U		2	3	60.0	Inf	-	-	-	-	-	-
6/1	U		2	3	60.0	Inf	-	-	-	-	-	-

Traffic Flow Groups

Flow Group	Start Time	End Time	Duration	Formula
1: '2019 AM Survey Year'	07:45	08:45	01:00	
2: '2019 PM Survey Year'	16:45	17:45	01:00	
3: '2024 AM without Dev'	07:45	08:45	01:00	
4: '2024 PM without Dev'	16:45	17:45	01:00	
5: '2029 AM without Dev'	07:45	08:45	01:00	
6: '2029 PM without Dev'	16:45	17:45	01:00	
7: '2039 AM without Dev'	07:45	08:45	01:00	
8: '2039 PM without Dev'	16:45	17:45	01:00	
9: '2024 AM with Dev'	07:45	08:45	01:00	F3+F15
10: '2024 PM with Dev'	16:45	17:45	01:00	F4+F16
11: '2029 AM with Dev'	07:45	08:45	01:00	F5+F15
12: '2029 PM with Dev'	16:45	17:45	01:00	F6+F16
13: '2039 AM with Dev'	07:45	08:45	01:00	F7+F15
14: '2039 PM with Dev'	16:45	17:45	01:00	F8+F16

Traffic Flows, Desired

Scenario 1: '2019 AM Survey Year' (FG1: '2019 AM Survey Year', Plan 1: 'with Peds')
Desired Flow :

		Destination			
		A	B	C	Tot.
Origin	A	0	23	355	378
	B	200	0	301	501
	C	406	180	0	586
	Tot.	606	203	656	1465

Scenario 2: '2019 PM Survey Year' (FG2: '2019 PM Survey Year', Plan 1: 'with Peds')
Desired Flow :

		Destination			
		A	B	C	Tot.
Origin	A	0	11	649	660
	B	7	0	184	191
	C	619	284	0	903
	Tot.	626	295	833	1754

Scenario 3: '2024 AM without Dev' (FG3: '2024 AM without Dev', Plan 1: 'with Peds')
Desired Flow :

		Destination			
		A	B	C	Tot.
Origin	A	0	25	388	413
	B	217	0	328	545
	C	443	196	0	639
	Tot.	660	221	716	1597

Scenario 4: '2024 PM without Dev' (FG4: '2024 PM without Dev', Plan 1: 'with Peds')
Desired Flow :

		Destination			
		A	B	C	Tot.
Origin	A	0	12	707	719
	B	8	0	200	208
	C	674	310	0	984
	Tot.	682	322	907	1911

Full Input Data And Results

Scenario 5: '2029 AM without Dev' (FG5: '2029 AM without Dev', Plan 1: 'with Peds')
Desired Flow :

		Destination			
		A	B	C	Tot.
Origin	A	0	27	424	451
	B	236	0	357	593
	C	483	213	0	696
	Tot.	719	240	781	1740

Scenario 6: '2029 PM without Dev' (FG6: '2029 PM without Dev', Plan 1: 'with Peds')
Desired Flow :

		Destination			
		A	B	C	Tot.
Origin	A	0	13	771	784
	B	9	0	217	226
	C	734	337	0	1071
	Tot.	743	350	988	2081

Scenario 7: '2039 AM without Dev' (FG7: '2039 AM without Dev', Plan 1: 'with Peds')
Desired Flow :

		Destination			
		A	B	C	Tot.
Origin	A	0	30	477	507
	B	262	0	399	661
	C	540	237	0	777
	Tot.	802	267	876	1945

Scenario 8: '2039 PM without Dev' (FG8: '2039 PM without Dev', Plan 1: 'with Peds')
Desired Flow :

		Destination			
		A	B	C	Tot.
Origin	A	0	14	862	876
	B	10	0	241	251
	C	818	375	0	1193
	Tot.	828	389	1103	2320

Scenario 9: '2024 AM with Dev' (FG9: '2024 AM with Dev', Plan 1: 'with Peds')
Desired Flow :

		Destination			
		A	B	C	Tot.
Origin	A	0	25	388	413
	B	224	0	328	552
	C	443	196	0	639
	Tot.	667	221	716	1604

Scenario 10: '2024 PM with Dev' (FG10: '2024 PM with Dev', Plan 1: 'with Peds')
Desired Flow :

		Destination			
		A	B	C	Tot.
Origin	A	0	22	707	729
	B	8	0	200	208
	C	674	310	0	984
	Tot.	682	332	907	1921

Scenario 11: '2029 AM with Dev' (FG11: '2029 AM with Dev', Plan 1: 'with Peds')
Desired Flow :

		Destination			
		A	B	C	Tot.
Origin	A	0	27	424	451
	B	243	0	357	600
	C	483	213	0	696
	Tot.	726	240	781	1747

Scenario 12: '2029 PM with Dev' (FG12: '2029 PM with Dev', Plan 1: 'with Peds')
Desired Flow :

		Destination			
		A	B	C	Tot.
Origin	A	0	23	771	794
	B	9	0	217	226
	C	734	337	0	1071
	Tot.	743	360	988	2091

Scenario 13: '2039 AM with Dev' (FG13: '2039 AM with Dev', Plan 1: 'with Peds')
Desired Flow :

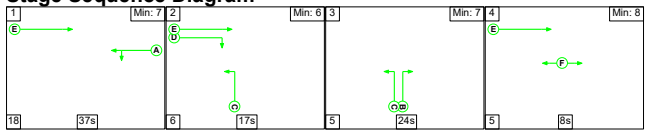
		Destination			
		A	B	C	Tot.
Origin	A	0	30	477	507
	B	269	0	399	668
	C	540	237	0	777
	Tot.	809	267	876	1952

Scenario 14: '2039 PM with Dev' (FG14: '2039 PM with Dev', Plan 1: 'with Peds')
Desired Flow :

		Destination			
		A	B	C	Tot.
Origin	A	0	24	862	886
	B	10	0	241	251
	C	818	375	0	1193
	Tot.	828	399	1103	2330

Full Input Data And Results

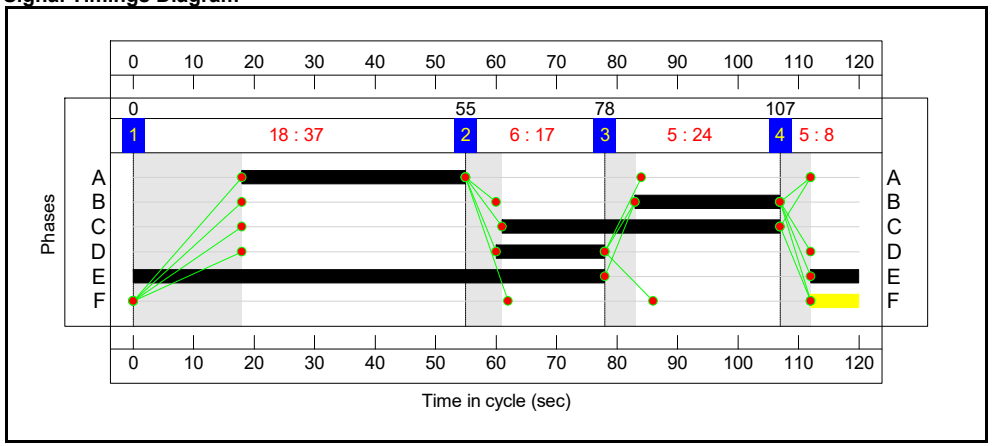
Scenario 1: '2019 AM Survey Year' (FG1: '2019 AM Survey Year', Plan 1: 'with Peds')
Stage Sequence Diagram



Stage Timings

Stage	1	2	3	4
Duration	37	17	24	8
Change Point	0	55	78	107

Signal Timings Diagram



Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network: Dublin Rd_R338 Junction	-	-	-	-	-	-	-	-	-	-	-	-	**60.9%**
Old Dublin Rd/R338 Coast Road Junction	-	-	-	-	-	-	-	-	-	-	-	-	**60.9%**
1/2+1/1	Dublin Rd East Left Ahead	U	N/A	N/A	A		1	37		378	1955:1819	630	60.0%
2/2+2/1	R338 Coast Road Right Left	U	N/A	N/A	B C		1	24:46		501	1777:1756	825	60.7%
3/1+3/2	Dublin Rd West Ahead Right	U	N/A	N/A	E D		1	86:18		586	1955:1741	962	60.9%
4/1		U	N/A	N/A	-		-	-	-	606	1	Inf	0.0%
5/1		U	N/A	N/A	-		-	-	-	203	1	Inf	0.0%
6/1		U	N/A	N/A	-		-	-	-	656	1	Inf	0.0%

Item	Entering (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per Veh (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network: Dublin Rd_R338 Junction	-	-	**0**	**0**	**0**	**11.2**	**2.3**	**0.0**	**13.5**	-	-	-	-
Old Dublin Rd/R338 Coast Road Junction	-	-	**0**	**0**	**0**	**11.2**	**2.3**	**0.0**	**13.5**	-	-	-	-
1/2+1/1	378	378	-	-	-	3.6	0.7	-	4.3	41.3	10.1	0.7	10.9
2/2+2/1	501	501	-	-	-	4.6	0.8	-	5.4	38.5	7.4	0.8	8.1
3/1+3/2	586	586	-	-	-	3.0	0.8	-	3.8	23.3	5.6	0.8	6.4
4/1	606	606	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/1	203	203	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	656	656	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0

C1

PRC for Signalled Lanes (%): 47.8 Total Delay for Signalled Lanes (pcuHr): 13.49

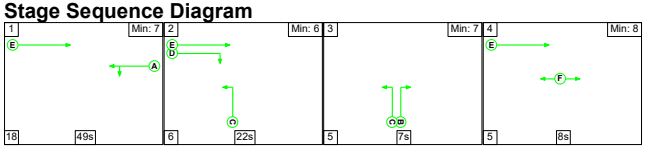
PRC Over All Lanes (%): 47.8 Total Delay Over All Lanes(pcuHr): 13.49

Cycle Time (s): 120

Full Input Data And Results

Scenario 2: '2019 PM Survey Year' (FG2: '2019 PM Survey Year', Plan 1: 'with Peds')

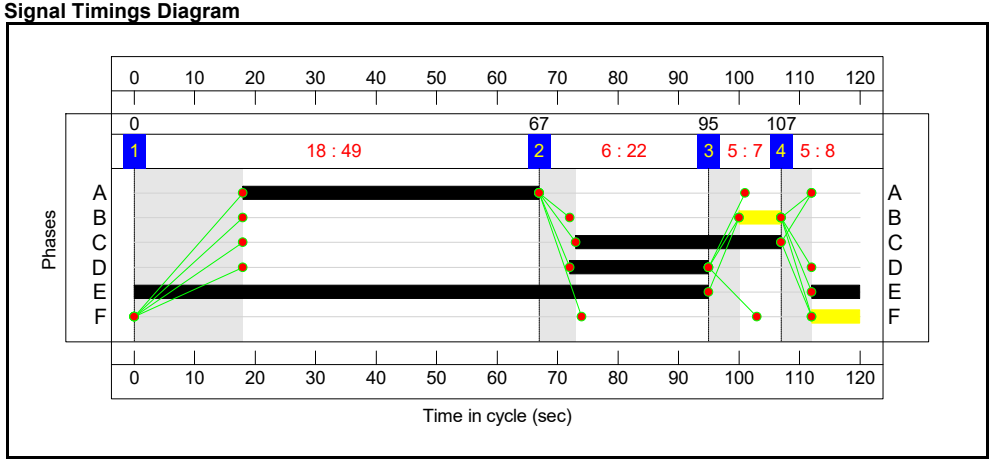
Stage Sequence Diagram



Stage Timings

Stage	1	2	3	4
Duration	49	22	7	8
Change Point	0	67	95	107

Signal Timings Diagram



Network Results

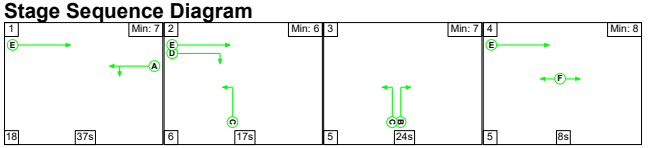
Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network: Dublin Rd_R338 Junction	-	-	-	-	-	-	-	-	-	-	-	-	**81.6%**
Old Dublin Rd/R338 Coast Road Junction	-	-	-	-	-	-	-	-	-	-	-	-	**81.6%**
1/2+1/1	Dublin Rd East Left Ahead	U	N/A	N/A	A		1	49		660	1955:1819	818	80.7%
2/2+2/1	R338 Coast Road Right Left	U	N/A	N/A	B C		1	7:34		191	1777:1756	516	37.0%
3/1+3/2	Dublin Rd West Ahead Right	U	N/A	N/A	E D		1	103:23		903	1955:1741	1107	81.6%
4/1		U	N/A	N/A	-		-	-	-	626	1	Inf	0.0%
5/1		U	N/A	N/A	-		-	-	-	295	1	Inf	0.0%
6/1		U	N/A	N/A	-		-	-	-	833	1	Inf	0.0%

Item	Entering (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per Veh (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network: Dublin Rd_R338 Junction	-	-	**0**	**0**	**0**	**11.3**	**4.5**	**0.0**	**15.8**	-	-	-	-
Old Dublin Rd/R338 Coast Road Junction	-	-	**0**	**0**	**0**	**11.3**	**4.5**	**0.0**	**15.8**	-	-	-	-
1/2+1/1	660	660	-	-	-	5.6	2.0	-	7.7	41.8	19.1	2.0	21.2
2/2+2/1	191	191	-	-	-	1.8	0.3	-	2.1	39.9	4.8	0.3	5.1
3/1+3/2	903	903	-	-	-	3.9	2.2	-	6.1	24.1	9.0	2.2	11.2
4/1	626	626	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/1	295	295	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	833	833	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0

C1
PRC for Signalled Lanes (%): 10.3
PRC Over All Lanes (%): 10.3
Total Delay for Signalled Lanes (pcuHr): 15.83
Total Delay Over All Lanes(pcuHr): 15.83
Cycle Time (s): 120

Scenario 3: '2024 AM without Dev' (FG3: '2024 AM without Dev', Plan 1: 'with Peds')

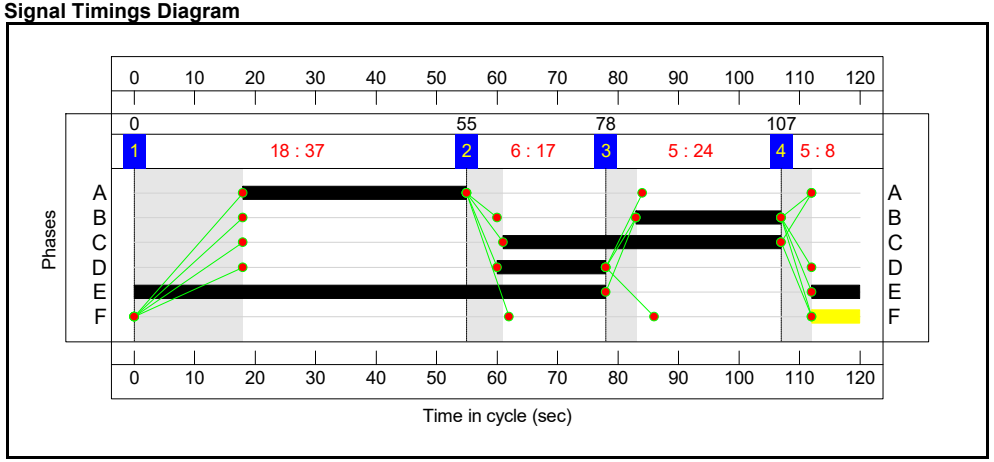
Stage Sequence Diagram



Stage Timings

Stage	1	2	3	4
Duration	37	17	24	8
Change Point	0	55	78	107

Signal Timings Diagram



Network Results

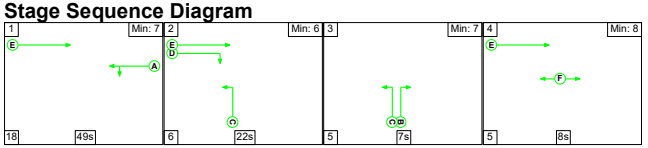
Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network: Dublin Rd_R338 Junction	-	-	-	-	-	-	-	-	-	-	-	-	**66.1%**
Old Dublin Rd/R338 Coast Road Junction	-	-	-	-	-	-	-	-	-	-	-	-	**66.1%**
1/2+1/1	Dublin Rd East Left Ahead	U	N/A	N/A	A		1	37		413	1955:1819	629	65.6%
2/2+2/1	R338 Coast Road Right Left	U	N/A	N/A	B C		1	24:46		545	1777:1756	827	65.9%
3/1+3/2	Dublin Rd West Ahead Right	U	N/A	N/A	E D		1	86:18		639	1955:1741	967	66.1%
4/1		U	N/A	N/A	-		-	-	-	660	1	Inf	0.0%
5/1		U	N/A	N/A	-		-	-	-	221	1	Inf	0.0%
6/1		U	N/A	N/A	-		-	-	-	716	1	Inf	0.0%

Item	Entering (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per Veh (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network: Dublin Rd_R338 Junction	-	-	**0**	**0**	**0**	**12.4**	**2.9**	**0.0**	**15.3**	-	-	-	-
Old Dublin Rd/R338 Coast Road Junction	-	-	**0**	**0**	**0**	**12.4**	**2.9**	**0.0**	**15.3**	-	-	-	-
1/2+1/1	413	413	-	-	-	4.0	0.9	-	5.0	43.2	11.4	0.9	12.4
2/2+2/1	545	545	-	-	-	5.1	1.0	-	6.0	39.8	8.1	1.0	9.1
3/1+3/2	639	639	-	-	-	3.3	1.0	-	4.3	24.2	6.2	1.0	7.1
4/1	660	660	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/1	221	221	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	716	716	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0

C1 PRC for Signalled Lanes (%): 36.1 Total Delay for Signalled Lanes (pcuHr): 15.28
PRC Over All Lanes (%): 36.1 Total Delay Over All Lanes(pcuHr): 15.28 Cycle Time (s): 120

Scenario 4: '2024 PM without Dev' (FG4: '2024 PM without Dev', Plan 1: 'with Peds')

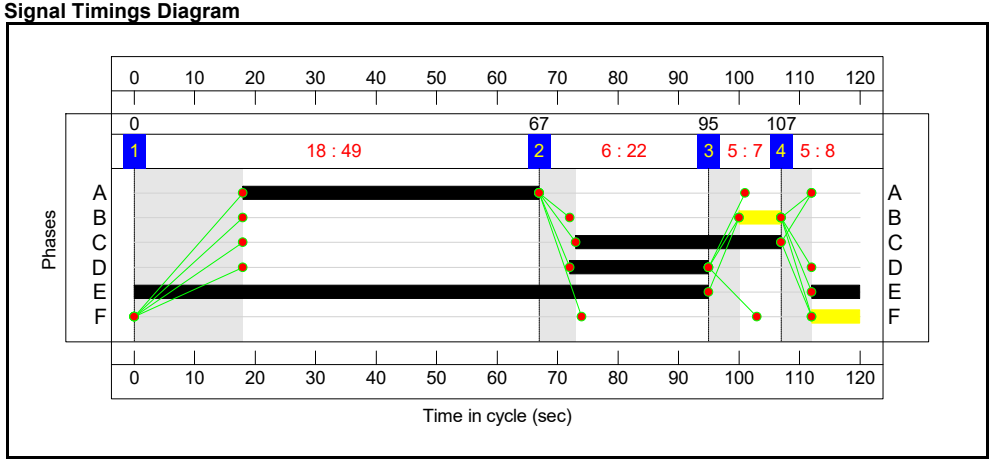
Stage Sequence Diagram



Stage Timings

Stage	1	2	3	4
Duration	49	22	7	8
Change Point	0	67	95	107

Signal Timings Diagram



Network Results

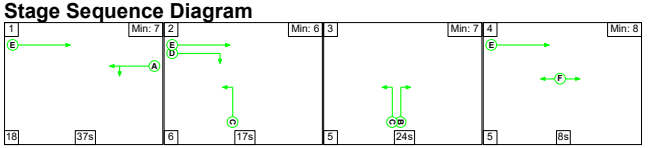
Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network: Dublin Rd_R338 Junction	-	-	-	-	-	-	-	-	-	-	-	-	**89.0%**
Old Dublin Rd/R338 Coast Road Junction	-	-	-	-	-	-	-	-	-	-	-	-	**89.0%**
1/2+1/1	Dublin Rd East Left Ahead	U	N/A	N/A	A		1	49		719	1955:1819	818	87.9%
2/2+2/1	R338 Coast Road Right Left	U	N/A	N/A	B C		1	7:34		208	1777:1756	517	40.2%
3/1+3/2	Dublin Rd West Ahead Right	U	N/A	N/A	E D		1	103:23		984	1955:1741	1105	89.0%
4/1		U	N/A	N/A	-		-	-	-	682	1	Inf	0.0%
5/1		U	N/A	N/A	-		-	-	-	322	1	Inf	0.0%
6/1		U	N/A	N/A	-		-	-	-	907	1	Inf	0.0%

Item	Entering (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per Veh (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network: Dublin Rd_R338 Junction	-	-	**0**	**0**	**0**	**12.7**	**7.6**	**0.0**	**20.3**	-	-	-	-
Old Dublin Rd/R338 Coast Road Junction	-	-	**0**	**0**	**0**	**12.7**	**7.6**	**0.0**	**20.3**	-	-	-	-
1/2+1/1	719	719	-	-	-	6.4	3.4	-	9.8	49.2	21.9	3.4	25.3
2/2+2/1	208	208	-	-	-	2.0	0.3	-	2.3	40.5	5.3	0.3	5.6
3/1+3/2	984	984	-	-	-	4.3	3.8	-	8.1	29.8	10.0	3.8	13.8
4/1	682	682	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/1	322	322	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	907	907	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0

C1
PRC for Signalled Lanes (%): 1.1
PRC Over All Lanes (%): 1.1
Total Delay for Signalled Lanes (pcuHr): 20.31
Total Delay Over All Lanes(pcuHr): 20.31
Cycle Time (s): 120

Scenario 5: '2029 AM without Dev' (FG5: '2029 AM without Dev', Plan 1: 'with Peds')

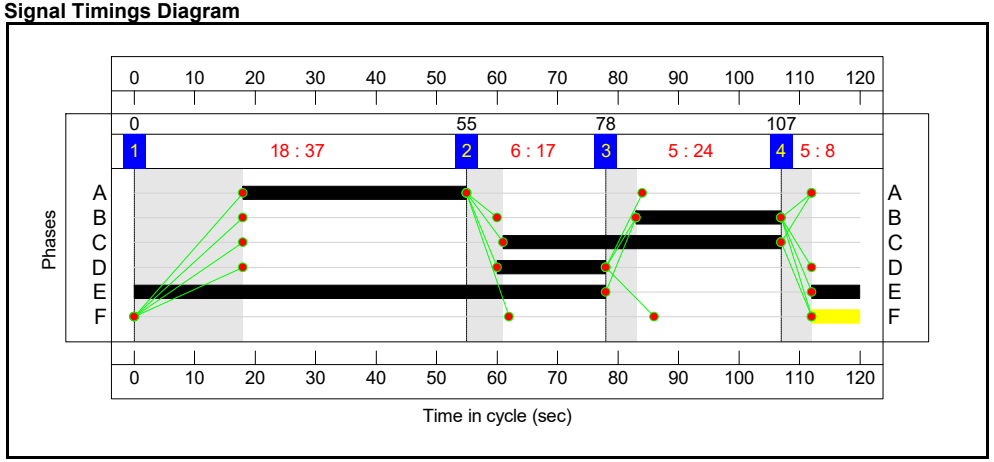
Stage Sequence Diagram



Stage Timings

Stage	1	2	3	4
Duration	37	17	24	8
Change Point	0	55	78	107

Signal Timings Diagram



Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network: Dublin Rd_R338 Junction	-	-	-	-	-	-	-	-	-	-	-	-	**71.7%**
Old Dublin Rd/R338 Coast Road Junction	-	-	-	-	-	-	-	-	-	-	-	-	**71.7%**
1/2+1/1	Dublin Rd East Left Ahead	U	N/A	N/A	A		1	37		451	1955:1819	629	71.7%
2/2+2/1	R338 Coast Road Right Left	U	N/A	N/A	B C		1	24:46		593	1777:1756	827	71.7%
3/1+3/2	Dublin Rd West Ahead Right	U	N/A	N/A	E D		1	86:18		696	1955:1741	974	71.5%
4/1		U	N/A	N/A	-		-	-	-	719	1	Inf	0.0%
5/1		U	N/A	N/A	-		-	-	-	240	1	Inf	0.0%
6/1		U	N/A	N/A	-		-	-	-	781	1	Inf	0.0%

Item	Entering (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per Veh (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network: Dublin Rd_R338 Junction	-	-	**0**	**0**	**0**	**13.8**	**3.7**	**0.0**	**17.5**	-	-	-	-
Old Dublin Rd/R338 Coast Road Junction	-	-	**0**	**0**	**0**	**13.8**	**3.7**	**0.0**	**17.5**	-	-	-	-
1/2+1/1	451	451	-	-	-	4.5	1.2	-	5.7	45.8	12.8	1.2	14.0
2/2+2/1	593	593	-	-	-	5.6	1.3	-	6.9	41.6	9.0	1.3	10.3
3/1+3/2	696	696	-	-	-	3.7	1.2	-	4.9	25.4	6.8	1.2	8.0
4/1	719	719	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/1	240	240	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	781	781	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0

C1

PRC for Signalled Lanes (%): 25.6 Total Delay for Signalled Lanes (pcuHr): 17.51

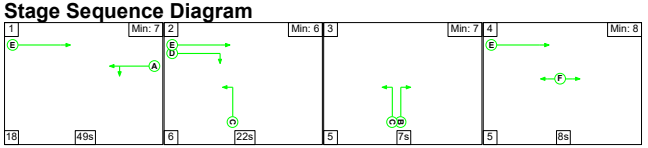
PRC Over All Lanes (%): 25.6 Total Delay Over All Lanes(pcuHr): 17.51

Cycle Time (s): 120

Full Input Data And Results

Scenario 6: '2029 PM without Dev' (FG6: '2029 PM without Dev', Plan 1: 'with Peds')

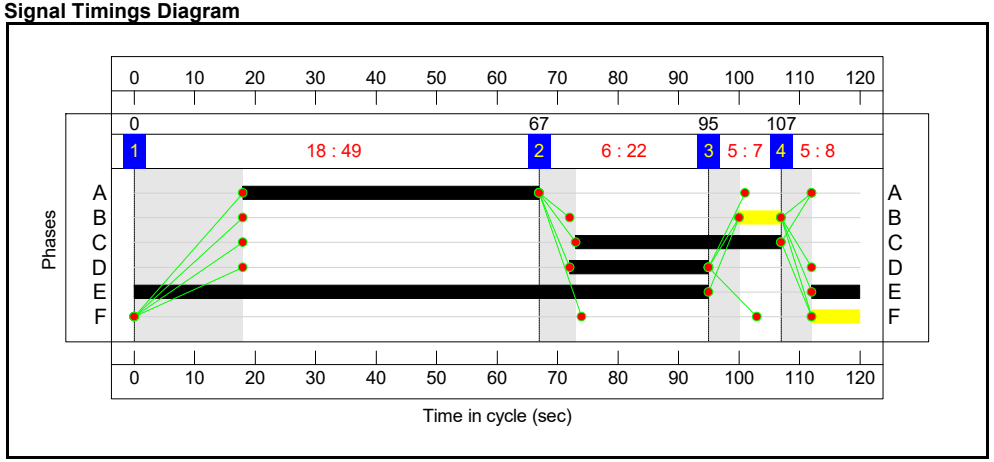
Stage Sequence Diagram



Stage Timings

Stage	1	2	3	4
Duration	49	22	7	8
Change Point	0	67	95	107

Signal Timings Diagram



Network Results

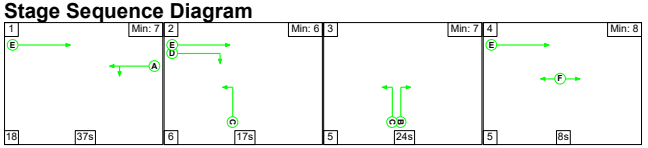
Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network: Dublin Rd_R338 Junction	-	-	-	-	-	-	-	-	-	-	-	-	**96.8%**
Old Dublin Rd/R338 Coast Road Junction	-	-	-	-	-	-	-	-	-	-	-	-	**96.8%**
1/2+1/1	Dublin Rd East Left Ahead	U	N/A	N/A	A		1	49		784	1955:1819	818	95.9%
2/2+2/1	R338 Coast Road Right Left	U	N/A	N/A	B C		1	7:34		226	1777:1756	517	43.7%
3/1+3/2	Dublin Rd West Ahead Right	U	N/A	N/A	E D		1	103:23		1071	1955:1741	1107	96.8%
4/1		U	N/A	N/A	-		-	-	-	743	1	Inf	0.0%
5/1		U	N/A	N/A	-		-	-	-	350	1	Inf	0.0%
6/1		U	N/A	N/A	-		-	-	-	988	1	Inf	0.0%

Item	Entering (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per Veh (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network: Dublin Rd_R338 Junction	-	-	**0**	**0**	**0**	**14.4**	**18.0**	**0.0**	**32.4**	-	-	-	-
Old Dublin Rd/R338 Coast Road Junction	-	-	**0**	**0**	**0**	**14.4**	**18.0**	**0.0**	**32.4**	-	-	-	-
1/2+1/1	784	784	-	-	-	7.4	7.9	-	15.3	70.3	25.2	7.9	33.1
2/2+2/1	226	226	-	-	-	2.2	0.4	-	2.6	41.2	5.8	0.4	6.2
3/1+3/2	1071	1071	-	-	-	4.8	9.7	-	14.5	48.9	11.1	9.7	20.9
4/1	743	743	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/1	350	350	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	988	988	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0

C1 PRC for Signalled Lanes (%): -7.5 Total Delay for Signalled Lanes (pcuHr): 32.43
PRC Over All Lanes (%): -7.5 Total Delay Over All Lanes(pcuHr): 32.43 Cycle Time (s): 120

Scenario 7: '2039 AM without Dev' (FG7: '2039 AM without Dev', Plan 1: 'with Peds')

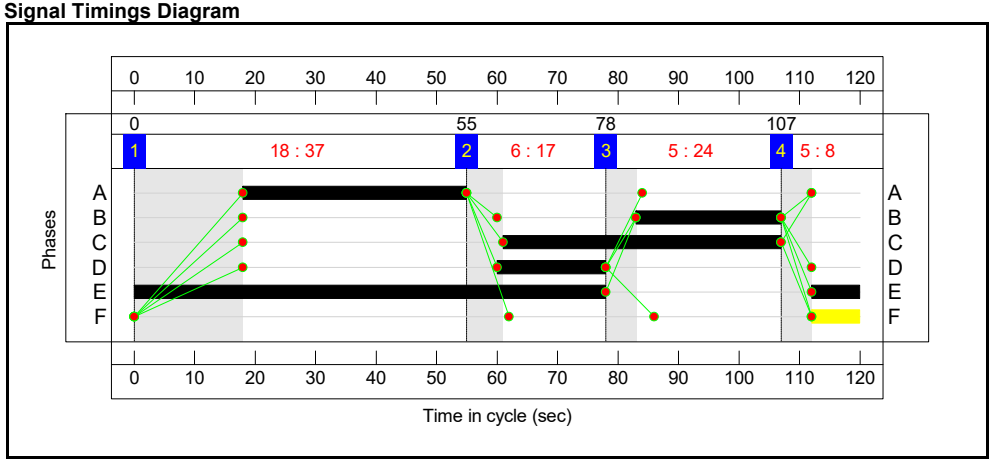
Stage Sequence Diagram



Stage Timings

Stage	1	2	3	4
Duration	37	17	24	8
Change Point	0	55	78	107

Signal Timings Diagram



Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network: Dublin Rd_R338 Junction	-	-	-	-	-	-	-	-	-	-	-	-	**80.6%**
Old Dublin Rd/R338 Coast Road Junction	-	-	-	-	-	-	-	-	-	-	-	-	**80.6%**
1/2+1/1	Dublin Rd East Left Ahead	U	N/A	N/A	A		1	37		507	1955:1819	629	80.6%
2/2+2/1	R338 Coast Road Right Left	U	N/A	N/A	B C		1	24:46		661	1777:1756	830	79.6%
3/1+3/2	Dublin Rd West Ahead Right	U	N/A	N/A	E D		1	86:18		777	1955:1741	984	79.0%
4/1		U	N/A	N/A	-		-	-	-	802	1	Inf	0.0%
5/1		U	N/A	N/A	-		-	-	-	267	1	Inf	0.0%
6/1		U	N/A	N/A	-		-	-	-	876	1	Inf	0.0%

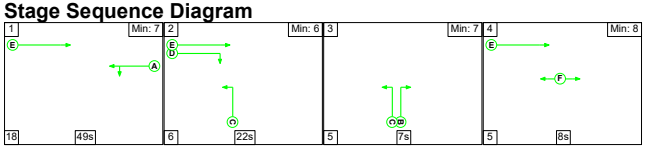
Item	Entering (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per Veh (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network: Dublin Rd_R338 Junction	-	-	**0**	**0**	**0**	**15.8**	**5.8**	**0.0**	**21.6**	-	-	-	-
Old Dublin Rd/R338 Coast Road Junction	-	-	**0**	**0**	**0**	**15.8**	**5.8**	**0.0**	**21.6**	-	-	-	-
1/2+1/1	507	507	-	-	-	5.2	2.0	-	7.2	51.5	15.0	2.0	17.0
2/2+2/1	661	661	-	-	-	6.4	1.9	-	8.3	45.2	11.1	1.9	13.0
3/1+3/2	777	777	-	-	-	4.2	1.8	-	6.0	27.9	7.6	1.8	9.5
4/1	802	802	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/1	267	267	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	876	876	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0

C1 PRC for Signalled Lanes (%): 11.7 Total Delay for Signalled Lanes (pcuHr): 21.58
PRC Over All Lanes (%): 11.7 Total Delay Over All Lanes(pcuHr): 21.58 Cycle Time (s): 120

Full Input Data And Results

Scenario 8: '2039 PM without Dev' (FG8: '2039 PM without Dev', Plan 1: 'with Peds')

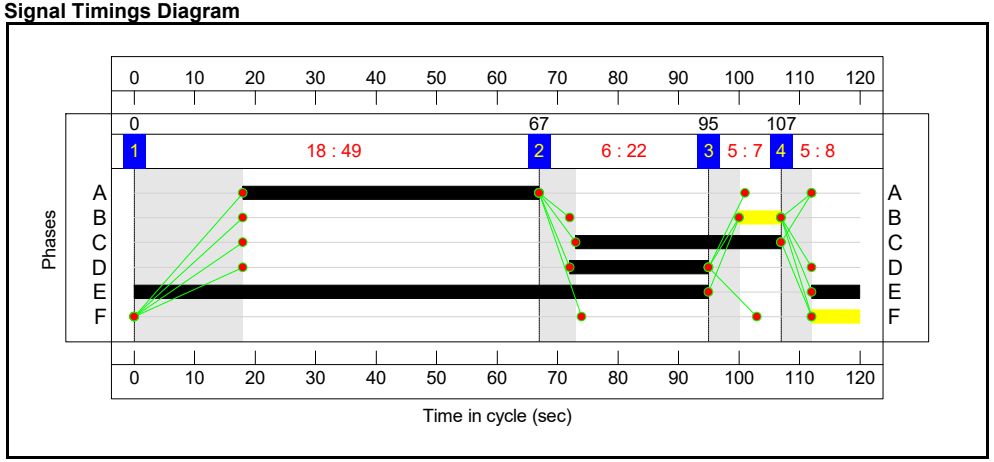
Stage Sequence Diagram



Stage Timings

Stage	1	2	3	4
Duration	49	22	7	8
Change Point	0	67	95	107

Signal Timings Diagram



Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network: Dublin Rd_R338 Junction	-	-	-	-	-	-	-	-	-	-	-	-	**107.7%**
Old Dublin Rd/R338 Coast Road Junction	-	-	-	-	-	-	-	-	-	-	-	-	**107.7%**
1/2+1/1	Dublin Rd East Left Ahead	U	N/A	N/A	A		1	49		876	1955:1819	818	107.2%
2/2+2/1	R338 Coast Road Right Left	U	N/A	N/A	B C		1	7:34		251	1777:1756	517	48.5%
3/1+3/2	Dublin Rd West Ahead Right	U	N/A	N/A	E D		1	103:23		1193	1955:1741	1108	107.7%
4/1		U	N/A	N/A	-		-	-	-	828	1	Inf	0.0%
5/1		U	N/A	N/A	-		-	-	-	389	1	Inf	0.0%
6/1		U	N/A	N/A	-		-	-	-	1103	1	Inf	0.0%

Item	Entering (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per Veh (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network: Dublin Rd_R338 Junction	-	-	**0**	**0**	**0**	**20.7**	**84.6**	**0.0**	**105.4**	-	-	-	-
Old Dublin Rd/R338 Coast Road Junction	-	-	**0**	**0**	**0**	**20.7**	**84.6**	**0.0**	**105.4**	-	-	-	-
1/2+1/1	876	818	-	-	-	11.7	35.4	-	47.1	193.5	32.3	35.4	67.7
2/2+2/1	251	251	-	-	-	2.5	0.5	-	3.0	42.3	6.6	0.5	7.0
3/1+3/2	1193	1166	-	-	-	6.6	48.7	-	55.3	166.9	13.4	48.7	62.1
4/1	828	828	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/1	361	361	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	1045	1045	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0

C1

PRC for Signalled Lanes (%): -19.7
PRC Over All Lanes (%): -19.7

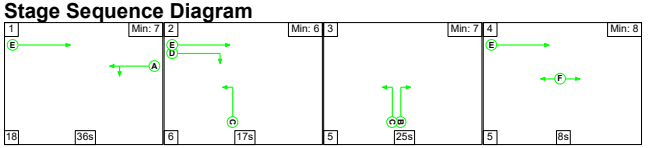
Total Delay for Signalled Lanes (pcuHr): 105.35
Total Delay Over All Lanes(pcuHr): 105.35

Cycle Time (s): 120

Full Input Data And Results

Scenario 9: '2024 AM with Dev' (FG9: '2024 AM with Dev', Plan 1: 'with Peds')

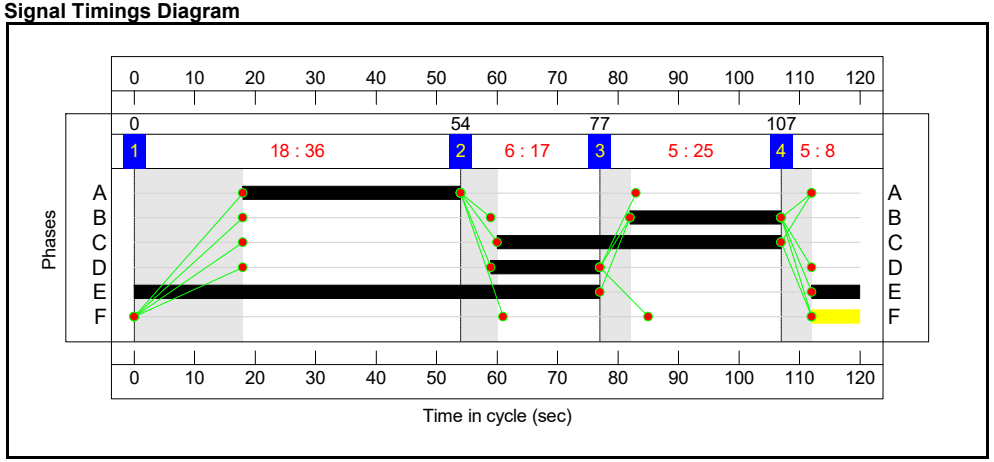
Stage Sequence Diagram



Stage Timings

Stage	1	2	3	4
Duration	36	17	25	8
Change Point	0	54	77	107

Signal Timings Diagram



Network Results

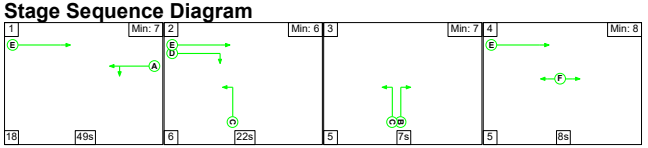
Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network: Dublin Rd_R338 Junction	-	-	-	-	-	-	-	-	-	-	-	-	**67.3%**
Old Dublin Rd/R338 Coast Road Junction	-	-	-	-	-	-	-	-	-	-	-	-	**67.3%**
1/2+1/1	Dublin Rd East Left Ahead	U	N/A	N/A	A		1	36		413	1955:1819	613	67.3%
2/2+2/1	R338 Coast Road Right Left	U	N/A	N/A	B C		1	25:47		552	1777:1756	828	66.7%
3/1+3/2	Dublin Rd West Ahead Right	U	N/A	N/A	E D		1	85:18		639	1955:1741	988	64.7%
4/1		U	N/A	N/A	-		-	-	-	667	1	Inf	0.0%
5/1		U	N/A	N/A	-		-	-	-	221	1	Inf	0.0%
6/1		U	N/A	N/A	-		-	-	-	716	1	Inf	0.0%

Item	Entering (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per Veh (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network: Dublin Rd_R338 Junction	-	-	**0**	**0**	**0**	**12.5**	**2.9**	**0.0**	**15.4**	-	-	-	-
Old Dublin Rd/R338 Coast Road Junction	-	-	**0**	**0**	**0**	**12.5**	**2.9**	**0.0**	**15.4**	-	-	-	-
1/2+1/1	413	413	-	-	-	4.1	1.0	-	5.1	44.7	11.5	1.0	12.6
2/2+2/1	552	552	-	-	-	5.0	1.0	-	6.0	39.4	8.0	1.0	9.0
3/1+3/2	639	639	-	-	-	3.4	0.9	-	4.3	24.1	6.2	0.9	7.1
4/1	667	667	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/1	221	221	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	716	716	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0

C1
PRC for Signalled Lanes (%): 33.6
PRC Over All Lanes (%): 33.6
Total Delay for Signalled Lanes (pcuHr): 15.45
Total Delay Over All Lanes(pcuHr): 15.45
Cycle Time (s): 120

Scenario 10: '2024 PM with Dev' (FG10: '2024 PM with Dev', Plan 1: 'with Peds')

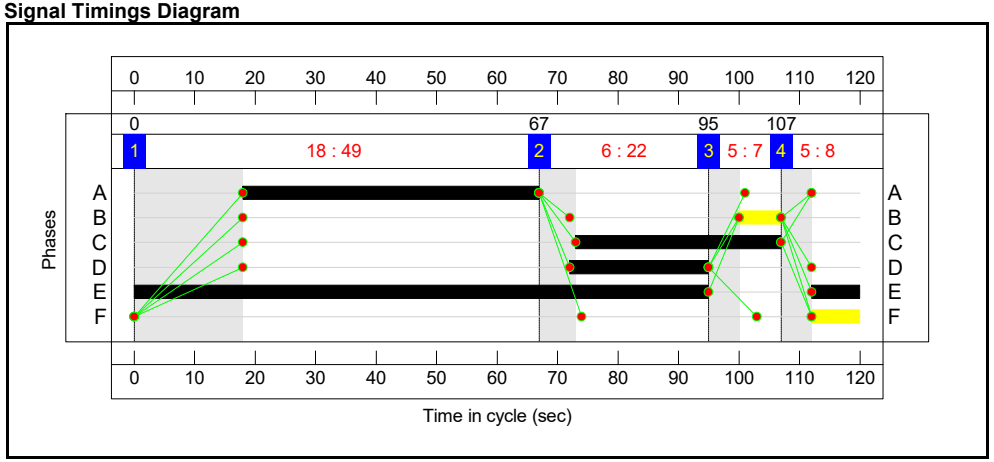
Stage Sequence Diagram



Stage Timings

Stage	1	2	3	4
Duration	49	22	7	8
Change Point	0	67	95	107

Signal Timings Diagram



Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network: Dublin Rd_R338 Junction	-	-	-	-	-	-	-	-	-	-	-	-	**89.0%**
Old Dublin Rd/R338 Coast Road Junction	-	-	-	-	-	-	-	-	-	-	-	-	**89.0%**
1/2+1/1	Dublin Rd East Left Ahead	U	N/A	N/A	A		1	49		729	1955:1819	820	89.0%
2/2+2/1	R338 Coast Road Right Left	U	N/A	N/A	B C		1	7:34		208	1777:1756	517	40.2%
3/1+3/2	Dublin Rd West Ahead Right	U	N/A	N/A	E D		1	103:23		984	1955:1741	1105	89.0%
4/1		U	N/A	N/A	-		-	-	-	682	1	Inf	0.0%
5/1		U	N/A	N/A	-		-	-	-	332	1	Inf	0.0%
6/1		U	N/A	N/A	-		-	-	-	907	1	Inf	0.0%

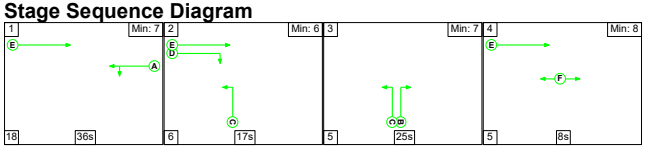
Item	Entering (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per Veh (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network: Dublin Rd_R338 Junction	-	-	**0**	**0**	**0**	**12.9**	**7.9**	**0.0**	**20.7**	-	-	-	-
Old Dublin Rd/R338 Coast Road Junction	-	-	**0**	**0**	**0**	**12.9**	**7.9**	**0.0**	**20.7**	-	-	-	-
1/2+1/1	729	729	-	-	-	6.5	3.7	-	10.2	50.6	22.3	3.7	26.0
2/2+2/1	208	208	-	-	-	2.0	0.3	-	2.3	40.5	5.3	0.3	5.6
3/1+3/2	984	984	-	-	-	4.3	3.8	-	8.1	29.8	10.0	3.8	13.8
4/1	682	682	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/1	332	332	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	907	907	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0

C1
PRC for Signalled Lanes (%): 1.1
PRC Over All Lanes (%): 1.1
Total Delay for Signalled Lanes (pcuHr): 20.74
Total Delay Over All Lanes(pcuHr): 20.74
Cycle Time (s): 120

Full Input Data And Results

Scenario 11: '2029 AM with Dev' (FG11: '2029 AM with Dev', Plan 1: 'with Peds')

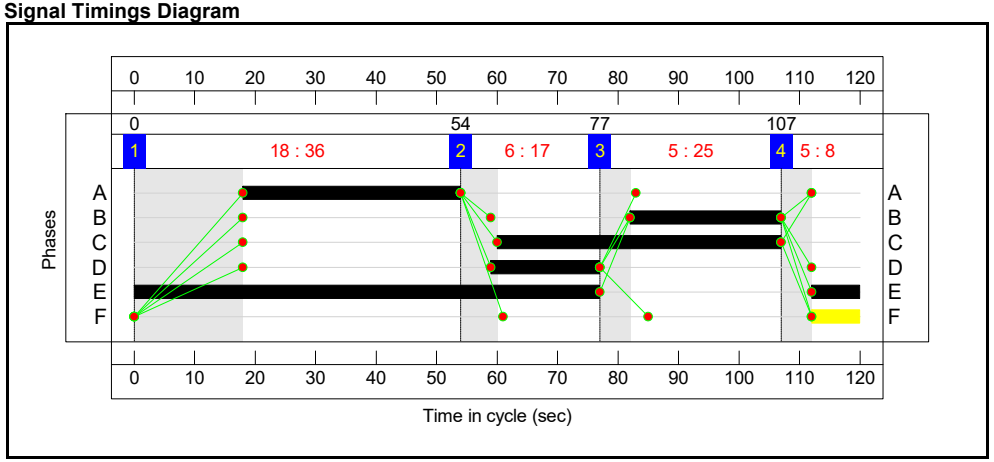
Stage Sequence Diagram



Stage Timings

Stage	1	2	3	4
Duration	36	17	25	8
Change Point	0	54	77	107

Signal Timings Diagram



Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network: Dublin Rd_R338 Junction	-	-	-	-	-	-	-	-	-	-	-	-	**73.6%**
Old Dublin Rd/R338 Coast Road Junction	-	-	-	-	-	-	-	-	-	-	-	-	**73.6%**
1/2+1/1	Dublin Rd East Left Ahead	U	N/A	N/A	A		1	36		451	1955:1819	613	73.6%
2/2+2/1	R338 Coast Road Right Left	U	N/A	N/A	B C		1	25:47		600	1777:1756	829	72.4%
3/1+3/2	Dublin Rd West Ahead Right	U	N/A	N/A	E D		1	85:18		696	1955:1741	995	69.9%
4/1		U	N/A	N/A	-		-	-	-	726	1	Inf	0.0%
5/1		U	N/A	N/A	-		-	-	-	240	1	Inf	0.0%
6/1		U	N/A	N/A	-		-	-	-	781	1	Inf	0.0%

Item	Entering (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per Veh (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network: Dublin Rd_R338 Junction	-	-	**0**	**0**	**0**	**13.9**	**3.8**	**0.0**	**17.7**	-	-	-	-
Old Dublin Rd/R338 Coast Road Junction	-	-	**0**	**0**	**0**	**13.9**	**3.8**	**0.0**	**17.7**	-	-	-	-
1/2+1/1	451	451	-	-	-	4.6	1.4	-	6.0	47.6	12.9	1.4	14.3
2/2+2/1	600	600	-	-	-	5.6	1.3	-	6.9	41.2	8.9	1.3	10.2
3/1+3/2	696	696	-	-	-	3.7	1.2	-	4.9	25.2	6.8	1.2	8.0
4/1	726	726	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/1	240	240	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	781	781	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0

C1

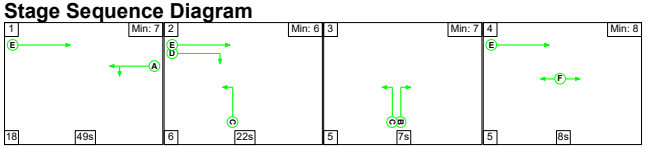
PRC for Signalled Lanes (%): 22.4
PRC Over All Lanes (%): 22.4

Total Delay for Signalled Lanes (pcuHr): 17.71
Total Delay Over All Lanes(pcuHr): 17.71

Cycle Time (s): 120

Scenario 12: '2029 PM with Dev' (FG12: '2029 PM with Dev', Plan 1: 'with Peds')

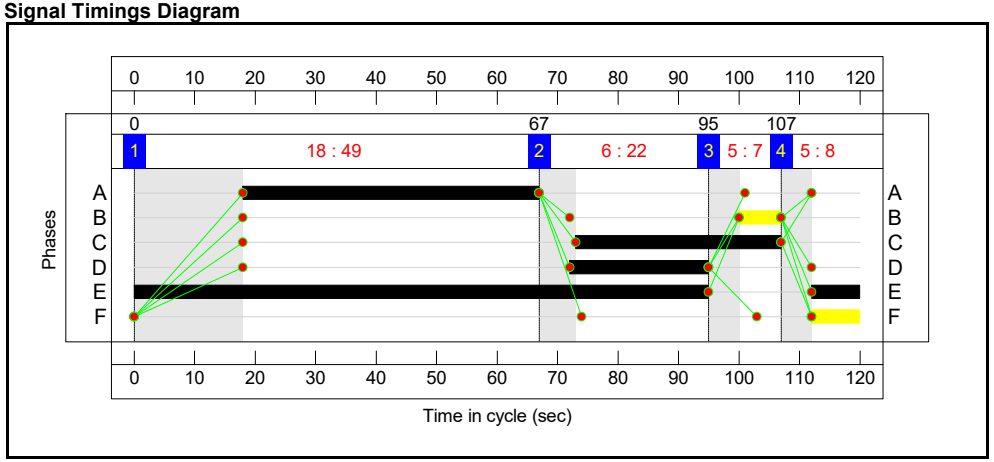
Stage Sequence Diagram



Stage Timings

Stage	1	2	3	4
Duration	49	22	7	8
Change Point	0	67	95	107

Signal Timings Diagram



Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network: Dublin Rd_R338 Junction	-	-	-	-	-	-	-	-	-	-	-	-	**96.9%**
Old Dublin Rd/R338 Coast Road Junction	-	-	-	-	-	-	-	-	-	-	-	-	**96.9%**
1/2+1/1	Dublin Rd East Left Ahead	U	N/A	N/A	A		1	49		794	1955:1819	819	96.9%
2/2+2/1	R338 Coast Road Right Left	U	N/A	N/A	B C		1	7:34		226	1777:1756	517	43.7%
3/1+3/2	Dublin Rd West Ahead Right	U	N/A	N/A	E D		1	103:23		1071	1955:1741	1107	96.8%
4/1		U	N/A	N/A	-		-	-	-	743	1	Inf	0.0%
5/1		U	N/A	N/A	-		-	-	-	360	1	Inf	0.0%
6/1		U	N/A	N/A	-		-	-	-	988	1	Inf	0.0%

Item	Entering (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per Veh (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network: Dublin Rd_R338 Junction	-	-	**0**	**0**	**0**	**14.5**	**19.2**	**0.0**	**33.7**	-	-	-	-
Old Dublin Rd/R338 Coast Road Junction	-	-	**0**	**0**	**0**	**14.5**	**19.2**	**0.0**	**33.7**	-	-	-	-
1/2+1/1	794	794	-	-	-	7.5	9.1	-	16.6	75.4	25.6	9.1	34.7
2/2+2/1	226	226	-	-	-	2.2	0.4	-	2.6	41.2	5.8	0.4	6.2
3/1+3/2	1071	1071	-	-	-	4.8	9.7	-	14.5	48.9	11.1	9.7	20.9
4/1	743	743	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/1	360	360	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	988	988	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0

C1

PRC for Signalled Lanes (%): -7.7
PRC Over All Lanes (%): -7.7

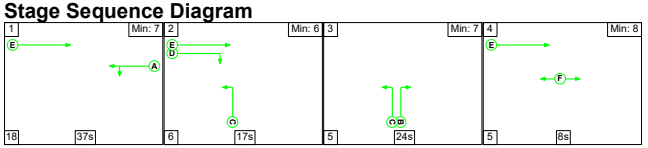
Total Delay for Signalled Lanes (pcuHr): 33.74
Total Delay Over All Lanes(pcuHr): 33.74

Cycle Time (s): 120

Full Input Data And Results

Scenario 13: '2039 AM with Dev' (FG13: '2039 AM with Dev', Plan 1: 'with Peds')

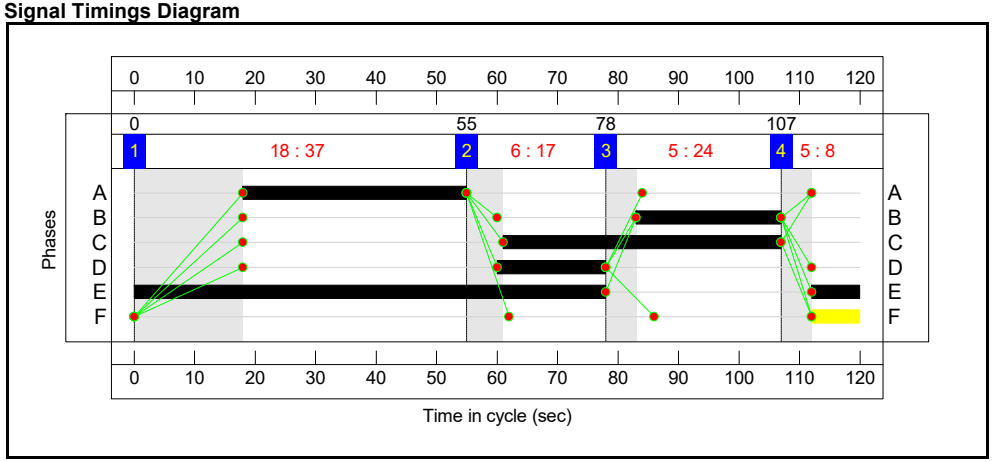
Stage Sequence Diagram



Stage Timings

Stage	1	2	3	4
Duration	37	17	24	8
Change Point	0	55	78	107

Signal Timings Diagram



Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network: Dublin Rd_R338 Junction	-	-	-	-	-	-	-	-	-	-	-	-	**81.6%**
Old Dublin Rd/R338 Coast Road Junction	-	-	-	-	-	-	-	-	-	-	-	-	**81.6%**
1/2+1/1	Dublin Rd East Left Ahead	U	N/A	N/A	A		1	37		507	1955:1819	629	80.6%
2/2+2/1	R338 Coast Road Right Left	U	N/A	N/A	B C		1	24:46		668	1777:1756	818	81.6%
3/1+3/2	Dublin Rd West Ahead Right	U	N/A	N/A	E D		1	86:18		777	1955:1741	984	79.0%
4/1		U	N/A	N/A	-		-	-	-	809	1	Inf	0.0%
5/1		U	N/A	N/A	-		-	-	-	267	1	Inf	0.0%
6/1		U	N/A	N/A	-		-	-	-	876	1	Inf	0.0%

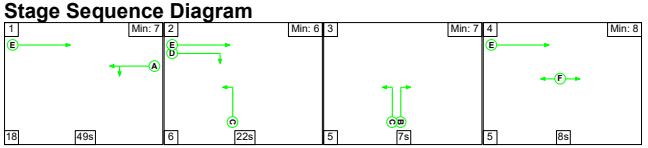
Item	Entering (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per Veh (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network: Dublin Rd_R338 Junction	-	-	**0**	**0**	**0**	**15.9**	**6.0**	**0.0**	**21.9**	-	-	-	-
Old Dublin Rd/R338 Coast Road Junction	-	-	**0**	**0**	**0**	**15.9**	**6.0**	**0.0**	**21.9**	-	-	-	-
1/2+1/1	507	507	-	-	-	5.2	2.0	-	7.2	51.5	15.0	2.0	17.0
2/2+2/1	668	668	-	-	-	6.5	2.2	-	8.7	46.7	11.1	2.2	13.3
3/1+3/2	777	777	-	-	-	4.2	1.8	-	6.0	27.9	7.6	1.8	9.5
4/1	809	809	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/1	267	267	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	876	876	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0

C1 PRC for Signalled Lanes (%): 10.3 Total Delay for Signalled Lanes (pcuHr): 21.93
PRC Over All Lanes (%): 10.3 Total Delay Over All Lanes(pcuHr): 21.93 Cycle Time (s): 120

Full Input Data And Results

Scenario 14: '2039 PM with Dev' (FG14: '2039 PM with Dev', Plan 1: 'with Peds')

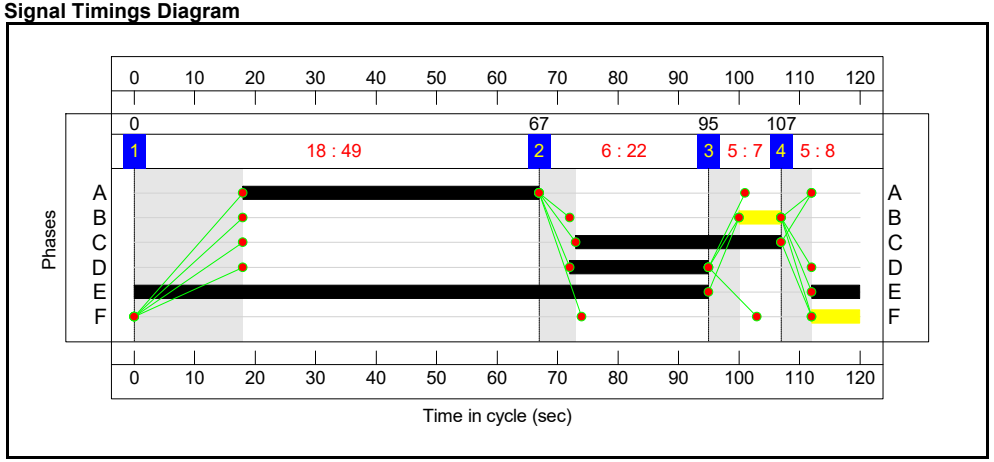
Stage Sequence Diagram



Stage Timings

Stage	1	2	3	4
Duration	49	22	7	8
Change Point	0	67	95	107

Signal Timings Diagram



Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network: Dublin Rd_R338 Junction	-	-	-	-	-	-	-	-	-	-	-	-	**108.2%**
Old Dublin Rd/R338 Coast Road Junction	-	-	-	-	-	-	-	-	-	-	-	-	**108.2%**
1/2+1/1	Dublin Rd East Left Ahead	U	N/A	N/A	A		1	49		886	1955:1819	819	108.2%
2/2+2/1	R338 Coast Road Right Left	U	N/A	N/A	B C		1	7:34		251	1777:1756	517	48.5%
3/1+3/2	Dublin Rd West Ahead Right	U	N/A	N/A	E D		1	103:23		1193	1955:1741	1108	107.7%
4/1		U	N/A	N/A	-		-	-	-	828	1	Inf	0.0%
5/1		U	N/A	N/A	-		-	-	-	399	1	Inf	0.0%
6/1		U	N/A	N/A	-		-	-	-	1103	1	Inf	0.0%

Item	Entering (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per Veh (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network: Dublin Rd_R338 Junction	-	-	**0**	**0**	**0**	**21.3**	**88.3**	**0.0**	**109.6**	-	-	-	-
Old Dublin Rd/R338 Coast Road Junction	-	-	**0**	**0**	**0**	**21.3**	**88.3**	**0.0**	**109.6**	-	-	-	-
1/2+1/1	886	819	-	-	-	12.2	39.1	-	51.3	208.6	32.8	39.1	71.9
2/2+2/1	251	251	-	-	-	2.5	0.5	-	3.0	42.3	6.6	0.5	7.0
3/1+3/2	1193	1166	-	-	-	6.6	48.7	-	55.3	166.9	13.4	48.7	62.1
4/1	828	828	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/1	370	370	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	1038	1038	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0

C1

PRC for Signalled Lanes (%): -20.2
PRC Over All Lanes (%): -20.2

Total Delay for Signalled Lanes (pcuHr): 109.59
Total Delay Over All Lanes(pcuHr): 109.59

Cycle Time (s): 120

APPENDIX E3

LinSig Analysis – Junction between R921 Old Dublin Road-Doughiska Road

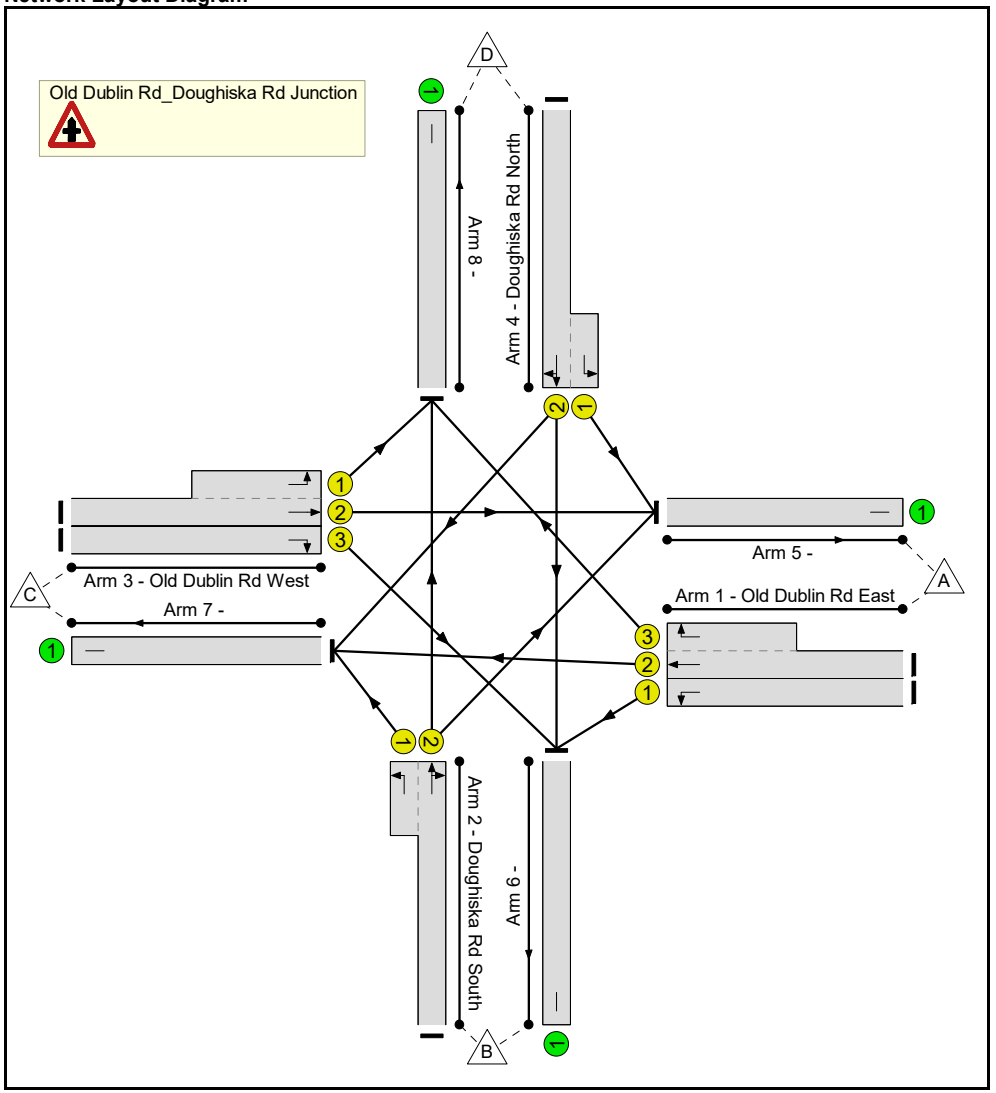
Full Input Data And Results

User and Project Details

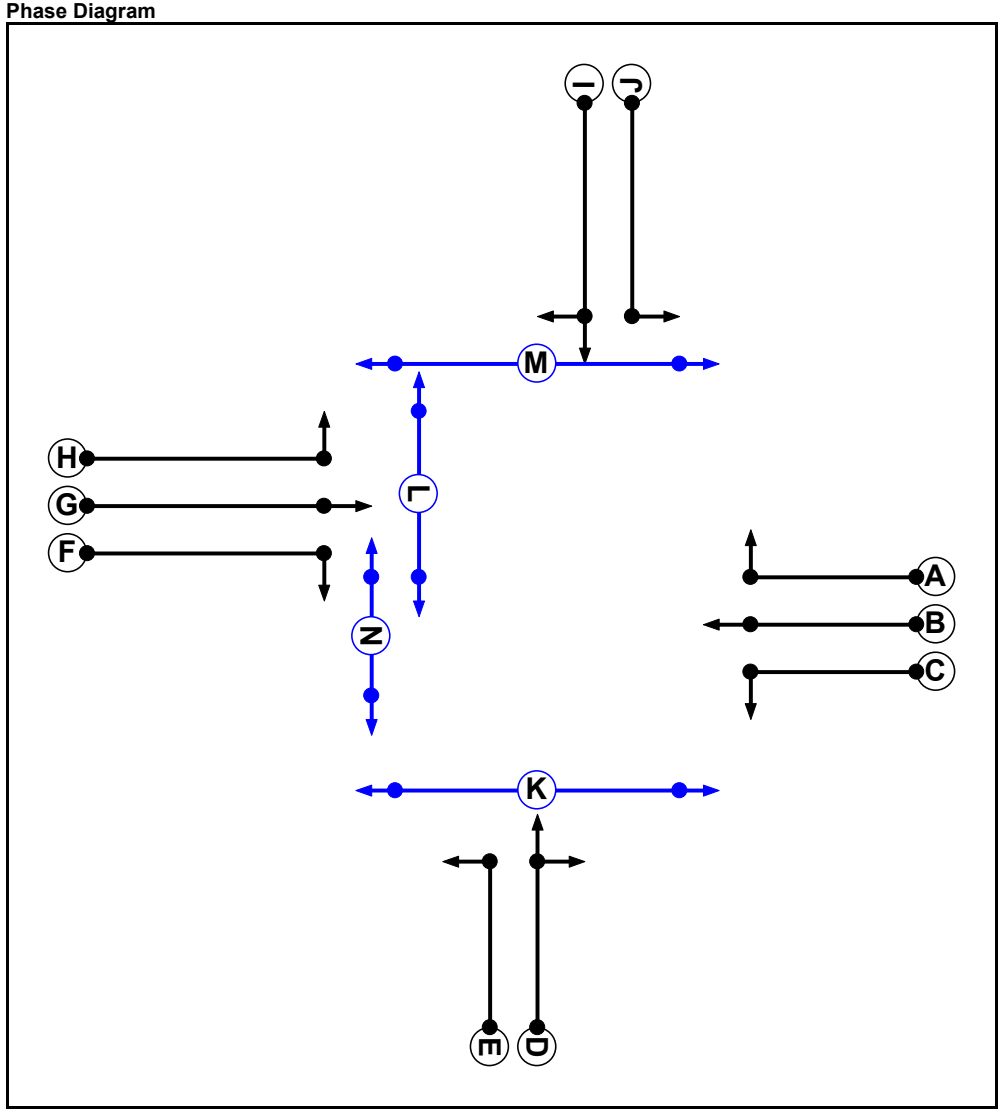
Project:	**Proposed Residential Development at Rosshill, Galway City**
Title:	**Dublin Rd_Doughiska Rd Junction**
Location:	Rosshill, Galway City
File name:	119209 Dublin Rd_Doughiska Rd Signalised Junction.lsg3x
Author:	J Noone
Company:	CST Group
Address:	1 O'Connell Street, Sligo
Notes:	

Full Input Data And Results

Network Layout Diagram



Phase Diagram



Full Input Data And Results

Phase Input Data

Phase Name	Phase type	Assoc Phase	Street Min	Cont Min
A	Traffic		7	7
B	Traffic		7	7
C	Traffic		7	7
D	Traffic		7	7
E	Traffic		7	7
F	Traffic		7	7
G	Traffic		7	7
H	Traffic		7	7
I	Traffic		7	7
J	Traffic		7	7
K	Pedestrian		6	6
L	Pedestrian		4	4
M	Pedestrian		6	6
N	Pedestrian		3	3

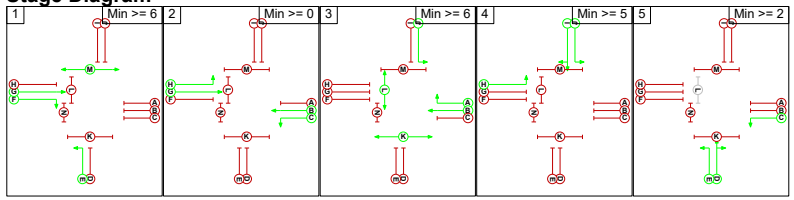
Phase Intergreens Matrix

Terminating Phase \ Starting Phase	A	B	C	D	E	F	G	H	I	J	K	L	M	N
A		-	-	5	-	-	5	5	5	-	-	-	9	-
B	-		-	7	9	7	-	-	5	-	-	-	-	11
C	-	-		-	-	6	-	-	5	-	10	-	-	-
D	5	5	-		-	5	5	5	5	7	5	-	10	-
E	-	5	-	-		-	-	-	5	-	5	-	-	7
F	-	5	5	6	-		-	-	5	-	8	5	-	-
G	7	-	-	6	-	-		-	6	8	-	5	-	-
H	6	-	-	5	-	-	-		-	-	-	5	10	-
I	5	5	5	5	10	6	5	-		-	10	-	5	11
J	-	-	-	5	-	-	5	-	-		-	-	5	-
K	-	-	13	13	13	13	-	-	13	-		-	-	-
L	-	-	-	-	-	10	10	10	-	-	-		-	-
M	14	-	-	14	-	-	-	14	14	14	-	-		-
N	-	8	-	-	8	-	-	-	8	-	-	-	-	

Phases in Stage

Stage No.	Phases in Stage
1	E F G M
2	B C G H
3	A B J K L
4	H I J
5	C D E

Stage Diagram



Lane Input Data

Junction: Old Dublin Rd_Doughiska Rd Junction

Lane	Lane Type	Phases	Start Disp.	End Disp.	Physical Length (PCU)	Sat Flow Type	Def User Saturation Flow (PCU/Hr)	Lane Width (m)	Gradient	Nearside Lane	Turns	Turning Radius (m)
1/1 (Old Dublin Rd East)	U	C	2	3	60.0	Geom	-	3.10	0.00	Y	Arm 6 Left	10.00
1/2 (Old Dublin Rd East)	U	B	2	3	60.0	Geom	-	3.10	0.00	Y	Arm 7 Ahead	Inf
1/3 (Old Dublin Rd East)	U	A	2	3	7.0	Geom	-	3.20	0.00	Y	Arm 8 Right	15.00
2/1 (Doughiska Rd South)	U	E	2	3	4.0	Geom	-	3.40	0.00	Y	Arm 7 Left	12.00
2/2 (Doughiska Rd South)	U	D	2	3	60.0	Geom	-	3.20	0.00	Y	Arm 5 Right	15.00
											Arm 8 Ahead	Inf
3/1 (Old Dublin Rd West)	U	H	2	3	7.0	Geom	-	2.90	0.00	Y	Arm 8 Left	12.00
3/2 (Old Dublin Rd West)	U	G	2	3	60.0	Geom	-	3.30	0.00	Y	Arm 5 Ahead	Inf
3/3 (Old Dublin Rd West)	U	F	2	3	60.0	Geom	-	3.10	0.00	Y	Arm 6 Right	15.00
4/1 (Doughiska Rd North)	U	J	2	3	4.0	Geom	-	3.00	0.00	Y	Arm 5 Left	12.00
4/2 (Doughiska Rd North)	U	I	2	3	60.0	Geom	-	3.00	0.00	Y	Arm 6 Ahead	Inf
											Arm 7 Right	15.00
5/1	U		2	3	60.0	Inf	-	-	-	-	-	-
6/1	U		2	3	60.0	Inf	-	-	-	-	-	-
7/1	U		2	3	60.0	Inf	-	-	-	-	-	-
8/1	U		2	3	60.0	Inf	-	-	-	-	-	-

Full Input Data And Results

Traffic Flow Groups

Flow Group	Start Time	End Time	Duration	Formula
1: '2019 AM Survey Year'	08:15	09:15	01:00	
2: '2019 PM Survey Year'	17:15	18:15	01:00	
3: '2024 AM without Dev'	08:15	09:15	01:00	
4: '2024 PM without Dev'	17:15	18:15	01:00	
5: '2029 AM without Dev'	08:15	09:15	01:00	
6: '2029 PM without Dev'	17:15	18:15	01:00	
7: '2039 AM without Dev'	08:15	09:15	01:00	
8: '2039 PM without Dev'	17:15	18:15	01:00	
9: '2024 AM with Dev'	08:15	09:15	01:00	F3+F15
10: '2024 PM with Dev'	17:15	18:15	01:00	F4+F16
11: '2029 AM with Dev'	08:15	09:15	01:00	F5+F15
12: '2029 PM with Dev'	17:15	18:15	01:00	F6+F16
13: '2039 AM with Dev'	08:15	09:15	01:00	F7+F15
14: '2039 PM with Dev'	17:15	18:15	01:00	F8+F16

Traffic Flows, Desired

Scenario 1: '2019 AM Survey Year' (FG1: '2019 AM Survey Year', Plan 1: 'with Peds')
Desired Flow :

		Destination				
		A	B	C	D	Tot.
Origin	A	0	60	317	311	688
	B	80	0	37	180	297
	C	264	50	0	162	476
	D	143	67	53	0	263
	Tot.	487	177	407	653	1724

Scenario 2: '2019 PM Survey Year' (FG2: '2019 PM Survey Year', Plan 1: 'with Peds')
Desired Flow :

		Destination				
		A	B	C	D	Tot.
Origin	A	0	237	475	105	817
	B	91	0	73	56	220
	C	488	105	0	46	639
	D	202	137	58	0	397
	Tot.	781	479	606	207	2073

Scenario 3: '2024 AM without Dev' (FG3: '2024 AM without Dev', Plan 1: 'with Peds')
Desired Flow :

		Destination				
		A	B	C	D	Tot.
Origin	A	0	66	346	339	751
	B	87	0	41	196	324
	C	288	54	0	177	519
	D	155	73	58	0	286
	Tot.	530	193	445	712	1880

Scenario 4: '2024 PM without Dev' (FG4: '2024 PM without Dev', Plan 1: 'with Peds')
Desired Flow :

		Destination				
		A	B	C	D	Tot.
Origin	A	0	258	517	115	890
	B	99	0	79	61	239
	C	531	114	0	50	695
	D	220	149	63	0	432
	Tot.	850	521	659	226	2256

Scenario 5: '2029 AM without Dev' (FG5: '2029 AM without Dev', Plan 1: 'with Peds')
Desired Flow :

		Destination				
		A	B	C	D	Tot.
Origin	A	0	72	378	369	819
	B	95	0	44	213	352
	C	314	59	0	192	565
	D	169	79	64	0	312
	Tot.	578	210	486	774	2048

Full Input Data And Results

Scenario 6: '2029 PM without Dev' (FG6: '2029 PM without Dev', Plan 1: 'with Peds')
Desired Flow :

		Destination				
		A	B	C	D	Tot.
Origin	A	0	281	564	125	970
	B	108	0	86	66	260
	C	579	124	0	55	758
	D	239	162	69	0	470
	Tot.	926	567	719	246	2458

Scenario 7: '2039 AM without Dev' (FG7: '2039 AM without Dev', Plan 1: 'with Peds')
Desired Flow :

		Destination				
		A	B	C	D	Tot.
Origin	A	0	82	425	411	918
	B	106	0	50	236	392
	C	352	66	0	215	633
	D	189	88	72	0	349
	Tot.	647	236	547	862	2292

Scenario 8: '2039 PM without Dev' (FG8: '2039 PM without Dev', Plan 1: 'with Peds')
Desired Flow :

		Destination				
		A	B	C	D	Tot.
Origin	A	0	312	630	140	1082
	B	120	0	95	73	288
	C	645	137	0	62	844
	D	265	180	78	0	523
	Tot.	1030	629	803	275	2737

Scenario 9: '2024 AM with Dev' (FG9: '2024 AM with Dev', Plan 1: 'with Peds')
Desired Flow :

		Destination				
		A	B	C	D	Tot.
Origin	A	0	66	346	339	751
	B	87	0	41	196	324
	C	292	55	0	179	526
	D	155	73	58	0	286
	Tot.	534	194	445	714	1887

Scenario 10: '2024 PM with Dev' (FG10: '2024 PM with Dev', Plan 1: 'with Peds')
Desired Flow :

		Destination				
		A	B	C	D	Tot.
Origin	A	0	258	524	115	897
	B	99	0	80	61	240
	C	531	114	0	50	695
	D	220	149	64	0	433
	Tot.	850	521	668	226	2265

Scenario 11: '2029 AM with Dev' (FG11: '2029 AM with Dev', Plan 1: 'with Peds')
Desired Flow :

		Destination				
		A	B	C	D	Tot.
Origin	A	0	72	378	369	819
	B	95	0	44	213	352
	C	318	60	0	194	572
	D	169	79	64	0	312
	Tot.	582	211	486	776	2055

Scenario 12: '2029 PM with Dev' (FG12: '2029 PM with Dev', Plan 1: 'with Peds')
Desired Flow :

		Destination				
		A	B	C	D	Tot.
Origin	A	0	281	571	125	977
	B	108	0	87	66	261
	C	579	124	0	55	758
	D	239	162	70	0	471
	Tot.	926	567	728	246	2467

Scenario 13: '2039 AM with Dev' (FG13: '2039 AM with Dev', Plan 1: 'with Peds')
Desired Flow :

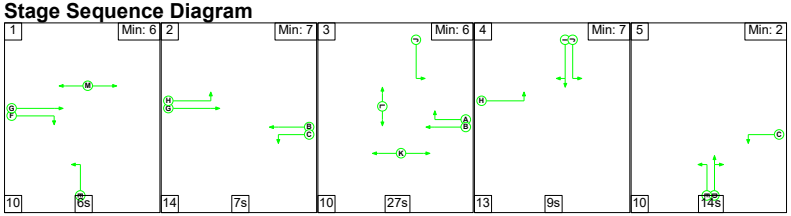
		Destination				
		A	B	C	D	Tot.
Origin	A	0	82	425	411	918
	B	106	0	50	236	392
	C	356	67	0	217	640
	D	189	88	72	0	349
	Tot.	651	237	547	864	2299

Full Input Data And Results

Scenario 14: '2039 PM with Dev' (FG14: '2039 PM with Dev', Plan 1: 'with Peds')
Desired Flow :

		Destination				
		A	B	C	D	Tot.
Origin	A	0	312	637	140	1089
	B	120	0	96	73	289
	C	645	137	0	62	844
	D	265	180	79	0	524
	Tot.	1030	629	812	275	2746

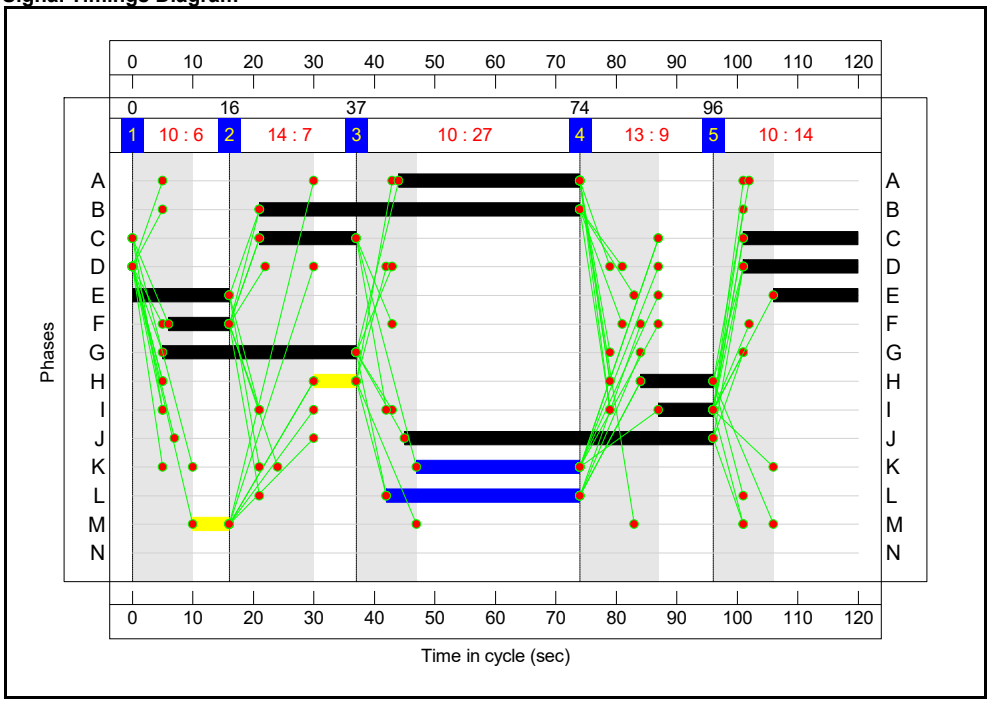
Scenario 1: '2019 AM Survey Year' (FG1: '2019 AM Survey Year', Plan 1: 'with Peds')
Stage Sequence Diagram



Stage Timings

Stage	1	2	3	4	5
Duration	6	7	27	9	14
Change Point	0	16	37	74	96

Signal Timings Diagram



Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network: Dublin Rd_Doughiska Rd Junction	-	-	-	-	-	-	-	-	-	-	-	-	**92.0%**
Old Dublin Rd_Doughiska Rd Junction	-	-	-	-	-	-	-	-	-	-	-	-	**92.0%**
1/1	Old Dublin Rd East Left	U	N/A	N/A	C		2	35	-	60	1674	516	11.6%
1/2+1/3	Old Dublin Rd East Ahead Right	U	N/A	N/A	B A		1	53:30		628	1925:1759	685	91.7%
2/2+2/1	Doughiska Rd South Right Left Ahead	U	N/A	N/A	D E		1	19:30		297	1877:1738	323	92.0%
3/2+3/1	Old Dublin Rd West Ahead Left	U	N/A	N/A	G H		1:2	32:19		426	1945:1693	646	66.0%
3/3	Old Dublin Rd West Right	U	N/A	N/A	F		1	10	-	50	1750	160	31.2%
4/2+4/1	Doughiska Rd North Left Ahead Right	U	N/A	N/A	I J		1	9:51		263	1834:1702	292	90.0%
5/1		U	N/A	N/A	-		-	-	-	487	1	Inf	0.0%
6/1		U	N/A	N/A	-		-	-	-	177	1	Inf	0.0%
7/1		U	N/A	N/A	-		-	-	-	407	1	Inf	0.0%
8/1		U	N/A	N/A	-		-	-	-	653	1	Inf	0.0%

Full Input Data And Results

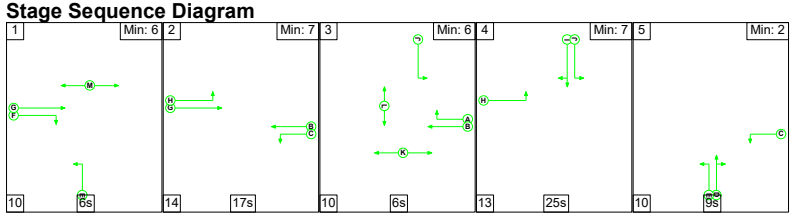
Item	Entering (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per Veh (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network: Dublin Rd_Doughiska Rd Junction	-	-	**0**	**0**	**0**	**17.0**	**13.9**	**0.0**	**30.9**	-	-	-	-
Old Dublin Rd_Doughiska Rd Junction	-	-	**0**	**0**	**0**	**17.0**	**13.9**	**0.0**	**30.9**	-	-	-	-
1/1	60	60	-	-	-	0.3	0.1	-	0.4	22.9	1.1	0.1	1.1
1/2+1/3	628	628	-	-	-	5.7	4.8	-	10.4	59.9	12.9	4.8	17.7
2/2+2/1	297	297	-	-	-	3.9	4.3	-	8.2	99.5	9.2	4.3	13.5
3/2+3/1	426	426	-	-	-	3.7	1.0	-	4.7	39.4	7.7	1.0	8.7
3/3	50	50	-	-	-	0.7	0.2	-	0.9	67.2	1.6	0.2	1.8
4/2+4/1	263	263	-	-	-	2.6	3.6	-	6.2	85.3	3.9	3.6	7.5
5/1	487	487	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	177	177	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/1	407	407	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/1	653	653	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0

C1 PRC for Signalled Lanes (%): -2.2 Total Delay for Signalled Lanes (pcuHr): 30.86
PRC Over All Lanes (%): -2.2 Total Delay Over All Lanes(pcuHr): 30.86 Cycle Time (s): 120

Full Input Data And Results

Scenario 2: '2019 PM Survey Year' (FG2: '2019 PM Survey Year', Plan 1: 'with Peds')

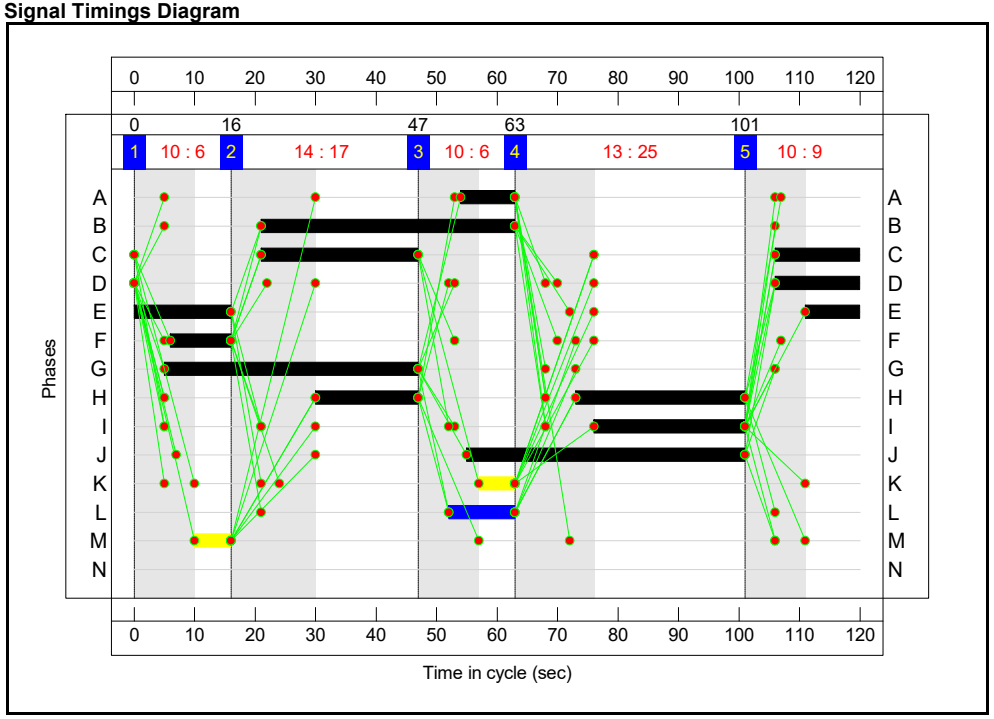
Stage Sequence Diagram



Stage Timings

Stage	1	2	3	4	5
Duration	6	17	6	25	9
Change Point	0	16	47	63	101

Signal Timings Diagram



Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network: Dublin Rd_Doughiska Rd Junction	-	-	-	-	-	-	-	-	-	-	-	-	**79.5%**
Old Dublin Rd_Doughiska Rd Junction	-	-	-	-	-	-	-	-	-	-	-	-	**79.5%**
1/1	Old Dublin Rd East Left	U	N/A	N/A	C		2	40	-	237	1674	586	40.5%
1/2+1/3	Old Dublin Rd East Ahead Right	U	N/A	N/A	B A		1	42:9		580	1925:1759	730	79.5%
2/2+2/1	Doughiska Rd South Right Left Ahead	U	N/A	N/A	D E		1	14:25		220	1822:1738	284	77.4%
3/2+3/1	Old Dublin Rd West Ahead Left	U	N/A	N/A	G H		1:2	42:45		534	1945:1693	710	75.2%
3/3	Old Dublin Rd West Right	U	N/A	N/A	F		1	10	-	105	1750	160	65.5%
4/2+4/1	Doughiska Rd North Left Ahead Right	U	N/A	N/A	I J		1	25:46		397	1860:1702	511	77.7%
5/1		U	N/A	N/A	-		-	-	-	781	1	Inf	0.0%
6/1		U	N/A	N/A	-		-	-	-	479	1	Inf	0.0%
7/1		U	N/A	N/A	-		-	-	-	606	1	Inf	0.0%
8/1		U	N/A	N/A	-		-	-	-	207	1	Inf	0.0%

Full Input Data And Results

Item	Entering (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per Veh (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network: Dublin Rd_Doughiska Rd Junction	-	-	**0**	**0**	**0**	**20.1**	**8.0**	**0.0**	**28.1**	-	-	-	-
Old Dublin Rd_Doughiska Rd Junction	-	-	**0**	**0**	**0**	**20.1**	**8.0**	**0.0**	**28.1**	-	-	-	-
1/1	237	237	-	-	-	1.2	0.3	-	1.5	23.4	4.4	0.3	4.7
1/2+1/3	580	580	-	-	-	6.0	1.9	-	7.9	48.8	15.5	1.9	17.4
2/2+2/1	220	220	-	-	-	2.8	1.6	-	4.5	72.9	5.0	1.6	6.7
3/2+3/1	534	534	-	-	-	4.7	1.5	-	6.2	41.6	14.8	1.5	16.3
3/3	105	105	-	-	-	1.5	0.9	-	2.5	84.1	3.4	0.9	4.3
4/2+4/1	397	397	-	-	-	3.9	1.7	-	5.6	50.7	8.3	1.7	10.0
5/1	781	781	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	479	479	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/1	606	606	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/1	207	207	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0

C1

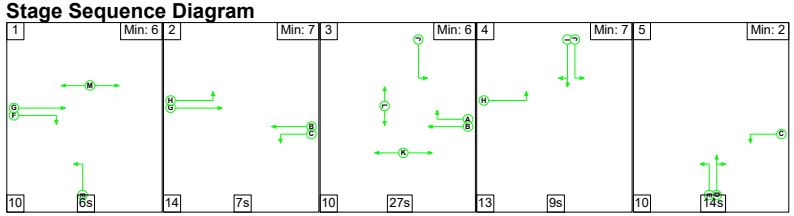
PRC for Signalled Lanes (%): 13.2
PRC Over All Lanes (%): 13.2

Total Delay for Signalled Lanes (pcuHr): 28.08
Total Delay Over All Lanes(pcuHr): 28.08

Cycle Time (s): 120

Scenario 3: '2024 AM without Dev' (FG3: '2024 AM without Dev', Plan 1: 'with Peds')

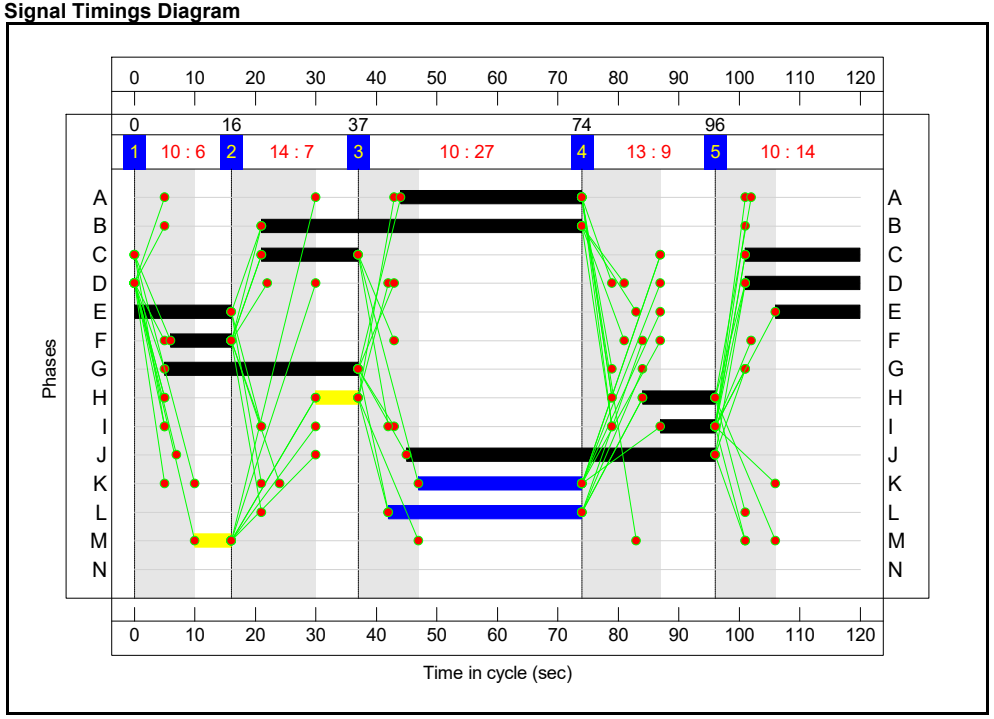
Stage Sequence Diagram



Stage Timings

Stage	1	2	3	4	5
Duration	6	7	27	9	14
Change Point	0	16	37	74	96

Signal Timings Diagram



Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network: Dublin Rd_Doughiska Rd Junction	-	-	-	-	-	-	-	-	-	-	-	-	**100.2%**
Old Dublin Rd_Doughiska Rd Junction	-	-	-	-	-	-	-	-	-	-	-	-	**100.2%**
1/1	Old Dublin Rd East Left	U	N/A	N/A	C		2	35	-	66	1674	516	12.8%
1/2+1/3	Old Dublin Rd East Ahead Right	U	N/A	N/A	B A		1	53:30		685	1925:1759	685	100.0%
2/2+2/1	Doughiska Rd South Right Left Ahead	U	N/A	N/A	D E		1	19:30		324	1877:1738	323	100.2%
3/2+3/1	Old Dublin Rd West Ahead Left	U	N/A	N/A	G H		1:2	32:19		465	1945:1693	646	72.0%
3/3	Old Dublin Rd West Right	U	N/A	N/A	F		1	10	-	54	1750	160	33.7%
4/2+4/1	Doughiska Rd North Left Ahead Right	U	N/A	N/A	I J		1	9:51		286	1834:1702	291	98.2%
5/1		U	N/A	N/A	-		-	-	-	530	1	Inf	0.0%
6/1		U	N/A	N/A	-		-	-	-	193	1	Inf	0.0%
7/1		U	N/A	N/A	-		-	-	-	445	1	Inf	0.0%
8/1		U	N/A	N/A	-		-	-	-	712	1	Inf	0.0%

Full Input Data And Results

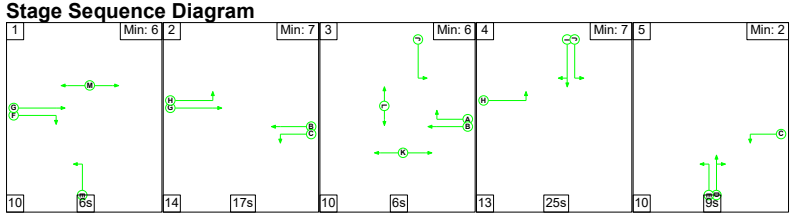
Item	Entering (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per Veh (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network: Dublin Rd_Doughiska Rd Junction	-	-	**0**	**0**	**0**	**19.1**	**31.1**	**0.0**	**50.2**	-	-	-	-
Old Dublin Rd_Doughiska Rd Junction	-	-	**0**	**0**	**0**	**19.1**	**31.1**	**0.0**	**50.2**	-	-	-	-
1/1	66	66	-	-	-	0.3	0.1	-	0.4	23.0	1.2	0.1	1.3
1/2+1/3	685	685	-	-	-	6.6	13.1	-	19.7	103.6	15.9	13.1	29.1
2/2+2/1	324	323	-	-	-	4.4	9.2	-	13.6	150.6	10.2	9.2	19.4
3/2+3/1	465	465	-	-	-	4.1	1.3	-	5.4	41.5	9.1	1.3	10.4
3/3	54	54	-	-	-	0.8	0.3	-	1.0	67.9	1.7	0.3	1.9
4/2+4/1	286	286	-	-	-	2.9	7.2	-	10.1	127.6	4.8	7.2	12.0
5/1	530	530	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	193	193	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/1	445	445	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/1	711	711	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0

C1 PRC for Signalled Lanes (%): -11.4 Total Delay for Signalled Lanes (pcuHr): 50.21
PRC Over All Lanes (%): -11.4 Total Delay Over All Lanes(pcuHr): 50.21 Cycle Time (s): 120

Full Input Data And Results

Scenario 4: '2024 PM without Dev' (FG4: '2024 PM without Dev', Plan 1: 'with Peds')

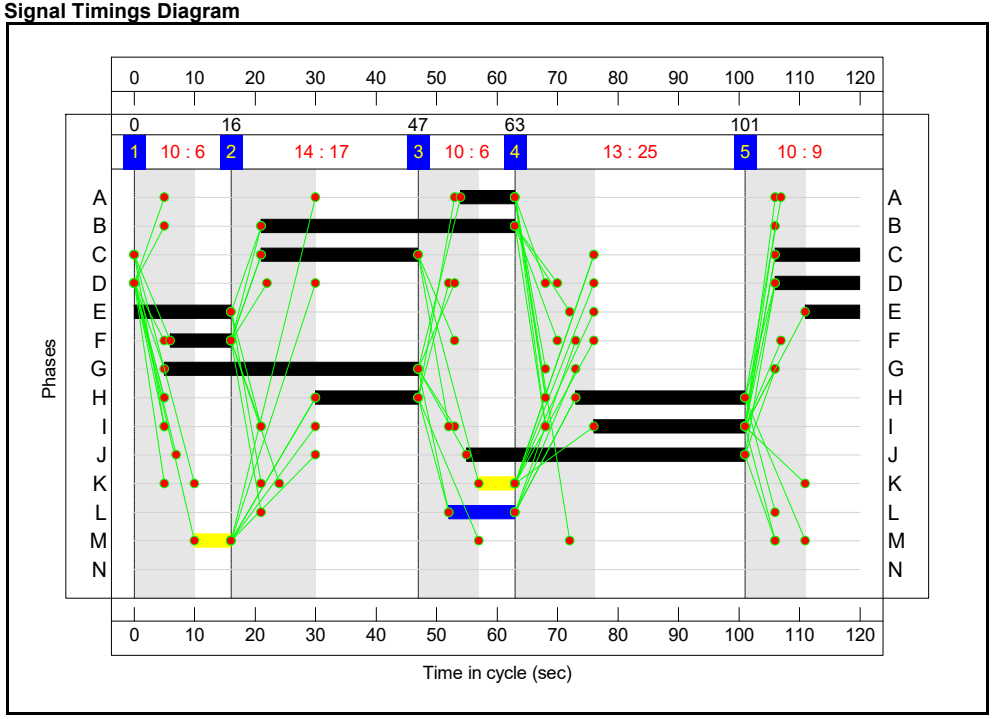
Stage Sequence Diagram



Stage Timings

Stage	1	2	3	4	5
Duration	6	17	6	25	9
Change Point	0	16	47	63	101

Signal Timings Diagram



Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network: Dublin Rd_Doughiska Rd Junction	-	-	-	-	-	-	-	-	-	-	-	-	**86.6%**
Old Dublin Rd_Doughiska Rd Junction	-	-	-	-	-	-	-	-	-	-	-	-	**86.6%**
1/1	Old Dublin Rd East Left	U	N/A	N/A	C		2	40	-	258	1674	586	44.0%
1/2+1/3	Old Dublin Rd East Ahead Right	U	N/A	N/A	B A		1	42:9		632	1925:1759	730	86.6%
2/2+2/1	Doughiska Rd South Right Left Ahead	U	N/A	N/A	D E		1	14:25		239	1822:1738	284	84.2%
3/2+3/1	Old Dublin Rd West Ahead Left	U	N/A	N/A	G H		1:2	42:45		581	1945:1693	710	81.8%
3/3	Old Dublin Rd West Right	U	N/A	N/A	F		1	10	-	114	1750	160	71.1%
4/2+4/1	Doughiska Rd North Left Ahead Right	U	N/A	N/A	I J		1	25:46		432	1860:1702	511	84.6%
5/1		U	N/A	N/A	-		-	-	-	850	1	Inf	0.0%
6/1		U	N/A	N/A	-		-	-	-	521	1	Inf	0.0%
7/1		U	N/A	N/A	-		-	-	-	659	1	Inf	0.0%
8/1		U	N/A	N/A	-		-	-	-	226	1	Inf	0.0%

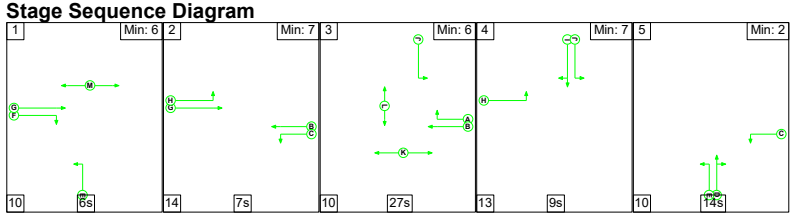
Full Input Data And Results

Item	Entering (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per Veh (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network: Dublin Rd_Doughiska Rd Junction	-	-	**0**	**0**	**0**	**22.5**	**11.8**	**0.0**	**34.3**	-	-	-	-
Old Dublin Rd_Doughiska Rd Junction	-	-	**0**	**0**	**0**	**22.5**	**11.8**	**0.0**	**34.3**	-	-	-	-
1/1	258	258	-	-	-	1.3	0.4	-	1.7	24.0	4.9	0.4	5.3
1/2+1/3	632	632	-	-	-	6.7	3.0	-	9.7	55.5	17.8	3.0	20.8
2/2+2/1	239	239	-	-	-	3.1	2.4	-	5.5	82.9	5.7	2.4	8.1
3/2+3/1	581	581	-	-	-	5.3	2.2	-	7.5	46.3	16.8	2.2	19.0
3/3	114	114	-	-	-	1.7	1.2	-	2.8	89.9	3.7	1.2	4.8
4/2+4/1	432	432	-	-	-	4.4	2.6	-	7.0	58.1	9.6	2.6	12.2
5/1	850	850	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	521	521	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/1	659	659	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/1	226	226	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0

C1 PRC for Signalled Lanes (%): 3.9 Total Delay for Signalled Lanes (pcuHr): 34.26
PRC Over All Lanes (%): 3.9 Total Delay Over All Lanes(pcuHr): 34.26 Cycle Time (s): 120

Scenario 5: '2029 AM without Dev' (FG5: '2029 AM without Dev', Plan 1: 'with Peds')

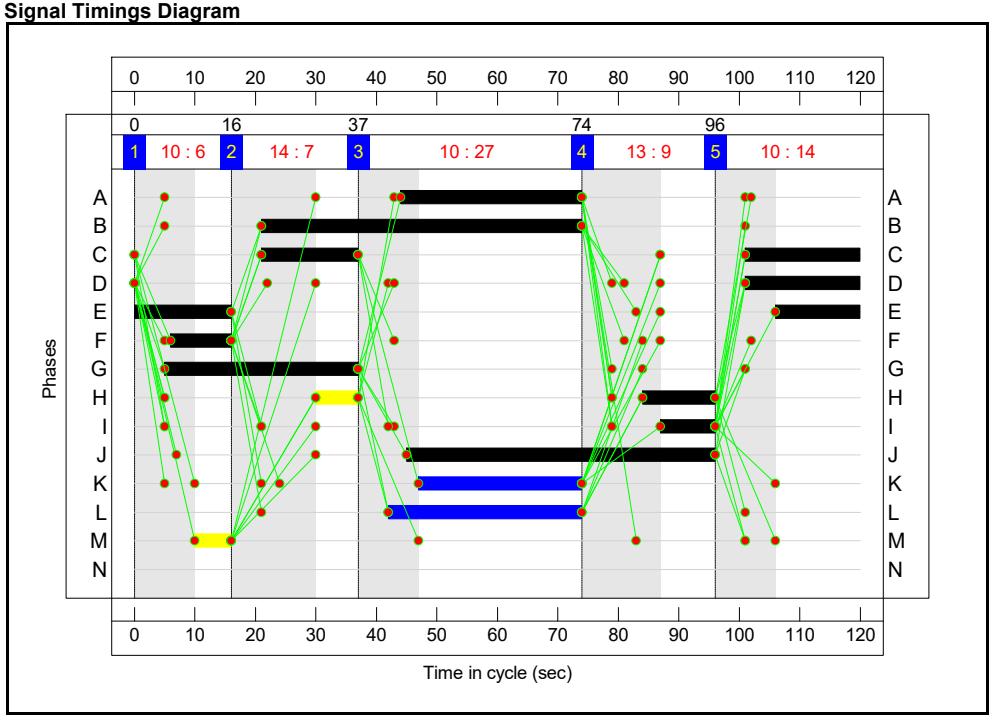
Stage Sequence Diagram



Stage Timings

Stage	1	2	3	4	5
Duration	6	7	27	9	14
Change Point	0	16	37	74	96

Signal Timings Diagram



Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network: Dublin Rd_Doughiska Rd Junction	-	-	-	-	-	-	-	-	-	-	-	-	**109.0%**
Old Dublin Rd_Doughiska Rd Junction	-	-	-	-	-	-	-	-	-	-	-	-	**109.0%**
1/1	Old Dublin Rd East Left	U	N/A	N/A	C		2	35	-	72	1674	516	13.9%
1/2+1/3	Old Dublin Rd East Ahead Right	U	N/A	N/A	B A		1	53:30		747	1925:1759	686	108.9%
2/2+2/1	Doughiska Rd South Right Left Ahead	U	N/A	N/A	D E		1	19:30		352	1877:1738	323	109.0%
3/2+3/1	Old Dublin Rd West Ahead Left	U	N/A	N/A	G H		1:2	32:19		506	1945:1693	645	78.4%
3/3	Old Dublin Rd West Right	U	N/A	N/A	F		1	10	-	59	1750	160	36.8%
4/2+4/1	Doughiska Rd North Left Ahead Right	U	N/A	N/A	I J		1	9:51		312	1833:1702	291	107.2%
5/1		U	N/A	N/A	-		-	-	-	578	1	Inf	0.0%
6/1		U	N/A	N/A	-		-	-	-	210	1	Inf	0.0%
7/1		U	N/A	N/A	-		-	-	-	486	1	Inf	0.0%
8/1		U	N/A	N/A	-		-	-	-	774	1	Inf	0.0%

Full Input Data And Results

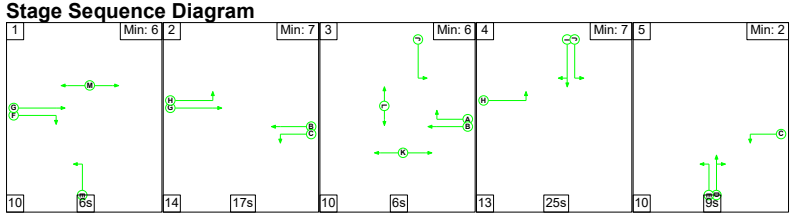
Item	Entering (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per Veh (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network: Dublin Rd_Doughiska Rd Junction	-	-	**0**	**0**	**0**	**26.5**	**72.6**	**0.0**	**99.1**	-	-	-	-
Old Dublin Rd_Doughiska Rd Junction	-	-	**0**	**0**	**0**	**26.5**	**72.6**	**0.0**	**99.1**	-	-	-	-
1/1	72	72	-	-	-	0.4	0.1	-	0.5	23.1	1.3	0.1	1.4
1/2+1/3	747	686	-	-	-	10.3	35.9	-	46.2	222.5	21.2	35.9	57.1
2/2+2/1	352	323	-	-	-	6.4	19.1	-	25.5	261.0	12.7	19.1	31.8
3/2+3/1	506	506	-	-	-	4.5	1.8	-	6.3	44.9	10.8	1.8	12.5
3/3	59	59	-	-	-	0.8	0.3	-	1.1	68.9	1.8	0.3	2.1
4/2+4/1	312	291	-	-	-	4.0	15.5	-	19.5	224.7	6.7	15.5	22.2
5/1	559	559	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	205	205	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/1	447	447	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/1	726	726	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0

C1 PRC for Signalled Lanes (%): -21.1 PRC Over All Lanes (%): -21.1 Total Delay for Signalled Lanes (pcuHr): 99.07 Total Delay Over All Lanes(pcuHr): 99.07 Cycle Time (s): 120

Full Input Data And Results

Scenario 6: '2029 PM without Dev' (FG6: '2029 PM without Dev', Plan 1: 'with Peds')

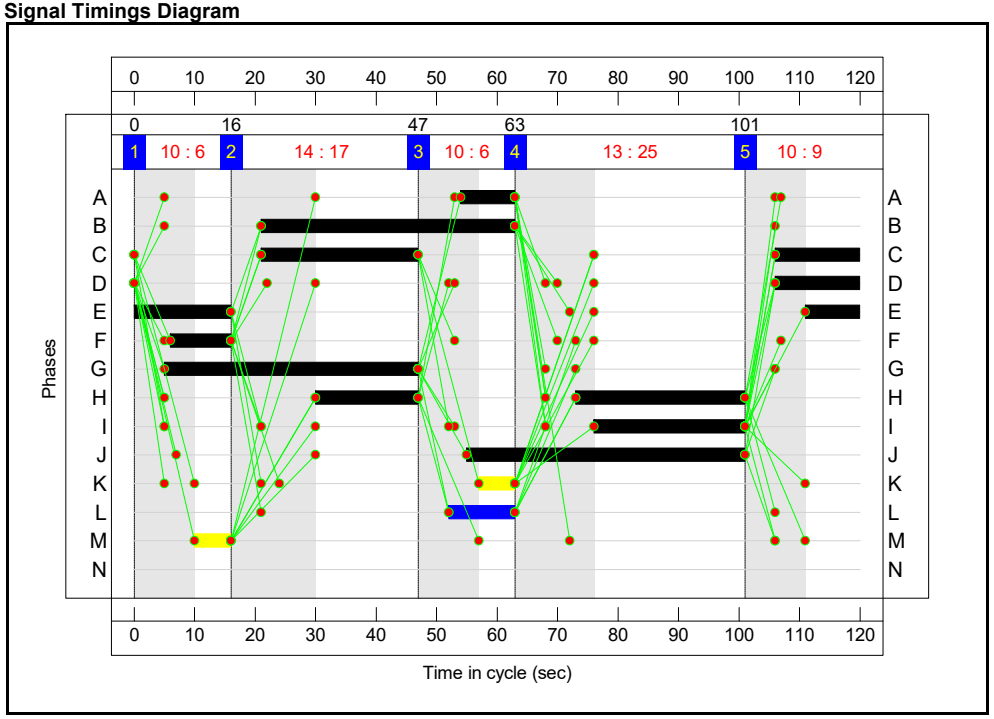
Stage Sequence Diagram



Stage Timings

Stage	1	2	3	4	5
Duration	6	17	6	25	9
Change Point	0	16	47	63	101

Signal Timings Diagram



Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network: Dublin Rd_Doughiska Rd Junction	-	-	-	-	-	-	-	-	-	-	-	-	**94.4%**
Old Dublin Rd_Doughiska Rd Junction	-	-	-	-	-	-	-	-	-	-	-	-	**94.4%**
1/1	Old Dublin Rd East Left	U	N/A	N/A	C		2	40	-	281	1674	586	48.0%
1/2+1/3	Old Dublin Rd East Ahead Right	U	N/A	N/A	B A		1	42:9		689	1925:1759	730	94.4%
2/2+2/1	Doughiska Rd South Right Left Ahead	U	N/A	N/A	D E		1	14:25		260	1822:1738	284	91.6%
3/2+3/1	Old Dublin Rd West Ahead Left	U	N/A	N/A	G H		1:2	42:45		634	1945:1693	710	89.3%
3/3	Old Dublin Rd West Right	U	N/A	N/A	F		1	10	-	124	1750	160	77.3%
4/2+4/1	Doughiska Rd North Left Ahead Right	U	N/A	N/A	I J		1	25:46		470	1859:1702	511	92.1%
5/1		U	N/A	N/A	-		-	-	-	926	1	Inf	0.0%
6/1		U	N/A	N/A	-		-	-	-	567	1	Inf	0.0%
7/1		U	N/A	N/A	-		-	-	-	719	1	Inf	0.0%
8/1		U	N/A	N/A	-		-	-	-	246	1	Inf	0.0%

Full Input Data And Results

Item	Entering (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per Veh (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network: Dublin Rd_Doughiska Rd Junction	-	-	**0**	**0**	**0**	**25.3**	**21.0**	**0.0**	**46.3**	-	-	-	-
Old Dublin Rd_Doughiska Rd Junction	-	-	**0**	**0**	**0**	**25.3**	**21.0**	**0.0**	**46.3**	-	-	-	-
1/1	281	281	-	-	-	1.5	0.5	-	1.9	24.7	5.4	0.5	5.8
1/2+1/3	689	689	-	-	-	7.6	6.4	-	14.0	73.1	20.5	6.4	26.9
2/2+2/1	260	260	-	-	-	3.4	4.1	-	7.5	103.3	6.5	4.1	10.6
3/2+3/1	634	634	-	-	-	6.0	3.8	-	9.8	55.8	19.1	3.8	22.9
3/3	124	124	-	-	-	1.8	1.6	-	3.4	98.8	4.0	1.6	5.6
4/2+4/1	470	470	-	-	-	5.0	4.7	-	9.7	74.2	11.3	4.7	16.0
5/1	926	926	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	567	567	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/1	719	719	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/1	246	246	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0

C1

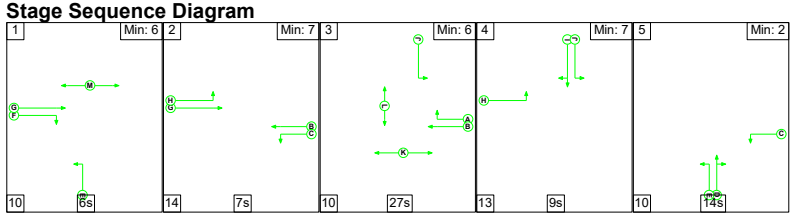
PRC for Signalled Lanes (%): -4.9
PRC Over All Lanes (%): -4.9

Total Delay for Signalled Lanes (pcuHr): 46.30
Total Delay Over All Lanes(pcuHr): 46.30

Cycle Time (s): 120

Scenario 7: '2039 AM without Dev' (FG7: '2039 AM without Dev', Plan 1: 'with Peds')

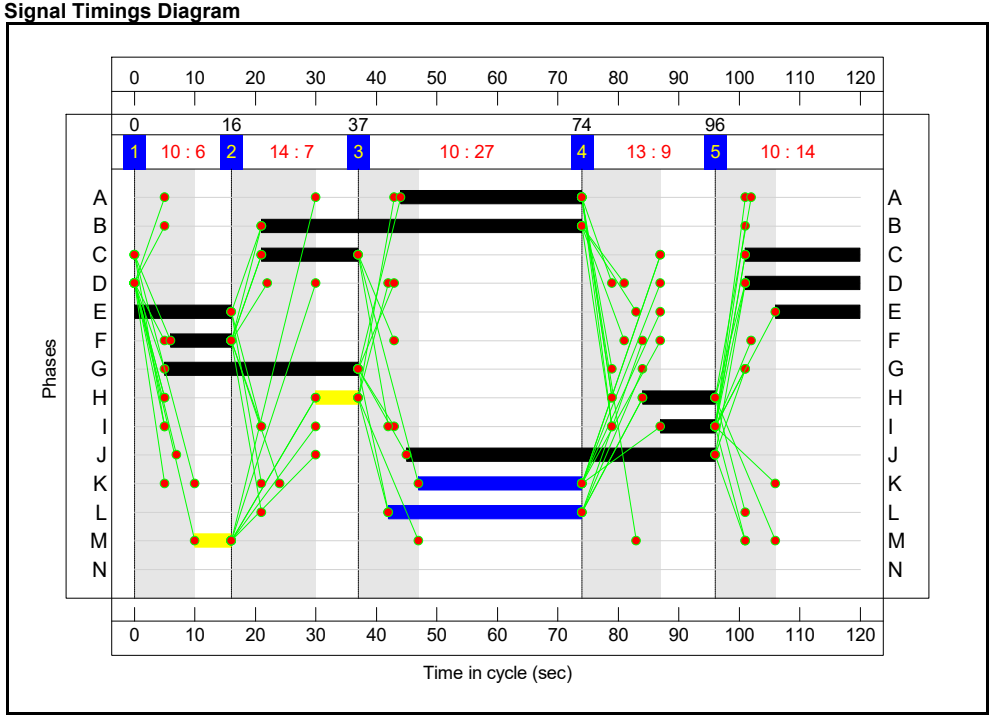
Stage Sequence Diagram



Stage Timings

Stage	1	2	3	4	5
Duration	6	7	27	9	14
Change Point	0	16	37	74	96

Signal Timings Diagram



Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network: Dublin Rd_Doughiska Rd Junction	-	-	-	-	-	-	-	-	-	-	-	-	**121.6%**
Old Dublin Rd_Doughiska Rd Junction	-	-	-	-	-	-	-	-	-	-	-	-	**121.6%**
1/1	Old Dublin Rd East Left	U	N/A	N/A	C		2	35	-	82	1674	516	15.9%
1/2+1/3	Old Dublin Rd East Ahead Right	U	N/A	N/A	B A		1	53:30		836	1925:1759	688	121.6%
2/2+2/1	Doughiska Rd South Right Left Ahead	U	N/A	N/A	D E		1	19:30		392	1877:1738	323	121.2%
3/2+3/1	Old Dublin Rd West Ahead Left	U	N/A	N/A	G H		1:2	32:19		567	1945:1693	645	87.9%
3/3	Old Dublin Rd West Right	U	N/A	N/A	F		1	10	-	66	1750	160	41.1%
4/2+4/1	Doughiska Rd North Left Ahead Right	U	N/A	N/A	I J		1	9:51		349	1833:1702	291	119.9%
5/1		U	N/A	N/A	-		-	-	-	647	1	Inf	0.0%
6/1		U	N/A	N/A	-		-	-	-	236	1	Inf	0.0%
7/1		U	N/A	N/A	-		-	-	-	547	1	Inf	0.0%
8/1		U	N/A	N/A	-		-	-	-	862	1	Inf	0.0%

Full Input Data And Results

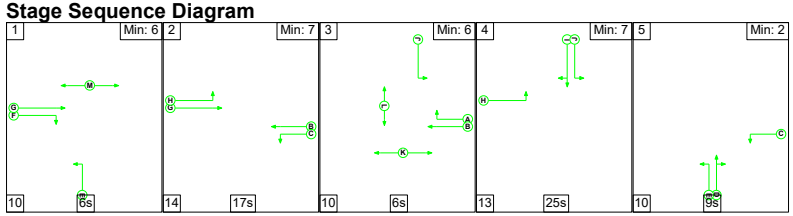
Item	Entering (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per Veh (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network: Dublin Rd_Doughiska Rd Junction	-	-	**0**	**0**	**0**	**37.9**	**149.3**	**0.0**	**187.2**	-	-	-	-
Old Dublin Rd_Doughiska Rd Junction	-	-	**0**	**0**	**0**	**37.9**	**149.3**	**0.0**	**187.2**	-	-	-	-
1/1	82	82	-	-	-	0.4	0.1	-	0.5	23.3	1.5	0.1	1.6
1/2+1/3	836	688	-	-	-	15.7	76.8	-	92.6	398.6	27.2	76.8	104.0
2/2+2/1	392	323	-	-	-	9.5	37.0	-	46.5	427.2	16.8	37.0	53.8
3/2+3/1	567	567	-	-	-	5.2	3.3	-	8.6	54.5	13.4	3.3	16.7
3/3	66	66	-	-	-	0.9	0.3	-	1.3	70.4	2.1	0.3	2.4
4/2+4/1	349	291	-	-	-	6.0	31.7	-	37.7	389.4	10.6	31.7	42.3
5/1	597	597	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	221	221	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/1	451	451	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/1	748	748	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0

C1 PRC for Signalled Lanes (%): -35.1 Total Delay for Signalled Lanes (pcuHr): 187.23
PRC Over All Lanes (%): -35.1 Total Delay Over All Lanes(pcuHr): 187.23 Cycle Time (s): 120

Full Input Data And Results

Scenario 8: '2039 PM without Dev' (FG8: '2039 PM without Dev', Plan 1: 'with Peds')

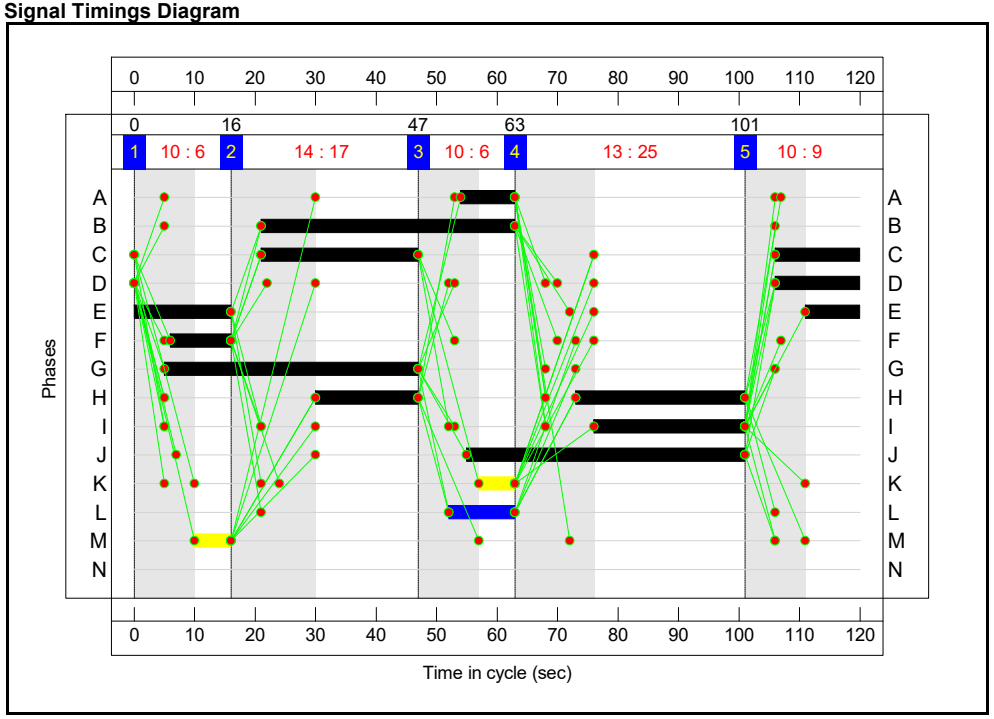
Stage Sequence Diagram



Stage Timings

Stage	1	2	3	4	5
Duration	6	17	6	25	9
Change Point	0	16	47	63	101

Signal Timings Diagram



Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network: Dublin Rd_Doughiska Rd Junction	-	-	-	-	-	-	-	-	-	-	-	-	**105.5%**
Old Dublin Rd_Doughiska Rd Junction	-	-	-	-	-	-	-	-	-	-	-	-	**105.5%**
1/1	Old Dublin Rd East Left	U	N/A	N/A	C		2	40	-	312	1674	586	53.3%
1/2+1/3	Old Dublin Rd East Ahead Right	U	N/A	N/A	B A		1	42:9		770	1925:1759	730	105.5%
2/2+2/1	Doughiska Rd South Right Left Ahead	U	N/A	N/A	D E		1	14:25		288	1822:1738	284	101.5%
3/2+3/1	Old Dublin Rd West Ahead Left	U	N/A	N/A	G H		1:2	42:45		707	1945:1693	710	99.6%
3/3	Old Dublin Rd West Right	U	N/A	N/A	F		1	10	-	137	1750	160	85.4%
4/2+4/1	Doughiska Rd North Left Ahead Right	U	N/A	N/A	I J		1	25:46		523	1859:1702	510	102.6%
5/1		U	N/A	N/A	-		-	-	-	1030	1	Inf	0.0%
6/1		U	N/A	N/A	-		-	-	-	629	1	Inf	0.0%
7/1		U	N/A	N/A	-		-	-	-	803	1	Inf	0.0%
8/1		U	N/A	N/A	-		-	-	-	275	1	Inf	0.0%

Full Input Data And Results

Item	Entering (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per Veh (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network: Dublin Rd_Doughiska Rd Junction	-	-	**0**	**0**	**0**	**32.1**	**67.6**	**0.0**	**99.7**	-	-	-	-
Old Dublin Rd_Doughiska Rd Junction	-	-	**0**	**0**	**0**	**32.1**	**67.6**	**0.0**	**99.7**	-	-	-	-
1/1	312	312	-	-	-	1.7	0.6	-	2.2	25.8	6.2	0.6	6.7
1/2+1/3	770	730	-	-	-	10.9	27.2	-	38.1	178.0	26.7	27.2	53.9
2/2+2/1	288	284	-	-	-	4.0	9.6	-	13.6	170.0	7.7	9.6	17.3
3/2+3/1	707	707	-	-	-	7.2	12.5	-	19.7	100.3	22.7	12.5	35.2
3/3	137	137	-	-	-	2.0	2.4	-	4.5	117.4	4.5	2.4	6.9
4/2+4/1	523	510	-	-	-	6.4	15.2	-	21.6	148.7	14.3	15.2	29.5
5/1	1021	1021	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	624	624	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/1	767	767	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/1	267	267	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0

C1

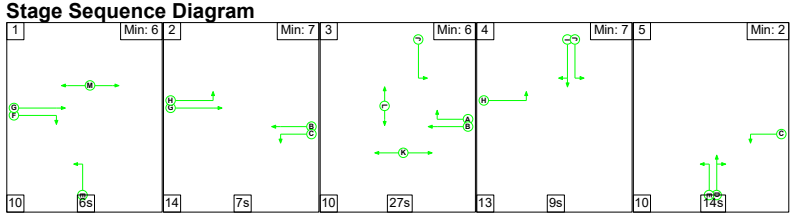
PRC for Signalled Lanes (%): -17.2
PRC Over All Lanes (%): -17.2

Total Delay for Signalled Lanes (pcuHr): 99.69
Total Delay Over All Lanes(pcuHr): 99.69

Cycle Time (s): 120

Scenario 9: '2024 AM with Dev' (FG9: '2024 AM with Dev', Plan 1: 'with Peds')

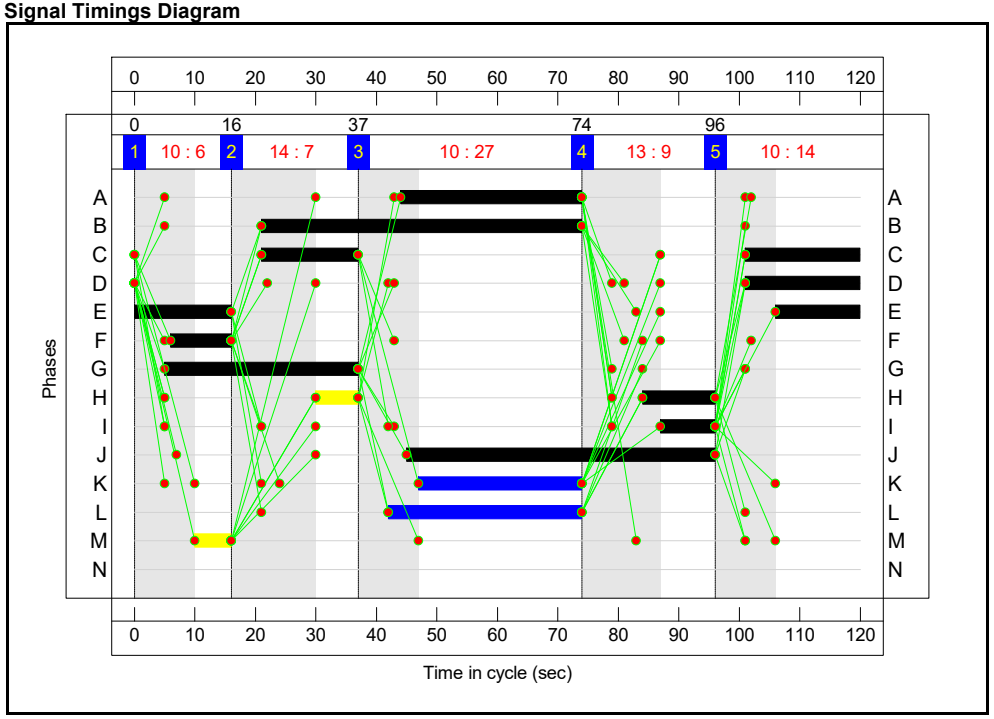
Stage Sequence Diagram



Stage Timings

Stage	1	2	3	4	5
Duration	6	7	27	9	14
Change Point	0	16	37	74	96

Signal Timings Diagram



Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network: Dublin Rd_Doughiska Rd Junction	-	-	-	-	-	-	-	-	-	-	-	-	**100.2%**
Old Dublin Rd_Doughiska Rd Junction	-	-	-	-	-	-	-	-	-	-	-	-	**100.2%**
1/1	Old Dublin Rd East Left	U	N/A	N/A	C		2	35	-	66	1674	516	12.8%
1/2+1/3	Old Dublin Rd East Ahead Right	U	N/A	N/A	B A		1	53:30		685	1925:1759	685	100.0%
2/2+2/1	Doughiska Rd South Right Left Ahead	U	N/A	N/A	D E		1	19:30		324	1877:1738	323	100.2%
3/2+3/1	Old Dublin Rd West Ahead Left	U	N/A	N/A	G H		1:2	32:19		471	1945:1693	646	73.0%
3/3	Old Dublin Rd West Right	U	N/A	N/A	F		1	10	-	55	1750	160	34.3%
4/2+4/1	Doughiska Rd North Left Ahead Right	U	N/A	N/A	I J		1	9:51		286	1834:1702	291	98.2%
5/1		U	N/A	N/A	-		-	-	-	534	1	Inf	0.0%
6/1		U	N/A	N/A	-		-	-	-	194	1	Inf	0.0%
7/1		U	N/A	N/A	-		-	-	-	445	1	Inf	0.0%
8/1		U	N/A	N/A	-		-	-	-	714	1	Inf	0.0%

Full Input Data And Results

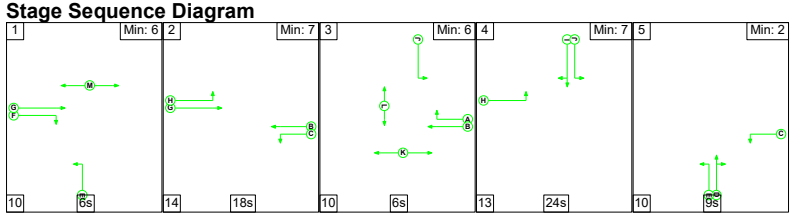
Item	Entering (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per Veh (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network: Dublin Rd_Doughiska Rd Junction	-	-	**0**	**0**	**0**	**19.1**	**31.2**	**0.0**	**50.4**	-	-	-	-
Old Dublin Rd_Doughiska Rd Junction	-	-	**0**	**0**	**0**	**19.1**	**31.2**	**0.0**	**50.4**	-	-	-	-
1/1	66	66	-	-	-	0.3	0.1	-	0.4	23.0	1.2	0.1	1.3
1/2+1/3	685	685	-	-	-	6.6	13.1	-	19.7	103.6	15.9	13.1	29.1
2/2+2/1	324	323	-	-	-	4.4	9.2	-	13.6	150.6	10.2	9.2	19.4
3/2+3/1	471	471	-	-	-	4.2	1.3	-	5.5	42.0	9.3	1.3	10.6
3/3	55	55	-	-	-	0.8	0.3	-	1.0	68.1	1.7	0.3	2.0
4/2+4/1	286	286	-	-	-	2.9	7.2	-	10.1	127.6	4.8	7.2	12.0
5/1	534	534	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	194	194	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/1	445	445	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/1	713	713	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0

C1 PRC for Signalled Lanes (%): -11.4 Total Delay for Signalled Lanes (pcuHr): 50.36
PRC Over All Lanes (%): -11.4 Total Delay Over All Lanes(pcuHr): 50.36 Cycle Time (s): 120

Full Input Data And Results

Scenario 10: '2024 PM with Dev' (FG10: '2024 PM with Dev', Plan 1: 'with Peds')

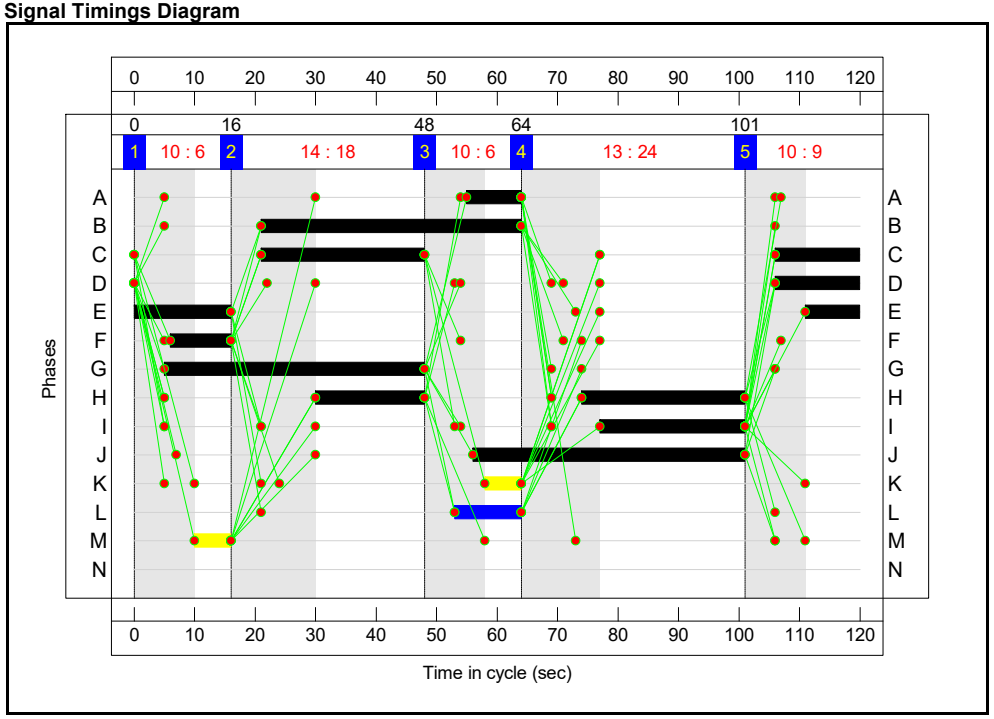
Stage Sequence Diagram



Stage Timings

Stage	1	2	3	4	5
Duration	6	18	6	24	9
Change Point	0	16	48	64	101

Signal Timings Diagram



Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network: Dublin Rd_Doughiska Rd Junction	-	-	-	-	-	-	-	-	-	-	-	-	**87.4%**
Old Dublin Rd_Doughiska Rd Junction	-	-	-	-	-	-	-	-	-	-	-	-	**87.4%**
1/1	Old Dublin Rd East Left	U	N/A	N/A	C		2	41	-	258	1674	600	43.0%
1/2+1/3	Old Dublin Rd East Ahead Right	U	N/A	N/A	B A		1	43:9		639	1925:1759	745	85.8%
2/2+2/1	Doughiska Rd South Right Left Ahead	U	N/A	N/A	D E		1	14:25		240	1822:1738	285	84.3%
3/2+3/1	Old Dublin Rd West Ahead Left	U	N/A	N/A	G H		1:2	43:45		581	1945:1693	726	80.0%
3/3	Old Dublin Rd West Right	U	N/A	N/A	F		1	10	-	114	1750	160	71.1%
4/2+4/1	Doughiska Rd North Left Ahead Right	U	N/A	N/A	I J		1	24:45		433	1859:1702	496	87.4%
5/1		U	N/A	N/A	-		-	-	-	850	1	Inf	0.0%
6/1		U	N/A	N/A	-		-	-	-	521	1	Inf	0.0%
7/1		U	N/A	N/A	-		-	-	-	668	1	Inf	0.0%
8/1		U	N/A	N/A	-		-	-	-	226	1	Inf	0.0%

Full Input Data And Results

Item	Entering (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per Veh (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network: Dublin Rd_Doughiska Rd Junction	-	-	**0**	**0**	**0**	**22.4**	**11.9**	**0.0**	**34.4**	-	-	-	-
Old Dublin Rd_Doughiska Rd Junction	-	-	**0**	**0**	**0**	**22.4**	**11.9**	**0.0**	**34.4**	-	-	-	-
1/1	258	258	-	-	-	1.3	0.4	-	1.7	23.2	4.8	0.4	5.2
1/2+1/3	639	639	-	-	-	6.7	2.9	-	9.5	53.7	17.8	2.9	20.7
2/2+2/1	240	240	-	-	-	3.1	2.4	-	5.5	83.0	5.7	2.4	8.2
3/2+3/1	581	581	-	-	-	5.2	2.0	-	7.1	44.0	16.6	2.0	18.6
3/3	114	114	-	-	-	1.7	1.2	-	2.8	89.9	3.7	1.2	4.8
4/2+4/1	433	433	-	-	-	4.5	3.1	-	7.7	63.9	9.8	3.1	13.0
5/1	850	850	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	521	521	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/1	668	668	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/1	226	226	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0

C1

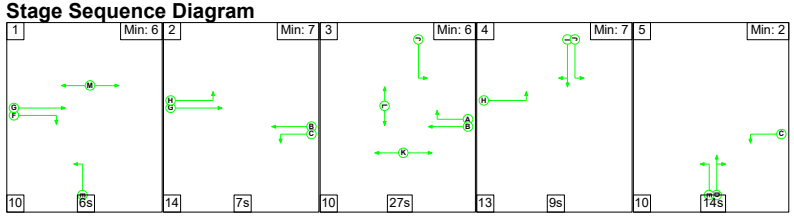
PRC for Signalled Lanes (%): 3.0
PRC Over All Lanes (%): 3.0

Total Delay for Signalled Lanes (pcuHr): 34.36
Total Delay Over All Lanes(pcuHr): 34.36

Cycle Time (s): 120

Scenario 11: '2029 AM with Dev' (FG11: '2029 AM with Dev', Plan 1: 'with Peds')

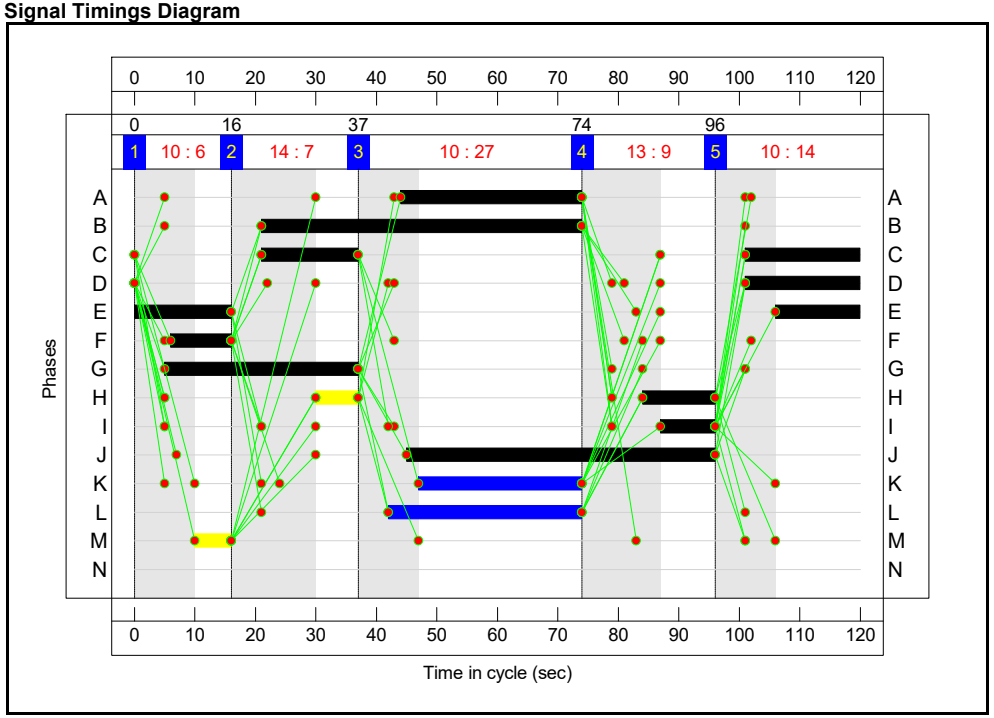
Stage Sequence Diagram



Stage Timings

Stage	1	2	3	4	5
Duration	6	7	27	9	14
Change Point	0	16	37	74	96

Signal Timings Diagram



Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network: Dublin Rd_Doughiska Rd Junction	-	-	-	-	-	-	-	-	-	-	-	-	**109.0%**
Old Dublin Rd_Doughiska Rd Junction	-	-	-	-	-	-	-	-	-	-	-	-	**109.0%**
1/1	Old Dublin Rd East Left	U	N/A	N/A	C		2	35	-	72	1674	516	13.9%
1/2+1/3	Old Dublin Rd East Ahead Right	U	N/A	N/A	B A		1	53:30		747	1925:1759	686	108.9%
2/2+2/1	Doughiska Rd South Right Left Ahead	U	N/A	N/A	D E		1	19:30		352	1877:1738	323	109.0%
3/2+3/1	Old Dublin Rd West Ahead Left	U	N/A	N/A	G H		1:2	32:19		512	1945:1693	645	79.4%
3/3	Old Dublin Rd West Right	U	N/A	N/A	F		1	10	-	60	1750	160	37.4%
4/2+4/1	Doughiska Rd North Left Ahead Right	U	N/A	N/A	I J		1	9:51		312	1833:1702	291	107.2%
5/1		U	N/A	N/A	-		-	-	-	582	1	Inf	0.0%
6/1		U	N/A	N/A	-		-	-	-	211	1	Inf	0.0%
7/1		U	N/A	N/A	-		-	-	-	486	1	Inf	0.0%
8/1		U	N/A	N/A	-		-	-	-	776	1	Inf	0.0%

Full Input Data And Results

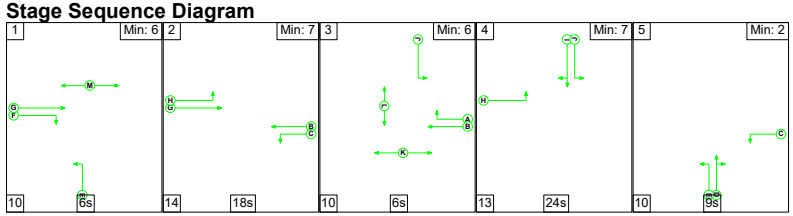
Item	Entering (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per Veh (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network: Dublin Rd_Doughiska Rd Junction	-	-	**0**	**0**	**0**	**26.6**	**72.7**	**0.0**	**99.3**	-	-	-	-
Old Dublin Rd_Doughiska Rd Junction	-	-	**0**	**0**	**0**	**26.6**	**72.7**	**0.0**	**99.3**	-	-	-	-
1/1	72	72	-	-	-	0.4	0.1	-	0.5	23.1	1.3	0.1	1.4
1/2+1/3	747	686	-	-	-	10.3	35.9	-	46.2	222.5	21.2	35.9	57.1
2/2+2/1	352	323	-	-	-	6.4	19.1	-	25.5	261.0	12.7	19.1	31.8
3/2+3/1	512	512	-	-	-	4.6	1.9	-	6.5	45.6	10.9	1.9	12.8
3/3	60	60	-	-	-	0.9	0.3	-	1.2	69.1	1.9	0.3	2.2
4/2+4/1	312	291	-	-	-	4.0	15.5	-	19.5	224.7	6.7	15.5	22.2
5/1	563	563	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	206	206	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/1	447	447	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/1	728	728	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0

C1 PRC for Signalled Lanes (%): -21.1 PRC Over All Lanes (%): -21.1 Total Delay for Signalled Lanes (pcuHr): 99.26 Total Delay Over All Lanes(pcuHr): 99.26 Cycle Time (s): 120

Full Input Data And Results

Scenario 12: '2029 PM with Dev' (FG12: '2029 PM with Dev', Plan 1: 'with Peds')

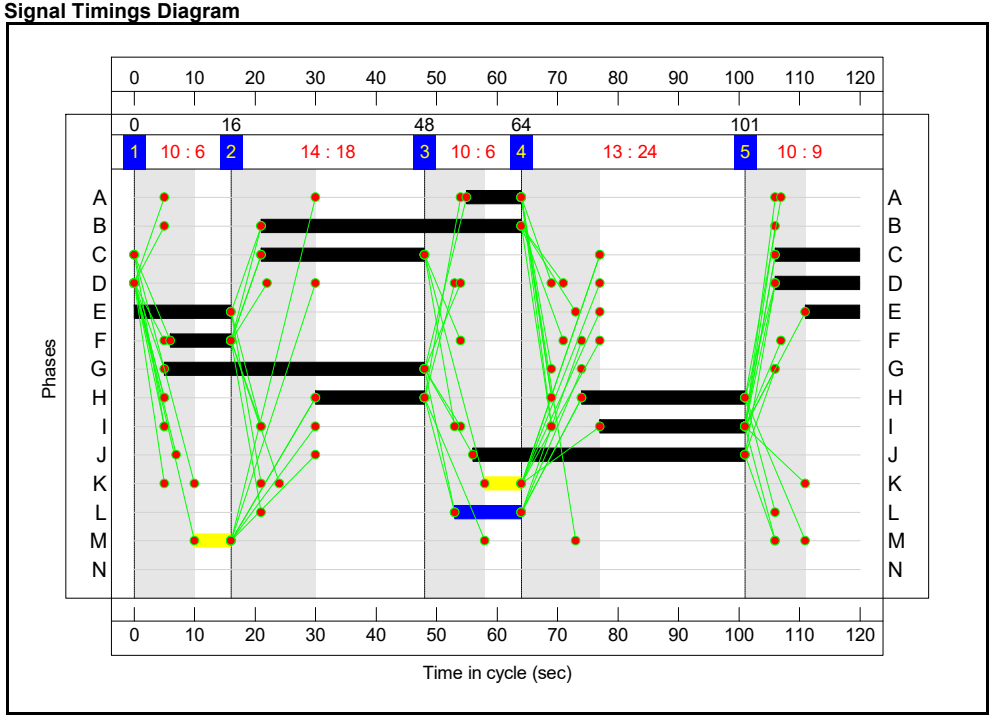
Stage Sequence Diagram



Stage Timings

Stage	1	2	3	4	5
Duration	6	18	6	24	9
Change Point	0	16	48	64	101

Signal Timings Diagram



Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network: Dublin Rd_Doughiska Rd Junction	-	-	-	-	-	-	-	-	-	-	-	-	**95.1%**
Old Dublin Rd_Doughiska Rd Junction	-	-	-	-	-	-	-	-	-	-	-	-	**95.1%**
1/1	Old Dublin Rd East Left	U	N/A	N/A	C		2	41	-	281	1674	600	46.8%
1/2+1/3	Old Dublin Rd East Ahead Right	U	N/A	N/A	B A		1	43:9		696	1925:1759	745	93.4%
2/2+2/1	Doughiska Rd South Right Left Ahead	U	N/A	N/A	D E		1	14:25		261	1822:1738	285	91.7%
3/2+3/1	Old Dublin Rd West Ahead Left	U	N/A	N/A	G H		1:2	43:45		634	1945:1693	726	87.3%
3/3	Old Dublin Rd West Right	U	N/A	N/A	F		1	10	-	124	1750	160	77.3%
4/2+4/1	Doughiska Rd North Left Ahead Right	U	N/A	N/A	I J		1	24:45		471	1859:1702	495	95.1%
5/1		U	N/A	N/A	-		-	-	-	926	1	Inf	0.0%
6/1		U	N/A	N/A	-		-	-	-	567	1	Inf	0.0%
7/1		U	N/A	N/A	-		-	-	-	728	1	Inf	0.0%
8/1		U	N/A	N/A	-		-	-	-	246	1	Inf	0.0%

Full Input Data And Results

Item	Entering (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per Veh (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network: Dublin Rd_Doughiska Rd Junction	-	-	**0**	**0**	**0**	**25.2**	**21.5**	**0.0**	**46.7**	-	-	-	-
Old Dublin Rd_Doughiska Rd Junction	-	-	**0**	**0**	**0**	**25.2**	**21.5**	**0.0**	**46.7**	-	-	-	-
1/1	281	281	-	-	-	1.4	0.4	-	1.9	23.9	5.3	0.4	5.7
1/2+1/3	696	696	-	-	-	7.5	5.8	-	13.3	68.6	20.7	5.8	26.5
2/2+2/1	261	261	-	-	-	3.4	4.1	-	7.5	103.7	6.6	4.1	10.7
3/2+3/1	634	634	-	-	-	5.9	3.2	-	9.1	51.6	18.9	3.2	22.1
3/3	124	124	-	-	-	1.8	1.6	-	3.4	98.8	4.0	1.6	5.6
4/2+4/1	471	471	-	-	-	5.1	6.4	-	11.5	87.9	11.4	6.4	17.8
5/1	926	926	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	567	567	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/1	728	728	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/1	246	246	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0

C1

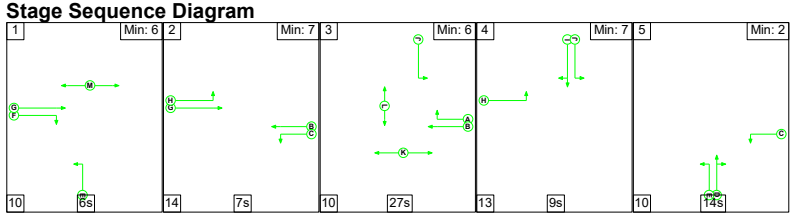
PRC for Signalled Lanes (%): -5.7
PRC Over All Lanes (%): -5.7

Total Delay for Signalled Lanes (pcuHr): 46.65
Total Delay Over All Lanes(pcuHr): 46.65

Cycle Time (s): 120

Scenario 13: '2039 AM with Dev' (FG13: '2039 AM with Dev', Plan 1: 'with Peds')

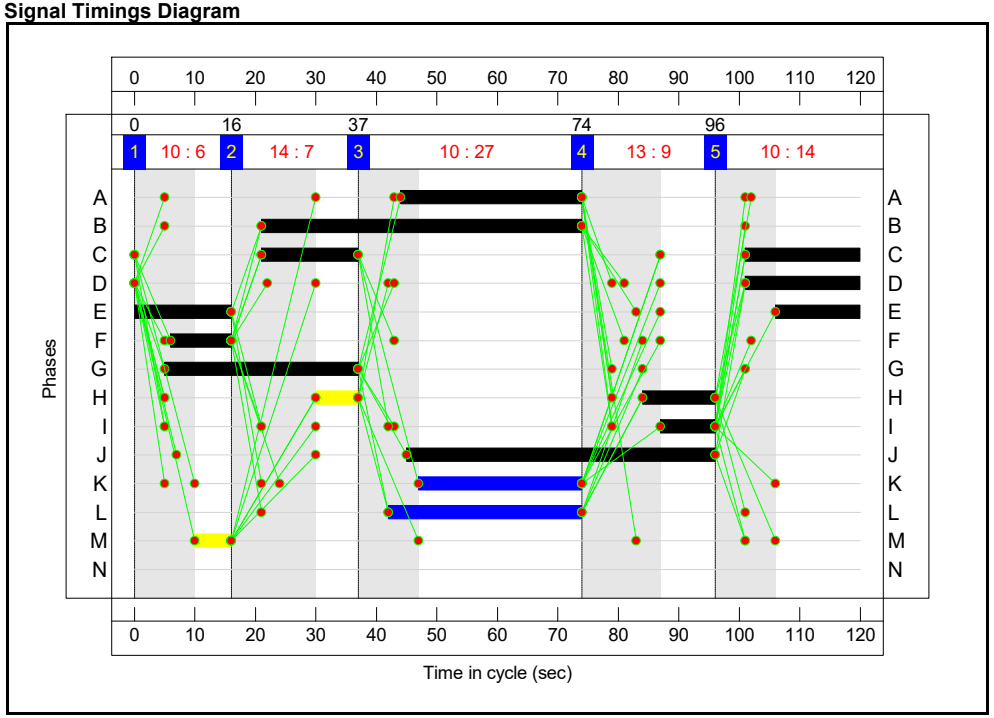
Stage Sequence Diagram



Stage Timings

Stage	1	2	3	4	5
Duration	6	7	27	9	14
Change Point	0	16	37	74	96

Signal Timings Diagram



Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network: Dublin Rd_Doughiska Rd Junction	-	-	-	-	-	-	-	-	-	-	-	-	**121.6%**
Old Dublin Rd_Doughiska Rd Junction	-	-	-	-	-	-	-	-	-	-	-	-	**121.6%**
1/1	Old Dublin Rd East Left	U	N/A	N/A	C		2	35	-	82	1674	516	15.9%
1/2+1/3	Old Dublin Rd East Ahead Right	U	N/A	N/A	B A		1	53:30		836	1925:1759	688	121.6%
2/2+2/1	Doughiska Rd South Right Left Ahead	U	N/A	N/A	D E		1	19:30		392	1877:1738	323	121.2%
3/2+3/1	Old Dublin Rd West Ahead Left	U	N/A	N/A	G H		1:2	32:19		573	1945:1693	645	88.9%
3/3	Old Dublin Rd West Right	U	N/A	N/A	F		1	10	-	67	1750	160	41.8%
4/2+4/1	Doughiska Rd North Left Ahead Right	U	N/A	N/A	I J		1	9:51		349	1833:1702	291	119.9%
5/1		U	N/A	N/A	-		-	-	-	651	1	Inf	0.0%
6/1		U	N/A	N/A	-		-	-	-	237	1	Inf	0.0%
7/1		U	N/A	N/A	-		-	-	-	547	1	Inf	0.0%
8/1		U	N/A	N/A	-		-	-	-	864	1	Inf	0.0%

Full Input Data And Results

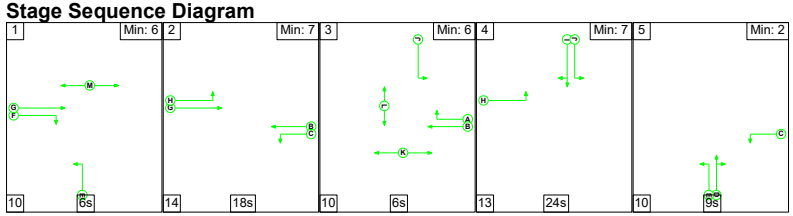
Item	Entering (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per Veh (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network: Dublin Rd_Doughiska Rd Junction	-	-	**0**	**0**	**0**	**38.0**	**149.6**	**0.0**	**187.6**	-	-	-	-
Old Dublin Rd_Doughiska Rd Junction	-	-	**0**	**0**	**0**	**38.0**	**149.6**	**0.0**	**187.6**	-	-	-	-
1/1	82	82	-	-	-	0.4	0.1	-	0.5	23.3	1.5	0.1	1.6
1/2+1/3	836	688	-	-	-	15.7	76.8	-	92.6	398.6	27.2	76.8	104.0
2/2+2/1	392	323	-	-	-	9.5	37.0	-	46.5	427.2	16.8	37.0	53.8
3/2+3/1	573	573	-	-	-	5.3	3.6	-	8.9	56.2	13.7	3.6	17.3
3/3	67	67	-	-	-	1.0	0.4	-	1.3	70.6	2.1	0.4	2.5
4/2+4/1	349	291	-	-	-	6.0	31.7	-	37.7	389.4	10.6	31.7	42.3
5/1	601	601	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	222	222	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/1	451	451	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/1	750	750	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0

C1 PRC for Signalled Lanes (%): -35.1 PRC Over All Lanes (%): -35.1 Total Delay for Signalled Lanes (pcuHr): 187.61 Total Delay Over All Lanes(pcuHr): 187.61 Cycle Time (s): 120

Full Input Data And Results

Scenario 14: '2039 PM with Dev' (FG14: '2039 PM with Dev', Plan 1: 'with Peds')

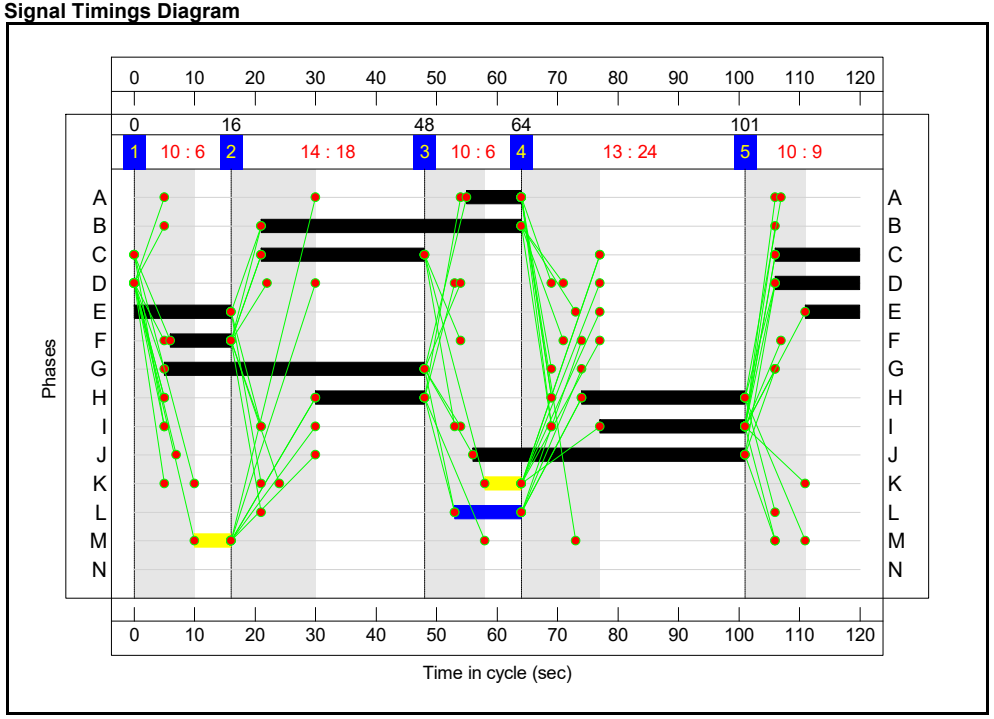
Stage Sequence Diagram



Stage Timings

Stage	1	2	3	4	5
Duration	6	18	6	24	9
Change Point	0	16	48	64	101

Signal Timings Diagram



Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network: Dublin Rd_Doughiska Rd Junction	-	-	-	-	-	-	-	-	-	-	-	-	**106.0%**
Old Dublin Rd_Doughiska Rd Junction	-	-	-	-	-	-	-	-	-	-	-	-	**106.0%**
1/1	Old Dublin Rd East Left	U	N/A	N/A	C		2	41	-	312	1674	600	52.0%
1/2+1/3	Old Dublin Rd East Ahead Right	U	N/A	N/A	B A		1	43:9		777	1925:1759	745	104.3%
2/2+2/1	Doughiska Rd South Right Left Ahead	U	N/A	N/A	D E		1	14:25		289	1822:1738	284	101.7%
3/2+3/1	Old Dublin Rd West Ahead Left	U	N/A	N/A	G H		1:2	43:45		707	1945:1693	726	97.4%
3/3	Old Dublin Rd West Right	U	N/A	N/A	F		1	10	-	137	1750	160	85.4%
4/2+4/1	Doughiska Rd North Left Ahead Right	U	N/A	N/A	I J		1	24:45		524	1858:1702	494	106.0%
5/1		U	N/A	N/A	-		-	-	-	1030	1	Inf	0.0%
6/1		U	N/A	N/A	-		-	-	-	629	1	Inf	0.0%
7/1		U	N/A	N/A	-		-	-	-	812	1	Inf	0.0%
8/1		U	N/A	N/A	-		-	-	-	275	1	Inf	0.0%

Full Input Data And Results

Item	Entering (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per Veh (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network: Dublin Rd_Doughiska Rd Junction	-	-	**0**	**0**	**0**	**32.2**	**67.1**	**0.0**	**99.3**	-	-	-	-
Old Dublin Rd_Doughiska Rd Junction	-	-	**0**	**0**	**0**	**32.2**	**67.1**	**0.0**	**99.3**	-	-	-	-
1/1	312	312	-	-	-	1.6	0.5	-	2.2	24.9	6.1	0.5	6.6
1/2+1/3	777	745	-	-	-	10.4	24.0	-	34.5	159.6	26.7	24.0	50.7
2/2+2/1	289	284	-	-	-	4.0	9.8	-	13.8	171.3	7.7	9.8	17.5
3/2+3/1	707	707	-	-	-	7.0	9.3	-	16.3	83.0	22.5	9.3	31.8
3/3	137	137	-	-	-	2.0	2.4	-	4.5	117.4	4.5	2.4	6.9
4/2+4/1	524	494	-	-	-	7.1	21.1	-	28.2	193.7	15.1	21.1	36.2
5/1	1013	1013	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	619	619	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/1	780	780	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/1	268	268	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0

C1

PRC for Signalled Lanes (%): -17.8
PRC Over All Lanes (%): -17.8

Total Delay for Signalled Lanes (pcuHr): 99.34
Total Delay Over All Lanes(pcuHr): 99.34

Cycle Time (s): 120

APPENDIX E4

PICADY Analysis – Junction between R338 Coast Road-Rosshill Road

PICADY

GUI Version: 5.1 AD
Analysis Program Release: 4.0 (SEPT 2008)

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

TRL Limited
Crowthorne House
Nine Mile Ride
Wokingham, Berks.
RG40 3GA, UK

Tel: +44 (0)1344 770758
Fax:+44 (0)1344 770864
E-mail: software@trl.co.uk
Web: www.trlsoftware.co.uk

Run Analysis

Parameter	Values
File Run	I:\..\Coast Rd_Dublin Rd\119209 Coast Rd_Rosshill Rd PICADY Analysis.vpi
Date Run	13 December 2019
Time Run	13:22:53
Driving Side	Drive On The Left

Arm Names and Flow Scaling Factors

Arm	Arm Name	Flow Scaling Factor (%)
Arm A	Coast Rd East	100
Arm B	Rosshill Rd	100
Arm C	Coast Rd West	100

Stream Labelling Convention

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

Run Information

Parameter	Values
Run Title	Coast Road/Rosshill Road T-junction
Location	Rosshill, Galway City
Date	18 July 2019
Enumerator	J Noone
Job Number	119209
Status	Preliminary
Client	Alber Homes
Description	-

Geometric Data

Geometric Parameters

Parameter	Minor Arm B
Major Road Carriageway Width (m)	7.20
Major Road Kerbed Central Reserve Width (m)	0.00
Major Road Right Turning Lane Width (m)	2.90
Minor Road Width 0m Back from Junction (m)	8.50
Minor Road Width 5m Back from Junction (m)	6.20
Minor Road Width 10m Back from Junction (m)	4.40
Minor Road Width 15m Back from Junction (m)	4.00
Minor Road Width 20m Back from Junction (m)	3.70
Minor Road Derived Flare Length (PCU)	1.000
Minor Road Visibility To Right (m)	15
Minor Road Visibility To Left (m)	15
Major Road Right Turn Visibility (m)	160
Major Road Right Turn Blocks Traffic	Yes

Slope and Intercept Values

Stream	Intercept for Stream B-A	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	717.407	0.263	0.263	-	-

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	07:15-08:45	90	15
Second Modelling Period	16:45-18:15	90	15

ODTAB Turning Counts

Demand Set: 2019 AM Survey Year
Modelling Period: 07:15-08:45

From/To	Arm A	Arm B	Arm C
Arm A	0.0	430.0	502.0
Arm B	27.0	0.0	2.0
Arm C	158.0	3.0	0.0

Demand Set: 2019 PM Survey Year
Modelling Period: 16:45-18:15

From/To	Arm A	Arm B	Arm C
Arm A	0.0	47.0	176.0
Arm B	144.0	0.0	1.0
Arm C	295.0	6.0	0.0

Demand Set: 2024 AM without Dev
Modelling Period: 07:15-08:45

From/To	Arm A	Arm B	Arm C
Arm A	0.0	468.0	546.0
Arm B	29.0	0.0	2.0
Arm C	172.0	3.0	0.0

Demand Set: 2024 PM without Dev
Modelling Period: 16:45-18:15

From/To	Arm A	Arm B	Arm C
Arm A	0.0	51.0	191.0
Arm B	156.0	0.0	1.0
Arm C	321.0	7.0	0.0

Demand Set: 2029 AM without Dev
Modelling Period: 07:15-08:45

From/To	Arm A	Arm B	Arm C
Arm A	0.0	509.0	595.0
Arm B	32.0	0.0	2.0
Arm C	188.0	4.0	0.0

Demand Set: 2029 PM without Dev
Modelling Period: 16:45-18:15

From/To	Arm A	Arm B	Arm C
Arm A	0.0	56.0	208.0
Arm B	170.0	0.0	1.0
Arm C	349.0	7.0	0.0

Demand Set: 2039 AM without Dev
Modelling Period: 07:15-08:45

From/To	Arm A	Arm B	Arm C
Arm A	0.0	565.0	662.0
Arm B	35.0	0.0	3.0
Arm C	210.0	4.0	0.0

Demand Set: 2039 PM without Dev
Modelling Period: 16:45-18:15

From/To	Arm A	Arm B	Arm C
Arm A	0.0	62.0	232.0
Arm B	188.0	0.0	1.0
Arm C	388.0	8.0	0.0

Demand Set: 2024 AM with Dev
Modelling Period: 07:15-08:45

From/To	Arm A	Arm B	Arm C
Arm A	0.0	501.0	546.0
Arm B	127.0	0.0	9.0
Arm C	172.0	3.0	0.0

Demand Set: 2024 PM with Dev
Modelling Period: 16:45-18:15

From/To	Arm A	Arm B	Arm C
Arm A	0.0	125.0	191.0
Arm B	199.0	0.0	1.0
Arm C	321.0	16.0	0.0

Demand Set: 2029 AM with Dev
Modelling Period: 07:15-08:45

From/To	Arm A	Arm B	Arm C
Arm A	0.0	542.0	595.0
Arm B	129.0	0.0	10.0
Arm C	188.0	4.0	0.0

Demand Set: 2029 PM with Dev
Modelling Period: 16:45-18:15

From/To	Arm A	Arm B	Arm C
Arm A	0.0	130.0	208.0
Arm B	212.0	0.0	1.0
Arm C	349.0	17.0	0.0

Demand Set: 2039 AM with Dev
Modelling Period: 07:15-08:45

From/To	Arm A	Arm B	Arm C
Arm A	0.0	598.0	662.0
Arm B	133.0	0.0	10.0
Arm C	210.0	4.0	0.0

Demand Set: 2039 PM with Dev
Modelling Period: 16:45-18:15

From/To	Arm A	Arm B	Arm C
Arm A	0.0	136.0	232.0
Arm B	231.0	0.0	2.0
Arm C	388.0	17.0	0.0

ODTAB Synthesised Flows

Demand Set: 2019 AM Survey Year
Modelling Period: 07:15-08:45

Arm	Rising Time	Rising Flow (veh/min)	Peak Time	Peak Flow (veh/min)	Falling Time	Falling Flow (veh/min)
Arm A	07:30	11.650	08:00	17.475	08:30	11.650
Arm B	07:30	0.363	08:00	0.544	08:30	0.363
Arm C	07:30	2.013	08:00	3.019	08:30	2.013

Heavy Vehicles Percentages

Demand Set: 2019 AM Survey Year
Modelling Period: 07:15-08:45

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: 2019 PM Survey Year
Modelling Period: 16:45-18:15

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: 2024 AM without Dev
Modelling Period: 07:15-08:45

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: 2024 PM without Dev
Modelling Period: 16:45-18:15

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: 2029 AM without Dev
Modelling Period: 07:15-08:45

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: 2029 PM without Dev
Modelling Period: 16:45-18:15

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: 2039 AM without Dev
Modelling Period: 07:15-08:45

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: 2039 PM without Dev
Modelling Period: 16:45-18:15

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: 2024 AM with Dev
Modelling Period: 07:15-08:45

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: 2024 PM with Dev
Modelling Period: 16:45-18:15

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: 2029 AM with Dev
Modelling Period: 07:15-08:45

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: 2029 PM with Dev
Modelling Period: 16:45-18:15

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: 2039 AM with Dev
Modelling Period: 07:15-08:45

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: 2039 PM with Dev
Modelling Period: 16:45-18:15

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

Queues & Delays

Demand Set: 2019 AM Survey Year
Modelling Period: 07:15-08:45

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)
07:15-07:30	B-A	0.34	6.07	0.056	-	0.00	0.06	-	0.8	0.17
	B-C	0.03	6.52	0.004	-	0.00	0.00	-	0.1	0.15
	C-AB	0.04	7.79	0.005	-	0.00	0.00	-	0.1	0.13
	C-A	-	-	-	-	-	-	-	-	-
	A-B	5.40	-	-	-	-	-	-	-	-
	A-C	6.30	-	-	-	-	-	-	-	-

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)
07:30-07:45	B-A	0.40	5.61	0.072	-	0.06	0.08	-	1.1	0.19
	B-C	0.03	6.17	0.005	-	0.00	0.00	-	0.1	0.16
	C-AB	0.04	7.19	0.006	-	0.00	0.01	-	0.1	0.14
	C-A	-	-	-	-	-	-	-	-	-
	A-B	6.44	-	-	-	-	-	-	-	-
	A-C	7.52	-	-	-	-	-	-	-	-

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	0.50	4.98	0.100	-	0.08	0.11	-	1.6	0.22
	B-C	0.04	5.68	0.006	-	0.00	0.01	-	0.1	0.18
	C-AB	0.06	6.36	0.009	-	0.01	0.01	-	0.1	0.16
	C-A	-	-	-	-	-	-	-	-	-
	A-B	7.89	-	-	-	-	-	-	-	-
	A-C	9.21	-	-	-	-	-	-	-	-

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)
08:00-08:15	B-A	0.50	4.98	0.100	-	0.11	0.11	-	1.6	0.22
	B-C	0.04	5.68	0.006	-	0.01	0.01	-	0.1	0.18
	C-AB	0.06	6.36	0.009	-	0.01	0.01	-	0.1	0.16
	C-A	-	-	-	-	-	-	-	-	-
	A-B	7.89	-	-	-	-	-	-	-	-
	A-C	9.21	-	-	-	-	-	-	-	-

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-A	0.40	5.61	0.072	-	0.11	0.08	-	1.2	0.19
	B-C	0.03	6.17	0.005	-	0.01	0.00	-	0.1	0.16
	C-AB	0.04	7.19	0.006	-	0.01	0.01	-	0.1	0.14
	C-A	-	-	-	-	-	-	-	-	-
	A-B	6.44	-	-	-	-	-	-	-	-
	A-C	7.52	-	-	-	-	-	-	-	-

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	0.34	6.07	0.056	-	0.08	0.06	-	0.9	0.17
	B-C	0.03	6.52	0.004	-	0.00	0.00	-	0.1	0.15
	C-AB	0.04	7.79	0.005	-	0.01	0.00	-	0.1	0.13
	C-A	-	-	-	-	-	-	-	-	-
	A-B	5.40	-	-	-	-	-	-	-	-
	A-C	6.30	-	-	-	-	-	-	-	-

Demand Set: 2019 PM Survey Year
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	1.81	7.28	0.248	-	0.00	0.32	-	4.6	0.18
	B-C	0.01	7.15	0.002	-	0.00	0.00	-	0.0	0.14
	C-AB	0.08	10.13	0.007	-	0.00	0.01	-	0.1	0.10
	C-A	-	-	-	-	-	-	-	-	-
	A-B	0.59	-	-	-	-	-	-	-	-
	A-C	2.21	-	-	-	-	-	-	-	-

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)
17:00-17:15	B-A	2.16	7.05	0.306	-	0.32	0.43	-	6.3	0.20
	B-C	0.01	6.85	0.002	-	0.00	0.00	-	0.0	0.15
	C-AB	0.09	9.99	0.009	-	0.01	0.01	-	0.1	0.10
	C-A	-	-	-	-	-	-	-	-	-
	A-B	0.70	-	-	-	-	-	-	-	-
	A-C	2.64	-	-	-	-	-	-	-	-

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	2.64	6.73	0.393	-	0.43	0.63	-	9.0	0.24
	B-C	0.02	6.35	0.003	-	0.00	0.00	-	0.0	0.16
	C-AB	0.11	9.79	0.011	-	0.01	0.01	-	0.2	0.10
	C-A	-	-	-	-	-	-	-	-	-
	A-B	0.86	-	-	-	-	-	-	-	-
	A-C	3.23	-	-	-	-	-	-	-	-

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	2.64	6.73	0.393	-	0.63	0.64	-	9.5	0.24
	B-C	0.02	6.34	0.003	-	0.00	0.00	-	0.0	0.16
	C-AB	0.11	9.79	0.011	-	0.01	0.01	-	0.2	0.10
	C-A	-	-	-	-	-	-	-	-	-
	A-B	0.86	-	-	-	-	-	-	-	-
	A-C	3.23	-	-	-	-	-	-	-	-

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	2.16	7.05	0.306	-	0.64	0.45	-	7.0	0.21
	B-C	0.01	6.84	0.002	-	0.00	0.00	-	0.0	0.15
	C-AB	0.09	9.99	0.009	-	0.01	0.01	-	0.1	0.10
	C-A	-	-	-	-	-	-	-	-	-
	A-B	0.70	-	-	-	-	-	-	-	-
	A-C	2.64	-	-	-	-	-	-	-	-

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	1.81	7.28	0.248	-	0.45	0.34	-	5.2	0.18
	B-C	0.01	7.14	0.002	-	0.00	0.00	-	0.0	0.14
	C-AB	0.08	10.13	0.007	-	0.01	0.01	-	0.1	0.10
	C-A	-	-	-	-	-	-	-	-	-
	A-B	0.59	-	-	-	-	-	-	-	-
	A-C	2.21	-	-	-	-	-	-	-	-

Demand Set: 2024 AM without Dev
Modelling Period: 07:15-08:45

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)
07:15-07:30	B-A	0.36	5.86	0.062	-	0.00	0.07	-	0.9	0.18
	B-C	0.03	6.36	0.004	-	0.00	0.00	-	0.1	0.16
	C-AB	0.04	7.52	0.005	-	0.00	0.00	-	0.1	0.13
	C-A	-	-	-	-	-	-	-	-	-
	A-B	5.87	-	-	-	-	-	-	-	-
	A-C	6.85	-	-	-	-	-	-	-	-

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)
07:30-07:45	B-A	0.43	5.36	0.081	-	0.07	0.09	-	1.3	0.20
	B-C	0.03	5.98	0.005	-	0.00	0.00	-	0.1	0.17
	C-AB	0.04	6.87	0.007	-	0.00	0.01	-	0.1	0.15
	C-A	-	-	-	-	-	-	-	-	-
	A-B	7.01	-	-	-	-	-	-	-	-
	A-C	8.18	-	-	-	-	-	-	-	-

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	0.53	4.67	0.114	-	0.09	0.13	-	1.8	0.24
	B-C	0.04	5.44	0.007	-	0.00	0.01	-	0.1	0.19
	C-AB	0.06	5.97	0.009	-	0.01	0.01	-	0.1	0.17
	C-A	-	-	-	-	-	-	-	-	-
	A-B	8.59	-	-	-	-	-	-	-	-
	A-C	10.02	-	-	-	-	-	-	-	-

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)
08:00-08:15	B-A	0.53	4.67	0.114	-	0.13	0.13	-	1.9	0.24
	B-C	0.04	5.44	0.007	-	0.01	0.01	-	0.1	0.19
	C-AB	0.06	5.97	0.009	-	0.01	0.01	-	0.1	0.17
	C-A	-	-	-	-	-	-	-	-	-
	A-B	8.59	-	-	-	-	-	-	-	-
	A-C	10.02	-	-	-	-	-	-	-	-

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-A	0.43	5.36	0.081	-	0.13	0.09	-	1.4	0.20
	B-C	0.03	5.97	0.005	-	0.01	0.01	-	0.1	0.17
	C-AB	0.04	6.87	0.007	-	0.01	0.01	-	0.1	0.15
	C-A	-	-	-	-	-	-	-	-	-
	A-B	7.01	-	-	-	-	-	-	-	-
	A-C	8.18	-	-	-	-	-	-	-	-

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	0.36	5.86	0.062	-	0.09	0.07	-	1.0	0.18
	B-C	0.03	6.36	0.004	-	0.01	0.00	-	0.1	0.16
	C-AB	0.04	7.52	0.005	-	0.01	0.01	-	0.1	0.13
	C-A	-	-	-	-	-	-	-	-	-
	A-B	5.87	-	-	-	-	-	-	-	-
	A-C	6.85	-	-	-	-	-	-	-	-

Demand Set: 2024 PM without Dev
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	1.96	7.18	0.273	-	0.00	0.37	-	5.2	0.19
	B-C	0.01	7.03	0.002	-	0.00	0.00	-	0.0	0.14
	C-AB	0.09	10.07	0.009	-	0.00	0.01	-	0.1	0.10
	C-A	-	-	-	-	-	-	-	-	-
	A-B	0.64	-	-	-	-	-	-	-	-
	A-C	2.40	-	-	-	-	-	-	-	-

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	2.34	6.93	0.337	-	0.37	0.50	-	7.2	0.22
	B-C	0.01	6.68	0.002	-	0.00	0.00	-	0.0	0.15
	C-AB	0.10	9.91	0.011	-	0.01	0.01	-	0.2	0.10
	C-A	-	-	-	-	-	-	-	-	-
	A-B	0.76	-	-	-	-	-	-	-	-
	A-C	2.86	-	-	-	-	-	-	-	-

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	2.86	6.58	0.435	-	0.50	0.75	-	10.6	0.27
	B-C	0.02	6.07	0.003	-	0.00	0.00	-	0.0	0.17
	C-AB	0.13	9.70	0.013	-	0.01	0.01	-	0.2	0.10
	C-A	-	-	-	-	-	-	-	-	-
	A-B	0.94	-	-	-	-	-	-	-	-
	A-C	3.50	-	-	-	-	-	-	-	-

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	2.86	6.58	0.435	-	0.75	0.76	-	11.3	0.27
	B-C	0.02	6.06	0.003	-	0.00	0.00	-	0.0	0.17
	C-AB	0.13	9.70	0.013	-	0.01	0.01	-	0.2	0.10
	C-A	-	-	-	-	-	-	-	-	-
	A-B	0.94	-	-	-	-	-	-	-	-
	A-C	3.50	-	-	-	-	-	-	-	-

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	2.34	6.93	0.337	-	0.76	0.52	-	8.2	0.22
	B-C	0.01	6.66	0.002	-	0.00	0.00	-	0.0	0.15
	C-AB	0.10	9.91	0.011	-	0.01	0.01	-	0.2	0.10
	C-A	-	-	-	-	-	-	-	-	-
	A-B	0.76	-	-	-	-	-	-	-	-
	A-C	2.86	-	-	-	-	-	-	-	-

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	1.96	7.18	0.273	-	0.52	0.38	-	5.9	0.19
	B-C	0.01	7.01	0.002	-	0.00	0.00	-	0.0	0.14
	C-AB	0.09	10.07	0.009	-	0.01	0.01	-	0.1	0.10
	C-A	-	-	-	-	-	-	-	-	-
	A-B	0.64	-	-	-	-	-	-	-	-
	A-C	2.40	-	-	-	-	-	-	-	-

Demand Set: 2029 AM without Dev
Modelling Period: 07:15-08:45

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)
07:15-07:30	B-A	0.40	5.63	0.071	-	0.00	0.08	-	1.1	0.19
	B-C	0.03	6.18	0.004	-	0.00	0.00	-	0.1	0.16
	C-AB	0.05	7.22	0.007	-	0.00	0.01	-	0.1	0.14
	C-A	-	-	-	-	-	-	-	-	-
	A-B	6.39	-	-	-	-	-	-	-	-
	A-C	7.47	-	-	-	-	-	-	-	-

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)
07:30-07:45	B-A	0.48	5.09	0.094	-	0.08	0.10	-	1.5	0.22
	B-C	0.03	5.76	0.005	-	0.00	0.01	-	0.1	0.17
	C-AB	0.06	6.51	0.009	-	0.01	0.01	-	0.1	0.16
	C-A	-	-	-	-	-	-	-	-	-
	A-B	7.63	-	-	-	-	-	-	-	-
	A-C	8.91	-	-	-	-	-	-	-	-

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	0.59	4.33	0.135	-	0.10	0.15	-	2.2	0.27
	B-C	0.04	5.17	0.007	-	0.01	0.01	-	0.1	0.19
	C-AB	0.07	5.53	0.013	-	0.01	0.01	-	0.2	0.18
	C-A	-	-	-	-	-	-	-	-	-
	A-B	9.34	-	-	-	-	-	-	-	-
	A-C	10.92	-	-	-	-	-	-	-	-

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	0.59	4.33	0.135	-	0.15	0.16	-	2.3	0.27
	B-C	0.04	5.16	0.007	-	0.01	0.01	-	0.1	0.20
	C-AB	0.07	5.53	0.013	-	0.01	0.01	-	0.2	0.18
	C-A	-	-	-	-	-	-	-	-	-
	A-B	9.34	-	-	-	-	-	-	-	-
	A-C	10.92	-	-	-	-	-	-	-	-

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	0.48	5.09	0.094	-	0.16	0.11	-	1.6	0.22
	B-C	0.03	5.75	0.005	-	0.01	0.01	-	0.1	0.17
	C-AB	0.06	6.51	0.009	-	0.01	0.01	-	0.1	0.16
	C-A	-	-	-	-	-	-	-	-	-
	A-B	7.63	-	-	-	-	-	-	-	-
	A-C	8.91	-	-	-	-	-	-	-	-

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	0.40	5.63	0.071	-	0.11	0.08	-	1.2	0.19
	B-C	0.03	6.18	0.004	-	0.01	0.00	-	0.1	0.16
	C-AB	0.05	7.22	0.007	-	0.01	0.01	-	0.1	0.14
	C-A	-	-	-	-	-	-	-	-	-
	A-B	6.39	-	-	-	-	-	-	-	-
	A-C	7.47	-	-	-	-	-	-	-	-

Demand Set: 2029 PM without Dev
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	2.13	7.07	0.302	-	0.00	0.42	-	6.0	0.20
	B-C	0.01	6.88	0.002	-	0.00	0.00	-	0.0	0.15
	C-AB	0.09	10.00	0.009	-	0.00	0.01	-	0.1	0.10
	C-A	-	-	-	-	-	-	-	-	-
	A-B	0.70	-	-	-	-	-	-	-	-
	A-C	2.61	-	-	-	-	-	-	-	-

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	2.55	6.79	0.375	-	0.42	0.59	-	8.4	0.23
	B-C	0.01	6.46	0.002	-	0.00	0.00	-	0.0	0.16
	C-AB	0.10	9.83	0.011	-	0.01	0.01	-	0.2	0.10
	C-A	-	-	-	-	-	-	-	-	-
	A-B	0.84	-	-	-	-	-	-	-	-
	A-C	3.12	-	-	-	-	-	-	-	-

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	3.12	6.41	0.486	-	0.59	0.91	-	12.9	0.30
	B-C	0.02	5.71	0.003	-	0.00	0.00	-	0.0	0.18
	C-AB	0.13	9.59	0.013	-	0.01	0.01	-	0.2	0.11
	C-A	-	-	-	-	-	-	-	-	-
	A-B	1.03	-	-	-	-	-	-	-	-
	A-C	3.82	-	-	-	-	-	-	-	-

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	3.12	6.41	0.486	-	0.91	0.93	-	13.8	0.30
	B-C	0.02	5.69	0.003	-	0.00	0.00	-	0.0	0.18
	C-AB	0.13	9.59	0.013	-	0.01	0.01	-	0.2	0.11
	C-A	-	-	-	-	-	-	-	-	-
	A-B	1.03	-	-	-	-	-	-	-	-
	A-C	3.82	-	-	-	-	-	-	-	-

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	2.55	6.79	0.375	-	0.93	0.61	-	9.7	0.24
	B-C	0.01	6.43	0.002	-	0.00	0.00	-	0.0	0.16
	C-AB	0.10	9.83	0.011	-	0.01	0.01	-	0.2	0.10
	C-A	-	-	-	-	-	-	-	-	-
	A-B	0.84	-	-	-	-	-	-	-	-
	A-C	3.12	-	-	-	-	-	-	-	-

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	2.13	7.07	0.302	-	0.61	0.44	-	6.9	0.20
	B-C	0.01	6.86	0.002	-	0.00	0.00	-	0.0	0.15
	C-AB	0.09	10.00	0.009	-	0.01	0.01	-	0.1	0.10
	C-A	-	-	-	-	-	-	-	-	-
	A-B	0.70	-	-	-	-	-	-	-	-
	A-C	2.61	-	-	-	-	-	-	-	-

Demand Set: 2039 AM without Dev
Modelling Period: 07:15-08:45

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)
07:15-07:30	B-A	0.44	5.31	0.083	-	0.00	0.09	-	1.3	0.20
	B-C	0.04	5.96	0.006	-	0.00	0.01	-	0.1	0.17
	C-AB	0.05	6.81	0.007	-	0.00	0.01	-	0.1	0.15
	C-A	-	-	-	-	-	-	-	-	-
	A-B	7.09	-	-	-	-	-	-	-	-
	A-C	8.31	-	-	-	-	-	-	-	-

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)
07:30-07:45	B-A	0.52	4.71	0.111	-	0.09	0.12	-	1.8	0.24
	B-C	0.04	5.49	0.008	-	0.01	0.01	-	0.1	0.18
	C-AB	0.06	6.03	0.010	-	0.01	0.01	-	0.2	0.17
	C-A	-	-	-	-	-	-	-	-	-
	A-B	8.47	-	-	-	-	-	-	-	-
	A-C	9.92	-	-	-	-	-	-	-	-

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	0.64	3.87	0.166	-	0.12	0.19	-	2.8	0.31
	B-C	0.06	4.82	0.011	-	0.01	0.01	-	0.2	0.21
	C-AB	0.07	4.94	0.015	-	0.01	0.01	-	0.2	0.21
	C-A	-	-	-	-	-	-	-	-	-
	A-B	10.37	-	-	-	-	-	-	-	-
	A-C	12.15	-	-	-	-	-	-	-	-

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)
08:00-08:15	B-A	0.64	3.87	0.166	-	0.19	0.20	-	2.9	0.31
	B-C	0.06	4.81	0.011	-	0.01	0.01	-	0.2	0.21
	C-AB	0.07	4.94	0.015	-	0.01	0.01	-	0.2	0.21
	C-A	-	-	-	-	-	-	-	-	-
	A-B	10.37	-	-	-	-	-	-	-	-
	A-C	12.15	-	-	-	-	-	-	-	-

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)
08:15-08:30	B-A	0.52	4.71	0.111	-	0.20	0.13	-	2.0	0.24
	B-C	0.04	5.48	0.008	-	0.01	0.01	-	0.1	0.18
	C-AB	0.06	6.03	0.010	-	0.01	0.01	-	0.2	0.17
	C-A	-	-	-	-	-	-	-	-	-
	A-B	8.47	-	-	-	-	-	-	-	-
	A-C	9.92	-	-	-	-	-	-	-	-

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	0.44	5.31	0.083	-	0.13	0.09	-	1.4	0.21
	B-C	0.04	5.96	0.006	-	0.01	0.01	-	0.1	0.17
	C-AB	0.05	6.81	0.007	-	0.01	0.01	-	0.1	0.15
	C-A	-	-	-	-	-	-	-	-	-
	A-B	7.09	-	-	-	-	-	-	-	-
	A-C	8.31	-	-	-	-	-	-	-	-

Demand Set: 2039 PM without Dev
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	2.36	6.91	0.342	-	0.00	0.51	-	7.1	0.22
	B-C	0.01	6.66	0.002	-	0.00	0.00	-	0.0	0.15
	C-AB	0.10	9.90	0.010	-	0.00	0.01	-	0.2	0.10
	C-A	-	-	-	-	-	-	-	-	-
	A-B	0.78	-	-	-	-	-	-	-	-
	A-C	2.91	-	-	-	-	-	-	-	-

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	2.82	6.60	0.427	-	0.51	0.72	-	10.3	0.26
	B-C	0.01	6.12	0.002	-	0.00	0.00	-	0.0	0.16
	C-AB	0.12	9.71	0.012	-	0.01	0.01	-	0.2	0.10
	C-A	-	-	-	-	-	-	-	-	-
	A-B	0.93	-	-	-	-	-	-	-	-
	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)
17:15-17:30	B-A	3.45	6.18	0.558	-	0.72	1.20	-	16.7	0.36
	B-C	0.02	5.13	0.004	-	0.00	0.00	-	0.1	0.20
	C-AB	0.15	9.45	0.016	-	0.01	0.02	-	0.2	0.11
	C-A	-	-	-	-	-	-	-	-	-
	A-B	1.14	-	-	-	-	-	-	-	-
	A-C	4.26	-	-	-	-	-	-	-	-

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	3.45	6.18	0.558	-	1.20	1.23	-	18.3	0.37
	B-C	0.02	5.09	0.004	-	0.00	0.00	-	0.1	0.20
	C-AB	0.15	9.45	0.016	-	0.02	0.02	-	0.2	0.11
	C-A	-	-	-	-	-	-	-	-	-
	A-B	1.14	-	-	-	-	-	-	-	-
	A-C	4.26	-	-	-	-	-	-	-	-

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	2.82	6.60	0.427	-	1.23	0.77	-	12.2	0.27
	B-C	0.01	6.08	0.002	-	0.00	0.00	-	0.0	0.16
	C-AB	0.12	9.71	0.012	-	0.02	0.01	-	0.2	0.10
	C-A	-	-	-	-	-	-	-	-	-
	A-B	0.93	-	-	-	-	-	-	-	-
	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)
18:00-18:15	B-A	2.36	6.91	0.342	-	0.77	0.53	-	8.3	0.22
	B-C	0.01	6.63	0.002	-	0.00	0.00	-	0.0	0.15
	C-AB	0.10	9.90	0.010	-	0.01	0.01	-	0.2	0.10
	C-A	-	-	-	-	-	-	-	-	-
	A-B	0.78	-	-	-	-	-	-	-	-
	A-C	2.91	-	-	-	-	-	-	-	-

Demand Set: 2024 AM with Dev
Modelling Period: 07:15-08:45

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)
07:15-07:30	B-A	1.59	5.82	0.274	-	0.00	0.37	-	5.2	0.23
	B-C	0.11	5.88	0.019	-	0.00	0.02	-	0.3	0.17
	C-AB	0.04	7.41	0.005	-	0.00	0.00	-	0.1	0.14
	C-A	-	-	-	-	-	-	-	-	-
	A-B	6.29	-	-	-	-	-	-	-	-
	A-C	6.85	-	-	-	-	-	-	-	-

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)
07:30-07:45	B-A	1.90	5.32	0.358	-	0.37	0.54	-	7.7	0.29
	B-C	0.13	5.27	0.026	-	0.02	0.03	-	0.4	0.19
	C-AB	0.04	6.74	0.007	-	0.00	0.01	-	0.1	0.15
	C-A	-	-	-	-	-	-	-	-	-
	A-B	7.51	-	-	-	-	-	-	-	-
	A-C	8.18	-	-	-	-	-	-	-	-

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	2.33	4.61	0.505	-	0.54	0.97	-	13.4	0.43
	B-C	0.17	4.23	0.039	-	0.03	0.04	-	0.6	0.25
	C-AB	0.06	5.81	0.009	-	0.01	0.01	-	0.1	0.17
	C-A	-	-	-	-	-	-	-	-	-
	A-B	9.19	-	-	-	-	-	-	-	-
	A-C	10.02	-	-	-	-	-	-	-	-

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)
08:00-08:15	B-A	2.33	4.61	0.505	-	0.97	0.99	-	14.7	0.44
	B-C	0.17	4.20	0.039	-	0.04	0.04	-	0.6	0.25
	C-AB	0.06	5.81	0.009	-	0.01	0.01	-	0.1	0.17
	C-A	-	-	-	-	-	-	-	-	-
	A-B	9.19	-	-	-	-	-	-	-	-
	A-C	10.02	-	-	-	-	-	-	-	-

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-A	1.90	5.32	0.358	-	0.99	0.57	-	9.2	0.30
	B-C	0.13	5.24	0.026	-	0.04	0.03	-	0.4	0.20
	C-AB	0.04	6.74	0.007	-	0.01	0.01	-	0.1	0.15
	C-A	-	-	-	-	-	-	-	-	-
	A-B	7.51	-	-	-	-	-	-	-	-
	A-C	8.18	-	-	-	-	-	-	-	-

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	1.59	5.82	0.274	-	0.57	0.38	-	6.0	0.24
	B-C	0.11	5.86	0.019	-	0.03	0.02	-	0.3	0.17
	C-AB	0.04	7.41	0.005	-	0.01	0.01	-	0.1	0.14
	C-A	-	-	-	-	-	-	-	-	-
	A-B	6.29	-	-	-	-	-	-	-	-
	A-C	6.85	-	-	-	-	-	-	-	-

Demand Set: 2024 PM with Dev
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	2.50	7.05	0.354	-	0.00	0.54	-	7.5	0.22
	B-C	0.01	6.64	0.002	-	0.00	0.00	-	0.0	0.15
	C-AB	0.20	9.83	0.020	-	0.00	0.02	-	0.3	0.10
	C-A	-	-	-	-	-	-	-	-	-
	A-B	1.57	-	-	-	-	-	-	-	-
	A-C	2.40	-	-	-	-	-	-	-	-

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	2.98	6.77	0.440	-	0.54	0.76	-	10.9	0.26
	B-C	0.01	6.08	0.002	-	0.00	0.00	-	0.0	0.16
	C-AB	0.24	9.62	0.025	-	0.02	0.03	-	0.4	0.11
	C-A	-	-	-	-	-	-	-	-	-
	A-B	1.87	-	-	-	-	-	-	-	-
	A-C	2.86	-	-	-	-	-	-	-	-

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	3.65	6.39	0.571	-	0.76	1.27	-	17.6	0.36
	B-C	0.02	5.07	0.004	-	0.00	0.00	-	0.1	0.20
	C-AB	0.29	9.34	0.031	-	0.03	0.03	-	0.5	0.11
	C-A	-	-	-	-	-	-	-	-	-
	A-B	2.29	-	-	-	-	-	-	-	-
	A-C	3.50	-	-	-	-	-	-	-	-

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	3.65	6.39	0.571	-	1.27	1.30	-	19.3	0.36
	B-C	0.02	5.03	0.004	-	0.00	0.00	-	0.1	0.20
	C-AB	0.29	9.34	0.031	-	0.03	0.03	-	0.5	0.11
	C-A	-	-	-	-	-	-	-	-	-
	A-B	2.29	-	-	-	-	-	-	-	-
	A-C	3.50	-	-	-	-	-	-	-	-

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	2.98	6.77	0.440	-	1.30	0.81	-	12.9	0.27
	B-C	0.01	6.04	0.002	-	0.00	0.00	-	0.0	0.17
	C-AB	0.24	9.62	0.025	-	0.03	0.03	-	0.4	0.11
	C-A	-	-	-	-	-	-	-	-	-
	A-B	1.87	-	-	-	-	-	-	-	-
	A-C	2.86	-	-	-	-	-	-	-	-

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	2.50	7.05	0.354	-	0.81	0.56	-	8.8	0.22
	B-C	0.01	6.61	0.002	-	0.00	0.00	-	0.0	0.15
	C-AB	0.20	9.83	0.020	-	0.03	0.02	-	0.3	0.10
	C-A	-	-	-	-	-	-	-	-	-
	A-B	1.57	-	-	-	-	-	-	-	-
	A-C	2.40	-	-	-	-	-	-	-	-

Demand Set: 2029 AM with Dev
Modelling Period: 07:15-08:45

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)
07:15-07:30	B-A	1.62	5.59	0.290	-	0.00	0.40	-	5.6	0.25
	B-C	0.13	5.69	0.022	-	0.00	0.02	-	0.3	0.18
	C-AB	0.05	7.11	0.007	-	0.00	0.01	-	0.1	0.14
	C-A	-	-	-	-	-	-	-	-	-
	A-B	6.80	-	-	-	-	-	-	-	-
	A-C	7.47	-	-	-	-	-	-	-	-

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)
07:30-07:45	B-A	1.93	5.03	0.384	-	0.40	0.60	-	8.6	0.32
	B-C	0.15	5.01	0.030	-	0.02	0.03	-	0.4	0.21
	C-AB	0.06	6.38	0.009	-	0.01	0.01	-	0.1	0.16
	C-A	-	-	-	-	-	-	-	-	-
	A-B	8.12	-	-	-	-	-	-	-	-
	A-C	8.91	-	-	-	-	-	-	-	-

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	2.37	4.27	0.555	-	0.60	1.16	-	15.8	0.51
	B-C	0.18	3.80	0.048	-	0.03	0.05	-	0.7	0.28
	C-AB	0.07	5.37	0.014	-	0.01	0.01	-	0.2	0.19
	C-A	-	-	-	-	-	-	-	-	-
	A-B	9.95	-	-	-	-	-	-	-	-
	A-C	10.92	-	-	-	-	-	-	-	-

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	2.37	4.27	0.555	-	1.16	1.20	-	17.8	0.52
	B-C	0.18	3.76	0.049	-	0.05	0.05	-	0.8	0.28
	C-AB	0.07	5.37	0.014	-	0.01	0.01	-	0.2	0.19
	C-A	-	-	-	-	-	-	-	-	-
	A-B	9.95	-	-	-	-	-	-	-	-
	A-C	10.92	-	-	-	-	-	-	-	-

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	1.93	5.03	0.384	-	1.20	0.64	-	10.4	0.33
	B-C	0.15	4.97	0.030	-	0.05	0.03	-	0.5	0.21
	C-AB	0.06	6.38	0.009	-	0.01	0.01	-	0.1	0.16
	C-A	-	-	-	-	-	-	-	-	-
	A-B	8.12	-	-	-	-	-	-	-	-
	A-C	8.91	-	-	-	-	-	-	-	-

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	1.62	5.59	0.290	-	0.64	0.42	-	6.6	0.25
	B-C	0.13	5.66	0.022	-	0.03	0.02	-	0.4	0.18
	C-AB	0.05	7.11	0.007	-	0.01	0.01	-	0.1	0.14
	C-A	-	-	-	-	-	-	-	-	-
	A-B	6.80	-	-	-	-	-	-	-	-
	A-C	7.47	-	-	-	-	-	-	-	-

Demand Set: 2029 PM with Dev
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	2.66	6.93	0.384	-	0.00	0.61	-	8.5	0.23
	B-C	0.01	6.47	0.002	-	0.00	0.00	-	0.0	0.15
	C-AB	0.21	9.75	0.022	-	0.00	0.02	-	0.3	0.10
	C-A	-	-	-	-	-	-	-	-	-
	A-B	1.63	-	-	-	-	-	-	-	-
	A-C	2.61	-	-	-	-	-	-	-	-

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	3.18	6.63	0.479	-	0.61	0.89	-	12.6	0.29
	B-C	0.01	5.80	0.003	-	0.00	0.00	-	0.0	0.17
	C-AB	0.25	9.54	0.027	-	0.02	0.03	-	0.4	0.11
	C-A	-	-	-	-	-	-	-	-	-
	A-B	1.95	-	-	-	-	-	-	-	-
	A-C	3.12	-	-	-	-	-	-	-	-

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	3.89	6.22	0.625	-	0.89	1.56	-	21.4	0.41
	B-C	0.02	4.56	0.004	-	0.00	0.00	-	0.1	0.22
	C-AB	0.31	9.24	0.034	-	0.03	0.03	-	0.5	0.11
	C-A	-	-	-	-	-	-	-	-	-
	A-B	2.39	-	-	-	-	-	-	-	-
	A-C	3.82	-	-	-	-	-	-	-	-

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	3.89	6.22	0.625	-	1.56	1.61	-	23.9	0.43
	B-C	0.02	4.50	0.004	-	0.00	0.00	-	0.1	0.22
	C-AB	0.31	9.24	0.034	-	0.03	0.03	-	0.5	0.11
	C-A	-	-	-	-	-	-	-	-	-
	A-B	2.39	-	-	-	-	-	-	-	-
	A-C	3.82	-	-	-	-	-	-	-	-

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	3.18	6.63	0.479	-	1.61	0.95	-	15.3	0.30
	B-C	0.01	5.74	0.003	-	0.00	0.00	-	0.0	0.17
	C-AB	0.25	9.54	0.027	-	0.03	0.03	-	0.4	0.11
	C-A	-	-	-	-	-	-	-	-	-
	A-B	1.95	-	-	-	-	-	-	-	-
	A-C	3.12	-	-	-	-	-	-	-	-

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	2.66	6.93	0.384	-	0.95	0.64	-	10.1	0.24
	B-C	0.01	6.42	0.002	-	0.00	0.00	-	0.0	0.16
	C-AB	0.21	9.75	0.022	-	0.03	0.02	-	0.3	0.10
	C-A	-	-	-	-	-	-	-	-	-
	A-B	1.63	-	-	-	-	-	-	-	-
	A-C	2.61	-	-	-	-	-	-	-	-

Demand Set: 2039 AM with Dev
Modelling Period: 07:15-08:45

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)
07:15-07:30	B-A	1.67	5.27	0.316	-	0.00	0.45	-	6.3	0.27
	B-C	0.13	5.40	0.023	-	0.00	0.02	-	0.3	0.19
	C-AB	0.05	6.70	0.007	-	0.00	0.01	-	0.1	0.15
	C-A	-	-	-	-	-	-	-	-	-
	A-B	7.50	-	-	-	-	-	-	-	-
	A-C	8.31	-	-	-	-	-	-	-	-

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)
07:30-07:45	B-A	1.99	4.66	0.428	-	0.45	0.72	-	10.1	0.37
	B-C	0.15	4.61	0.032	-	0.02	0.03	-	0.5	0.22
	C-AB	0.06	5.90	0.010	-	0.01	0.01	-	0.2	0.17
	C-A	-	-	-	-	-	-	-	-	-
	A-B	8.96	-	-	-	-	-	-	-	-
	A-C	9.92	-	-	-	-	-	-	-	-

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	2.44	3.81	0.641	-	0.72	1.59	-	20.9	0.68
	B-C	0.18	3.08	0.060	-	0.03	0.06	-	0.9	0.34
	C-AB	0.07	4.78	0.015	-	0.01	0.02	-	0.2	0.21
	C-A	-	-	-	-	-	-	-	-	-
	A-B	10.97	-	-	-	-	-	-	-	-
	A-C	12.15	-	-	-	-	-	-	-	-

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)
08:00-08:15	B-A	2.44	3.81	0.641	-	1.59	1.68	-	24.7	0.72
	B-C	0.18	2.99	0.061	-	0.06	0.06	-	1.0	0.36
	C-AB	0.07	4.78	0.015	-	0.02	0.02	-	0.2	0.21
	C-A	-	-	-	-	-	-	-	-	-
	A-B	10.97	-	-	-	-	-	-	-	-
	A-C	12.15	-	-	-	-	-	-	-	-

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)
08:15-08:30	B-A	1.99	4.66	0.428	-	1.68	0.78	-	12.8	0.39
	B-C	0.15	4.54	0.033	-	0.06	0.03	-	0.5	0.23
	C-AB	0.06	5.90	0.010	-	0.02	0.01	-	0.2	0.17
	C-A	-	-	-	-	-	-	-	-	-
	A-B	8.96	-	-	-	-	-	-	-	-
	A-C	9.92	-	-	-	-	-	-	-	-

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	1.67	5.27	0.316	-	0.78	0.48	-	7.5	0.28
	B-C	0.13	5.37	0.023	-	0.03	0.02	-	0.4	0.19
	C-AB	0.05	6.70	0.007	-	0.01	0.01	-	0.1	0.15
	C-A	-	-	-	-	-	-	-	-	-
	A-B	7.50	-	-	-	-	-	-	-	-
	A-C	8.31	-	-	-	-	-	-	-	-

Demand Set: 2039 PM with Dev
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	2.90	6.78	0.428	-	0.00	0.73	-	10.1	0.25
	B-C	0.03	6.19	0.004	-	0.00	0.00	-	0.1	0.16
	C-AB	0.21	9.65	0.022	-	0.00	0.02	-	0.3	0.11
	C-A	-	-	-	-	-	-	-	-	-
	A-B	1.71	-	-	-	-	-	-	-	-
	A-C	2.91	-	-	-	-	-	-	-	-

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	3.46	6.45	0.537	-	0.73	1.11	-	15.6	0.33
	B-C	0.03	5.35	0.006	-	0.00	0.01	-	0.1	0.19
	C-AB	0.25	9.42	0.027	-	0.02	0.03	-	0.4	0.11
	C-A	-	-	-	-	-	-	-	-	-
	A-B	2.04	-	-	-	-	-	-	-	-
	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)
17:15-17:30	B-A	4.24	5.99	0.708	-	1.11	2.17	-	28.9	0.53
	B-C	0.04	3.71	0.010	-	0.01	0.01	-	0.1	0.27
	C-AB	0.31	9.09	0.034	-	0.03	0.04	-	0.5	0.11
	C-A	-	-	-	-	-	-	-	-	-
	A-B	2.50	-	-	-	-	-	-	-	-
	A-C	4.26	-	-	-	-	-	-	-	-

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	4.24	5.99	0.708	-	2.17	2.28	-	33.6	0.56
	B-C	0.04	3.59	0.010	-	0.01	0.01	-	0.2	0.28
	C-AB	0.31	9.09	0.034	-	0.04	0.04	-	0.5	0.11
	C-A	-	-	-	-	-	-	-	-	-
	A-B	2.50	-	-	-	-	-	-	-	-
	A-C	4.26	-	-	-	-	-	-	-	-

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	3.46	6.45	0.537	-	2.28	1.21	-	19.8	0.35
	B-C	0.03	5.24	0.006	-	0.01	0.01	-	0.1	0.19
	C-AB	0.25	9.42	0.027	-	0.04	0.03	-	0.4	0.11
	C-A	-	-	-	-	-	-	-	-	-
	A-B	2.04	-	-	-	-	-	-	-	-
	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)
18:00-18:15	B-A	2.90	6.77	0.428	-	1.21	0.77	-	12.2	0.26
	B-C	0.03	6.13	0.004	-	0.01	0.00	-	0.1	0.16
	C-AB	0.21	9.65	0.022	-	0.03	0.02	-	0.3	0.11
	C-A	-	-	-	-	-	-	-	-	-
	A-B	1.71	-	-	-	-	-	-	-	-
	A-C	2.91	-	-	-	-	-	-	-	-

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: 2019 AM Survey Year
Modelling Period: 07:15-08:45

Stream	Total Demand (veh)	Total Demand (veh/h)	Queueing Delay (min)	Queueing Delay (min/veh)	Inclusive Delay (min)	Inclusive Delay (min/veh)
B-A	37.2	24.8	7.3	0.2	7.3	0.2
B-C	2.8	1.8	0.5	0.2	0.5	0.2
C-AB	4.1	2.8	0.6	0.1	0.6	0.1
C-A	-	-	-	-	-	-
A-B	591.9	394.6	-	-	-	-
A-C	691.0	460.6	-	-	-	-
All	**1544.4**	**1029.6**	**8.4**	**0.0**	**8.4**	**0.0**

Demand Set: 2019 PM Survey Year
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	198.2	132.1	41.7	0.2	41.7	0.2
B-C	1.4	0.9	0.2	0.1	0.2	0.1
C-AB	8.3	5.5	0.8	0.1	0.8	0.1
C-A	-	-	-	-	-	-
A-B	64.7	43.1	-	-	-	-
A-C	242.3	161.5	-	-	-	-
All	**920.8**	**613.9**	**42.7**	**0.0**	**42.7**	**0.0**

Demand Set: 2024 AM without Dev
Modelling Period: 07:15-08:45

Stream	Total Demand (veh)	Total Demand (veh/h)	Queueing Delay (min)	Queueing Delay (min/veh)	Inclusive Delay (min)	Inclusive Delay (min/veh)
B-A	39.9	26.6	8.4	0.2	8.4	0.2
B-C	2.8	1.8	0.5	0.2	0.5	0.2
C-AB	4.1	2.8	0.6	0.2	0.6	0.2
C-A	-	-	-	-	-	-
A-B	644.2	429.4	-	-	-	-
A-C	751.5	501.0	-	-	-	-
All	**1679.2**	**1119.5**	**9.5**	**0.0**	**9.5**	**0.0**

Demand Set: 2024 PM without Dev
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	214.7	143.1	48.5	0.2	48.5	0.2
B-C	1.4	0.9	0.2	0.2	0.2	0.2
C-AB	9.6	6.4	1.0	0.1	1.0	0.1
C-A	-	-	-	-	-	-
A-B	70.2	46.8	-	-	-	-
A-C	262.9	175.3	-	-	-	-
All	**1000.7**	**667.1**	**49.7**	**0.0**	**49.7**	**0.0**

Demand Set: 2029 AM without Dev
Modelling Period: 07:15-08:45

Stream	Total Demand (veh)	Total Demand (veh/h)	Queueing Delay (min)	Queueing Delay (min/veh)	Inclusive Delay (min)	Inclusive Delay (min/veh)
B-A	44.0	29.4	10.0	0.2	10.0	0.2
B-C	2.8	1.8	0.5	0.2	0.5	0.2
C-AB	5.5	3.7	0.9	0.2	0.9	0.2
C-A	-	-	-	-	-	-
A-B	700.6	467.1	-	-	-	-
A-C	819.0	546.0	-	-	-	-
All	**1830.6**	**1220.4**	**11.3**	**0.0**	**11.3**	**0.0**

Demand Set: 2029 PM without Dev
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	234.0	156.0	57.7	0.2	57.8	0.2
B-C	1.4	0.9	0.2	0.2	0.2	0.2
C-AB	9.6	6.4	1.0	0.1	1.0	0.1
C-A	-	-	-	-	-	-
A-B	77.1	51.4	-	-	-	-
A-C	286.3	190.9	-	-	-	-
All	**1088.8**	**725.8**	**59.0**	**0.1**	**59.0**	**0.1**

Demand Set: 2039 AM without Dev
Modelling Period: 07:15-08:45

Stream	Total Demand (veh)	Total Demand (veh/h)	Queueing Delay (min)	Queueing Delay (min/veh)	Inclusive Delay (min)	Inclusive Delay (min/veh)
B-A	48.2	32.1	12.2	0.3	12.2	0.3
B-C	4.1	2.8	0.8	0.2	0.8	0.2
C-AB	5.5	3.7	1.0	0.2	1.0	0.2
C-A	-	-	-	-	-	-
A-B	777.7	518.5	-	-	-	-
A-C	911.2	607.5	-	-	-	-
All	**2035.7**	**1357.2**	**13.9**	**0.0**	**13.9**	**0.0**

Demand Set: 2039 PM without Dev
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	258.8	172.5	73.0	0.3	73.0	0.3
B-C	1.4	0.9	0.2	0.2	0.2	0.2
C-AB	11.0	7.3	1.2	0.1	1.2	0.1
C-A	-	-	-	-	-	-
A-B	85.3	56.9	-	-	-	-
A-C	319.3	212.9	-	-	-	-
All	**1209.9**	**806.6**	**74.4**	**0.1**	**74.4**	**0.1**

Demand Set: 2024 AM with Dev
Modelling Period: 07:15-08:45

Stream	Total Demand (veh)	Total Demand (veh/h)	Queueing Delay (min)	Queueing Delay (min/veh)	Inclusive Delay (min)	Inclusive Delay (min/veh)
B-A	174.8	116.5	56.3	0.3	56.3	0.3
B-C	12.4	8.3	2.6	0.2	2.6	0.2
C-AB	4.1	2.8	0.6	0.2	0.6	0.2
C-A	-	-	-	-	-	-
A-B	689.6	459.7	-	-	-	-
A-C	751.5	501.0	-	-	-	-
All	**1869.2**	**1246.1**	**59.5**	**0.0**	**59.5**	**0.0**

Demand Set: 2024 PM with Dev
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	273.9	182.6	77.1	0.3	77.1	0.3
B-C	1.4	0.9	0.2	0.2	0.2	0.2
C-AB	22.0	14.7	2.4	0.1	2.4	0.1
C-A	-	-	-	-	-	-
A-B	172.1	114.7	-	-	-	-
A-C	262.9	175.3	-	-	-	-
All	**1174.1**	**782.7**	**79.7**	**0.1**	**79.7**	**0.1**

Demand Set: 2029 AM with Dev
Modelling Period: 07:15-08:45

Stream	Total Demand (veh)	Total Demand (veh/h)	Queueing Delay (min)	Queueing Delay (min/veh)	Inclusive Delay (min)	Inclusive Delay (min/veh)
B-A	177.6	118.4	64.7	0.4	64.7	0.4
B-C	13.8	9.2	3.1	0.2	3.1	0.2
C-AB	5.5	3.7	0.9	0.2	0.9	0.2
C-A	-	-	-	-	-	-
A-B	746.0	497.3	-	-	-	-
A-C	819.0	546.0	-	-	-	-
All	**2020.6**	**1347.1**	**68.7**	**0.0**	**68.7**	**0.0**

Demand Set: 2029 PM with Dev
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	291.8	194.5	91.7	0.3	91.7	0.3
B-C	1.4	0.9	0.3	0.2	0.3	0.2
C-AB	23.4	15.6	2.5	0.1	2.5	0.1
C-A	-	-	-	-	-	-
A-B	178.9	119.3	-	-	-	-
A-C	286.3	190.9	-	-	-	-
All	**1262.2**	**841.5**	**94.5**	**0.1**	**94.5**	**0.1**

Demand Set: 2039 AM with Dev
Modelling Period: 07:15-08:45

Stream	Total Demand (veh)	Total Demand (veh/h)	Queueing Delay (min)	Queueing Delay (min/veh)	Inclusive Delay (min)	Inclusive Delay (min/veh)
B-A	183.1	122.0	82.3	0.4	82.3	0.4
B-C	13.8	9.2	3.6	0.3	3.6	0.3
C-AB	5.5	3.7	1.0	0.2	1.0	0.2
C-A	-	-	-	-	-	-
A-B	823.1	548.7	-	-	-	-
A-C	911.2	607.5	-	-	-	-
All	**2225.7**	**1483.8**	**86.9**	**0.0**	**86.9**	**0.0**

Demand Set: 2039 PM with Dev
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	318.0	212.0	120.1	0.4	120.2	0.4
B-C	2.8	1.8	0.6	0.2	0.6	0.2
C-AB	23.4	15.6	2.6	0.1	2.6	0.1
C-A	-	-	-	-	-	-
A-B	187.2	124.8	-	-	-	-
A-C	319.3	212.9	-	-	-	-
All	**1384.7**	**923.1**	**123.3**	**0.1**	**123.3**	**0.1**

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

APPENDIX E5

PICADY Analysis – Development Junction

PICADY

GUI Version: 5.1 AD
Analysis Program Release: 4.0 (SEPT 2008)

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

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Run Analysis

Parameter	Values
File Run	I:\..\Rosshill Rd_Rosshill Stud Farm Rd\119209 Rosshill Rd_Rosshill Stud Farm Rd PICADY Analysis.vpi
Date Run	13 December 2019
Time Run	17:15:25
Driving Side	Drive On The Left

Arm Names and Flow Scaling Factors

Arm	Arm Name	Flow Scaling Factor (%)
Arm A	Rosshill Rd East	100
Arm B	Rosshill Stud Farm Rd	100
Arm C	Rosshill Rd West	100

Stream Labelling Convention

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

Run Information

Parameter	Values
Run Title	Rosshill Road/Rosshill Stud Farm T-junction
Location	Rosshill, Galway City
Date	18 July 2019
Enumerator	J Noone
Job Number	119209
Status	Preliminary
Client	Alber Homes
Description	-

Geometric Data

Geometric Parameters

Parameter	Minor Arm B
Major Road Carriageway Width (m)	6.20
Major Road Kerbed Central Reserve Width (m)	0.00
Major Road Right Turning Lane Width (m)	2.20
Minor Road First Lane Width (m)	3.65
Minor Road Visibility To Right (m)	15
Minor Road Visibility To Left (m)	15
Major Road Right Turn Visibility (m)	90
Major Road Right Turn Blocks Traffic	Yes

Slope and Intercept Values

Stream	Intercept for Stream B-A	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
B-A	521.761	0.094	0.238	0.150	0.340
B-C	674.597	0.103	0.259	-	-
C-B	626.083	0.240	0.240	-	-

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

ODTAB Turning Counts

Demand Set: 2019 AM Survey Year
Modelling Period: 07:45-09:15

From/To	Arm A	Arm B	Arm C
Arm A	0.0	12.0	421.0
Arm B	16.0	0.0	13.0
Arm C	12.0	8.0	0.0

Demand Set: 2019 PM Survey Year
Modelling Period: 16:45-18:15

From/To	Arm A	Arm B	Arm C
Arm A	0.0	24.0	29.0
Arm B	22.0	0.0	7.0
Arm C	112.0	17.0	0.0

Demand Set: 2024 AM without Dev
Modelling Period: 07:45-09:15

From/To	Arm A	Arm B	Arm C
Arm A	0.0	13.0	458.0
Arm B	17.0	0.0	14.0
Arm C	13.0	9.0	0.0

Demand Set: 2024 PM without Dev
Modelling Period: 16:45-18:15

From/To	Arm A	Arm B	Arm C
Arm A	0.0	26.0	31.0
Arm B	24.0	0.0	8.0
Arm C	121.0	18.0	0.0

Demand Set: 2029 AM without Dev
Modelling Period: 07:45-09:15

From/To	Arm A	Arm B	Arm C
Arm A	0.0	14.0	498.0
Arm B	19.0	0.0	15.0
Arm C	15.0	9.0	0.0

Demand Set: 2029 PM without Dev
Modelling Period: 16:45-18:15

From/To	Arm A	Arm B	Arm C
Arm A	0.0	28.0	34.0
Arm B	26.0	0.0	8.0
Arm C	132.0	20.0	0.0

Demand Set: 2039 AM without Dev
Modelling Period: 07:45-09:15

From/To	Arm A	Arm B	Arm C
Arm A	0.0	16.0	553.0
Arm B	21.0	0.0	17.0
Arm C	17.0	10.0	0.0

Demand Set: 2039 PM without Dev
Modelling Period: 16:45-18:15

From/To	Arm A	Arm B	Arm C
Arm A	0.0	31.0	38.0
Arm B	29.0	0.0	9.0
Arm C	147.0	22.0	0.0

Demand Set: 2024 AM with Dev
Modelling Period: 07:45-09:15

From/To	Arm A	Arm B	Arm C
Arm A	0.0	47.0	458.0
Arm B	122.0	0.0	99.0
Arm C	13.0	31.0	0.0

Demand Set: 2024 PM with Dev
Modelling Period: 16:45-18:15

From/To	Arm A	Arm B	Arm C
Arm A	0.0	110.0	31.0
Arm B	67.0	0.0	21.0
Arm C	121.0	78.0	0.0

Demand Set: 2029 AM with Dev
Modelling Period: 07:45-09:15

From/To	Arm A	Arm B	Arm C
Arm A	0.0	48.0	498.0
Arm B	124.0	0.0	100.0
Arm C	15.0	32.0	0.0

Demand Set: 2029 PM with Dev
Modelling Period: 16:45-18:15

From/To	Arm A	Arm B	Arm C
Arm A	0.0	112.0	34.0
Arm B	69.0	0.0	22.0
Arm C	132.0	79.0	0.0

Demand Set: 2039 AM with Dev
Modelling Period: 07:45-09:15

From/To	Arm A	Arm B	Arm C
Arm A	0.0	49.0	553.0
Arm B	126.0	0.0	102.0
Arm C	17.0	33.0	0.0

Demand Set: 2039 PM with Dev
Modelling Period: 16:45-18:15

From/To	Arm A	Arm B	Arm C
Arm A	0.0	115.0	38.0
Arm B	72.0	0.0	23.0
Arm C	147.0	82.0	0.0

ODTAB Synthesised Flows

Demand Set: 2019 AM Survey Year
Modelling Period: 07:45-09:15

Arm	Rising Time	Rising Flow (veh/min)	Peak Time	Peak Flow (veh/min)	Falling Time	Falling Flow (veh/min)
Arm A	08:00	5.412	08:30	8.119	09:00	5.412
Arm B	08:00	0.363	08:30	0.544	09:00	0.363
Arm C	08:00	0.250	08:30	0.375	09:00	0.250

Heavy Vehicles Percentages

Demand Set: 2019 AM Survey Year
Modelling Period: 07:45-09:15

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: 2019 PM Survey Year
Modelling Period: 16:45-18:15

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: 2024 AM without Dev
Modelling Period: 07:45-09:15

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: 2024 PM without Dev
Modelling Period: 16:45-18:15

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: 2029 AM without Dev
Modelling Period: 07:45-09:15

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: 2029 PM without Dev
Modelling Period: 16:45-18:15

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: 2039 AM without Dev
Modelling Period: 07:45-09:15

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: 2039 PM without Dev
Modelling Period: 16:45-18:15

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: 2024 AM with Dev
Modelling Period: 07:45-09:15

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: 2024 PM with Dev
Modelling Period: 16:45-18:15

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: 2029 AM with Dev
Modelling Period: 07:45-09:15

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: 2029 PM with Dev
Modelling Period: 16:45-18:15

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: 2039 AM with Dev
Modelling Period: 07:45-09:15

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: 2039 PM with Dev
Modelling Period: 16:45-18:15

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

Queues & Delays

Demand Set: 2019 AM Survey Year
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-AC	0.36	7.43	0.049	-	0.00	0.05	-	0.7	0.14
	C-AB	0.10	8.18	0.012	-	0.00	0.01	-	0.2	0.12
	C-A	-	-	-	-	-	-	-	-	-
	A-B	0.15	-	-	-	-	-	-	-	-
	A-C	5.28	-	-	-	-	-	-	-	-

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)
08:00-08:15	B-AC	0.43	7.16	0.061	-	0.05	0.06	-	0.9	0.15
	C-AB	0.12	7.93	0.015	-	0.01	0.02	-	0.2	0.13
	C-A	-	-	-	-	-	-	-	-	-
	A-B	0.18	-	-	-	-	-	-	-	-
	A-C	6.31	-	-	-	-	-	-	-	-

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	0.53	6.79	0.078	-	0.06	0.08	-	1.2	0.16
	C-AB	0.15	7.58	0.019	-	0.02	0.02	-	0.3	0.13
	C-A	-	-	-	-	-	-	-	-	-
	A-B	0.22	-	-	-	-	-	-	-	-
	A-C	7.73	-	-	-	-	-	-	-	-

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	0.53	6.79	0.078	-	0.08	0.08	-	1.3	0.16
	C-AB	0.15	7.58	0.019	-	0.02	0.02	-	0.3	0.13
	C-A	-	-	-	-	-	-	-	-	-
	A-B	0.22	-	-	-	-	-	-	-	-
	A-C	7.73	-	-	-	-	-	-	-	-

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	0.43	7.16	0.061	-	0.08	0.07	-	1.0	0.15
	C-AB	0.12	7.93	0.015	-	0.02	0.02	-	0.2	0.13
	C-A	-	-	-	-	-	-	-	-	-
	A-B	0.18	-	-	-	-	-	-	-	-
	A-C	6.31	-	-	-	-	-	-	-	-

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-AC	0.36	7.43	0.049	-	0.07	0.05	-	0.8	0.14
	C-AB	0.10	8.18	0.012	-	0.02	0.01	-	0.2	0.12
	C-A	-	-	-	-	-	-	-	-	-
	A-B	0.15	-	-	-	-	-	-	-	-
	A-C	5.28	-	-	-	-	-	-	-	-

Demand Set: 2019 PM Survey Year
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-AC	0.36	8.00	0.045	-	0.00	0.05	-	0.7	0.13
	C-AB	0.21	9.33	0.023	-	0.00	0.02	-	0.3	0.11
	C-A	-	-	-	-	-	-	-	-	-
	A-B	0.30	-	-	-	-	-	-	-	-
	A-C	0.36	-	-	-	-	-	-	-	-

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	0.43	7.93	0.055	-	0.05	0.06	-	0.8	0.13
	C-AB	0.25	9.30	0.027	-	0.02	0.03	-	0.4	0.11
	C-A	-	-	-	-	-	-	-	-	-
	A-B	0.36	-	-	-	-	-	-	-	-
	A-C	0.43	-	-	-	-	-	-	-	-

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	0.53	7.83	0.068	-	0.06	0.07	-	1.1	0.14
	C-AB	0.31	9.25	0.034	-	0.03	0.03	-	0.5	0.11
	C-A	-	-	-	-	-	-	-	-	-
	A-B	0.44	-	-	-	-	-	-	-	-
	A-C	0.53	-	-	-	-	-	-	-	-

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	0.53	7.83	0.068	-	0.07	0.07	-	1.1	0.14
	C-AB	0.31	9.25	0.034	-	0.03	0.04	-	0.5	0.11
	C-A	-	-	-	-	-	-	-	-	-
	A-B	0.44	-	-	-	-	-	-	-	-

	A-C	0.53	-	-	-	-	-	-	-	-

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	0.43	7.93	0.055	-	0.07	0.06	-	0.9	0.13
	C-AB	0.25	9.30	0.027	-	0.04	0.03	-	0.4	0.11
	C-A	-	-	-	-	-	-	-	-	-
	A-B	0.36	-	-	-	-	-	-	-	-
	A-C	0.43	-	-	-	-	-	-	-	-

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-AC	0.36	8.00	0.045	-	0.06	0.05	-	0.7	0.13
	C-AB	0.21	9.33	0.023	-	0.03	0.02	-	0.4	0.11
	C-A	-	-	-	-	-	-	-	-	-
	A-B	0.30	-	-	-	-	-	-	-	-
	A-C	0.36	-	-	-	-	-	-	-	-

Demand Set: 2024 AM without Dev
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-AC	0.39	7.31	0.053	-	0.00	0.06	-	0.8	0.14
	C-AB	0.11	8.06	0.014	-	0.00	0.01	-	0.2	0.13
	C-A	-	-	-	-	-	-	-	-	-
	A-B	0.16	-	-	-	-	-	-	-	-
	A-C	5.75	-	-	-	-	-	-	-	-

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)
08:00-08:15	B-AC	0.46	7.02	0.066	-	0.06	0.07	-	1.0	0.15
	C-AB	0.13	7.79	0.017	-	0.01	0.02	-	0.3	0.13
	C-A	-	-	-	-	-	-	-	-	-
	A-B	0.19	-	-	-	-	-	-	-	-
	A-C	6.86	-	-	-	-	-	-	-	-

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	0.57	6.62	0.086	-	0.07	0.09	-	1.4	0.17
	C-AB	0.17	7.41	0.022	-	0.02	0.02	-	0.3	0.14
	C-A	-	-	-	-	-	-	-	-	-
	A-B	0.24	-	-	-	-	-	-	-	-
	A-C	8.40	-	-	-	-	-	-	-	-

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	0.57	6.62	0.086	-	0.09	0.09	-	1.4	0.17
	C-AB	0.17	7.41	0.022	-	0.02	0.02	-	0.3	0.14
	C-A	-	-	-	-	-	-	-	-	-
	A-B	0.24	-	-	-	-	-	-	-	-
	A-C	8.40	-	-	-	-	-	-	-	-

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	0.46	7.02	0.066	-	0.09	0.07	-	1.1	0.15
	C-AB	0.13	7.79	0.017	-	0.02	0.02	-	0.3	0.13
	C-A	-	-	-	-	-	-	-	-	-
	A-B	0.19	-	-	-	-	-	-	-	-
	A-C	6.86	-	-	-	-	-	-	-	-

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-AC	0.39	7.31	0.053	-	0.07	0.06	-	0.9	0.14
	C-AB	0.11	8.06	0.014	-	0.02	0.01	-	0.2	0.13
	C-A	-	-	-	-	-	-	-	-	-
	A-B	0.16	-	-	-	-	-	-	-	-
	A-C	5.75	-	-	-	-	-	-	-	-

Demand Set: 2024 PM without Dev
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-AC	0.40	7.99	0.050	-	0.00	0.05	-	0.8	0.13
	C-AB	0.23	9.31	0.024	-	0.00	0.02	-	0.4	0.11
	C-A	-	-	-	-	-	-	-	-	-
	A-B	0.33	-	-	-	-	-	-	-	-
	A-C	0.39	-	-	-	-	-	-	-	-

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)
17:00-17:15	B-AC	0.48	7.92	0.061	-	0.05	0.06	-	0.9	0.13
	C-AB	0.27	9.28	0.029	-	0.02	0.03	-	0.4	0.11
	C-A	-	-	-	-	-	-	-	-	-
	A-B	0.39	-	-	-	-	-	-	-	-

	A-C	0.46	-	-	-	-	-	-	-	-

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	0.59	7.81	0.075	-	0.06	0.08	-	1.2	0.14
	C-AB	0.33	9.23	0.036	-	0.03	0.04	-	0.6	0.11
	C-A	-	-	-	-	-	-	-	-	-
	A-B	0.48	-	-	-	-	-	-	-	-
	A-C	0.57	-	-	-	-	-	-	-	-

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	0.59	7.81	0.075	-	0.08	0.08	-	1.2	0.14
	C-AB	0.33	9.23	0.036	-	0.04	0.04	-	0.6	0.11
	C-A	-	-	-	-	-	-	-	-	-
	A-B	0.48	-	-	-	-	-	-	-	-
	A-C	0.57	-	-	-	-	-	-	-	-

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	0.48	7.92	0.061	-	0.08	0.07	-	1.0	0.13
	C-AB	0.27	9.28	0.029	-	0.04	0.03	-	0.5	0.11
	C-A	-	-	-	-	-	-	-	-	-
	A-B	0.39	-	-	-	-	-	-	-	-
	A-C	0.46	-	-	-	-	-	-	-	-

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-AC	0.40	7.99	0.050	-	0.07	0.05	-	0.8	0.13
	C-AB	0.23	9.31	0.024	-	0.03	0.03	-	0.4	0.11
	C-A	-	-	-	-	-	-	-	-	-
	A-B	0.33	-	-	-	-	-	-	-	-
	A-C	0.39	-	-	-	-	-	-	-	-

Demand Set: 2029 AM without Dev
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-AC	0.43	7.16	0.060	-	0.00	0.06	-	0.9	0.15
	C-AB	0.11	7.94	0.014	-	0.00	0.01	-	0.2	0.13
	C-A	-	-	-	-	-	-	-	-	-
	A-B	0.18	-	-	-	-	-	-	-	-
	A-C	6.25	-	-	-	-	-	-	-	-

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	0.51	6.85	0.074	-	0.06	0.08	-	1.2	0.16
	C-AB	0.13	7.64	0.018	-	0.01	0.02	-	0.3	0.13
	C-A	-	-	-	-	-	-	-	-	-
	A-B	0.21	-	-	-	-	-	-	-	-
	A-C	7.46	-	-	-	-	-	-	-	-

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	0.62	6.41	0.097	-	0.08	0.11	-	1.6	0.17
	C-AB	0.17	7.23	0.023	-	0.02	0.02	-	0.3	0.14
	C-A	-	-	-	-	-	-	-	-	-
	A-B	0.26	-	-	-	-	-	-	-	-
	A-C	9.14	-	-	-	-	-	-	-	-

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	0.62	6.41	0.097	-	0.11	0.11	-	1.6	0.17
	C-AB	0.17	7.23	0.023	-	0.02	0.02	-	0.4	0.14
	C-A	-	-	-	-	-	-	-	-	-
	A-B	0.26	-	-	-	-	-	-	-	-
	A-C	9.14	-	-	-	-	-	-	-	-

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	0.51	6.85	0.074	-	0.11	0.08	-	1.3	0.16
	C-AB	0.13	7.64	0.018	-	0.02	0.02	-	0.3	0.13
	C-A	-	-	-	-	-	-	-	-	-
	A-B	0.21	-	-	-	-	-	-	-	-
	A-C	7.46	-	-	-	-	-	-	-	-

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-AC	0.43	7.16	0.060	-	0.08	0.06	-	1.0	0.15
	C-AB	0.11	7.94	0.014	-	0.02	0.01	-	0.2	0.13
	C-A	-	-	-	-	-	-	-	-	-
	A-B	0.18	-	-	-	-	-	-	-	-

	A-C	6.25	-	-	-	-	-	-	-	-

Demand Set: 2029 PM without Dev
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-AC	0.43	7.93	0.054	-	0.00	0.06	-	0.8	0.13
	C-AB	0.25	9.30	0.027	-	0.00	0.03	-	0.4	0.11
	C-A	-	-	-	-	-	-	-	-	-
	A-B	0.35	-	-	-	-	-	-	-	-
	A-C	0.43	-	-	-	-	-	-	-	-

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	0.51	7.84	0.065	-	0.06	0.07	-	1.0	0.14
	C-AB	0.30	9.26	0.032	-	0.03	0.03	-	0.5	0.11
	C-A	-	-	-	-	-	-	-	-	-
	A-B	0.42	-	-	-	-	-	-	-	-
	A-C	0.51	-	-	-	-	-	-	-	-

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	0.62	7.73	0.081	-	0.07	0.09	-	1.3	0.14
	C-AB	0.37	9.21	0.040	-	0.03	0.04	-	0.6	0.11
	C-A	-	-	-	-	-	-	-	-	-
	A-B	0.51	-	-	-	-	-	-	-	-
	A-C	0.62	-	-	-	-	-	-	-	-

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	0.62	7.73	0.081	-	0.09	0.09	-	1.3	0.14
	C-AB	0.37	9.21	0.040	-	0.04	0.04	-	0.6	0.11
	C-A	-	-	-	-	-	-	-	-	-
	A-B	0.51	-	-	-	-	-	-	-	-
	A-C	0.62	-	-	-	-	-	-	-	-

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	0.51	7.84	0.065	-	0.09	0.07	-	1.1	0.14
	C-AB	0.30	9.26	0.032	-	0.04	0.03	-	0.5	0.11
	C-A	-	-	-	-	-	-	-	-	-
	A-B	0.42	-	-	-	-	-	-	-	-
	A-C	0.51	-	-	-	-	-	-	-	-

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-AC	0.43	7.92	0.054	-	0.07	0.06	-	0.9	0.13
	C-AB	0.25	9.30	0.027	-	0.03	0.03	-	0.4	0.11
	C-A	-	-	-	-	-	-	-	-	-
	A-B	0.35	-	-	-	-	-	-	-	-
	A-C	0.43	-	-	-	-	-	-	-	-

Demand Set: 2039 AM without Dev
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-AC	0.48	7.00	0.068	-	0.00	0.07	-	1.0	0.15
	C-AB	0.13	7.77	0.016	-	0.00	0.02	-	0.2	0.13
	C-A	-	-	-	-	-	-	-	-	-
	A-B	0.20	-	-	-	-	-	-	-	-
	A-C	6.94	-	-	-	-	-	-	-	-

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	0.57	6.64	0.086	-	0.07	0.09	-	1.4	0.16
	C-AB	0.15	7.44	0.020	-	0.02	0.02	-	0.3	0.14
	C-A	-	-	-	-	-	-	-	-	-
	A-B	0.24	-	-	-	-	-	-	-	-
	A-C	8.29	-	-	-	-	-	-	-	-

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	0.70	6.16	0.113	-	0.09	0.13	-	1.8	0.18
	C-AB	0.18	6.98	0.026	-	0.02	0.03	-	0.4	0.15
	C-A	-	-	-	-	-	-	-	-	-
	A-B	0.29	-	-	-	-	-	-	-	-
	A-C	10.15	-	-	-	-	-	-	-	-

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)
08:30-08:45	B-AC	0.70	6.16	0.113	-	0.13	0.13	-	1.9	0.18
	C-AB	0.18	6.98	0.026	-	0.03	0.03	-	0.4	0.15
	C-A	-	-	-	-	-	-	-	-	-
	A-B	0.29	-	-	-	-	-	-	-	-

	A-C	10.15	-	-	-	-	-	-	-	-

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)
08:45-09:00	B-AC	0.57	6.64	0.086	-	0.13	0.09	-	1.5	0.16
	C-AB	0.15	7.44	0.020	-	0.03	0.02	-	0.3	0.14
	C-A	-	-	-	-	-	-	-	-	-
	A-B	0.24	-	-	-	-	-	-	-	-
	A-C	8.29	-	-	-	-	-	-	-	-

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-AC	0.48	6.99	0.068	-	0.09	0.07	-	1.1	0.15
	C-AB	0.13	7.77	0.016	-	0.02	0.02	-	0.2	0.13
	C-A	-	-	-	-	-	-	-	-	-
	A-B	0.20	-	-	-	-	-	-	-	-
	A-C	6.94	-	-	-	-	-	-	-	-

Demand Set: 2039 PM without Dev
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-AC	0.48	7.88	0.061	-	0.00	0.06	-	0.9	0.13
	C-AB	0.28	9.28	0.030	-	0.00	0.03	-	0.5	0.11
	C-A	-	-	-	-	-	-	-	-	-
	A-B	0.39	-	-	-	-	-	-	-	-
	A-C	0.48	-	-	-	-	-	-	-	-

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)
17:00-17:15	B-AC	0.57	7.79	0.073	-	0.06	0.08	-	1.1	0.14
	C-AB	0.33	9.24	0.036	-	0.03	0.04	-	0.6	0.11
	C-A	-	-	-	-	-	-	-	-	-
	A-B	0.46	-	-	-	-	-	-	-	-
	A-C	0.57	-	-	-	-	-	-	-	-

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	0.70	7.66	0.091	-	0.08	0.10	-	1.5	0.14
	C-AB	0.40	9.18	0.044	-	0.04	0.05	-	0.7	0.11
	C-A	-	-	-	-	-	-	-	-	-
	A-B	0.57	-	-	-	-	-	-	-	-
	A-C	0.70	-	-	-	-	-	-	-	-

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	0.70	7.66	0.091	-	0.10	0.10	-	1.5	0.14
	C-AB	0.40	9.18	0.044	-	0.05	0.05	-	0.7	0.11
	C-A	-	-	-	-	-	-	-	-	-
	A-B	0.57	-	-	-	-	-	-	-	-
	A-C	0.70	-	-	-	-	-	-	-	-

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	0.57	7.79	0.073	-	0.10	0.08	-	1.2	0.14
	C-AB	0.33	9.24	0.036	-	0.05	0.04	-	0.6	0.11
	C-A	-	-	-	-	-	-	-	-	-
	A-B	0.46	-	-	-	-	-	-	-	-
	A-C	0.57	-	-	-	-	-	-	-	-

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-AC	0.48	7.88	0.061	-	0.08	0.06	-	1.0	0.14
	C-AB	0.28	9.28	0.030	-	0.04	0.03	-	0.5	0.11
	C-A	-	-	-	-	-	-	-	-	-
	A-B	0.39	-	-	-	-	-	-	-	-
	A-C	0.48	-	-	-	-	-	-	-	-

Demand Set: 2024 AM with Dev
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-AC	2.77	7.20	0.385	-	0.00	0.61	-	8.6	0.22
	C-AB	0.39	7.96	0.049	-	0.00	0.05	-	0.8	0.13
	C-A	-	-	-	-	-	-	-	-	-
	A-B	0.59	-	-	-	-	-	-	-	-
	A-C	5.75	-	-	-	-	-	-	-	-

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)
08:00-08:15	B-AC	3.31	6.88	0.481	-	0.61	0.90	-	12.7	0.28
	C-AB	0.46	7.67	0.061	-	0.05	0.06	-	1.0	0.14
	C-A	-	-	-	-	-	-	-	-	-
	A-B	0.70	-	-	-	-	-	-	-	-

	A-C	6.86	-	-	-	-	-	-	-	-

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	4.06	6.45	0.629	-	0.90	1.59	-	21.7	0.40
	C-AB	0.57	7.26	0.078	-	0.06	0.08	-	1.3	0.15
	C-A	-	-	-	-	-	-	-	-	-
	A-B	0.86	-	-	-	-	-	-	-	-
	A-C	8.40	-	-	-	-	-	-	-	-

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	4.06	6.45	0.629	-	1.59	1.64	-	24.2	0.42
	C-AB	0.57	7.26	0.078	-	0.08	0.08	-	1.3	0.15
	C-A	-	-	-	-	-	-	-	-	-
	A-B	0.86	-	-	-	-	-	-	-	-
	A-C	8.40	-	-	-	-	-	-	-	-

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	3.31	6.88	0.481	-	1.64	0.96	-	15.4	0.29
	C-AB	0.46	7.67	0.061	-	0.08	0.07	-	1.0	0.14
	C-A	-	-	-	-	-	-	-	-	-
	A-B	0.70	-	-	-	-	-	-	-	-
	A-C	6.86	-	-	-	-	-	-	-	-

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-AC	2.77	7.20	0.385	-	0.96	0.64	-	10.1	0.23
	C-AB	0.39	7.96	0.049	-	0.07	0.05	-	0.8	0.13
	C-A	-	-	-	-	-	-	-	-	-
	A-B	0.59	-	-	-	-	-	-	-	-
	A-C	5.75	-	-	-	-	-	-	-	-

Demand Set: 2024 PM with Dev
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-AC	1.10	7.64	0.144	-	0.00	0.17	-	2.4	0.15
	C-AB	0.98	9.06	0.108	-	0.00	0.12	-	1.8	0.12
	C-A	-	-	-	-	-	-	-	-	-
	A-B	1.38	-	-	-	-	-	-	-	-
	A-C	0.39	-	-	-	-	-	-	-	-

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)
17:00-17:15	B-AC	1.32	7.50	0.176	-	0.17	0.21	-	3.1	0.16
	C-AB	1.17	8.98	0.130	-	0.12	0.15	-	2.3	0.13
	C-A	-	-	-	-	-	-	-	-	-
	A-B	1.65	-	-	-	-	-	-	-	-
	A-C	0.46	-	-	-	-	-	-	-	-

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	1.61	7.31	0.221	-	0.21	0.28	-	4.1	0.18
	C-AB	1.43	8.86	0.161	-	0.15	0.20	-	3.0	0.13
	C-A	-	-	-	-	-	-	-	-	-
	A-B	2.02	-	-	-	-	-	-	-	-
	A-C	0.57	-	-	-	-	-	-	-	-

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	1.61	7.31	0.221	-	0.28	0.28	-	4.2	0.18
	C-AB	1.43	8.86	0.161	-	0.20	0.20	-	3.0	0.13
	C-A	-	-	-	-	-	-	-	-	-
	A-B	2.02	-	-	-	-	-	-	-	-
	A-C	0.57	-	-	-	-	-	-	-	-

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	1.32	7.50	0.176	-	0.28	0.22	-	3.3	0.16
	C-AB	1.17	8.98	0.130	-	0.20	0.16	-	2.3	0.13
	C-A	-	-	-	-	-	-	-	-	-
	A-B	1.65	-	-	-	-	-	-	-	-
	A-C	0.46	-	-	-	-	-	-	-	-

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-AC	1.10	7.64	0.144	-	0.22	0.17	-	2.6	0.15
	C-AB	0.98	9.06	0.108	-	0.16	0.12	-	1.9	0.12
	C-A	-	-	-	-	-	-	-	-	-
	A-B	1.38	-	-	-	-	-	-	-	-

	A-C	0.39	-	-	-	-	-	-	-	-

Demand Set: 2029 AM with Dev
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-AC	2.81	7.06	0.398	-	0.00	0.64	-	9.0	0.23
	C-AB	0.40	7.84	0.051	-	0.00	0.05	-	0.8	0.13
	C-A	-	-	-	-	-	-	-	-	-
	A-B	0.60	-	-	-	-	-	-	-	-
	A-C	6.25	-	-	-	-	-	-	-	-

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	3.36	6.72	0.499	-	0.64	0.96	-	13.6	0.29
	C-AB	0.48	7.52	0.064	-	0.05	0.07	-	1.0	0.14
	C-A	-	-	-	-	-	-	-	-	-
	A-B	0.72	-	-	-	-	-	-	-	-
	A-C	7.46	-	-	-	-	-	-	-	-

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	4.11	6.25	0.657	-	0.96	1.77	-	24.0	0.44
	C-AB	0.59	7.08	0.083	-	0.07	0.09	-	1.3	0.15
	C-A	-	-	-	-	-	-	-	-	-
	A-B	0.88	-	-	-	-	-	-	-	-
	A-C	9.14	-	-	-	-	-	-	-	-

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	4.11	6.25	0.657	-	1.77	1.84	-	27.2	0.46
	C-AB	0.59	7.08	0.083	-	0.09	0.09	-	1.4	0.15
	C-A	-	-	-	-	-	-	-	-	-
	A-B	0.88	-	-	-	-	-	-	-	-
	A-C	9.14	-	-	-	-	-	-	-	-

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	3.36	6.72	0.499	-	1.84	1.03	-	16.7	0.31
	C-AB	0.48	7.52	0.064	-	0.09	0.07	-	1.0	0.14
	C-A	-	-	-	-	-	-	-	-	-
	A-B	0.72	-	-	-	-	-	-	-	-
	A-C	7.46	-	-	-	-	-	-	-	-

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-AC	2.81	7.06	0.398	-	1.03	0.68	-	10.7	0.24
	C-AB	0.40	7.84	0.051	-	0.07	0.05	-	0.8	0.13
	C-A	-	-	-	-	-	-	-	-	-
	A-B	0.60	-	-	-	-	-	-	-	-
	A-C	6.25	-	-	-	-	-	-	-	-

Demand Set: 2029 PM with Dev
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-AC	1.14	7.62	0.150	-	0.00	0.17	-	2.5	0.15
	C-AB	0.99	9.05	0.110	-	0.00	0.12	-	1.8	0.12
	C-A	-	-	-	-	-	-	-	-	-
	A-B	1.41	-	-	-	-	-	-	-	-
	A-C	0.43	-	-	-	-	-	-	-	-

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	1.36	7.47	0.183	-	0.17	0.22	-	3.2	0.16
	C-AB	1.18	8.96	0.132	-	0.12	0.16	-	2.3	0.13
	C-A	-	-	-	-	-	-	-	-	-
	A-B	1.68	-	-	-	-	-	-	-	-
	A-C	0.51	-	-	-	-	-	-	-	-

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	1.67	7.26	0.230	-	0.22	0.29	-	4.3	0.18
	C-AB	1.45	8.84	0.164	-	0.16	0.20	-	3.0	0.14
	C-A	-	-	-	-	-	-	-	-	-
	A-B	2.06	-	-	-	-	-	-	-	-
	A-C	0.62	-	-	-	-	-	-	-	-

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	1.67	7.26	0.230	-	0.29	0.30	-	4.4	0.18
	C-AB	1.45	8.84	0.164	-	0.20	0.20	-	3.1	0.14
	C-A	-	-	-	-	-	-	-	-	-
	A-B	2.06	-	-	-	-	-	-	-	-

	A-C	0.62	-	-	-	-	-	-	-	-

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	1.36	7.47	0.183	-	0.30	0.23	-	3.5	0.16
	C-AB	1.18	8.96	0.132	-	0.20	0.16	-	2.4	0.13
	C-A	-	-	-	-	-	-	-	-	-
	A-B	1.68	-	-	-	-	-	-	-	-
	A-C	0.51	-	-	-	-	-	-	-	-

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-AC	1.14	7.62	0.150	-	0.23	0.18	-	2.7	0.15
	C-AB	0.99	9.05	0.110	-	0.16	0.13	-	1.9	0.12
	C-A	-	-	-	-	-	-	-	-	-
	A-B	1.41	-	-	-	-	-	-	-	-
	A-C	0.43	-	-	-	-	-	-	-	-

Demand Set: 2039 AM with Dev
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-AC	2.86	6.88	0.416	-	0.00	0.69	-	9.6	0.24
	C-AB	0.41	7.67	0.054	-	0.00	0.06	-	0.8	0.14
	C-A	-	-	-	-	-	-	-	-	-
	A-B	0.61	-	-	-	-	-	-	-	-
	A-C	6.94	-	-	-	-	-	-	-	-

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	3.42	6.51	0.525	-	0.69	1.06	-	14.9	0.32
	C-AB	0.49	7.32	0.068	-	0.06	0.07	-	1.1	0.15
	C-A	-	-	-	-	-	-	-	-	-
	A-B	0.73	-	-	-	-	-	-	-	-
	A-C	8.29	-	-	-	-	-	-	-	-

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	4.18	5.99	0.699	-	1.06	2.09	-	27.8	0.52
	C-AB	0.61	6.83	0.089	-	0.07	0.10	-	1.4	0.16
	C-A	-	-	-	-	-	-	-	-	-
	A-B	0.90	-	-	-	-	-	-	-	-
	A-C	10.15	-	-	-	-	-	-	-	-

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)
08:30-08:45	B-AC	4.18	5.99	0.699	-	2.09	2.19	-	32.3	0.55
	C-AB	0.61	6.83	0.089	-	0.10	0.10	-	1.5	0.16
	C-A	-	-	-	-	-	-	-	-	-
	A-B	0.90	-	-	-	-	-	-	-	-
	A-C	10.15	-	-	-	-	-	-	-	-

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)
08:45-09:00	B-AC	3.42	6.51	0.525	-	2.19	1.15	-	18.7	0.34
	C-AB	0.49	7.32	0.068	-	0.10	0.07	-	1.1	0.15
	C-A	-	-	-	-	-	-	-	-	-
	A-B	0.73	-	-	-	-	-	-	-	-
	A-C	8.29	-	-	-	-	-	-	-	-

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-AC	2.86	6.88	0.416	-	1.15	0.73	-	11.6	0.25
	C-AB	0.41	7.67	0.054	-	0.07	0.06	-	0.9	0.14
	C-A	-	-	-	-	-	-	-	-	-
	A-B	0.61	-	-	-	-	-	-	-	-
	A-C	6.94	-	-	-	-	-	-	-	-

Demand Set: 2039 PM with Dev
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-AC	1.19	7.57	0.158	-	0.00	0.18	-	2.7	0.16
	C-AB	1.03	9.02	0.114	-	0.00	0.13	-	1.9	0.12
	C-A	-	-	-	-	-	-	-	-	-
	A-B	1.44	-	-	-	-	-	-	-	-
	A-C	0.48	-	-	-	-	-	-	-	-

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)
17:00-17:15	B-AC	1.42	7.41	0.192	-	0.18	0.23	-	3.4	0.17
	C-AB	1.23	8.93	0.138	-	0.13	0.16	-	2.5	0.13
	C-A	-	-	-	-	-	-	-	-	-
	A-B	1.72	-	-	-	-	-	-	-	-

	A-C	0.57	-	-	-	-	-	-	-	-

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	1.74	7.19	0.243	-	0.23	0.32	-	4.6	0.18
	C-AB	1.50	8.81	0.171	-	0.16	0.21	-	3.2	0.14
	C-A	-	-	-	-	-	-	-	-	-
	A-B	2.11	-	-	-	-	-	-	-	-
	A-C	0.70	-	-	-	-	-	-	-	-

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	1.74	7.19	0.243	-	0.32	0.32	-	4.8	0.18
	C-AB	1.50	8.81	0.171	-	0.21	0.22	-	3.3	0.14
	C-A	-	-	-	-	-	-	-	-	-
	A-B	2.11	-	-	-	-	-	-	-	-
	A-C	0.70	-	-	-	-	-	-	-	-

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	1.42	7.41	0.192	-	0.32	0.24	-	3.7	0.17
	C-AB	1.23	8.93	0.138	-	0.22	0.17	-	2.5	0.13
	C-A	-	-	-	-	-	-	-	-	-
	A-B	1.72	-	-	-	-	-	-	-	-
	A-C	0.57	-	-	-	-	-	-	-	-

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-AC	1.19	7.56	0.158	-	0.24	0.19	-	2.9	0.16
	C-AB	1.03	9.02	0.114	-	0.17	0.13	-	2.0	0.13
	C-A	-	-	-	-	-	-	-	-	-
	A-B	1.44	-	-	-	-	-	-	-	-
	A-C	0.48	-	-	-	-	-	-	-	-

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: 2019 AM Survey Year
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-AC	39.9	26.6	6.0	0.1	6.0	0.1
C-AB	11.0	7.3	1.4	0.1	1.4	0.1
C-A	-	-	-	-	-	-
A-B	16.5	11.0	-	-	-	-
A-C	579.5	386.3	-	-	-	-
All	**663.4**	**442.3**	**7.4**	**0.0**	**7.4**	**0.0**

Demand Set: 2019 PM Survey Year
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-AC	39.9	26.6	5.3	0.1	5.3	0.1
C-AB	23.4	15.6	2.6	0.1	2.6	0.1
C-A	-	-	-	-	-	-
A-B	33.0	22.0	-	-	-	-
A-C	39.9	26.6	-	-	-	-
All	**290.4**	**193.6**	**7.9**	**0.0**	**7.9**	**0.0**

Demand Set: 2024 AM without Dev
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-AC	42.7	28.4	6.6	0.2	6.6	0.2
C-AB	12.4	8.3	1.6	0.1	1.6	0.1
C-A	-	-	-	-	-	-
A-B	17.9	11.9	-	-	-	-
A-C	630.4	420.3	-	-	-	-
All	**721.2**	**480.8**	**8.2**	**0.0**	**8.2**	**0.0**

Demand Set: 2024 PM without Dev
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-AC	44.0	29.4	5.9	0.1	5.9	0.1
C-AB	24.8	16.5	2.8	0.1	2.8	0.1
C-A	-	-	-	-	-	-
A-B	35.8	23.9	-	-	-	-
A-C	42.7	28.4	-	-	-	-
All	**313.8**	**209.2**	**8.7**	**0.0**	**8.7**	**0.0**

Demand Set: 2029 AM without Dev
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-AC	46.8	31.2	7.5	0.2	7.5	0.2
C-AB	12.4	8.3	1.7	0.1	1.7	0.1
C-A	-	-	-	-	-	-
A-B	19.3	12.8	-	-	-	-
A-C	685.5	457.0	-	-	-	-
All	**784.6**	**523.0**	**9.1**	**0.0**	**9.1**	**0.0**

Demand Set: 2029 PM without Dev
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-AC	46.8	31.2	6.4	0.1	6.4	0.1
C-AB	27.5	18.4	3.1	0.1	3.1	0.1
C-A	-	-	-	-	-	-
A-B	38.5	25.7	-	-	-	-
A-C	46.8	31.2	-	-	-	-
All	**341.4**	**227.6**	**9.5**	**0.0**	**9.5**	**0.0**

Demand Set: 2039 AM without Dev
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-AC	52.3	34.9	8.7	0.2	8.7	0.2
C-AB	13.8	9.2	1.9	0.1	1.9	0.1
C-A	-	-	-	-	-	-
A-B	22.0	14.7	-	-	-	-
A-C	761.2	507.4	-	-	-	-
All	**872.7**	**581.8**	**10.7**	**0.0**	**10.7**	**0.0**

Demand Set: 2039 PM without Dev
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-AC	52.3	34.9	7.2	0.1	7.2	0.1
C-AB	30.3	20.2	3.4	0.1	3.4	0.1
C-A	-	-	-	-	-	-
A-B	42.7	28.4	-	-	-	-
A-C	52.3	34.9	-	-	-	-
All	**379.9**	**253.3**	**10.7**	**0.0**	**10.7**	**0.0**

Demand Set: 2024 AM with Dev
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-AC	304.2	202.8	92.8	0.3	92.8	0.3
C-AB	42.7	28.4	6.0	0.1	6.0	0.1
C-A	-	-	-	-	-	-
A-B	64.7	43.1	-	-	-	-
A-C	630.4	420.3	-	-	-	-
All	**1059.8**	**706.6**	**98.8**	**0.1**	**98.8**	**0.1**

Demand Set: 2024 PM with Dev
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-AC	121.1	80.8	19.7	0.2	19.7	0.2
C-AB	107.4	71.6	14.3	0.1	14.3	0.1
C-A	-	-	-	-	-	-
A-B	151.4	100.9	-	-	-	-
A-C	42.7	28.4	-	-	-	-
All	**589.1**	**392.7**	**34.0**	**0.1**	**34.0**	**0.1**

Demand Set: 2029 AM with Dev
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-AC	308.3	205.5	101.3	0.3	101.3	0.3
C-AB	44.0	29.4	6.4	0.1	6.4	0.1
C-A	-	-	-	-	-	-
A-B	66.1	44.0	-	-	-	-
A-C	685.5	457.0	-	-	-	-
All	**1124.5**	**749.7**	**107.7**	**0.1**	**107.7**	**0.1**

Demand Set: 2029 PM with Dev
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-AC	125.3	83.5	20.7	0.2	20.7	0.2
C-AB	108.7	72.5	14.6	0.1	14.6	0.1
C-A	-	-	-	-	-	-
A-B	154.2	102.8	-	-	-	-
A-C	46.8	31.2	-	-	-	-
All	**616.6**	**411.1**	**35.2**	**0.1**	**35.2**	**0.1**

Demand Set: 2039 AM with Dev
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-AC	313.8	209.2	115.0	0.4	115.1	0.4
C-AB	45.4	30.3	6.8	0.1	6.8	0.1
C-A	-	-	-	-	-	-
A-B	67.4	45.0	-	-	-	-
A-C	761.2	507.4	-	-	-	-
All	**1211.3**	**807.5**	**121.8**	**0.1**	**121.9**	**0.1**

Demand Set: 2039 PM with Dev
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-AC	130.8	87.2	22.1	0.2	22.1	0.2
C-AB	112.9	75.2	15.3	0.1	15.3	0.1
C-A	-	-	-	-	-	-
A-B	158.3	105.5	-	-	-	-
A-C	52.3	34.9	-	-	-	-
All	**656.6**	**437.7**	**37.4**	**0.1**	**37.4**	**0.1**

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