Cosgrave Developments

Blackwood Square, Northwood, Santry Demense, Dublin 9

Planning Application to An Bord Pleanala

Traffic and Transport Assessment

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SECTION 1: INTRODUCTION

1.1 Background

J.B. Barry & Partners Ltd. was commissioned by Cosgrave Developments to undertake a Traffic & Transport Assessment (TTA) for a proposed residential development at Blackwood Square, Northwood, Dublin 9.

The proposed development will consist the construction of 4 No.7-storey plus penthouse apartment blocks containing 331 No. apartment units, a multi-function area (c.133sq.m), a gym (c.140sq.m), a childcare facility (c.224sq.m), a concierge (c 81.5sq m) in Block A, 5 No. ground floor mixed use commercial units with a total area of c. 939sq.m; associated car parking (including 334 resident spaces at basement level), 760 No. bicycle storage spaces, 5 No. motorbike spaces, refuse storage, substation, landscaped public open space; network of pedestrian and cycle paths tying in with existing pedestrian and cycle paths on Northwood Avenue with access points along the south, north east and west boundaries of the site; and associated drainage arrangements, landscaping and site development works, all on a site of c. 2.119h.

1.2 Scoping Study

Scoping of the proposal identified the following issues for consideration in the TTA Report:

This TTA provides an assessment of the potential traffic impacts associated with the Blackwood Square development. In this regard, the assessment aims to:

- Identify the existing environment in terms of traffic, existing transport infrastructure and emerging transport developments;
- Quantify the likely vehicle traffic flows to and from the development, from and to the surrounding road network;
- Identify and quantify the likely traffic impacts on the surrounding road network resulting from the development;
- Identify any potential safety issues, in particular impacts on vulnerable road users in the study area;
- Produce a car and bicycle parking strategy;
- Identify suitable measures to mitigate traffic and transportation impacts, if any, associated directly with the development.

The assessment is based on the findings of site visits, traffic observations, on-site traffic counts, architectural plans, consultations with the Design Team and consultation with Fingal County Council.

1.3 Objectives

This report provides an assessment of the potential traffic impacts associated with the proposed development. In this regard, the assessment aims to:

- Identify the existing environment in terms of traffic and transportation;
- Quantify the likely vehicle traffic flows to and from the development from and to the surrounding road network;
- Identify and quantify the likely traffic impacts on the surrounding road network resulting from the development;
- Identify vehicle queueing coming from the junction; and
- Identify suitable measures to mitigate traffic and transportation impacts, if any, associated directly with the development.

The assessment is based on the findings of site visits, traffic observations, on-site traffic counts, architectural plans, and consultations with the Design Team.

1.4 Methodology

The methodology adopted for this report is summarised as follows:

- A site audit was undertaken to quantify existing road network issues and identify local infrastructure characteristics, in addition to establishing the level of accessibility to the Site in terms of walking, cycling and public transport;
- Reference was made to site layout drawings;
- Existing and proposed access arrangements for the proposed development onto Northwood Avenue were considered;
- Traffic surveys were undertaken at the junctions most likely to be impacted by the proposed development;
- A trip generation exercise has been carried out to establish the potential level of vehicle trips generated by the proposed development;
- In accordance with the Traffic and Transport Assessment Guidelines, the specific level of influence generated by the proposed development upon the surrounding local road network was ascertained and the junctions which required assessment in greater detail were identified;
- The junctions considered most likely to be impacted upon by traffic movements associated with the development were assessed in terms of capacity.

In preparing this assessment, reference has been made to the following documents:

- TII “Traffic and Transport Assessment Guidelines” 2014
- Department of Transport, Tourism and Sport “Traffic Management Guidelines” 2012;
- TII Project Appraisal Guidelines: Unit 5.3 - Travel Demand Projections;
- Design Manual for Urban Roads and Streets (DMURS);
- Fingal Development Plan 2017-2023;
- Department of Housing - Design Standards for New Apartments, Guidelines for Planning Authorities;
- Traffic Signs Manual.

SECTION 2: RECEIVING ENVIRONMENT

2.1 Site Location

The proposed development site is located in the Northwood area, in Dublin 9. **Figure 1** and **Figure 2** below illustrates the location and setting of the proposed Blackwood Square development.

Figure 1: Location of Proposed Blackwood Square Development and Environs *(Source: Google Maps, annotation by J.B. Barry & Partners)*

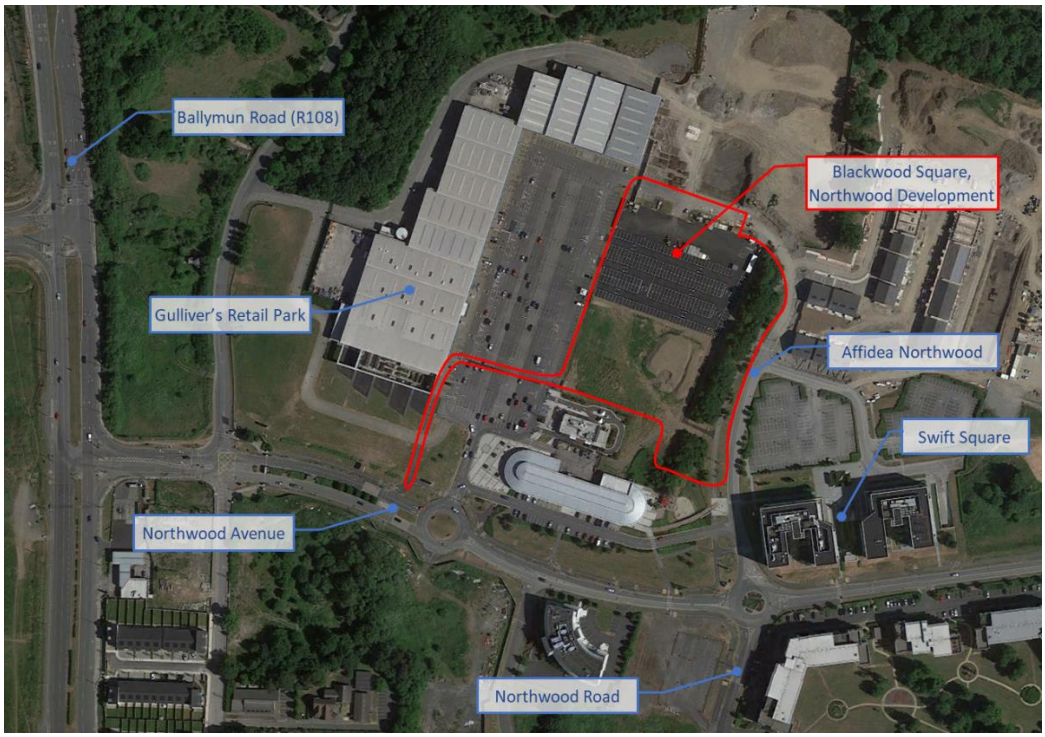


Figure 2: Local Setting of Proposed Blackwood Square Development with the Northwood area (Source: Google Maps, annotation by J.B. Barry & Partners)

2.2 Land Use & Local Road Network

The existing site is a part greenfield and part temporary car park site. The temporary car park is often used for construction workers car parking from surrounding developments. Vehicular access is currently provided from the Affidea Northwood road through the existing Gulliver's Retail Park itself off Northwood Avenue. The site is situated on the eastern side of the Northwood area. The Site is bounded by Gulliver's Retail Park to the West, Cedarview residential development to the East and Swift Square office development to the East.

The land uses surrounding the development site are a mix of commercial and residential (comprising both individual dwellings and larger residential apartment blocks), all of which benefit from access to / from Northwood Avenue.

The Site is zoned "ME – Metro Economic Corridor" within the Development Plan with an objective description of:

> *"Facilitate opportunities for high-density mixed-use employment generating activity and commercial development, and support the provision of an appropriate quantum of residential development within the Metro Economic Corridor"*

The Zoning objective vision states;

> *"Provide for an area of compact, high intensity/density, employment generating activity with associated commercial and residential development which focuses on the Metro within a setting of exemplary urban design, public realm streets and places, which are permeable, secure and within a high-quality green landscape. Landmark buildings will provide strong quality architectural features, which respect and enhance the character of the area into which they sit. The designated areas will form sustainable districts which possess a high degree of connectivity and accessibility and will be developed in a phased manner subject to the necessary provision of social and physical infrastructure."*

2.3 Public Transport

An audit of the existing and proposed facilities and nearby transport was undertaken for the development site in the course of developing this Traffic and Transport Assessment. The Blackwood Residential Development has the M50 road in close proximity, allowing easy access to and from the area by car from outer areas. The site of the proposed development is located close to number of bus routes and a number of emerging transport developments. The audit considered the quality and availability of the existing facilities and public transport services. The audit found that subject site and surrounding lands are currently very well serviced by public transport.

The existing public transport facilities and emerging transport developments in the area surrounding the Northwood area are detailed following.

2.3.1 Pedestrian and Cycle Infrastructure

As a modern development, the pedestrian and cycle facilities within the Northwood area are of a good quality. All pedestrian routes leading to / from the development benefit from the provision of street lighting in addition to good quality pedestrian footways. There are numerous pedestrian crossing facilities available along Northwood Avenue just south of the development. Additionally, off road cycle tracks are provided throughout the Northwood area and on the external road network. Ballymun Road has an off-road cycle track while Swords Road has an On-Road cycle track. Figure 3 below illustrates the existing cycle network in the area and Figure 4 illustrates the proposed improvements from the NTA's "Greater Dublin Area Cycle Network Plan". The off-road cycle lane along Northwood Avenue branches out at numerous locations along the route providing additional cycle facilities throughout the Northwood area. For the Proposed Cycle

Network (Figure 4), it is noted that much of the alignment for the Santry River Greenway is already in place throughout the Northwood area.

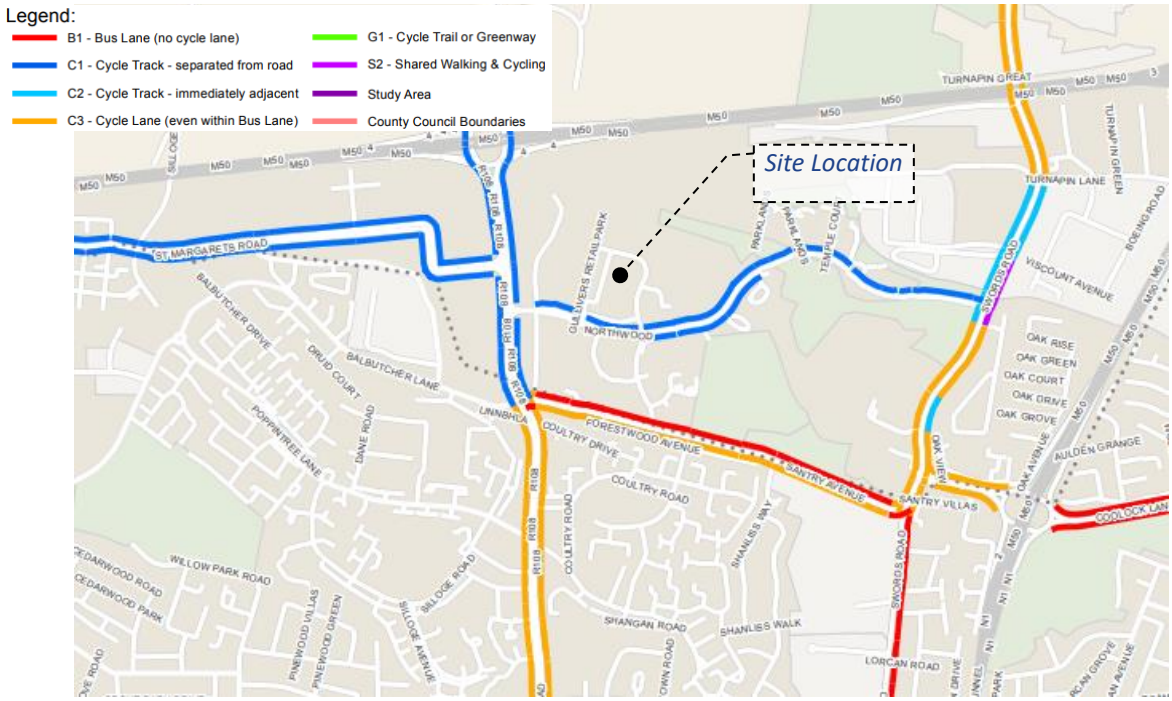


Figure 3: Existing Cycle Facilities - Greater Dublin Area Cycle Network Plan

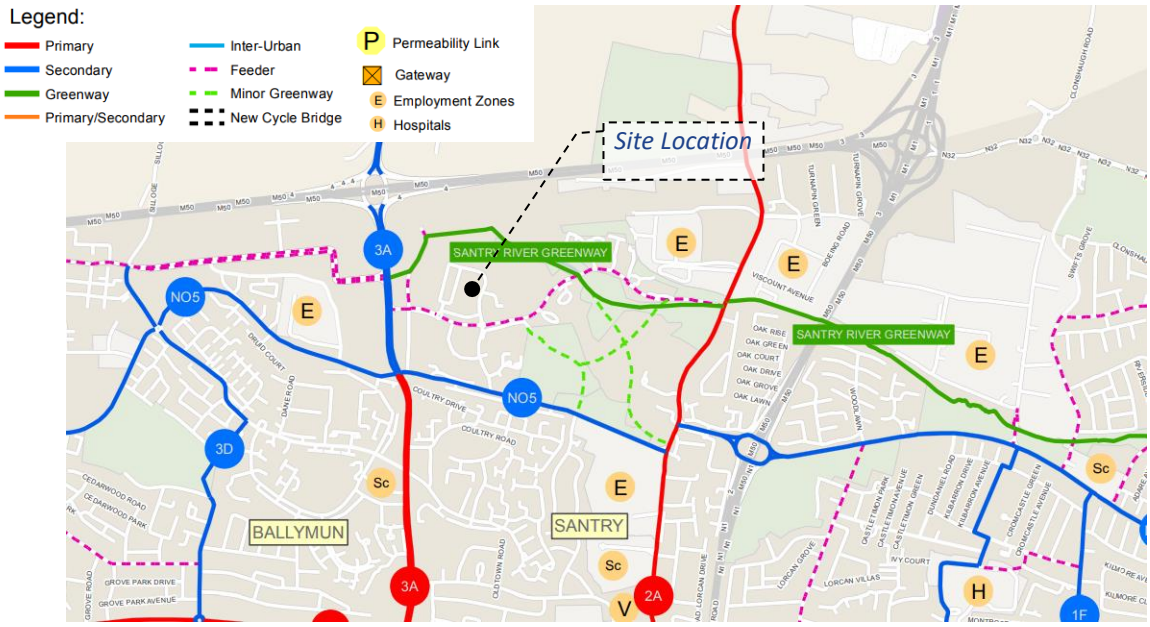


Figure 4: Proposed Cycle Facilities - Greater Dublin Area Cycle Network Plan

2.3.2 Existing Public Transport

The Site is ideally situated to benefit from a comprehensive range of Dublin Bus and Transport for Ireland (TFI) Go Ahead bus connections. Furthermore, the range and proximity of a number of emerging public transport interchanges further enhances the sustainability characteristics of the Site.

Dublin Bus and TFI operate numerous routes along Swords Road and Ballymun Road and Santry Avenue. These Dublin Bus operated bus services operate on a daily basis and offer relatively frequent schedules as summarised in **Table 1** below.

Table 1: Dublin Bus Service Frequency - No. of Services (www.dublinbus.ie)

Route No.	Route	Mon - Fri	Sat	Sun	
16	*Dublin Airport to Ballinteer*	87	81	63	Swords Road
27b	*Eden Quay to Harristown*	53	51	31	Swords Road
33 *(TFI)*	*Lower Abbey St. to Balbriggan*	21	14	12	Swords Road
41*	*Lwr. Abbey St. to Swords Manor*	50	44	29	Swords Road
41b	*Lwr. Abbey St. to Rolestown*	5	4	3	Swords Road
41c*	*Lwr. Abbey St. to Swords Manor*	45	41	28	Swords Road
4	*Harristown to Monkstown Avenue*	80	64	47	R108
155	*Ikea (Ballymun) to Bray Rail Station*	5	53	47	R108
13	*Harristown to Grange Castle*	75	63	46	R108
42d	*DCU to Portmarnock*	1	No service	No service	R108
17a *(TFI)*	*Kilbarrack to Blanchardstown*	57	52	42	Santry Avenue (R104)

2.3.3 Emerging Transport Developments

Bus Connects

Bus Connects proposes 16 No. Core Bus Corridors extending radially from Dublin City Centre to the surrounding suburbs. Dublin Bus Connects proposes to introduce numerous new bus routes in close proximity to the development. **Figure** 5 taken from the latest Bus Connects proposal illustrates proposed new routes in the vicinity of the proposed development such as the "E Bus Route", which is the Ballymun to City Centre Core Bus Corridor. The "E Spine" Core Bus Corridor will operate every 5 minutes or better. It would travel from the city centre along the R108/Ballymun Road and would split into branches, the E1 continuing north along the R108 (just west of the development) and the E2 would travel west towards Charlestown Shopping Centre. Each branch would operate every 10 minutes. The E1 would also operate to Bray and the E2 to Dun Laoghaire. Additionally, the A2 branch of the A Core Bus Corridor from Airport to Tallaght, A4 Branch of the A Core Bus Corridor between Swords to Rathfarnham and N8 Charlestown Shopping Centre to Howth Junction will all be frequent services.

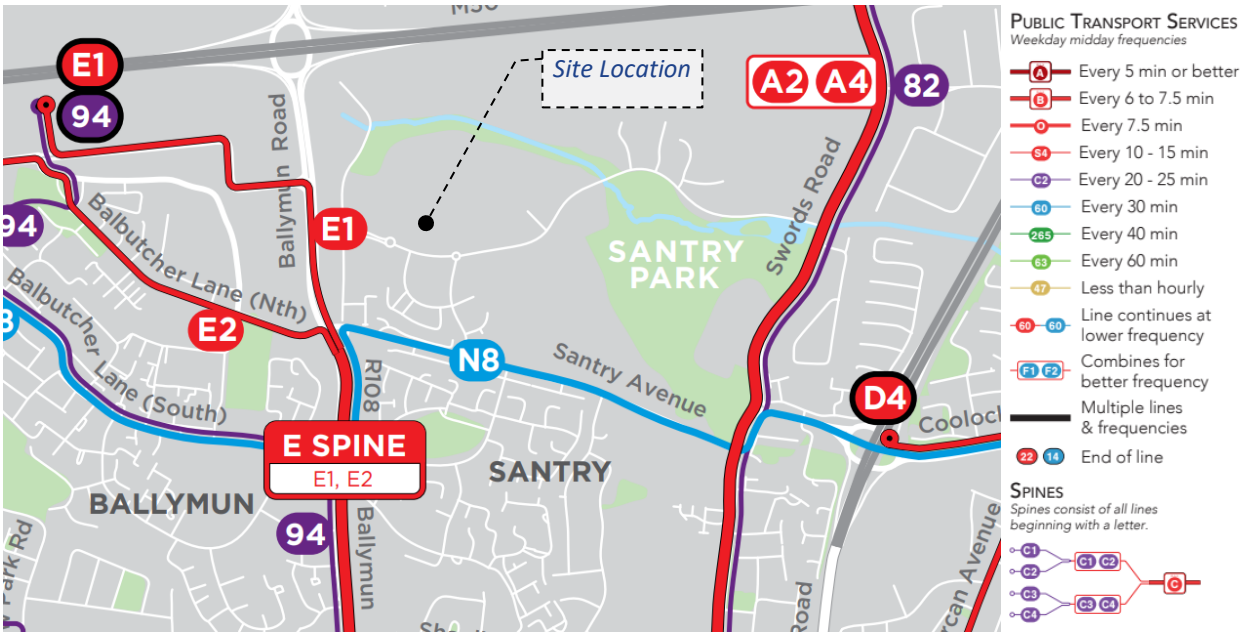


Figure 5: Proposed Bus Connects Routes beside Northwood (Source www.busconnects.ie)

MetroLink

A Metro Link stop is currently proposed at Northwood in close proximity to the proposed development. Metro Link is the proposed high-capacity, high-frequency rail line running from Swords to Charlemont, linking Dublin Airport, Irish Rail, DART, Dublin Bus and Luas services, creating a fully integrated public transport service in the Greater Dublin Area. The proposed Northwood Metro Link stop will likely be located west of the Blackwood Square Development at the junction of the Ballymun Road (R108)/Northwood Avenue. The exact location is yet to be confirmed. The development will also include a new pedestrian walkway through Gulliver's Retail Park, providing direct access to the MetroLink stop. The new pedestrian walkway will require removing c.44 car parking spaces in the retail park. It is noted that the retail park is rarely over 50% occupancy due to the excessive number of parking spaces. See **Figure** 6 and **Figure** 7 for the route map and a draft artists impression of the Northwood stop by the Ballymun Road.

Figure 6: MetroLink Emerging Preferred Route and Northwood Stop (Source www.metrolink.ie)

Figure 7: Artists impression of proposed Northwood Stop on Ballymun Rd (R108) (Source www.metrolink.ie)

SECTION 3: BASE YEAR 2019 – TRAFFIC VOLUMES & CAPACITY

3.1 Traffic Survey

In order to assess the operation of the proposed road network and its future capacity, a traffic model of the existing local road network and proposed links was created. Firstly, a vehicle turning movement survey was carried out at seven junctions near the subject site (See Figure 8);

- Site 1- Junction 1) Ballymun Road (R108) / St. Margaret's Rd;
- Site 2- Junction 2) Ballymun Road (R108) / Northwood Avenue;
- Site 3- Junction 3) Northwood Avenue / Old Ballymun Road;
- Site 4- Junction 4) Northwood Avenue / Affidea Northwood;
- Site 5- Junction 5) Northwood Ave / Northwood Road;
- Site 6- Junction 6) Santry Ave / Northwood Road;
- Site 7- Junction 7) Northwood Ave / Swords Road (R138):

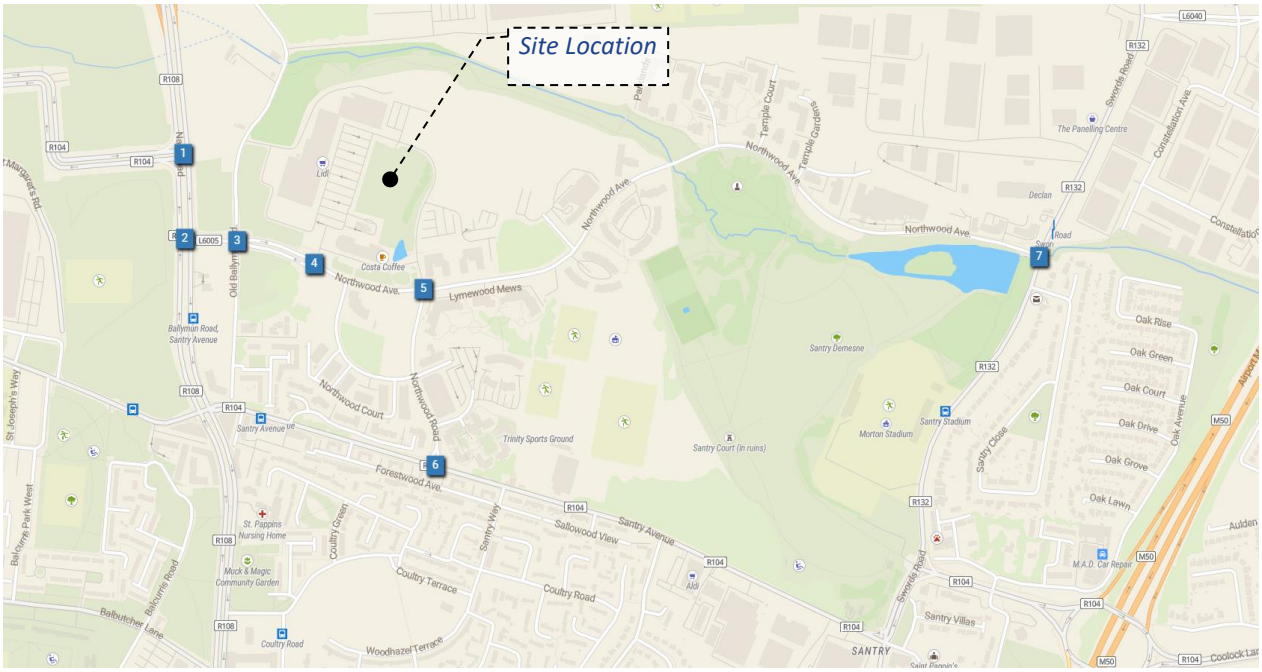


Figure 8 - Traffic Survey Locations

The counts captured all turning movements at these junctions. The vehicle turning movement surveys were undertaken on Tuesday 12th February 2019. The counts were carried out over the 12-hour period 07:00 hours to 19:00 hours including both the morning and evening peak periods.

The morning peak hour was identified as 08:00-09:00 for all junctions. The evening peak hour was identified as 17:00-18:00 for all junctions. Data was collected in 15-minute intervals. A full transcription of the turning movement survey is included in Appendix 1 herein.

The evening peak hour of 17:00 to 18:00 hours was observed to be marginally more intense than the morning peak hour. However, in order to carry out a robust traffic analysis of the surrounding road network, the traffic modelling exercise following herein will be based on traffic flows recorded for both the weekday morning and evening peak hours for each junction.

A summary of the 2019 vehicle turning movement surveys for the morning and evening peak hour periods is shown in Figure 9 and Figure 10 below.

In order to determine the effect of the development on the adjoining road network, the estimated trip generation (as detailed in the next section below), was applied to the traffic counts at each junction. It was assumed the trips generated by the development will mirror the existing trip distribution.

It was determined that Junction 2) Ballymun Road (R108) / Northwood Avenue, Junction 6) Santry Ave / Northwood Road and Junction 7) Northwood Ave / Swords Road (R138) were the key junctions to be modelled, as they provide access to/from the public road network. Junction 5) Northwood Ave / Northwood Road, whilst fully contained within the private area of Northwood, would experience the largest increase from trips generated by the development and therefore would also be modelled.

As part of the OSCADY traffic models, existing signal timings where recorded for each of the signalised junctions. The existing traffic signals where vehicle actuated on each arm and as a result, signal and cycle timings differed depending of the traffic flows. For the purpose of the OSCADY models, numerous signal timings were recorded, and an average signal time was utilised for the model. This was carried out for the morning and evening peak hour. Additionally, as part of the traffic analysis, optimised signal and cycle timings were modelled. The optimised timings from OSCADY were largely similar to the recorded results, demonstrating that the existing vehicle actuated timings are operating efficiently as possible.

Figure 9: Vehicle turning movement- 2019 Existing Morning Peak Hour (08:00 – 09:00)

Figure 10: Vehicle turning movement- 2019 Existing Evening Peak Hour (17:00 – 18:00)

3.2 Junction Capacity Assessment for Base Year 2019

A traffic capacity assessment of the four key junctions in the vicinity the subject site was undertaken utilising the surveyed results shown in **Table 2** and **Table 3** above and TRL's OSCADY (for junctions 2, 6 and 7) & ARCADY (for junction 5) traffic modelling software.

A summary of the results of the analysis of Junction 2) Ballymun Road (R108) / Northwood Avenue, Junction 5) Northwood Ave / Northwood Road, Junction 6) Santry Ave / Northwood Road and Junction 7) Northwood Ave / Swords Road (R138) for the morning and evening peak hours is shown in **Table 4** and **Table 5** following.

Table 2: Junction 2) Ballymun Road (R108) / Northwood Avenue
2019 Morning and Evening Peak Hour

	Max. RFC		Max. Queue (Vehicles)		Average Delay (Seconds)	
Approach Arm	**AM**	**PM**	**AM**	**PM**	**AM**	**PM**
Ballymun Road (R108) North	0.841	0.510	14	12	26	30
Northwood Avenue	0.904	0.934	10	23	86	97
Ballymun Road (R108) South	0.316	0.642	4	15	8	18

Table 3: Junction 5) Northwood Ave / Northwood Road
2019 Morning and Evening Peak Hour

	Max. RFC		Max. Queue (Vehicles)		Average Delay (Seconds)	
Approach Arm	**AM**	**PM**	**AM**	**PM**	**AM**	**PM**
Affidea Northwood	0.047	0.177	1	1	2	2
Northwood Avenue East	0.244	0.286	1	1	2	2
Northwood Road	0.139	0.191	1	1	2	2
Northwood Avenue West	0.330	0.289	1	1	3	3

Table 4: Junction 6) Santry Ave / Northwood Road
2019 Morning and Evening Peak Hour

	Max. RFC		Max. Queue (Vehicles)		Average Delay (Seconds)	
Approach Arm	**AM**	**PM**	**AM**	**PM**	**AM**	**PM**
Santry Ave West	0.619	0.614	9	9	22	23
Northwood Road	0.357	0.609	4	7	25	28
Santry Ave East	0.589	0.788	5	9	11	18

Table 5: Junction 7) Northwood Ave / Swords Road (R138)
2019 Morning and Evening Peak Hour

	Max. RFC		Max. Queue (Vehicles)		Average Delay (Seconds)	
Approach Arm	**AM**	**PM**	**AM**	**PM**	**AM**	**PM**
Swords Road South	0.670	0.791	8	14	28	43
Northwood Avenue	0.660	0.840	9	15	33	56
Swords Road North	0.825	0.939	10	16	23	34

The normal design threshold for the ratio of flow to capacity (RFC) is 0.9 for a signalised junction and 0.85 for a roundabout junction.

Table2 and **Table5** demonstrate that Junction 2) Ballymun Road (R108) / Northwood Avenue currently operates just over the normal design threshold during the morning and evening peak hours considered. This is evident at the Northwood Avenue arm with queues and delays for motorists forming. Junction 7) Northwood Ave / Swords Road (R138) will exceed the normal design threshold on the Swords Road arm during the evening peak hour. This analysis concurs with observations made on site, as minor queuing was apparent at each of the junctions. Junction 5) Northwood Ave / Northwood Road and Junction 6) Santry Ave / Northwood Road currently operate efficiently below the design threshold. Furthermore, this analysis concurs with the “max” queue length survey taken at the same time during the traffic counts on Tuesday 12th February 2019. The max queue lengths are largely similar to the modelled queue lengths across the board.

At peak traffic times, such as the evening peak hour, traffic occasionally queues from the Ballymun Road signalised junction along Northwood Avenue in both traffic lanes through the Old Ballymun Road junction and into the Northwood area. Traffic is not observed to keep the junction clear during such instances and blocks entry and exit movements into and out of Old Ballymun Road.

SECTION 4: CHARACTERISTICS OF THE PROPOSED SCHEME & ACCESS

4.1 Overview

The proposed development will consist of 331 apartments in four separate blocks, with retail units, a gym area and a crèche at ground floor level over basement car parking, and all associated site works including roads, footpaths, landscaping, site services, SuDS measures and sundry related works. A full project description is contained in Section 1 and 2 of this TTA.

4.2 Site Access

The Site will benefit from one vehicle access which will be provided on Affidea Northwood Road, directly north of the site itself. This access forms part of an existing mini roundabout on Affidea Northwood Road, with arms to Gulliver's Retail Park (west arm), the Cedarview development (north arm), the Blackwood Square development (south arm) and Affidea Northwood Road itself. See Figure 11 for a sketch illustrating the Affidea Northwood Road roundabout.

Affidea Northwood Road connects to the existing roundabout junction on Northwood Avenue. This will form part of the main access to the development, as all residential traffic will likely come through this Northwood Avenue roundabout. Whilst it will be possible to access the development through the Gulliver's Retail Park car park, the route contains additional turning movements and pedestrian crossing points and therefore it is unlikely that any residential traffic will take this route.

Figure 11: Proposed Access Arrangement Affidea Road (Source: Google Maps)

4.3 Road Safety Assessment

The Road Safety Authority (RSA) database of road collision information was interrogated to establish if the surrounding road network in the vicinity of the proposed development access holds records relating to historical collision occurrence (Figure 12 below). Collisions from 2005 to 2015 only are available.

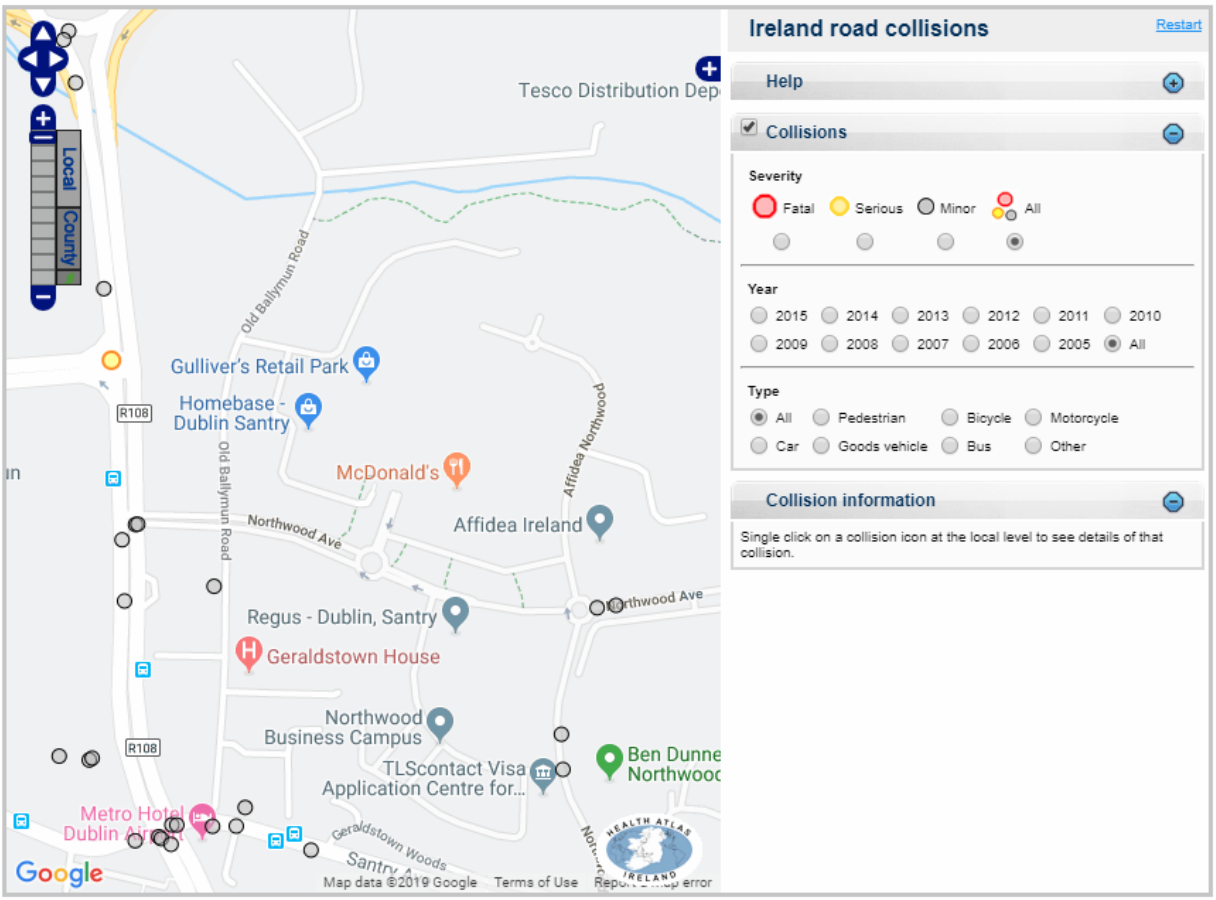


Figure 12: Historic Collisions 2005 - 2015 (Source RSA Database)

This exercise revealed that there have been two minor collisions near the site on Northwood Avenue, both recorded in 2013. One was a single vehicle collision, the other a pedestrian/vehicle collision. In addition, there has been two minor collisions on Northwood Road, one involving a bicycle in 2014 and one involving two vehicles in 2008. A number of minor collisions have also taken place outside the Northwood area on the Ballymun Road (R108) at the junction with Northwood Avenue and the junction with Santry Avenue. Due to the isolated nature and low frequency of these collisions a pattern of collisions is not identifiable.

SECTION 5: TRIP GENERATION AND ASSIGNMENT

5.1 Trip Generation

The Trip Rate Information Computer System (TRICS) database was interrogated to derive the potential development trip generation rates. Utilising data supplied by the TRICS database, **Table 6** details the estimated trip generation for the proposed residential units, retail area, childcare facility and gym development during the morning and evening peak hours being considered for this study. The TRICS morning and evening peak hours were 08:00 to 09:00 and 17:00 to 18:00 respectively. The trips generated during these times were applied to the morning and evening peak hours for the road network.

As the residential element of the Blackwood Square development includes 1, 2 and 3 bedroom apartments, the trip rates were calculated "per bedroom" in order to produce a more robust result. The full TRICS output files are contained in Appendix 2.

In reality, the trips generated by the retail, childcare facility and gym area will likely come from within the Northwood development and most likely form part of the residential trips (ie. the people using the retail area will live within the Blackwood Square development or nearby Northwood development, rather than the surrounding Ballymun / Santry area). However, in order to produce a robust, conservative and a worst-case scenario, it will be assumed that all trips generated by the development will be generated from outside the Northwood area.

Table 6 - Trip Generation

	Time	Factor	TRICS Arrival Rate	TRICS Departure Rate	Hourly Trips	
					Trips In	Trips Out
Residential Development 331 Units	Morning Peak Hour	689 Bedrooms	0.028 *(per bedroom)*	0.106 *(per bedroom)*	19	73
	Evening Peak Hour		0.098 *(per bedroom)*	0.041 *(per bedroom)*	67	28
Retail	Morning Peak Hour	1,006 m^2	2.899 *(per 100m^2)*	2.357 *(per 100m^2)*	29	24
	Evening Peak Hour		4.247 *(per 100m^2)*	4.789 *(per 100m^2)*	43	48
Childcare facility	Morning Peak Hour	321 m^2	4.235 *(per 100m^2)*	3.286 *(per 100m^2)*	14	11
	Evening Peak Hour		2.970 *(per 100m^2)*	3.547 *(per 100m^2)*	10	11
Gym	Morning Peak Hour	126 m^2	0.841 *(per 100m^2)*	0.654 *(per 100m^2)*	1	1
	Evening Peak Hour		1.684 *(per 100m^2)*	0.981 *(per 100m^2)*	2	1
TOTAL	**Morning Peak Hour**				**63**	**109**
	Evening Peak Hour				**122**	**88**

5.2 Modal Choice

When estimating trip generation for a residential development using TRICS the trip rate for car drivers generally accounts for a 65% modal split of total trips. In order to produce a robust and conservative assessment of the traffic impact of the proposed Blackwood Square development, this study will continue to utilise the modal split of 65% for car trips. In reality, this modal split will be smaller as a number of residents will choose to take the Dublin Bus service in the vicinity of the development and MetroLink in the future. Additionally, the parking strategy has been development to encourage less of a reliance on private cars and a greater focus on sustainable transport such as cycling.

5.3 Trip Distribution and Assessment Years

It was assumed for the purposes of this study that the future development traffic will mirror existing travel flows when exiting and entering the development. The existing traffic from the entire Northwood development was analysed in the morning and evening peak hours. Currently during the morning peak, 42% of vehicles departing the Northwood area travel east towards the Swords Road, 20% travel south towards Santry Ave, while the remaining 38% travel west towards the Ballymun Road. During the evening peak hour 30% travel east towards the Swords Road, 25% travel south towards Santry Avenue and 45% travel west towards the Ballymun Road. The future development traffic distribution at the surrounding junctions will mirror existing traffic patterns i.e. development generated flows will be split through the junctions proportionally to existing flows.

Assuming planning permission is granted for the development in 2019, and allowing for a 2 to 3 year construction period, it is estimated that the proposed development will be fully operational by 2021/2022. For the purpose of this study, the end of 2021 is assumed as the Year of Opening. Therefore, traffic analysis associated with this study will focus on the following future development operational scenarios:

- Residential Development Year of Opening – 2021
- 15 Year Design Horizon – 2036

The projected 2021 and 2036 design year traffic flows have been calculated by factoring up the 2019 recorded traffic flows in accordance with the TII Publications Project Appraisal Guidelines for National Roads document ‘Unit 5.3 Travel Demand Projections, Table 5.3.2: Link-Based Growth Rates: Annual Growth Factors. The medium growth rate factors have been utilised. The TII traffic growth rates will account for any increase in traffic as a result of other developments in the area such as Bridgefield, Cedarview and other potential developments in the future. Consequently, all impacts assessed are inherently cumulative impacts.

Figure 13 and Figure 14 illustrate the 2021 Year of Opening for the “without” and **“with”** development scenarios for morning and evening peaks. Figure 15 and Figure 16 illustrate the 2036 Design Year Horizon for the “without” and **“with”** development scenarios for morning and evening peaks.

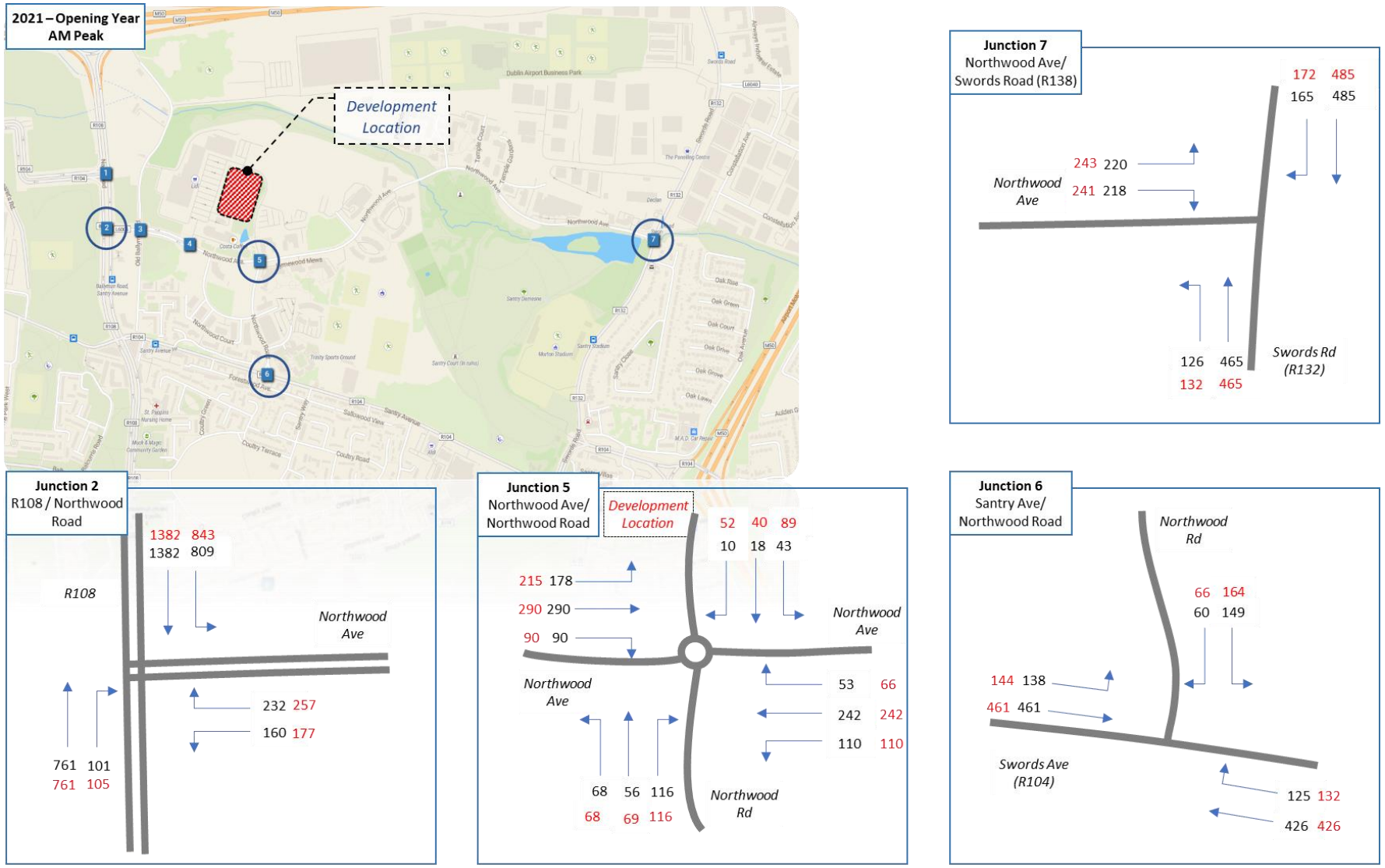


Figure 13: Vehicle turning movement 2021 Opening Year - Morning Peak Hour (08:00 – 09:00)

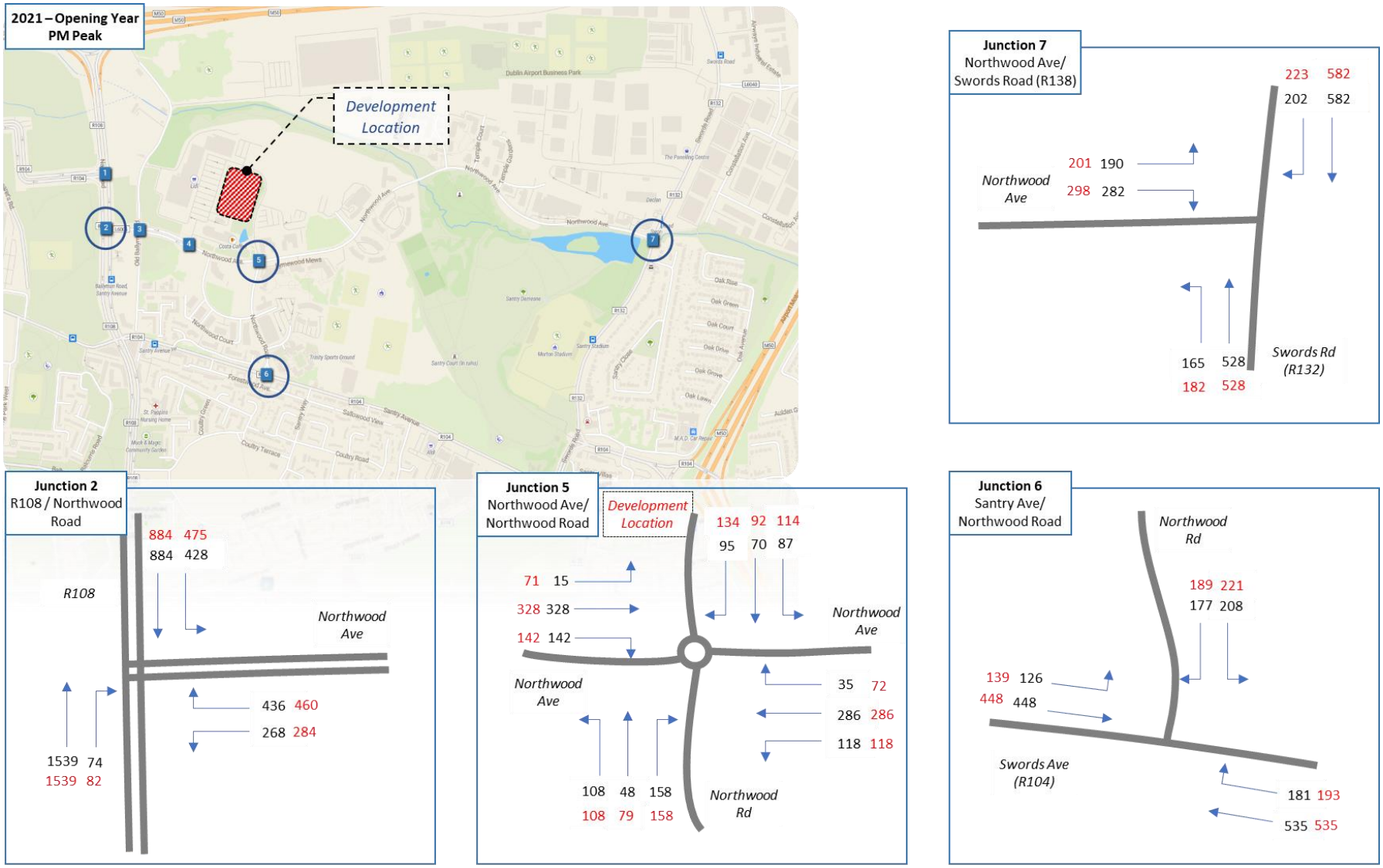


Figure 14: Vehicle turning movement 2021 Opening Year - Evening Peak Hour (17:00 – 18:00)

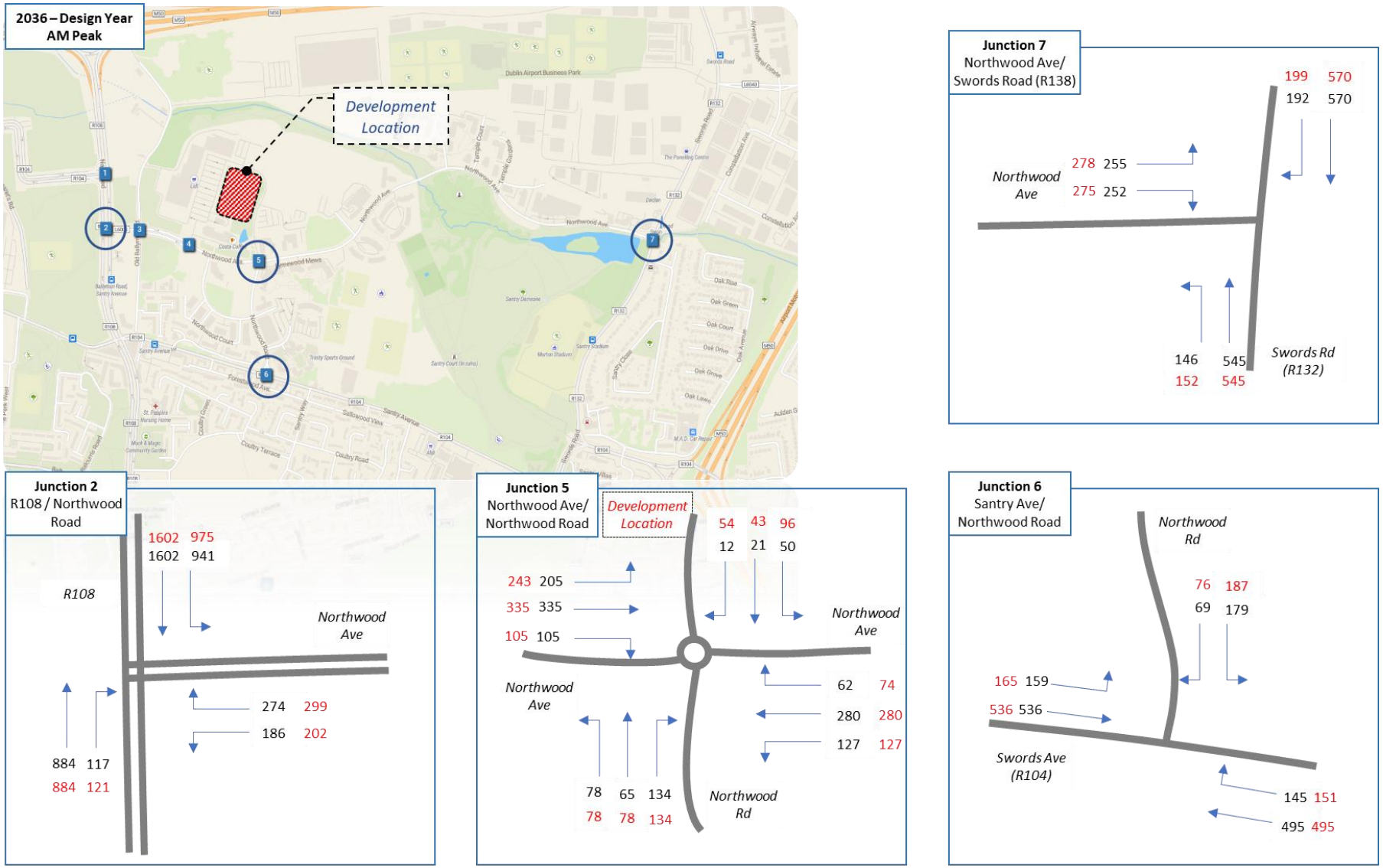


Figure 15: Vehicle turning movement 2036 Design Year - Morning Peak Hour (08:00 – 09:00)

Figure 16: Vehicle turning movement 2036 Design Year - Evening Peak Hour (17:00 – 18:00)

SECTION 6: TRAFFIC IMPACT

6.1 Background

In order to assess the future traffic impact of the proposed development, capacity assessments were undertaken using TRL's OSCADY (for junctions 2, 6 and 7) & ARCADY (for junction 5) software on the following junctions;

- Site 2- Junction 2) Ballymun Road (R108) / Northwood Avenue;
- Site 5- Junction 5) Northwood Ave / Northwood Road;
- Site 6- Junction 6) Santry Ave / Northwood Road;
- Site 7- Junction 7) Northwood Ave / Swords Road (R138)

The junctions were modelled for the 2021 year of Opening and 2036 the 15 Year Design Horizon for the morning and evening peak hour periods using the flow diagrams shown in Figure 13 to Figure 16 in the previous section herein.

To demonstrate the direct traffic impact associated with the proposed development on the key junction being considered, the traffic modelling exercise was carried out for the "Without" development and **"with"** development scenarios. A sample traffic modelling output file is included in this report in Appendix 3.

6.2 Operational Phase 2021 Traffic Impact

A traffic capacity assessment of the four junctions in the vicinity the subject site was undertaken utilising the surveyed results shown in **Figure** 13 and **Figure**14 above and TRL's OSCADY (for junctions 2, 6 and 7) & ARCADY (for junction 5) traffic modelling software.

A summary of the results of the analysis of Junction 2) Ballymun Road (R108) / Northwood Avenue, Junction 5) Northwood Ave / Northwood Road, Junction 6) Santry Ave / Northwood Road and Junction 7) Northwood Ave / Swords Road (R138) both "without" and **"with"** the development for the morning and evening peak hours is shown in **Table 7** to **Table 10** following.

Table 7: Junction 2) Ballymun Road (R108) / Northwood Avenue
2021 Morning and Evening Peak Hour

	Max. RFC		Max. Queue (Vehicles)		Average Delay (Seconds)	
Approach Arm	**AM**	**PM**	**AM**	**PM**	**AM**	**PM**
Ballymun Road (R108) North	0.865 **0.901**	0.525 **0.582**	15 **16**	12 **13**	28 **31**	31 **32**
Northwood Avenue	0.932 **1.032**	0.960 **1.013**	12 **19**	25 **32**	94 **143**	104 **125**
Ballymun Road (R108) South	0.335 **0.348**	0.660 **0.660**	4 **4**	15 **15**	8 **9**	19 **20**

The normal design threshold for the ratio of flow to capacity (RFC) is 0.9 for a signalised junction. **Table 7** demonstrates that at Junction 2) Ballymun Road (R108) / Northwood Avenue, the Ballymun Road arm will

operate just within the normal design threshold during the morning and evening peak hours considered. However, the Northwood Avenue arm, will exceed the design threshold with queues and delays for motorists evident. This is the case both "without" and **"with"** the development scenarios. The analysis indicates that the development will have an imperceptible impact on the Junction 2) Ballymun Road (R108) / Northwood Avenue junction. During consultation with FCC, it is noted that Fingal plan to upgrade Junction 3) Northwood Avenue / Old Ballymun Road to incorporate SCATS. Upgrading this junction to SCATS will allow the junction to control the traffic arriving from Northwood to the Ballymun Road. The junctions will better calculate and adapt the timing of traffic signals in the network allowing the junction to operate efficiently, creating an overall positive impact.

Table 8: Junction 5) Northwood Ave / Northwood Road
2021 Morning and Evening Peak Hour

	Max. RFC		Max. Queue (Vehicles)		Average Delay (Seconds)	
Approach Arm	**AM**	**PM**	**AM**	**PM**	**AM**	**PM**
Affidea Northwood	0.048 **0.123**	0.183 **0.247**	1 **1**	1 **1**	2 **2**	2 **3**
Northwood Avenue East	0.250 **0.267**	0.295 **0.329**	1 **1**	1 **1**	2 **2**	3 **3**
Northwood Road	0.143 **0.155**	0.197 **0.225**	1 **1**	1 **1**	2 **2**	2 **2**
Northwood Avenue West	0.340 **0.367**	0.297 **0.342**	1 **1**	1 **1**	3 **3**	2 **3**

The normal design threshold for the ratio of flow to capacity (RFC) is 0.85 for a roundabout junction. **Table 8** demonstrates that the Junction 5) Northwood Ave / Northwood Road roundabout will operate within the normal design threshold during the morning and evening peak hours considered. This is the case in both "without" and **"with"** the development scenarios. The analysis indicates that despite a large increase in traffic on the Affidea Northwood arm, as the junction is considerably within capacity, the development will have an insignificant impact on the operation of the roundabout.

Table 9: Junction 6) Santry Ave / Northwood Road
2021 Morning and Evening Peak Hour

	Max. RFC		Max. Queue (Vehicles)		Average Delay (Seconds)	
Approach Arm	**AM**	**PM**	**AM**	**PM**	**AM**	**PM**
Santry Ave West	0.636 **0.642**	0.630 **0.646**	9 **9**	9 **10**	23 **23**	24 **24**
Northwood Road	0.367 **0.404**	0.626 **0.666**	4 **4**	7 **8**	25 **26**	29 **29**
Santry Ave East	0.609 **0.620**	0.815 **0.835**	5 **6**	9 **10**	12 **12**	19 **20**

The normal design threshold for the ratio of flow to capacity (RFC) is 0.9 for a signalised junction. **Table 9** demonstrates that Junction 6) Santry Ave / Northwood Road will operate within the normal design threshold during the morning and evening peak hours considered. Very little queues and delays are forming in both the "without" and **"with"** development scenarios. The analysis indicates that the development will have an insignificant impact on the Junction 6) Santry Ave junction.

Table 10: Junction 7) Northwood Ave / Swords Road (R138)
2021 Morning and Evening Peak Hour

	Max. RFC		Max. Queue (Vehicles)		Average Delay (Seconds)	
Approach Arm	**AM**	**PM**	**AM**	**PM**	**AM**	**PM**
Swords Road South	0.689 **0.689**	0.812 **0.812**	9 **9**	15 **15**	28 **28**	44 **44**
Northwood Avenue	0.678 **0.750**	0.862 **0.911**	10 **11**	16 **18**	34 **36**	58 **64**
Swords Road North	0.859 **0.876**	0.975 **1.020**	11 **11**	21 **31**	25 **26**	48 **59**

The normal design threshold for the ratio of flow to capacity (RFC) is 0.9 for a signalised junction. **Table 10** demonstrates that Junction 7) Northwood Ave / Swords Road (R138) will operate within the normal design threshold during the morning peak hour but exceed the normal design threshold during the evening peak hour. This is the case both "without" and **"with"** the development scenarios. At this stage, once a junction is at capacity any slight increase, whether it is background traffic growth or new trip generation, will have a noticeable increase in queues/delays.

The analysis indicates that the junction will not operate efficiently in either the "without" and **"with"** the development scenarios. Any future traffic growth, irrespective of the subject development, will therefore result in an impact to the operation of the junction. However, the Blackwood Square development will have

little effect on the junction. Additionally, the expected improvements in the public transport services in the surrounding area will have a positive impact on junction capacity.

A sample of the traffic modelling output files are included in this report in Appendix 3.

6.3 Operational Phase 2036 Traffic Impact

A traffic capacity assessment of the four key junctions in the vicinity the subject site was undertaken utilising the surveyed results shown in Figures 15 and 16 above and TRL's OSCADY (for junctions 2, 6 and 7) & ARCADY (for junction 5) traffic modelling software.

A summary of the results of the analysis of Junction 2) Ballymun Road (R108) / Northwood Avenue, Junction 5) Northwood Ave / Northwood Road, Junction 6) Santry Ave / Northwood Road and Junction 7) Northwood Ave / Swords Road (R138) both "without" and **"with"** the development for the morning and evening peak hours is shown in **Table 11** to **Table 14** following.

Table 11: Junction 2) Ballymun Road (R108) / Northwood Avenue
2036 Morning and Evening Peak Hour

	Max. RFC		Max. Queue (Vehicles)		Average Delay (Seconds)	
Approach Arm	**AM**	**PM**	**AM**	**PM**	**AM**	**PM**
Ballymun Road (R108) North	0.989 **1.025**	0.612 **0.670**	30 **40**	14 **16**	51 **69**	34 **35**
Northwood Avenue	0.956 **1.043**	1.119 **1.172**	15 **23**	54 **68**	101 **149**	202 **248**
Ballymun Road (R108) South	0.482 **0.499**	0.763 **0.763**	5 **5**	18 **18**	13 **9**	22 **22**

The normal design threshold for the ratio of flow to capacity (RFC) is 0.9 for a signalised junction. **Table 11** demonstrates that Junction 2) Ballymun Road (R108) / Northwood Avenue will not operate within the normal design threshold during the morning and evening peak hours considered. This is the case in both "without" and **"with"** the development scenarios. The junction will also exceed the theoretical capacity of 1.0 for a signalised junction by 2036. At this stage, once a junction is at capacity any slight increase, whether it is background traffic growth or a new residential development, will have a noticeable increase in queues/ delays. During consultation with FCC, it is noted that Fingal plan to upgrade Junction 3) Northwood Avenue / Old Ballymun Road to incorporate SCATS. Upgrading this junction to SCATS will allow the junction to control the traffic arriving from Northwood to the Ballymun Road. The junctions will better calculate and adapt the timing of traffic signals in the network allowing the junction to operate efficiently, creating an overall positive impact.

The analysis indicates that the junction will not operate efficiently in either the "without" and **"with"** the development scenarios. Any future background traffic growth, irrespective of the subject development, will therefore result in an impact to the operation of the junction. However, the Blackwood Square development will have an insignificant impact on the junction.

Table 12: Junction 5) Northwood Ave / Northwood Road
2036 Morning and Evening Peak Hour

	Max. RFC		Max. Queue (Vehicles)		Average Delay (Seconds)	
Approach Arm	**AM**	**PM**	**AM**	**PM**	**AM**	**PM**
Affidea Northwood	0.059 **0.136**	0.223 **0.290**	1 **1**	1 **1**	2 **2**	2 **3**
Northwood Avenue East	0.292 **0.308**	0.347 **0.384**	1 **1**	1 **1**	2 **3**	3 **4**
Northwood Road	0.169 **0.182**	0.235 **0.265**	1 **1**	1 **1**	2 **2**	2 **3**
Northwood Avenue West	0.400 **0.429**	0.349 **0.396**	1 **1**	1 **1**	3 **3**	3 **3**

The normal design threshold for the ratio of flow to capacity (RFC) is 0.85 for a roundabout junction. **Table 12** demonstrates that the Junction 5) Northwood Ave / Northwood Road roundabout will operate within the normal design threshold during the morning and evening peak hours considered. This is the case both "without" and **"with"** the development scenarios. The analysis indicates that despite a large increase in traffic on the Affidea Northwood arm, as the junction is considerably within capacity, the development will have an insignificant impact on the operation of the roundabout.

Table 13: Junction 6) Santry Ave / Northwood Road
2036 Morning and Evening Peak Hour

	Max. RFC		Max. Queue (Vehicles)		Average Delay (Seconds)	
Approach Arm	**AM**	**PM**	**AM**	**PM**	**AM**	**PM**
Santry Ave West	0.737 **0.744**	0.729 **0.743**	11 **11**	11 **12**	25 **25**	26 **26**
Northwood Road	0.436 **0.462**	0.722 **0.762**	4 **5**	9 **9**	26 **26**	31 **33**
Santry Ave East	0.732 **0.743**	0.979 **1.001**	7 **7**	20 **25**	15 **15**	40 **47**

The normal design threshold for the ratio of flow to capacity (RFC) is 0.9 for a signalised junction. **Table 13** demonstrates that Junction 6) Santry Ave / Northwood Road will operate within the normal design threshold during the morning and evening peak hours considered. Very little queues and delays are forming in both the "without" and **"with"** development scenarios. The analysis indicates that the development will have an insignificant impact on the Junction 6) Santry Ave junction.

Table 14: Junction 7) Northwood Ave / Swords Road (R138)
2036 Morning and Evening Peak Hour

	Max. RFC		Max. Queue (Vehicles)		Average Delay (Seconds)	
Approach Arm	**AM**	**PM**	**AM**	**PM**	**AM**	**PM**
Swords Road South	0.873 **0.873**	0.951 **0.951**	15 **15**	24 **24**	47 **47**	66 **66**
Northwood Avenue	0.881 **0.961**	1.122 **1.176**	16 **22**	55 **70**	55 **70**	190 **238**
Swords Road North	1.006 **1.022**	1.128 **1.170**	26 **30**	72 **90**	54 **61**	137 **172**

The normal design threshold for the ratio of flow to capacity (RFC) is 0.9 for a signalised junction. **Table 14** demonstrates that Junction 7) Northwood Ave / Swords Road (R138) will not operate within the normal design threshold during the morning and evening peak hours considered. The junction will also exceed the theoretical capacity of 1.0 for a signalised junction by 2036. This is the case in both "without" and **"with"** the development scenarios. At this stage, once a junction is at capacity any slight increase, whether it is background traffic growth or new trip generation, will have a noticeable increase in queues/delays.

The analysis indicates that the junction will not operate efficiently in either the "without" and **"with"** the development scenarios. Any future traffic growth, irrespective of the subject development, will therefore result in an impact to the operation of the junction. However, the Blackwood Square development will only have a minor impact on the junction. Additionally, the expected improvements in the public transport services in the surrounding area will have a positive impact on junction capacity.

6.4 Summary

The traffic analysis, traffic/queue counts, and on-site observations all demonstrated that Junction 2) Ballymun Road (R108) / Northwood Avenue and Junction 7) Northwood Ave / Swords Road (R138), are currently nearing capacity. In the future, the junctions will not operate efficiently in either the "without" and **"with"** the development scenarios. Any future traffic growth, irrespective of the subject development, will therefore result in an impact to the operation of the junction. The planned upgrade of the Old Ballymun Road junction to SCATS will help control traffic reducing delays. It is noted that the 2036 analysis does not include the likely improvements in the public transport services (MetroLink and BusConnects). Furthermore, in order to produce a robust, conservative analysis, a worst-case scenario was assumed as noted in Section 5.1 Trip Generation.

This further emphasises the need for an improved public transport network as outlined in Section 2.3, such as MetroLink and BusConnects, regardless of the Blackwood Square development. Additionally, further investments are needed in cycling infrastructure not just in Northwood, but the Greater Dublin Area. This will encourage a greater number of Northwood residents to leave the car at home and choose sustainable transport modes.

6.5 Cumulative Impacts

The TII traffic growth rates will account for any increase in traffic as a result of other developments in the area such as Bridgefield, Cedarview and other potential developments in the future. Consequently, all impacts assessed are inherently cumulative impacts.

6.6 Traffic Impacts During Construction

All construction activities will be governed by a construction Traffic Management Plan (TMP) the details of which will be agreed with FCC's Roads Department prior to the commencement of the Construction Phase. The principal objective of the TMP is to ensure that the impacts of all building activities generated during the Construction Phase upon both the public (off-site) and internal (on site) workers environments, are fully considered and proactively managed / programmed respecting key stakeholders' requirements.

During the construction works there will be additional HGV movements to/from the Site. Traffic will be generated by the disposal of surplus subsoil from the Site, deliveries of construction materials and equipment and of course private vehicles owned and driven by construction workers and staff.

It should be noted that construction traffic generated during the Construction Phase tends to be outside of peak hours. (Staff and deliveries arrive before 07:00 and generally depart after 19:00). The traffic generated by the construction phase will not be higher than the peak hour predicted volumes for the Operational Phase. Any specific recommendations/requirements with regard to construction traffic management made by FCC will be adhered to during this phase.

Good construction management practices will be employed such as fencing the site off from the public and neighbouring sites, adequate external/internal signage, secure internal site offices, dedicated construction access points all to ensure the safety construction staff and the public. Appropriate levels of staff parking and compounding will be provided to ensure no potential overflow or haphazard parking in the area. The Site will be able to accommodate employee and visitor parking throughout.

Set construction traffic routes to and from the site will be agreed with FCC prior to the commencement of constructions activities onsite. The time of day permittable for such routes will also be agreed upon and outside of the morning/evening peak hours. Wheel wash facilities will be provided on site to ensure that construction debris will not have an impact on the quality of roads in the Northwood area.

SECTION 7: PARKING PROVISION & STRATEGY

7.1 Overview

A meeting was held with the Roads and Traffic department of Fingal County Council (FCC) on 6th December 2018 to discuss the parking requirements of the Blackwood Square development. It was agreed with FCC that a sustainable approach to parking would be incorporated into the development. The parking strategy utilised is derived from "Sustainable Urban Housing: Design Standards for New Apartments", which places a strong emphasis on bicycle parking. As per the standards, cycling is a:

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

The Blackwood Square development is well situated next to high-quality off-road cycling infrastructure and there is an opportunity to maximise the benefit deriving from appropriate cycle parking provision. The proposed development is an integrated area adjacent to existing employment, retail and community facilities. The proposed development is also well situated next to high-quality existing public transport services, as well as planned future public transport upgrades. Additionally, the development is in a "Intermediate Urban Location" as per the standards and therefore car parking should be reduced:

> *"In suburban/urban locations served by public transport or close to town centres or employment areas and particularly for housing schemes with more than 45 dwellings per hectare net (18 per acre),* ***planning authorities must consider a reduced overall car parking standard and apply an appropriate maximum car parking standard."***

Due to the close proximity of the proposed development to high-quality off-road cycling infrastructure, as well as numerous existing and future high frequency and high capacity public transport services, the parking strategy for the proposed development is based upon the principles of "Sustainable Urban Housing: Design Standards for New Apartments" in order to further promote sustainable transport modes thus minimising the need for additional car parking.

7.2 Car Sharing Facility

Further to the car parking provision, FCC recommended the provision of 3 no. car parking spaces for a private car sharing company. The benefits of such car sharing services include:

- the reduction of the number of cars on the road and therefore traffic congestion, noise and air pollution;
- frees up land traditionally used for private parking spaces but which may not be used;
- increases use of public transport, walking and cycling as the need for car ownership is reduced; and
- car sharing allows those who cannot afford a car the opportunity to drive, encouraging social inclusivity.

7.3 Car Parking and Cycle Parking

Table 15 summarises the car parking and cycle parking provided within the development. The majority of car/cycle parking will be provided in the basement area. The basement car parking strategy equates to one car parking space per residential unit. The basement cycle parking strategy equates to 1 bicycle parking spaces per residential unit bed space. 70 visitor bicycle parking spaces will be provided on surface level. Additionally, 5 motorcycle parking spaces will be available in the basement level.

Non-residents, utilising the retail area will also be able to avail of the excess car parking provided in the Gulliver's Retail Park car park. Gulliver's Retail car park is under the control of the applicant and this car park is to be shared with the Blackwood Square retail units. Any future developments will ensure that retail

car spaces for Blackwood Square will be retained. Non-residents using the retail park will also be able to utilise the visitor parking bicycle spaces located next to the retail areas on the ground floor.

A childcare facility set-down area has also been provided and 5 no. parking spaces are allocated north of the childcare facility area on the ground flood to facilitate servicing, short duration parking and childcare facility pickup / drop off.

Charging points for electric vehicles will be provide at 3 No. surface car parking spaces and provision made for future connections to all surface car parking spaces.

Table 15: Car Parking and Bicycle Parking

	Land Use	Parking Provided	*Ratio*
Car Parking	**Residential Units**	331 Car Parking Spaces	*1 space per residential unit*
		3 Additional Disabled Parking Spaces	*1 disabled parking bay per 100 spaces*
	Childcare Facility	5 Ground Floor Short-term/Drop-off Car Parking Spaces	*1 space per 64m²*
Cycle Parking	**Residential Units**	690 Basement Cycle Parking Spaces	*1 space per residential unit bed space*
		70 Visitor Cycle Parking Spaces	*1 visitor space per 5 residential units*

7.4 Car Ownership Levels

Census 2016 Small Area Population Statistics were analysed in order to determine existing car ownership levels for households in the Northwood area. For the purposes of this analysis, 13 No. locations, which are characterised as being predominately apartment complexes were utilised. These locations mirror closely the proposed Blackwood Square development and are illustrated in Figure 17 below. Small Area populations which comprised mainly office blocks, hotels or industrial areas were excluded from this analysis.

Figure 17: Census 2016 Data Locations (Source: Central Statistics Office)

Table 16 below outlines the total car ownership levels per household for all the existing apartment developments in the Northwood area highlighted in Figure 17:

Table 16: Car Ownership Summary

No. of Households	No. of cars	Ratio - Car space: Residential Unit
1274	**1182**	**0.93**

With respect to the application of car parking standards as set out in the Development Plan to the proposed development, there is a requirement for 510 no. residential spaces and 66 no. visitor spaces resulting in 576 no. spaces overall. However with reference to the Design Standards for New Apartments the level of car parking proposed is considered in the context of an intermediate urban location where a reduced level of car parking is required.

In order to determine an appropriate quantum of car parking at this location the review of CSO data was undertaken. As demonstrated in Table 16, the data revealed that the car ownership rate is approximately 1 car per household in the Northwood Area. Providing for this level of car parking to the proposed development results in 331 car parking spaces for the apartments. If any more car parking spaces were introduced, it may encourage an over reliance on single occupancy vehicles, resulting in a negative effect on traffic in the surrounding area. Providing less that one car space per apartment, could lead to haphazard and unofficial parking in the surrounding area, increasing the risk of accidents and traffic congestion.

While no additional car parking spaces are proposed for visitors, visitor car parking demand can be met through shared usage of existing car parking spaces within Gulliver's Retail Park and in the basement as overall car usage declines overtime.

The level of parking proposed for the apartments represents a reduced level of car parking on the site of over 40% based on the Development Plan management standards and is consistent with an intermediate urban location where a reduced level of car parking is required.

SECTION 8: SUMMARY & CONCLUSION

This report has been designed to specifically address potential traffic issues associated with the proposed development. In doing so, it has considered:

- Trip generation rates to/from the proposed development;
- Proposed access arrangements;
- Existing and future road network capacity;
- Existing and future road safety assessment.

The proposed development will consist of 331 apartments in four separate blocks, with mixed used commercial units, a gym area and a childcare facility, all over basement car parking, and all associated site works including roads, footpaths, landscaping, site services, SuDS measures and sundry related works.

A turning movement traffic count was undertaken at seven junctions near the subject site. The vehicle turning movement surveys were undertaken on Tuesday 12th February 2019. The counts were carried out over the 12-hour period 07:00 hours to 19:00 hours including both the morning and evening peak periods. The morning peak hour was identified as 08:00-09:00 for all junctions. The evening peak hour was identified as 17:00-18:00 for all junctions. Data was collected in 15-minute intervals.

It was determined that Junction 2) Ballymun Road (R108) / Northwood Avenue, Junction 5) Northwood Ave / Northwood Road, Junction 6) Santry Ave / Northwood Road and Junction 7) Northwood Ave / Swords Road (R138) were the key junctions to be modelled.

The analysis demonstrated that Junction 2) Ballymun Road (R108) / Northwood Avenue currently operates just over the normal design threshold during the morning and evening peak hours considered. Junction 7) Northwood Ave / Swords Road (R138) will exceed the normal design threshold on the Swords Road arm during the evening peak hour. Junction 5) Northwood Ave / Northwood Road and Junction 6) Santry Ave / Northwood Road currently operate efficiently below the design threshold.

In the future, the junctions will not operate efficiently in either the “without” and **“with”** the development scenarios. Any future traffic growth, irrespective of the subject development, will therefore result in an impact to the operation of the junction. It is noted that the 2036 analysis does not include the likely improvements in the public transport services (MetroLink and BusConnects).

It is noted that Fingal plan to upgrade Junction 3) Northwood Avenue / Old Ballymun Road to incorporate SCATS. Upgrading this junction to SCATS will allow the junction to control the traffic arriving from Northwood to the Ballymun Road. The junctions will better calculate and adapt the timing of traffic signals in the network allowing the junction to operate efficiently, creating an overall positive impact.

This further emphasises the need for an improved public transport network as outlined in Section 2.3, such as MetroLink and BusConnects, regardless of the Blackwood Square development. Additionally, further investments are needed in cycling infrastructure not just in Northwood, but the Greater Dublin Area. This will encourage a greater number of Northwood residents to leave the car at home and choose sustainable transport modes.

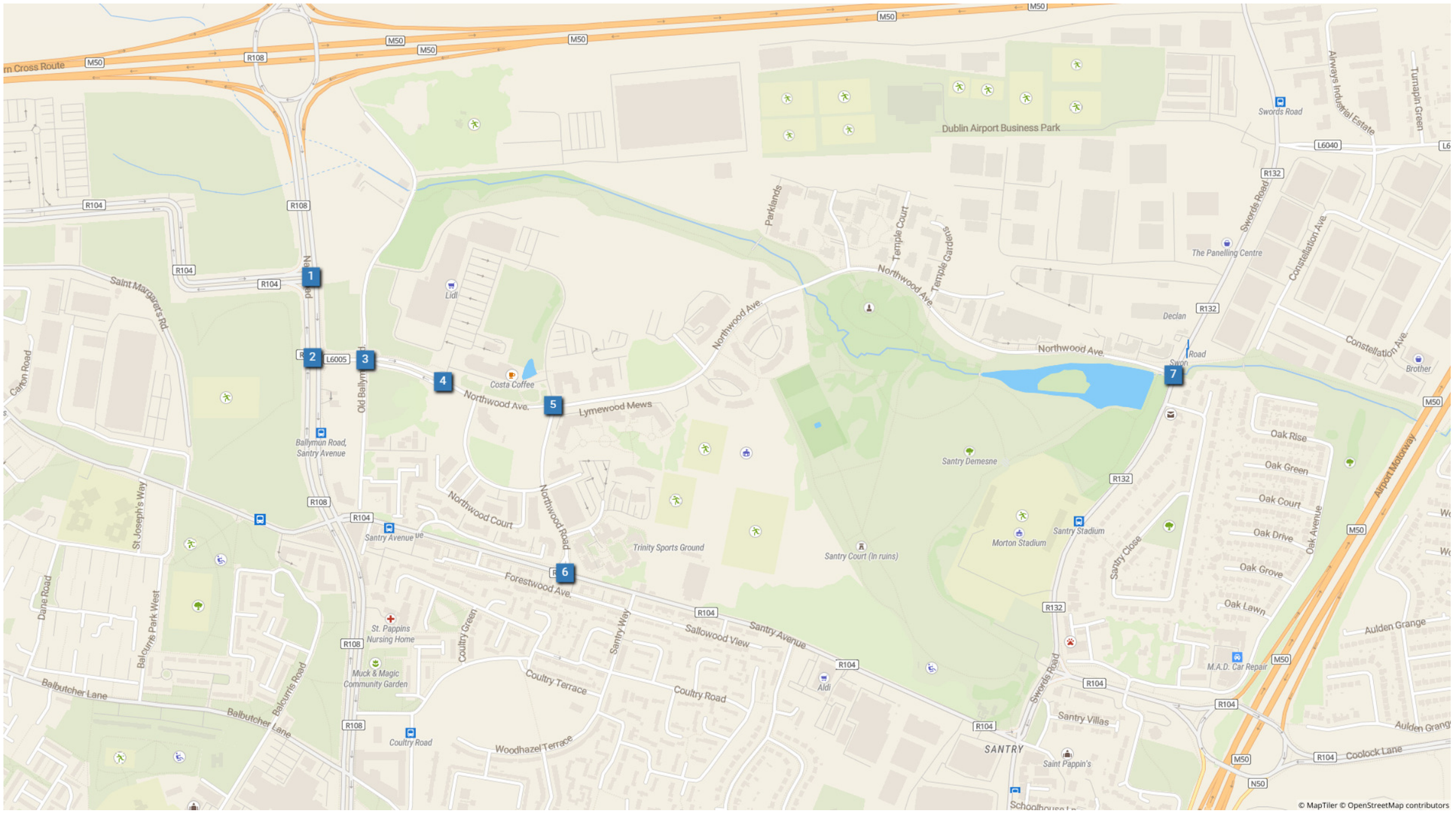
The parking strategy utilised is derived from “Sustainable Urban Housing: Design Standards for New Apartments”, which places a strong emphasis on bicycle parking. The basement car parking strategy equates to one car parking space per residential unit. The basement cycle parking strategy equates to roughly 1 bicycle parking space per residential unit bed space.

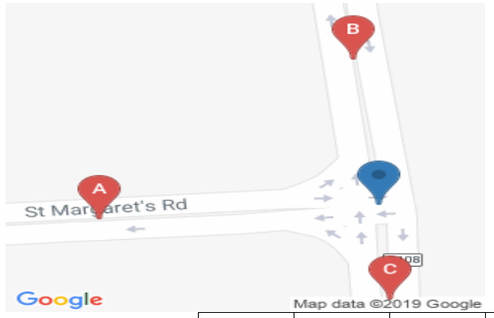
The study concludes that the proposed development as described herein, does not pose any significant residual risks from a traffic and safety perspective.

Appendix 1- Traffic Count Data

IDASO

Survey Name: 029 19025 Northwood
Date: 12 Feb 2019





IDASO

Survey Name: 029 19025 Northwood
Site: 1
Location: St Margaret's Rd
Date: 12-Feb-2019

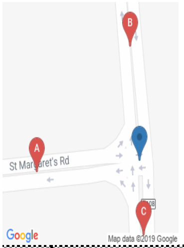
TIME	A1	A2	A3	B1	B2	B3	B4	C1	C2	C3
07:00	5	25	25	200	120	25	10	5	35	30
07:15	10	25	25	180	130	20	25	10	50	45
07:30	5	25	25	220	200	25	20	5	65	50
07:45	5	35	30	170	160	55	35	15	90	70
08:00	5	40	35	300#	300#	35	50	5	125#	90
08:15	15	35	35	300#	300#	45	15	5	80	55
08:30	5	40	30	300#	300#	40	35	5	85	50
08:45	5	45	30	200	240	40	25	0	125#	70
09:00	5	30	25	300#	300#	30	20	0	125#	100
09:15	0	25	25	180	120	15	15	10	115'#	125#
09:30	0	15	20	170	130	20	30	10	75	50
09:45	0	20	15	180	140	25	20	15	50	40
10:00	15	10	15	150	100	30	20	5	55	35
10:15	15	15	10	75	50	40	50	0	50	30
10:30	5	25	15	100	75	35	40	0	40	35
10:45	5	20	20	90	50	30	30	0	50	30
11:00	5	20	20	100	80	35	50	5	40	30
11:15	10	20	20	30	30	20	45	0	50	25
11:30	15	15	15	45	35	25	35	5	50	40
11:45	20	55	45	120	80	30	40	5	45	35
12:00	5	55	45	110	70	30	30	0	125#	125#
12:15	10	35	40	45	35	25	45	0	125#	70
12:30	15	45	40	50	30	45	50	0	55	40
12:45	10	55	55	45	30	50	65	15	40	30

TIME	A1	A2	A3	B1	B2	B3	B4	C1	C2	C3
13:00	0	20	25	120	70	25	55	0	50	40
13:15	15	25	35	120	80	35	50	0	80	45
13:30	15	40	40	90	45	50	30	0	50	35
13:45	20	60	50	55	40	45	55	15	40	35
14:00	10	40	40	60	40	35	40	0	45	40
14:15	0	35	35	90	50	40	35	5	45	35
14:30	0	20	25	90	90	25	25	0	30	30
14:45	25	25	35	60	40	30	40	0	55	45
15:00	40	25	20	130	70	55	35	0	45	40
15:15	55	40	35	120	80	30	40	0	125#	50
15:30	35	45	40	140	100	25	25	0	55	45
15:45	20	30	35	120	90	40	50	0	70	45
16:00	55	40	45	130	100	20	20	0	65	40
16:15	45	50	45	150	120	35	30	0	125#	55
16:30	50	35	30	100	110	25	25	0	80	40
16:45	60	50	60	130	100	30	30	0	65	60
17:00	0	60	60	90	70	45	30	10	125#	125#
17:15	75	50	40	110	90	35	25	15	125#	125#
17:30	35	35	40	160	140	25	20	0	125#	125#
17:45	35	30	30	95	70	40	30	10	125#	125#
18:00	30	40	35	60	45	35	30	0	125#	125#
18:15	50	30	30	90	65	40	30	0	55	40
18:30	25	35	40	45	30	30	30	10	60	40
18:45	25	40	30	40	30	25	25	5	40	40

Queue's are measured in meters

	Cannot be seen from camera
+	Signifies queue stretches to a minimum length of x and beyond the view of the camera
#	Signifies queue stretches to the next significant junction
*	Indicates an estimated queue length due to obscured vision.

Queue lengths are compiled from CCTV observations and are therefore subject to the limitations of the camera view.



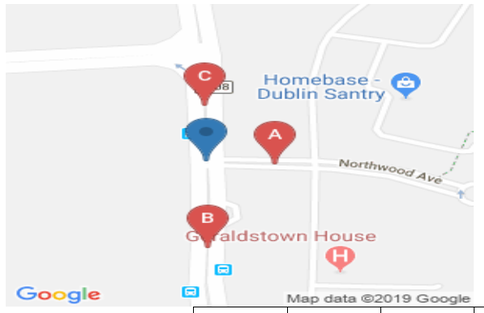
IDASO

Survey Name: 029 19025 Northwood
Site: 1
Location: St Margaret's Rd
Date: 12-Feb-2019

TIME	A => A									A => B									A => C								
TIME	P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	PCU
07:00	0	0	0	0	0	0	0	0	0	1	0	18	5	0	0	0	24	25.7	0	0	15	2	0	0	0	17	18
07:15	0	0	0	0	0	0	0	0	0	0	0	24	2	0	1	0	27	29.3	0	0	22	3	0	0	0	25	26.5
07:30	0	0	0	0	0	0	0	0	0	0	1	22	9	1	0	0	33	37.4	0	0	24	4	1	0	0	29	31.5
07:45	0	0	0	0	0	0	0	0	0	0	0	29	6	0	0	0	35	38	0	0	37	2	1	0	0	40	41.5
H/TOT	0	0	0	0	0	0	0	0	0	1	1	93	22	1	1	0	119	130.4	0	0	98	11	2	0	0	111	117.5
08:00	0	0	0	0	0	0	0	0	0	0	0	28	5	5	0	0	38	43	1	0	32	4	0	0	0	37	38.2
08:15	0	0	0	0	0	0	0	0	0	0	0	36	8	7	0	0	51	58.5	1	0	47	3	1	0	0	52	53.2
08:30	0	0	0	0	0	0	0	0	0	0	0	31	5	1	2	0	39	44.6	1	0	42	5	0	1	0	49	52
08:45	0	0	0	0	0	0	0	0	0	0	0	24	1	2	0	0	27	28.5	0	0	39	6	2	0	1	48	53
H/TOT	0	0	0	0	0	0	0	0	0	0	0	119	19	15	2	0	155	174.6	3	0	160	18	3	1	1	186	196.4
09:00	0	0	0	0	0	0	0	0	0	0	0	21	1	1	0	0	23	24	0	0	31	4	0	0	0	35	37
09:15	0	0	0	0	0	0	0	0	0	0	0	10	4	0	1	0	15	18.3	1	0	24	6	1	0	0	32	34.7
09:30	0	0	0	0	0	0	0	0	0	0	0	17	3	1	0	0	21	23	3	0	15	1	1	0	0	20	18.6
09:45	0	0	0	0	0	0	0	0	0	0	0	15	3	1	0	1	20	23	0	0	30	6	1	0	0	37	40.5
H/TOT	0	0	0	0	0	0	0	0	0	0	0	63	11	3	1	1	79	88.3	4	0	100	17	3	0	0	124	130.8
10:00	0	0	0	0	0	0	0	0	0	0	0	12	2	1	0	2	17	20.5	3	0	22	2	1	0	0	28	27.1
10:15	0	0	1	0	0	0	0	1	1	0	1	25	4	0	0	0	30	31.4	0	0	19	2	1	0	0	22	23.5
10:30	0	0	0	0	0	0	0	0	0	0	1	28	5	2	0	1	37	40.9	0	0	22	5	1	0	0	28	31
10:45	0	0	0	0	0	0	0	0	0	1	0	42	1	1	0	0	45	45.2	3	0	28	0	1	0	0	32	30.1
H/TOT	0	0	1	0	0	0	0	1	1	1	2	107	12	4	0	3	129	138	6	0	91	9	4	0	0	110	111.7
11:00	0	0	0	0	0	0	0	0	0	0	0	45	4	1	0	0	50	52.5	1	0	25	1	0	0	0	27	26.7
11:15	0	0	0	0	0	0	0	0	0	0	1	56	3	0	0	0	60	60.9	2	0	28	0	0	0	0	30	28.4
11:30	0	0	0	0	0	0	0	0	0	0	0	61	3	0	0	0	64	65.5	0	0	30	7	0	0	0	37	40.5
11:45	0	0	0	0	0	0	0	0	0	1	0	63	6	1	1	0	72	76	3	0	44	6	2	1	0	56	58.9
H/TOT	0	0	0	0	0	0	0	0	0	1	1	225	16	2	1	0	246	254.9	6	0	127	14	2	1	0	150	154.5
12:00	0	0	0	0	0	0	0	0	0	0	0	64	2	1	0	0	67	68.5	1	1	39	1	0	0	0	42	41.1
12:15	0	0	0	0	0	0	0	0	0	0	0	64	1	1	0	2	68	71	0	0	30	3	0	0	0	33	34.5
12:30	0	0	0	0	0	0	0	0	0	0	0	80	5	2	0	0	87	90.5	0	0	47	4	2	0	0	53	56
12:45	0	0	0	0	0	0	0	0	0	0	0	79	7	0	0	0	86	89.5	0	0	39	7	0	0	0	46	49.5
H/TOT	0	0	0	0	0	0	0	0	0	0	0	287	15	4	0	2	308	319.5	1	1	155	15	2	0	0	174	181.1
13:00	0	0	0	0	0	0	0	0	0	0	0	83	4	4	0	0	91	95	1	0	52	4	0	0	0	57	58.2
13:15	0	0	0	0	0	0	0	0	0	0	0	82	9	1	0	0	92	97	0	0	40	2	0	0	0	42	43
13:30	0	0	0	0	0	0	0	0	0	0	0	69	7	1	0	0	77	81	0	0	33	3	0	0	0	36	37.5
13:45	0	0	1	0	0	0	0	1	1	0	0	76	6	3	2	0	87	94.1	0	0	38	7	2	0	0	47	51.5
H/TOT	0	0	1	0	0	0	0	1	1	0	0	310	26	9	2	0	347	367.1	1	0	163	16	2	0	0	182	190.2
14:00	0	0	1	0	0	0	0	1	1	0	1	84	7	0	0	1	93	96.9	1	0	43	1	2	0	0	47	47.7
14:15	0	0	0	0	0	0	0	0	0	0	0	68	4	0	1	0	73	76.3	1	0	49	0	0	0	0	50	49.2
14:30	0	0	0	0	0	0	0	0	0	0	0	70	8	0	0	0	78	82	0	0	34	0	0	0	0	34	34
14:45	0	0	1	0	0	0	0	1	1	0	0	55	10	0	0	0	65	70	0	0	31	4	1	0	0	36	38.5
H/TOT	0	0	2	0	0	0	0	2	2	0	1	277	29	0	1	1	309	325.2	2	0	157	5	3	0	0	167	169.4
15:00	0	0	0	0	0	0	0	0	0	0	0	68	4	0	0	0	72	74	0	0	38	8	0	0	0	46	50
15:15	0	0	0	0	0	0	0	0	0	0	0	89	11	1	2	0	103	111.6	0	0	37	8	1	0	0	46	50.5
15:30	0	0	0	0	0	0	0	0	0	0	0	81	7	0	1	0	89	93.8	0	0	34	2	2	0	0	38	40
15:45	0	0	0	0	0	0	0	0	0	0	0	61	5	1	0	0	67	70	1	0	41	4	2	0	0	48	50.2
H/TOT	0	0	0	0	0	0	0	0	0	0	0	299	27	2	3	0	331	349.4	1	0	150	22	5	0	0	178	190.7
16:00	0	0	0	0	0	0	0	0	0	0	0	88	9	1	0	0	98	103	1	0	46	3	0	0	0	50	50.7
16:15	0	0	0	0	0	0	0	0	0	0	0	68	9	1	0	0	78	83	2	0	53	6	1	0	0	62	63.9
16:30	0	0	0	0	0	0	0	0	0	0	0	101	9	1	0	0	111	116	1	0	51	1	0	0	0	53	52.7
16:45	0	0	0	0	0	0	0	0	0	0	0	67	6	0	1	0	74	78.3	1	1	53	9	0	0	0	64	67.1
H/TOT	0	0	0	0	0	0	0	0	0	0	0	324	33	3	1	0	361	380.3	5	1	203	19	1	0	0	229	234.4
17:00	0	0	0	0	0	0	0	0	0	1	0	113	16	2	0	0	132	140.2	0	2	43	1	1	0	0	47	46.8
17:15	0	0	0	0	0	0	0	0	0	0	0	71	6	2	0	0	79	83	4	0	46	2	1	0	0	53	51.3
17:30	0	0	0	0	0	0	0	0	0	0	0	57	7	1	0	0	65	69	4	1	34	5	0	0	0	44	42.7
17:45	0	0	0	0	0	0	0	0	0	0	0	41	7	2	0	0	50	54.5	0	0	39	2	0	0	0	41	42
H/TOT	0	0	0	0	0	0	0	0	0	1	0	282	36	7	0	0	326	346.7	8	3	162	10	2	0	0	185	182.8
18:00	0	0	0	0	0	0	0	0	0	0	0	64	7	0	0	0	71	74.5	2	0	41	3	0	0	0	46	45.9
18:15	0	0	0	0	0	0	0	0	0	0	0	67	1	1	0	0	69	70	1	2	33	3	0	0	0	39	38.5
18:30	0	0	0	0	0	0	0	0	0	0	0	55	3	0	0	0	58	59.5	1	0	46	1	0	0	0	48	47.7
18:45	0	0	0	0	0	0	0	0	0	0	1	58	3	0	0	1	63	64.9	0	0	34	3	0	0	0	37	38.5
H/TOT	0	0	0	0	0	0	0	0	0	0	1	244	14	1	0	1	261	268.9	4	2	154	10	0	0	0	170	170.6
12 TOT	0	0	4	0	0	0	0	4	4	4	6	2630	260	51	12	8	2971	3143	41	7	1720	166	29	2	1	1966	2030

TIME	B => A									B => B									B => C								
TIME	P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	PCU
07:00	0	0	22	3	0	0	2	27	30.5	0	0	0	0	0	0	0	0	0	0	0	249	56	7	10	3	325	372.5
07:15	0	0	14	6	1	0	2	23	28.5	0	0	0	0	0	0	0	0	0	1	0	274	69	16	10	3	373	430.7
07:30	0	0	40	8	2	1	2	53	61.3	0	0	0	0	0	0	0	0	0	0	0	336	57	6	12	5	416	468.1
07:45	0	0	48	10	0	0	2	60	67	0	0	0	0	0	0	0	0	0	1	5	426	46	8	5	3	494	526.7
H/TOT	0	0	124	27	3	1	8	163	187.3	0	0	0	0	0	0	0	0	0	2	5	1285	228	37	37	14	1608	1798
08:00	0	0	40	4	1	0	0	45	47.5	0	0	0	0	0	0	0	0	0	0	4	475	39	7	2	3	530	556.2
08:15	0	0	47	4	2	0	2	55	60	0	0	0	0	0	0	0	0	0	0	1	409	31	12	6	5	464	497.7
08:30	0	0	42	9	0	0	0	51	55.5	0	0	0	0	0	0	0	0	0	0	2	466	29	7	7	3	514	542.9
08:45	0	0	34	4	1	1	0	40	43.8	0	0	0	0	0	0	0	0	0	0	3	414	24	5	7	2	455	478.8
H/TOT	0	0	163	21	4	1	2	191	206.8	0	0	0	0	0	0	0	0	0	0	10	1764	123	31	22	13	1963	2076
09:00	0	0	25	8	2	0	0	35	40	0	0	0	0	0	0	0	0	0	1	0	365	27	5	9	3	410	439.9
09:15	0	0	24	3	0	0	0	27	28.5	0	0	0	0	0	0	0	0	0	0	2	315	26	9	11	5	368	403.6
09:30	0	0	59	8	1	1	0	69	74.8	0	0	0	0	0	0	0	0	0	0	2	327	37	7	12	1	386	423.4
09:45	0	0	63	3	0	0	0	66	67.5	0	0	0	0	0	0	0	0	0	0	1	250	44	9	11	4	319	363.2
H/TOT	0	0	171	22	3	1	0	197	210.8	0	0	0	0	0	0	0	0	0	1	5	1257	134	30	43	13	1483	1630
10:00	0	0	55	5	2	0	0	62	65.5	0	0	0	0	0	0	0	0	0	0	0	179	21	6	5	3	214	237
10:15	0	0	76	3	1	0	0	80	82	0	0	0	0	0	0	0	0	0	0	0	209	28	4	7	3	251	279.1
10:30	0	0	64	4	0	1	0	69	72.3	0	0	0	0	0	0	0	0	0	0	1	158	22	9	9	3	202	231.6
10:45	0	1	72	5	0	1	0	79	82.2	0	0	0	0	0	0	0	0	0	0	0	160	32	8	8	3	211	244.4
H/TOT	0	1	267	17	3	2	0	290	302	0	0	0	0	0	0	0	0	0	0	1	706	103	27	29	12	878	992.1
11:00	0	0	83	5	0	0	0	88	90.5	0	0	0	0	0	0	0	0	0	0	0	156	28	5	12	4	205	241.1
11:15	0	0	82	1	0	0	0	83	83.5	0	0	0	0	0	0	0	0	0	0	0	161	28	8	10	2	209	242
11:30	0	0	70	6	2	1	0	79	84.3	0	0	0	0	0	0	0	0	0	0	0	140	21	11	8	2	182	210.4
11:45	0	0	82	2	2	1	0	87	90.3	0	0	0	0	0	0	0	0	0	0	1	156	36	10	11	3	217	256.7
H/TOT	0	0	317	14	4	2	0	337	348.6	0	0	0	0	0	0	0	0	0	0	1	613	113	34	41	11	813	950.2
12:00	0	0	65	6	1	0	0	72	75.5	0	0	0	0	0	0	0	0	0	1	0	176	22	9	12	4	224	258.3
12:15	0	0	72	8	1	1	1	83	89.8	0	0	0	0	0	0	0	0	0	0	0	183	20	3	11	3	220	248.8
12:30	0	0	78	3	2	0	0	83	85.5	0	0	2	0	0	0	0	2	2	0	0	172	26	10	8	2	218	248.4
12:45	0	0	55	7	1	0	0	63	67	0	0	0	0	0	0	0	0	0	0	0	160	34	7	7	2	210	241.6
H/TOT	0	0	270	24	5	1	1	301	317.8	0	0	2	0	0	0	0	2	2	1	0	691	102	29	38	11	872	997.1
13:00	0	1	49	6	1	0	0	57	59.9	0	0	1	0	0	0	0	1	1	0	0	154	26	7	7	2	196	223.6
13:15	0	0	51	8	1	0	0	60	64.5	0	0	0	0	0	0	0	0	0	0	2	186	30	2	7	3	230	256.9
13:30	0	0	58	2	1	2	0	63	67.1	0	0	0	0	0	0	0	0	0	0	0	201	17	6	9	5	238	266.2
13:45	0	0	54	2	0	0	0	56	57	0	0	0	0	0	0	0	0	0	0	1	166	21	9	9	1	207	234.1
H/TOT	0	1	212	18	3	2	0	236	248.5	0	0	1	0	0	0	0	1	1	0	3	707	94	24	32	11	871	980.8
14:00	0	0	52	6	1	0	1	60	64.5	0	0	0	0	0	0	0	0	0	0	1	161	30	2	7	3	204	231.5
14:15	0	0	52	6	0	0	0	58	61	0	0	0	0	0	0	0	0	0	1	0	162	28	9	4	5	209	236.9
14:30	0	0	50	6	0	0	1	57	61	0	0	0	0	0	0	0	0	0	0	1	156	18	6	5	4	190	211.9
14:45	0	0	52	3	1	2	1	59	64.6	0	0	0	0	0	0	0	0	0	0	1	177	20	5	7	4	214	239
H/TOT	0	0	206	21	2	2	3	234	251.1	0	0	0	0	0	0	0	0	0	1	3	656	96	22	23	16	817	919.3
15:00	0	0	43	10	1	0	0	54	59.5	0	0	0	0	0	0	0	0	0	0	0	201	23	8	7	6	245	275.6
15:15	0	0	56	4	0	0	0	60	62	0	0	0	0	0	0	0	0	0	0	1	177	25	3	4	1	211	230.6
15:30	0	0	48	3	0	0	0	51	52.5	0	0	0	0	0	0	0	0	0	2	0	165	17	4	8	7	203	229.3
15:45	2	0	53	4	1	0	2	62	64.9	0	0	0	0	0	0	0	0	0	0	2	181	24	5	7	7	226	255.4
H/TOT	2	0	200	21	2	0	2	227	238.9	0	0	0	0	0	0	0	0	0	2	3	724	89	20	26	21	885	990.9
16:00	0	0	48	3	2	0	1	54	57.5	0	0	0	0	0	0	0	0	0	0	0	188	29	3	1	5	226	248.3
16:15	0	0	49	8	0	0	0	57	61	0	0	0	0	0	0	0	0	0	1	2	214	32	9	6	4	268	298.3
16:30	0	1	45	10	1	0	2	59	65.9	0	0	0	0	0	0	0	0	0	0	2	221	22	4	3	5	257	277.7
16:45	0	1	47	8	1	0	0	57	60.9	0	0	0	0	0	0	0	0	0	1	2	191	21	2	7	2	226	246.6
H/TOT	0	2	189	29	4	0	3	227	245.3	0	0	0	0	0	0	0	0	0	2	6	814	104	18	17	16	977	1071
17:00	0	0	31	10	1	0	0	42	47.5	0	0	0	0	0	0	0	0	0	1	2	228	29	4	4	5	273	297.7
17:15	0	0	56	7	0	0	1	64	68.5	0	0	0	0	0	0	0	0	0	1	4	227	20	9	5	2	268	287.8
17:30	0	0	47	5	0	0	0	52	54.5	0	0	0	0	0	0	0	0	0	0	4	250	25	3	2	6	290	310.2
17:45	0	0	56	4	1	0	0	61	63.5	0	0	0	0	0	0	0	0	0	1	2	247	28	4	6	3	291	315.8
H/TOT	0	0	190	26	2	0	1	219	234	0	0	0	0	0	0	0	0	0	3	12	952	102	20	17	16	1122	1212
18:00	0	0	43	1	1	0	0	45	46	0	0	0	0	0	0	0	0	0	0	0	197	18	5	6	4	230	253.3
18:15	0	0	48	4	0	0	0	52	54	0	0	1	0	0	0	0	1	1	0	1	199	12	2	4	1	219	231.6
18:30	0	0	49	1	0	0	0	50	50.5	0	0	0	0	0	0	0	0	0	1	4	183	12	4	3	3	210	221.7
18:45	0	0	50	5	0	0	0	55	57.5	0	0	0	0	0	0	0	0	0	0	0	174	14	2	1	6	197	212.3
H/TOT	0	0	190	11	1	0	0	202	208	0	0	1	0	0	0	0	1	1	1	5	753	56	13	14	14	856	918.9
12 TOT	2	4	2499	251	36	12	20	2824	2999	0	0	4	0	0	0	0	4	4	13	54	10922	1344	305	339	168	13145	14535

TIME	C => A									C => B									C => C								
TIME	P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	PCU
07:00	1	0	6	2	0	0	0	9	9.2	0	0	94	21	6	4	1	126	145.7	0	0	0	0	0	0	0	0	0
07:15	1	1	10	0	0	0	0	12	10.6	0	1	106	26	4	4	1	142	162.6	0	0	0	0	0	0	0	0	0
07:30	0	1	11	2	1	0	0	15	15.9	1	0	166	19	11	9	3	209	237.9	0	0	0	0	0	0	0	0	0
07:45	0	0	22	1	0	0	2	25	27.5	0	5	164	20	6	6	1	202	220.8	0	0	0	0	0	0	0	0	0
H/TOT	2	2	49	5	1	0	2	61	63.2	1	6	530	86	27	23	6	679	767	0	0	0	0	0	0	0	0	0
08:00	1	0	31	1	0	0	0	33	32.7	1	2	202	30	4	7	2	248	274.1	0	0	0	0	0	0	0	0	0
08:15	3	0	28	3	1	0	0	35	34.6	1	0	146	25	4	6	2	184	207.5	0	0	0	0	0	0	0	0	0
08:30	0	0	25	1	2	1	0	29	31.8	0	0	183	25	9	4	2	223	247.2	0	0	0	0	0	0	0	0	0
08:45	1	0	33	2	1	0	0	37	37.7	0	0	157	22	7	6	3	195	220.3	0	0	0	0	0	0	0	0	0
H/TOT	5	0	117	7	4	1	0	134	136.8	2	2	688	102	24	23	9	850	949.1	0	0	0	0	0	0	0	0	0
09:00	0	0	27	3	2	0	0	32	34.5	0	0	159	25	13	4	2	203	229.2	0	0	0	0	0	0	0	0	0
09:15	0	0	35	3	0	0	1	39	41.5	0	1	155	29	11	4	9	209	242.6	0	0	0	0	0	0	0	0	0
09:30	1	0	29	1	0	0	0	31	30.7	0	0	152	22	8	5	1	188	210.5	0	0	0	0	0	0	0	0	0
09:45	3	0	36	7	0	0	0	46	47.1	0	0	102	23	9	11	6	151	187.3	0	0	0	0	0	0	0	0	0
H/TOT	4	0	127	14	2	0	1	148	153.8	0	1	568	99	41	24	18	751	869.6	0	0	0	0	0	0	0	0	0
10:00	2	0	35	2	0	0	0	39	38.4	0	0	116	27	7	12	5	167	204.6	0	0	0	0	0	0	0	0	0
10:15	0	0	42	2	1	0	0	45	46.5	1	1	108	16	11	8	10	155	187.5	0	0	0	0	0	0	0	0	0
10:30	0	0	35	3	1	0	0	39	41	0	0	106	25	11	4	4	150	177.2	0	0	0	0	0	0	0	0	0
10:45	0	0	41	3	0	0	0	44	45.5	0	0	117	16	4	3	6	146	165.9	0	0	0	0	0	0	0	0	0
H/TOT	2	0	153	10	2	0	0	167	171.4	1	1	447	84	33	27	25	618	735.2	0	0	0	0	0	0	0	0	0
11:00	0	0	44	2	0	0	0	46	47	1	0	138	29	11	5	3	187	215.7	0	0	0	0	0	0	0	0	0
11:15	0	0	30	1	1	0	0	32	33	0	0	139	21	9	11	2	182	213.3	0	0	0	0	0	0	0	0	0
11:30	1	0	41	2	2	0	0	46	47.2	2	0	150	27	8	5	4	196	222.4	0	0	0	0	0	0	0	0	0
11:45	0	0	32	10	0	0	0	42	47	0	1	123	19	8	6	3	160	183.7	0	0	0	0	0	0	0	0	0
H/TOT	1	0	147	15	3	0	0	166	174.2	3	1	550	96	36	27	12	725	835.1	0	0	0	0	0	0	0	0	0
12:00	0	1	35	4	2	0	0	42	44.4	0	1	157	30	8	4	2	202	227.6	0	0	0	0	0	0	0	0	0
12:15	1	0	33	3	0	0	0	37	37.7	0	0	156	15	8	8	1	188	210.9	0	0	0	0	0	0	0	0	0
12:30	2	0	42	4	1	0	0	49	49.9	0	0	153	30	6	2	5	196	221.6	0	0	0	0	0	0	0	0	0
12:45	0	0	37	1	3	0	0	41	43	0	1	168	22	5	6	0	202	222.7	0	0	0	0	0	0	0	0	0
H/TOT	3	1	147	12	6	0	0	169	175	0	2	634	97	27	20	8	788	882.8	0	0	0	0	0	0	0	0	0
13:00	0	0	30	2	1	0	0	33	34.5	0	0	197	22	9	2	5	235	258.1	0	0	0	0	0	0	0	0	0
13:15	0	0	47	0	2	0	0	49	50	0	0	171	29	7	8	1	216	245.4	0	0	0	0	0	0	0	0	0
13:30	2	0	40	1	1	0	0	44	43.4	0	1	184	33	10	9	7	244	283.6	0	0	0	0	0	0	0	0	0
13:45	0	0	48	3	1	0	0	52	54	1	0	188	25	8	3	2	227	248.6	0	0	0	0	0	0	0	0	0
H/TOT	2	0	165	6	5	0	0	178	181.9	1	1	740	109	34	22	15	922	1036	0	0	0	0	0	0	0	0	0
14:00	2	0	42	3	0	0	0	47	46.9	0	0	197	26	4	3	1	231	250.9	0	0	0	0	0	0	0	0	0
14:15	2	0	34	3	0	0	0	39	38.9	0	0	190	28	5	8	3	234	263.9	0	0	0	0	0	0	0	0	0
14:30	1	0	39	4	1	0	0	45	46.7	1	0	191	20	6	6	3	227	250	0	0	0	0	0	0	0	0	0
14:45	0	0	46	2	1	0	0	49	50.5	0	0	199	30	7	6	4	246	276.3	0	0	0	0	0	0	0	0	0
H/TOT	5	0	161	12	2	0	0	180	183	1	0	777	104	22	23	11	938	1041	0	0	0	0	0	0	0	0	0
15:00	1	0	43	3	0	0	0	47	47.7	1	1	249	32	14	5	3	305	336.1	0	0	0	0	0	0	0	0	0
15:15	2	0	33	1	0	0	0	36	34.9	0	1	234	25	7	8	1	276	302.8	0	0	0	0	0	0	0	0	0
15:30	0	0	36	0	0	0	0	36	36	0	0	240	36	7	6	2	291	322.3	0	0	0	0	0	0	0	0	0
15:45	2	0	49	4	0	0	0	55	55.4	0	1	253	39	3	4	5	305	335.6	0	0	0	0	0	0	0	0	0
H/TOT	5	0	161	8	0	0	0	174	174	1	3	976	132	31	23	11	1177	1297	0	0	0	0	0	0	0	0	0
16:00	3	0	30	2	1	0	0	36	35.1	0	2	317	36	7	5	3	370	399.8	0	0	0	0	0	0	0	0	0
16:15	1	0	42	2	0	0	0	45	45.2	0	1	332	45	8	5	4	395	431.4	0	0	0	0	0	0	0	0	0
16:30	1	0	31	1	1	0	0	34	34.2	0	0	372	57	3	6	1	439	477.8	0	0	0	0	0	0	0	0	0
16:45	0	0	38	4	0	0	0	42	44	0	1	338	34	8	5	4	390	420.9	0	0	0	0	0	0	0	0	0
H/TOT	5	0	141	9	2	0	0	157	158.5	0	4	1359	172	26	21	12	1594	1730	0	0	0	0	0	0	0	0	0
17:00	4	0	32	5	0	0	0	41	40.3	0	2	394	49	2	5	2	454	486.8	0	0	0	0	0	0	0	0	0
17:15	0	0	31	1	0	0	0	32	32.5	0	2	398	35	4	6	3	448	477.1	0	0	0	0	0	0	0	0	0
17:30	1	0	42	1	0	0	0	44	43.7	1	3	406	38	2	6	7	463	495.2	0	0	0	0	0	0	0	0	0
17:45	2	0	49	3	1	0	0	55	55.4	1	2	366	24	3	5	4	405	427	0	0	0	0	0	0	0	0	0
H/TOT	7	0	154	10	1	0	0	172	171.9	2	9	1564	146	11	22	16	1770	1886	0	0	0	0	0	0	0	0	0
18:00	2	0	41	1	0	0	0	44	42.9	0	0	319	11	5	6	2	343	360.8	0	0	0	0	0	0	0	0	0
18:15	4	0	44	2	0	0	0	50	47.8	0	2	310	21	6	2	5	346	365.9	0	0	0	0	0	0	0	0	0
18:30	1	1	33	1	0	0	0	36	35.1	0	2	205	13	2	4	2	228	241.5	0	0	0	0	0	0	0	0	0
18:45	0	1	40	2	0	0	0	43	43.4	0	1	234	10	3	4	6	258	275.1	0	0	0	0	0	0	0	0	0
H/TOT	7	2	158	6	0	0	0	173	169.2	0	5	1068	55	16	16	15	1175	1243	0	0	0	0	0	0	0	0	0
12 TOT	48	5	1680	114	28	1	3	1879	1913	12	35	9901	1282	328	271	158	11987	13272	0	0	0	0	0	0	0	0	0



IDASO

Survey Name: 029 19025 Northwood
Site: 2
Location: R108 / Northwood Ave
Date: 12-Feb-2019

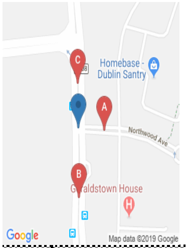
TIME	A1	A2	A3	B1	B2	B3	B4	C1	C2	C3
07:00	15	20	25	10	30	15	40	30	50	50
07:15	20	60#	40	5	20	0	25	30	50	40
07:30	15	45	25	0	20	15	30	40	40	60
07:45	20	15	30	30	10	0	20	30	125#	70
08:00	15	60#	40	10	50	10	20	20	80	125#
08:15	15	60#	40	25	20	10	25	30	125#	125#
08:30	10	60#	40	5	30	5	80	40	125#	60
08:45	15	30	20	15	30	15	80	60	125#	50
09:00	10	60#	40	10	35	30	50	20	30	20
09:15	10	50	30	15	30	15	50	40	100	30
09:30	20	60#	40	15	35	5	30	20	50	40
09:45	20	60#	30	15	10	0	50	20	30	40
10:00	15	60#	30	5	20	10	20	25	25	30
10:15	20	60#	35	5	15	5	25	20	30	40
10:30	15	60#	25	0	15	5	20	15	20	25
10:45	15	30	30	10	15	5	10	20	25	30
11:00	10	40	35	15	20	5	20	30	15	10
11:15	25	40	35	10	20	5	15	15	20	20
11:30	15	40	20	15	20	10	25	10	25	30
11:45	15	30	20	10	20	15	20	15	20	20
12:00	20	30	20	15	20	10	35	10	15	20
12:15	20	50	15	0	20	25	20	15	30	20
12:30	10	40	20	10	20	10	30	20	20	25
12:45	25	50	30	10	20	10	25	30	15	30

TIME	A1	A2	A3	B1	B2	B3	B4	C1	C2	C3
13:00	25	30	40	5	30	20	45	30	20	30
13:15	20	50	30	20	25	20	20	15	20	15
13:30	25	60#	30	15	35	20	30	15	30	25
13:45	30	60#	20	15	30	25	110	25	20	20
14:00	50	60#	30	20	30	10	30	10	30	20
14:15	20	60#	40	10	40	5	30	15	30	20
14:30	30	60#	40	15	30	25	30	15	20	15
14:45	30	60#	30	10	20	5	25	15	30	125#
15:00	20	60#	25	10	25	20	30	25	50	30
15:15	40	60#	25	0	20	10	30	10	40	30
15:30	30	60#	40	10	30	15	35	15	25	15
15:45	15	60#	45	5	40	10	30	10	20	15
16:00	50	60#	35	15	110	15	30	5	20	25
16:15	30	60#	30	5	20	20	40	15	20	15
16:30	20	50	40	5	110	15	30	15	30	20
16:45	20	60#	40	15	115	15	35	20	25	35
17:00	50	60#	40	5	150	30	40	15	20	15
17:15	60#	60#	40	15	165	130	30	10	15	10
17:30	60#	60#	40	10	130	20	40	15	35	25
17:45	40	60#	30	15	70	20	40	15	10	15
18:00	30	60#	20	10	100	20	30	15	40	20
18:15	20	60#	40	5	120	15	35	10	20	15
18:30	20	50	30	5	30	15	10	10	15	10
18:45	20	50	30	15	20	15	15	5	15	35

Queue's are measured in meters

	Cannot be seen from camera
+	Signifies queue stretches to a minimum length of x and beyond the view of the camera
#	Signifies queue stretches to the next significant junction
*	Indicates an estimated queue length due to obscured vision.

Queue lengths are compiled from CCTV observations and are therefore subject to the limitations of the camera view.



IDASO

Survey Name: 029 19025 Northwood

Site: 2

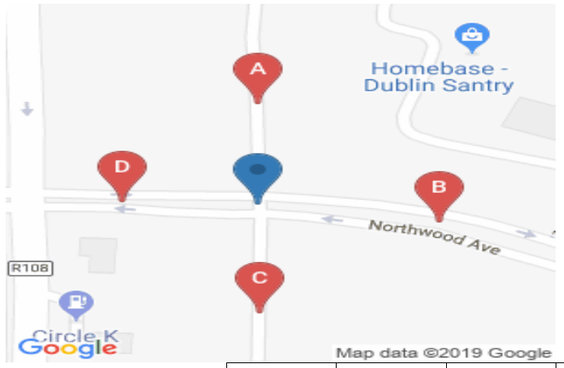
Location: R108 / Northwood Ave

Date: 12-Feb-2019

TIME	A => A									A => B									A => C								
	P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	PCU
07:00	0	0	0	0	0	0	0	0	0	0	0	17	3	0	0	0	20	21.5	0	0	27	4	3	3	0	37	44.4
07:15	0	0	0	0	0	0	0	0	0	0	0	29	4	0	0	0	33	35	0	0	22	4	1	5	0	32	41
07:30	0	0	0	0	0	0	0	0	0	0	0	24	7	2	0	0	33	37.5	0	0	52	7	8	10	0	77	97.5
07:45	0	0	0	0	0	0	0	0	0	0	1	20	3	0	0	0	24	24.9	0	0	47	4	1	0	1	53	56.5
H/TOT	0	0	0	0	0	0	0	0	0	0	1	90	17	2	0	0	110	118.9	0	0	148	19	13	18	1	199	239.4
08:00	0	0	0	0	0	0	0	0	0	0	1	25	7	0	0	0	33	35.9	0	0	49	9	2	3	0	63	72.4
08:15	0	0	0	0	0	0	0	0	0	0	0	38	6	0	0	0	44	47	1	0	41	6	4	5	0	57	67.7
08:30	0	0	0	0	0	0	0	0	0	0	2	36	3	3	0	0	44	45.8	0	0	46	5	5	4	0	60	70.2
08:45	0	0	0	0	0	0	0	0	0	0	0	31	3	0	1	0	35	37.8	1	0	35	3	5	3	0	47	54.1
H/TOT	0	0	0	0	0	0	0	0	0	0	3	130	19	3	1	0	156	166.5	2	0	171	23	16	15	0	227	264.4
09:00	0	0	0	0	0	0	0	0	0	0	0	27	7	0	1	0	35	39.8	0	0	40	14	6	4	0	64	79.2
09:15	0	0	0	0	0	0	0	0	0	1	0	32	0	1	0	0	34	33.7	0	0	36	13	6	3	1	59	73.4
09:30	0	0	0	0	0	0	0	0	0	0	1	26	6	2	0	0	35	38.4	1	0	56	6	3	4	0	70	78.9
09:45	0	0	0	0	0	0	0	0	0	0	1	21	7	0	0	0	29	31.9	0	0	40	7	8	6	0	61	76.3
H/TOT	0	0	0	0	0	0	0	0	0	1	2	106	20	3	1	0	133	143.8	1	0	172	40	23	17	1	254	307.8
10:00	0	0	0	0	0	0	0	0	0	0	0	21	3	0	0	0	24	25.5	0	0	44	4	3	8	0	59	72.9
10:15	0	0	0	0	0	0	0	0	0	0	0	25	5	1	0	0	31	34	0	0	49	7	4	6	0	66	79.3
10:30	0	0	0	0	0	0	0	0	0	1	0	26	3	0	0	0	30	30.7	0	0	40	3	6	2	0	51	58.1
10:45	0	0	0	0	0	0	0	0	0	0	0	32	4	0	1	0	37	40.3	0	0	50	10	1	0	0	61	66.5
H/TOT	0	0	0	0	0	0	0	0	0	1	0	104	15	1	1	0	122	130.5	0	0	183	24	14	16	0	237	276.8
11:00	0	0	0	0	0	0	0	0	0	0	0	30	2	0	0	0	32	33	0	0	50	5	4	2	0	61	68.1
11:15	0	0	0	0	0	0	0	0	0	0	0	32	5	1	0	0	38	41	0	0	45	7	5	10	0	67	86
11:30	0	0	0	0	0	0	0	0	0	0	0	26	2	0	0	0	28	29	1	0	36	5	2	2	0	46	51.3
11:45	0	0	0	0	0	0	0	0	0	2	0	35	6	0	0	0	43	44.4	0	0	43	9	3	5	0	60	72.5
H/TOT	0	0	0	0	0	0	0	0	0	2	0	123	15	1	0	0	141	147.4	1	0	174	26	14	19	0	234	277.9
12:00	0	0	0	0	0	0	0	0	0	0	0	35	2	1	0	0	38	39.5	0	0	46	10	4	2	0	62	71.6
12:15	0	0	0	0	0	0	0	0	0	0	0	30	4	2	1	0	37	41.3	1	0	54	5	3	4	0	67	75.4
12:30	0	0	0	0	0	0	0	0	0	0	0	28	6	0	0	0	34	37	2	0	69	7	5	1	0	84	89.7
12:45	0	0	0	0	0	0	0	0	0	1	0	34	4	1	0	0	40	41.7	0	1	67	5	2	3	0	78	84.8
H/TOT	0	0	0	0	0	0	0	0	0	1	0	127	16	4	1	0	149	159.5	3	1	236	27	14	10	0	291	321.5
13:00	0	0	0	0	0	0	0	0	0	1	0	48	1	2	0	0	52	52.7	0	0	83	10	3	2	1	99	109.1
13:15	0	0	0	0	0	0	0	0	0	1	0	51	2	0	0	0	54	54.2	0	0	64	4	4	7	0	79	92.1
13:30	0	0	0	0	0	0	0	0	0	1	1	54	4	0	0	1	61	62.6	1	0	66	9	5	5	0	86	98.7
13:45	0	0	0	0	0	0	0	0	0	1	0	44	5	0	0	0	50	51.7	0	0	79	8	2	2	0	91	98.6
H/TOT	0	0	0	0	0	0	0	0	0	4	1	197	12	2	0	1	217	221.2	1	0	292	31	14	16	1	355	398.5
14:00	0	0	0	0	0	0	0	0	0	0	0	43	7	1	0	0	51	55	0	0	58	7	2	2	0	69	76.1
14:15	0	0	0	0	0	0	0	0	0	2	0	37	2	1	0	0	42	41.9	0	0	57	11	2	6	0	76	90.3
14:30	0	0	0	0	0	0	0	0	0	0	0	41	6	0	0	0	47	50	0	0	73	11	3	5	0	92	105.5
14:45	0	0	0	0	0	0	0	0	0	0	0	41	4	1	0	0	46	48.5	0	0	69	12	4	4	0	89	102.2
H/TOT	0	0	0	0	0	0	0	0	0	2	0	162	19	3	0	0	186	195.4	0	0	257	41	11	17	0	326	374.1
15:00	0	0	0	0	0	0	0	0	0	0	0	40	3	1	0	0	44	46	2	0	75	6	4	3	0	90	97.3
15:15	0	0	0	0	0	0	0	0	0	1	0	48	0	0	0	0	49	48.2	0	0	71	7	2	6	0	86	98.3
15:30	0	0	0	0	0	0	0	0	0	1	0	36	5	0	1	0	43	46	0	0	72	15	1	4	1	93	107.2
15:45	0	0	0	0	0	0	0	0	0	1	0	44	13	0	0	0	58	63.7	2	0	69	15	2	2	0	90	99.5
H/TOT	0	0	0	0	0	0	0	0	0	3	0	168	21	1	1	0	194	203.9	4	0	287	43	9	15	1	359	402.3
16:00	0	0	0	0	0	0	0	0	0	1	0	41	10	0	0	0	52	56.2	3	0	90	15	4	4	0	116	128.3
16:15	0	0	0	0	0	0	0	0	0	1	0	41	7	0	1	0	50	54	1	0	82	13	1	2	0	99	107.8
16:30	0	0	0	0	0	0	0	0	0	0	0	39	3	1	0	0	43	45	0	0	102	7	1	2	0	112	118.6
16:45	0	0	0	0	0	0	0	0	0	0	0	46	4	0	0	0	50	52	0	1	99	7	1	4	0	112	120.6
H/TOT	0	0	0	0	0	0	0	0	0	2	0	167	24	1	1	0	195	207.2	4	1	373	42	7	12	0	439	475.3
17:00	0	0	0	0	0	0	0	0	0	0	0	70	5	0	0	0	75	77.5	1	1	88	9	2	6	0	107	118.9
17:15	0	0	0	0	0	0	0	0	0	2	1	66	4	0	0	0	73	72.8	0	0	81	9	1	5	0	96	107.5
17:30	0	0	0	0	0	0	0	0	0	1	0	62	2	0	0	0	65	65.2	0	0	104	4	1	4	0	113	120.7
17:45	0	0	0	0	0	0	0	0	0	1	1	45	5	0	0	0	52	53.1	1	0	95	9	1	4	0	110	119.4
H/TOT	0	0	0	0	0	0	0	0	0	4	2	243	16	0	0	0	265	268.6	2	1	368	31	5	19	0	426	466.5
18:00	0	0	0	0	0	0	0	0	0	1	0	59	1	0	1	0	62	63	1	0	95	2	3	5	0	106	114.2
18:15	0	0	0	0	0	0	0	0	0	3	0	40	5	0	0	0	48	48.1	3	1	87	7	2	1	0	101	103.8
18:30	0	0	0	0	0	0	0	0	0	1	0	34	2	0	0	0	37	37.2	1	1	74	5	0	4	0	85	91.3
18:45	0	0	0	0	0	0	0	0	0	0	0	33	1	0	0	0	34	34.5	1	1	61	4	0	3	0	70	74.5
H/TOT	0	0	0	0	0	0	0	0	0	5	0	166	9	0	1	0	181	182.8	6	3	317	18	5	13	0	362	383.8
12 TOT	0	0	0	0	0	0	0	0	0	25	9	1783	203	21	7	1	2049	2146	24	6	2978	365	145	187	4	3709	4188

TIME	B => A									B => B									B => C								
	P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	PCU
07:00	0	0	9	2	1	0	0	12	13.5	0	0	0	1	0	0	0	1	1.5	0	0	72	19	3	2	2	98	113.6
07:15	1	0	13	3	0	0	0	17	17.7	0	0	1	1	0	0	0	2	2.5	1	1	95	20	0	0	1	118	127.6
07:30	2	0	18	1	0	0	0	21	19.9	0	0	3	0	0	0	0	3	3	2	2	132	12	5	0	3	156	164.7
07:45	1	0	9	1	1	0	0	12	12.2	0	0	1	0	0	0	0	1	1	0	6	148	13	4	2	3	176	186.5
H/TOT	4	0	49	7	2	0	0	62	63.3	0	0	5	2	0	0	0	7	8	3	9	447	64	12	4	9	548	592.4
08:00	0	0	18	2	0	0	0	20	21	0	0	3	0	0	0	0	3	3	0	2	172	21	1	3	1	200	214.7
08:15	1	0	13	4	0	1	0	19	21.5	0	0	2	0	0	0	0	2	2	1	0	146	22	3	0	3	175	189.7
08:30	0	0	29	1	0	2	0	32	35.1	0	0	2	0	0	0	0	2	2	0	0	157	18	6	1	1	183	197.3
08:45	1	0	25	1	1	1	0	29	30.5	0	0	3	0	0	0	0	3	3	0	0	155	18	3	3	4	183	201.4
H/TOT	2	0	85	8	1	4	0	100	108.1	0	0	10	0	0	0	0	10	10	1	2	630	79	13	7	9	741	803.1
09:00	0	0	27	2	0	0	0	29	30	0	0	2	0	0	0	0	2	2	0	1	151	17	9	0	4	182	198.4
09:15	0	0	33	6	0	0	0	39	42	0	0	4	1	0	0	0	5	5.5	0	1	158	18	5	1	7	190	209.2
09:30	0	0	13	1	2	0	0	16	17.5	0	0	2	0	0	0	0	2	2	0	0	129	15	5	1	1	151	163.3
09:45	1	0	33	4	0	0	0	38	39.2	0	0	3	1	0	0	0	4	4.5	3	0	96	23	3	5	7	137	161.1
H/TOT	1	0	106	13	2	0	0	122	128.7	0	0	11	2	0	0	0	13	14	3	2	534	73	22	7	19	660	732
10:00	0	0	16	2	1	0	0	19	20.5	0	0	2	0	0	0	0	2	2	2	0	102	26	4	3	4	141	162.3
10:15	2	0	15	3	1	0	0	21	21.4	0	0	2	0	0	0	0	2	2	1	2	102	12	10	3	10	140	162.9
10:30	0	0	16	3	0	0	0	19	20.5	0	0	5	0	0	0	0	5	5	0	0	106	20	5	1	5	137	155.8
10:45	2	0	13	3	0	1	0	19	20.2	0	0	1	0	0	0	0	1	1	0	0	109	12	4	3	5	133	149.9
H/TOT	4	0	60	11	2	1	0	78	82.6	0	0	10	0	0	0	0	10	10	3	2	419	70	23	10	24	551	630.9
11:00	0	0	11	1	0	0	0	12	12.5	0	0	2	0	0	0	0	2	2	0	0	125	23	6	3	3	160	181.4
11:15	0	0	15	2	0	0	0	17	18	0	0	1	0	0	0	0	1	1	0	0	130	14	6	2	2	154	168.6
11:30	0	0	17	3	0	0	0	20	21.5	0	0	1	0	0	0	0	1	1	0	0	148	23	8	2	4	185	207.1
11:45	0	0	17	3	0	0	0	20	21.5	0	0	1	0	0	0	0	1	1	0	1	121	20	6	2	3	153	171
H/TOT	0	0	60	9	0	0	0	69	73.5	0	0	5	0	0	0	0	5	5	0	1	524	80	26	9	12	652	728.1
12:00	1	0	20	1	0	1	0	23	24	0	0	3	0	0	0	0	3	3	0	2	153	24	7	2	2	190	208.9
12:15	0	0	14	1	0	0	0	15	15.5	0	0	1	1	0	0	0	2	2.5	0	0	124	10	3	3	1	141	152.4
12:30	0	0	21	4	0	0	0	25	27	0	0	5	0	0	0	0	5	5	1	0	138	29	3	1	5	177	198.5
12:45	0	1	25	2	1	1	0	30	32.2	0	1	5	1	0	0	0	7	6.9	0	0	129	17	5	3	0	154	168.9
H/TOT	1	1	80	8	1	2	0	93	98.7	0	1	14	2	0	0	0	17	17.4	1	2	544	80	18	9	8	662	728.7
13:00	0	0	26	4	0	0	0	30	32	0	0	4	0	0	0	0	4	4	0	0	165	14	7	0	4	190	204.5
13:15	0	1	18	3	0	0	0	22	22.9	0	0	2	1	0	0	0	3	3.5	1	0	144	20	6	3	2	176	194.1
13:30	0	0	27	2	0	0	0	29	30	0	0	6	0	0	0	0	6	6	0	1	161	26	6	3	6	203	228.3
13:45	1	1	38	7	0	0	0	47	49.1	0	0	2	1	0	0	0	3	3.5	0	0	157	20	6	0	2	185	200
H/TOT	1	2	109	16	0	0	0	128	134	0	0	14	2	0	0	0	16	17	1	1	627	80	25	6	14	754	826.9
14:00	0	0	19	1	0	0	0	20	20.5	0	0	4	0	0	0	0	4	4	0	0	183	22	2	1	1	209	223.3
14:15	0	0	20	2	0	0	0	22	23	0	0	2	0	0	0	0	2	2	0	0	160	20	5	3	3	191	210.4
14:30	2	1	26	0	2	0	0	31	29.8	0	0	3	0	0	0	0	3	3	0	0	168	16	3	0	4	191	204.5
14:45	0	1	34	2	0	0	0	37	37.4	0	0	2	0	0	0	0	2	2	0	0	170	16	5	2	4	197	214.1
H/TOT	2	2	99	5	2	0	0	110	110.7	0	0	11	0	0	0	0	11	11	0	0	681	74	15	6	12	788	852.3
15:00	0	0	23	2	2	0	0	27	29	0	0	5	0	0	0	0	5	5	0	1	207	32	9	2	3	254	279.5
15:15	0	0	24	4	0	0	0	28	30	0	0	2	0	0	0	0	2	2	0	1	198	14	6	2	1	222	235
15:30	0	0	29	1	1	0	0	31	32	0	0	2	0	0	0	0	2	2	0	0	193	23	5	2	2	225	243.6
15:45	0	0	21	2	0	0	0	23	24	0	0	5	0	1	0	0	6	6.5	0	1	245	36	5	1	5	293	319.2
H/TOT	0	0	97	9	3	0	0	109	115	0	0	14	0	1	0	0	15	15.5	0	3	843	105	25	7	11	994	1077
16:00	0	1	19	3	0	0	0	23	23.9	0	0	7	0	0	0	0	7	7	0	2	246	20	1	2	4	275	290.9
16:15	0	0	29	2	1	0	0	32	33.5	0	0	1	0	0	0	0	1	1	0	1	307	35	7	3	3	356	383.3
16:30	0	0	15	5	0	1	0	21	24.8	0	0	4	0	0	0	0	4	4	0	0	283	49	3	3	1	339	369.9
16:45	0	0	16	3	0	0	0	19	20.5	0	0	3	0	0	0	0	3	3	0	0	284	41	7	1	5	338	368.3
H/TOT	0	1	79	13	1	1	0	95	102.7	0	0	15	0	0	0	0	15	15	0	3	1120	145	18	9	13	1308	1412
17:00	0	0	13	1	0	1	0	15	16.8	0	0	1	0	0	0	0	1	1	2	2	343	36	1	0	1	385	401.7
17:15	0	0	14	3	0	0	0	17	18.5	0	0	2	0	0	0	0	2	2	0	2	359	29	2	1	4	397	416.6
17:30	1	0	22	0	0	0	0	23	22.2	0	0	2	1	0	0	0	3	3.5	1	3	327	27	1	2	6	367	387
17:45	0	0	17	1	0	0	0	18	18.5	0	0	3	1	0	0	0	4	4.5	2	1	326	19	2	1	3	354	366.6
H/TOT	1	0	66	5	0	1	0	73	76	0	0	8	2	0	0	0	10	11	5	8	1355	111	6	4	14	1503	1572
18:00	0	1	15	1	0	0	0	17	16.9	0	0	3	0	0	0	0	3	3	1	0	260	10	1	1	2	275	283
18:15	0	1	16	1	0	0	0	18	17.9	0	0	6	0	0	0	0	6	6	1	1	253	19	4	1	5	284	300.4
18:30	0	0	15	1	0	0	0	16	16.5	0	0	2	0	0	0	0	2	2	0	3	162	12	1	1	2	181	189
18:45	0	0	20	3	0	0	0	23	24.5	0	0	2	1	0	0	0	3	3.5	0	0	203	12	0	1	6	222	235.3
H/TOT	0	2	66	6	0	0	0	74	75.8	0	0	13	1	0	0	0	14	14.5	2	4	878	53	6	4	15	962	1008
12 TOT	16	8	956	110	14	9	0	1113	1169	0	1	130	11	1	0	0	143	148.4	19	37	8602	1014	209	82	160	10123	10964

TIME	C => A									C => B									C => C								
	P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	PCU
07:00	0	0	66	22	1	10	0	99	123.5	0	0	218	24	5	1	4	252	271.8	0	0	0	0	0	0	0	0	0
07:15	0	1	74	25	6	8	0	114	139.3	0	0	209	46	8	4	3	270	305.2	0	0	0	0	0	0	0	0	0
07:30	0	0	122	18	1	9	1	151	173.2	0	0	241	40	8	2	3	294	323.6	0	0	0	0	0	0	0	0	0
07:45	0	1	132	6	1	3	0	143	149.8	1	4	337	50	7	2	4	405	436.9	0	0	0	0	0	0	0	0	0
H/TOT	0	2	394	71	9	30	1	507	585.8	1	4	1005	160	28	9	14	1221	1338	0	0	0	0	0	0	0	0	0
08:00	1	1	157	9	4	1	0	173	179.4	0	3	325	35	4	1	3	371	393	0	0	1	0	0	0	0	1	1
08:15	1	0	158	14	2	7	0	182	198.3	0	1	325	21	10	0	5	362	381.9	0	0	0	0	0	0	0	0	0
08:30	0	1	187	13	3	7	0	211	227.5	0	2	283	22	2	1	3	313	328.1	0	0	0	0	0	0	0	0	0
08:45	0	1	204	7	4	7	0	223	237	0	2	266	24	3	1	3	299	315.6	0	0	0	0	0	0	0	0	0
H/TOT	2	3	706	43	13	22	0	789	842.2	0	8	1199	102	19	3	14	1345	1419	0	0	1	0	0	0	0	1	1
09:00	0	0	126	13	0	4	0	143	154.7	0	0	253	18	6	4	4	285	306.2	0	0	0	0	0	0	0	0	0
09:15	1	1	119	14	8	8	1	152	173	0	1	226	23	1	3	3	257	275.3	0	0	0	0	0	0	0	0	0
09:30	2	1	92	10	1	9	0	115	130	1	1	244	27	7	3	1	284	304.5	0	0	0	0	0	0	0	0	0
09:45	0	0	84	16	3	9	0	112	133.2	0	1	191	32	7	2	4	237	262.5	0	0	0	0	0	0	0	0	0
H/TOT	3	2	421	53	12	30	1	522	590.9	1	3	914	100	21	12	12	1063	1149	0	0	0	0	0	0	0	0	0
10:00	1	0	65	2	2	4	0	74	80.4	0	0	147	19	6	1	3	176	192.8	0	0	0	0	0	0	0	0	0
10:15	0	0	80	8	2	6	0	96	108.8	0	0	142	22	3	1	3	171	187.8	0	0	0	0	0	0	0	0	0
10:30	0	0	53	11	5	7	0	76	93.1	0	1	123	18	5	2	3	152	168.5	0	0	0	0	0	0	0	0	0
10:45	0	0	70	5	1	5	0	81	90.5	1	0	125	28	8	2	3	167	189.8	0	0	0	0	0	0	0	0	0
H/TOT	1	0	268	26	10	22	0	327	372.8	1	1	537	87	22	6	12	666	738.9	0	0	0	0	0	0	0	0	0
11:00	0	0	61	8	2	11	0	82	101.3	0	0	117	19	4	0	4	144	159.5	0	0	0	0	0	0	0	0	0
11:15	1	0	68	5	0	7	0	81	91.8	1	0	123	17	7	4	2	154	172.4	0	0	0	0	0	0	0	0	0
11:30	0	0	43	11	4	5	0	63	77	0	0	131	16	8	3	2	160	177.9	0	0	0	0	0	0	0	0	0
11:45	0	0	67	12	5	10	0	94	115.5	3	1	137	27	8	2	3	181	201.1	0	0	0	0	0	0	0	0	0
H/TOT	1	0	239	36	11	33	0	320	385.6	4	1	508	79	27	9	11	639	710.9	0	0	0	0	0	0	0	0	0
12:00	1	0	76	9	2	6	0	94	106.5	0	1	138	15	5	7	4	170	192.5	0	0	0	0	0	0	0	0	0
12:15	0	0	68	5	1	6	0	80	90.8	0	0	138	20	2	4	3	167	186.2	0	0	1	0	0	0	0	1	1
12:30	0	0	56	5	2	6	0	69	80.3	0	0	151	21	9	2	2	185	204.6	0	0	1	0	0	0	0	1	1
12:45	0	0	73	13	2	6	0	94	109.3	0	0	132	27	5	1	2	167	186.3	0	0	0	0	0	0	0	0	0
H/TOT	1	0	273	32	7	24	0	337	386.9	0	1	559	83	21	14	11	689	769.6	0	0	2	0	0	0	0	2	2
13:00	0	0	87	5	4	5	0	101	112	0	0	126	21	3	2	2	154	170.6	0	0	0	0	0	0	0	0	0
13:15	0	1	81	13	1	5	0	101	113.9	0	1	147	18	1	2	3	172	186.5	0	0	0	0	0	0	0	0	0
13:30	0	0	77	6	4	7	1	95	110.1	0	0	154	15	2	2	4	177	192.1	0	0	0	0	0	0	0	0	0
13:45	0	0	72	12	5	7	0	96	113.6	0	1	134	19	6	2	1	163	178.5	0	0	0	0	0	0	0	0	0
H/TOT	0	1	317	36	14	24	1	393	449.6	0	2	561	73	12	8	10	666	727.7	0	0	0	0	0	0	0	0	0
14:00	0	0	55	4	2	7	0	68	80.1	1	1	149	22	2	0	3	178	191.6	0	0	0	0	0	0	0	0	0
14:15	1	0	67	10	2	2	0	82	89.8	1	1	146	19	7	2	5	181	200.2	0	0	0	0	0	0	0	0	0
14:30	0	0	64	4	4	5	1	78	89.5	0	0	123	14	2	0	4	143	155	0	0	0	0	0	0	0	0	0
14:45	0	0	55	7	1	5	0	68	78.5	0	1	157	18	5	2	4	187	204.5	0	0	1	0	0	0	0	1	1
H/TOT	1	0	241	25	9	19	1	296	337.9	2	3	575	73	16	4	16	689	751.3	0	0	1	0	0	0	0	1	1
15:00	0	0	67	11	4	5	0	87	101	0	0	172	26	4	3	6	211	235.9	0	0	0	0	0	0	0	0	0
15:15	0	0	77	10	1	3	0	91	100.4	0	1	137	15	2	0	1	156	164.9	0	0	0	0	0	0	0	0	0
15:30	1	0	56	6	3	5	0	71	81.2	0	0	142	15	3	3	7	170	189.9	0	0	0	0	0	0	0	0	0
15:45	0	0	68	11	5	3	0	87	98.9	0	2	163	18	2	4	7	196	217	0	0	0	0	0	0	0	0	0
H/TOT	1	0	268	38	13	16	0	336	381.5	0	3	614	74	11	10	21	733	807.7	0	0	0	0	0	0	0	0	0
16:00	0	0	71	11	0	2	0	84	92.1	0	0	151	21	3	0	5	180	197	0	0	0	0	0	0	0	0	0
16:15	0	0	75	6	5	5	0	91	103	1	2	188	33	4	0	4	232	252.5	0	0	0	0	0	0	0	0	0
16:30	1	1	85	6	3	3	0	99	106	0	1	187	18	0	0	5	211	224.4	0	0	0	0	0	0	0	0	0
16:45	0	1	83	12	1	7	0	104	119	1	0	170	20	1	1	2	195	208	0	0	0	0	0	0	0	0	0
H/TOT	1	2	314	35	9	17	0	378	420.1	2	3	696	92	8	1	16	818	881.9	0	0	0	0	0	0	0	0	0
17:00	1	1	93	4	1	2	0	102	105.7	0	2	167	27	4	1	5	206	226.6	0	0	0	0	0	0	0	0	0
17:15	4	1	86	5	6	4	0	106	112.9	1	2	191	18	7	1	2	222	235.8	0	0	0	0	0	0	0	0	0
17:30	2	2	90	8	1	2	0	105	109.3	0	4	182	17	2	0	6	211	224.1	0	0	0	0	0	0	0	0	0
17:45	1	0	90	12	3	5	0	111	124.2	1	2	199	14	3	1	3	223	233.8	0	0	0	0	0	0	0	0	0
H/TOT	8	4	359	29	11	13	0	424	452.1	2	10	739	76	16	3	16	862	920.3	0	0	0	0	0	0	0	0	0
18:00	1	0	73	9	3	6	0	92	105	0	0	153	13	2	0	4	172	183.5	0	0	2	0	0	0	0	2	2
18:15	0	1	62	5	1	4	0	73	80.6	0	1	175	10	2	0	2	190	197.4	0	0	0	0	0	0	0	0	0
18:30	1	2	63	1	2	3	0	72	75.4	3	1	163	8	3	1	3	182	188.8	0	0	0	0	0	0	0	0	0
18:45	0	0	55	1	1	1	0	58	60.3	0	0	155	13	2	0	6	176	189.5	0	0	0	0	0	0	0	0	0
H/TOT	2	3	253	16	7	14	0	295	321.3	3	2	646	44	9	1	15	720	759.2	0	0	2	0	0	0	0	2	2
12 TOT	21	17	4053	440	125	264	4	4924	5527	16	41	8553	1043	210	80	168	10111	10972	0	0	6	0	0	0	0	6	6



IDASO

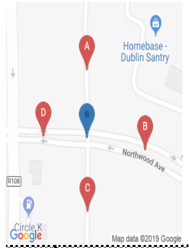
Survey Name: 029 19025 Northwood
Site: 3
Location: Northwood Ave
Date: 12-Feb-2019

TIME	A1	A2	B1	B2	C1	D1	D2	D3		TIME	A1	A2	B1	B2	C1	D1	D2	D3
07:00	0	10	40	60	5	50	30	10		**13:00**	0	15	40	40	5	60#	50	10
07:15	0	25	75	75	5	40	40	10		**13:15**	0	20	30	55	10	50	50	10
07:30	10	15	60	75	10	60#	60#	10		**13:30**	10	25	35	75	5	40	50	20
07:45	15	15	20	30	5	60#	60#	5		**13:45**	5	25	40	75	10	60#	60#	15
08:00	15	20	30	50	5	40	60#	5		**14:00**	10	30	40	60	10	60#	50	15
08:15	10	30	70	70	10	60#	60#	5		**14:15**	0	20	70	40	5	50	40	20
08:30	10	20	20	20	15	60#	60#	5		**14:30**	0	20	70	30	10	60#	60#	5
08:45	0	25	20	20	15	60#	60#	10		**14:45**	0	20	30	70	15	50	50	5
09:00	0	30	20	70	10	60#	60#	10		**15:00**	5	25	30	40	5	30	50	5
09:15	0	30	15	25	10	60#	60#	5		**15:15**	0	45	30	50	10	30	50	10
09:30	0	15	15	35	10	60#	60#	5		**15:30**	0	15	20	60	25	60#	50	5
09:45	5	20	20	40	10	60#	60#	5		**15:45**	0	25	60	95	10	40	50	10
10:00	5	20	15	30	5	50	60#	10		**16:00**	0	30	40	120#	25	30	40	5
10:15	0	35	10	40	5	50	40	5		**16:15**	10	15	25	120#	10	30	60#	5
10:30	0	15	30	55	15	25	35	0		**16:30**	5	15	30	70	5	40	30	10
10:45	0	10	25	45	5	50	40	5		**16:45**	5	10	40	120#	15	50	40	10
11:00	20	20	20	60	5	60#	60#	10		**17:00**	5	45	50	120#	5	40	50	10
11:15	0	35	30	70	15	60#	40	10		**17:15**	10	15	70	120#	15	60#	60#	10
11:30	10	15	20	40	10	40	35	10		**17:30**	0	25	40	120#	10	60#	60#	10
11:45	0	20	30	20	5	30	50	5		**17:45**	0	20	50	120#	15	40	60#	5
12:00	0	20	20	30	5	40	50	5		**18:00**	0	30	40	120#	10	30	60#	5
12:15	0	20	40	60	15	50	60#	5		**18:15**	0	20	30	70	5	10	30	5
12:30	5	25	30	50	10	50	40	10		**18:30**	0	15	30	60	5	50	40	5
12:45	0	15	25	40	10	60#	60#	5		**18:45**	0	25	20	35	10	20	40	5

Queue's are measured in meters

	Cannot be seen from camera
+	Signifies queue stretches to a minimum length of x and beyond the view of the camera
#	Signifies queue stretches to the next significant junction
*	Indicates an estimated queue length due to obscured vision.

Queue lengths are compiled from CCTV observations and are therefore subject to the limitations of the camera view.



IDASO

Survey Name: 029 19025 Northwood
Site: 3
Location: Northwood Ave
Date: 12-Feb-2019

	A => A									A => B								
TIME	P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	PCU
07:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:15	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1
07:30	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	1.5
07:45	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	1	1	0	0	0	2	2.5
08:00	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1
08:15	0	0	0	0	0	0	0	0	0	0	0	2	0	0	1	0	3	4.3
08:30	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	3	3
08:45	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	6	0	0	1	0	7	8.3
09:00	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	1.5
09:15	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	2	3.3
09:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
09:45	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1
H/TOT	0	0	0	0	0	0	0	0	0	0	0	2	1	0	1	0	4	5.8
10:00	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	3	3
10:15	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	2	2
10:30	0	0	0	0	0	0	0	0	0	0	0	0	1	2	0	0	3	4.5
10:45	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1
H/TOT	0	0	0	0	0	0	0	0	0	0	0	6	1	2	0	0	9	10.5
11:00	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	3	4.5
11:15	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1
11:30	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	1.5
11:45	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1.5
H/TOT	0	0	0	0	0	0	0	0	0	0	0	1	1	4	0	0	6	8.5
12:00	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	2	2.5
12:15	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	3	3
12:30	0	0	0	0	0	0	0	0	0	0	0	3	1	0	0	0	4	4.5
12:45	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	3	3
H/TOT	0	0	0	0	0	0	0	0	0	0	0	10	1	1	0	0	12	13
13:00	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	3	3
13:15	0	0	0	0	0	0	0	0	0	0	0	1	1	1	0	0	3	4
13:30	0	0	0	0	0	0	0	0	0	0	0	3	1	0	0	0	4	4.5
13:45	0	0	0	0	0	0	0	0	0	0	0	2	1	0	0	0	3	3.5
H/TOT	0	0	0	0	0	0	0	0	0	0	0	9	3	1	0	0	13	15
14:00	0	0	0	0	0	0	0	0	0	0	0	9	0	2	0	0	11	12
14:15	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1
14:30	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	2	3
14:45	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	3	3
H/TOT	0	0	0	0	0	0	0	0	0	0	0	13	1	3	0	0	17	19
15:00	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	3	3
15:15	0	0	0	0	0	0	0	0	0	0	0	1	1	1	0	0	3	4
15:30	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	2	2
15:45	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	2	3.3
H/TOT	0	0	0	0	0	0	0	0	0	0	0	7	1	1	1	0	10	12.3
16:00	0	0	0	0	0	0	0	0	0	0	0	2	1	0	0	0	3	3.5
16:15	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1
16:30	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	2	2
16:45	0	0	0	0	0	0	0	0	0	0	0	3	0	1	0	0	4	4.5
H/TOT	0	0	0	0	0	0	0	0	0	0	0	8	1	1	0	0	10	11
17:00	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	3	3
17:15	0	0	0	0	0	0	0	0	0	0	0	6	1	0	0	0	7	7.5
17:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17:45	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	2	2
H/TOT	0	0	0	0	0	0	0	0	0	0	0	11	1	0	0	0	12	12.5
18:00	0	0	0	0	0	0	0	0	0	0	0	3	0	0	1	0	4	5.3
18:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18:30	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	1.5
18:45	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	2	2.5
H/TOT	0	0	0	0	0	0	0	0	0	0	0	4	2	0	1	0	7	9.3
12 TOT	0	0	0	0	0	0	0	0	0	0	0	78	14	13	4	0	109	127.7

	A => C									A => D								
TIME	P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	PCU
07:00	0	0	0	0	0	0	0	0	0	0	0	4	0	3	2	0	9	13.1
07:15	0	0	0	0	0	0	0	0	0	1	0	1	0	2	3	0	7	11.1
07:30	0	0	0	0	0	0	0	0	0	0	0	2	0	3	6	0	11	20.3
07:45	0	0	0	0	0	0	0	0	0	0	0	1	0	1	4	0	6	11.7
H/TOT	0	0	0	0	0	0	0	0	0	1	0	8	0	9	15	0	33	56.2
08:00	0	0	0	0	0	0	0	0	0	0	0	1	2	1	4	0	8	14.7
08:15	0	0	0	0	0	0	0	0	0	0	0	2	1	4	5	0	12	21
08:30	0	0	0	0	0	0	0	0	0	0	0	0	0	6	4	0	10	18.2
08:45	0	0	1	0	0	0	0	1	1	0	0	2	0	4	4	0	10	17.2
H/TOT	0	0	1	0	0	0	0	1	1	0	0	5	3	15	17	0	40	71.1
09:00	0	0	0	1	0	0	0	1	1.5	0	0	2	0	4	5	0	11	19.5
09:15	0	0	0	0	0	0	0	0	0	0	0	2	1	5	2	0	10	15.6
09:30	1	0	0	0	0	0	0	1	0.2	0	0	3	2	4	3	0	12	18.9
09:45	0	0	0	0	0	0	0	0	0	0	0	4	1	7	3	0	15	22.9
H/TOT	1	0	0	1	0	0	0	2	1.7	0	0	11	4	20	13	0	48	76.9
10:00	0	0	0	0	0	0	0	0	0	0	0	2	1	2	8	0	13	24.9
10:15	0	0	0	0	0	0	0	0	0	0	0	1	1	2	6	0	10	19.3
10:30	0	0	0	0	0	0	0	0	0	0	0	1	1	5	1	0	8	12.3
10:45	0	0	0	0	0	0	0	0	0	0	0	3	0	1	1	0	5	6.8
H/TOT	0	0	0	0	0	0	0	0	0	0	0	7	3	10	16	0	36	63.3
11:00	0	0	0	0	0	0	0	0	0	1	0	3	1	3	2	0	10	13.8
11:15	0	0	0	0	0	0	0	0	0	0	0	2	2	2	2	0	8	12.6
11:30	1	0	0	0	0	0	0	1	0.2	2	0	3	0	2	2	0	9	11
11:45	0	0	0	0	0	0	0	0	0	0	0	3	2	3	5	0	13	22
H/TOT	1	0	0	0	0	0	0	1	0.2	3	0	11	5	10	11	0	40	59.4
12:00	0	0	0	0	0	0	0	0	0	0	0	5	2	2	2	0	11	15.6
12:15	0	0	0	0	0	0	0	0	0	1	0	5	0	2	3	0	11	15.1
12:30	0	0	0	0	0	0	0	0	0	0	0	5	2	5	1	0	13	17.8
12:45	0	0	0	0	0	0	0	0	0	2	0	8	0	1	3	0	14	16.8
H/TOT	0	0	0	0	0	0	0	0	0	3	0	23	4	10	9	0	49	65.3
13:00	0	0	0	0	1	0	0	1	1.5	0	0	6	1	3	2	0	12	16.6
13:15	0	0	0	0	0	0	0	0	0	1	0	6	1	4	4	0	16	22.9
13:30	0	0	0	0	0	0	0	0	0	2	0	7	1	2	5	0	17	23.4
13:45	0	0	0	0	0	0	0	0	0	0	0	10	1	0	1	0	12	13.8
H/TOT	0	0	0	0	1	0	0	1	1.5	3	0	29	4	9	12	0	57	76.7
14:00	1	0	0	0	0	0	0	1	0.2	0	0	16	1	1	3	0	21	25.9
14:15	0	0	0	0	0	0	0	0	0	0	0	5	0	3	4	0	12	18.7
14:30	0	0	0	0	0	0	0	0	0	0	0	9	2	2	5	0	18	26.5
14:45	0	0	0	0	0	0	0	0	0	0	0	3	2	2	4	0	11	18.2
H/TOT	1	0	0	0	0	0	0	1	0.2	0	0	33	5	8	16	0	62	89.3
15:00	0	0	0	0	0	0	0	0	0	2	0	5	2	3	2	0	14	17.5
15:15	0	0	0	0	0	0	0	0	0	2	0	9	2	0	5	0	18	23.9
15:30	0	0	0	0	0	0	0	0	0	0	0	5	2	0	3	0	10	14.9
15:45	0	0	0	0	0	0	0	0	0	0	0	3	5	1	1	0	10	14.3
H/TOT	0	0	0	0	0	0	0	0	0	4	0	22	11	4	11	0	52	70.6
16:00	0	0	0	0	0	0	0	0	0	2	0	9	7	2	1	0	21	25.2
16:15	0	0	0	0	0	0	0	0	0	0	0	7	1	1	3	0	12	16.9
16:30	0	0	0	0	0	0	0	0	0	0	0	8	0	0	2	0	10	12.6
16:45	0	0	0	0	0	0	0	0	0	0	0	4	0	0	3	0	7	10.9
H/TOT	0	0	0	0	0	0	0	0	0	2	0	28	8	3	9	0	50	65.6
17:00	0	0	0	0	0	0	0	0	0	0	0	2	1	1	6	0	10	18.8
17:15	0	0	0	0	0	0	0	0	0	0	0	2	0	0	5	0	7	13.5
17:30	0	0	0	0	0	0	0	0	0	0	0	4	1	1	3	0	9	13.9
17:45	0	0	0	0	0	0	0	0	0	1	0	1	1	1	5	0	9	15.7
H/TOT	0	0	0	0	0	0	0	0	0	1	0	9	3	3	19	0	35	61.9
18:00	0	0	0	0	0	0	0	0	0	0	0	4	1	2	5	0	12	20
18:15	0	0	0	0	0	0	0	0	0	0	0	6	1	2	1	0	10	12.8
18:30	0	0	0	0	0	0	0	0	0	0	0	2	0	0	4	0	6	11.2
18:45	0	0	0	0	0	0	0	0	0	1	0	9	1	0	3	0	14	17.6
H/TOT	0	0	0	0	0	0	0	0	0	1	0	21	3	4	13	0	42	61.6
12 TOT	3	0	1	1	1	0	0	6	4.6	18	0	207	53	105	161	0	544	817.9

	B => A									B => B								
TIME	P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	PCU
07:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:15	0	0	1	1	0	0	0	2	2.5	0	0	0	0	0	0	0	0	0
07:30	0	0	1	0	0	0	0	1	1	0	0	0	1	0	0	0	1	1.5
07:45	0	0	4	1	0	0	0	5	5.5	0	0	0	0	0	0	0	0	0
H/TOT	0	0	6	2	0	0	0	8	9	0	0	0	1	0	0	0	1	1.5
08:00	0	0	2	0	0	0	0	2	2	0	0	0	0	0	0	0	0	0
08:15	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	1.5
08:30	0	0	0	2	1	0	0	3	4.5	0	0	0	1	0	0	0	1	1.5
08:45	0	0	3	2	0	0	0	5	6	0	0	0	0	0	0	0	0	0
H/TOT	0	0	5	4	1	0	0	10	12.5	0	0	0	2	0	0	0	2	3
09:00	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	1.5
09:15	0	0	2	0	0	0	0	2	2	0	0	0	1	0	0	0	1	1.5
09:30	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	1.5
09:45	0	0	2	0	0	0	0	2	2	0	0	0	1	0	0	0	1	1.5
H/TOT	0	0	4	0	0	0	0	4	4	0	0	0	4	0	0	0	4	6
10:00	0	0	2	1	0	0	0	3	3.5	0	0	0	0	0	0	0	0	0
10:15	0	0	1	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0
10:30	0	0	0	0	1	0	0	1	1.5	0	0	0	0	0	0	0	0	0
10:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
H/TOT	0	0	3	1	1	0	0	5	6	0	0	0	0	0	0	0	0	0
11:00	0	0	1	1	0	0	0	2	2.5	0	0	1	1	0	0	0	2	2.5
11:15	0	0	2	0	0	0	0	2	2	0	0	0	1	0	0	0	1	1.5
11:30	0	0	2	0	0	0	0	2	2	0	0	0	0	0	0	0	0	0
11:45	0	0	1	0	0	0	0	1	1	0	0	0	1	0	0	0	1	1.5
H/TOT	0	0	6	1	0	0	0	7	7.5	0	0	1	3	0	0	0	4	5.5
12:00	0	0	2	1	0	0	0	3	3.5	0	0	0	0	0	0	0	0	0
12:15	0	0	2	0	0	0	0	2	2	0	0	0	1	0	0	0	1	1.5
12:30	0	0	2	0	0	0	0	2	2	0	0	0	1	0	0	0	1	1.5
12:45	0	0	2	0	0	0	0	2	2	0	0	0	0	0	0	0	0	0
H/TOT	0	0	8	1	0	0	0	9	9.5	0	0	0	2	0	0	0	2	3
13:00	0	0	2	1	2	0	0	5	6.5	0	0	0	1	0	0	0	1	1.5
13:15	0	0	3	0	0	0	0	3	3	0	0	0	0	0	0	0	0	0
13:30	0	1	2	2	0	0	0	5	5.4	0	0	0	0	0	0	0	0	0
13:45	0	0	1	0	3	1	0	5	7.8	0	0	0	0	0	0	0	0	0
H/TOT	0	1	8	3	5	1	0	18	22.7	0	0	0	1	0	0	0	1	1.5
14:00	0	0	2	0	1	0	0	3	3.5	0	0	0	1	0	0	0	1	1.5
14:15	0	0	1	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0
14:30	0	0	1	0	0	0	0	1	1	0	0	0	1	0	0	0	1	1.5
14:45	0	0	1	0	0	0	0	1	1	0	0	0	1	0	0	0	1	1.5
H/TOT	0	0	5	0	1	0	0	6	6.5	0	0	0	3	0	0	0	3	4.5
15:00	0	0	1	0	1	0	0	2	2.5	0	0	1	0	0	0	0	1	1
15:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15:30	0	0	1	0	0	0	0	1	1	0	0	1	0	0	0	0	1	1
15:45	0	0	0	1	0	0	0	1	1.5	0	0	0	0	0	0	0	0	0
H/TOT	0	0	2	1	1	0	0	4	5	0	0	2	0	0	0	0	2	2
16:00	0	0	1	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0
16:15	0	0	2	0	1	0	0	3	3.5	0	0	0	0	0	0	0	0	0
16:30	0	0	0	1	0	0	0	1	1.5	0	0	0	0	0	0	0	0	0
16:45	0	0	1	1	0	0	0	2	2.5	0	0	0	0	0	0	0	0	0
H/TOT	0	0	4	2	1	0	0	7	8.5	0	0	0	0	0	0	0	0	0
17:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17:15	0	0	1	1	0	0	0	2	2.5	0	0	0	0	0	0	0	0	0
17:30	0	0	2	0	0	0	0	2	2	0	0	0	0	0	0	0	0	0
17:45	0	0	1	0	1	0	0	2	2.5	0	0	0	0	0	0	0	0	0
H/TOT	0	0	4	1	1	0	0	6	7	0	0	0	0	0	0	0	0	0
18:00	0	0	1	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0
18:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18:45	0	0	2	1	0	0	0	3	3.5	0	0	1	0	0	0	0	1	1
H/TOT	0	0	3	1	0	0	0	4	4.5	0	0	1	0	0	0	0	1	1
12 TOT	0	1	58	17	11	1	0	88	102.7	0	0	4	16	0	0	0	20	28

	B => C									B => D								
TIME	P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	PCU
07:00	0	0	0	2	0	0	0	2	3	1	0	41	11	0	0	0	53	57.7
07:15	2	0	0	0	0	0	0	2	0.4	1	0	46	7	0	1	0	55	59
07:30	0	0	1	0	0	0	0	1	1	0	0	57	15	5	4	0	81	96.2
07:45	1	0	1	0	0	0	0	2	1.2	1	2	67	8	0	0	1	79	82
H/TOT	3	0	2	2	0	0	0	7	5.6	3	2	211	41	5	5	1	268	294.9
08:00	0	0	3	0	0	0	0	3	3	2	1	78	13	1	0	0	95	99.8
08:15	1	0	1	0	0	0	0	2	1.2	2	0	66	10	0	0	0	78	81.4
08:30	2	0	0	0	0	0	0	2	0.4	0	2	70	6	1	0	0	79	81.3
08:45	0	0	2	0	0	0	0	2	2	1	0	68	5	0	0	0	74	75.7
H/TOT	3	0	6	0	0	0	0	9	6.6	5	3	282	34	2	0	0	326	338.2
09:00	0	0	3	1	0	0	0	4	4.5	0	0	63	19	2	0	0	84	94.5
09:15	0	0	1	1	1	0	0	3	4	1	0	62	10	2	0	1	76	82.2
09:30	1	0	1	1	0	0	0	3	2.7	1	1	76	8	0	1	0	87	90.9
09:45	0	0	0	0	0	0	0	0	0	0	1	54	12	0	3	0	70	79.3
H/TOT	1	0	5	3	1	0	0	10	11.2	2	2	255	49	4	4	1	317	346.9
10:00	1	0	2	1	0	0	0	4	3.7	1	0	60	6	1	0	0	68	70.7
10:15	0	0	2	0	0	0	0	2	2	0	0	68	9	2	0	0	79	84.5
10:30	0	0	2	1	0	0	0	3	3.5	1	0	61	5	2	1	0	70	74
10:45	0	0	2	1	0	0	0	3	3.5	0	0	72	14	0	0	0	86	93
H/TOT	1	0	8	3	0	0	0	12	12.7	2	0	261	34	5	1	0	303	322.2
11:00	0	0	0	1	0	0	0	1	1.5	0	0	76	7	1	0	0	84	88
11:15	0	0	1	1	1	0	0	3	4	0	0	71	12	3	2	0	88	98.1
11:30	0	0	1	1	0	0	0	2	2.5	3	0	58	9	0	0	0	70	72.1
11:45	0	0	3	1	0	0	0	4	4.5	0	0	66	11	0	0	0	77	82.5
H/TOT	0	0	5	4	1	0	0	10	12.5	3	0	271	39	4	2	0	319	340.7
12:00	0	0	0	0	0	0	0	0	0	0	0	72	7	3	0	0	82	87
12:15	0	0	1	1	0	0	0	2	2.5	1	0	82	9	2	1	0	95	101
12:30	0	0	2	0	0	0	0	2	2	1	0	83	9	1	0	0	94	98.2
12:45	0	0	4	0	0	0	0	4	4	1	1	90	8	1	0	0	101	104.1
H/TOT	0	0	7	1	0	0	0	8	8.5	3	1	327	33	7	1	0	372	390.3
13:00	1	0	1	1	0	0	0	3	2.7	0	0	118	9	1	0	1	129	135
13:15	0	0	1	0	0	0	0	1	1	0	0	113	5	2	2	0	122	128.1
13:30	0	0	2	1	0	0	0	3	3.5	0	1	106	11	1	0	1	120	126.4
13:45	0	0	2	0	0	0	0	2	2	0	1	108	12	2	1	0	124	131.7
H/TOT	1	0	6	2	0	0	0	9	9.2	0	2	445	37	6	3	2	495	521.2
14:00	0	0	2	1	0	0	0	3	3.5	0	0	92	10	2	0	0	104	110
14:15	1	0	2	0	0	0	0	3	2.2	0	0	83	14	0	0	0	97	104
14:30	1	0	4	0	0	0	0	5	4.2	1	0	99	12	1	0	0	113	118.7
14:45	0	0	2	0	0	0	0	2	2	0	0	101	14	3	0	0	118	126.5
H/TOT	2	0	10	1	0	0	0	13	11.9	1	0	375	50	6	0	0	432	459.2
15:00	0	0	2	0	0	0	0	2	2	1	0	109	7	2	1	0	120	125
15:15	0	0	0	2	0	0	0	2	3	0	0	110	7	2	1	0	120	125.8
15:30	0	0	1	1	1	0	0	3	4	1	0	100	14	1	0	0	116	122.7
15:45	1	0	4	0	1	0	0	6	5.7	3	0	98	13	0	1	0	115	120.4
H/TOT	1	0	7	3	2	0	0	13	14.7	5	0	417	41	5	3	0	471	493.9
16:00	1	0	2	0	0	0	0	3	2.2	1	0	114	20	1	0	0	136	145.7
16:15	0	0	4	0	0	0	0	4	4	1	0	116	13	0	0	0	130	135.7
16:30	1	0	4	0	1	0	0	6	5.7	0	0	122	9	2	0	0	133	138.5
16:45	0	0	2	1	0	0	0	3	3.5	0	1	127	10	1	0	0	139	143.9
H/TOT	2	0	12	1	1	0	0	16	15.4	2	1	479	52	4	0	0	538	563.8
17:00	1	0	2	1	0	0	0	4	3.7	2	1	152	12	1	0	0	168	172.3
17:15	2	0	3	1	0	0	0	6	4.9	2	1	145	12	1	1	0	162	167.6
17:30	1	0	1	0	0	0	0	2	1.2	1	0	159	6	1	0	0	167	169.7
17:45	1	0	4	0	0	0	0	5	4.2	2	2	126	10	0	0	0	140	142.2
H/TOT	5	0	10	2	0	0	0	17	14	7	4	582	40	3	1	0	637	651.8
18:00	0	0	4	0	0	0	0	4	4	2	0	147	3	0	0	0	152	151.9
18:15	1	0	2	0	0	0	0	3	2.2	7	1	124	10	0	0	0	142	140.8
18:30	0	0	3	0	0	0	0	3	3	2	1	95	8	0	0	0	106	107.8
18:45	0	0	3	1	0	0	0	4	4.5	0	1	86	2	0	0	0	89	89.4
H/TOT	1	0	12	1	0	0	0	14	13.7	11	3	452	23	0	0	0	489	489.9
12 TOT	20	0	90	23	5	0	0	138	136	44	18	4357	473	51	20	4	4967	5213

	C => A									C => B							
TIME	P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT
07:00	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1
07:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:30	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1
07:45	0	0	0	0	0	0	0	0	0	1	0	2	0	0	0	0	3
H/TOT	0	0	0	0	0	0	0	0	0	1	0	4	0	0	0	0	5
08:00	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	2
08:15	0	0	0	0	0	0	0	0	0	0	0	8	0	0	0	0	8
08:30	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	3
08:45	0	0	0	0	0	0	0	0	0	2	0	3	0	1	0	0	6
H/TOT	0	0	0	0	0	0	0	0	0	3	0	15	0	1	0	0	19
09:00	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	2
09:15	0	0	0	0	0	0	0	0	0	0	0	3	0	1	0	0	4
09:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
09:45	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1
H/TOT	0	0	0	0	0	0	0	0	0	2	0	4	0	1	0	0	7
10:00	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1
10:15	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	2
10:30	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1
10:45	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1
H/TOT	0	0	0	0	0	0	0	0	0	1	0	4	0	0	0	0	5
11:00	1	0	0	0	0	0	0	1	0.2	0	0	0	0	0	0	0	0
11:15	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	2
11:30	0	0	0	1	0	0	0	1	1.5	0	0	0	0	0	0	0	0
11:45	2	0	0	0	0	0	0	2	0.4	0	0	1	0	0	0	0	1
H/TOT	3	0	0	1	0	0	0	4	2.1	0	0	3	0	0	0	0	3
12:00	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	2
12:15	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	2
12:30	0	0	0	0	0	1	0	1	2.3	1	0	0	0	0	0	0	1
12:45	1	0	0	0	0	0	0	1	0.2	1	0	4	0	0	0	0	5
H/TOT	1	0	0	0	0	1	0	2	2.5	2	0	8	0	0	0	0	10
13:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13:15	2	0	0	0	0	0	0	2	0.4	0	0	1	0	1	0	0	2
13:30	1	0	0	0	0	0	0	1	0.2	0	0	2	0	0	0	0	2
13:45	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	2
H/TOT	3	0	0	0	0	0	0	3	0.6	0	0	5	0	1	0	0	6
14:00	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1
14:15	0	0	0	0	0	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	3	0	0	0	0	3
14:45	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	2
H/TOT	0	0	0	0	0	0	0	0	0	0	0	6	0	0	0	0	6
15:00	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1
15:15	0	0	0	0	0	0	0	0	0	0	0	4	0	0	0	0	4
15:30	1	0	0	0	0	0	0	1	0.2	1	0	2	0	1	0	0	4
15:45	0	0	0	0	0	0	0	0	0	2	0	0	0	1	0	0	3
H/TOT	1	0	0	0	0	0	0	1	0.2	3	0	7	0	2	0	0	12
16:00	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	2
16:15	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	2
16:30	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1
16:45	0	0	0	0	0	0	0	0	0	1	0	3	0	0	0	0	4
H/TOT	0	0	0	0	0	0	0	0	0	1	0	8	0	0	0	0	9
17:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17:15	0	0	2	0	0	0	0	2	2	0	0	1	0	0	0	0	1
17:30	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1
17:45	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1
H/TOT	0	0	2	0	0	0	0	2	2	0	0	3	0	0	0	0	3
18:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18:30	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	2
18:45	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	2
H/TOT	0	0	0	0	0	0	0	0	0	1	0	3	0	0	0	0	4
12 TOT	8	0	2	1	0	1	0	12	7.4	14	0	70	0	5	0	0	89

	C => C								C => D									D => A									D => B									D => C									D => D								
PCU	P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	PCU
1	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	2	3.3	0	0	8	5	0	6	0	19	29.3	0	0	58	16	2	2	0	78	89.6	0	0	9	3	0	2	0	14	18.1	0	0	1	0	0	0	0	1	1
0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	1	0	3	4.3	0	0	4	8	1	7	0	20	33.6	1	1	79	15	4	1	0	101	110.4	0	0	6	5	0	0	0	11	13.5	0	0	0	0	0	0	0	0	0
1	0	0	0	0	0	0	0	0	0	0	0	10	1	0	1	0	12	13.8	0	0	6	1	1	8	0	16	27.4	1	0	123	17	0	0	1	142	150.7	0	0	3	3	1	0	0	7	9	0	0	0	0	0	0	0	0	0
2.2	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1	0	0	5	0	0	4	0	9	14.2	2	1	132	7	2	0	0	144	146.3	0	0	2	1	0	0	0	3	3.5	0	0	1	0	0	0	0	1	1
4.2	0	0	0	0	0	0	0	0	0	0	0	14	1	0	3	0	18	22.4	0	0	23	14	2	25	0	64	104.5	4	2	392	55	8	3	1	465	497	0	0	20	12	1	2	0	35	44.1	0	0	2	0	0	0	0	2	2
1.2	0	0	0	0	0	0	0	0	0	0	0	5	1	0	0	0	6	6.5	0	0	7	0	1	1	0	9	10.8	1	1	170	10	1	1	0	184	189.4	0	0	3	1	0	0	1	5	6.5	0	0	0	0	0	0	0	0	0
8	0	0	0	0	0	0	0	0	0	0	0	6	0	0	0	0	6	6	0	0	3	1	2	7	0	13	23.6	3	0	162	17	2	0	0	184	191.1	0	0	3	0	0	0	0	3	3	0	0	1	1	0	0	0	2	3.5
7	0	0	0	0	0	0	0	0	0	0	0	3	2	1	0	0	6	7.5	0	0	4	1	1	7	0	13	23.1	0	1	197	11	2	1	0	212	219.2	0	0	4	0	0	0	0	4	4	0	0	0	0	0	1	0	1	1.5
4.9	0	0	0	0	0	0	0	0	0	0	0	5	0	0	0	0	5	5	0	0	4	1	2	6	0	13	22.3	1	1	223	8	1	0	0	234	237.1	0	0	9	1	2	1	0	13	15.8	0	0	0	0	0	0	0	0	0
17.1	0	0	0	0	0	0	0	0	0	0	0	19	3	1	0	0	23	25	0	0	18	3	6	21	0	48	79.8	5	3	752	46	6	2	0	814	836.8	0	0	19	2	2	1	1	25	29.3	0	0	1	1	1	0	0	3	4
6.4	0	0	0	0	0	0	0	0	0	0	0	2	2	0	1	0	5	7.3	0	0	4	0	0	5	0	9	15.5	1	0	162	16	0	0	0	179	186.2	0	0	7	2	0	0	0	9	10	0	0	0	0	0	0	0	0	0
4.5	0	0	0	0	0	0	0	0	0	0	0	4	0	0	0	0	4	4	0	0	4	1	6	4	0	15	23.7	1	1	149	18	0	2	1	172	183.2	0	0	3	0	1	0	0	4	4.5	0	0	0	0	0	0	0	0	0
6	0	0	0	0	0	0	0	0	0	0	0	2	1	1	0	0	4	5	2	0	3	2	2	9	0	18	30.1	0	1	96	6	0	1	0	104	107.7	0	0	4	1	0	0	0	5	5.5	0	0	0	0	0	0	0	0	0
1	0	0	0	0	0	0	0	0	0	0	0	3	1	1	0	0	5	6	0	0	5	2	2	10	0	19	34	1	0	111	17	3	0	0	132	141.2	0	0	7	0	0	0	0	7	7	0	0	1	0	0	0	0	1	1
5.9	0	0	0	0	0	0	0	0	0	0	0	11	4	2	1	0	18	22.3	2	0	16	5	10	28	0	61	103.3	1	2	518	57	3	3	1	587	618.1	0	0	21	3	1	0	0	25	27	0	0	1	0	0	0	0	1	1
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1.2	0	0	0	0	0	0	0	0	0	0	0	4	1	0	0	0	5	5.5	1	0	2	1	1	4	0	9	14.4	1	0	90	10	2	1	0	104	110.5	0	0	0	1	0	0	0	1	1.5	0	0	1	0	0	0	0	1	1
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8.6	0	0	0	0	0	0	0	0	0	0	0	9	4	0	0	0	13	15	3	0	7	2	6	22	0	42	72.2	3	0	315	35	6	1	0	360	379.4	0	0	4	1	0	0	0	5	7	0	0	1	0	0	0	0	1	1
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6	0	0	0	0	0	0	0	0	0	0	0	17	4	1	1	0	23	26.8	2	0	10	3	4	16	0	35	57.7	2	2	318	22	7	1	1	353	367	0	0	13	6	0	3	0	22	28.9	0	0	1	0	0	0	0	1	1
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4	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1	0	0	1	0	1	1	0	3	4.8	0	0	92	14	0	0	0	106	113	0	0	2	0	0	2	0	4	6.6	0	0	0	0	0	0	0	0	0
3.7	0	0	0	0	0	0	0	0	0	0	0	5	5	0	2	0	12	17.1	0	0	2	0	2	4	0	8	14.2	1	0	78	9	1	0	0	89	93.2	0	0	0	0	1	1	0	2	3.8	0	0	0	0	0	0	0	0	0
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2	0	0	0	0	0	0	0	0	0	0	0	4	2	0	0	0	6	7	0	0	1	0	3	6	0	10	19.3	0	0	108	6	3	0	0	117	121.5	0	0	4	0	0	0	0	4	4	0	0	0	0	0	0	0	0	0
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3.2	0	0	0	0	0	0	0	0	0	0	0	9	2	0	1	0	12	14.3	0	0	1	0	0	6	0	7	14.8	0	0	100	12	1	1	0	114	121.8	0	0	2	1	0	0	0	3	3.5	0	0	0	0	0	0	0	0	0
8.2	0	0	0	0	0	0	0	0	0	0	0	34	11	1	4	0	50	61.2	0	0	5	1	6	16	0	28	52.3	1	2	388	42	4	1	0	438	460.3	0	0	14	2	0	0	0	16	17	0	0	2	0	0	0	0	2	2
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5.3	0	0	0	0	0	0	0	0	0	0	0	23	7	0	0	0	30	33.3	2	0	11	2	12	14	0	41	64.6	12	5	414	29	0	0	0	460	461.9	0	0	10	2	0	0	0	12	13	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	2	1	0	0	0	3	3.5	0	0	2	1	1	5	0	9	16.5	0	3	68	6	0	0	0	77	78.2	0	0	3	0	0	0	0	3	3	0	0	0	0	0	0	0	0	0
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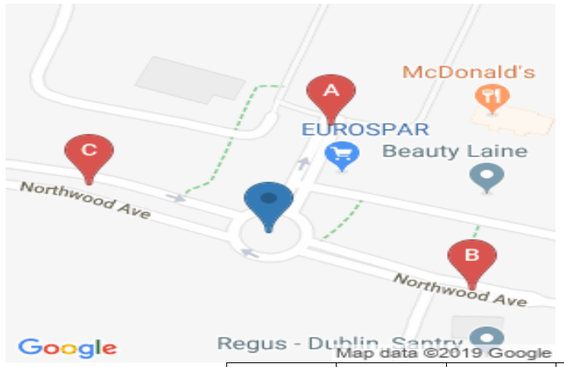
1.3	0	0	0	0	0	0	0	0	0	0	0	13	1	0	0	0	14	14.3	2	0	23	3	7	14	0	47	78.2	1	5	296	21	0	0	0	323	329.9	0	0	11	0	0	0	0	11	11	0	0	0	0	0	0	0	2	2
80.3	0	0	0	0	0	0	0	0	0	0	0	189	54	8	14	0	265	314.2	15	0	167	47	80	239	0	548	910.2	36	24	4747	463	50	18	4	5342	5581	0	0	145	64	9	14	1	233	258.7	0	0	14	2	1	0	1	17	18.5



IDASO

Survey Name: 029 19025 Northwood
Site: 4
Location: Northwood Ave
Date: 12-Feb-2019

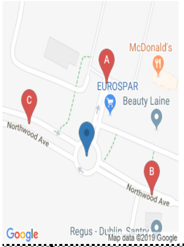
TIME	A1	B1	B2	C1	C2
07:00	5	10	0	5	0
07:15	10	5	5	20	15
07:30	5	15	10	15	25
07:45	10	10	0	10	15
08:00	10	10	10	5	25
08:15	10	5	5	15	75
08:30	20	5	10	35	95
08:45	25	5	10	30	80
09:00	15	10	10	25	70
09:15	20	10	5	35	50
09:30	15	10	10	20	15
09:45	10	10	10	25	30
10:00	15	5	5	15	20
10:15	15	5	15	10	20
10:30	10	10	10	15	20
10:45	15	10	10	10	20
11:00	30	10	10	10	15
11:15	20	5	10	5	10
11:30	20	15	5	10	15
11:45	15	10	15	15	10
12:00	20	10	5	15	20
12:15	15	10	10	20	30
12:30	15	15	10	15	10
12:45	20	15	15	20	25

TIME	A1	B1	B2	C1	C2
13:00	45	10	15	50	85
13:15	45	15	10	30	75
13:30	20	15	15	20	45
13:45	30	10	15	20	30
14:00	35	15	5	10	20
14:15	25	10	5	15	20
14:30	10	10	15	15	15
14:45	20	10	15	25	10
15:00	20	15	15	20	10
15:15	20	15	15	15	10
15:30	25	20	10	10	15
15:45	25	15	10	30	20
16:00	30	10	15	15	40
16:15	15	15	15	20	15
16:30	30	10	15	10	10
16:45	30	35	30	15	40
17:00	45	40	70	20	30
17:15	45	20	65	10	15
17:30	45	45	85	20	20
17:45	30	50	30	10	15
18:00	15	20	15	15	15
18:15	20	20	10	10	15
18:30	20	10	10	15	25
18:45	15	15	10	10	15

Queue's are measured in meters

	Cannot be seen from camera
+	Signifies queue stretches to a minimum length of x and beyond the view of the camera
#	Signifies queue stretches to the next significant junction
*	Indicates an estimated queue length due to obscured vision.

Queue lengths are compiled from CCTV observations and are therefore subject to the limitations of the camera view.



IDASO

Survey Name: 029 19025 Northwood

Site: 4

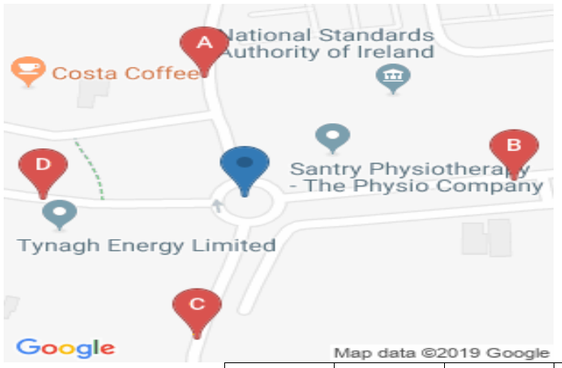
Location: Northwood Ave

Date: 12-Feb-2019

	A => A									A => B									A => C								
TIME	P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	PCU
07:00	0	0	0	0	0	0	0	0	0	0	0	3	1	1	0	0	5	6	0	0	6	6	0	0	0	12	15
07:15	0	0	0	0	0	0	0	0	0	0	0	7	2	0	0	0	9	10	0	0	13	5	0	0	0	18	20.5
07:30	0	0	0	0	0	0	0	0	0	0	0	7	0	1	0	0	8	8.5	0	0	13	4	1	0	0	18	20.5
07:45	0	0	0	0	0	0	0	0	0	0	0	15	2	0	0	0	17	18	1	0	12	4	0	0	1	18	20.2
H/TOT	0	0	0	0	0	0	0	0	0	0	0	32	5	2	0	0	39	42.5	1	0	44	19	1	0	1	66	76.2
08:00	0	0	1	0	0	0	0	1	1	0	1	9	2	1	0	0	13	13.9	0	0	10	3	1	0	0	14	16
08:15	0	0	0	0	0	0	0	0	0	0	0	13	1	1	0	0	15	16	0	0	14	3	0	0	0	17	18.5
08:30	0	0	0	0	0	0	0	0	0	0	0	30	3	0	0	0	33	34.5	0	0	15	2	0	0	0	17	18
08:45	0	0	0	0	0	0	0	0	0	0	0	20	5	0	0	0	25	27.5	0	0	20	3	0	0	0	23	24.5
H/TOT	0	0	1	0	0	0	0	1	1	0	1	72	11	2	0	0	86	91.9	0	0	59	11	1	0	0	71	77
09:00	0	0	0	0	0	0	0	0	0	0	1	14	1	0	0	0	16	15.9	0	0	21	3	0	0	0	24	25.5
09:15	0	0	0	0	0	0	0	0	0	0	0	25	5	0	0	0	30	32.5	0	0	30	3	0	0	1	34	36.5
09:30	0	0	0	0	0	0	0	0	0	0	0	19	3	0	0	0	22	23.5	0	0	29	2	0	0	0	31	32
09:45	0	0	0	0	0	0	0	0	0	0	0	23	4	1	0	0	28	30.5	0	0	25	4	0	1	0	30	33.3
H/TOT	0	0	0	0	0	0	0	0	0	0	1	81	13	1	0	0	96	102.4	0	0	105	12	0	1	1	119	127.3
10:00	0	0	1	0	0	0	0	1	1	0	0	21	4	0	0	0	25	27	1	0	24	5	0	0	0	30	31.7
10:15	0	0	0	0	0	0	0	0	0	0	0	15	4	0	0	0	19	21	0	0	33	6	1	0	0	40	43.5
10:30	0	0	1	0	0	0	0	1	1	0	0	21	2	1	1	0	25	27.8	0	0	28	2	0	0	0	30	31
10:45	0	0	1	0	0	0	0	1	1	0	0	15	3	0	0	0	18	19.5	0	0	32	1	0	0	0	33	33.5
H/TOT	0	0	3	0	0	0	0	3	3	0	0	72	13	1	1	0	87	95.3	1	0	117	14	1	0	0	133	139.7
11:00	0	0	0	0	0	0	0	0	0	0	0	30	1	0	0	0	31	31.5	0	0	36	2	1	0	1	40	42.5
11:15	0	0	0	0	0	0	0	0	0	0	0	30	5	0	0	0	35	37.5	0	0	35	3	1	0	0	39	41
11:30	0	0	0	0	0	0	0	0	0	0	0	26	2	0	0	0	28	29	0	0	28	6	0	0	0	34	37
11:45	0	0	0	0	0	0	0	0	0	0	0	27	1	0	0	0	28	28.5	0	0	31	4	0	0	0	35	37
H/TOT	0	0	0	0	0	0	0	0	0	0	0	113	9	0	0	0	122	126.5	0	0	130	15	2	0	1	148	157.5
12:00	0	0	1	0	0	0	0	1	1	0	0	30	0	0	1	0	31	32.3	0	0	27	6	0	0	0	33	36
12:15	0	0	0	0	0	0	0	0	0	0	0	24	4	1	0	0	29	31.5	0	0	33	5	1	0	0	39	42
12:30	0	0	1	0	0	0	0	1	1	0	0	18	1	0	0	0	19	19.5	0	0	32	4	0	0	0	36	38
12:45	0	0	0	0	0	0	0	0	0	0	0	31	2	0	0	0	33	34	0	0	51	4	2	0	0	57	60
H/TOT	0	0	2	0	0	0	0	2	2	0	0	103	7	1	1	0	112	117.3	0	0	143	19	3	0	0	165	176
13:00	0	0	2	0	0	0	0	2	2	0	0	32	5	0	0	0	37	39.5	0	0	41	3	1	0	0	45	47
13:15	0	0	1	0	0	0	0	1	1	0	0	42	5	0	0	0	47	49.5	0	0	55	2	0	0	0	57	58
13:30	0	0	0	0	0	0	0	0	0	0	0	46	7	0	1	0	54	58.8	0	1	57	9	1	0	0	68	72.4
13:45	0	0	1	0	0	0	0	1	1	0	0	44	1	1	0	0	46	47	0	1	49	5	0	0	0	55	56.9
H/TOT	0	0	4	0	0	0	0	4	4	0	0	164	18	1	1	0	184	194.8	0	2	202	19	2	0	0	225	234.3
14:00	0	0	0	0	0	0	0	0	0	0	0	30	3	0	0	0	33	34.5	0	0	47	5	0	0	0	52	54.5
14:15	0	0	0	0	0	0	0	0	0	0	0	34	0	0	0	0	34	34	0	0	41	5	0	0	0	46	48.5
14:30	0	0	0	0	0	0	0	0	0	0	0	29	4	0	0	0	33	35	0	0	42	3	2	0	0	47	49.5
14:45	0	0	0	0	0	0	0	0	0	0	0	28	3	0	0	0	31	32.5	0	0	59	2	1	0	0	62	63.5
H/TOT	0	0	0	0	0	0	0	0	0	0	0	121	10	0	0	0	131	136	0	0	189	15	3	0	0	207	216
15:00	0	0	1	0	0	0	0	1	1	0	1	33	2	0	0	0	36	36.4	0	0	48	1	1	0	0	50	51
15:15	0	0	0	0	0	0	0	0	0	1	0	27	1	1	0	0	30	30.2	0	0	57	4	0	0	0	61	63
15:30	0	0	0	0	0	0	0	0	0	0	0	24	3	0	0	0	27	28.5	0	0	45	7	1	0	0	53	57
15:45	0	0	1	0	0	0	0	1	1	0	0	30	3	0	0	0	33	34.5	0	0	45	3	0	0	0	48	49.5
H/TOT	0	0	2	0	0	0	0	2	2	1	1	114	9	1	0	0	126	129.6	0	0	195	15	2	0	0	212	220.5
16:00	0	0	3	0	0	0	0	3	3	0	0	32	1	0	0	0	33	33.5	0	0	56	5	1	0	0	62	65
16:15	0	0	0	0	0	0	0	0	0	0	0	34	2	0	0	0	36	37	0	0	49	3	0	0	0	52	53.5
16:30	0	0	0	0	0	0	0	0	0	0	0	39	5	0	0	0	44	46.5	0	0	35	5	1	0	0	41	44
16:45	0	0	0	0	0	0	0	0	0	0	0	35	1	0	0	0	36	36.5	0	0	47	3	1	0	0	51	53
H/TOT	0	0	3	0	0	0	0	3	3	0	0	140	9	0	0	0	149	153.5	0	0	187	16	3	0	0	206	215.5
17:00	0	0	0	0	0	0	0	0	0	0	0	43	1	0	0	0	44	44.5	0	0	45	9	0	0	0	54	58.5
17:15	0	0	0	0	0	0	0	0	0	0	0	31	2	0	0	0	33	34	1	1	39	3	1	0	0	45	45.6
17:30	0	0	0	0	0	0	0	0	0	0	0	33	1	0	0	0	34	34.5	1	0	38	2	0	0	0	41	41.2
17:45	0	0	0	0	0	0	0	0	0	0	0	39	2	0	0	0	41	42	0	1	37	3	0	0	0	41	41.9
H/TOT	0	0	0	0	0	0	0	0	0	0	0	146	6	0	0	0	152	155	2	2	159	17	1	0	0	181	187.2
18:00	0	0	1	0	0	0	0	1	1	0	1	35	4	0	0	0	40	41.4	0	0	37	1	0	0	0	38	38.5
18:15	0	0	0	0	0	0	0	0	0	0	1	26	1	0	0	0	28	27.9	1	0	41	3	0	0	0	45	45.7
18:30	0	0	0	0	0	0	0	0	0	0	0	33	2	0	0	0	35	36	0	0	33	3	0	0	0	36	37.5
18:45	0	0	0	0	0	0	0	0	0	0	0	16	3	0	0	0	19	20.5	0	0	36	5	0	0	0	41	43.5
H/TOT	0	0	1	0	0	0	0	1	1	0	2	110	10	0	0	0	122	125.8	1	0	147	12	0	0	0	160	165.2
12 TOT	0	0	16	0	0	0	0	16	16	1	5	1268	120	9	3	0	1406	1471	5	4	1677	184	19	1	3	1893	1992

	B => A									B => B									B => C								
TIME	P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	PCU
07:00	0	0	7	1	0	0	0	8	8.5	0	0	0	0	0	0	0	0	0	1	0	33	6	0	0	0	40	42.2
07:15	0	0	12	3	1	0	0	16	18	0	0	1	1	0	0	0	2	2.5	3	0	32	5	1	1	0	42	43.9
07:30	0	0	15	1	0	0	0	16	16.5	0	0	0	0	0	0	0	0	0	0	0	49	10	3	4	0	66	77.7
07:45	0	0	15	0	1	0	0	16	16.5	0	0	0	0	0	0	0	0	0	0	0	60	6	0	0	0	66	69
H/TOT	0	0	49	5	2	0	0	56	59.5	0	0	1	1	0	0	0	2	2.5	4	0	174	27	4	5	0	214	232.8
08:00	0	0	13	0	0	0	0	13	13	0	0	0	0	0	0	0	0	0	2	1	69	9	0	0	0	81	83.3
08:15	0	0	12	0	0	1	0	13	14.3	0	0	0	0	0	0	0	0	0	3	0	53	8	0	0	0	64	65.6
08:30	0	0	22	1	0	0	0	23	23.5	0	0	2	0	0	0	0	2	2	1	2	62	7	1	0	0	73	75
08:45	0	0	24	2	0	0	0	26	27	0	0	1	0	0	0	0	1	1	1	0	42	4	0	0	0	47	48.2
H/TOT	0	0	71	3	0	1	0	75	77.8	0	0	3	0	0	0	0	3	3	7	3	226	28	1	0	0	265	272.1
09:00	0	0	25	3	0	0	0	28	29.5	0	0	0	0	0	0	0	0	0	0	0	53	18	2	0	0	73	83
09:15	0	0	23	3	0	0	0	26	27.5	0	0	0	0	0	0	0	0	0	0	0	39	9	3	0	0	51	57
09:30	0	0	21	2	0	0	0	23	24	0	0	0	0	0	0	0	0	0	1	1	42	8	0	1	0	53	56.9
09:45	0	0	33	3	0	0	0	36	37.5	0	0	1	0	0	0	0	1	1	0	1	34	9	0	2	0	46	52.5
H/TOT	0	0	102	11	0	0	0	113	118.5	0	0	1	0	0	0	0	1	1	1	2	168	44	5	3	0	223	249.4
10:00	0	0	14	9	1	0	0	24	29	0	0	0	0	0	0	0	0	0	0	0	37	3	1	0	0	41	43
10:15	0	0	27	0	0	0	0	27	27	0	0	1	0	0	0	0	1	1	0	0	41	3	2	0	0	46	48.5
10:30	0	0	19	1	0	1	0	21	22.8	0	0	0	0	0	0	0	0	0	0	0	35	5	2	1	0	43	47.8
10:45	0	0	23	2	0	0	0	25	26	0	0	2	1	0	0	0	3	3.5	0	0	43	11	0	0	0	54	59.5
H/TOT	0	0	83	12	1	1	0	97	104.8	0	0	3	1	0	0	0	4	4.5	0	0	156	22	5	1	0	184	198.8
11:00	0	0	27	3	0	0	0	30	31.5	0	0	0	0	0	0	0	0	0	0	0	43	9	0	0	0	52	56.5
11:15	0	0	28	3	0	0	0	31	32.5	0	0	0	0	0	0	0	0	0	0	0	37	8	3	2	0	50	58.1
11:30	0	0	26	4	0	0	0	30	32	0	0	0	0	0	0	0	0	0	3	0	34	4	0	0	0	41	40.6
11:45	0	0	32	2	0	0	0	34	35	0	0	1	0	0	0	0	1	1	0	0	37	10	0	0	0	47	52
H/TOT	0	0	113	12	0	0	0	125	131	0	0	1	0	0	0	0	1	1	3	0	151	31	3	2	0	190	207.2
12:00	0	0	27	3	0	0	0	30	31.5	0	0	0	0	0	0	0	0	0	0	0	46	3	2	0	0	51	53.5
12:15	0	0	22	1	1	0	0	24	25	0	0	0	0	1	0	0	1	1.5	1	0	50	5	2	1	0	59	63
12:30	0	0	36	3	0	0	0	39	40.5	0	0	0	0	0	0	0	0	0	1	0	59	5	0	0	0	65	66.7
12:45	0	0	35	4	0	0	0	39	41	0	0	3	0	0	0	0	3	3	1	1	52	8	0	0	0	62	64.6
H/TOT	0	0	120	11	1	0	0	132	138	0	0	3	0	1	0	0	4	4.5	3	1	207	21	4	1	0	237	247.8
13:00	0	0	48	8	0	0	0	56	60	0	0	1	0	0	0	0	1	1	0	0	77	9	2	0	1	89	95.5
13:15	0	0	33	2	0	0	0	35	36	0	0	1	0	0	0	0	1	1	0	0	60	3	1	2	0	66	70.6
13:30	0	0	45	2	0	0	0	47	48	0	0	0	0	0	0	0	0	0	0	1	58	6	1	1	0	67	71.2
13:45	0	0	35	0	0	0	0	35	35	0	0	2	0	0	0	0	2	2	0	0	53	4	3	1	0	61	65.8
H/TOT	0	0	161	12	0	0	0	173	179	0	0	4	0	0	0	0	4	4	0	1	248	22	7	4	1	283	303.1
14:00	0	0	28	1	0	0	0	29	29.5	0	0	0	0	0	0	0	0	0	0	0	52	8	3	0	0	63	68.5
14:15	0	0	30	3	1	0	0	34	36	0	0	0	0	0	0	0	0	0	0	0	49	7	0	0	0	56	59.5
14:30	0	0	22	1	0	0	0	23	23.5	0	0	0	0	0	0	0	0	0	1	0	56	9	0	0	0	66	69.7
14:45	0	0	29	3	0	0	0	32	33.5	0	0	0	0	0	0	0	0	0	0	0	44	13	1	0	0	58	65
H/TOT	0	0	109	8	1	0	0	118	122.5	0	0	0	0	0	0	0	0	0	1	0	201	37	4	0	0	243	262.7
15:00	0	0	24	0	0	0	0	24	24	0	0	0	0	0	0	0	0	0	0	0	64	5	2	1	0	72	76.8
15:15	0	0	33	0	0	0	0	33	33	0	0	0	0	0	0	0	0	0	0	0	50	4	2	1	0	57	61.3
15:30	0	0	18	2	0	0	0	20	21	0	0	0	0	0	0	0	0	0	1	0	64	8	0	0	0	73	76.2
15:45	1	0	26	0	0	0	0	27	26.2	0	0	0	0	0	0	0	0	0	1	0	53	12	0	1	0	67	73.5
H/TOT	1	0	101	2	0	0	0	104	104.2	0	0	0	0	0	0	0	0	0	2	0	231	29	4	3	0	269	287.8
16:00	1	0	25	1	0	1	0	28	29	0	0	0	0	0	0	0	0	0	0	0	78	13	0	0	0	91	97.5
16:15	1	0	26	5	0	0	0	32	33.7	0	0	2	0	0	0	0	2	2	1	0	54	10	1	0	0	66	70.7
16:30	0	0	29	0	0	0	0	29	29	0	0	0	0	0	0	0	0	0	0	0	100	4	2	0	0	106	109
16:45	0	0	23	3	0	0	0	26	27.5	0	0	0	0	0	0	0	0	0	0	1	92	9	0	0	0	102	105.9
H/TOT	2	0	103	9	0	1	0	115	119.2	0	0	2	0	0	0	0	2	2	1	1	324	36	3	0	0	365	383.1
17:00	0	0	15	1	0	0	0	16	16.5	0	0	0	0	0	0	0	0	0	2	1	111	7	1	0	0	122	123.8
17:15	0	0	18	2	0	0	0	20	21	0	0	0	0	0	0	0	0	0	0	0	105	7	1	1	0	114	119.3
17:30	0	1	14	0	0	0	0	15	14.4	0	0	1	0	0	0	0	1	1	0	0	129	4	1	0	0	134	136.5
17:45	0	1	23	0	0	0	0	24	23.4	0	0	1	0	0	0	0	1	1	0	1	93	7	1	0	0	102	105.4
H/TOT	0	2	70	3	0	0	0	75	75.3	0	0	2	0	0	0	0	2	2	2	2	438	25	4	1	0	472	485
18:00	0	1	13	1	0	0	0	15	14.9	0	0	1	0	0	0	0	1	1	2	0	99	3	0	0	0	104	103.9
18:15	0	0	28	2	0	0	0	30	31	0	0	0	0	0	0	0	0	0	4	1	82	5	0	0	0	92	90.7
18:30	0	0	16	3	0	0	0	19	20.5	0	0	1	0	0	0	0	1	1	1	1	68	4	0	0	0	74	74.6
18:45	0	0	14	1	0	0	0	15	15.5	0	0	0	0	0	0	0	0	0	1	1	58	0	0	0	0	60	58.6
H/TOT	0	1	71	7	0	0	0	79	81.9	0	0	2	0	0	0	0	2	2	8	3	307	12	0	0	0	330	327.8
12 TOT	3	3	1153	95	5	3	0	1262	1312	0	0	22	2	1	0	0	25	26.5	32	13	2831	334	44	20	1	3275	3458

	C => A									C => B									C => C								
TIME	P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	PCU
07:00	0	0	21	9	1	0	0	31	36	0	0	38	6	1	2	0	47	53.1	0	0	0	0	0	0	0	0	0
07:15	1	0	24	6	1	0	0	32	34.7	0	1	57	8	3	1	0	70	76.2	0	0	0	0	0	0	0	0	0
07:30	0	0	45	6	0	0	1	52	56	1	0	80	12	0	0	0	93	98.2	0	0	0	0	0	0	0	0	0
07:45	2	1	35	3	2	0	0	43	43.3	1	0	99	3	0	0	0	103	103.7	0	0	0	0	0	0	0	0	0
H/TOT	3	1	125	24	4	0	1	158	170	2	1	274	29	4	3	0	313	331.2	0	0	0	0	0	0	0	0	0
08:00	0	1	44	3	0	0	0	48	48.9	1	0	128	6	2	0	0	137	140.2	0	0	0	0	0	0	0	0	0
08:15	0	0	37	5	1	0	0	43	46	1	0	131	11	1	1	0	145	151.5	0	0	1	0	0	0	0	1	1
08:30	0	0	56	7	0	1	0	64	68.8	0	1	147	6	1	0	0	155	157.9	0	0	0	0	0	1	0	1	2.3
08:45	0	0	46	1	1	0	0	48	49	3	1	166	6	1	0	0	177	177.5	0	0	0	0	0	0	0	0	0
H/TOT	0	1	183	16	2	1	0	203	212.7	5	2	572	29	5	1	0	614	627.1	0	0	1	0	0	1	0	2	3.3
09:00	0	0	60	8	0	0	0	68	72	1	0	112	10	0	0	0	123	127.2	0	0	0	0	0	0	0	0	0
09:15	0	0	51	11	0	0	1	63	69.5	1	1	102	8	1	3	0	116	123	0	0	0	0	0	0	0	0	0
09:30	0	0	41	4	0	0	0	45	47	0	1	56	4	0	1	0	62	64.7	0	0	0	0	0	0	0	0	0
09:45	0	0	46	7	2	0	0	55	59.5	0	0	66	12	1	0	0	79	85.5	0	0	0	0	0	0	0	0	0
H/TOT	0	0	198	30	2	0	1	231	248	2	2	336	34	2	4	0	380	400.4	0	0	0	0	0	0	0	0	0
10:00	1	0	26	2	0	0	0	29	29.2	0	0	55	3	2	0	0	60	62.5	0	0	0	0	0	0	0	0	0
10:15	1	0	34	4	0	0	0	39	40.2	1	0	57	6	2	1	0	67	71.5	0	0	0	0	0	0	0	0	0
10:30	0	0	24	6	0	0	0	30	33	0	0	36	9	4	0	0	49	55.5	0	0	0	0	0	0	0	0	0
10:45	1	0	33	9	0	0	0	43	46.7	2	0	55	3	0	0	0	60	59.9	0	0	0	0	0	0	0	0	0
H/TOT	3	0	117	21	0	0	0	141	149.1	3	0	203	21	8	1	0	236	249.4	0	0	0	0	0	0	0	0	0
11:00	0	0	31	1	1	0	0	33	34	1	0	41	8	2	1	0	53	58.5	0	0	2	0	0	0	0	2	2
11:15	0	0	36	2	0	0	0	38	39	1	0	40	7	0	1	0	49	53	0	0	1	0	0	0	0	1	1
11:30	0	0	17	2	1	0	0	20	21.5	0	0	36	8	1	0	0	45	49.5	0	0	0	0	0	0	0	0	0
11:45	0	0	29	8	2	0	0	39	44	0	0	44	8	1	0	0	53	57.5	0	0	0	0	0	0	0	0	0
H/TOT	0	0	113	13	4	0	0	130	138.5	2	0	161	31	4	2	0	200	218.5	0	0	3	0	0	0	0	3	3
12:00	1	0	46	3	0	1	0	51	53	1	0	51	5	2	0	0	59	61.7	0	0	1	0	0	0	0	1	1
12:15	1	0	33	3	0	0	0	37	37.7	1	0	52	5	1	0	0	59	61.2	0	0	0	0	0	0	0	0	0
12:30	1	0	39	2	0	0	0	42	42.2	0	0	40	6	0	0	0	46	49	0	0	1	0	0	0	0	1	1
12:45	1	0	51	7	1	0	0	60	63.2	0	0	44	6	0	1	0	51	55.3	0	0	1	0	0	0	0	1	1
H/TOT	4	0	169	15	1	1	0	190	196.1	2	0	187	22	3	1	0	215	227.2	0	0	3	0	0	0	0	3	3
13:00	0	0	52	3	0	0	0	55	56.5	0	1	47	6	1	1	0	56	60.2	0	0	0	0	0	0	0	0	0
13:15	0	2	43	5	1	0	0	51	52.8	1	0	54	11	2	2	0	70	78.3	0	0	1	0	0	0	0	1	1
13:30	0	0	41	3	1	0	0	45	47	1	0	57	3	1	1	0	63	65.5	0	0	1	0	0	0	1	2	3
13:45	0	0	46	7	1	0	0	54	58	0	1	63	9	1	0	0	74	78.4	0	0	1	0	0	0	0	1	1
H/TOT	0	2	182	18	3	0	0	205	214.3	2	2	221	29	5	4	0	263	282.4	0	0	3	0	0	0	1	4	5
14:00	0	0	25	3	0	0	0	28	29.5	2	0	53	5	3	0	0	63	65.4	0	0	0	0	0	0	0	0	0
14:15	0	0	35	4	1	0	0	40	42.5	0	0	42	4	1	0	0	47	49.5	0	0	1	0	0	0	0	1	1
14:30	0	1	48	2	3	0	0	54	55.9	2	0	36	4	2	0	0	44	45.4	0	0	0	0	0	0	0	0	0
14:45	0	0	39	1	0	0	0	40	40.5	2	0	53	5	0	1	1	62	65.2	0	0	1	0	0	0	0	1	1
H/TOT	0	1	147	10	4	0	0	162	168.4	6	0	184	18	6	1	1	216	225.5	0	0	2	0	0	0	0	2	2
15:00	0	0	42	4	0	0	0	46	48	0	0	50	7	0	1	0	58	62.8	0	0	0	0	0	0	0	0	0
15:15	0	0	40	5	1	0	0	46	49	0	0	57	8	0	0	0	65	69	0	0	0	0	0	0	0	0	0
15:30	0	0	36	3	0	0	0	39	40.5	1	0	45	8	1	0	0	55	58.7	0	0	2	0	1	0	0	3	3.5
15:45	0	0	41	4	0	0	0	45	47	0	0	52	4	1	1	0	58	61.8	0	0	0	0	1	0	0	1	1.5
H/TOT	0	0	159	16	1	0	0	176	184.5	1	0	204	27	2	2	0	236	252.3	0	0	2	0	2	0	0	4	5
16:00	0	0	41	8	0	0	0	49	53	0	1	56	12	0	0	0	69	74.4	0	0	0	0	0	0	0	0	0
16:15	1	0	40	3	1	0	0	45	46.2	0	0	68	4	2	0	0	74	77	0	0	0	0	0	0	0	0	0
16:30	0	0	27	6	0	0	0	33	36	0	1	59	3	0	0	0	63	63.9	0	0	0	0	0	0	0	0	0
16:45	0	0	35	3	1	0	0	39	41	1	0	68	11	1	1	0	82	88.5	0	0	1	0	0	0	0	1	1
H/TOT	1	0	143	20	2	0	0	166	176.2	1	2	251	30	3	1	0	288	303.8	0	0	1	0	0	0	0	1	1
17:00	0	1	32	3	0	0	0	36	36.9	2	1	76	4	0	0	0	83	82.8	0	0	0	0	0	0	0	0	0
17:15	1	0	32	3	0	0	0	36	36.7	1	1	73	3	0	0	0	78	78.1	0	0	0	0	0	0	0	0	0
17:30	0	0	31	1	0	0	0	32	32.5	7	2	75	5	0	0	0	89	84.7	0	0	0	0	0	0	0	0	0
17:45	0	0	36	5	0	0	0	41	43.5	1	0	75	7	0	0	0	83	85.7	0	0	0	0	0	0	0	0	0
H/TOT	1	1	131	12	0	0	0	145	149.6	11	4	299	19	0	0	0	333	331.3	0	0	0	0	0	0	0	0	0
18:00	0	0	28	6	0	0	0	34	37	0	0	65	3	0	1	0	69	71.8	0	0	0	0	0	0	0	0	0
18:15	0	0	31	2	0	0	0	33	34	0	3	40	2	0	0	0	45	44.2	0	0	0	0	0	0	0	0	0
18:30	0	0	26	3	0	0	0	29	30.5	0	2	45	0	0	0	0	47	45.8	0	0	0	0	0	0	0	0	0
18:45	1	0	28	5	0	0	0	34	35.7	0	0	42	0	0	0	0	42	42	0	0	0	0	0	0	0	0	0
H/TOT	1	0	113	16	0	0	0	130	137.2	0	5	192	5	0	1	0	203	203.8	0	0	0	0	0	0	0	0	0
12 TOT	13	6	1780	211	23	2	2	2037	2145	37	18	3084	294	42	21	1	3497	3653	0	0	15	0	2	1	1	19	22.3



IDASO

Survey Name: 029 19025 Northwood
Site: 5
Location: Northwood Ave
Date: 12-Feb-2019

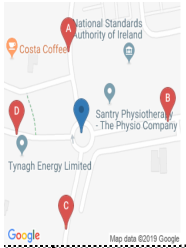
TIME	A1	A2	B1	B2	C1	C2	D1	D2
07:00	5	0	5	0	5	5	5	5
07:15	10	0	0	0	5	10	10	10
07:30	10	5	5	5	10	10	10	15
07:45	5	0	0	5	5	10	15	20
08:00	10	0	0	5	10	5	10	15
08:15	10	0	0	0	10	10	15	25
08:30	5	0	5	0	20	0	10	15
08:45	5	0	10	5	10	10	15	15
09:00	5	10	5	5	5	10	10	20
09:15	5	10	0	5	5	15	15	30
09:30	0	5	5	10	5	10	10	5
09:45	10	5	5	5	5	5	15	5
10:00	10	5	5	5	5	5	10	5
10:15	5	0	10	5	5	5	10	5
10:30	5	0	10	5	5	10	10	5
10:45	5	0	10	0	5	10	5	10
11:00	10	5	5	0	5	5	5	0
11:15	10	5	10	5	10	0	15	0
11:30	5	0	0	0	15	10	15	5
11:45	5	0	15	10	5	10	5	5
12:00	5	5	5	10	5	5	5	5
12:15	5	5	5	5	10	5	0	0
12:30	5	5	5	10	5	10	5	10
12:45	0	15	5	10	20	5	10	15

TIME	A1	A2	B1	B2	C1	C2	D1	D2
13:00	5	15	0	10	10	10	15	10
13:15	10	0	10	0	10	20	5	15
13:30	10	5	5	5	10	10	5	15
13:45	5	5	0	0	10	5	10	15
14:00	5	0	5	10	15	15	15	5
14:15	5	10	5	5	5	0	10	5
14:30	5	5	10	0	10	5	5	10
14:45	5	5	5	0	10	10	10	20
15:00	5	5	5	15	5	10	5	15
15:15	5	10	10	5	10	10	5	10
15:30	10	5	0	0	10	5	10	5
15:45	10	0	10	10	5	5	5	10
16:00	5	5	0	5	5	5	5	5
16:15	10	5	5	5	10	10	20	10
16:30	10	10	0	20	10	15	10	25
16:45	10	15	5	15	5	15	20	15
17:00	10	10	15	10	10	10	10	25
17:15	5	10	15	15	10	25	10	10
17:30	15	10	5	25	10	15	15	20
17:45	5	10	5	10	15	20	5	10
18:00	15	10	10	5	5	10	10	45
18:15	5	5	5	15	15	20	15	10
18:30	10	5	0	10	10	10	10	10
18:45	10	5	10	5	5	5	5	15

Queue's are measured in meters

	Cannot be seen from camera
+	Signifies queue stretches to a minimum length of x and beyond the view of the camera
#	Signifies queue stretches to the next significant junction
*	Indicates an estimated queue length due to obscured vision.

Queue lengths are compiled from CCTV observations and are therefore subject to the limitations of the camera view.



IDASO

Survey Name: 029 19025 Northwood

Site: 5

Location: Northwood Ave

Date: 12-Feb-2019

	A => A									A => B								
TIME	P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	PCU
07:00	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	3	3
07:15	0	0	0	0	0	0	0	0	0	0	0	6	0	1	0	0	7	7.5
07:30	0	0	0	0	0	0	0	0	0	0	0	8	0	1	0	0	9	9.5
07:45	0	0	0	0	0	0	0	0	0	0	0	8	1	0	0	0	9	9.5
H/TOT	0	0	0	0	0	0	0	0	0	0	0	25	1	2	0	0	28	29.5
08:00	0	0	0	0	0	0	0	0	0	0	0	9	2	0	0	0	11	12
08:15	0	0	0	0	0	0	0	0	0	0	0	9	3	0	0	0	12	13.5
08:30	0	0	0	0	0	0	0	0	0	0	0	5	1	0	0	0	6	6.5
08:45	0	0	0	0	0	0	0	0	0	0	0	12	1	0	0	0	13	13.5
H/TOT	0	0	0	0	0	0	0	0	0	0	0	35	7	0	0	0	42	45.5
09:00	0	0	0	0	0	0	0	0	0	0	0	5	0	0	0	0	5	5
09:15	0	0	0	0	0	0	0	0	0	0	0	9	1	0	0	0	10	10.5
09:30	0	0	0	0	0	0	0	0	0	0	0	5	1	0	0	0	6	6.5
09:45	0	0	3	0	0	0	0	3	3	0	0	5	1	0	0	0	6	6.5
H/TOT	0	0	3	0	0	0	0	3	3	0	0	24	3	0	0	0	27	28.5
10:00	0	0	0	1	0	0	0	1	1.5	0	0	11	2	0	0	0	13	14
10:15	0	0	0	0	0	0	0	0	0	1	0	6	0	0	0	0	7	6.2
10:30	0	0	0	0	0	0	0	0	0	0	0	2	1	0	0	0	3	3.5
10:45	0	0	1	0	0	0	0	1	1	1	0	6	0	0	0	0	7	6.2
H/TOT	0	0	1	1	0	0	0	2	2.5	2	0	25	3	0	0	0	30	29.9
11:00	0	0	0	0	0	0	0	0	0	0	0	6	1	0	0	0	7	7.5
11:15	0	0	0	0	0	0	0	0	0	0	0	4	1	0	0	0	5	5.5
11:30	0	0	0	0	0	0	0	0	0	0	0	8	1	0	0	0	9	9.5
11:45	0	0	0	0	0	0	0	0	0	0	0	6	1	0	0	0	7	7.5
H/TOT	0	0	0	0	0	0	0	0	0	0	0	24	4	0	0	0	28	30
12:00	0	0	1	0	0	0	0	1	1	0	0	6	1	0	0	0	7	7.5
12:15	0	0	1	0	0	0	0	1	1	0	0	4	0	0	0	0	4	4
12:30	0	0	0	0	0	0	0	0	0	0	0	10	1	0	0	0	11	11.5
12:45	0	0	1	0	0	0	0	1	1	0	0	9	0	0	0	0	9	9
H/TOT	0	0	3	0	0	0	0	3	3	0	0	29	2	0	0	0	31	32
13:00	0	0	0	0	0	0	0	0	0	0	0	9	0	0	0	0	9	9
13:15	0	0	0	0	0	0	0	0	0	0	0	11	2	0	0	0	13	14
13:30	0	0	0	0	0	0	0	0	0	0	0	10	0	0	0	0	10	10
13:45	0	0	0	0	0	0	0	0	0	0	0	8	1	0	0	0	9	9.5
H/TOT	0	0	0	0	0	0	0	0	0	0	0	38	3	0	0	0	41	42.5
14:00	0	0	0	0	0	0	0	0	0	0	0	13	1	0	0	0	14	14.5
14:15	0	0	0	0	0	0	0	0	0	0	0	6	1	0	0	0	7	7.5
14:30	0	0	0	0	0	0	0	0	0	0	1	8	0	0	0	0	9	8.4
14:45	0	0	0	0	0	0	0	0	0	0	0	5	0	0	0	0	5	5
H/TOT	0	0	0	0	0	0	0	0	0	0	1	32	2	0	0	0	35	35.4
15:00	0	0	1	0	0	0	0	1	1	0	0	7	2	0	0	0	9	10
15:15	0	0	1	0	0	0	0	1	1	0	0	10	0	0	0	0	10	10
15:30	0	0	0	0	0	0	0	0	0	1	0	10	0	1	0	0	12	11.7
15:45	0	0	2	0	0	0	0	2	2	0	0	11	2	0	0	0	13	14
H/TOT	0	0	4	0	0	0	0	4	4	1	0	38	4	1	0	0	44	45.7
16:00	0	0	0	0	0	0	0	0	0	0	0	21	3	0	0	0	24	25.5
16:15	0	0	0	0	0	0	0	0	0	0	0	14	0	0	0	0	14	14
16:30	0	0	1	0	0	0	0	1	1	0	0	13	0	0	0	0	13	13
16:45	0	0	0	0	0	0	0	0	0	0	0	20	1	0	0	0	21	21.5
H/TOT	0	0	1	0	0	0	0	1	1	0	0	68	4	0	0	0	72	74
17:00	0	0	0	0	0	0	0	0	0	0	1	28	0	0	0	0	29	28.4
17:15	0	0	0	0	0	0	0	0	0	0	0	22	0	0	0	0	22	22
17:30	0	0	0	0	0	0	0	0	0	0	0	19	0	0	0	0	19	19
17:45	0	0	0	0	0	0	0	0	0	0	0	12	3	0	0	0	15	16.5
H/TOT	0	0	0	0	0	0	0	0	0	0	1	81	3	0	0	0	85	85.9
18:00	0	0	0	0	0	0	0	0	0	0	0	10	1	0	0	0	11	11.5
18:15	0	0	0	0	0	0	0	0	0	0	0	11	0	0	0	0	11	11
18:30	0	0	0	0	0	0	0	0	0	0	0	13	0	0	0	0	13	13
18:45	0	0	0	0	0	0	0	0	0	0	0	10	1	0	0	0	11	11.5
H/TOT	0	0	0	0	0	0	0	0	0	0	0	44	2	0	0	0	46	47
12 TOT	0	0	12	1	0	0	0	13	13.5	3	2	463	38	3	0	0	509	525.9

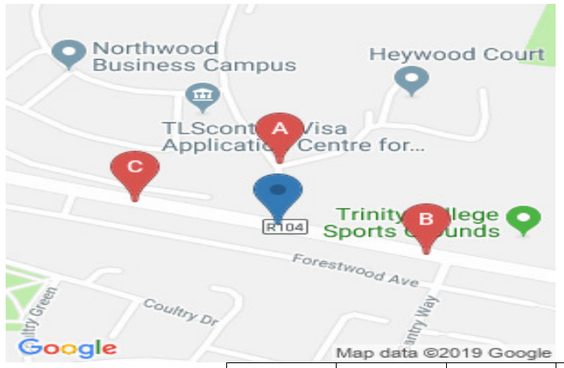
	A => C									A => D								
TIME	P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	PCU
07:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:15	0	0	1	0	0	0	0	1	1	1	0	1	0	0	0	0	2	1.2
07:30	0	0	4	1	0	0	0	5	5.5	0	0	1	1	1	0	0	3	4
07:45	0	0	5	1	0	0	0	6	6.5	0	0	1	0	0	0	0	1	1
H/TOT	0	0	10	2	0	0	0	12	13	1	0	3	1	1	0	0	6	6.2
08:00	0	0	1	0	0	0	0	1	1	0	0	2	1	0	0	0	3	3.5
08:15	1	0	8	2	0	0	0	11	11.2	0	0	2	0	0	0	0	2	2
08:30	0	0	3	0	0	0	0	3	3	0	0	1	1	0	0	0	2	2.5
08:45	0	0	3	1	0	0	0	4	4.5	0	0	2	1	0	0	0	3	3.5
H/TOT	1	0	15	3	0	0	0	19	19.7	0	0	7	3	0	0	0	10	11.5
09:00	0	0	3	1	0	0	0	4	4.5	0	0	4	1	1	0	0	6	7
09:15	0	0	1	0	0	0	0	1	1	1	0	5	3	0	0	0	9	9.7
09:30	0	0	1	1	0	0	0	2	2.5	0	1	7	1	0	0	0	9	8.9
09:45	0	0	4	0	0	0	0	4	4	0	0	10	0	0	0	0	10	10
H/TOT	0	0	9	2	0	0	0	11	12	1	1	26	5	1	0	0	34	35.6
10:00	0	0	3	0	0	0	0	3	3	0	0	8	2	1	0	0	11	12.5
10:15	0	0	0	0	0	0	0	0	0	0	0	5	0	0	0	0	5	5
10:30	0	0	5	0	1	0	0	6	6.5	0	0	6	0	0	1	0	7	8.3
10:45	0	0	4	1	0	0	0	5	5.5	0	0	7	3	0	0	0	10	11.5
H/TOT	0	0	12	1	1	0	0	14	15	0	0	26	5	1	1	0	33	37.3
11:00	0	0	3	0	0	0	0	3	3	0	0	4	2	0	0	0	6	7
11:15	0	0	2	1	0	0	0	3	3.5	0	0	8	0	0	0	0	8	8
11:30	0	0	4	2	0	0	0	6	7	0	0	7	1	0	0	0	8	8.5
11:45	0	0	0	0	0	0	0	0	0	0	0	8	0	0	0	0	8	8
H/TOT	0	0	9	3	0	0	0	12	13.5	0	0	27	3	0	0	0	30	31.5
12:00	0	0	3	0	0	0	0	3	3	0	0	12	1	0	0	0	13	13.5
12:15	0	0	10	0	1	0	0	11	11.5	0	0	5	1	0	0	0	6	6.5
12:30	0	0	8	0	0	0	0	8	8	0	0	10	4	0	0	0	14	16
12:45	0	0	6	0	0	0	0	6	6	0	1	18	2	0	0	0	21	21.4
H/TOT	0	0	27	0	1	0	0	28	28.5	0	1	45	8	0	0	0	54	57.4
13:00	0	0	5	0	0	0	0	5	5	0	0	19	1	0	0	0	20	20.5
13:15	0	0	12	0	0	0	0	12	12	0	0	6	0	0	0	0	6	6
13:30	0	0	4	0	0	0	0	4	4	0	0	9	0	0	0	0	9	9
13:45	0	0	2	0	0	0	0	2	2	0	0	10	0	1	0	0	11	11.5
H/TOT	0	0	23	0	0	0	0	23	23	0	0	44	1	1	0	0	46	47
14:00	0	0	2	0	0	0	0	2	2	0	2	8	0	2	0	0	12	11.8
14:15	0	0	2	0	1	0	0	3	3.5	0	0	7	0	0	0	0	7	7
14:30	0	0	3	2	0	0	0	5	6	1	0	7	0	0	0	0	8	7.2
14:45	0	0	1	1	0	0	0	2	2.5	0	0	6	4	1	0	0	11	13.5
H/TOT	0	0	8	3	1	0	0	12	14	1	2	28	4	3	0	0	38	39.5
15:00	0	0	6	1	0	0	0	7	7.5	1	0	8	3	1	0	0	13	14.2
15:15	0	0	2	0	0	0	0	2	2	1	0	8	1	0	0	0	10	9.7
15:30	0	0	6	0	0	0	0	6	6	0	0	10	0	0	0	0	10	10
15:45	0	0	3	0	0	0	0	3	3	0	0	14	2	0	0	0	16	17
H/TOT	0	0	17	1	0	0	0	18	18.5	2	0	40	6	1	0	0	49	50.9
16:00	0	0	10	1	0	0	0	11	11.5	1	0	23	1	0	0	0	25	24.7
16:15	3	0	7	1	1	0	0	12	10.6	0	0	18	1	0	0	0	19	19.5
16:30	0	0	12	1	0	0	0	13	13.5	0	0	20	1	0	0	0	21	21.5
16:45	0	0	18	0	0	0	0	18	18	0	0	30	0	0	0	0	30	30
H/TOT	3	0	47	3	1	0	0	54	53.6	1	0	91	3	0	0	0	95	95.7
17:00	1	1	22	0	0	0	0	24	22.6	0	1	24	2	1	0	0	28	28.9
17:15	0	0	19	0	0	0	0	19	19	0	0	23	0	0	1	0	24	25.3
17:30	0	0	19	0	0	0	0	19	19	0	0	20	0	0	0	0	20	20
17:45	0	0	7	0	0	0	0	7	7	1	0	19	1	0	0	0	21	20.7
H/TOT	1	1	67	0	0	0	0	69	67.6	1	1	86	3	1	1	0	93	94.9
18:00	0	0	6	1	0	0	0	7	7.5	1	0	9	0	0	0	0	10	9.2
18:15	0	0	5	0	0	0	0	5	5	2	0	10	2	0	0	0	14	13.4
18:30	0	0	4	0	0	0	0	4	4	0	0	9	0	0	0	0	9	9
18:45	1	0	3	0	0	0	0	4	3.2	0	0	7	0	0	0	0	7	7
H/TOT	1	0	18	1	0	0	0	20	19.7	3	0	35	2	0	0	0	40	38.6
12 TOT	6	1	262	19	4	0	0	292	298.1	10	5	458	44	9	2	0	528	546.1

	B => A									B => B								
TIME	P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	PCU
07:00	0	0	5	0	0	0	0	5	5	0	0	0	0	0	0	0	0	0
07:15	0	0	6	3	0	0	0	9	10.5	0	0	0	0	0	0	0	0	0
07:30	0	0	4	1	0	0	0	5	5.5	0	0	0	0	0	0	0	0	0
07:45	0	0	8	3	0	0	0	11	12.5	0	0	1	0	0	0	0	1	1
H/TOT	0	0	23	7	0	0	0	30	33.5	0	0	1	0	0	0	0	1	1
08:00	0	0	10	0	0	0	0	10	10	0	0	0	0	0	0	0	0	0
08:15	0	0	18	1	0	0	0	19	19.5	0	0	0	0	0	0	0	0	0
08:30	0	0	16	1	1	0	0	18	19	0	0	0	0	0	0	0	0	0
08:45	0	0	5	0	0	0	0	5	5	0	0	1	0	0	0	0	1	1
H/TOT	0	0	49	2	1	0	0	52	53.5	0	0	1	0	0	0	0	1	1
09:00	0	0	12	1	0	0	0	13	13.5	0	0	0	0	0	0	0	0	0
09:15	0	0	4	0	0	0	0	4	4	0	0	0	0	0	0	0	0	0
09:30	0	0	7	1	0	0	0	8	8.5	0	0	0	0	0	0	0	0	0
09:45	0	0	6	2	0	0	0	8	9	0	0	0	0	0	0	0	0	0
H/TOT	0	0	29	4	0	0	0	33	35	0	0	0	0	0	0	0	0	0
10:00	0	0	12	0	0	0	0	12	12	0	0	0	0	0	0	0	0	0
10:15	0	0	5	0	0	1	0	6	7.3	0	0	0	0	0	0	0	0	0
10:30	0	0	10	2	0	0	0	12	13	0	0	0	0	0	0	0	0	0
10:45	0	0	6	0	0	0	0	6	6	0	0	0	0	0	0	0	0	0
H/TOT	0	0	33	2	0	1	0	36	38.3	0	0	0	0	0	0	0	0	0
11:00	0	0	8	0	0	0	0	8	8	0	0	0	0	0	0	0	0	0
11:15	0	0	8	1	0	0	0	9	9.5	0	0	0	0	0	0	0	0	0
11:30	0	0	7	0	0	0	0	7	7	0	0	0	0	0	0	0	0	0
11:45	0	0	13	0	0	0	0	13	13	0	0	0	0	0	0	0	0	0
H/TOT	0	0	36	1	0	0	0	37	37.5	0	0	0	0	0	0	0	0	0
12:00	0	0	6	0	0	0	0	6	6	0	0	0	0	0	0	0	0	0
12:15	0	0	9	2	0	0	0	11	12	0	0	0	0	0	0	0	0	0
12:30	0	0	14	0	0	0	0	14	14	0	0	1	0	0	0	0	1	1
12:45	0	0	10	1	1	0	0	12	13	0	0	0	0	0	0	0	0	0
H/TOT	0	0	39	3	1	0	0	43	45	0	0	1	0	0	0	0	1	1
13:00	0	0	10	2	0	0	0	12	13	0	0	0	0	0	0	0	0	0
13:15	0	0	12	2	0	0	0	14	15	0	0	0	0	0	0	0	0	0
13:30	0	0	5	1	0	0	0	6	6.5	0	0	0	0	0	0	0	0	0
13:45	0	0	15	2	0	0	0	17	18	0	0	1	0	0	0	0	1	1
H/TOT	0	0	42	7	0	0	0	49	52.5	0	0	1	0	0	0	0	1	1
14:00	0	0	11	1	0	0	0	12	12.5	0	0	1	0	0	0	0	1	1
14:15	0	1	5	0	0	0	0	6	5.4	0	0	0	0	0	0	0	0	0
14:30	0	0	6	0	0	0	0	6	6	0	0	0	0	0	0	0	0	0
14:45	1	0	5	1	1	0	0	8	8.2	0	0	2	0	0	0	0	2	2
H/TOT	1	1	27	2	1	0	0	32	32.1	0	0	3	0	0	0	0	3	3
15:00	0	0	6	2	0	0	0	8	9	0	0	0	1	0	0	0	1	1.5
15:15	0	0	11	1	0	0	0	12	12.5	0	0	0	0	0	0	0	0	0
15:30	0	0	11	0	0	0	0	11	11	0	0	0	0	0	0	0	0	0
15:45	0	0	8	0	0	0	0	8	8	0	0	1	0	0	0	0	1	1
H/TOT	0	0	36	3	0	0	0	39	40.5	0	0	1	1	0	0	0	2	2.5
16:00	0	0	4	3	0	0	0	7	8.5	0	0	0	0	0	0	0	0	0
16:15	0	0	3	1	0	0	0	4	4.5	0	0	0	0	0	0	0	0	0
16:30	0	0	5	0	1	0	0	6	6.5	0	0	1	0	0	0	0	1	1
16:45	0	0	7	0	0	0	0	7	7	0	0	0	0	0	0	0	0	0
H/TOT	0	0	19	4	1	0	0	24	26.5	0	0	1	0	0	0	0	1	1
17:00	0	0	7	0	0	0	0	7	7	0	0	0	0	0	0	0	0	0
17:15	0	0	10	1	0	0	0	11	11.5	0	0	0	0	0	0	0	0	0
17:30	0	0	5	0	0	0	0	5	5	0	0	0	0	0	0	0	0	0
17:45	0	0	11	0	0	0	0	11	11	0	0	0	0	0	0	0	0	0
H/TOT	0	0	33	1	0	0	0	34	34.5	0	0	0	0	0	0	0	0	0
18:00	0	0	4	2	0	0	0	6	7	0	0	0	0	0	0	0	0	0
18:15	0	0	4	0	0	0	0	4	4	0	0	0	0	0	0	0	0	0
18:30	0	0	1	0	0	0	0	1	1	0	0	2	0	0	0	0	2	2
18:45	0	0	4	0	0	0	0	4	4	0	0	0	0	0	0	0	0	0
H/TOT	0	0	13	2	0	0	0	15	16	0	0	2	0	0	0	0	2	2
12 TOT	1	1	379	38	4	1	0	424	444.9	0	0	11	1	0	0	0	12	12.5

	B => C									B => D								
TIME	P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	PCU
07:00	0	0	2	0	0	0	0	2	2	1	0	28	5	0	0	0	34	35.7
07:15	1	0	5	0	0	0	0	6	5.2	3	0	29	6	3	1	0	42	45.4
07:30	2	0	18	2	0	0	0	22	21.4	0	0	35	7	0	4	0	46	54.7
07:45	0	0	12	1	0	0	0	13	13.5	1	1	49	6	1	0	0	58	60.1
H/TOT	3	0	37	3	0	0	0	43	42.1	5	1	141	24	4	5	0	180	195.9
08:00	4	0	19	1	0	0	0	24	21.3	2	0	60	8	0	0	0	70	72.4
08:15	2	0	21	2	0	0	0	25	24.4	3	0	47	6	0	1	0	57	58.9
08:30	1	1	39	1	0	0	0	42	41.1	1	2	59	4	1	0	0	67	67.5
08:45	2	0	21	1	1	0	0	25	24.4	1	0	44	4	0	0	0	49	50.2
H/TOT	9	1	100	5	1	0	0	116	111.2	7	2	210	22	1	1	0	243	249
09:00	1	0	16	1	1	0	0	19	19.2	0	0	50	19	1	0	0	70	80
09:15	0	0	10	1	0	0	0	11	11.5	0	0	34	8	3	0	0	45	50.5
09:30	0	0	9	3	0	0	0	12	13.5	1	0	33	8	0	1	0	43	47.5
09:45	1	0	6	1	0	0	0	8	7.7	0	1	28	9	0	2	0	40	46.5
H/TOT	2	0	41	6	1	0	0	50	51.9	1	1	145	44	4	3	0	198	224.5
10:00	0	0	14	2	0	0	0	16	17	0	0	29	7	0	0	0	36	39.5
10:15	0	0	12	0	0	0	0	12	12	0	0	40	3	1	0	0	44	46
10:30	0	0	18	1	0	0	0	19	19.5	0	0	35	7	2	1	0	45	50.8
10:45	0	0	5	1	0	0	0	6	6.5	0	0	40	8	0	0	0	48	52
H/TOT	0	0	49	4	0	0	0	53	55	0	0	144	25	3	1	0	173	188.3
11:00	0	0	11	0	0	0	0	11	11	0	0	46	5	0	0	0	51	53.5
11:15	0	0	10	1	1	0	0	12	13	0	0	33	9	1	2	0	45	52.6
11:30	1	0	11	0	0	0	0	12	11.2	0	0	36	2	0	0	0	38	39
11:45	0	0	15	1	0	0	0	16	16.5	0	0	38	6	0	0	0	44	47
H/TOT	1	0	47	2	1	0	0	51	51.7	0	0	153	22	1	2	0	178	192.1
12:00	0	0	7	1	0	0	0	8	8.5	0	0	37	3	2	0	0	42	44.5
12:15	1	0	8	2	0	0	0	11	11.2	0	0	41	2	2	1	0	46	49.3
12:30	0	0	8	0	0	0	0	8	8	1	0	59	3	0	0	0	63	63.7
12:45	0	0	12	2	0	0	0	14	15	0	0	46	10	0	0	0	56	61
H/TOT	1	0	35	5	0	0	0	41	42.7	1	0	183	18	4	1	0	207	218.5
13:00	0	1	12	0	0	0	0	13	12.4	1	0	70	9	2	0	0	82	86.7
13:15	0	0	15	0	0	0	0	15	15	0	0	54	3	1	2	0	60	64.6
13:30	0	0	21	0	1	0	0	22	22.5	1	1	66	6	0	1	0	75	77.9
13:45	0	0	8	2	0	0	0	10	11	0	0	50	3	1	1	0	55	58.3
H/TOT	0	1	56	2	1	0	0	60	60.9	2	1	240	21	4	4	0	272	287.5
14:00	1	0	15	1	0	0	0	17	16.7	0	0	42	9	1	0	0	52	57
14:15	1	0	14	1	0	0	0	16	15.7	0	0	49	9	1	0	0	59	64
14:30	1	0	15	1	0	0	0	17	16.7	0	0	44	8	0	0	0	52	56
14:45	3	0	7	1	0	0	0	11	9.1	0	0	41	8	0	1	0	50	55.3
H/TOT	6	0	51	4	0	0	0	61	58.2	0	0	176	34	2	1	0	213	232.3
15:00	0	0	15	1	0	0	0	16	16.5	1	0	54	2	0	0	0	57	57.2
15:15	1	0	13	0	0	0	0	14	13.2	0	0	48	5	2	1	0	56	60.8
15:30	1	0	18	0	0	0	0	19	18.2	1	0	51	5	0	0	0	57	58.7
15:45	0	0	11	0	1	0	0	12	12.5	2	0	36	11	0	1	0	50	55.2
H/TOT	2	0	57	1	1	0	0	61	60.4	4	0	189	23	2	2	0	220	231.9
16:00	1	0	9	1	0	0	0	11	10.7	1	0	43	10	0	1	0	55	60.5
16:15	0	0	21	1	0	0	0	22	22.5	0	0	36	12	1	0	0	49	55.5
16:30	2	0	15	1	0	0	0	18	16.9	0	0	58	3	1	0	0	62	64
16:45	2	0	21	0	0	0	0	23	21.4	0	1	48	12	0	0	0	61	66.4
H/TOT	5	0	66	3	0	0	0	74	71.5	1	1	185	37	2	1	0	227	246.4
17:00	5	0	27	2	0	0	0	34	31	3	0	58	6	0	0	0	67	67.6
17:15	3	0	29	3	0	0	0	35	34.1	0	0	59	6	1	0	0	66	69.5
17:30	0	1	30	2	0	0	0	33	33.4	0	1	76	2	1	0	0	80	80.9
17:45	1	0	21	0	0	0	0	22	21.2	0	1	59	7	1	0	0	68	71.4
H/TOT	9	1	107	7	0	0	0	124	119.7	3	2	252	21	3	0	0	281	289.4
18:00	3	0	16	1	0	0	0	20	18.1	0	0	68	4	0	0	0	72	74
18:15	3	0	13	2	0	0	0	18	16.6	2	0	57	4	0	0	0	63	63.4
18:30	0	0	10	1	0	0	0	11	11.5	1	1	44	7	0	0	0	53	55.1
18:45	2	0	11	0	0	0	0	13	11.4	1	0	35	0	0	0	0	36	35.2
H/TOT	8	0	50	4	0	0	0	62	57.6	4	1	204	15	0	0	0	224	227.7
12 TOT	46	3	696	46	5	0	0	796	782.9	28	9	2222	306	30	21	0	2616	2784

	C => A									C => B							
TIME	P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT
07:00	0	0	3	0	0	0	0	3	3	1	0	10	1	0	0	0	12
07:15	1	0	11	2	0	0	0	14	14.2	1	0	10	0	0	0	0	11
07:30	0	0	11	0	0	0	0	11	11	0	0	24	4	0	0	0	28
07:45	0	0	12	1	0	0	0	13	13.5	0	0	29	5	0	0	0	34
H/TOT	1	0	37	3	0	0	0	41	41.7	2	0	73	10	0	0	0	85
08:00	3	0	8	2	0	0	0	13	11.6	4	0	22	5	0	0	1	32
08:15	1	0	18	1	0	0	0	20	19.7	1	0	23	5	0	1	0	30
08:30	2	0	11	0	0	0	0	13	11.4	0	0	21	0	0	0	0	21
08:45	0	0	13	2	0	0	0	15	16	1	0	34	1	0	0	0	36
H/TOT	6	0	50	5	0	0	0	61	58.7	6	0	100	11	0	1	1	119
09:00	0	0	10	1	0	0	0	11	11.5	1	0	23	2	1	0	0	27
09:15	0	0	10	1	0	0	0	11	11.5	2	0	31	2	1	0	0	36
09:30	0	0	7	1	0	0	0	8	8.5	1	0	18	1	0	0	0	20
09:45	0	0	5	1	0	0	0	6	6.5	1	0	20	2	1	0	0	24
H/TOT	0	0	32	4	0	0	0	36	38	5	0	92	7	3	0	0	107
10:00	1	0	3	1	0	0	0	5	4.7	0	0	9	1	1	0	0	11
10:15	0	0	4	1	0	0	0	5	5.5	0	0	10	1	0	0	0	11
10:30	0	0	4	3	0	0	0	7	8.5	0	0	7	0	0	1	0	8
10:45	0	0	10	2	0	0	0	12	13	1	0	10	2	1	0	0	14
H/TOT	1	0	21	7	0	0	0	29	31.7	1	0	36	4	2	1	0	44
11:00	0	0	5	1	1	0	0	7	8	0	0	13	1	1	0	0	15
11:15	0	0	9	3	0	0	0	12	13.5	0	0	14	1	0	0	0	15
11:30	0	0	10	1	0	0	0	11	11.5	0	0	13	1	0	0	0	14
11:45	0	0	3	0	0	0	0	3	3	0	0	17	1	0	0	0	18
H/TOT	0	0	27	5	1	0	0	33	36	0	0	57	4	1	0	0	62
12:00	0	0	2	0	0	0	0	2	2	1	0	20	2	0	0	0	23
12:15	0	0	4	0	0	0	0	4	4	0	0	11	1	0	0	0	12
12:30	0	1	4	1	1	0	0	7	7.4	0	0	21	1	0	0	0	22
12:45	0	0	14	1	1	0	0	16	17	0	0	17	1	0	0	0	18
H/TOT	0	1	24	2	2	0	0	29	30.4	1	0	69	5	0	0	0	75
13:00	0	0	10	0	0	0	0	10	10	0	1	19	1	0	0	0	21
13:15	0	0	10	1	0	0	0	11	11.5	0	0	11	2	2	0	0	15
13:30	0	0	6	2	0	0	0	8	9	1	0	19	2	1	1	0	24
13:45	0	0	9	1	0	0	0	10	10.5	0	0	23	1	0	0	0	24
H/TOT	0	0	35	4	0	0	0	39	41	1	1	72	6	3	1	0	84
14:00	1	0	3	0	0	0	0	4	3.2	0	0	16	2	0	0	0	18
14:15	0	0	4	0	0	0	0	4	4	1	0	14	3	0	0	0	18
14:30	0	0	6	3	0	0	0	9	10.5	0	0	20	5	0	0	0	25
14:45	0	0	10	2	0	0	0	12	13	1	0	28	3	1	0	0	33
H/TOT	1	0	23	5	0	0	0	29	30.7	2	0	78	13	1	0	0	94
15:00	0	0	15	0	0	0	0	15	15	1	0	22	1	1	0	0	25
15:15	0	0	7	0	0	0	0	7	7	1	0	18	1	0	0	1	21
15:30	0	0	6	1	0	0	0	7	7.5	0	0	15	1	0	0	0	16
15:45	1	0	10	1	0	0	0	12	11.7	2	0	14	4	0	0	0	20
H/TOT	1	0	38	2	0	0	0	41	41.2	4	0	69	7	1	0	1	82
16:00	0	0	10	0	0	0	0	10	10	2	0	22	3	0	0	1	28
16:15	0	0	9	1	1	0	0	11	12	2	0	25	2	0	0	0	29
16:30	0	0	5	0	0	0	0	5	5	0	0	31	1	0	0	0	32
16:45	0	0	10	0	0	0	0	10	10	0	0	39	3	0	0	0	42
H/TOT	0	0	34	1	1	0	0	36	37	4	0	117	9	0	0	1	131
17:00	0	0	11	1	0	0	0	12	12.5	1	0	40	2	0	0	0	43
17:15	1	0	14	0	0	0	0	15	14.2	1	0	31	6	0	0	0	38
17:30	0	0	11	0	0	0	0	11	11	1	1	32	2	1	0	0	37
17:45	0	0	8	2	0	0	0	10	11	1	0	38	1	0	0	0	40
H/TOT	1	0	44	3	0	0	0	48	48.7	4	1	141	11	1	0	0	158
18:00	0	0	8	1	0	0	0	9	9.5	2	0	28	2	0	0	0	32
18:15	0	0	6	0	0	0	0	6	6	1	0	28	3	0	0	0	32
18:30	0	0	6	0	0	0	0	6	6	1	0	28	1	0	0	0	30
18:45	0	0	3	1	0	0	0	4	4.5	1	0	28	0	0	0	0	29
H/TOT	0	0	23	2	0	0	0	25	26	5	0	112	6	0	0	0	123
12 TOT	11	1	388	43	4	0	0	447	461.1	35	2	1016	93	12	3	3	1164

C => C									C => D									D => A									D => B									D => C									D => D								
P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	PCU
0	0	0	0	0	0	0	0	0	0	0	12	0	0	0	0	12	12	0	0	3	0	0	0	0	3	3	0	0	29	6	2	2	0	39	45.6	0	0	9	0	0	0	0	9	9	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	1	0	15	1	0	0	0	17	16.7	0	0	16	1	1	0	0	18	19	0	1	28	10	2	1	0	42	48.7	0	0	12	0	0	0	0	12	12	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	6	0	24	3	1	0	0	34	31.2	1	0	15	1	1	0	0	18	18.2	0	0	41	10	0	0	0	51	56	0	0	21	1	0	0	0	22	22.5	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	25	0	0	0	0	25	25	0	0	24	0	0	0	0	24	24	1	0	56	3	0	0	0	60	60.7	0	0	13	3	0	0	0	16	17.5	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	7	0	76	4	1	0	0	88	84.9	1	0	58	2	2	0	0	63	64.2	1	1	154	29	4	3	0	192	211	0	0	55	4	0	0	0	59	61	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	1	1	15	0	0	0	0	17	15.6	0	0	41	0	0	0	0	41	41	0	1	43	4	2	0	0	50	52.4	0	0	17	2	1	0	0	20	21.5	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	13	0	0	0	0	13	13	0	0	41	3	0	0	0	44	45.5	0	0	56	9	2	0	0	67	72.5	0	0	14	3	0	0	0	17	18.5	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	2	0	18	2	0	0	0	22	21.4	0	1	42	1	0	0	0	44	43.9	0	0	77	8	1	0	0	86	90.5	0	0	18	2	0	0	0	20	21	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	1	0	16	1	0	0	0	18	17.7	3	0	44	0	0	0	0	47	44.6	0	0	70	9	0	0	0	79	83.5	0	0	27	3	1	0	0	31	33	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	4	1	62	3	0	0	0	70	67.7	3	1	168	4	0	0	0	176	175	0	1	246	30	5	0	0	282	298.9	0	0	76	10	2	0	0	88	94	0	0	0	0	0	0	0	1	0	0
0	0	0	0	0	0	0	0	0	0	0	14	3	0	0	0	17	18.5	1	0	24	0	0	0	0	25	24.2	0	1	64	7	0	0	0	72	74.9	0	0	10	2	0	0	0	12	13	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	1	0	24	0	0	0	0	25	24.2	0	1	21	1	0	0	0	23	22.9	0	0	72	8	1	3	0	84	92.4	0	0	22	4	0	0	0	26	28	0	0	1	0	0	0	0	1	1
0	0	0	1	0	0	0	1	1.5	0	0	17	1	0	0	0	18	18.5	0	1	10	1	0	0	0	12	11.9	0	0	45	4	0	1	0	50	53.3	0	0	12	1	0	0	0	13	13.5	0	0	2	0	0	0	0	2	2
0	0	0	0	0	0	0	0	0	0	0	15	2	0	0	0	17	18	0	0	19	1	0	0	0	20	20.5	0	0	43	8	1	0	0	52	56.5	0	0	19	1	1	0	0	21	22	0	0	0	0	0	0	0	0	0	0
1	0	1	1	0	0	0	3	3.5	1	0	70	6	0	0	0	77	79.2	1	2	74	3	0	0	0	80	79.5	0	1	224	27	2	4	0	258	277.1	0	0	63	8	1	0	0	72	76.5	0	0	3	0	0	0	0	3	3
0	0	0	0	0	0	0	0	0	0	0	13	2	1	0	0	16	17.5	0	0	6	0	0	0	0	6	6	0	0	55	8	0	0	0	63	67	0	0	8	2	0	0	0	10	11	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	19	0	0	0	0	19	19	0	0	9	0	1	0	0	10	10.5	0	0	48	7	2	1	0	58	63.8	0	0	13	2	0	0	0	15	16	0	0	1	0	0	0	0	1	1
2	2.5	0	0	1	0	0	3	3.5	0	0	10	2	0	0	0	12	13	0	0	3	1	0	0	0	4	4.5	0	0	33	5	5	0	0	43	48	0	0	23	1	0	0	0	24	24.5	0	0	1	0	0	0	0	1	1.5
0	0	0	0	0	0	0	0	0	1	0	13	0	0	0	0	14	13.2	0	0	7	0	0	0	0	7	7	0	0	44	5	0	0	0	49	51.5	0	0	14	1	0	0	0	15	15.5	0	0	1	0	0	0	0	1	1
2	2.5	1	0	1	0	0	4	5	1	0	55	4	1	0	0	61	62.7	0	0	25	1	1	0	0	27	26.7	0	0	180	25	2	1	0	208	230.6	0	0	58	6	0	0	0	64	67	0	0	2	1	0	0	0	3	3.5
0	0	0	0	0	0	0	0	0	0	0	16	3	0	0	0	19	20.5	0	0	5	0	0	0	0	5	5	0	0	42	7	2	1	0	52	57.8	0	0	14	1	0	0	0	15	15.5	0	0	1	0	0	0	0	1	1
0	0	0	0	0	0	0	0	0	1	0	18	2	2	0	0	23	24.2	0	0	3	0	0	0	0	3	3	1	0	39	11	0	1	0	52	58	0	0	14	1	0	0	0	15	15.5	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	2	0	16	3	0	0	0	21	20.9	0	0	6	2	0	0	0	8	9	0	0	40	10	0	0	0	50	55	0	0	14	2	0	0	0	16	17	0	0	0	0	1	0	0	1	1.5
0	0	0	0	0	0	0	0	0	0	0	18	3	0	0	0	21	22.5	0	0	7	1	0	0	0	8	8.5	0	0	41	7	1	0	0	49	53	0	0	18	1	0	0	0	19	19.5	0	0	1	0	0	0	0	1	1
3	0	68	11	2	0	0	84	88.1	0	0	21	3	0	0	0	24	25.5	1	0	162	35	3	2	0	203	223.8	0	0	60	5	0	0	0	65	67.5	0	0	2	0	1	0	0	3	3.5
2	2	0	0	0	0	0	2	2	0	0	16	2	0	0	0	18	19	0	0	4	1	0	0	0	5	5.5	1	0	53	6	1	1	0	62	66	0	0	22	0	0	0	0	22	22	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	21	3	1	0	0	25	27	0	0	2	0	0	0	0	2	2	1	0	50	4	3	0	0	58	60.7	0	0	14	3	0	0	0	17	18.5	0	0	1	0	0	0	0	1	1
0	0	0	0	0	0	0	0	0	0	0	16	2	0	0	0	18	19	0	0	3	0	0	0	0	3	3	0	0	39	6	0	0	0	45	48	0	0	14	1	0	0	0	15	15.5	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	1	0	12	1	0	0	0	14	13.7	0	0	8	2	0	0	0	10	11	0	0	45	8	0	1	0	54	59.3	0	0	25	0	0	0	0	25	25	0	0	0	0	0	0	0	0	0
1	0	65	8	1	0	0	75	78.7	0	0	17	3	0	0	0	20	21.5	2	0	187	24	4	2	0	219	234	0	0	75	4	0	0	0	79	81	0	0	1	0	0	0	0	1	1
1	0	23	4	0	0	1	29	31.2	0	0	11	0	0	0	0	11	11	1	1	43	9	0	1	0	55	59.4	0	0	15	2	1	0	0	18	19.5	0	0	1	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0
0	0	26	2	0	0	0	28	29	0	0	12	0	0	0	0	12	12	1	0	56	14	2	1	0	74	82.5	0	0	24	3	0	0	0	27	28.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	18	2	1	0	0	21	22.5	0	0	5	0	0	0	0	5	5	1	0	68	6	0	1	0	76	79.5	0	0	19	3	0	0	0	22	23.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	24	0	0	0	0	24	24	0	0	10	2	0	0	0	12	13	0	1	66	8	1	0	0	76	79.9	0	0	29	0	0	0	0	29	29	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1	0	91	8	1	0	1	102	106.7	0	0	38	2	0	0	0	40	41	3	2	233	37	3	3	0	281	301.3	0	0	87	8	1	0	0	96	100.5	0	0	1	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0
1	0	23	0	0	0	0	24	23.2	0	0	6	1	1	0	0	8	9	0	0	43	7	2	0	0	52	56.5	0	0	20	1	0	0	0	21	21.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	24	0	0	0	0	24	24	0	0	6	1	0	0	0	7	7.5	0	0	44	3	1	0	0	48	50	0	0	26	0	0	0	0	26	26	0	0	0	0	1	0	0	1	1.5	0	0	0	0	0	0	0	0	0
0	0	21	1	0	0	0	22	22.5	0	0	9	0	0	0	0	9	9	0	0	37	6	2	0	0	45	49	1	0	10	2	0	0	0	13	13.2	0	0	1	1	0	0	0	2	2.5
0	0	22	1	0	0	0	23	23.5	0	0	4	0	0	0	0	4	4	1	1	50	7	0	1	0	60	63.4	0	0	15	2	0	0	1	18	20	0	0	2	0	0	0	0	2	2
1	0	90	2	0	0	0	93	93.2	0	0	25	2	1	0	0	28	28.5	1	1	174	23	5	1	0	205	218.9	1	0	71	5	0	0	1	78	80.7	0	0	3	2	0	0	0	5	6
1	0	24	0	0	0	0	25	24.2	0	0	3	0	0	0	0	3	3	0	0	51	8	0	1	0	60	65.3	0	1	24	0	0	0	0	25	24.4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	19	0	0	0	0	19	19	0	0	5	0	1	0	0	6	6.5	1	0	54	7	0	0	0	62	64.7	0	0	25	1	0	0	0	26	26.5	0	0	1	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0
0	0	16	4	0	0	0	20	22	0	0	1	0	0	0	0	1	1	1	0	36	11	0	0	0	48	52.7	0	0	26	0	1	0	0	27	27.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	23	0	0	0	0	23	23	0	0	5	0	0	0	0	5	5	0	0	48	5	1	1	0	55	59.3	0	0	26	1	0	0	0	27	27.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1	0	82	4	0	0	0	87	88.2	0	0	14	0	1	0	0	15	15.5	2	0	189	31	1	2	0	225	242	0	1	101	2	1	0	0	105	105.9	0	0	1	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0
0	0	21	3	0	0	0	24	25.5	0	0	4	1	0	0	0	5	5.5	0	1	51	6	0	0	0	58	60.4	0	0	26	2	0	0	0	28	29	0	0	2	0	0	0	0	2	2	0	0	0	0	0	0	0	0	0
0	0	18	2	0	0	0	20	21	0	0	4	0	0	0	0	4	4	0	0	62	7	1	0	0	70	74	1	0	30	1	0	0	0	32	31.7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	26	0	1	0	0	27	27.5	0	0	6	0	0	0	0	6	6	2	1	61	5	1	0	0	70	70.8	1	0	34	2	0	0	0	37	37.2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	22	1	0	0	0	23	23.5	0	0	3	0	1	1	0	5	6.8	0	0	57	10	0	0	0	67	72	0	0	39	3	0	0	0	42	43.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	87	6	1	0	0	94	97.5	0	0	17	1	1	1	0	20	22.3	2	2	231	28	2	0	0	265	277.2	2	0	129	8	0	0	0	139	141.4	0	0	2	0	0	0	0	2	2	0	0	0	0	0	0	0	0	0
0	0	26	1	0	0	0	27	27.5	1	0	3	0	0	0	0	4	3.2	1	1	82	3	0	0	0	87	87.1	0	0	35	1	0	0	0	36	36.5	0	0	3	0	0	0	0	3	3	0	0	0	0	0	0	0	0	0
0	0	20	1	0	0	0	21	21.5	0	0	2	0	0	0	0	2	2	1	0	68	4	0	0	0	73	74.2	1	0	32	1	0	0	0	34	33.7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1	1	29	1	0	0	0	31	30.7	2	0	6	1	0	0	0	9	7.9	3	2	67	5	0	0	0	77	75.9	0	0	38	3	0	0	0	41	42.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	26	1	0	0	0	27	27.5	0	0	3	0	0	0	0	3	3	2	0	79	8	0	0	0	89	91.4	1	0	27	1	0	0	0	29	28.7	0	0	2	0	0	0	0	2	2	0	0	0	0	0	0	0	0	0
1	0	101	4	0	0	0	106	107.2	3	0	14	1	0	0	0	18	16.1	7	3	296	20	0	0	0	326	328.6	2	0	132	6	0	0	0	140	141.4	0	0	5	0	0	0	0	5	5	0	0	0	0	0	0	0	0	0
3	1	16	0	0	0	0	20	17	0	0	4	0	0	0	0	4	3	0	1	63	8	0	1	0	73	77.1	0	0	30	0	0	0	0	30	30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3	1	16	0	0	0	0	20	17	0	0	4	0	0	0	0	4	3	0	1	63	8	0	1	0	73	77.1	0	0	30	0	0	0	0	30	30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	29	2	0	0	0	31	32	0	0	1	0	0	0	0	1	1	0	2	47	2	0	0	0	51	50.8	0	1	16	1	0	0	0	18	17.9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1	1	24	2	0	0	0	28	27.6	0	0	1	0	0	0	0	1	1	0	3	54	2	0	0	0	59	58.2	0	0	23	1	0	0	0	24	24.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	24	2	0	0	0	26	27	0	0	2	0	0	0	0	2	2	0	0	38	3	0	0	0	41	42.5	0	0	21	0	0	0	0	21	21	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	2	93	6	0	0	0	105	103.6	0	0	4	0	0	0	0	4	3	0	0	202	15	0	0	0	224	229.2	0	0	90	2	0	0	0	93	93.4	0	0	5	0	0	0	0	5	5	0	0	0	0	0	0	0	0	0
25	3	940	56	7	0	1	1042	1058	8	3	479	22	8	1	0	519	526.1	19	17	2478	324	36	19	7	2893	3077	5	2	997	68	3	0	1	1076	1110	0	0	25	3	1	0	0	29	30	0	0	0	0	0	0	0	0	0



IDASO

Survey Name: 029 19025 Northwood
Site: 6
Location: Forestwood Ave / Santry Ave
Date: 12-Feb-2019

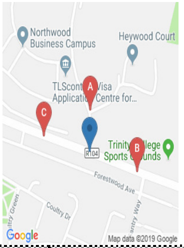
TIME	A1	A2	B1	B2	C1	C2
07:00	10	5	15	5	10	15
07:15	10	10	15	10	10	20
07:30	15	20	30	15	10	30
07:45	15	20	30	10	20	35
08:00	25	20	30	30	5	50
08:15	10	20	40	25	10	60
08:30	45	10	30	25	10	130
08:45	25	10	25	10	30	130
09:00	20	15	40	30	55	120
09:15	15	10	30	20	15	60
09:30	10	10	35	10	10	55
09:45	15	5	55	20	10	50
10:00	10	5	40	5	10	60
10:15	20	5	20	15	15	30
10:30	25	10	30	15	15	40
10:45	15	30	40	10	5	50
11:00	15	5	30	10	5	35
11:15	10	10	20	15	5	30
11:30	15	10	30	15	5	40
11:45	15	10	50	15	5	40
12:00	20	5	30	15	5	60
12:15	20	15	10	5	10	40
12:30	20	15	30	15	5	35
12:45	15	5	50	15	20	120

TIME	A1	A2	B1	B2	C1	C2
13:00	20	10	35	20	10	110
13:15	25	10	15	25	5	60
13:30	20	10	25	20	5	40
13:45	20	5	35	10	15	40
14:00	10	15	55	15	10	60
14:15	30	5	65	15	5	50
14:30	25	5	40	10	10	55
14:45	10	15	30	20	15	65
15:00	15	10	35	30	5	100
15:15	20	15	30	20	10	65
15:30	25	5	50	15	10	45
15:45	20	15	30	15	20	55
16:00	20	15	55	30	10	65
16:15	10	15	65	20	10	50
16:30	20	35	65	15	10	60
16:45	40	35	60	30	10	100
17:00	30	50	75	55	40	130+
17:15	40	40	110	45	15	100
17:30	30	60	120+	30	10	60
17:45	40	30	90	30	20	100
18:00	35	25	55	30	15	55
18:15	25	25	60	25	15	65
18:30	25	15	45	35	10	55
18:45	15	20	15	20	10	50

Queue's are measured in meters

	Cannot be seen from camera
+	Signifies queue stretches to a minimum length of x and beyond the view of the camera
#	Signifies queue stretches to the next significant junction
*	Indicates an estimated queue length due to obscured vision.

Queue lengths are compiled from CCTV observations and are therefore subject to the limitations of the camera view.



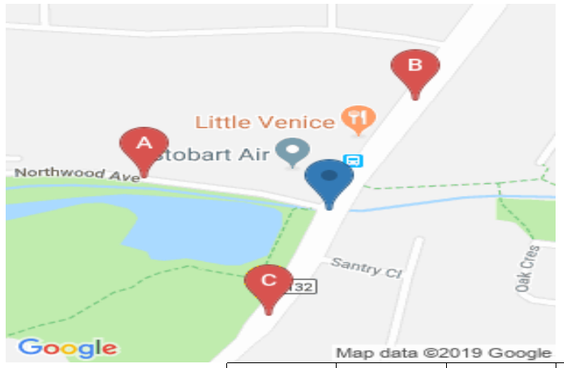
IDASO

Survey Name: 029 19025 Northwood
Site: 6
Location: Forestwood Ave / Santry Ave
Date: 12-Feb-2019

TIME	A => A P/C	A => A M/C	A => A CAR	A => A LGV	A => A OGV1	A => A OGV2	A => A PSV	A => A TOT	A => A PCU	A => B P/C	A => B M/C	A => B CAR	A => B LGV	A => B OGV1	A => B OGV2	A => B PSV	A => B TOT	A => B PCU	A => C P/C	A => C M/C	A => C CAR	A => C LGV	A => C OGV1	A => C OGV2	A => C PSV	A => C TOT	A => C PCU
07:00	0	0	0	0	0	0	0	0	0	0	1	7	0	0	0	0	8	7.4	0	0	5	0	0	0	0	5	5
07:15	0	0	0	0	0	0	0	0	0	1	0	10	1	0	0	0	12	11.7	1	0	13	0	0	0	0	14	13.2
07:30	0	0	0	0	0	0	0	0	0	0	0	23	0	0	0	0	23	23	3	0	15	1	0	0	0	19	17.1
07:45	0	0	0	0	0	0	0	0	0	2	0	25	4	0	0	0	31	31.4	3	0	14	1	0	0	0	18	16.1
H/TOT	0	0	0	0	0	0	0	0	0	3	1	65	5	0	0	0	74	73.5	7	0	47	2	0	0	0	56	51.4
08:00	0	0	0	0	0	0	0	0	0	4	0	32	0	1	0	0	37	34.3	2	0	17	1	0	0	0	20	18.9
08:15	0	0	0	0	0	0	0	0	0	3	0	23	2	0	0	0	28	26.6	2	0	20	1	0	0	0	23	21.9
08:30	0	0	0	0	0	0	0	0	0	1	0	42	1	0	0	0	44	43.7	1	0	9	1	0	0	0	11	10.7
08:45	0	0	0	0	0	0	0	0	0	3	0	42	2	0	0	0	47	45.6	2	1	6	1	1	0	0	11	9.8
H/TOT	0	0	0	0	0	0	0	0	0	11	0	139	5	1	0	0	156	150.2	7	1	52	4	1	0	0	65	61.3
09:00	0	0	0	0	0	0	0	0	0	1	0	16	0	0	0	0	17	16.2	1	0	7	1	0	0	0	9	8.7
09:15	0	0	0	0	0	0	0	0	0	0	0	22	4	0	0	0	26	28	0	0	8	1	0	0	0	9	9.5
09:30	0	0	0	0	0	0	0	0	0	0	0	14	4	0	0	0	18	20	0	0	5	2	0	0	0	7	8
09:45	0	0	0	0	0	0	0	0	0	1	0	17	1	0	0	0	19	18.7	0	0	1	1	0	0	0	2	2.5
H/TOT	0	0	0	0	0	0	0	0	0	2	0	69	9	0	0	0	80	82.9	1	0	21	5	0	0	0	27	28.7
10:00	0	0	0	0	0	0	0	0	0	0	0	14	1	0	0	0	15	15.5	1	0	7	0	0	0	0	8	7.2
10:15	0	0	0	0	0	0	0	0	0	1	0	19	2	1	0	0	23	23.7	1	0	10	0	0	0	0	11	10.2
10:30	0	0	0	0	0	0	0	0	0	3	0	24	3	0	0	0	30	29.1	0	0	10	0	0	0	0	10	10
10:45	0	0	0	0	0	0	0	0	0	4	0	16	2	0	0	0	22	19.8	0	0	11	0	1	0	0	12	12.5
H/TOT	0	0	0	0	0	0	0	0	0	8	0	73	8	1	0	0	90	88.1	2	0	38	0	1	0	0	41	39.9
11:00	0	0	0	0	0	0	0	0	0	2	0	27	0	1	0	0	30	28.9	0	0	7	0	0	0	0	7	7
11:15	0	0	0	0	0	0	0	0	0	1	1	27	1	1	0	0	31	30.6	1	0	13	1	0	0	0	15	14.7
11:30	0	0	0	0	0	0	0	0	0	1	0	20	4	0	0	0	25	26.2	1	0	11	1	0	0	0	13	12.7
11:45	0	0	0	0	0	0	0	0	0	0	0	24	0	0	0	0	24	24	0	0	8	0	0	0	0	8	8
H/TOT	0	0	0	0	0	0	0	0	0	4	1	98	5	2	0	0	110	109.7	2	0	39	2	0	0	0	43	42.4
12:00	0	0	0	0	0	0	0	0	0	2	0	29	0	0	0	0	31	29.4	0	0	1	1	0	0	0	2	2.5
12:15	0	0	0	0	0	0	0	0	0	0	0	32	2	1	0	0	35	36.5	1	1	9	1	0	0	0	12	11.1
12:30	0	0	0	0	0	0	0	0	0	0	0	22	1	0	0	0	23	23.5	0	0	12	0	0	0	0	12	12
12:45	0	0	0	0	0	0	0	0	0	2	0	27	1	0	0	0	30	28.9	0	0	14	1	0	0	0	15	15.5
H/TOT	0	0	0	0	0	0	0	0	0	4	0	110	4	1	0	0	119	118.3	1	1	36	3	0	0	0	41	41.1
13:00	0	0	0	0	0	0	0	0	0	2	0	26	1	0	0	0	29	27.9	2	0	9	0	0	0	0	11	9.4
13:15	0	0	0	0	0	0	0	0	0	2	0	42	3	0	0	0	47	46.9	1	0	9	0	1	0	0	11	10.7
13:30	0	0	0	0	0	0	0	0	0	0	0	34	2	0	0	0	36	37	0	0	9	0	0	0	0	9	9
13:45	0	0	0	0	0	0	0	0	0	0	0	27	1	0	0	0	28	28.5	1	0	10	1	0	0	0	12	11.7
H/TOT	0	0	0	0	0	0	0	0	0	4	0	129	7	0	0	0	140	140.3	4	0	37	1	1	0	0	43	40.8
14:00	0	0	0	0	0	0	0	0	0	2	0	22	1	0	0	0	25	23.9	1	0	11	0	0	0	0	12	11.2
14:15	0	0	0	0	0	0	0	0	0	1	0	31	0	0	0	0	32	31.2	0	0	7	0	0	0	0	7	7
14:30	0	0	0	0	0	0	0	0	0	1	0	23	4	0	0	0	28	29.2	0	0	7	2	0	0	0	9	10
14:45	0	0	0	0	0	0	0	0	0	1	0	20	2	0	0	0	23	23.2	1	0	9	0	0	0	1	11	11.2
H/TOT	0	0	0	0	0	0	0	0	0	5	0	96	7	0	0	0	108	107.5	2	0	34	2	0	0	1	39	39.4
15:00	0	0	0	0	0	0	0	0	0	1	2	31	1	0	0	0	35	33.5	0	0	7	0	0	0	0	7	7
15:15	0	0	0	0	0	0	0	0	0	2	0	21	0	0	0	0	23	21.4	0	0	10	0	0	0	0	10	10
15:30	0	0	0	0	0	0	0	0	0	1	0	42	0	1	0	0	44	43.7	1	0	7	0	0	0	0	8	7.2
15:45	0	0	0	0	0	0	0	0	0	4	0	24	0	0	0	0	28	24.8	0	0	14	0	1	0	0	15	15.5
H/TOT	0	0	0	0	0	0	0	0	0	8	2	118	1	1	0	0	130	123.4	1	0	38	0	1	0	0	40	39.7
16:00	0	0	0	0	0	0	0	0	0	0	0	32	3	0	0	0	35	36.5	0	0	20	0	0	0	0	20	20
16:15	0	0	0	0	0	0	0	0	0	3	0	29	3	1	0	0	36	35.6	1	0	17	2	0	0	0	20	20.2
16:30	0	0	0	0	0	0	0	0	0	3	0	35	4	0	0	0	42	41.6	4	0	31	0	0	0	0	35	31.8
16:45	0	0	0	0	0	0	0	0	0	2	0	37	0	0	0	0	39	37.4	2	0	41	0	0	0	0	43	41.4
H/TOT	0	0	0	0	0	0	0	0	0	8	0	133	10	1	0	0	152	151.1	7	0	109	2	0	0	0	118	113.4
17:00	0	0	0	0	0	0	0	0	0	1	0	44	2	0	0	0	47	47.2	2	1	51	2	0	0	0	56	54.8
17:15	0	0	1	0	0	0	0	1	1	3	0	50	3	0	0	0	56	55.1	2	0	27	2	0	0	0	31	30.4
17:30	0	0	2	0	0	0	0	2	2	1	0	51	3	0	0	0	55	55.7	0	0	54	0	0	0	0	54	54
17:45	0	0	0	0	0	0	0	0	0	3	0	48	2	0	0	0	53	51.6	2	0	35	0	0	0	0	37	35.4
H/TOT	0	0	3	0	0	0	0	3	3	8	0	193	10	0	0	0	211	209.6	6	1	167	4	0	0	0	178	174.6
18:00	0	0	0	0	0	0	0	0	0	6	0	41	1	0	0	0	48	43.7	3	0	17	0	0	0	0	20	17.6
18:15	0	0	0	0	0	0	0	0	0	2	0	30	3	0	0	0	35	34.9	1	0	21	4	0	0	0	26	27.2
18:30	0	0	0	0	0	0	0	0	0	3	0	31	2	0	0	0	36	34.6	1	0	18	0	0	0	0	19	18.2
18:45	0	0	0	0	0	0	0	0	0	1	0	22	0	0	0	0	23	22.2	0	0	23	1	0	0	0	24	24.5
H/TOT	0	0	0	0	0	0	0	0	0	12	0	124	6	0	0	0	142	135.4	5	0	79	5	0	0	0	89	87.5
12 TOT	0	0	3	0	0	0	0	3	3	77	4	1347	77	7	0	0	1512	1490	45	3	697	30	4	0	1	780	760.2

TIME	B => A P/C	B => A M/C	B => A CAR	B => A LGV	B => A OGV1	B => A OGV2	B => A PSV	B => A TOT	B => A PCU	B => B P/C	B => B M/C	B => B CAR	B => B LGV	B => B OGV1	B => B OGV2	B => B PSV	B => B TOT	B => B PCU	B => C P/C	B => C M/C	B => C CAR	B => C LGV	B => C OGV1	B => C OGV2	B => C PSV	B => C TOT	B => C PCU
07:00	0	0	15	0	0	0	0	15	15	0	0	0	0	0	0	0	0	0	2	0	43	6	0	1	1	53	56.7
07:15	2	0	14	3	0	0	0	19	18.9	0	0	0	0	0	0	0	0	0	5	1	67	8	1	0	1	83	83.9
07:30	3	0	25	3	0	0	0	31	30.1	0	0	0	0	0	0	0	0	0	3	0	84	6	0	0	2	95	97.6
07:45	0	1	29	2	0	0	0	32	32.4	0	0	0	0	0	0	0	0	0	1	3	78	6	0	0	1	89	90.4
H/TOT	5	1	83	8	0	0	0	97	96.4	0	0	0	0	0	0	0	0	0	11	4	272	26	1	1	5	320	328.6
08:00	3	0	22	1	0	0	1	27	26.1	0	0	0	0	0	0	0	0	0	3	0	88	15	3	1	1	111	119.9
08:15	0	2	24	0	0	0	0	26	24.8	0	0	0	0	0	0	0	0	0	5	1	77	12	2	2	3	102	110
08:30	2	0	31	1	0	0	0	34	32.9	0	0	0	0	0	0	0	0	0	1	1	92	8	2	1	0	105	109.9
08:45	2	0	37	3	0	0	0	42	41.9	0	0	0	0	0	0	0	0	0	2	0	91	10	2	1	1	107	113.7
H/TOT	7	2	114	5	0	0	1	129	125.7	0	0	0	0	0	0	0	0	0	11	2	348	45	9	5	5	425	453.5
09:00	1	0	55	3	0	0	0	59	59.7	0	0	0	0	0	0	0	0	0	0	2	69	9	7	0	1	88	95.8
09:15	2	0	38	2	0	0	0	42	41.4	0	0	0	0	0	0	0	0	0	0	1	70	12	0	0	3	86	94.4
09:30	0	0	26	2	0	0	0	28	29	0	0	0	0	0	0	0	0	0	2	0	78	12	3	1	1	97	105.2
09:45	1	0	34	3	0	0	0	38	38.7	0	0	0	0	0	0	0	0	0	0	0	71	22	3	1	1	98	112.8
H/TOT	4	0	153	10	0	0	0	167	168.8	0	0	0	0	0	0	0	0	0	2	3	288	55	13	2	6	369	408.2
10:00	1	0	10	4	1	0	0	16	17.7	0	0	0	0	0	0	0	0	0	0	0	67	15	3	1	2	88	100.3
10:15	0	0	18	1	1	0	0	20	21	0	0	0	0	0	0	0	0	0	0	0	57	9	6	1	1	74	83.8
10:30	0	0	14	1	0	0	0	15	15.5	0	0	0	0	0	0	0	0	0	0	0	56	14	4	1	1	76	87.3
10:45	1	0	26	0	0	0	0	27	26.2	0	0	0	0	0	0	0	0	0	2	0	64	14	3	2	1	86	96.5
H/TOT	2	0	68	6	2	0	0	78	80.4	0	0	0	0	0	0	0	0	0	2	0	244	52	16	5	5	324	367.9
11:00	2	0	25	3	2	0	0	32	32.9	0	0	0	0	0	0	0	0	0	3	0	61	13	3	1	3	84	93.9
11:15	1	0	30	3	1	0	0	35	36.2	0	0	0	0	0	0	0	0	0	1	0	77	13	4	0	2	97	106.7
11:30	2	1	25	3	0	0	0	31	30.3	0	0	0	0	0	0	0	0	0	1	0	59	11	1	0	1	73	79.2
11:45	0	0	17	3	1	0	0	21	23	0	0	0	0	0	0	0	0	0	0	0	58	10	1	1	1	71	78.8
H/TOT	5	1	97	12	4	0	0	119	122.4	0	0	0	0	0	0	0	0	0	5	0	255	47	9	2	7	325	358.6
12:00	0	0	21	1	0	0	0	22	22.5	0	0	0	0	0	0	0	0	0	0	1	79	13	2	3	0	98	108.8
12:15	0	0	23	1	1	0	0	25	26	0	0	0	0	0	0	0	0	0	1	0	65	11	1	0	1	79	85.2
12:30	1	1	24	3	1	0	0	30	30.6	0	0	0	0	0	0	0	0	0	3	0	73	11	3	1	1	92	98.9
12:45	0	0	38	2	0	0	0	40	41	0	0	1	0	0	0	0	1	1	2	0	65	13	4	1	1	86	95.2
H/TOT	1	1	106	7	2	0	0	117	120.1	0	0	1	0	0	0	0	1	1	6	1	282	48	10	5	3	355	388.1
13:00	0	0	29	3	0	0	0	32	33.5	0	0	0	0	0	0	0	0	0	2	0	66	10	0	0	0	78	81.4
13:15	1	0	33	3	0	0	0	37	37.7	0	0	0	0	0	0	0	0	0	1	0	69	9	6	0	1	86	93.7
13:30	4	0	31	6	0	0	0	41	40.8	0	0	0	0	0	0	0	0	0	0	0	101	7	4	2	1	115	124.1
13:45	0	0	21	3	0	0	0	24	25.5	0	0	0	0	0	0	0	0	0	1	0	73	11	3	0	1	89	96.2
H/TOT	5	0	114	15	0	0	0	134	137.5	0	0	0	0	0	0	0	0	0	4	0	309	37	13	2	3	368	395.4
14:00	4	0	31	2	0	0	0	37	34.8	0	0	0	1	0	0	0	1	1.5	2	0	77	15	1	1	1	97	105.7
14:15	0	0	27	2	0	0	0	29	30	0	0	0	0	0	0	0	0	0	2	0	84	12	3	0	0	101	106.9
14:30	0	0	25	1	0	0	0	26	26.5	0	0	0	0	0	0	0	0	0	1	2	66	6	1	0	0	76	77.5
14:45	1	0	42	1	0	0	0	44	43.7	0	0	0	0	0	0	0	0	0	0	0	73	9	4	2	2	90	101.1
H/TOT	5	0	125	6	0	0	0	136	135	0	0	0	1	0	0	0	1	1.5	5	2	300	42	9	3	3	364	391.2
15:00	3	0	26	0	0	0	0	29	26.6	0	0	0	0	0	0	0	0	0	1	0	75	16	4	1	2	99	111.5
15:15	2	0	35	1	0	0	0	38	36.9	0	0	0	0	0	0	0	0	0	1	0	91	13	3	0	0	108	115.2
15:30	0	0	24	1	0	0	0	25	25.5	0	0	0	0	0	0	0	0	0	4	0	86	14	1	1	2	108	115.6
15:45	3	0	27	1	0	0	0	31	29.1	0	0	0	0	0	0	0	0	0	0	0	84	6	2	0	1	93	98
H/TOT	8	0	112	3	0	0	0	123	118.1	0	0	0	0	0	0	0	0	0	6	0	336	49	10	2	5	408	440.3
16:00	2	0	27	4	0	0	0	33	33.4	0	0	0	0	0	0	0	0	0	6	1	96	5	1	1	1	111	110.9
16:15	4	0	38	1	0	0	0	43	40.3	0	0	0	0	0	0	0	0	0	0	0	108	13	2	1	0	124	132.8
16:30	4	0	35	0	1	0	0	40	37.3	0	0	0	0	0	0	0	0	0	1	1	101	10	1	2	1	117	124.7
16:45	3	0	32	3	0	0	0	38	37.1	0	0	0	0	0	0	0	0	0	3	0	107	18	3	1	1	133	143.4
H/TOT	13	0	132	8	1	0	0	154	148.1	0	0	0	0	0	0	0	0	0	10	2	412	46	7	5	3	485	511.8
17:00	6	0	43	1	0	0	0	50	45.7	0	0	0	0	0	0	0	0	0	0	0	148	11	1	0	0	160	166
17:15	1	0	39	5	0	0	0	45	46.7	0	0	0	0	0	0	0	0	0	3	1	113	13	1	0	2	133	139
17:30	2	0	41	3	1	0	0	47	47.4	0	0	0	0	0	0	0	0	0	3	1	111	4	1	1	1	122	123.8
17:45	2	0	42	1	0	0	0	45	43.9	0	0	0	0	0	0	0	0	0	5	1	97	9	3	1	1	117	120.7
H/TOT	11	0	165	10	1	0	0	187	183.7	0	0	0	0	0	0	0	0	0	11	3	469	37	6	2	4	532	549.5
18:00	1	1	32	2	0	0	0	36	35.6	0	0	0	0	0	0	0	0	0	2	1	102	4	1	1	3	114	118.6
18:15	5	0	26	1	0	0	0	32	28.5	0	0	0	0	0	0	0	0	0	1	1	85	4	0	0	1	92	93.6
18:30	0	0	38	1	0	0	0	39	39.5	0	0	0	0	0	0	0	0	0	0	1	77	7	0	0	0	85	87.9
18:45	1	0	25	2	0	0	0	28	28.2	0	0	0	0	0	0	0	0	0	1	0	71	5	0	0	1	78	80.7
H/TOT	7	1	121	6	0	0	0	135	131.8	0	0	0	0	0	0	0	0	0	4	3	335	20	1	1	5	369	380.8
12 TOT	73	6	1390	96	10	0	1	1576	1568	0	0	1	1	0	0	0	2	2.5	77	20	3850	504	104	35	54	4644	4974

TIME	C => A P/C	C => A M/C	C => A CAR	C => A LGV	C => A OGV1	C => A OGV2	C => A PSV	C => A TOT	C => A PCU	C => B P/C	C => B M/C	C => B CAR	C => B LGV	C => B OGV1	C => B OGV2	C => B PSV	C => B TOT	C => B PCU	C => C P/C	C => C M/C	C => C CAR	C => C LGV	C => C OGV1	C => C OGV2	C => C PSV	C => C TOT	C => C PCU
07:00	1	0	13	0	0	0	0	14	13.2	1	0	44	9	3	0	1	58	64.2	0	0	0	0	0	0	0	0	0
07:15	3	0	24	0	0	0	0	27	24.6	2	0	47	9	2	1	0	61	66.2	0	0	0	0	0	0	0	0	0
07:30	3	0	20	3	1	0	0	27	26.6	1	0	70	7	7	1	1	87	95.5	0	0	0	0	0	0	0	0	0
07:45	1	0	27	3	0	0	0	31	31.7	4	0	82	16	3	2	1	108	117.9	0	0	0	0	0	0	0	0	0
H/TOT	8	0	84	6	1	0	0	99	96.1	8	0	243	41	15	4	3	314	343.8	0	0	0	0	0	0	0	0	0
08:00	7	0	26	5	0	0	0	38	34.9	4	1	76	12	1	0	1	95	98.7	0	0	0	0	0	0	0	0	0
08:15	3	0	31	5	0	0	0	39	39.1	2	0	94	15	5	0	1	117	126.4	0	0	0	0	0	0	0	0	0
08:30	1	0	26	1	0	0	0	28	27.7	1	0	110	10	6	0	0	127	134.2	0	0	0	0	0	0	0	0	0
08:45	1	0	39	1	0	0	0	41	40.7	3	1	101	11	2	0	2	120	125.5	0	0	0	0	0	0	0	0	0
H/TOT	12	0	122	12	0	0	0	146	142.4	10	2	381	48	14	0	4	459	484.8	0	0	0	0	0	0	0	0	0
09:00	1	0	32	4	0	0	0	37	38.2	0	1	81	10	3	1	1	97	105.2	0	0	0	0	0	0	0	0	0
09:15	3	0	30	1	0	0	0	34	32.1	0	0	80	6	4	0	2	92	99	0	0	0	0	0	0	0	0	0
09:30	1	0	12	2	0	0	0	15	15.2	4	0	75	11	1	1	0	92	96.1	0	0	0	0	0	0	0	0	0
09:45	0	0	16	1	1	0	0	18	19	0	1	65	13	6	3	2	90	104.8	0	0	0	0	0	0	0	0	0
H/TOT	5	0	90	8	1	0	0	104	104.5	4	2	301	40	14	5	5	371	405.1	0	0	0	0	0	0	0	0	0
10:00	2	0	13	0	0	0	0	15	13.4	0	0	65	15	3	1	0	84	94.3	0	0	0	0	0	0	0	0	0
10:15	0	0	15	3	0	0	0	18	19.5	0	0	53	14	1	0	1	69	77.5	0	0	0	0	0	0	0	0	0
10:30	2	0	13	1	0	0	0	16	14.9	0	0	52	10	2	0	1	65	72	0	0	0	0	0	0	0	0	0
10:45	2	1	12	2	1	0	0	18	17.3	1	0	51	15	2	2	0	71	81.3	0	0	0	0	0	0	0	0	0
H/TOT	6	1	53	6	1	0	0	67	65.1	1	0	221	54	8	3	2	289	325.1	0	0	0	0	0	0	0	0	0
11:00	1	0	9	1	1	0	0	12	12.2	1	0	46	16	3	0	1	67	76.7	0	0	0	0	0	0	0	0	0
11:15	0	0	10	4	1	0	0	15	17.5	0	0	61	7	2	2	0	72	79.1	0	0	0	0	0	0	0	0	0
11:30	0	0	14	1	0	0	0	15	15.5	2	0	67	12	1	3	0	85	93.8	0	0	0	0	0	0	0	0	0
11:45	0	1	12	1	0	0	0	14	13.9	0	0	64	9	3	1	1	78	86.3	0	0	0	0	0	0	0	0	0
H/TOT	1	1	45	7	2	0	0	56	59.1	3	0	238	44	9	6	2	302	335.9	0	0	0	0	0	0	0	0	0
12:00	1	0	10	2	0	0	0	13	13.2	2	0	71	11	5	1	2	92	101.7	0	0	0	0	0	0	0	0	0
12:15	0	0	9	2	0	0	0	11	12	0	1	64	11	1	0	1	78	84.4	0	0	0	0	0	0	0	0	0
12:30	1	0	10	2	0	0	0	13	13.2	2	0	65	8	5	0	1	81	86.9	0	0	0	0	0	0	0	0	0
12:45	0	0	13	0	1	0	1	15	16.5	0	0	69	12	4	2	0	87	97.6	0	0	0	0	0	0	0	0	0
H/TOT	2	0	42	6	1	0	1	52	54.9	4	1	269	42	15	3	4	338	370.6	0	0	0	0	0	0	0	0	0
13:00	1	0	24	2	0	0	0	27	27.2	1	1	69	14	3	2	0	90	99.7	0	0	0	0	0	0	0	0	0
13:15	0	0	11	0	1	0	0	12	12.5	1	0	62	6	3	1	3	76	84	0	0	0	0	0	0	0	0	0
13:30	1	0	11	2	1	0	0	15	15.7	0	0	69	7	2	1	1	80	86.8	0	0	0	0	0	0	0	0	0
13:45	0	0	24	0	0	0	0	24	24	0	0	68	11	4	0	0	83	90.5	0	0	0	0	0	0	0	0	0
H/TOT	2	0	70	4	2	0	0	78	79.4	2	1	268	38	12	4	4	329	361	0	0	0	0	0	0	0	0	0
14:00	0	0	16	1	0	0	0	17	17.5	0	0	74	14	1	0	1	90	98.5	0	0	0	0	0	0	0	0	0
14:15	1	0	9	2	0	0	0	12	12.2	0	0	50	10	4	3	2	69	81.9	0	0	0	0	0	0	0	0	0
14:30	0	0	15	6	0	0	0	21	24	0	1	60	14	1	0	1	77	84.9	0	0	0	0	0	0	0	0	0
14:45	1	0	28	5	0	0	0	34	35.7	1	0	71	12	1	1	1	87	95	0	0	0	0	0	0	0	0	0
H/TOT	2	0	68	14	0	0	0	84	89.4	1	1	255	50	7	4	5	323	360.3	0	0	0	0	0	0	0	0	0
15:00	0	0	26	2	2	0	0	30	32	0	0	74	20	3	0	0	97	108.5	0	0	0	0	0	0	0	0	0
15:15	1	0	24	0	0	0	1	26	26.2	3	0	79	6	0	0	1	89	90.6	0	0	0	0	0	0	0	0	0
15:30	0	0	12	2	0	0	0	14	15	2	0	59	7	1	1	0	70	73.7	0	0	0	0	0	0	0	0	0
15:45	1	0	21	5	0	0	0	27	28.7	2	2	75	9	2	2	1	93	99.3	0	0	0	0	0	0	0	0	0
H/TOT	2	0	83	9	2	0	1	97	101.9	7	2	287	42	6	3	2	349	372.1	0	0	0	0	0	0	0	0	0
16:00	1	0	16	2	1	0	1	21	22.7	1	0	93	12	1	0	1	108	114.7	0	0	0	0	0	0	0	0	0
16:15	1	0	26	5	0	0	0	32	33.7	1	0	77	10	2	1	0	91	97.5	0	0	0	0	0	0	0	0	0
16:30	0	0	26	1	0	0	0	27	27.5	3	0	72	12	1	0	1	89	94.1	0	0	0	0	0	0	0	0	0
16:45	1	0	37	2	0	0	0	40	40.2	3	1	67	11	2	1	2	87	93.8	0	0	0	0	0	0	0	0	0
H/TOT	3	0	105	10	1	0	1	120	124.1	8	1	309	45	6	2	4	375	400.1	0	0	0	0	0	0	0	0	0
17:00	1	0	33	4	0	0	0	38	39.2	5	1	99	13	1	0	0	119	121.4	0	0	0	0	0	0	0	0	0
17:15	1	0	35	2	0	0	0	38	38.2	6	3	94	11	1	0	2	117	118.4	0	0	0	0	0	0	0	0	0
17:30	1	1	18	0	0	0	0	20	18.6	1	1	95	8	2	0	1	108	112.6	0	0	0	0	0	0	0	0	0
17:45	0	0	27	3	0	0	0	30	31.5	2	1	93	9	0	0	1	106	109.3	0	0	0	0	0	0	0	0	0
H/TOT	3	1	113	9	0	0	0	126	127.5	14	6	381	41	4	0	4	450	461.7	0	0	0	0	0	0	0	0	0
18:00	3	0	27	3	0	0	0	33	32.1	1	1	83	7	1	1	1	95	99.9	0	0	0	0	0	0	0	0	0
18:15	1	0	30	3	0	0	0	34	34.7	0	1	76	6	1	0	0	84	86.9	0	0	0	0	0	0	0	0	0
18:30	3	0	27	1	0	0	0	31	29.1	1	1	89	3	1	0	1	96	97.6	0	0	0	0	0	0	0	0	0
18:45	1	0	27	1	0	0	0	29	28.7	5	0	90	5	0	0	2	102	102.5	0	0	0	0	0	0	0	0	0
H/TOT	8	0	111	8	0	0	0	127	124.6	7	3	338	21	3	1	4	377	386.9	0	0	0	0	0	0	0	0	0
12 TOT	54	3	986	99	11	0	3	1156	1169	69	19	3491	506	113	35	43	4276	4607	0	0	0	0	0	0	0	0	0



IDASO

Survey Name: 029 19025 Northwood
Site: 7
Location: Northwood Ave / Swords Rd
Date: 12-Feb-2019

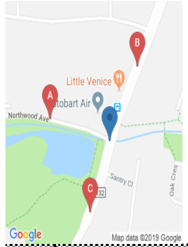
TIME	A1	A2	B1	B2	B3	C1	C2
07:00	25	30	20	25	10	15	25
07:15	25	30	40	50	15	25	40
07:30	20	45	45	150	20	35	100
07:45	45	50	40	70	50	30	110
08:00	35	40	30	130	40	45	120
08:15	55	45	50	180+	30	35	70
08:30	60	55	30	80	50	50	200+
08:45	85	50	20	70	45	40	200+
09:00	40	30	15	150	30	60	120
09:15	60	55	20	100	25	50	200+
09:30	50	30	15	65	20	40	60
09:45	30	25	15	70	20	30	110
10:00	30	25	30	55	15	45	60
10:15	35	30	15	50	25	40	80
10:30	30	35	25	130	15	25	40
10:45	30	50	15	60	10	20	50
11:00	20	35	20	55	25	20	45
11:15	30	40	20	100	30	45	70
11:30	50	35	15	70	15	30	100
11:45	35	40	20	80	20	25	80
12:00	40	25	10	80	30	20	50
12:15	30	50	20	90	20	30	100
12:30	30	40	30	180+	50	30	60
12:45	25	30	30	180+	40	30	110

TIME	A1	A2	B1	B2	B3	C1	C2
13:00	30	30	30	180+	60	30	105
13:15	30	50	20	135	20	50	80
13:30	50	45	30	130	20	30	120
13:45	35	25	20	100	20	30	130
14:00	30	50	15	145	20	60	80
14:15	35	55	15	130	20	35	70
14:30	40	40	20	70	25	30	120
14:45	45	50	15	60	35	45	70
15:00	35	30	15	70	25	40	90
15:15	50	30	30	55	25	30	80
15:30	30	45	20	120	60	45	110
15:45	30	20	20	75	15	40	90
16:00	35	45	20	180+	30	40	50
16:15	40	100	20	130	30	30	60
16:30	40	125	15	150	30	40	80
16:45	35	170	10	150	25	30	65
17:00	50	200+	10	180+	55	50	170
17:15	50	200+	150	180+	70	50	170
17:30	55	200+	40	180+	55	40	120
17:45	50	200+	75	180+	70	40	130
18:00	60	150	40	180+	50	60	130
18:15	30	40	50	135	20	30	70
18:30	40	60	20	90	30	20	30
18:45	25	40	15	60	20	20	40

Queue's are measured in meters

	Cannot be seen from camera
+	Signifies queue stretches to a minimum length of x and beyond the view of the camera
#	Signifies queue stretches to the next significant junction
*	Indicates an estimated queue length due to obscured vision.

Queue lengths are compiled from CCTV observations and are therefore subject to the limitations of the camera view.



IDASO

Survey Name: 029 19025 Northwood
Site: 7
Location: Northwood Ave / Swords Rd
Date: 12-Feb-2019

TIME	A => A									A => B									A => C								
	P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	PCU
07:00	0	0	0	0	0	0	0	0	0	0	0	8	3	0	0	1	12	14.5	4	0	25	3	1	0	0	33	31.8
07:15	0	0	0	0	0	0	0	0	0	0	0	14	7	0	0	0	21	24.5	2	0	23	6	0	0	0	31	32.4
07:30	0	0	0	0	0	0	0	0	0	0	0	40	5	2	0	1	48	52.5	0	0	46	2	0	0	0	48	49
07:45	0	0	0	0	0	0	0	0	0	0	0	45	7	0	0	0	52	55.5	2	1	41	3	0	0	0	47	46.3
H/TOT	0	0	0	0	0	0	0	0	0	0	0	107	22	2	0	2	133	147	8	1	135	14	1	0	0	159	159.5
08:00	0	0	0	0	0	0	0	0	0	0	1	28	5	1	0	2	37	41.4	0	1	47	0	0	0	1	49	49.4
08:15	0	0	0	0	0	0	0	0	0	0	0	38	10	1	0	0	49	54.5	1	0	57	1	1	0	0	60	60.2
08:30	0	0	0	0	0	0	0	0	0	0	0	55	6	0	0	1	62	66	0	0	57	6	0	0	0	63	66
08:45	0	0	0	0	0	0	0	0	0	0	0	61	4	1	0	0	66	68.5	1	0	37	4	0	0	0	42	43.2
H/TOT	0	0	0	0	0	0	0	0	0	0	1	182	25	3	0	3	214	230.4	2	1	198	11	1	0	1	214	218.8
09:00	0	0	0	0	0	0	0	0	0	0	0	34	7	1	0	1	43	48	0	0	39	3	0	0	0	42	43.5
09:15	0	0	0	0	0	0	0	0	0	0	0	34	9	1	0	0	44	49	2	1	53	3	0	1	0	60	60.6
09:30	0	0	0	0	0	0	0	0	0	0	0	27	0	0	0	1	28	29	1	0	23	5	0	0	0	29	30.7
09:45	0	0	0	0	0	0	0	0	0	0	0	19	7	1	0	0	27	31	0	0	29	2	0	0	0	31	32
H/TOT	0	0	0	0	0	0	0	0	0	0	0	114	23	3	0	2	142	157	3	1	144	13	0	1	0	162	166.8
10:00	0	0	0	0	0	0	0	0	0	0	0	30	4	1	0	1	36	39.5	0	0	19	7	0	0	0	26	29.5
10:15	0	0	0	0	0	0	0	0	0	0	0	25	5	1	0	0	31	34	0	0	24	3	0	0	0	27	28.5
10:30	0	0	0	0	0	0	0	0	0	0	0	16	7	4	0	1	28	34.5	0	0	27	1	0	0	0	28	28.5
10:45	0	0	0	0	0	0	0	0	0	0	0	20	5	1	0	0	26	29	0	0	31	2	1	0	0	34	35.5
H/TOT	0	0	0	0	0	0	0	0	0	0	0	91	21	7	0	2	121	137	0	0	101	13	1	0	0	115	122
11:00	0	0	0	0	0	0	0	0	0	0	0	18	3	0	0	1	22	24.5	0	0	32	3	1	0	0	36	38
11:15	0	0	0	0	0	0	0	0	0	0	0	29	11	2	0	0	42	48.5	0	0	31	3	0	0	0	34	35.5
11:30	0	0	0	0	0	0	0	0	0	0	0	29	5	0	0	1	35	38.5	0	0	27	3	0	0	0	30	31.5
11:45	0	0	0	0	0	0	0	0	0	0	0	21	2	1	0	0	24	25.5	0	0	39	3	0	0	0	42	43.5
H/TOT	0	0	0	0	0	0	0	0	0	0	0	97	21	3	0	2	123	137	0	0	129	12	1	0	0	142	148.5
12:00	0	0	0	0	0	0	0	0	0	0	0	26	4	0	0	1	31	34	0	0	40	4	1	0	0	45	47.5
12:15	0	0	0	0	0	0	0	0	0	0	0	25	2	3	0	0	30	32.5	1	1	42	5	0	0	0	49	50.1
12:30	0	0	0	0	0	0	0	0	0	0	0	26	4	0	0	1	31	34	0	0	45	1	0	0	0	46	46.5
12:45	0	0	0	0	0	0	0	0	0	0	0	25	5	0	1	0	31	34.8	0	0	40	2	0	0	0	42	43
H/TOT	0	0	0	0	0	0	0	0	0	0	0	102	15	3	1	2	123	135.3	1	1	167	12	1	0	0	182	187.1
13:00	0	0	0	0	0	0	0	0	0	0	0	25	2	0	0	1	28	30	1	2	38	1	0	0	0	42	40.5
13:15	0	0	0	0	0	0	0	0	0	0	0	27	1	2	0	0	30	31.5	0	0	41	7	1	0	0	49	53
13:30	0	0	0	0	0	0	0	0	0	0	0	40	6	0	0	1	47	51	0	0	33	1	0	0	0	34	34.5
13:45	0	0	0	0	0	0	0	0	0	0	1	43	6	0	0	0	50	52.4	0	0	36	3	0	0	0	39	40.5
H/TOT	0	0	0	0	0	0	0	0	0	0	1	135	15	2	0	2	155	164.9	1	2	148	12	1	0	0	164	168.5
14:00	0	0	0	0	0	0	0	0	0	0	0	24	5	3	0	1	33	38	0	0	44	2	0	0	0	46	47
14:15	0	0	0	0	0	0	0	0	0	0	0	30	5	1	0	0	36	39	0	0	48	2	0	0	0	50	51
14:30	0	0	0	0	0	0	0	0	0	0	0	25	9	1	0	1	36	42	0	1	36	1	0	0	0	38	37.9
14:45	0	0	0	0	0	0	0	0	0	0	0	29	5	0	0	0	34	36.5	0	0	26	4	1	0	0	31	33.5
H/TOT	0	0	0	0	0	0	0	0	0	0	0	108	24	5	0	2	139	155.5	0	1	154	9	1	0	0	165	169.4
15:00	0	0	0	0	0	0	0	0	0	0	1	30	6	0	0	1	38	41.4	0	0	39	5	1	0	0	45	48
15:15	0	0	0	0	0	0	0	0	0	0	0	29	5	0	0	0	34	36.5	0	0	37	3	0	0	1	41	43.5
15:30	0	0	0	0	0	0	0	0	0	0	0	29	8	0	0	1	38	43	0	0	44	2	0	0	0	46	47
15:45	0	0	0	0	0	0	0	0	0	0	0	28	9	2	0	1	40	46.5	0	0	44	7	0	0	0	51	54.5
H/TOT	0	0	0	0	0	0	0	0	0	0	1	116	28	2	0	3	150	167.4	0	0	164	17	1	0	1	183	193
16:00	0	0	0	0	0	0	0	0	0	0	0	29	1	1	0	1	32	34	0	0	59	5	0	0	0	64	66.5
16:15	0	0	0	0	0	0	0	0	0	0	0	30	8	2	0	0	40	45	0	0	57	3	0	0	0	60	61.5
16:30	0	0	0	0	0	0	0	0	0	0	0	31	3	1	0	1	36	39	0	2	71	3	0	0	0	76	76.3
16:45	0	0	0	0	0	0	0	0	0	0	0	41	4	0	0	0	45	47	1	0	54	4	0	0	0	59	60.2
H/TOT	0	0	0	0	0	0	0	0	0	0	0	131	16	4	0	2	153	165	1	2	241	15	0	0	0	259	264.5
17:00	0	0	0	0	0	0	0	0	0	0	1	36	6	0	0	1	44	47.4	0	0	52	1	0	0	0	53	53.5
17:15	0	0	0	0	0	0	0	0	0	0	0	55	3	0	0	0	58	59.5	1	1	74	2	0	0	0	78	77.6
17:30	0	0	0	0	0	0	0	0	0	0	0	40	3	1	0	1	45	48	1	0	64	2	0	0	0	67	67.2
17:45	0	0	0	0	0	0	0	0	0	0	0	33	5	0	0	0	38	40.5	2	0	75	4	0	0	0	81	81.4
H/TOT	0	0	0	0	0	0	0	0	0	0	1	164	17	1	0	2	185	195.4	4	1	265	9	0	0	0	279	279.7
18:00	0	0	0	0	0	0	0	0	0	0	0	38	3	0	1	1	43	46.8	3	1	66	7	0	0	0	77	77.5
18:15	0	0	0	0	0	0	0	0	0	0	1	19	1	0	0	0	21	20.9	0	0	38	1	0	0	0	39	39.5
18:30	0	0	0	0	0	0	0	0	0	0	2	19	1	0	0	1	23	23.3	1	0	45	3	0	0	0	49	49.7
18:45	0	0	0	0	0	0	0	0	0	0	0	29	3	0	0	1	33	35.5	2	1	44	5	0	0	0	52	52.3
H/TOT	0	0	0	0	0	0	0	0	0	0	3	105	8	0	1	3	120	126.5	6	2	193	16	0	0	0	217	219
12 TOT	0	0	0	0	0	0	0	0	0	0	7	1452	235	35	2	27	1758	1918	26	12	2039	153	8	1	2	2241	2297

TIME	B => A									B => B									B => C								
	P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	PCU
07:00	3	0	6	3	0	0	0	12	11.1	0	0	0	0	0	0	0	0	0	10	0	60	12	6	0	8	96	105
07:15	0	0	21	7	1	0	2	31	37	0	0	0	0	0	0	0	0	0	6	2	72	12	7	0	8	107	118.5
07:30	1	0	20	5	0	0	0	26	27.7	0	0	0	0	0	0	0	0	0	3	0	93	19	3	4	8	130	151.8
07:45	1	0	36	9	0	0	1	47	51.7	0	0	0	0	0	0	0	0	0	5	3	78	15	6	1	7	115	128
H/TOT	5	0	83	24	1	0	3	116	127.5	0	0	0	0	0	0	0	0	0	24	5	303	58	22	5	31	448	503.3
08:00	1	0	39	4	0	0	0	44	45.2	0	0	0	0	0	0	0	0	0	10	2	100	13	3	2	6	136	143.4
08:15	1	0	39	3	1	0	1	45	47.2	0	0	0	0	0	0	0	0	0	12	3	92	11	4	5	5	132	139.6
08:30	0	0	36	5	1	0	0	42	45	0	0	0	0	0	0	0	0	0	13	2	84	20	4	0	8	131	139.4
08:45	0	0	28	3	0	0	1	32	34.5	0	0	0	0	0	0	0	0	0	1	1	82	11	7	2	4	108	122.2
H/TOT	2	0	142	15	2	0	2	163	171.9	0	0	0	0	0	0	0	0	0	36	8	358	55	18	9	23	507	544.6
09:00	0	0	33	20	3	0	0	56	67.5	0	0	0	0	0	0	0	0	0	5	1	97	34	6	2	5	150	173
09:15	0	0	13	5	0	0	1	19	22.5	0	0	0	0	0	0	0	0	0	1	2	80	25	5	2	6	121	142.6
09:30	0	0	24	7	0	0	0	31	34.5	0	0	0	0	0	0	0	0	0	1	0	67	25	11	0	8	112	137.2
09:45	0	0	18	7	0	0	1	26	30.5	0	0	0	0	0	0	0	0	0	0	0	71	26	6	1	6	110	133.3
H/TOT	0	0	88	39	3	0	2	132	155	0	0	0	0	0	0	0	0	0	7	3	315	110	28	5	25	493	586.1
10:00	0	0	19	9	0	0	0	28	32.5	0	0	0	0	0	0	0	0	0	1	1	69	14	6	3	6	100	118.5
10:15	0	0	27	6	1	0	1	35	39.5	0	0	0	0	0	0	0	0	0	2	1	76	29	5	0	4	117	135.8
10:30	0	0	25	4	0	0	0	29	31	0	0	0	0	0	0	0	0	0	1	1	70	29	8	3	6	118	145
10:45	0	0	20	3	0	0	1	24	26.5	0	0	0	0	0	0	0	0	0	2	2	90	32	6	4	5	141	167.4
H/TOT	0	0	91	22	1	0	2	116	129.5	0	0	0	0	0	0	0	0	0	6	5	305	104	25	10	21	476	566.7
11:00	0	0	28	3	0	0	0	31	32.5	0	0	0	0	0	0	0	0	0	0	0	79	22	5	1	6	113	133.8
11:15	0	0	15	7	1	0	1	24	29	0	0	0	0	0	0	0	0	0	3	3	84	30	9	0	3	132	150.3
11:30	0	0	21	2	0	0	0	23	24	0	0	0	0	0	0	0	0	0	2	2	83	30	8	3	6	134	160.1
11:45	0	0	22	4	0	0	1	27	30	0	0	0	0	0	0	0	0	0	1	2	90	16	8	0	7	124	141
H/TOT	0	0	86	16	1	0	2	105	115.5	0	0	0	0	0	0	0	0	0	6	7	336	98	30	4	22	503	585.2
12:00	0	1	30	3	0	0	0	34	34.9	0	0	0	0	0	0	0	0	0	3	1	96	27	6	2	5	140	161.1
12:15	0	0	22	1	0	1	1	25	27.8	0	0	0	0	0	0	0	0	0	4	1	127	21	5	5	8	171	194.7
12:30	0	0	40	3	0	0	0	43	44.5	0	0	0	0	0	0	0	0	0	5	1	120	17	2	1	5	151	162.2
12:45	0	0	29	8	0	0	1	38	43	0	0	0	0	0	0	0	0	0	2	2	136	12	7	4	4	167	182.9
H/TOT	0	1	121	15	0	1	2	140	150.2	0	0	0	0	0	0	0	0	0	14	5	479	77	20	12	22	629	700.9
13:00	0	0	58	8	0	0	0	66	70	0	0	0	0	0	0	0	0	0	3	0	140	24	8	5	4	184	208.1
13:15	0	0	27	2	1	0	1	31	33.5	0	0	0	0	0	0	0	0	0	1	0	92	16	7	2	7	125	145.3
13:30	1	0	28	3	1	0	0	33	34.2	0	0	0	0	0	0	0	0	0	4	0	92	25	6	2	4	133	151.9
13:45	0	0	28	6	0	0	1	35	39	0	0	0	0	0	0	0	0	0	0	0	104	20	3	0	6	133	150.5
H/TOT	1	0	141	19	2	0	2	165	176.7	0	0	0	0	0	0	0	0	0	8	0	428	85	24	9	21	575	655.8
14:00	3	1	32	5	0	0	0	41	40.5	0	0	0	0	0	0	0	0	0	4	1	131	14	4	1	4	159	169.5
14:15	2	1	22	5	0	0	1	31	32.3	0	0	0	0	0	0	0	0	0	3	2	109	19	5	3	4	145	161.3
14:30	0	0	26	4	0	0	0	30	32	0	0	0	0	0	0	0	0	0	1	3	96	24	4	0	5	133	149.4
14:45	0	0	24	3	2	0	1	30	33.5	0	0	0	0	0	0	0	0	0	0	0	85	23	7	1	4	120	140.3
H/TOT	5	2	104	17	2	0	2	132	138.3	0	0	0	0	0	0	0	0	0	8	6	421	80	20	5	17	557	620.5
15:00	3	1	29	1	0	0	0	34	31.5	0	0	0	0	0	0	0	0	0	5	0	118	17	1	4	7	152	169.2
15:15	0	0	27	4	1	0	1	33	36.5	0	0	0	0	0	0	0	0	0	4	2	104	16	3	1	8	138	152.4
15:30	1	0	44	2	0	0	0	47	47.2	0	0	0	0	0	0	0	0	0	5	2	106	19	7	0	8	147	162.8
15:45	2	0	24	3	1	0	1	31	32.4	0	0	0	0	0	0	0	0	0	3	0	96	24	5	2	4	134	152.7
H/TOT	6	1	124	10	2	0	2	145	147.6	0	0	0	0	0	0	0	0	0	17	4	424	76	16	7	27	571	637.1
16:00	0	0	28	9	0	0	1	38	43.5	0	0	0	0	0	0	0	0	0	7	4	147	18	3	0	5	184	191.5
16:15	0	0	28	8	0	0	1	37	42	0	0	0	0	0	0	0	0	0	5	0	119	26	2	0	5	157	172
16:30	2	0	40	3	1	0	0	46	46.4	0	0	0	0	0	0	0	0	0	3	3	146	18	2	1	6	179	192.1
16:45	0	0	37	5	0	0	1	43	46.5	0	0	0	0	0	0	0	0	0	8	1	133	22	2	2	5	173	185.6
H/TOT	2	0	133	25	1	0	3	164	178.4	0	0	0	0	0	0	0	0	0	23	8	545	84	9	3	21	693	741.2
17:00	3	0	50	9	0	0	0	62	64.1	0	0	0	0	0	0	0	0	0	11	5	136	2	2	0	3	159	152.2
17:15	0	0	36	2	0	0	1	39	41	0	0	0	0	0	0	0	0	0	10	2	93	7	0	0	7	119	120.3
17:30	0	0	42	1	1	0	0	44	45	0	0	0	0	0	0	0	0	0	18	0	119	4	2	1	5	149	143.9
17:45	0	0	50	5	0	0	0	55	57.5	0	0	0	0	0	0	0	0	0	5	1	158	13	1	1	4	183	190.7
H/TOT	3	0	178	17	1	0	1	200	207.6	0	0	0	0	0	0	0	0	0	44	8	506	26	5	2	19	610	607.1
18:00	0	0	42	6	0	0	0	48	51	0	0	0	0	0	0	0	0	0	13	1	178	5	1	0	4	202	198
18:15	0	0	38	3	0	0	1	42	44.5	0	0	0	0	0	0	0	0	0	9	4	113	9	1	1	5	142	143.7
18:30	0	0	25	0	0	0	0	25	25	0	0	0	0	0	0	0	0	0	5	0	107	2	1	0	4	119	120.5
18:45	0	0	19	0	0	0	1	20	21	0	0	0	0	0	0	0	0	0	0	0	82	7	0	1	5	95	104.8
H/TOT	0	0	124	9	0	0	2	135	141.5	0	0	0	0	0	0	0	0	0	27	5	480	23	3	2	18	558	567
12 TOT	24	4	1415	228	16	1	25	1713	1840	0	0	0	0	0	0	0	0	0	220	64	4900	876	220	73	267	6620	7316

TIME	C => A									C => B									C => C								
	P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	PCU
07:00	1	0	6	0	0	0	0	7	6.2	10	0	45	10	1	1	2	69	69.8	0	0	0	0	0	0	0	0	0
07:15	0	0	15	3	0	0	0	18	19.5	9	0	47	14	0	2	4	76	82.4	0	0	0	0	0	0	0	0	0
07:30	0	0	23	1	0	0	0	24	24.5	11	0	77	7	2	0	2	99	96.7	0	0	0	0	0	0	0	0	0
07:45	0	0	24	2	0	0	0	26	27	11	2	91	8	2	1	6	121	123.3	0	0	0	0	0	0	0	0	0
H/TOT	1	0	68	6	0	0	0	75	77.2	41	2	260	39	5	4	14	365	372.2	0	0	0	0	0	0	0	0	0
08:00	0	1	23	3	0	0	0	27	27.9	14	3	90	12	1	1	1	122	117.8	0	0	0	0	0	0	0	0	0
08:15	0	0	23	1	0	0	0	24	24.5	12	2	72	13	1	0	5	105	106.2	0	0	0	0	0	0	0	0	0
08:30	0	0	39	2	2	0	0	43	45	11	2	87	10	8	2	4	124	129.6	0	0	0	0	0	0	0	0	0
08:45	0	0	28	1	0	0	0	29	29.5	6	0	108	14	8	1	7	144	158.5	0	0	0	0	0	0	0	0	0
H/TOT	0	1	113	7	2	0	0	123	126.9	43	7	357	49	18	4	17	495	512.1	0	0	0	0	0	0	0	0	0
09:00	0	0	42	2	2	0	0	46	48	7	0	96	10	6	1	4	124	131.7	0	0	0	0	0	0	0	0	0
09:15	0	0	31	3	0	0	0	34	35.5	0	1	94	15	5	3	6	124	143.3	0	0	0	0	0	0	0	0	0
09:30	0	0	33	2	0	0	0	35	36	1	1	61	28	5	2	9	107	133.7	0	0	0	0	0	0	0	0	0
09:45	1	0	32	1	0	0	0	34	33.7	2	2	93	18	4	1	3	123	135.5	0	0	0	0	0	0	0	0	0
H/TOT	1	0	138	8	2	0	0	149	153.2	10	4	344	71	20	7	22	478	544.2	0	0	0	0	0	0	0	0	0
10:00	0	0	21	1	0	0	0	22	22.5	1	0	77	23	3	0	5	109	126.2	0	0	0	0	0	0	0	0	0
10:15	0	0	39	2	0	0	0	41	42	2	1	73	21	1	1	6	105	121.1	0	0	0	0	0	0	0	0	0
10:30	0	0	27	2	0	0	0	29	30	3	1	68	15	1	0	7	95	107	0	0	0	0	0	0	0	0	0
10:45	0	0	18	3	0	0	0	21	22.5	2	1	86	15	3	2	3	112	124.4	0	0	0	0	0	0	0	0	0
H/TOT	0	0	105	8	0	0	0	113	117	8	3	304	74	8	3	21	421	478.7	0	0	0	0	0	0	0	0	0
11:00	0	0	28	0	0	0	0	28	28	1	3	63	18	4	0	6	95	109.4	0	0	0	0	0	0	0	0	0
11:15	0	0	35	0	0	0	0	35	35	2	1	76	18	6	1	5	109	125.1	0	0	0	0	0	0	0	0	0
11:30	0	0	23	1	1	0	0	25	26	1	2	73	17	3	1	2	99	110.3	0	0	0	0	0	0	0	0	0
11:45	0	0	25	2	2	0	0	29	31	1	2	82	21	5	2	7	120	140.6	0	0	0	0	0	0	0	0	0
H/TOT	0	0	111	3	3	0	0	117	120	5	8	294	74	18	4	20	423	485.4	0	0	0	0	0	0	0	0	0
12:00	0	0	29	0	1	0	0	30	30.5	1	1	57	20	4	1	5	89	105.9	0	0	0	0	0	0	0	0	0
12:15	0	0	30	0	0	0	0	30	30	5	0	69	15	5	2	4	100	112.6	0	0	0	0	0	0	0	0	0
12:30	0	0	35	1	0	0	0	36	36.5	3	2	72	15	2	0	5	99	108.9	0	0	0	0	0	0	0	0	0
12:45	0	1	24	1	0	0	0	26	25.9	0	0	86	15	7	1	5	114	131.3	0	0	0	0	0	0	0	0	0
H/TOT	0	1	118	2	1	0	0	122	122.9	9	3	284	65	18	4	19	402	458.7	0	0	0	0	0	0	0	0	0
13:00	0	0	31	3	1	0	0	35	37	1	0	74	17	5	0	4	101	115.2	0	0	0	0	0	0	0	0	0
13:15	0	0	30	1	0	0	0	31	31.5	4	1	74	12	4	2	5	102	113.8	0	0	0	0	0	0	0	0	0
13:30	0	0	35	1	0	0	0	36	36.5	3	1	88	21	3	3	4	123	139.9	0	0	0	0	0	0	0	0	0
13:45	0	0	30	3	1	0	0	34	36	0	0	108	13	4	1	6	132	147.8	0	0	0	0	0	0	0	0	0
H/TOT	0	0	126	8	2	0	0	136	141	8	2	344	63	16	6	19	458	516.7	0	0	0	0	0	0	0	0	0
14:00	1	0	35	3	0	0	0	39	39.7	2	1	63	20	3	1	4	94	108.6	0	0	0	0	0	0	0	0	0
14:15	0	0	26	2	1	0	0	29	30.5	1	3	70	13	3	1	5	96	107.7	0	0	0	0	0	0	0	0	0
14:30	2	0	25	1	0	0	0	28	26.9	1	0	74	14	7	2	5	103	120.3	0	0	0	0	0	0	0	0	0
14:45	0	0	38	6	0	0	0	44	47	1	1	84	11	6	1	4	108	120.4	0	0	0	0	0	0	0	0	0
H/TOT	3	0	124	12	1	0	0	140	144.1	5	5	291	58	19	5	18	401	457	0	0	0	0	0	0	0	0	0
15:00	0	0	42	3	0	0	0	45	46.5	0	1	59	18	5	1	5	89	106.2	0	0	0	0	0	0	0	0	0
15:15	0	0	31	2	0	0	0	33	34	1	1	70	27	4	2	5	110	131.7	0	0	0	0	0	0	0	0	0
15:30	1	0	36	2	0	0	0	39	39.2	3	1	69	18	1	0	2	94	102.5	0	0	0	0	0	0	0	0	0
15:45	0	0	16	3	0	0	0	19	20.5	4	2	64	16	3	1	7	97	110.4	0	0	0	0	0	0	0	0	0
H/TOT	1	0	125	10	0	0	0	136	140.2	8	5	262	79	13	4	19	390	450.8	0	0	0	0	0	0	0	0	0
16:00	0	0	20	1	0	0	0	21	21.5	1	0	57	11	0	0	2	71	77.7	0	0	0	0	0	0	0	0	0
16:15	0	2	19	2	1	0	0	24	24.3	3	1	60	14	2	0	5	85	95	0	0	0	0	0	0	0	0	0
16:30	1	1	21	2	0	0	0	25	24.6	2	4	47	11	2	1	6	73	82.8	0	0	0	0	0	0	0	0	0
16:45	0	0	35	0	0	0	0	35	35	6	1	53	9	5	0	5	79	85.6	0	0	0	0	0	0	0	0	0
H/TOT	1	3	95	5	1	0	0	105	105.4	12	6	217	45	9	1	18	308	341.1	0	0	0	0	0	0	0	0	0
17:00	2	0	39	3	0	0	0	44	43.9	8	2	123	13	2	1	2	151	154.2	0	0	0	0	0	0	0	0	0
17:15	0	0	30	2	0	0	0	32	33	5	3	122	10	3	0	6	149	155.7	0	0	0	0	0	0	0	0	0
17:30	3	2	40	2	1	0	0	48	45.9	8	1	107	6	1	0	5	128	129.5	0	0	0	0	0	0	0	0	0
17:45	0	0	38	4	0	0	0	42	44	6	2	90	9	0	0	6	113	117.5	0	0	0	0	0	0	0	0	0
H/TOT	5	2	147	11	1	0	0	166	166.8	27	8	442	38	6	1	19	541	556.9	0	0	0	0	0	0	0	0	0
18:00	2	0	41	1	0	0	0	44	42.9	7	4	79	10	0	0	6	106	109	0	0	0	0	0	0	0	0	0
18:15	2	0	45	3	0	0	0	50	49.9	3	0	72	3	1	0	6	85	90.6	0	0	0	0	0	0	0	0	0
18:30	2	1	31	2	0	0	0	36	34.8	9	0	82	3	0	0	7	101	102.3	0	0	0	0	0	0	0	0	0
18:45	0	0	26	0	0	0	0	26	26	8	1	97	2	0	0	8	116	118	0	0	0	0	0	0	0	0	0
H/TOT	6	1	143	6	0	0	0	156	153.6	27	5	330	18	1	0	27	408	419.9	0	0	0	0	0	0	0	0	0
12 TOT	18	8	1413	86	13	0	0	1538	1568	203	58	3729	673	151	43	233	5090	5594	0	0	0	0	0	0	0	0	0

Appendix 2- TRICS Output Files

TRIP RATE for Land Use 03 - RESIDENTIAL/C - FLATS PRIVATELY OWNED
VEHICLES
Calculation factor: 1 TOTBED
Estimated TRIP rate value per 697 TOTBED shown in shaded columns
BOLD print indicates peak (busiest) period

	ARRIVALS				DEPARTURES				TOTALS			
Time Range	No. Days	Ave. TOTBED	Trip Rate	Estimated Trip Rate	No. Days	Ave. TOTBED	Trip Rate	Estimated Trip Rate	No. Days	Ave. TOTBED	Trip Rate	Estimated 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	44	130	0.023	16.121	44	130	0.087	60.821	44	130	0.110	76.942
08:00 - 09:00	44	130	0.028	19.175	44	130	0.106	74.133	44	130	0.134	93.308
09:00 - 10:00	44	130	0.034	23.938	44	130	0.051	35.296	44	130	0.085	59.234
10:00 - 11:00	44	130	0.028	19.541	44	130	0.038	26.502	44	130	0.066	46.043
11:00 - 12:00	44	130	0.034	23.693	44	130	0.037	26.136	44	130	0.071	49.829
12:00 - 13:00	44	130	0.046	31.998	44	130	0.042	29.556	44	130	0.088	61.554
13:00 - 14:00	44	130	0.042	28.945	44	130	0.044	30.777	44	130	0.086	59.722
14:00 - 15:00	44	130	0.042	29.067	44	130	0.042	29.189	44	130	0.084	58.256
15:00 - 16:00	44	130	0.053	36.639	44	130	0.036	25.037	44	130	0.089	61.676
16:00 - 17:00	44	130	0.065	45.310	44	130	0.039	26.991	44	130	0.104	72.301
17:00 - 18:00	44	130	0.098	68.515	44	130	0.041	28.456	44	130	0.139	96.971
18:00 - 19:00	44	130	0.087	60.699	44	130	0.043	29.678	44	130	0.130	90.377
19:00 - 20:00												
20:00 - 21:00												
21:00 - 22:00												
22:00 - 23:00												
23:00 - 24:00												
Total Rates:			0.580	403.641			0.606	422.572			1.186	826.213

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:	10 - 780 (units:)
Survey date date range:	01/01/11 - 05/06/18
Number of weekdays (Monday-Friday):	44
Number of Saturdays:	0
Number of Sundays:	0
Surveys automatically removed from selection:	1
Surveys manually removed from selection:	0

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

TRIP RATE for Land Use 01 - RETAIL/I - SHOPPING CENTRE - LOCAL SHOPS
VEHICLES
Calculation factor: 100 sqm
Estimated TRIP rate value per 1006 SQM shown in shaded columns
BOLD print indicates peak (busiest) period

	ARRIVALS				DEPARTURES				TOTALS			
Time Range	No. Days	Ave. GFA	Trip Rate	Estimated Trip Rate	No. Days	Ave. GFA	Trip Rate	Estimated Trip Rate	No. Days	Ave. GFA	Trip Rate	Estimated Trip Rate
00:00 - 01:00												
01:00 - 02:00												
02:00 - 03:00												
03:00 - 04:00												
04:00 - 05:00												
05:00 - 06:00												
06:00 - 07:00	1	540	1.296	13.041	1	540	1.296	13.041	1	540	2.592	26.082
07:00 - 08:00	10	1180	2.204	22.172	10	1180	1.856	18.675	10	1180	4.060	40.847
08:00 - 09:00	10	1180	2.899	29.164	10	1180	2.357	23.707	10	1180	5.256	52.871
09:00 - 10:00	10	1180	3.806	38.289	10	1180	3.213	32.320	10	1180	7.019	70.609
10:00 - 11:00	10	1180	3.806	38.289	10	1180	3.408	34.281	10	1180	7.214	72.570
11:00 - 12:00	10	1180	4.145	41.700	10	1180	4.399	44.258	10	1180	8.544	85.958
12:00 - 13:00	10	1180	5.289	53.212	10	1180	5.044	50.739	10	1180	10.333	103.951
13:00 - 14:00	10	1180	4.662	46.902	10	1180	4.654	46.816	10	1180	9.316	93.718
14:00 - 15:00	10	1180	4.408	44.343	10	1180	4.493	45.196	10	1180	8.901	89.539
15:00 - 16:00	10	1180	3.933	39.568	10	1180	4.196	42.212	10	1180	8.129	81.780
16:00 - 17:00	10	1180	4.230	42.553	10	1180	3.993	40.165	10	1180	8.223	82.718
17:00 - 18:00	10	1180	4.247	42.723	10	1180	4.789	48.181	10	1180	9.036	90.904
18:00 - 19:00	10	1180	4.569	45.964	10	1180	4.815	48.437	10	1180	9.384	94.401
19:00 - 20:00	8	1397	3.938	39.620	8	1397	4.225	42.502	8	1397	8.163	82.122
20:00 - 21:00	8	1397	2.694	27.104	8	1397	3.070	30.886	8	1397	5.764	57.990
21:00 - 22:00	6	1103	2.812	28.287	6	1103	3.099	31.176	6	1103	5.911	59.463
22:00 - 23:00												
23:00 - 24:00												
Total Rates:			58.938	592.931			58.907	592.592			117.845	1185.523

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:	260 - 3837 (units: sqm)
Survey date date range:	01/01/11 - 23/03/18
Number of weekdays (Monday-Friday):	10
Number of Saturdays:	0
Number of Sundays:	0
Surveys automatically removed from selection:	0
Surveys manually removed from selection:	0

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

TRIP RATE for Land Use 04 - EDUCATION/D - NURSERY
VEHICLES
Calculation factor: 100 sqm
Estimated TRIP rate value per 321 SQM shown in shaded columns
BOLD print indicates peak (busiest) period

	ARRIVALS				DEPARTURES				TOTALS			
Time Range	No. Days	Ave. GFA	Trip Rate	Estimated Trip Rate	No. Days	Ave. GFA	Trip Rate	Estimated Trip Rate	No. Days	Ave. GFA	Trip Rate	Estimated 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	2	328	0.152	0.489	2	328	0.000	0.000	2	328	0.152	0.489
07:00 - 08:00	19	383	1.870	6.002	19	383	1.017	3.266	19	383	2.887	9.268
08:00 - 09:00	19	383	4.235	13.594	19	383	3.286	10.548	19	383	7.521	24.142
09:00 - 10:00	19	383	2.159	6.929	19	383	2.104	6.753	19	383	4.263	13.682
10:00 - 11:00	19	383	0.577	1.854	19	383	0.454	1.456	19	383	1.031	3.310
11:00 - 12:00	19	383	0.839	2.692	19	383	0.577	1.854	19	383	1.416	4.546
12:00 - 13:00	19	383	1.389	4.458	19	383	1.746	5.605	19	383	3.135	10.063
13:00 - 14:00	19	383	1.031	3.310	19	383	1.347	4.325	19	383	2.378	7.635
14:00 - 15:00	19	383	0.880	2.825	19	383	0.811	2.604	19	383	1.691	5.429
15:00 - 16:00	19	383	1.072	3.443	19	383	1.320	4.237	19	383	2.392	7.680
16:00 - 17:00	19	383	1.746	5.605	19	383	1.897	6.091	19	383	3.643	11.696
17:00 - 18:00	19	383	2.970	9.533	19	383	3.547	11.387	19	383	6.517	20.920
18:00 - 19:00	18	396	0.225	0.721	18	396	0.870	2.794	18	396	1.095	3.515
19:00 - 20:00	1	400	0.000	0.000	1	400	0.000	0.000	1	400	0.000	0.000
20:00 - 21:00												
21:00 - 22:00												
22:00 - 23:00												
23:00 - 24:00												
Total Rates:			19.145	61.455			18.976	60.920			38.121	122.375

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:	150 - 750 (units: sqm)
Survey date date range:	01/01/11 - 12/07/18
Number of weekdays (Monday-Friday):	19
Number of Saturdays:	0
Number of Sundays:	0
Surveys automatically removed from selection:	1
Surveys manually removed from selection:	0

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

TRIP RATE for Land Use 07 - LEISURE/K - FITNESS CLUB (PRIVATE)
VEHICLES
Calculation factor: 100 sqm
Estimated TRIP rate value per 126 SQM shown in shaded columns
BOLD print indicates peak (busiest) period

	ARRIVALS				DEPARTURES				TOTALS			
Time Range	No. Days	Ave. GFA	Trip Rate	Estimated Trip Rate	No. Days	Ave. GFA	Trip Rate	Estimated Trip Rate	No. Days	Ave. GFA	Trip Rate	Estimated 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	16	3753	0.836	1.053	16	3753	0.048	0.061	16	3753	0.884	1.114
07:00 - 08:00	16	3753	0.558	0.703	16	3753	0.566	0.713	16	3753	1.124	1.416
08:00 - 09:00	16	3753	0.841	1.060	16	3753	0.654	0.825	16	3753	1.495	1.885
09:00 - 10:00	16	3753	1.281	1.614	16	3753	0.581	0.732	16	3753	1.862	2.346
10:00 - 11:00	16	3753	0.993	1.251	16	3753	0.831	1.047	16	3753	1.824	2.298
11:00 - 12:00	16	3753	0.603	0.760	16	3753	1.024	1.290	16	3753	1.627	2.050
12:00 - 13:00	16	3753	0.560	0.705	16	3753	0.873	1.100	16	3753	1.433	1.805
13:00 - 14:00	16	3753	0.610	0.768	16	3753	0.754	0.951	16	3753	1.364	1.719
14:00 - 15:00	16	3753	0.580	0.730	16	3753	0.556	0.701	16	3753	1.136	1.431
15:00 - 16:00	16	3753	0.836	1.053	16	3753	0.683	0.860	16	3753	1.519	1.913
16:00 - 17:00	16	3753	1.174	1.479	16	3753	0.856	1.079	16	3753	2.030	2.558
17:00 - 18:00	16	3753	1.684	2.121	16	3753	0.981	1.236	16	3753	2.665	3.357
18:00 - 19:00	16	3753	1.547	1.949	16	3753	1.442	1.817	16	3753	2.989	3.766
19:00 - 20:00	16	3753	1.023	1.288	16	3753	1.540	1.941	16	3753	2.563	3.229
20:00 - 21:00	16	3753	0.545	0.686	16	3753	1.234	1.555	16	3753	1.779	2.241
21:00 - 22:00	15	3443	0.106	0.134	15	3443	0.817	1.030	15	3443	0.923	1.164
22:00 - 23:00	3	2668	0.025	0.031	3	2668	0.250	0.315	3	2668	0.275	0.346
23:00 - 24:00												
Total Rates:			13.802	17.385			13.690	17.253			27.492	34.638

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:	404 - 9000 (units: sqm)
Survey date date range:	01/01/11 - 27/09/17
Number of weekdays (Monday-Friday):	16
Number of Saturdays:	0
Number of Sundays:	0
Surveys automatically removed from selection:	0
Surveys manually removed from selection:	0

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

Appendix 3- Sample Modelling Output File

_____ O S C A D Y 5 _____

Analysis Program: Release 3.0 (Jan 2008)

_____

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

TRL Limited Tel: +44 (0) 1344 770018
Old Wokingham Road Fax: +44 (0) 1344 770864
Crowthorne, Berks. Email: softwarebureau@trl.co.uk
RG45 6AU, UK. Web: www.trlsoftware.co.uk

.Run with file:- "C:\Documents and Settings\obyrner\Desktop\Northwood\Junction 6 - Santry Ave\J6 2021 AM Peak.voi" at 08:48:21 on Thursday, 30 May 2019

.FILE PROPERTIES
****

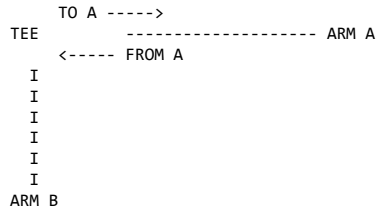
RUN TITLE: Northwood - Junction 6 AM Peak
LOCATION: Northwood
DATE: 29/05/2019
CLIENT: Cosgrove
ENUMERATOR: obyrner [LIBRARYMONRD]
JOB NUMBER: 19205
STATUS:
DESCRIPTION:

**** ERROR AND WARNING MESSAGES ****
==========

No errors or warnings in the data.

.TRAFFIC SIGNAL JUNCTION ANALYSIS
****

INPUT DATA



ARM A IS Arm A - Santry Ave WEST
ARM B IS Arm B - Northwood Road
ARM C IS Arm C - Santry Ave EAST

.GEOMETRIC DATA

DATA ITEM	ARM A	ARM B	ARM C
GRADIENT	0.0 %	0.0 %	0.0 %
NUMBER OF LANES	1	1	1

PERMITTED MOVEMENTS	LANE 1	LS	L R	SR
TOTAL EXIT WIDTH FOR STRAIGHT-AHEAD VEHICLES FROM THIS ARM		N/A	N/A	N/A
LANE WIDTHS	LANE 1	3.00 M	3.50 M	3.30 M
LEFT TURN RADII	LANE 1	15.0 M	20.0 M	N/A
RIGHT TURN RADII	LANE 1	N/A	20.0 M	20.0 M
OPPOSING TRAFFIC MOVEMENTS				STRAIGHT
STORAGE BEYOND STOPLINE	LANE 1	0.0 VEHS	0.0 VEHS	3.0 VEHS

EXIT WIDTH FOR IMAGINARY ARM D = 50.10

FLARES	ADJACENT LANE	STORAGE (PCU)	RATIO SF THIS BAY /SF ADJACENT LANE
ARM A; BAY 1	1	8	1.00
ARM B; BAY 1	1	5	1.00
ARM C; BAY 1	1	4	1.00

.TRAFFIC DEMAND DATA

DEMAND PROFILES ARE SYNTHESISED USING THE ** ODTAB ** OPTION

DEMAND DATA SUPPLIED BETWEEN TIMES - 07.45 TO 09.15
PERIOD OF INTEREST (FOR QUEUE AND DELAY CALCULATIONS) - 08.00 TO 09.00

THE FOLLOWING DATA HAS BEEN INPUT

TRAFFIC SCALING FACTOR HAS BEEN SET TO 100 %

Northwood - Junction 2

TOTAL TRAFFIC DEMAND (VEHICLES / HOUR)			
FROM/TO	ARM A	ARM B	ARM C
ARM A	0.0	138.0	461.0
ARM B	60.0	0.0	149.0
ARM C	426.0	125.0	0.0

TIME PERIOD	ARM	VEHICLE TYPE PROPORTIONS					
		CARS AND LIGHT GOODS	MEDIUM GOODS	HEAVY GOODS	BUSES AND COACHES	MOTOR CYCLES	PEDAL CYCLES
08.00-09.00	A	0.990	0.000	0.010	0.000	0.000	0.000
	B	0.990	0.010	0.000	0.000	0.000	0.000
	C	0.960	0.020	0.020	0.000	0.000	0.000

.DATA DETERMINED FOR USE IN SYNTHESIS OF DEMAND PROFILES ARE AS FOLLOWS-

ENTRY/EXIT FLOWS	ARM	TIME WHEN FLOW STARTS TO RISE	TIME WHEN TOP OF PEAK IS REACHED	TIME WHEN FLOW STOPS FALLING	RATE OF FLOW (VEH/MIN) BEFORE PEAK	AT TOP OF PEAK	AFTER PEAK
ENTRY	A	08.00	08.30	09.00	7.49	11.23	7.49
	B	08.00	08.30	09.00	2.61	3.92	2.61
	C	08.00	08.30	09.00	6.89	10.33	6.89

.SIGNAL TIMING DETAILS FOR SIGNAL SET 1

TIMING OPTION- VEHICLE ACTUATED MODE

MAXIMUM CYCLE TIME- 120.0 SECONDS

GLOBAL EFFECTIVE GREEN DISPLACEMENTS - START = 1.4
END = 2.9

DATA ITEM		STAGE 1	STAGE 2	STAGE 3	STAGE 4
LANES ON GREEN: ARM	A	1			
	B			1	
	C	1	1		
MINIMUM GREEN TIME (SECS)		5.0	10.0	5.0	10.0
PRECEDING INTERSTAGE		5.0	5.0	5.0	5.0

.DEMAND AND CAPACITY INFORMATION FOR EACH 15 MINUTE TIME SEGMENT BETWEEN 08.00 AND 09.00

TIME	ARM	LANES	MOVEMENT	DEMAND (VEHS/MIN)	SAT FLOW (PCU/HR)	SAT FLOW (VEHS/MIN)	EFFECTIVE GREEN-TIME TRUE (SECS)	EFFECTIVE GREEN-TIME FLARE+NOTIONL (SECS)	CAPACITY (VEHS /MIN)
08.00-08.15									
	A	1	L S	8.94	1871.9	30.80	52.3	68.9	21.39
	B	1	L R	3.12	1827.9	30.31	9.8	19.6	6.00
	C	1	S R	8.22	1554.9	25.01	67.3	75.7	19.10
08.15-08.30									
	A	1	L S	10.95	1871.9	30.80	59.1	75.7	21.42
	B	1	L R	3.82	1827.9	30.31	12.7	22.5	6.27
	C	1	S R	10.07	1493.7	24.03	74.1	82.5	18.23
08.30-08.45									
	A	1	L S	10.95	1871.9	30.80	59.1	75.7	21.42
	B	1	L R	3.82	1827.9	30.31	12.7	22.5	6.27
	C	1	S R	10.07	1493.7	24.03	74.1	82.5	18.23
08.45-09.00									
	A	1	L S	8.94	1871.9	30.80	52.3	68.9	21.39
	B	1	L R	3.12	1827.9	30.31	9.8	19.6	6.00
	C	1	S R	8.22	1554.9	25.01	67.3	75.7	19.10

.QUEUE AND DELAY INFORMATION FOR EACH 15 MINUTE TIME SEGMENT BETWEEN 08.00 AND 09.00

TIME	ARM	LANES	MOVEMENT	DEMAND EXCL 2-WHEEL (VEHS/MIN)	CAPACITY (VEHS/MIN)	DEGREE OF SAT (RFC)	QUEUE AT END OF SEGMENT MEAN (PHASE AVERAGED) (VEHS/LANE)	QUEUE AT END OF SEGMENT MAXIMUM (END OF RED) (VEHS/LANE)	QUEUEING DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ TIME SEGMENT)
08.00-08.15										
	A	1	L S	8.94	21.39	0.418	2.3	7.2	34.4	
	B	1	L R	3.12	6.00	0.520	2.5	5.0	37.9	
	C	1	S R	8.22	19.10	0.430	1.2	4.6	17.7	
08.15-08.30										
	A	1	L S	10.95	21.42	0.511	3.2	9.4	47.8	
	B	1	L R	3.82	6.27	0.609	3.5	6.7	52.0	
	C	1	S R	10.07	18.23	0.553	1.9	6.2	28.4	
08.30-08.45										
	A	1	L S	10.95	21.42	0.511	3.2	9.4	47.8	
	B	1	L R	3.82	6.27	0.609	3.5	6.7	52.2	
	C	1	S R	10.07	18.23	0.553	1.9	6.2	28.4	
08.45-09.00										
	A	1	L S	8.94	21.39	0.418	2.3	7.2	34.4	
	B	1	L R	3.12	6.00	0.520	2.5	5.0	38.3	
	C	1	S R	8.22	19.10	0.430	1.2	4.6	17.8	

* Note * You have specified a flare or bay in which the storage is too large
to fully discharge over the green time for the approach. The NEEG has been
reduced to allow for this. The affected bay is:-
BAY 1; on arm B; and it is Adjacent to lane 1

.QUEUES FOR ARM A

TIME SEGMENT ENDING	LANE	NUMBER OF VEHICLES IN QUEUE MEAN (PHASE AVERAGED) *	MAXIMUM (AT END OF RED) +	
08.15	1	2.3	7.2	**+++++
08.30	1	3.2	9.4	***++++++
08.45	1	3.2	9.4	***++++++
09.00	1	2.3	7.2	**+++++

.QUEUES FOR ARM B

TIME SEGMENT ENDING	LANE	NUMBER OF VEHICLES IN QUEUE MEAN (PHASE AVERAGED) *	MAXIMUM (AT END OF RED) +	
08.15	1	2.5	5.0	***++
08.30	1	3.5	6.7	***++++
08.45	1	3.5	6.7	***++++
09.00	1	2.5	5.0	***++

.QUEUES FOR ARM C

TIME SEGMENT ENDING	LANE	NUMBER OF VEHICLES IN QUEUE MEAN (PHASE AVERAGED) *	MAXIMUM (AT END OF RED) +	
08.15	1	1.2	4.6	*++++
08.30	1	1.9	6.2	**++++
08.45	1	1.9	6.2	**++++
09.00	1	1.2	4.6	*++++

.QUEUEING DELAY INFORMATION OVER WHOLE PERIOD (08.00-09.00)

STREAM	TOTAL DEMAND (EXCL 2-WHEEL) (VEH)	(VEH/H)	* QUEUEING * DELAY * (MIN)	(MIN/VEH)	* INCLUSIVE QUEUEING * DELAY * (MIN)	(MIN/VEH)
A-B	137.5	137.5	37.9	0.28	37.9	0.28
A-C	459.3	459.3	126.5	0.28	126.6	0.28
B-C	148.4	148.4	128.6	0.87	129.0	0.87
B-A	59.8	59.8	51.8	0.87	51.9	0.87
C-A	424.4	424.4	71.4	0.17	71.4	0.17
C-B	124.5	124.5	21.0	0.17	21.0	0.17
ALL	1353.9	1353.9	437.1	0.32	437.8	0.32

* DELAY IS THAT OCCURRING ONLY WITHIN THE TIME PERIOD.
* INCLUSIVE DELAY INCLUDES DELAY SUFFERED BY VEHICLES WHICH ARE STILL QUEUEING AFTER THE END OF THE TIME PERIOD.
* THESE WILL BE SIGNIFICANTLY DIFFERENT ONLY IF THERE IS A LARGE QUEUE REMAINING AT THE END OF THE TIME PERIOD.

* TOTAL GEOMETRIC DELAY INCLUDES DELAY SUFFERED BY VEHICLES STILL QUEUEING AT THE END OF THE WHOLE TIME PERIOD.
* THE SUM OF DELAYS FOR EACH SEGMENT AND THE TOTAL GEOMETRIC DELAY WILL BE SIGNIFICANTLY DIFFERENT ONLY IF THERE IS
* A LARGE QUEUE AT THE END OF THE TIME PERIOD.

.
****** OSCADY 5 run completed
========== end of file ==========

_____ O S C A D Y 5 _____

Analysis Program: Release 3.0 (Jan 2008)

_____

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

TRL Limited Tel: +44 (0) 1344 770018
Old Wokingham Road Fax: +44 (0) 1344 770864
Crowthorne, Berks. Email: softwarebureau@trl.co.uk
RG45 6AU, UK. Web: www.trlsoftware.co.uk

.Run with file:- "C:\Documents and Settings\obyrner\Desktop\Northwood\Junction 6 - Santry Ave\J6 2021 AM Peak WITHDev.voi" at 08:51:25 on Thursday, 30 May 2019

.FILE PROPERTIES
****

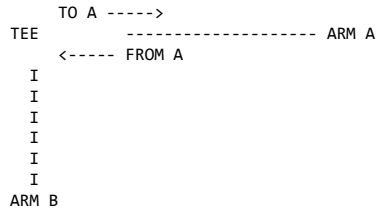
RUN TITLE: Northwood - Junction 6 AM Peak
LOCATION: Northwood
DATE: 29/05/2019
CLIENT: Cosgrove
ENUMERATOR: obyrner [LIBRARYMONRD]
JOB NUMBER: 19205
STATUS:
DESCRIPTION:

**** ERROR AND WARNING MESSAGES ****
==========

No errors or warnings in the data.

.TRAFFIC SIGNAL JUNCTION ANALYSIS
****

INPUT DATA



ARM A IS Arm A - Santry Ave WEST
ARM B IS Arm B - Northwood Road
ARM C IS Arm C - Santry Ave EAST

.GEOMETRIC DATA

DATA ITEM	ARM A	ARM B	ARM C
GRADIENT	0.0 %	0.0 %	0.0 %
NUMBER OF LANES	1	1	1

PERMITTED MOVEMENTS	LANE 1	LS	L R	SR
TOTAL EXIT WIDTH FOR STRAIGHT-AHEAD VEHICLES FROM THIS ARM		N/A	N/A	N/A
LANE WIDTHS	LANE 1	3.00 M	3.50 M	3.30 M
LEFT TURN RADII	LANE 1	15.0 M	20.0 M	N/A
RIGHT TURN RADII	LANE 1	N/A	20.0 M	20.0 M
OPPOSING TRAFFIC MOVEMENTS				STRAIGHT
STORAGE BEYOND STOPLINE	LANE 1	0.0 VEHS	0.0 VEHS	3.0 VEHS

EXIT WIDTH FOR IMAGINARY ARM D = 50.10

FLARES	ADJACENT LANE	STORAGE (PCU)	RATIO SF THIS BAY /SF ADJACENT LANE
ARM A; BAY 1	1	8	1.00
ARM B; BAY 1	1	5	1.00
ARM C; BAY 1	1	4	1.00

.TRAFFIC DEMAND DATA

DEMAND PROFILES ARE SYNTHESISED USING THE ** ODTAB ** OPTION

DEMAND DATA SUPPLIED BETWEEN TIMES - 07.45 TO 09.15
PERIOD OF INTEREST (FOR QUEUE AND DELAY CALCULATIONS) - 08.00 TO 09.00

THE FOLLOWING DATA HAS BEEN INPUT

TRAFFIC SCALING FACTOR HAS BEEN SET TO 100 %

Northwood - Junction 2

TOTAL TRAFFIC DEMAND (VEHICLES / HOUR)			
FROM/TO	ARM A	ARM B	ARM C
ARM A	0.0	144.0	461.0
ARM B	66.0	0.0	164.0
ARM C	426.0	132.0	0.0

TIME PERIOD	ARM	VEHICLE TYPE PROPORTIONS					
		CARS AND LIGHT GOODS	MEDIUM GOODS	HEAVY GOODS	BUSES AND COACHES	MOTOR CYCLES	PEDAL CYCLES
08.00-09.00	A	0.990	0.000	0.010	0.000	0.000	0.000
	B	0.990	0.010	0.000	0.000	0.000	0.000
	C	0.960	0.020	0.020	0.000	0.000	0.000

.DATA DETERMINED FOR USE IN SYNTHESIS OF DEMAND PROFILES ARE AS FOLLOWS-

ENTRY/EXIT FLOWS	ARM	TIME WHEN FLOW STARTS TO RISE	TIME WHEN TOP OF PEAK IS REACHED	TIME WHEN FLOW STOPS FALLING	RATE OF FLOW (VEH/MIN) BEFORE PEAK	AT TOP OF PEAK	AFTER PEAK
ENTRY	A	08.00	08.30	09.00	7.56	11.34	7.56
	B	08.00	08.30	09.00	2.88	4.31	2.88
	C	08.00	08.30	09.00	6.97	10.46	6.97

.SIGNAL TIMING DETAILS FOR SIGNAL SET 1

TIMING OPTION- VEHICLE ACTUATED MODE

MAXIMUM CYCLE TIME- 120.0 SECONDS

GLOBAL EFFECTIVE GREEN DISPLACEMENTS - START = 1.4
END = 2.9

DATA ITEM	STAGE 1	STAGE 2	STAGE 3	STAGE 4
LANES ON GREEN: ARM A	1			
B			1	
C	1	1		
MINIMUM GREEN TIME (SECS)	5.0	10.0	5.0	10.0
PRECEDING INTERSTAGE	5.0	5.0	5.0	5.0

DEMAND AND CAPACITY INFORMATION FOR EACH 15 MINUTE TIME SEGMENT BETWEEN 08.00 AND 09.00

TIME	ARM	LANES	MOVEMENT	DEMAND (VEHS/MIN)	SAT FLOW (PCU/HR)	SAT FLOW (VEHS/MIN)	EFFECTIVE GREEN-TIME TRUE (SECS)	EFFECTIVE GREEN-TIME FLARE+NOTIONL (SECS)	CAPACITY (VEHS /MIN)
08.00-08.15									
	A	1	L S	9.03	1870.5	30.77	49.2	65.7	20.92
	B	1	L R	3.43	1827.9	30.31	10.5	20.4	6.38
	C	1	S R	8.33	1544.4	24.85	64.2	72.6	18.65
08.15-08.30									
	A	1	L S	11.06	1870.5	30.77	56.4	72.9	20.96
	B	1	L R	4.20	1827.9	30.31	13.7	23.6	6.67
	C	1	S R	10.20	1479.0	23.79	71.4	79.8	17.72
08.30-08.45									
	A	1	L S	11.06	1870.5	30.77	56.4	72.9	20.96
	B	1	L R	4.20	1827.9	30.31	13.7	23.6	6.67
	C	1	S R	10.20	1479.0	23.79	71.4	79.8	17.72
08.45-09.00									
	A	1	L S	9.03	1870.5	30.77	49.2	65.7	20.92
	B	1	L R	3.43	1827.9	30.31	10.5	20.4	6.38
	C	1	S R	8.33	1544.4	24.85	64.2	72.6	18.65

QUEUE AND DELAY INFORMATION FOR EACH 15 MINUTE TIME SEGMENT BETWEEN 08.00 AND 09.00

TIME	ARM	LANES	MOVEMENT	DEMAND EXCL 2-WHEEL (VEHS/MIN)	CAPACITY (VEHS/MIN)	DEGREE OF SAT (RFC)	QUEUE AT END OF SEGMENT MEAN (PHASE AVERAGED) (VEHS/LANE)	QUEUE AT END OF SEGMENT MAXIMUM (END OF RED) (VEHS/LANE)	QUEUEING DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ TIME SEGMENT)
08.00-08.15										
	A	1	L S	9.03	20.92	0.432	2.4	7.3	36.7	
	B	1	L R	3.43	6.38	0.538	2.7	5.3	40.4	
	C	1	S R	8.33	18.65	0.447	1.3	4.7	19.4	
08.15-08.30										
	A	1	L S	11.06	20.96	0.528	3.4	9.7	51.3	
	B	1	L R	4.20	6.67	0.630	3.7	7.2	55.9	
	C	1	S R	10.20	17.72	0.576	2.1	6.5	31.6	
08.30-08.45										
	A	1	L S	11.06	20.96	0.528	3.4	9.7	51.3	
	B	1	L R	4.20	6.67	0.630	3.7	7.2	56.2	
	C	1	S R	10.20	17.72	0.576	2.1	6.5	31.7	
08.45-09.00										
	A	1	L S	9.03	20.92	0.432	2.4	7.3	36.7	
	B	1	L R	3.43	6.38	0.538	2.7	5.3	40.8	
	C	1	S R	8.33	18.65	0.447	1.3	4.7	19.5	

QUEUES FOR ARM A

TIME SEGMENT ENDING	LANE	NUMBER OF VEHICLES IN QUEUE MEAN (PHASE AVERAGED)	NUMBER OF VEHICLES IN QUEUE MAXIMUM (AT END OF RED)

```
                  *         +

 08.15    1      2.4        7.3    **+++++

 08.30    1      3.4        9.7    ***+++++++

 08.45    1      3.4        9.7    ***+++++++

 09.00    1      2.4        7.3    **+++++


.QUEUES FOR ARM B
 ----------------

              NUMBER OF VEHICLES IN QUEUE
  TIME   LANE    MEAN     MAXIMUM
 SEGMENT        (PHASE    (AT END
 ENDING        AVERAGED)  OF RED)
                   *         +

 08.15    1      2.7        5.3    ***++

 08.30    1      3.7        7.2    ****+++

 08.45    1      3.7        7.2    ****+++

 09.00    1      2.7        5.3    ***++


.QUEUES FOR ARM C
 ----------------

              NUMBER OF VEHICLES IN QUEUE
  TIME   LANE    MEAN     MAXIMUM
 SEGMENT        (PHASE    (AT END
 ENDING        AVERAGED)  OF RED)
                   *         +

 08.15    1      1.3        4.7    *++++

 08.30    1      2.1        6.5    **+++++

 08.45    1      2.1        6.5    **+++++

 09.00    1      1.3        4.7    *++++


.QUEUEING DELAY INFORMATION OVER WHOLE PERIOD (08.00-09.00)
 ----------------------------------------------------------

 ------------------------------------------------------------------------------
 I STREAM I   TOTAL DEMAND  I   * QUEUEING *      I * INCLUSIVE QUEUEING * I
 I        I  (EXCL 2-WHEEL) I    * DELAY *        I       * DELAY *        I
 I        I----------------------------------- ---------------------I
 I        I  (VEH)  (VEH/H) I  (MIN)    (MIN/VEH) I    (MIN)     (MIN/VEH) I
 ------------------------------------------------------------------------------
 I  A-B   I  143.5 I  143.5 I    41.9 I    0.29   I      41.9  I    0.29   I
 I  A-C   I  459.3 I  459.3 I   134.1 I    0.29   I     134.2  I    0.29   I
 I  B-C   I  163.4 I  163.4 I   137.9 I    0.84   I     138.3  I    0.85   I
 I  B-A   I   65.7 I   65.7 I    55.5 I    0.84   I      55.6  I    0.85   I
 I  C-A   I  424.4 I  424.4 I    77.9 I    0.18   I      78.0  I    0.18   I
 I  C-B   I  131.5 I  131.5 I    24.2 I    0.18   I      24.2  I    0.18   I
 ------------------------------------------------------------------------------
 I  ALL   I 1387.7 I 1387.7 I   471.4 I    0.34   I     472.2  I    0.34   I
 ------------------------------------------------------------------------------


 * DELAY IS THAT OCCURRING ONLY WITHIN THE TIME PERIOD.
 * INCLUSIVE DELAY INCLUDES DELAY SUFFERED BY VEHICLES WHICH ARE STILL QUEUEING AFTER THE END OF THE TIME PERIOD.
 * THESE WILL BE SIGNIFICANTLY DIFFERENT ONLY IF THERE IS A LARGE QUEUE REMAINING AT THE END OF THE TIME PERIOD.


 * TOTAL GEOMETRIC DELAY INCLUDES DELAY SUFFERED BY VEHICLES STILL QUEUEING AT THE END OF THE WHOLE TIME PERIOD.
 * THE SUM OF DELAYS FOR EACH SEGMENT AND THE TOTAL GEOMETRIC DELAY WILL BE SIGNIFICANTLY DIFFERENT ONLY IF THERE IS
 * A LARGE QUEUE AT THE END OF THE TIME PERIOD.
.
 ****** OSCADY 5 run completed
========================================== end of file ==============================================
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_____ O S C A D Y 5 _____

Analysis Program: Release 3.0 (Jan 2008)

_____

For sales and distribution information,
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Old Wokingham Road Fax: +44 (0) 1344 770864
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RG45 6AU, UK. Web: www.trlsoftware.co.uk

.Run with file:- "C:\Documents and Settings\obyrner\Desktop\Northwood\Junction 7 Swords Road\J7 2021 AM Peak NoDev.voi" at 09:18:12 on Thursday, 30 May 2019

.FILE PROPERTIES

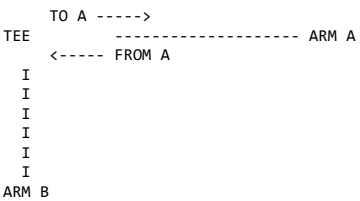
RUN TITLE: Northwood - Junction 7 AM Peak
LOCATION: Northwood
DATE: 29/05/2019
CLIENT: Cosgrove
ENUMERATOR: obyrner [LIBRARYMONRD]
JOB NUMBER: 19205
STATUS:
DESCRIPTION:

**** ERROR AND WARNING MESSAGES ****

No errors or warnings in the data.

.TRAFFIC SIGNAL JUNCTION ANALYSIS

INPUT DATA



ARM A IS Arm A - Swords Road South
ARM B IS Arm B - Northwood Avenue
ARM C IS Arm C - Swords Road North

.GEOMETRIC DATA

DATA ITEM		ARM A	ARM B	ARM C
GRADIENT		0.0 %	0.0 %	0.0 %
NUMBER OF LANES		2	1	1
PERMITTED MOVEMENTS	LANE 1	L	L R	SR
	LANE 2	S		
TOTAL EXIT WIDTH FOR STRAIGHT-AHEAD VEHICLES FROM THIS ARM		N/A	N/A	N/A

LANE WIDTHS	LANE 1	3.00 M	3.50 M	3.00 M	
	LANE 2	3.00 M	0.00 M	0.00 M	
LEFT TURN RADII	LANE 1	9.0 M	20.0 M	N/A	
RIGHT TURN RADII	LANE 1	N/A	20.0 M	20.0 M	
OPPOSING TRAFFIC MOVEMENTS				STRAIGHT	
STORAGE BEYOND STOPLINE	LANE 1	0.0 VEHS	0.0 VEHS	2.0 VEHS	

EXIT WIDTH FOR IMAGINARY ARM D = 50.10

FLARES	ADJACENT LANE	STORAGE (PCU)	RATIO SF THIS BAY /SF ADJACENT LANE
ARM B; BAY 1	1	6	1.00
ARM C; BAY 1	1	6	1.00

.TRAFFIC DEMAND DATA

DEMAND PROFILES ARE SYNTHESISED USING THE ** ODTAB ** OPTION

DEMAND DATA SUPPLIED BETWEEN TIMES - 07.45 TO 09.15
PERIOD OF INTEREST (FOR QUEUE AND DELAY CALCULATIONS) - 08.00 TO 09.00

THE FOLLOWING DATA HAS BEEN INPUT

TRAFFIC SCALING FACTOR HAS BEEN SET TO 100 %

Northwood - Junction 2

TOTAL TRAFFIC DEMAND (VEHICLES / HOUR)			
FROM/TO	ARM A	ARM B	ARM C
ARM A	0.0	126.0	465.0
ARM B	218.0	0.0	220.0
ARM C	485.0	165.0	0.0

TIME PERIOD	ARM	VEHICLE TYPE PROPORTIONS					
		CARS AND LIGHT GOODS	MEDIUM GOODS	HEAVY GOODS	BUSES AND COACHES	MOTOR CYCLES	PEDAL CYCLES
08.00-09.00	A	0.990	0.010	0.000	0.000	0.000	0.000
	B	0.980	0.010	0.010	0.000	0.000	0.000
	C	0.990	0.010	0.000	0.000	0.000	0.000

.DATA DETERMINED FOR USE IN SYNTHESIS OF DEMAND PROFILES ARE AS FOLLOWS-

ENTRY/EXIT FLOWS	ARM	TIME WHEN FLOW STARTS TO RISE	TIME WHEN TOP OF PEAK IS REACHED	TIME WHEN FLOW STOPS FALLING	RATE OF FLOW (VEH/MIN) BEFORE PEAK	AT TOP OF PEAK	AFTER PEAK
ENTRY	A	08.00	08.30	09.00	7.39	11.08	7.39
	B	08.00	08.30	09.00	5.47	8.21	5.47
	C	08.00	08.30	09.00	8.13	12.19	8.13

.SIGNAL TIMING DETAILS FOR SIGNAL SET 1

TIMING OPTION- VEHICLE ACTUATED MODE

MAXIMUM CYCLE TIME- 120.0 SECONDS

GLOBAL EFFECTIVE GREEN DISPLACEMENTS - START = 1.4
END = 2.9

DATA ITEM	STAGE 1	STAGE 2	STAGE 3	STAGE 4
LANES ON GREEN: ARM A	1 2			
B			1	

C	1	1			
MINIMUM GREEN TIME (SECS)	10.0	10.0	15.0	10.0	
PRECEDING INTERSTAGE	5.0	5.0	5.0	5.0	

.DEMAND AND CAPACITY INFORMATION FOR EACH 15 MINUTE TIME SEGMENT BETWEEN 08.00 AND 09.00

TIME	ARM	LANES	MOVEMENT	DEMAND (VEHS/MIN)	SAT FLOW (PCU/HR)	SAT FLOW (VEHS/MIN)	EFFECTIVE GREEN-TIME TRUE (SECS)	EFFECTIVE GREEN-TIME FLARE+NOTIONL (SECS)	CAPACITY (VEHS /MIN)
08.00-08.15									
	A	1	L	1.88	1641.4	27.22	35.3		10.68
		2	S	6.94	2055.0	34.08	35.3		13.37
	B	1	L R	6.54	1827.9	29.93	17.7	29.5	9.80
	C	1	S R	9.70	1302.3	21.60	50.3	63.1	15.15
08.15-08.30									
	A	1	L	2.30	1641.4	27.22	55.1		12.50
		2	S	8.50	2055.0	34.08	55.1		15.65
	B	1	L R	8.01	1827.9	29.93	27.9	39.7	9.90
	C	1	S R	11.88	1234.7	20.48	70.1	82.9	14.15
08.30-08.45									
	A	1	L	2.30	1641.4	27.22	55.1		12.50
		2	S	8.50	2055.0	34.08	55.1		15.65
	B	1	L R	8.01	1827.9	29.93	27.9	39.7	9.90
	C	1	S R	11.88	1234.7	20.48	70.1	82.9	14.15
08.45-09.00									
	A	1	L	1.88	1641.4	27.22	35.3		10.68
		2	S	6.94	2055.0	34.08	35.3		13.37
	B	1	L R	6.54	1827.9	29.93	17.7	29.5	9.80
	C	1	S R	9.70	1302.3	21.60	50.3	63.1	15.15

.QUEUE AND DELAY INFORMATION FOR EACH 15 MINUTE TIME SEGMENT BETWEEN 08.00 AND 09.00

TIME	ARM	LANES	MOVEMENT	DEMAND EXCL 2-WHEEL (VEHS/MIN)	CAPACITY (VEHS/MIN)	DEGREE OF SAT (RFC)	QUEUE AT END OF SEGMENT MEAN (PHASE AVERAGED) (VEHS/LANE)	QUEUE AT END OF SEGMENT MAXIMUM (END OF RED) (VEHS/LANE)	QUEUEING DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ TIME SEGMENT)
08.00-08.15										
	A	1	L	1.88	10.68	0.176	0.6	1.7	8.7	
		2	S	6.94	13.37	0.519	2.7	6.7	41.1	
	B	1	L R	6.54	9.80	0.667	4.4	8.7	65.9	
	C	1	S R	9.70	15.15	0.640	2.9	7.1	42.9	
08.15-08.30										
	A	1	L	2.30	12.50	0.184	0.8	2.5	11.4	
		2	S	8.50	15.65	0.543	3.7	9.6	55.5	
	B	1	L R	8.01	9.90	0.809	7.7	14.2	114.8	
	C	1	S R	11.88	14.15	0.840	6.4	12.3	95.2	
08.30-08.45										
	A	1	L	2.30	12.50	0.184	0.8	2.5	11.4	
		2	S	8.50	15.65	0.543	3.7	9.6	55.5	
	B	1	L R	8.01	9.90	0.809	7.8	14.2	117.5	
	C	1	S R	11.88	14.15	0.840	6.5	12.4	99.4	
08.45-09.00										
	A	1	L	1.88	10.68	0.176	0.6	1.7	8.7	
		2	S	6.94	13.37	0.519	2.8	6.7	41.2	
	B	1	L R	6.54	9.80	0.667	4.5	8.7	67.8	
	C	1	S R	9.70	15.15	0.640	2.9	7.1	44.3	

.QUEUES FOR ARM A

TIME SEGMENT ENDING	LANE	NUMBER OF VEHICLES IN QUEUE MEAN (PHASE AVERAGED) *	MAXIMUM (AT END OF RED) +	
08.15	2	2.7	6.7	***++++
	1	0.6	1.7	*+
08.30	2	3.7	9.6	****++++++
	1	0.8	2.5	*++
08.45	2	3.7	9.6	****++++++

```
          1      0.8        2.5    *++

 09.00    2      2.8        6.7    ***++++
          1      0.6        1.7    *+


.QUEUES FOR ARM B
 ----------------

              NUMBER OF VEHICLES IN QUEUE
 TIME   LANE    MEAN     MAXIMUM
SEGMENT        (PHASE    (AT END
ENDING        AVERAGED)  OF RED)
                  *          +

 08.15    1      4.4        8.7    ****+++++

 08.30    1      7.7       14.2    ********++++++

 08.45    1      7.8       14.2    ********++++++

 09.00    1      4.5        8.7    ****+++++


.QUEUES FOR ARM C
 ----------------

              NUMBER OF VEHICLES IN QUEUE
 TIME   LANE    MEAN     MAXIMUM
SEGMENT        (PHASE    (AT END
ENDING        AVERAGED)  OF RED)
                  *          +

 08.15    1      2.9        7.1    ***++++

 08.30    1      6.4       12.3    ******++++++

 08.45    1      6.5       12.4    *******+++++

 09.00    1      2.9        7.1    ***++++


.QUEUEING DELAY INFORMATION OVER WHOLE PERIOD (08.00-09.00)
 ----------------------------------------------------------

 ------------------------------------------------------------------------------
I STREAM I   TOTAL DEMAND  I   * QUEUEING *      I * INCLUSIVE QUEUEING * I
I        I  (EXCL 2-WHEEL) I    * DELAY *        I       * DELAY *        I
I        I----------------------------------- ----------------------I
I        I  (VEH)  (VEH/H) I  (MIN)    (MIN/VEH) I    (MIN)     (MIN/VEH) I
 ------------------------------------------------------------------------------
I  A-B   I  125.5 I  125.5 I    40.3 I    0.32   I      40.3  I    0.32   I
I  A-C   I  463.2 I  463.2 I   193.3 I    0.42   I     193.6  I    0.42   I
I  B-C   I  219.2 I  219.2 I   183.8 I    0.84   I     184.3  I    0.84   I
I  B-A   I  217.2 I  217.2 I   182.1 I    0.84   I     182.6  I    0.84   I
I  C-A   I  483.2 I  483.2 I   210.3 I    0.44   I     210.5  I    0.44   I
I  C-B   I  164.4 I  164.4 I    71.5 I    0.44   I      71.6  I    0.44   I
 ------------------------------------------------------------------------------
I  ALL   I 1672.6 I 1672.6 I   881.3 I    0.53   I     882.9  I    0.53   I
 ------------------------------------------------------------------------------


 * DELAY IS THAT OCCURRING ONLY WITHIN THE TIME PERIOD.
 * INCLUSIVE DELAY INCLUDES DELAY SUFFERED BY VEHICLES WHICH ARE STILL QUEUEING AFTER THE END OF THE TIME PERIOD.
 * THESE WILL BE SIGNIFICANTLY DIFFERENT ONLY IF THERE IS A LARGE QUEUE REMAINING AT THE END OF THE TIME PERIOD.


 * TOTAL GEOMETRIC DELAY INCLUDES DELAY SUFFERED BY VEHICLES STILL QUEUEING AT THE END OF THE WHOLE TIME PERIOD.
 * THE SUM OF DELAYS FOR EACH SEGMENT AND THE TOTAL GEOMETRIC DELAY WILL BE SIGNIFICANTLY DIFFERENT ONLY IF THERE IS
 * A LARGE QUEUE AT THE END OF THE TIME PERIOD.
.
 ****** OSCADY 5 run completed
============================================= end of file ==============================================
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_____ O S C A D Y 5 _____

Analysis Program: Release 3.0 (Jan 2008)

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For sales and distribution information,
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Old Wokingham Road Fax: +44 (0) 1344 770864
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.Run with file:- "C:\Documents and Settings\obyrner\Desktop\Northwood\Junction 7 Swords Road\J7 2021 AM Peak WITHDev.voi" at 09:20:04 on Thursday, 30 May 2019

.FILE PROPERTIES
****

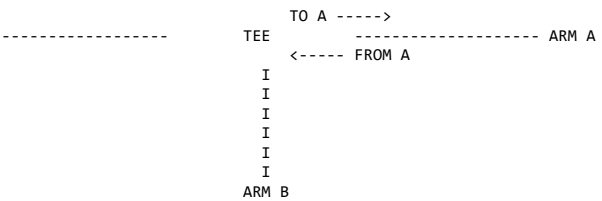
RUN TITLE: Northwood - Junction 7 AM Peak
LOCATION: Northwood
DATE: 29/05/2019
CLIENT: Cosgrove
ENUMERATOR: obyrner [LIBRARYMONRD]
JOB NUMBER: 19205
STATUS:
DESCRIPTION:

**** ERROR AND WARNING MESSAGES ****
==========

No errors or warnings in the data.

.TRAFFIC SIGNAL JUNCTION ANALYSIS
****

INPUT DATA



ARM A IS Arm A - Swords Road South
ARM B IS Arm B - Northwood Avenue
ARM C IS Arm C - Swords Road North

.GEOMETRIC DATA

DATA ITEM	ARM A	ARM B	ARM C
GRADIENT	0.0 %	0.0 %	0.0 %
NUMBER OF LANES	2	1	1
PERMITTED MOVEMENTS LANE 1	L	L R	SR
LANE 2	S		
TOTAL EXIT WIDTH FOR STRAIGHT-AHEAD VEHICLES FROM THIS ARM	N/A	N/A	N/A

LANE WIDTHS	LANE 1	3.00 M	3.50 M	3.00 M
	LANE 2	3.00 M	0.00 M	0.00 M
LEFT TURN RADII	LANE 1	9.0 M	20.0 M	N/A
RIGHT TURN RADII	LANE 1	N/A	20.0 M	20.0 M
OPPOSING TRAFFIC MOVEMENTS				STRAIGHT
STORAGE BEYOND STOPLINE	LANE 1	0.0 VEHS	0.0 VEHS	2.0 VEHS

EXIT WIDTH FOR IMAGINARY ARM D = 50.10

FLARES	ADJACENT LANE	STORAGE (PCU)	RATIO SF THIS BAY /SF ADJACENT LANE
ARM B; BAY 1	1	6	1.00
ARM C; BAY 1	1	6	1.00

.TRAFFIC DEMAND DATA

DEMAND PROFILES ARE SYNTHESISED USING THE ** ODTAB ** OPTION

DEMAND DATA SUPPLIED BETWEEN TIMES - 07.45 TO 09.15
PERIOD OF INTEREST (FOR QUEUE AND DELAY CALCULATIONS) - 08.00 TO 09.00

THE FOLLOWING DATA HAS BEEN INPUT

TRAFFIC SCALING FACTOR HAS BEEN SET TO 100 %

Northwood - Junction 2

TOTAL TRAFFIC DEMAND (VEHICLES / HOUR)			
FROM/TO	ARM A	ARM B	ARM C
ARM A	0.0	182.0	465.0
ARM B	241.0	0.0	243.0
ARM C	485.0	172.0	0.0

TIME PERIOD	ARM	VEHICLE TYPE PROPORTIONS					
		CARS AND LIGHT GOODS	MEDIUM GOODS	HEAVY GOODS	BUSES AND COACHES	MOTOR CYCLES	PEDAL CYCLES
08.00-09.00	A	0.990	0.010	0.000	0.000	0.000	0.000
	B	0.980	0.010	0.010	0.000	0.000	0.000
	C	0.990	0.010	0.000	0.000	0.000	0.000

.DATA DETERMINED FOR USE IN SYNTHESIS OF DEMAND PROFILES ARE AS FOLLOWS-

ENTRY/EXIT FLOWS	ARM	TIME WHEN FLOW STARTS TO RISE	TIME WHEN TOP OF PEAK IS REACHED	TIME WHEN FLOW STOPS FALLING	RATE OF FLOW (VEH/MIN) BEFORE PEAK	AT TOP OF PEAK	AFTER PEAK
ENTRY	A	08.00	08.30	09.00	8.09	12.13	8.09
	B	08.00	08.30	09.00	6.05	9.08	6.05
	C	08.00	08.30	09.00	8.21	12.32	8.21

.SIGNAL TIMING DETAILS FOR SIGNAL SET 1

TIMING OPTION- VEHICLE ACTUATED MODE

MAXIMUM CYCLE TIME- 120.0 SECONDS

GLOBAL EFFECTIVE GREEN DISPLACEMENTS - START = 1.4
END = 2.9

DATA ITEM		STAGE 1	STAGE 2	STAGE 3	STAGE 4
LANES ON GREEN:	ARM A	1 2			
	B			1	

C	1	1			
MINIMUM GREEN TIME (SECS)	10.0	10.0	15.0	10.0	
PRECEDING INTERSTAGE	5.0	5.0	5.0	5.0	

.DEMAND AND CAPACITY INFORMATION FOR EACH 15 MINUTE TIME SEGMENT BETWEEN 08.00 AND 09.00

TIME	ARM	LANES	MOVEMENT	DEMAND (VEHS/MIN)	SAT FLOW (PCU/HR)	SAT FLOW (VEHS/MIN)	EFFECTIVE GREEN-TIME TRUE (SECS)	EFFECTIVE GREEN-TIME FLARE+NOTIONL (SECS)	CAPACITY (VEHS /MIN)
08.00-08.15									
	A	1	L	2.72	1641.4	27.22	35.6		10.45
		2	S	6.94	2055.0	34.08	35.6		13.08
	B	1	L R	7.22	1827.9	29.93	20.1	31.9	10.31
	C	1	S R	9.81	1280.3	21.23	50.6	63.4	14.52
08.15-08.30									
	A	1	L	3.33	1641.4	27.22	53.4		12.12
		2	S	8.50	2055.0	34.08	53.4		15.18
	B	1	L R	8.85	1827.9	29.93	29.6	41.4	10.32
	C	1	S R	12.01	1208.2	20.04	68.4	81.3	13.57
08.30-08.45									
	A	1	L	3.33	1641.4	27.22	53.4		12.12
		2	S	8.50	2055.0	34.08	53.4		15.18
	B	1	L R	8.85	1827.9	29.93	29.6	41.4	10.32
	C	1	S R	12.01	1208.2	20.04	68.4	81.3	13.57
08.45-09.00									
	A	1	L	2.72	1641.4	27.22	35.6		10.45
		2	S	6.94	2055.0	34.08	35.6		13.08
	B	1	L R	7.22	1827.9	29.93	20.1	31.9	10.31
	C	1	S R	9.81	1280.3	21.23	50.6	63.4	14.52

.QUEUE AND DELAY INFORMATION FOR EACH 15 MINUTE TIME SEGMENT BETWEEN 08.00 AND 09.00

TIME	ARM	LANES	MOVEMENT	DEMAND EXCL 2-WHEEL (VEHS/MIN)	CAPACITY (VEHS/MIN)	DEGREE OF SAT (RFC)	QUEUE AT END OF SEGMENT MEAN (PHASE AVERAGED) (VEHS/LANE)	QUEUE AT END OF SEGMENT MAXIMUM (END OF RED) (VEHS/LANE)	QUEUEING DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ TIME SEGMENT)
08.00-08.15										
	A	1	L	2.72	10.45	0.260	0.9	2.6	14.1	
		2	S	6.94	13.08	0.531	2.9	7.0	43.6	
	B	1	L R	7.22	10.31	0.701	5.0	9.7	74.2	
	C	1	S R	9.81	14.52	0.675	3.3	7.7	49.2	
08.15-08.30										
	A	1	L	3.33	12.12	0.274	1.2	3.8	18.4	
		2	S	8.50	15.18	0.560	3.9	9.9	58.7	
	B	1	L R	8.85	10.32	0.858	9.0	16.0	134.1	
	C	1	S R	12.01	13.57	0.885	7.9	13.8	115.4	
08.30-08.45										
	A	1	L	3.33	12.12	0.274	1.2	3.8	18.4	
		2	S	8.50	15.18	0.560	3.9	9.9	58.7	
	B	1	L R	8.85	10.32	0.858	9.2	16.2	140.3	
	C	1	S R	12.01	13.57	0.885	8.2	14.0	125.7	
08.45-09.00										
	A	1	L	2.72	10.45	0.260	0.9	2.6	14.1	
		2	S	6.94	13.08	0.531	2.9	7.0	43.8	
	B	1	L R	7.22	10.31	0.701	5.1	9.8	77.5	
	C	1	S R	9.81	14.52	0.675	3.3	7.7	51.9	

.QUEUES FOR ARM A

TIME SEGMENT ENDING	LANE	NUMBER OF VEHICLES IN QUEUE MEAN (PHASE AVERAGED) *	MAXIMUM (AT END OF RED) +	
08.15	2	2.9	7.0	***++++
	1	0.9	2.6	*++
08.30	2	3.9	9.9	****++++++
	1	1.2	3.8	*+++
08.45	2	3.9	9.9	****++++++

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          1      1.2        3.8    *+++

 09.00    2      2.9        7.0    ***++++
          1      0.9        2.6    *++


.QUEUES FOR ARM B
 ----------------

              NUMBER OF VEHICLES IN QUEUE
  TIME   LANE    MEAN     MAXIMUM
 SEGMENT        (PHASE    (AT END
 ENDING        AVERAGED)  OF RED)
                   *          +

 08.15    1      5.0        9.7    *****+++++

 08.30    1      9.0       16.0    *********+++++++

 08.45    1      9.2       16.2    *********+++++++

 09.00    1      5.1        9.8    *****+++++


.QUEUES FOR ARM C
 ----------------

              NUMBER OF VEHICLES IN QUEUE
  TIME   LANE    MEAN     MAXIMUM
 SEGMENT        (PHASE    (AT END
 ENDING        AVERAGED)  OF RED)
                   *          +

 08.15    1      3.3        7.7    ***+++++

 08.30    1      7.9       13.8    ********++++++

 08.45    1      8.2       14.0    ********++++++

 09.00    1      3.3        7.7    ***+++++


.QUEUEING DELAY INFORMATION OVER WHOLE PERIOD (08.00-09.00)
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 I STREAM I   TOTAL DEMAND  I   * QUEUEING *      I * INCLUSIVE QUEUEING * I
 I        I  (EXCL 2-WHEEL) I    * DELAY *        I       * DELAY *        I
 I        I----------------------------------- ----------------------I
 I        I  (VEH)  (VEH/H) I  (MIN)    (MIN/VEH) I    (MIN)     (MIN/VEH) I
 ------------------------------------------------------------------------------
 I  A-B   I  181.3 I  181.3 I    65.0 I    0.36   I      65.1  I    0.36   I
 I  A-C   I  463.2 I  463.2 I   204.7 I    0.44   I     205.0  I    0.44   I
 I  B-C   I  242.1 I  242.1 I   214.0 I    0.88   I     214.6  I    0.89   I
 I  B-A   I  240.1 I  240.1 I   212.2 I    0.88   I     212.8  I    0.89   I
 I  C-A   I  483.2 I  483.2 I   252.6 I    0.52   I     252.9  I    0.52   I
 I  C-B   I  171.3 I  171.3 I    89.6 I    0.52   I      89.7  I    0.52   I
 ------------------------------------------------------------------------------
 I  ALL   I 1781.2 I 1781.2 I  1038.1 I    0.58   I    1040.1  I    0.58   I
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 * DELAY IS THAT OCCURRING ONLY WITHIN THE TIME PERIOD.
 * INCLUSIVE DELAY INCLUDES DELAY SUFFERED BY VEHICLES WHICH ARE STILL QUEUEING AFTER THE END OF THE TIME PERIOD.
 * THESE WILL BE SIGNIFICANTLY DIFFERENT ONLY IF THERE IS A LARGE QUEUE REMAINING AT THE END OF THE TIME PERIOD.


 * TOTAL GEOMETRIC DELAY INCLUDES DELAY SUFFERED BY VEHICLES STILL QUEUEING AT THE END OF THE WHOLE TIME PERIOD.
 * THE SUM OF DELAYS FOR EACH SEGMENT AND THE TOTAL GEOMETRIC DELAY WILL BE SIGNIFICANTLY DIFFERENT ONLY IF THERE IS
 * A LARGE QUEUE AT THE END OF THE TIME PERIOD.
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 ****** OSCADY 5 run completed
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