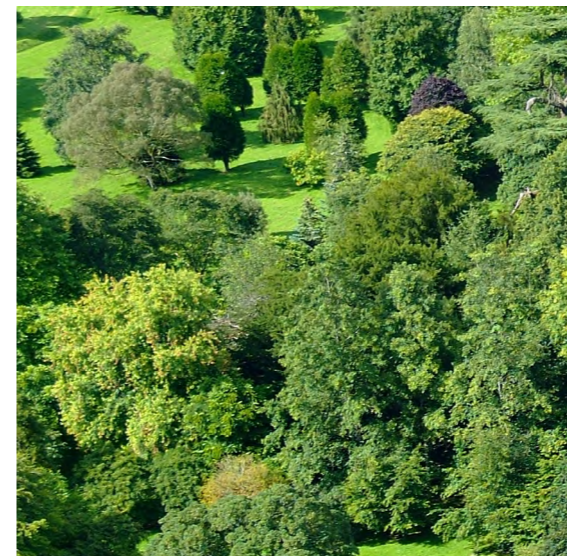
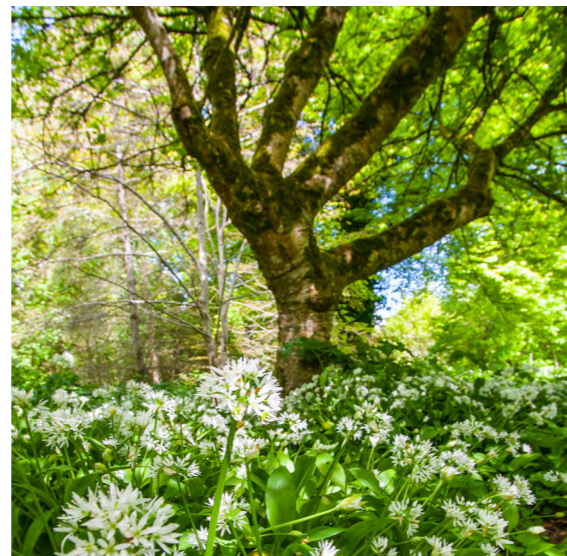




LACKENROE SHD

# APPENDIX 5

Material Assets – Traffic & Transportation



**VOLUME III** | Appendices

LACKENROE SHD

# APPENDIX 5-1

Traffic & Transport Assessment  
– MHL & Associates

**VOLUME III** | Appendices

## TRAFFIC & TRANSPORT ASSESSMENT

# Residential Development Glounthaune Cork November 2021

FOR: LONGVIEW ESTATES LTD.



### Document Control Sheet

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<b>Project Title</b>	Glounthaune SHD Residential Development
<b>Document Title</b>	Traffic and Transport Assessment
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## 1.0 INTRODUCTION

### 1.1 INTRODUCTION

1.1.1 MHL Consulting Engineers has been instructed by Bluescape Ltd to prepare a Traffic & Transport Assessment (TTA) in support of a planning application for the development of Phase 2 of their lands in Glounthaune, Cork.

1.1.2 The proposed development consists of the construction of 289 residential units consisting of 201 no. dwelling houses and 88 no. apartment/duplex units, a two storey creche (with capacity for 67no. children), 4 no. ESB substations and all ancillary site development works. The proposed development will be constructed on lands to the north and south of the public road, L-2970, known locally as 'The Terrace'.

The proposed development to the north of 'The Terrace' provides for 269 residential units comprising of 213 no. dwelling houses, 56 no. apartment/duplex units with ancillary bicycle parking and bin stores and a two storey creche.

The proposed development to the south of 'The Terrace' provides for 29 no. residential units comprising of 5 no. dwelling houses and 24 no. apartments with ancillary bicycle parking and bin stores. The proposed apartments are provided in a 4-storey building containing a ground floor community unit and a commercial unit with apartments at upper floor levels.

Vehicular access to the lands to the north will be via the signalised junction from the L-2968 and internal road network permitted by Cork County Council reference 17/5699 and An Bord Pleanala reference 300128-17 with a secondary emergency access proposed to the L-2969 to the north.

Vehicular access to the 5-no. dwellings to the south of 'The Terrace' will be via a new 'Priority' controlled entrance from 'The Terrace' with the proposed apartment building being accessed from Johnstown Close.

The proposed development also makes provision for a pedestrian link from the proposed development north of 'The Terrace' to Johnstown Close which will include a pedestrian crossing and associate traffic calming measures on 'The Terrace'.

1.1.3 This TTA will assess how the proposed development will impact the surrounding roads network. It will assess the proposed access arrangements and the transport choices available to future users of the application site and how the existing/proposed transport infrastructure surrounding the site will influence that choice. The impact of traffic demand generated by the proposals will be considered and quantified.

1.1.4 The scope of this study has been agreed with Cork County Council's Traffic & Transportation Department. Key parameters relating to the traffic modelling carried out including, junctions to be assessed, trip generation, modal shift targets, trip distribution, assessment years and the presentation of results have been discussed and agreed with the Local Authority.

1.1.5 The key junctions in the area surrounding the proposed development are shown in **Figure 1.1** and are as follows:

- Junction 1: The junction of the L-2968/L-2969
- Junction 2. Access to Cois Chuain from the L-2968
- Junction 3: Glounthaune Road/ Johnstown Close
- Junction 4: 'The Terrace'/L-2968
- Junction 5: Johnstown Close/ 'The Terrace'

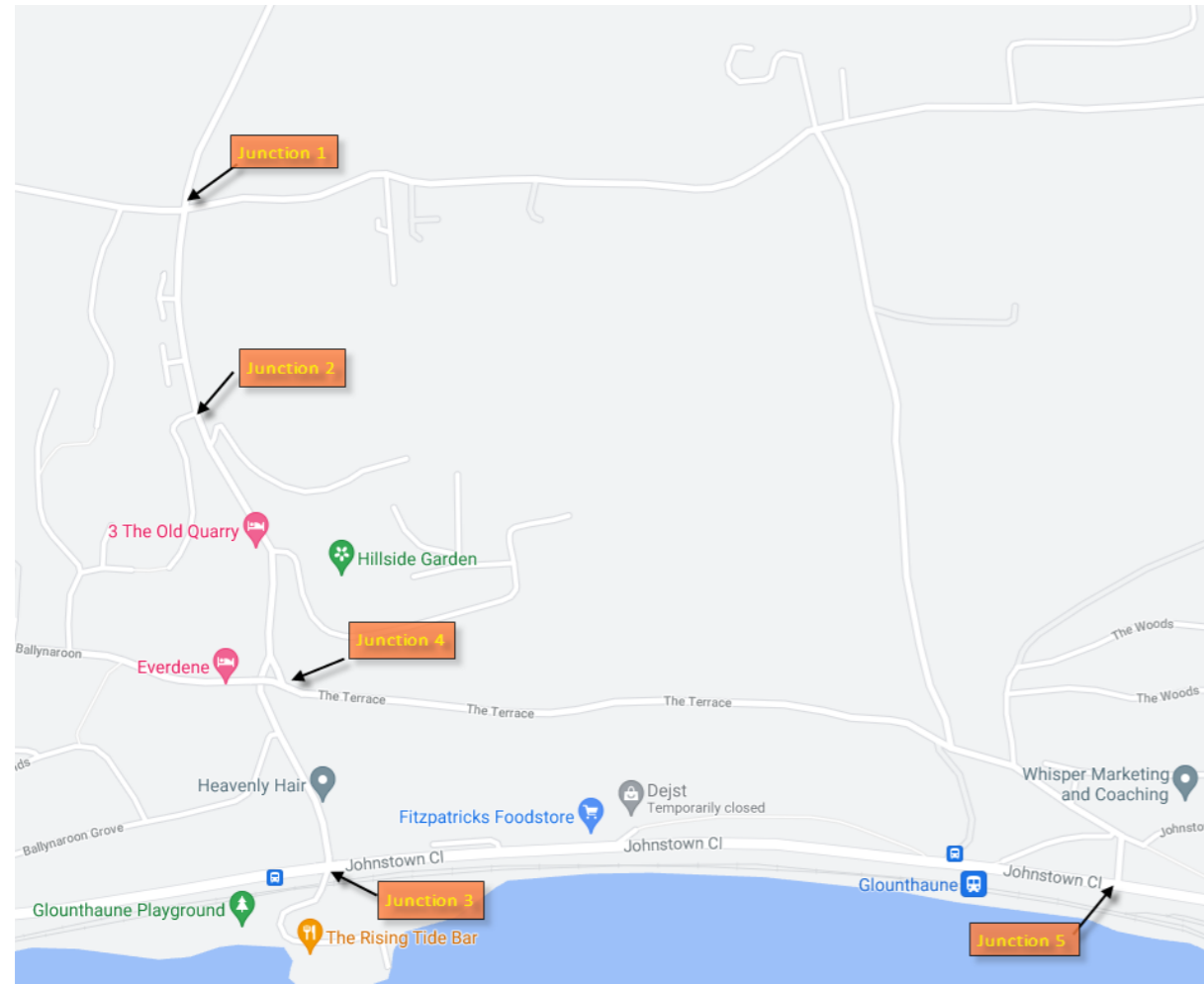


Figure 1.1: Junction Locations

**1.2 STATUTORY CONSULTEE CONSULTATION**

1.2.1 Notwithstanding ongoing consultation with the Traffic & Transportation Department of Cork County Council, the Design Team, have engaged with various departments within Cork City Council with a view to consider the respective issues raised as part of the design process of the scheme.

1.2.2 These engagements have informed the final layout of the scheme including access arrangements for vehicular, pedestrian and cycle modes of transport.

**1.3 DOCUMENT STRUCTURE**

1.3.1 A TTA is an appropriate form of assessment for the scale of the proposed development and the scope has been agreed with the Local Authority. The structure of this TTA is in accordance with TII (Transport Infrastructure Ireland) Document, Traffic and Transport Assessment Guidelines, 2014.

The aim of this TTA is to identify the characteristics of the application site and surrounding area, examine the likely transport implications, ensure sustainable accessibility is maximised and appropriate infrastructure provided.

The key issues that need to be addressed within this TTA, with reference to the size and location of the development proposal, are as follows:

- Review of the site location, composition and local roads network.
- Analysis of Road Safety data for the most recent five-year period available.
- Accessibility critique reviewing pedestrian, cycle and public transport access to the site, plus any infrastructure currently available to promote travel by sustainable means.
- A review of the relevant planning and transport policy.
- Description of the development proposal.
- Description and justification for the proposed access arrangement, internal layout, parking provision, public transport provision, fire tender/service/delivery access, including all necessary swept-path assessments and visibility splays.
- Forecast multi-modal trip rates and trip generation as agreed with the Local Authority.
- Modal split assumptions used in the trip generation process.
- The use of appropriate and agreed traffic modelling software for the assessment of individual junctions.
- Provide With/Without Development assessment for each of the critical junctions.
- Assess significance of development generated traffic upon the surrounding transport infrastructure and identify any necessary mitigation.

1.3.2 The TTA concludes that the proposed development, in traffic and transportation terms is acceptable, and there are no traffic and transportation reasons that should prevent the Planning Authority from recommending approval of this application. The site is served with a high frequency train service which can be directly accessed from the development, the Cobh/Midleton Service. This service currently operates on a 20min frequency and links to the City Centre. The Glounthaune section of the Interurban Cycle Route IU-1 has been recently completed and ultimately will provide a link both west and east. Future cycle proposals in the Glounthaune Area are shown in the Figure below. These objectives are set to be delivered as part of CMATS.

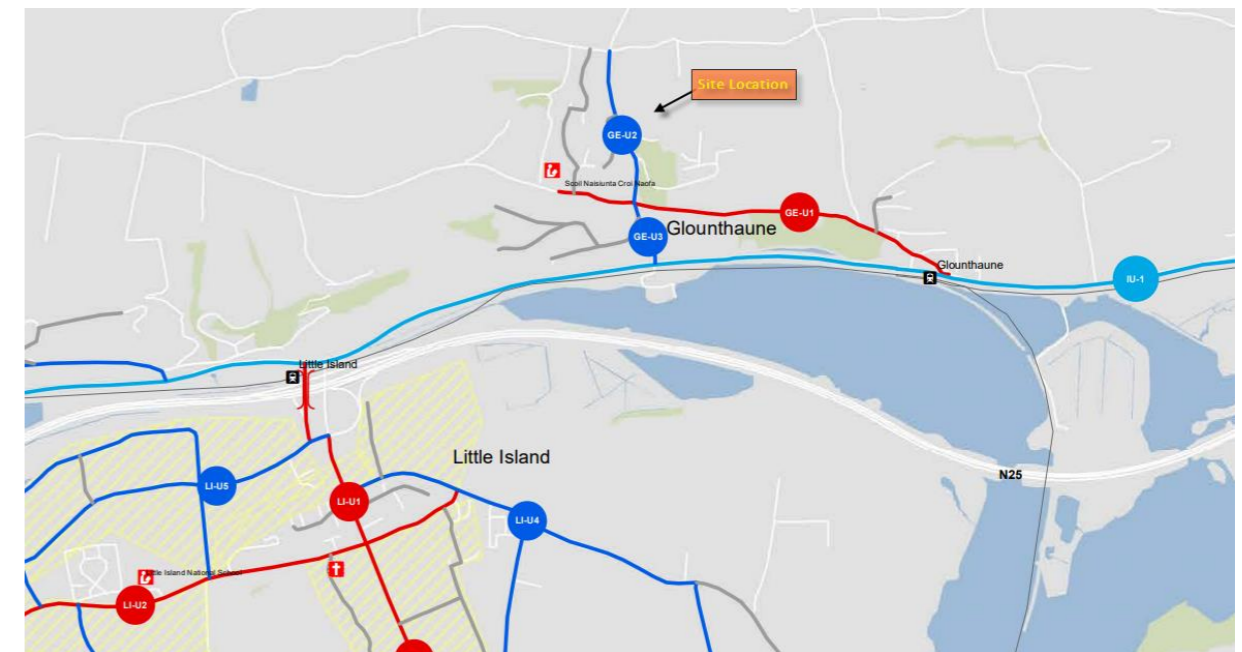


Figure 1.2: Extract from Cork Cycle Network Plan

## 2.0 NON-TECHNICAL SUMMARY

- 2.1 A TTA has been prepared in support of an application to Cork County Council for the construction of 298 residential units consisting of 201 no. dwelling houses and 88 no. apartment/duplex units, a two storey creche (with capacity for 67no. children), 4 no. ESB substations and all ancillary site development works.
- 2.2 The TTA methodology including the scope and means of assessment of the identified key junctions has been agreed with the Local Authority as part of the pre-application process.
- 2.3 The TTA has demonstrated the following:
- (i) The proposed residential development is in accordance with the Local Area Plan and forms an important continuation in the delivery of planned growth in the area.
  - (ii) A review of the existing roads network and collision data in the vicinity of the site indicates that there are no significant problems in relation to the safety of the existing Roads Network.
  - (iii) Junction 1: The priority-uncontrolled junction of the L2968 and the L2969 is seen to operate within capacity up to and including the design year 2041 both with and without the development traffic.
  - (iv) Junction 2: Access to Cois Chuain from the L2968 is seen to operate within capacity up to and including the design year 2041.
  - (v) Junction 3: The priority-uncontrolled junction of the Glounthaune Road and Johnstown Close is currently operating within capacity, however by the design year 2041 the junction will operate close to capacity for the morning peak.
  - (vi) Junction 4: The priority-uncontrolled junction of 'The Terrace and the L2968 will operate within capacity up to and including the design year 2041.
  - (vii) Junction 5: The priority-uncontrolled junction of Johnstown Close and 'The Terrace' will operate within capacity up to and including the design year 2041.
  - (viii) Junction 6: The proposed signal-controlled junction serving the development and incorporating Junction 2: Cois Chuain. This junction was analysed using LinSig for future years with development traffic in place. The results show that the junction will operate within capacity up to an including the design year with minimal delay experienced. The analysis was carried out assuming that the pedestrian phase of the signals will be called each and every cycle facilitating safe pedestrian connectivity in the direction of the local school.
  - (ix) The proposed site layout is permeable to the roads network and is well connected to existing pedestrian linkages, to public transport offerings and schools. The recently completed IU-1 Interurban cycleway runs south of the site and is accessible by an off-road connection through the lands south of The Terrace. The proposed new access arrangements are safe and suitable and are in accordance with the Design Manual for Roads & Bridges (DMRB) and the Design Manual for Urban Roads & Streets (DMURS).
  - (x) The site benefits from being in close proximity to regular transport provision (train station and bus), within walking distance of the site, which enables journeys throughout Co. Cork.
- 2.4 A modal shift of 40% (implying an anticipated increase in public transport usage or active travel in the immediate area of 23.5%) for future year models is deemed to be reasonable. This modal shift increase, of 23.5% has been applied to proposed development traffic from the opening year (when the development is fully completed) 2026, up to the design year 2041.

This same modal shift increase, of 23.5% has not been applied to the background traffic of the modelled junctions, ensuring that a conservative (worst-case) analysis has been carried out.

## 3.0 EXISTING CONDITIONS

### 3.1 INTRODUCTION

3.1.1 This section describes the base data used to develop the junction models, the critical links and junctions as agreed with the Local Authority, committed transport proposals to the area and other surrounding proposed development.

### 3.2 BASELINE TRAFFIC CONDITIONS

3.2.1 As part of the pre-application process the extent of data collection and the critical links and junctions was agreed with the Local Authority.

3.2.1 A variety of different data sources have been used, including:

- 12-hour classified turning counts (5 sites, refer **Figure 1.1**);
- Background OS Mapping and aerial photography;
- On-site junction measurements including saturation flows, link speeds, queue length measurements, pedestrian movements at signalled crossings and geometric data for each of the modelled junctions;

3.2.2 A total of 5 turning count surveys were undertaken as part of the study on Thursday 27<sup>th</sup> May 2021, as outlined in the following figure; these surveys were carried out simultaneously using video cameras at each of the junctions for a 12-hour period.

3.2.3 On-site measurements including lane widths, junction turning radii, lane lengths and saturation flows were undertaken by MHL and were incorporated in the constructed models.

3.2.4 The following figures present the recorded 12-hour traffic profile, percentage of classified vehicles and turning movements for each of the modelled junctions carried out on Thursday 27<sup>th</sup> of May 2021:

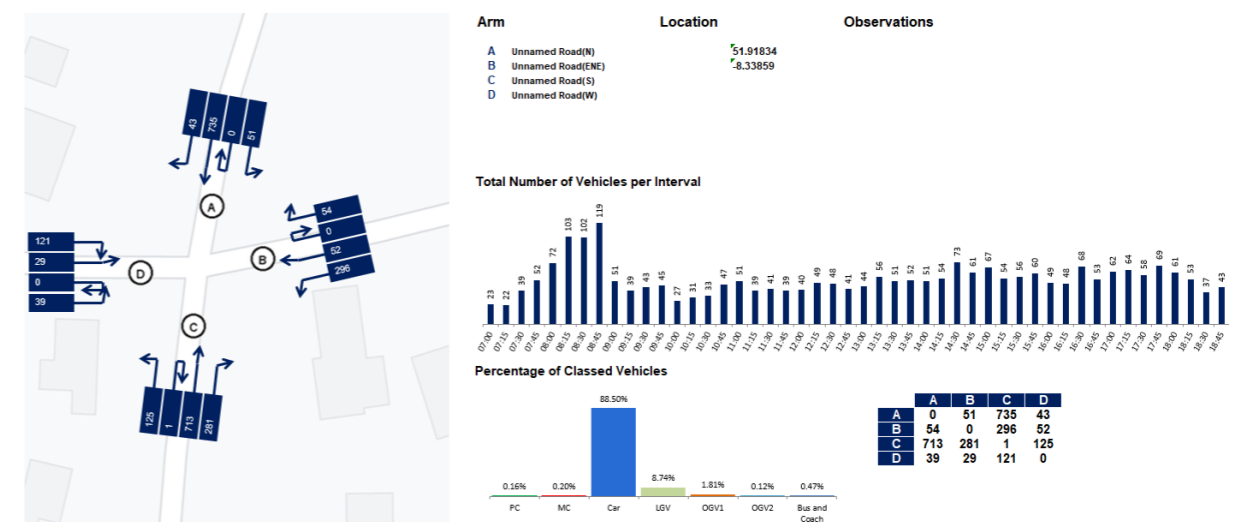


Figure 3.1: Junction 1: The junction of the L-2968/L-2969

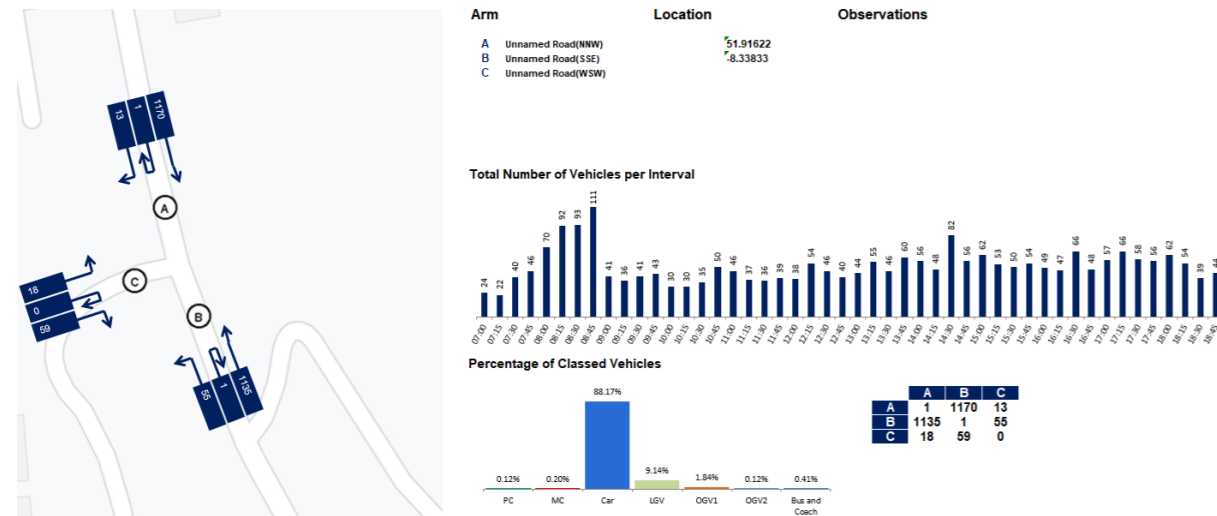


Figure 3.2: Junction 2: Cois Chuain (Residential Development)

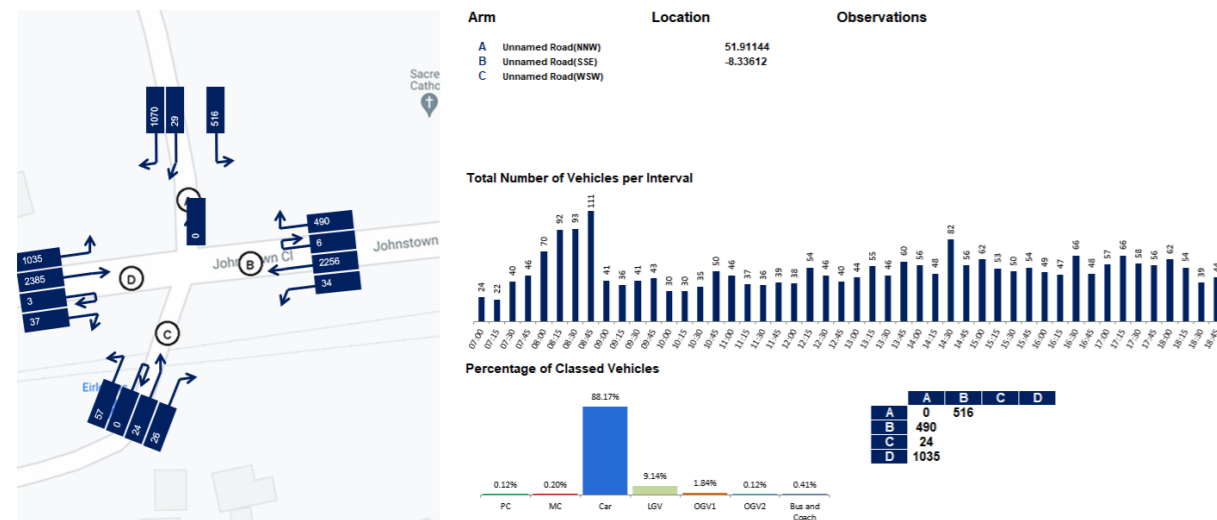


Figure 3.3: Junction 3: Glounthaune Road/ Johnstown Close

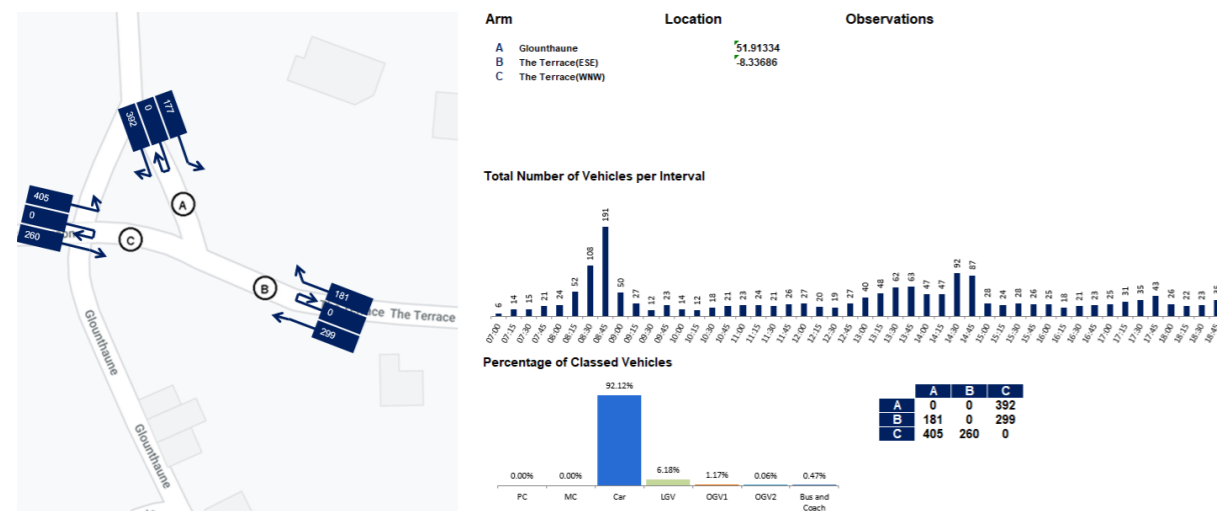


Figure 3.4: Junction 4: The Terrace/L-2968

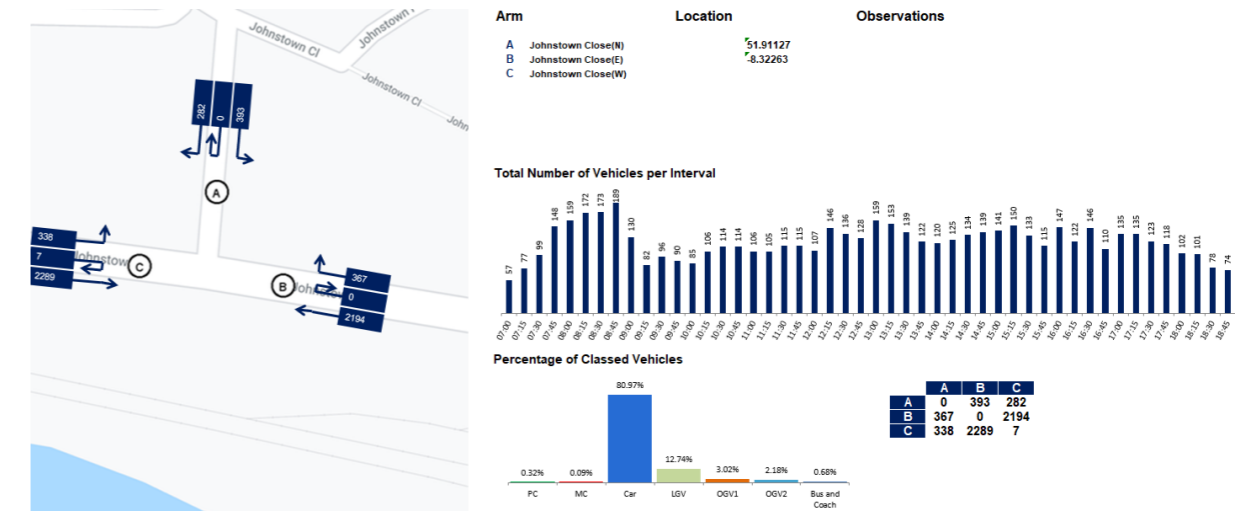


Figure 3.5: Junction 5: Johnstown Close/ 'The Terrace'

3.2.5 The data presented in the above figures show the peak hour traffic periods for both morning and evening respectively as being 08:00-09:00 and 17:00-18:00.

For the purpose of the modelling analysis, each of the above peak hour traffic periods are included in order to obtain the worst-case traffic build-up results. This ensures a robust analysis of the road network is conducted.

3.2.6 The percentage of classified vehicles was used within the generated traffic models to accurately reflect existing conditions.

### 3.3 SITE LOCATION AND COMPOSITION

3.3.1 The application site is located on the L2968 in the village of Glounthaune within a 50kph speed limit zone. The site is bounded by the residential estate of Cois Chuain to the west with an existing footpath on the western side of the road serving the development lands.

**3.4 LOCAL ROADS NETWORK**

**3.4.1 Junction 1: The junction of the L-2968/L-2969**

This junction serves as an important vehicular access between east Cork and the greater Cork City urban area.



Image 3.4.1: The junction of the L-2968/L-2969

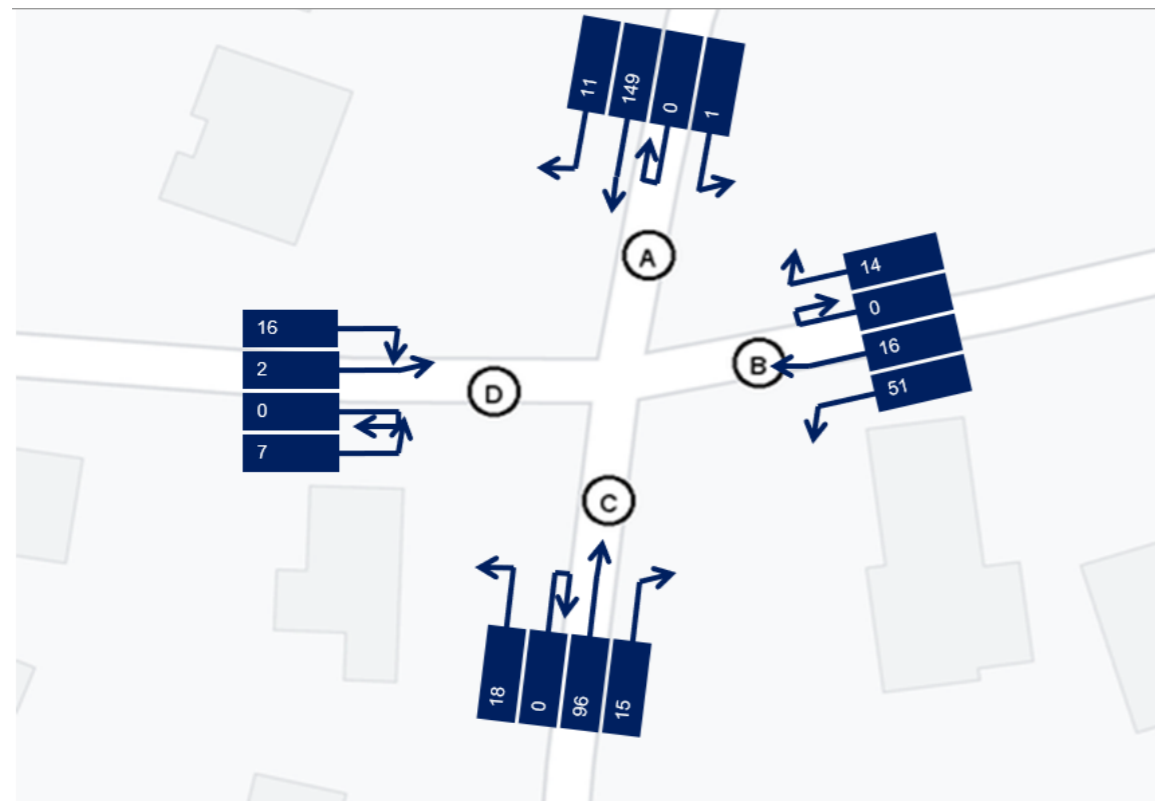


Fig 3.4.1: The junction of the L-2968/L-2969– AM Peak Hour Flows

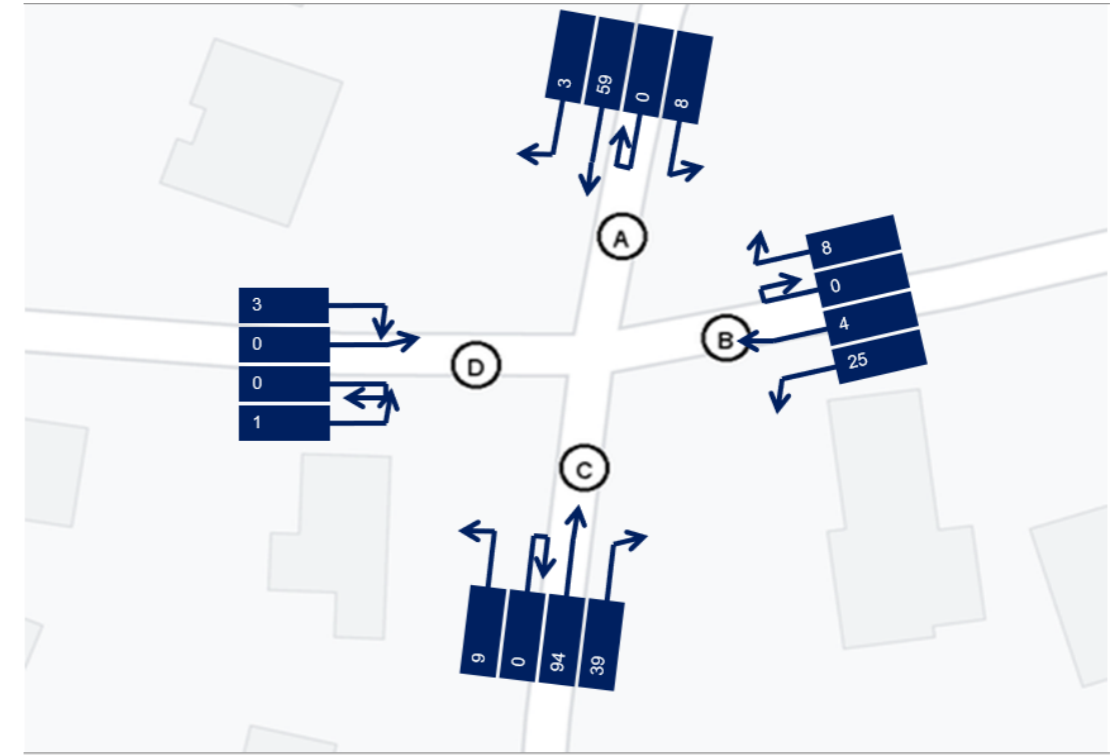


Fig 3.4.2: The junction of the L-2968/L-2969– PM Peak Hour Flows

**3.4.2 Junction 2: Access to Cois Chuain from the L-2968**

This Priority Junction serves a 15-unit development accessing directly onto the L2968 Ballynaron Road.



Image 3.4.2: Image of Junction 2: Access to Cois Chuain from the L-2968



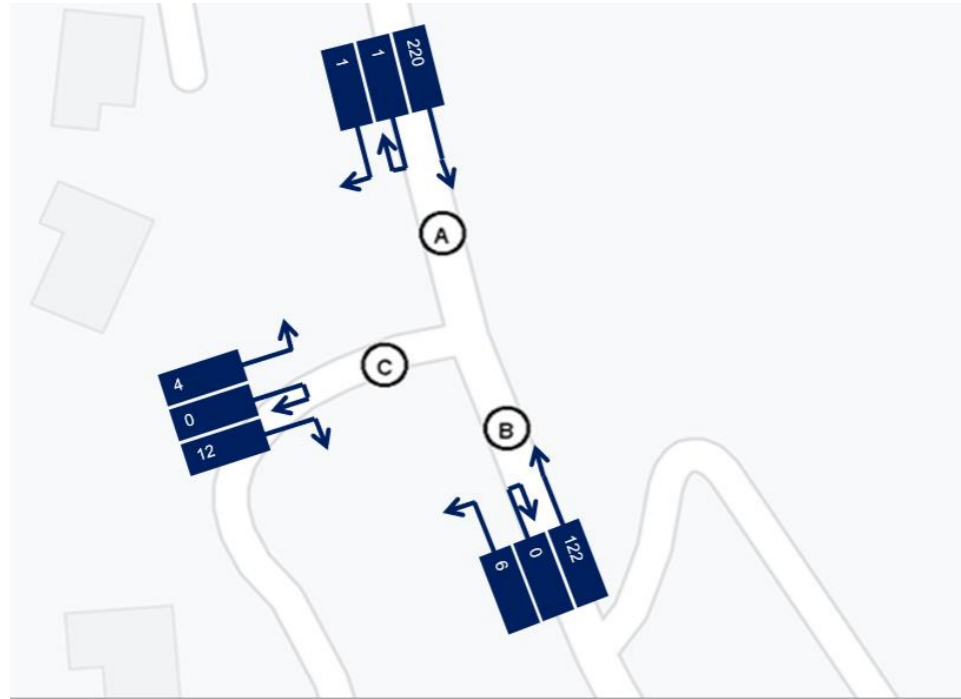


Fig 3.4.3: Access to Cois Chuain from the L-2968 – AM Peak Hour Flows

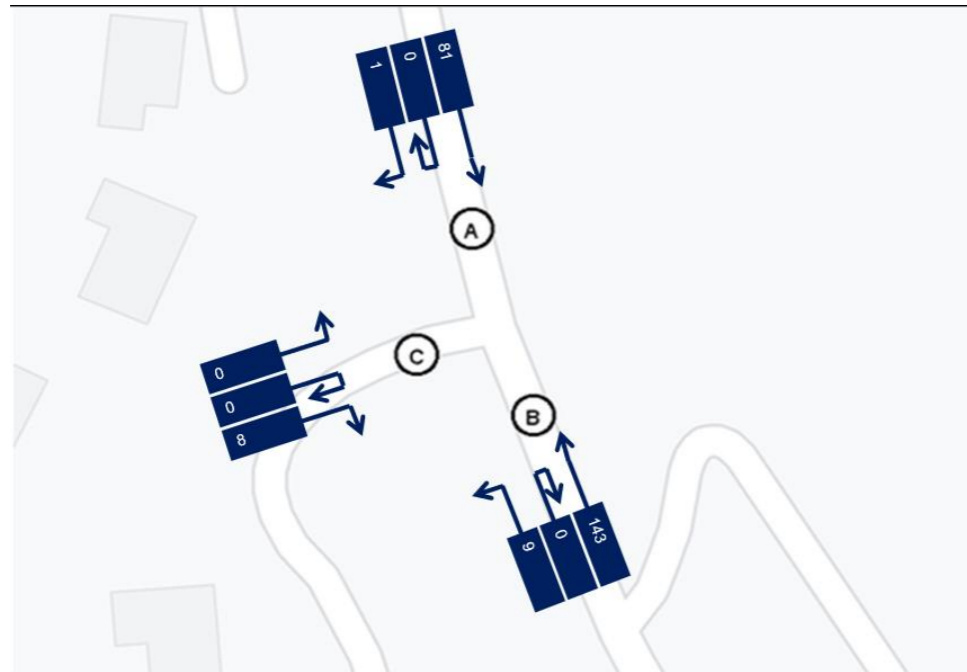


Fig 3.4.4: Access to Cois Chuain from the L-2968 - PM Peak Hour Flows

3.4.3 Junction 3: Glounthaune Road/ Johnstown Close

This priority-controlled junction provides secondary access to Glounthaune Community Centre, Glounthaune playground as well as a Post Office, hairdresser, Preschool, restaurant and two churches. This junction serves as an important vehicular access between East Cork and the greater Cork City urban area including its use as a link to the N25 Cork/Waterford Road.



Image 3.4.3: Glounthaune Road/ Johnstown Close

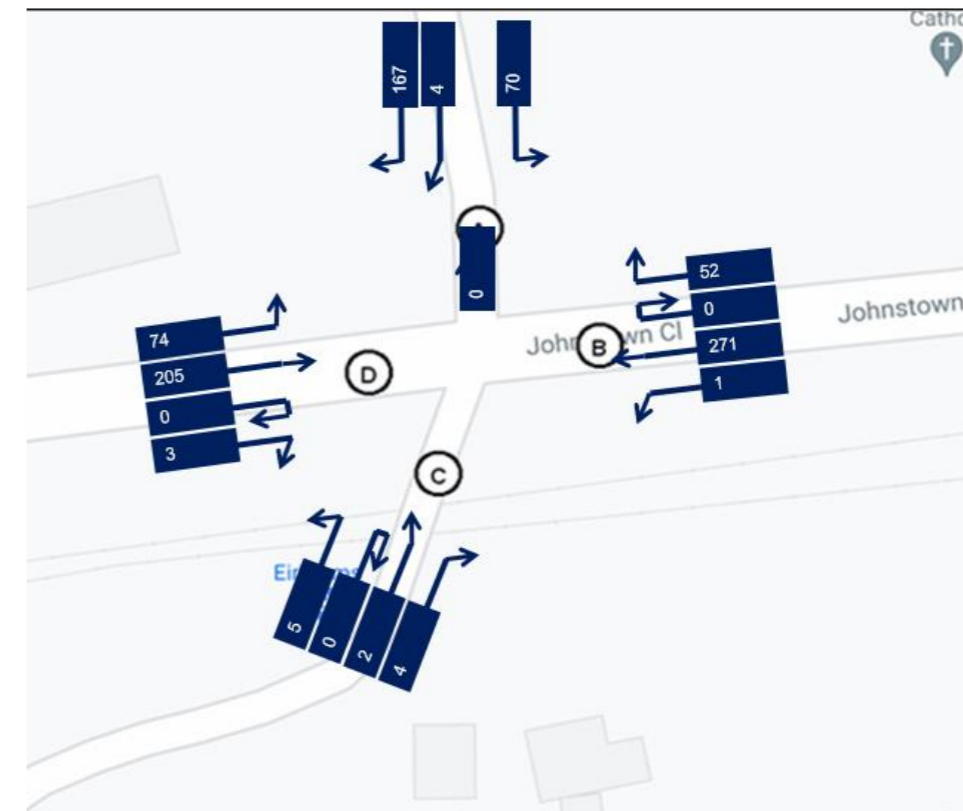


Fig 3.4.5: Glounthaune Road/ Johnstown Close – AM Peak Hour Flows

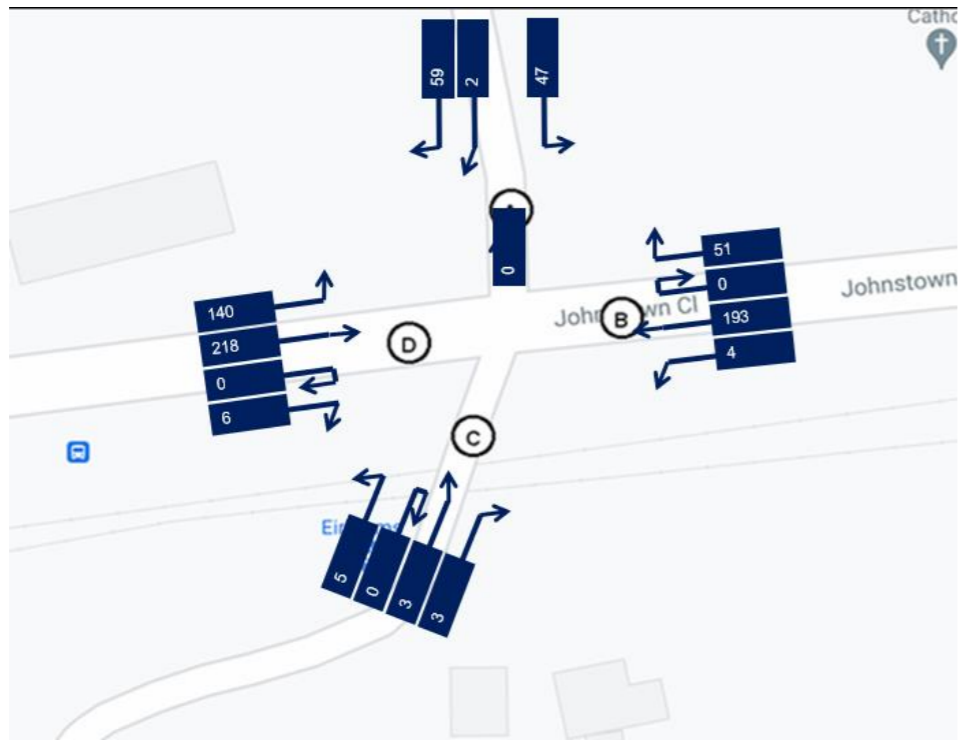


Fig 3.4.6: Glounthaune Road/ Johnstown Close – PM Peak Hour Flows

3.4.4 Junction 4: 'The Terrace'/L-2968

This priority junction links the L-2968 minor road to 'The Terrace' priority road providing access to the individual housing developments on this road.



Image 3.4.4: 'The Terrace'/L-2968

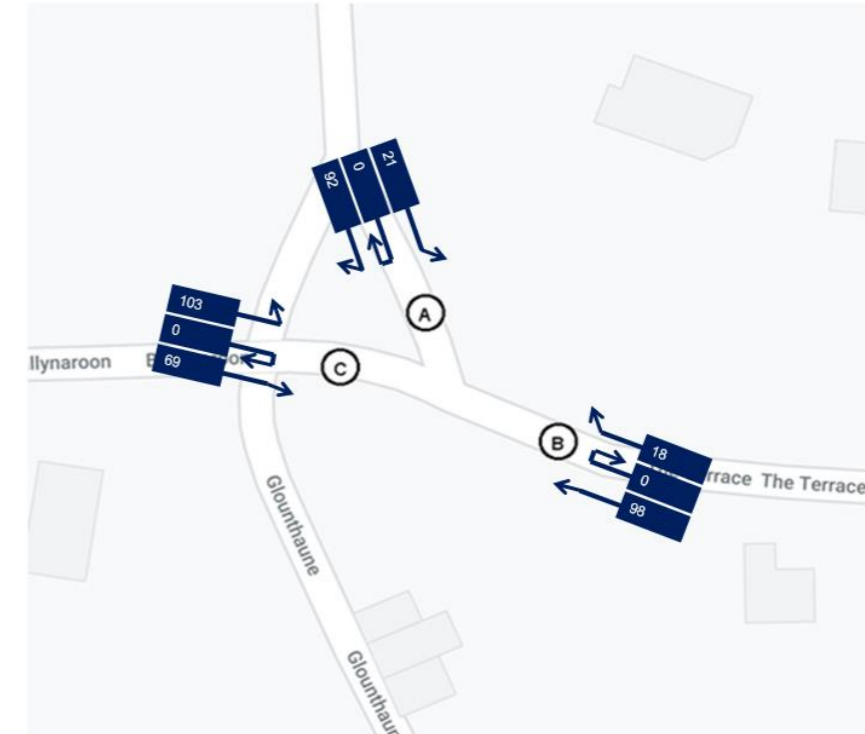


Fig 3.4.7: 'The Terrace'/L-2968 – AM Peak Hour Flows

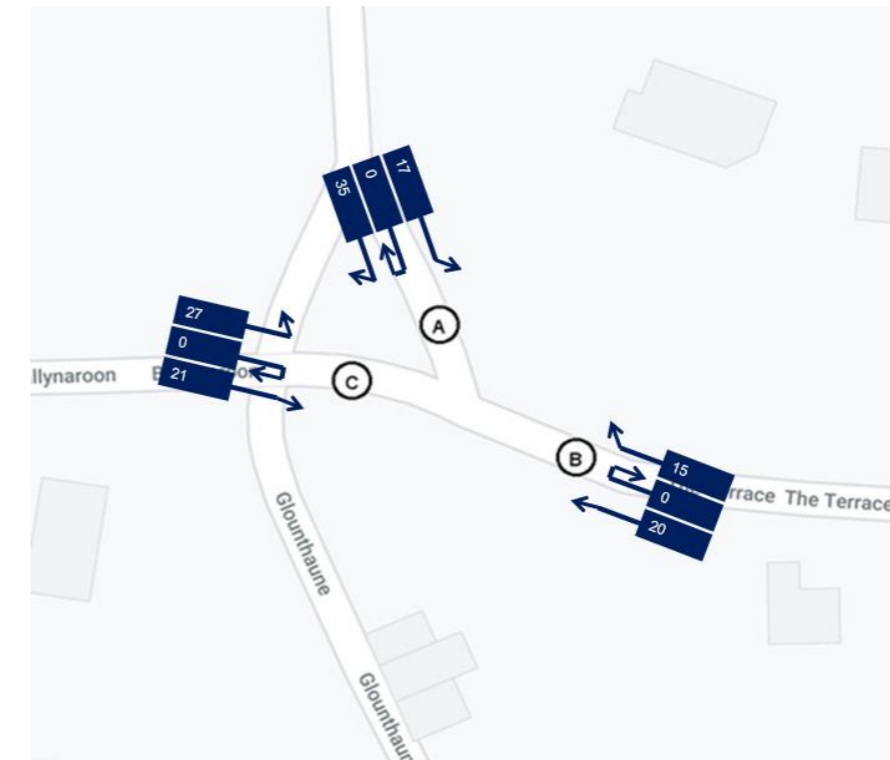


Fig 3.4.8: 'The Terrace'/L-2968 – PM Peak Hour Flows

3.4.5 Junction 5: Johnstown Close/ 'The Terrace'

This priority junction serves as a vehicular access for The Woods residential estate and Johnstown Park to the Johnstown Close Road. This also links to the N25 Cork/Waterford Road at Cobh Cross.



Image 3.4.5: Johnstown Close/ 'The Terrace'

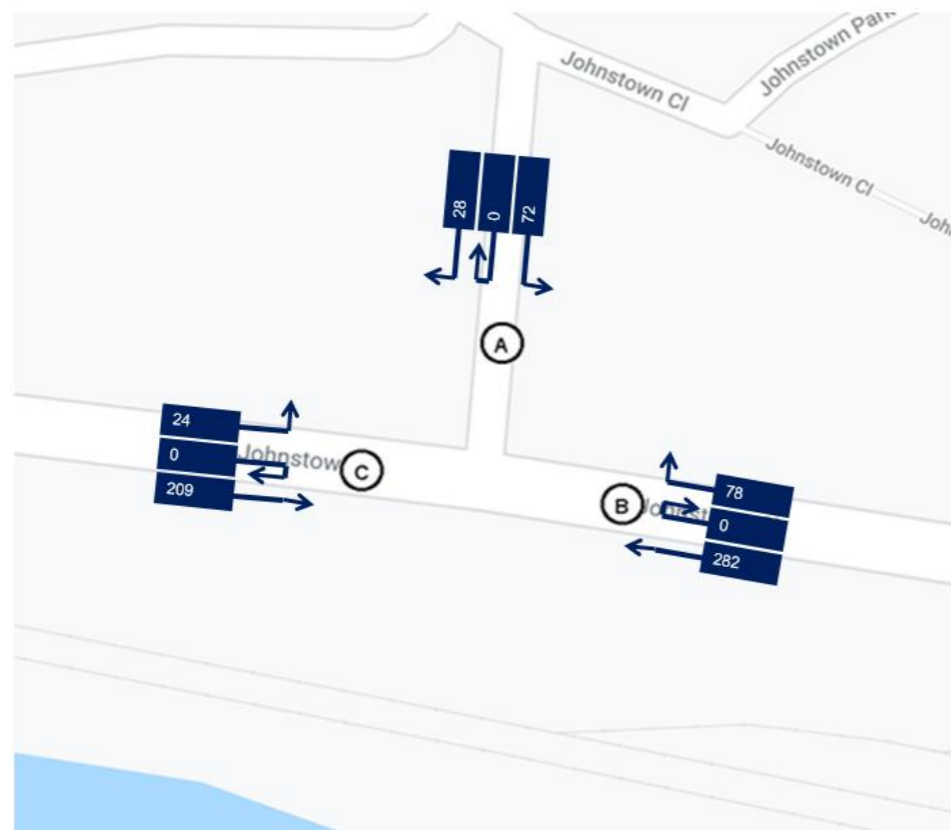


Fig 3.4.9: Johnstown Close/ 'The Terrace'– AM Peak Hour Flows

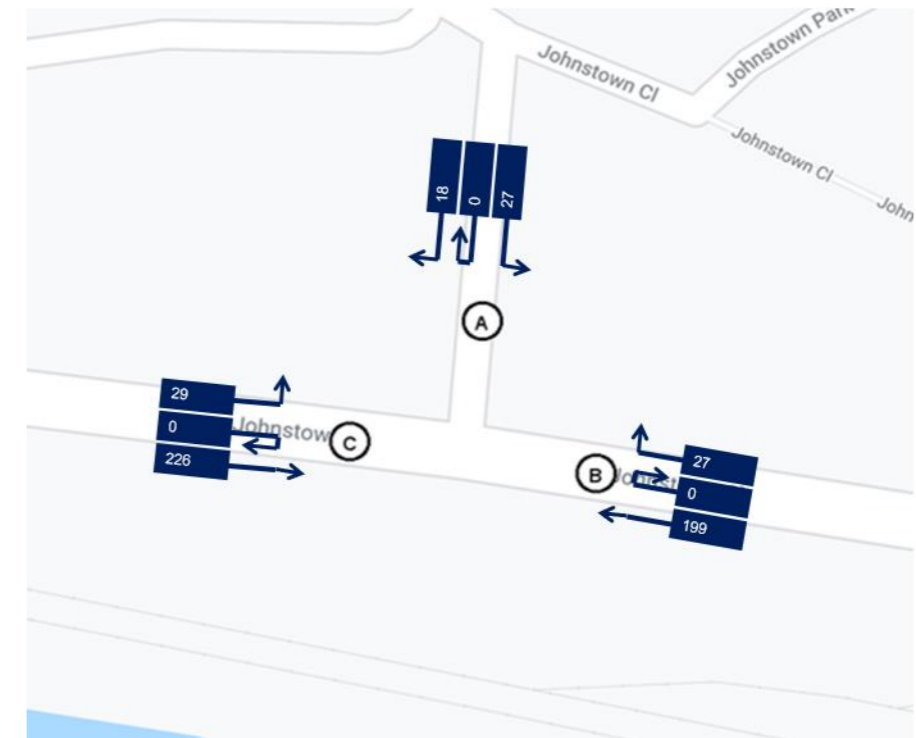


Fig 3.4.10: Johnstown Close/ 'The Terrace'– PM Peak Hour Flows

3.5 COMMITTED TRANSPORT PROPOSALS

3.5.1 The publication of the CMATS (Cork Metropolitan Area Transport Study) document proposes major upgrades to public transport provision to serve the City Public Transport Network. These measures will contribute to an expected increase in modal shift towards sustainable travel resulting in a reduction in traffic generation from residential developments. Figure 3.5.1 outlines the 9 measures proposed to achieve this aim.

A modal shift of 40% (implying an anticipated increase in public transport usage or active travel in the immediate area of 23.5%) for development traffic only, in the Base Year 2026. The use of an increase modal shift for development traffic is justified based on current demographics in the Glounthaune Area (older population) and the type of current residential provision which includes detached/semi-detached units with little or no apartments. The proposed development will result in an increase in density with a younger demographic anticipated. In addition, the developed off-road access from the site to the bus and train, as well as to the Interurban Greenway (IU-1), will significantly improve connectivity for the scheme.

The resulting reduction in traffic generation from the site has not been applied to background traffic flows, refer to Chapter 6.0 of this report for further details.

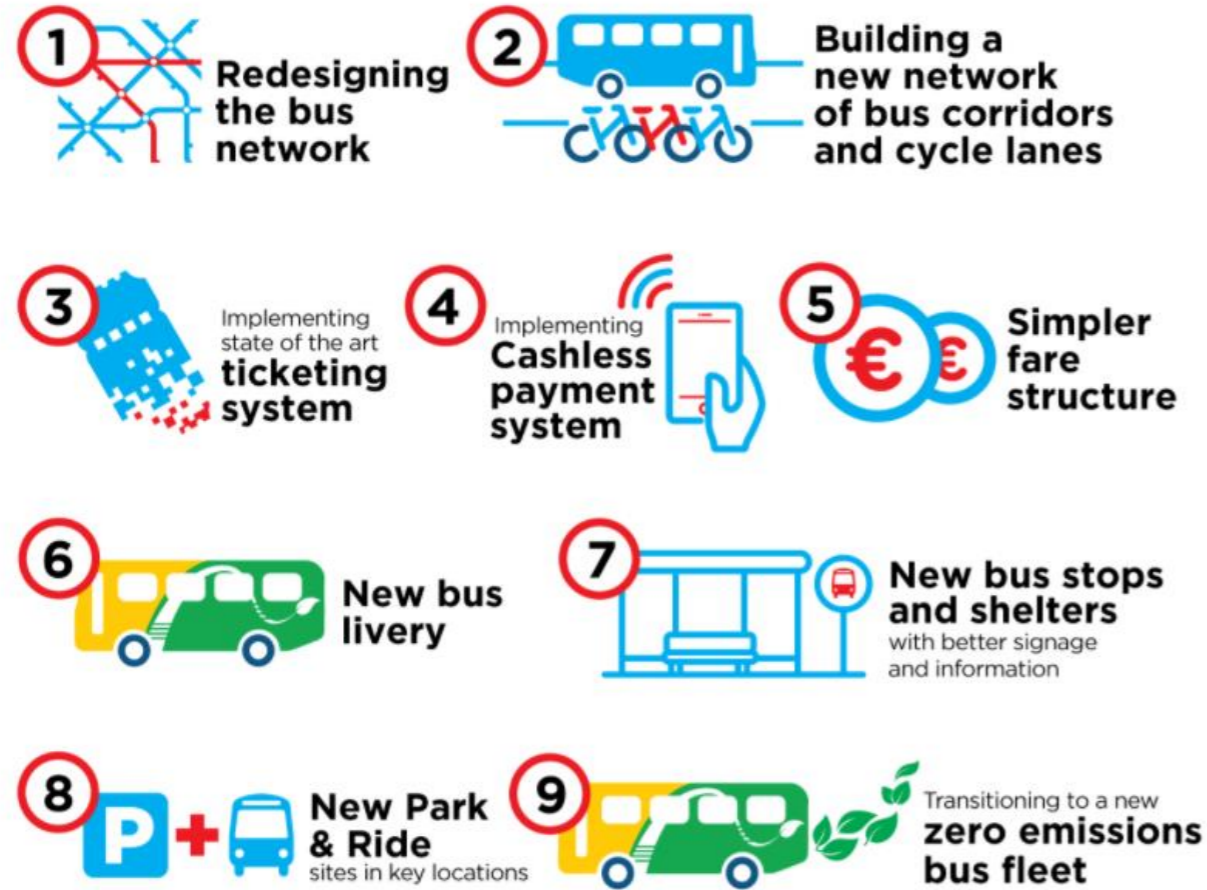


Fig 3.5.1: BusConnects Cork – Measures proposed to increase public transport usage.

4.0 PROPOSED DEVELOPMENT

4.1 INTRODUCTION

4.1.1 The proposed development on our Client’s site is consistent with the zoning in the local area plan for medium density housing with a creche and a retail provision.

4.1.2 The proposed development consists of the construction of 298 residential units consisting of 201 no. dwelling houses and 88 no. apartment/duplex units, a two storey creche (with capacity for 67no. children), 4 no. ESB substations and all ancillary site development works. The proposed development will be constructed on lands to the north and south of the public road, L-2970, known locally as ‘The Terrace’.

The proposed development to the south of ‘The Terrace’ provides for 29 no. residential units comprising of 5 no. dwelling houses and 24 no. apartments with ancillary bicycle parking and bin stores. The proposed apartments are provided in a 4-storey building containing a ground floor community unit and a commercial unit with apartments at upper floor levels.

4.1.3 The proposed primary access to the northern site is from the L-2968, traffic signal-controlled junction. This junction is currently being developed to serve phase 1 of the scheme. The junction includes pedestrian facilities providing safe connectivity to the Cuais Chuain Estate to the west which includes a pedestrian footpath connection to the local primary school.

4.1.4 The proposed development includes pedestrian/cycle access through lands acquired south of ‘The Terrace’ as shown in Figure 4.1.2.

4.1.5 For full details of the scheme please refer to the Architects Drawings.



Fig 4.1.1: Site Entrance Details – Lands to the North of ‘The Terrace’



Fig 4.1.2: Pedestrian Cycle Access – Lands to the South of ‘The Terrace’

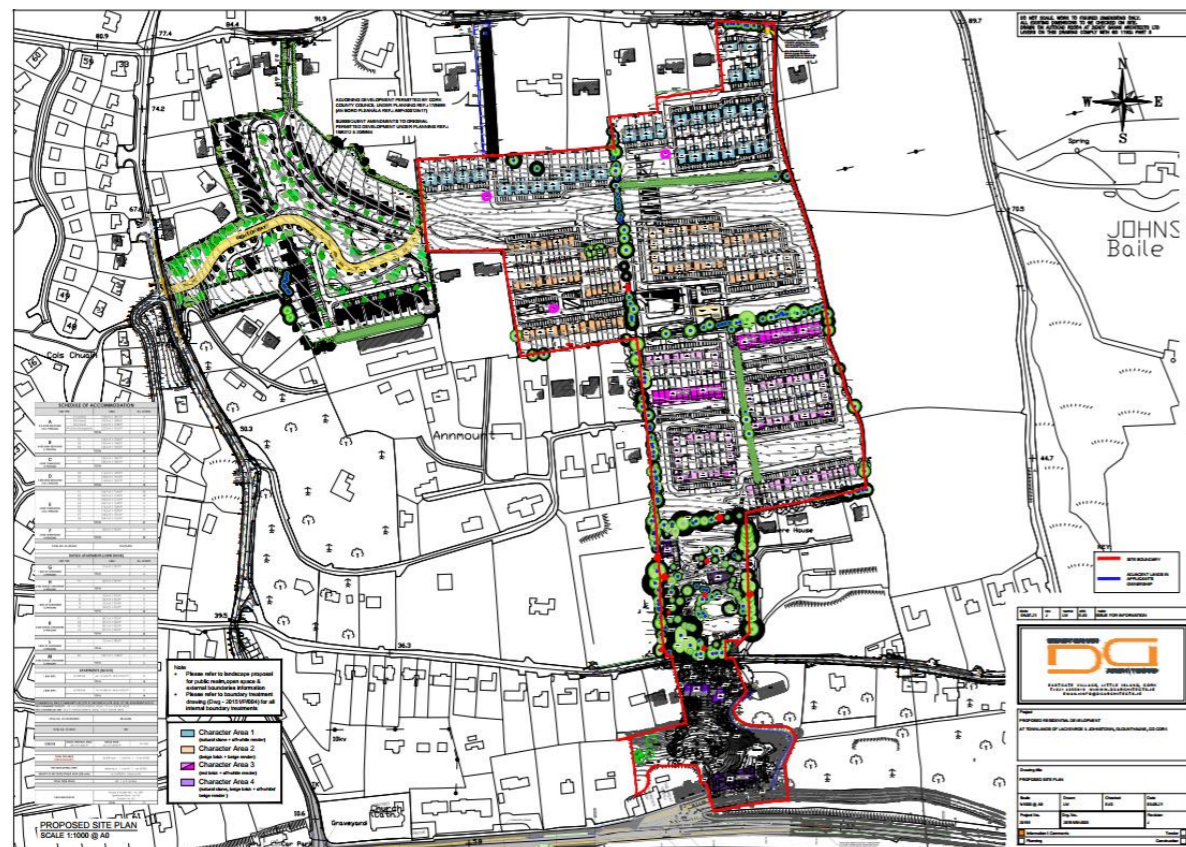


Fig 4.1.3: Proposed Site Layout

## 4.2 PHASING

4.2.1 The scheme of (298) residential units, and a forty-two (42) child creche, would be completed in three phases starting in 2022 and finishing by 2026. The retail elements of the scheme will also be delivered in this timeframe. The Traffic Impact Assessment includes the proposed opening year of 2026, the opening year +5 (2031) and the design year +15 (2041).

## 4.3 CONSTRUCTION STAGE TRAFFIC IMPACT

4.3.1 The construction stage of the proposed development will be phased as described above in section 4.2.2.

It is envisaged that working hours will be from 07:00 to 18:00, Monday to Friday (08:00 to 14:00 Saturday) for construction personnel through each phase of the development. Generally, construction workers will travel to site before the measured peak hour of 08:00 – 09:00, to be on site for an 07:00 start-time. A very limited number of construction employees are likely to travel to the site during peak hours.

It is anticipated that heavy goods vehicles, HGV's, will be restricted to movements on the local road network during the off-peak periods. It is estimated that truck movements and general deliveries would arrive/leave at a steady rate during the course of the day.

In general, the impact of construction traffic will be temporary in nature and less significant than the final development operational stage.

4.3.4 The successful Contractor will develop a Construction Stage Traffic Management Plan including identified haulage routes in compliance with the Preliminary Temporary Traffic Management Plan developed in consultation with Cork City Council Roads & Transportation Department.

The surrounding road network is suitable to accommodate the construction traffic associated with the proposed development and the Construction Traffic Management Plan will include a range of mitigating measures to ensure the safety of the workforce on the site and accessing the site, and the public on the surrounding roads and to minimise construction traffic generation and disruption on the surrounding road network.

**5.0 TRAFFIC GENERATION**

5.1.1 Trip generation from the proposed development was garnered via the TRICS database. MHL are a licence holder for the TRICS database and employ it for traffic studies. TRICS is a well-established UK and Irish national database which holds in excess of 2,100 site locations and 7,000 survey counts with over 98 separate land use sub-categories. The TRICS program was utilised for the land-use sub-category associated with the development proposal. The “Guidelines for Traffic and Transportation Assessments” state that for residential use the busiest hours are between 08:00-09:00 and 17:00-18:00. Traffic counts conducted on the 5<sup>th</sup> May 2021 by Tracsis were utilised to establish the actual AM & PM Peak traffic hours for the local road network for the purposes of this assessment.

5.1.2 Sites from Greater Dublin Area, Galway, Louth, Waterford, Antrim and Monaghan were included from the TRICS database to determine the trip rates as shown in Table 5.1 below.

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	22	65	0.049	22	65	0.195	22	65	0.244
08:00 - 09:00	22	65	0.176	22	65	0.546	22	65	0.722
09:00 - 10:00	22	65	0.241	22	65	0.285	22	65	0.526
10:00 - 11:00	22	65	0.180	22	65	0.200	22	65	0.380
11:00 - 12:00	22	65	0.181	22	65	0.226	22	65	0.407
12:00 - 13:00	22	65	0.259	22	65	0.241	22	65	0.500
13:00 - 14:00	22	65	0.265	22	65	0.278	22	65	0.543
14:00 - 15:00	22	65	0.306	22	65	0.304	22	65	0.610
15:00 - 16:00	22	65	0.349	22	65	0.262	22	65	0.611
16:00 - 17:00	22	65	0.362	22	65	0.244	22	65	0.606
17:00 - 18:00	22	65	0.477	22	65	0.283	22	65	0.760
18:00 - 19:00	22	65	0.364	22	65	0.281	22	65	0.645
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
<b>Total Rates:</b>			3.209			3.345			6.554

**Table 5.1 Trip Generation Per Residential Unit (TRICS)**

5.1.3 In the following chapter reference is made to the current (2016) Modal Shift by means of travel to work, school or college and is based on 2016 Census Data. The site is located in the Electoral Division of ‘Caherlag’, ref. **Table 6.1**, with 2016-year figures implying just 16.5% of persons in the area use sustainable means of travel.

5.1.4 Trip Generation from the proposed 42 pupil creche was derived using the TRICS database. The following table presents the peak hour trip rates for a standalone creche.

In this instance it is assumed that the creche will serve both the proposed scheme and the wider area. It is anticipated that the creche will add to traffic entering and exiting the development during the morning/evening peak hours over and above ‘pass-by’ traffic (traffic already accounted for on the network).

Time Range	ARRIVALS				DEPARTURES				TOTALS			
	No. Days	Ave. PUPILS	Trip Rate	Estimated Trip Rate	No. Days	Ave. PUPILS	Trip Rate	Estimated Trip Rate	No. Days	Ave. PUPILS	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	2	79	0.032	0.000	2	79	0.019	0.000	2	79	0.051	0.000
08:00 - 09:00	2	79	0.380	0.000	2	79	0.209	0.000	2	79	0.589	0.000
09:00 - 10:00	2	79	0.361	0.000	2	79	0.399	0.000	2	79	0.760	0.000
10:00 - 11:00	2	79	0.025	0.000	2	79	0.051	0.000	2	79	0.076	0.000
11:00 - 12:00	2	79	0.101	0.000	2	79	0.025	0.000	2	79	0.126	0.000
12:00 - 13:00	2	79	0.209	0.000	2	79	0.285	0.000	2	79	0.494	0.000
13:00 - 14:00	2	79	0.127	0.000	2	79	0.127	0.000	2	79	0.254	0.000
14:00 - 15:00	2	79	0.146	0.000	2	79	0.082	0.000	2	79	0.228	0.000
15:00 - 16:00	2	79	0.057	0.000	2	79	0.127	0.000	2	79	0.184	0.000
16:00 - 17:00	2	79	0.127	0.000	2	79	0.133	0.000	2	79	0.260	0.000
17:00 - 18:00	2	79	0.241	0.000	2	79	0.323	0.000	2	79	0.564	0.000
18:00 - 19:00	2	79	0.000	0.000	2	79	0.051	0.000	2	79	0.051	0.000
19:00 - 20:00												
20:00 - 21:00												
21:00 - 22:00												
22:00 - 23:00												
23:00 - 24:00												
<b>Total Rates:</b>			1.806	0.000			1.831	0.000			3.637	0.000

**Table 5.2 Trip Generation Per Pupil – Creche (TRICS)**

5.1.5 Trip Generation from the proposed Commercial Element of the Scheme was derived using the TRICS database. The following table presents the peak hour trip rates for the retail store.

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	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	4	1642	0.579	4	1642	0.183	4	1642	0.762
08:00 - 09:00	9	1619	1.660	9	1619	0.919	9	1619	2.579
09:00 - 10:00	9	1619	4.137	9	1619	2.998	9	1619	7.135
10:00 - 11:00	9	1619	4.707	9	1619	3.760	9	1619	8.467
11:00 - 12:00	9	1619	5.949	9	1619	5.619	9	1619	11.568
12:00 - 13:00	9	1619	6.189	9	1619	6.257	9	1619	12.446
13:00 - 14:00	9	1619	6.244	9	1619	6.340	9	1619	12.584
14:00 - 15:00	9	1619	6.003	9	1619	6.086	9	1619	12.089
15:00 - 16:00	9	1619	6.690	9	1619	6.765	9	1619	13.455
16:00 - 17:00	9	1619	6.765	9	1619	7.376	9	1619	14.141
17:00 - 18:00	9	1619	5.997	9	1619	6.449	9	1619	12.446
18:00 - 19:00	9	1619	4.583	9	1619	5.276	9	1619	9.859
19:00 - 20:00	9	1619	3.568	9	1619	3.863	9	1619	7.431
20:00 - 21:00	9	1619	2.346	9	1619	2.991	9	1619	5.337
21:00 - 22:00	9	1619	0.720	9	1619	1.002	9	1619	1.722
22:00 - 23:00	2	1417	0.071	2	1417	0.353	2	1417	0.424
23:00 - 24:00									
<b>Total Rates:</b>			66.208			66.237			132.445

**Table 5.3 Trip Generation Per 100 sq.m –Retail Store (TRICS)**

## 6.0 MODAL SPLIT

6.1.1 This section describes the current level of modal shift (the use of sustainable modes of travel) based on available data and compares these to national targets.

6.1.2 The 2016 Census online SAP data was used to assess current modal shift patterns in the Caherlag Area which encompasses the site. **16.5%** of people in this area said they were commuting on foot, bike or using public transport.

Population aged 5 years and over by means of travel to work, school or college			
Means of Travel	Work	School or College	Total
On foot	98	320	418
Bicycle	27	5	32
Bus, minibus or coach	64	247	311
Train, DART or LUAS	63	55	118
Motorcycle or scooter	12	1	13
Car driver	2,626	89	2,715
Car passenger	128	1,186	1,314
Van	160	1	161
Other (incl. lorry)	12	1	13
Work mainly at or from home	98	2	100
Not stated	76	68	144
<b>Total</b>	<b>3,364</b>	<b>1,975</b>	<b>5,339</b>

**Table 6.1: 2016 Modal Shift by means of travel to work, school or college.**  
(Electoral Division of Caherlag)

6.1.3 Future national targets in the range of 45% are being pursued by all Local Authorities and the Glounthaune Area is part of future public transport upgrade proposals. Given the location of the proposed development and based on the increased density of development as well as proposed improvements to connectivity a modest increase in sustainable transport is expected. A change in the local demographic to a younger population will also facilitate this change.

6.1.4 A modal shift of **40%** (implying an anticipated increase in public transport or active travel in the immediate area of 23.5%) for future year models is deemed to be reasonable. This modal shift increase, of **23.5%** will be applied to proposed development traffic from the opening year (when the development is fully completed) 2024, up to the design year 2039. It will not be applied to background network traffic.

## 7.0 TRAFFIC GENERATION / FORECASTING

7.1.1 This section describes the traffic generation from the development as outlined in Section 5 and accounts for future modal shift targets as described in Section 6.

7.1.2 Based on the above trip generation rates the following table presents residential development traffic for future years. This traffic has been added to existing background flows and distributed through the network to model each of the identified junctions. The results are presented in Section 9 of this report.

Glounthaune Residential Scheme		AM PEAK		PM PEAK	
		Arrivals	Departures	Arrivals	Departures
<b>New Residential Trip Generation - based on TRICs database (per unit)</b>					
290	Peak Trics Trip Rates Per Unit	0.176	0.546	0.477	0.283
	Peak Trips No. Units	51	158	138	82
	<b>TOTAL</b>	209		220	
<b>New Creche Trip Generation - traffic external to new development</b>					
67	Factor of creche traffic external to dev.	0.6			
	Peak Trips	9	10	6	8
	<b>TOTAL</b>	19		14	

**Table 7.1 Proposed Peak Hour Development Traffic in 2026**

7.1.3 As the proposed development site currently generates no traffic, no reduction has been applied to account for pass-by trips, transfer trips or combined trips from the residential element of the scheme.

7.1.4 It is assumed that a portion of the Creche will be used for the proposed development however in order to carry out a robust assessment of the roads network it is assumed that 60% of traffic that would be generated by a standalone creche will be attracted to the proposed development.

7.1.5 In addition to development traffic, recorded background traffic was factored using TII (Transport Infrastructure Ireland) Project Appraisal Guidelines (PE-PAG-02017) for use in future year scenarios. The following table presents the factors used on recorded vehicle counts based on Link Based Growth Rates (Central Growth) for the Cork Metropolitan Area.

	Cars/LGV	HGV	Combined
Count %	96.5%	3.5%	<b>100%</b>
<b>2022 to 2026</b>	1.069	1.123	<b>1.071</b>
<b>2022 to 2031</b>	1.152	1.276	<b>1.157</b>
<b>2022 to 2041</b>	1.246	1.438	<b>1.252</b>

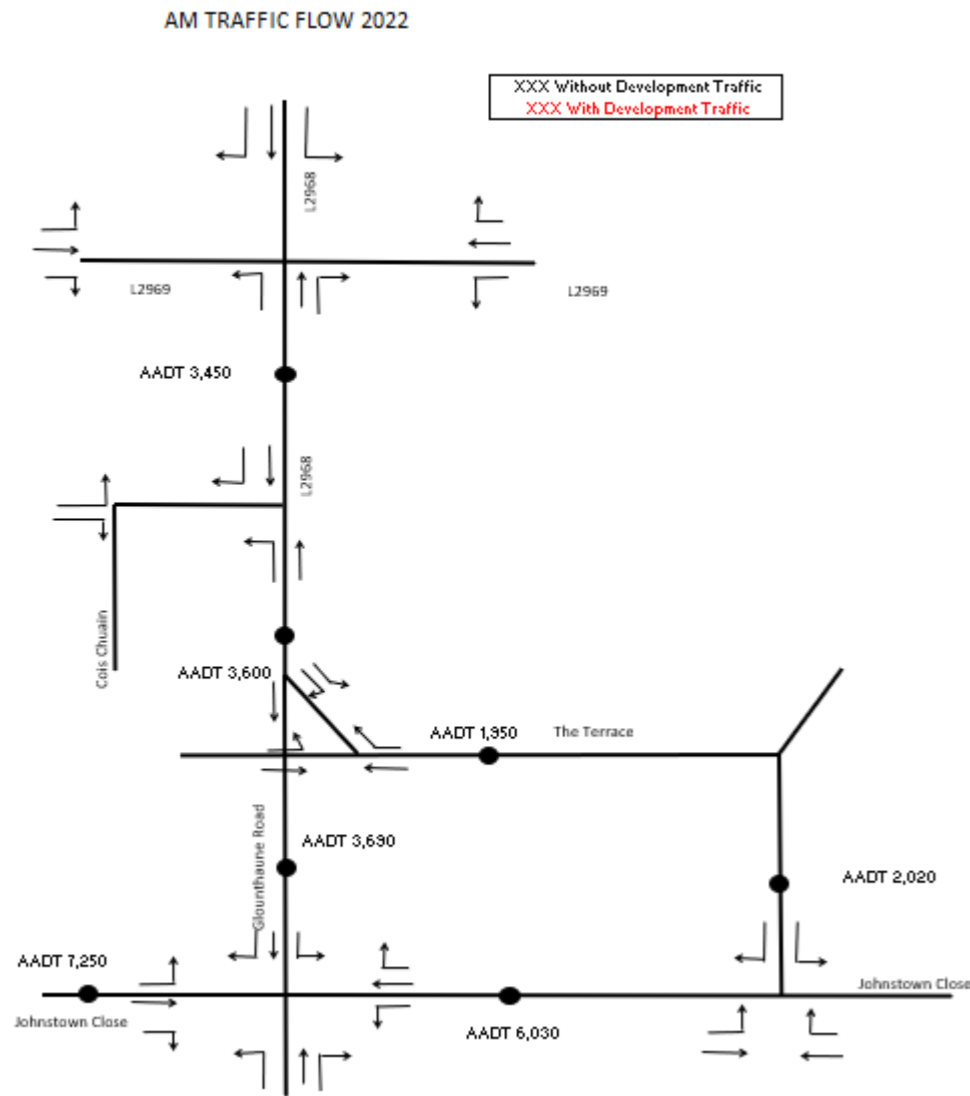
TII Project Appraisal Guidelines for National Roads Unit 5.3  
Travel Demand Projections (PE-PAG-0217-02)

**Table 7.2 Background Traffic Growth Rates Per Annum**

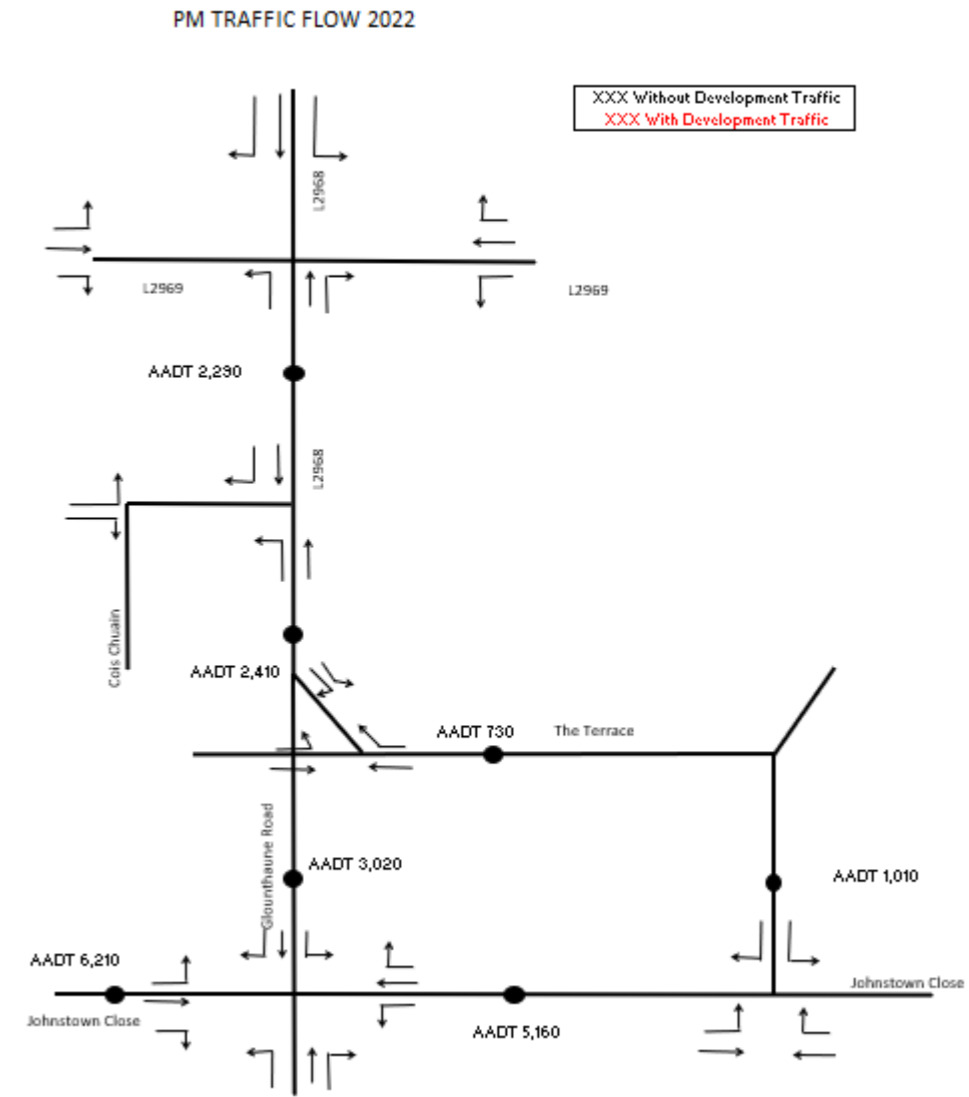
**8.0 TRIP ATTRACTION AND DISTRIBUTION**

8.1.1 This section describes the methodology used in the distribution of development specific traffic onto the modelled network. **Figure 3.1** outlines the location of each of the junctions where turning count movements were recorded over a 12-hour timeframe. This ‘snapshot’ of existing traffic movements provides a basis for determining desire lines which can be used to assign development traffic at each of the modelled junctions.

8.1.2 Figures 8.1.1 to 8.1.8 present the Annual Average Daily Traffic (AADT) on the modelled network for the AM and PM peak distributions with and without the development traffic.



**Fig 8.1.1: 2022 Without Development AM AADT Traffic Flow Distribution**



**Fig 8.1.2: 2022 Without Development PM AADT Traffic Flow Distribution**



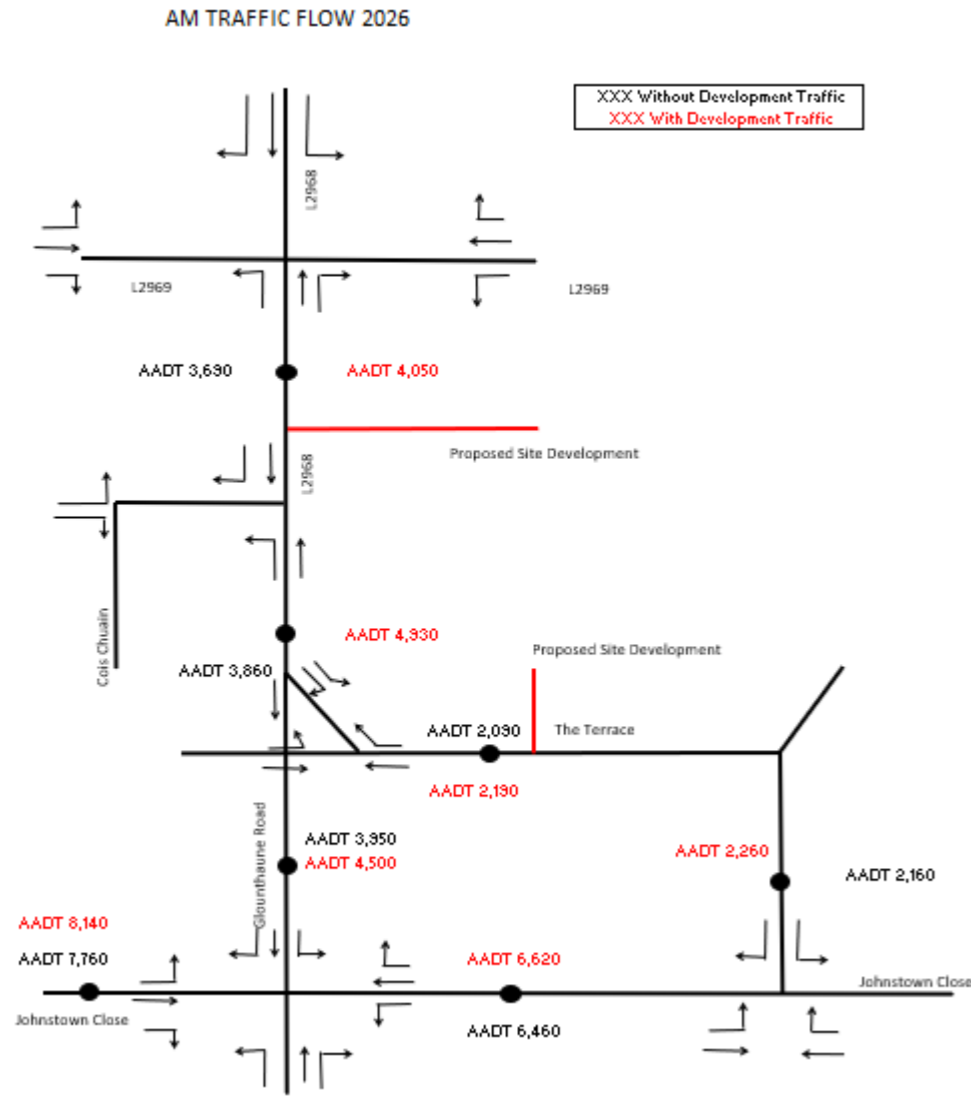


Fig 8.1.3: 2026 With Development AM AADT Traffic Flow Distribution

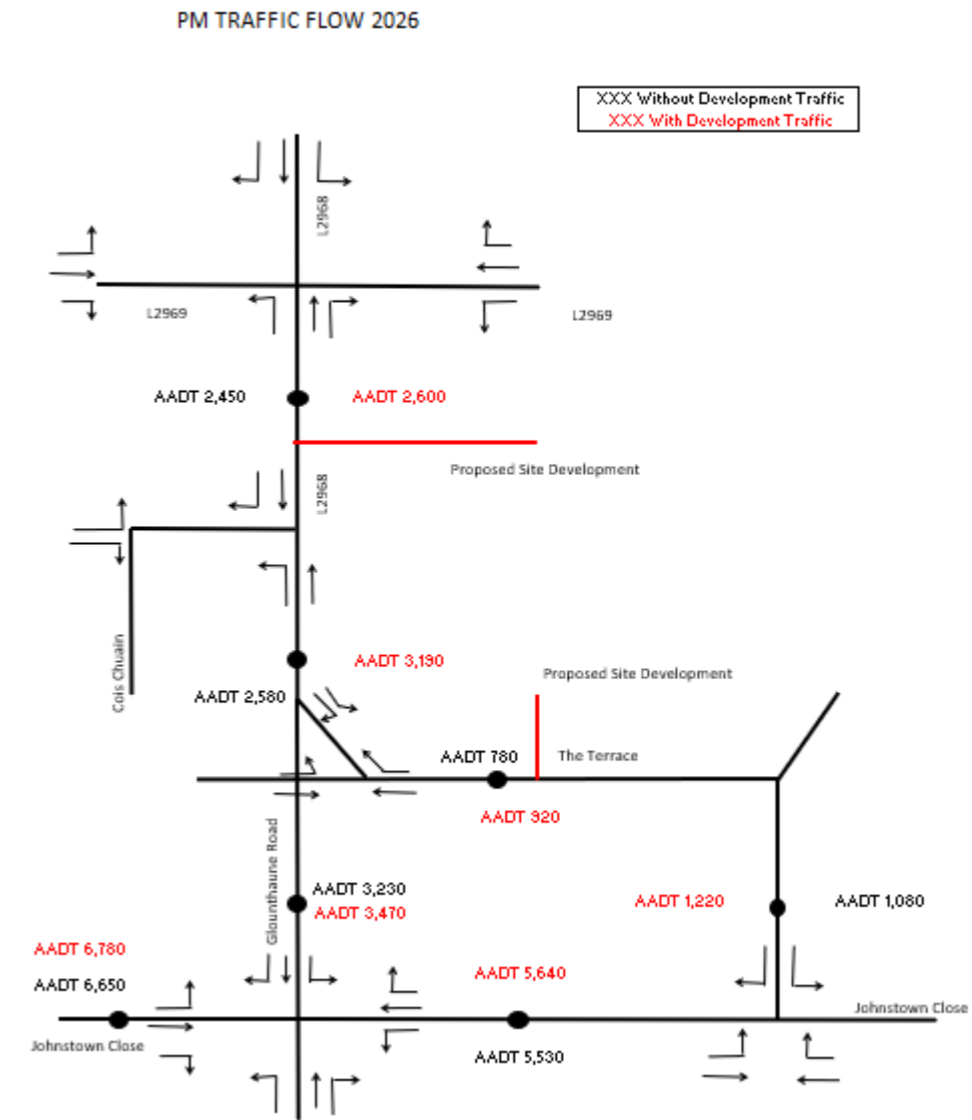


Fig 8.1.4: 2026 With Development PM AADT Traffic Flow Distribution

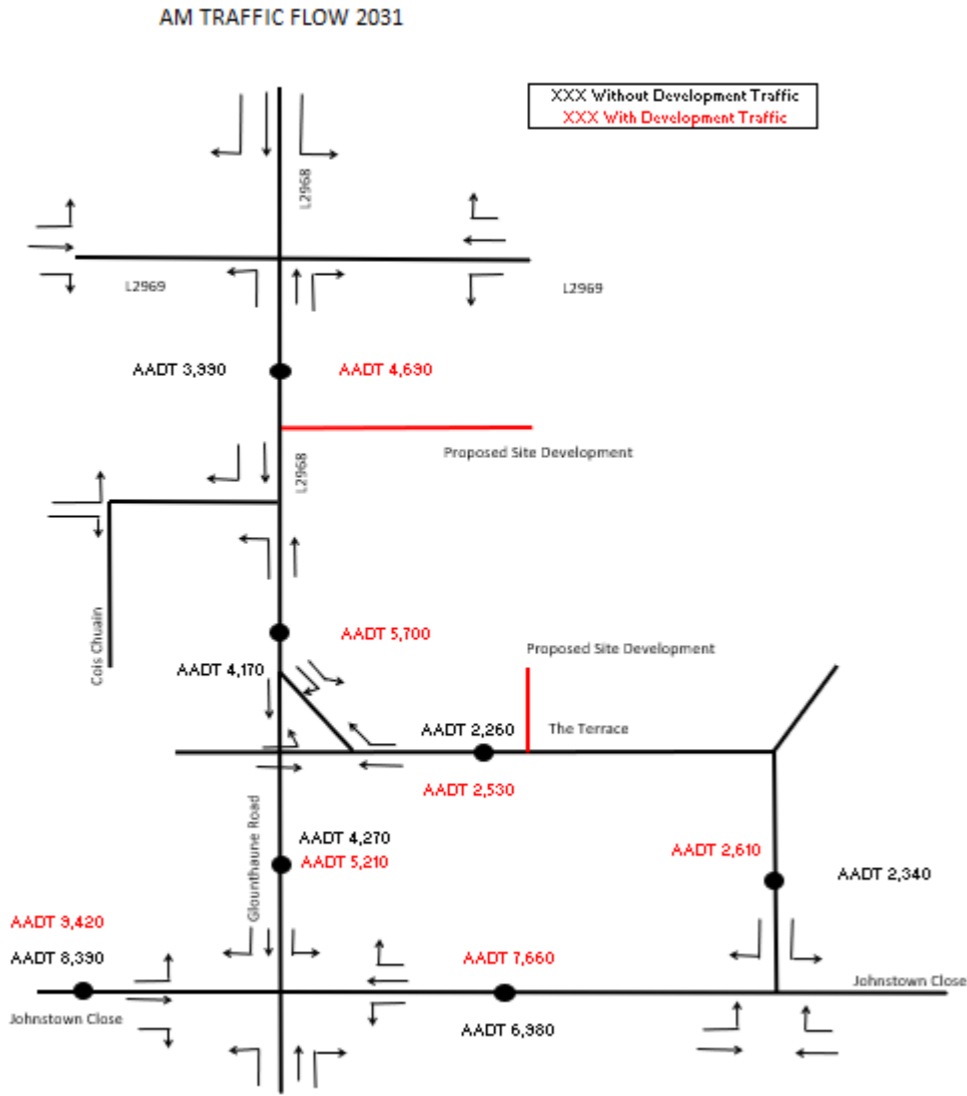


Fig 8.1.5: 2031 With Development AM AADT Traffic Flow Distribution

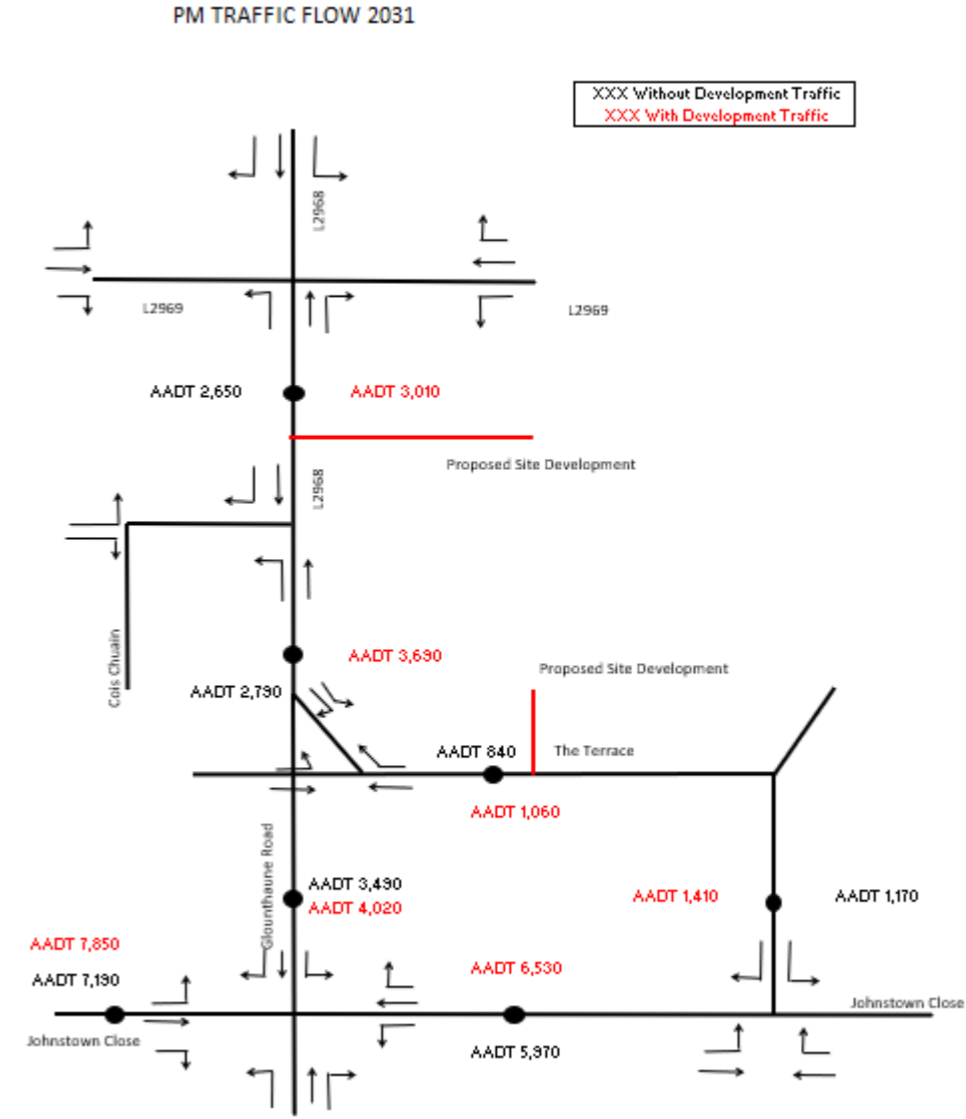


Fig 8.1.6: 2031 With Development PM AADT Traffic Flow Distribution

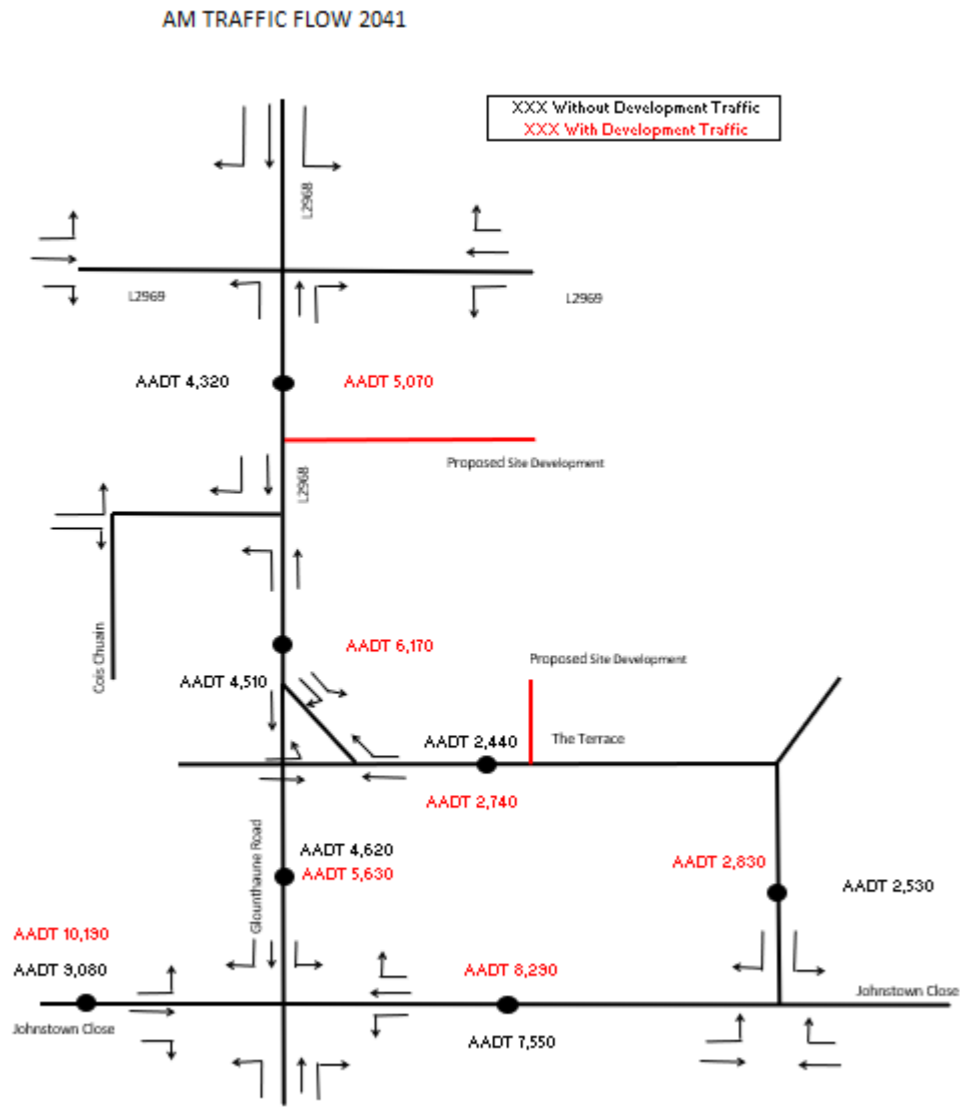


Fig 8.1.7: 2041 With Development AM AADT Traffic Flow Distribution

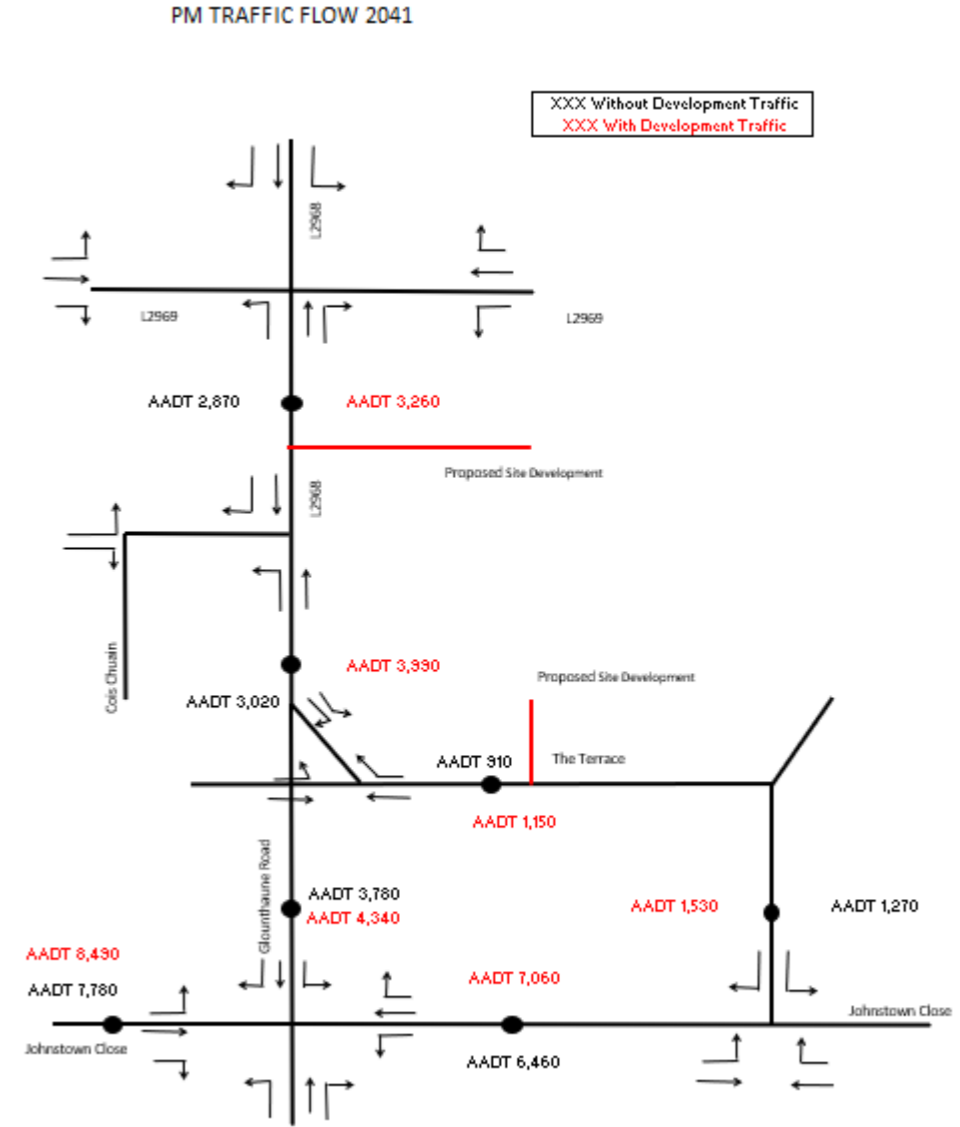


Fig 8.1.8: 2041 With Development PM AADT Traffic Flow Distribution

8.1.3 Traffic flow matrices have been developed for each Junction for the following scenarios:

- 2026 AM/PM With/Without Dev (Full scheme)
- 2031 AM/PM With/Without Dev
- 2041 AM/PM With/Without Dev

8.1.4 Junction 1: The junction of the L-2968/L-2969

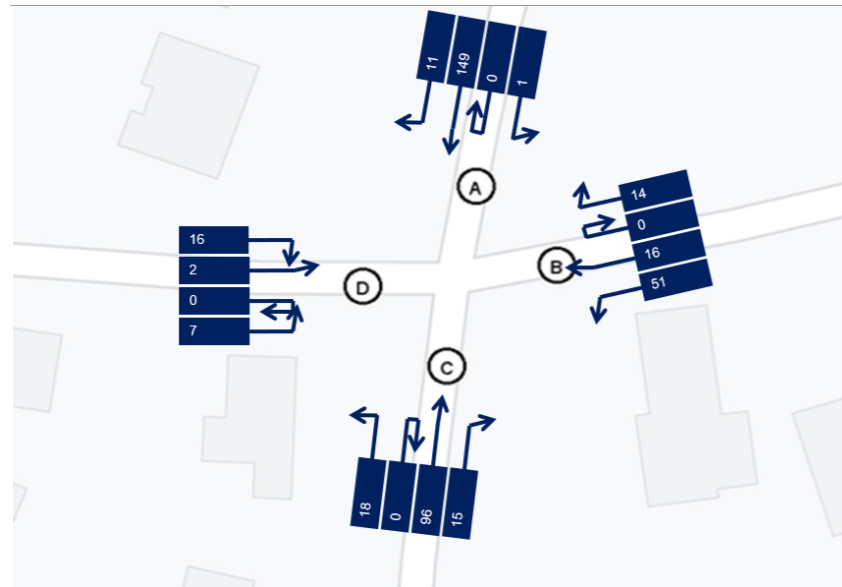


Fig 8.1.9: Junction 1 Arm Designation

AM

		Destination				
		A	B	C	D	Tot
Origin	A	0	1	149	11	161
	B	14	0	51	16	81
	C	96	15	0	18	129
	D	7	2	16	0	25
Tot		117	18	216	45	396

PM

		Destination				
		A	B	C	D	Tot
Origin	A	0	8	59	3	70
	B	8	0	4	25	37
	C	94	39	0	9	142
	D	1	0	3	0	4
Tot		103	47	66	37	253

Table 8.1 Junction 1: 2021 Existing AM/PM Peak Hour Traffic Movements

AM

		Destination				
		A	B	C	D	Tot
Origin	A	0	1	160	12	172
	B	15	0	55	17	87
	C	103	16	0	19	138
	D	7	2	17	0	27
Tot		125	19	231	48	424

PM

		Destination				
		A	B	C	D	Tot
Origin	A	0	9	63	3	75
	B	9	0	4	27	40
	C	101	42	0	10	152
	D	1	0	3	0	4
Tot		110	50	71	40	271

Table 8.2 Junction 1: 2026 Without Development AM/PM Peak Hour Traffic Movements

AM

		Destination				
		A	B	C	D	Tot
Origin	A	0	1	162	12	174
	B	15	0	56	17	88
	C	130	20	0	24	174
	D	7	2	17	0	27
Tot		152	23	234	53	463

PM

		Destination				
		A	B	C	D	Tot
Origin	A	0	9	88	3	100
	B	9	0	15	27	51
	C	111	46	0	11	167
	D	1	0	4	0	5
Tot		120	54	108	41	323

Table 8.3 Junction 1: 2026 With Development AM/PM Peak Hour Traffic Movements

AM

		Destination				
		A	B	C	D	Tot
Origin	A	0	1	172	13	186
	B	16	0	59	19	94
	C	111	17	0	21	149
	D	8	2	19	0	29
Tot		135	21	250	52	458

PM

		Destination				
		A	B	C	D	Tot
Origin	A	0	9	68	3	81
	B	9	0	5	29	43
	C	109	45	0	10	164
	D	1	0	3	0	5
Tot		119	54	76	43	293

Table 8.4 Junction 1: 2031 Without Development AM/PM Peak Hour Traffic Movements

AM

		Destination				
		A	B	C	D	Tot
Origin	A	0	1	175	13	189
	B	16	0	60	19	95
	C	142	22	0	27	191
	D	8	2	19	0	29
Tot		167	25	253	58	503

PM

		Destination				
		A	B	C	D	Tot
Origin	A	0	9	97	3	110
	B	9	0	18	29	57
	C	120	50	0	12	182
	D	1	0	5	0	6
Tot		131	59	120	44	354

Table 8.5 Junction 1: 2031 With Development AM/PM Peak Hour Traffic Movements

AM

		Destination				
		A	B	C	D	Tot
Origin	A	0	1	187	14	202
	B	18	0	64	20	101
	C	120	19	0	23	162
	D	9	3	20	0	31
Tot		147	23	270	56	496

PM

		Destination				
		A	B	C	D	Tot
Origin	A	0	10	74	4	88
	B	10	0	5	31	46
	C	118	49	0	11	178
	D	1	0	4	0	5
Tot		129	59	83	46	317

Table 8.6 Junction 1: 2041 Without Development AM/PM Peak Hour Traffic Movements

AM

		Destination				
		A	B	C	D	Tot
Origin	A	0	1	189	14	204
	B	18	0	65	20	103
	C	154	24	0	29	207
	D	9	3	20	0	31
Tot		180	28	274	63	545

PM

		Destination				
		A	B	C	D	Tot
Origin	A	0	10	105	4	119
	B	10	0	19	31	60
	C	130	54	0	13	197
	D	1	0	5	0	6
Tot		142	64	129	48	382

Table 8.7 Junction 1: 2041 With Development AM/PM Peak Hour Traffic Movements

8.1.5 Junction 2: Access to Cois Chuain from the L-2968

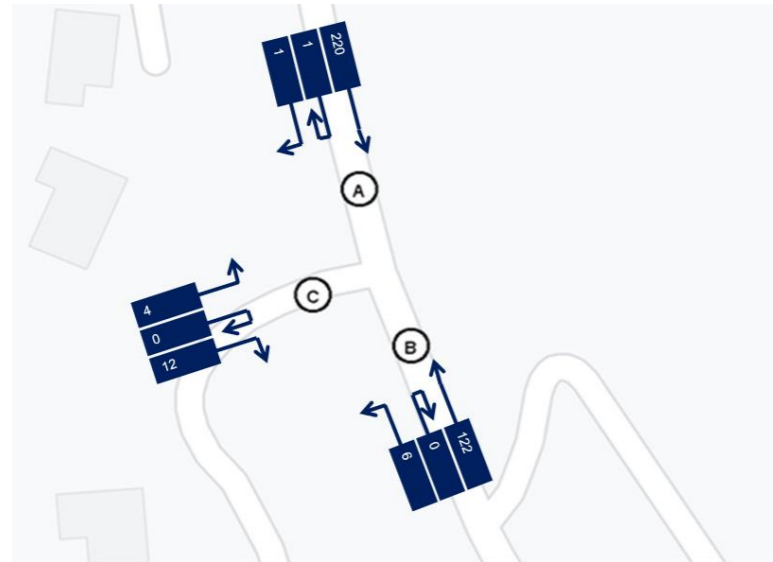


Fig 8.1.10: Junction 2 Arm Designation

AM		Destination			
Origin	A	B	C	Tot	
A	0	220	1	221	
B	122	0	6	128	
C	4	12	0	16	
Total	126	232	7	365	

PM		Destination			
Origin	A	B	C	Tot	
A	0	81	1	82	
B	143	0	9	152	
C	0	8	0	8	
Total	143	89	10	242	

Table 8.8 Junction 2: 2021 Existing AM/PM Peak Hour Traffic Movements

AM		Destination			
Origin	A	B	C	Tot	
A	0	236	1	237	
B	131	0	6	137	
C	4	13	0	17	
Total	135	249	7	391	

PM		Destination			
Origin	A	B	C	Tot	
A	0	87	1	88	
B	153	0	10	163	
C	0	9	0	9	
Total	153	95	11	259	

Table 8.9 Junction 2: 2026 Without Development AM/PM Peak Hour Traffic Movements

AM		Destination			
Origin	A	B	C	Tot	
A	0	341	3	344	
B	177	0	6	183	
C	4	13	0	17	
Total	181	354	9	544	

PM		Destination			
Origin	A	B	C	Tot	
A	0	146	3	149	
B	242	0	10	252	
C	0	9	0	9	
Total	242	154	13	409	

Table 8.10 Junction 2: 2026 With Development AM/PM Peak Hour Traffic Movements

AM		Destination			
Origin	A	B	C	Tot	
A	0	254	1	256	
B	141	0	7	148	
C	5	14	0	19	
Total	146	268	8	422	

PM		Destination			
Origin	A	B	C	Tot	
A	0	94	1	95	
B	165	0	10	176	
C	0	9	0	9	
Total	165	103	12	280	

Table 8.11 Junction 2: 2031 Without Development AM/PM Peak Hour Traffic Movements

AM		Destination			
Origin	A	B	C	Tot	
A	0	376	3	379	
B	194	0	7	201	
C	5	14	0	19	
Total	199	390	10	599	

PM		Destination			
Origin	A	B	C	Tot	
A	0	94	1	95	
B	165	0	10	176	
C	0	9	0	9	
Total	165	103	12	280	

Table 8.12 Junction 2: 2031 With Development AM/PM Peak Hour Traffic Movements

AM		Destination			
Origin	A	B	C	Tot	
A	0	275	1	277	
B	153	0	8	160	
C	5	15	0	20	
Total	158	291	9	457	

PM		Destination			
Origin	A	B	C	Tot	
A	0	101	1	103	
B	179	0	11	190	
C	0	10	0	10	
Total	179	111	13	303	

Table 8.13 Junction 2: 2041 Without Development AM/PM Peak Hour Traffic Movements

AM		Destination			
Origin	A	B	C	Tot	
A	0	407	4	411	
B	210	0	8	218	
C	5	15	0	20	
Total	215	422	11	649	

PM		Destination			
Origin	A	B	C	Tot	
A	0	175	4	179	
B	291	0	11	302	
C	0	10	0	10	
Total	291	185	15	491	

Table 8.14 Junction 2: 2041 With Development AM/PM Peak Hour Traffic Movements

8.1.6 Junction 3: Glounthaune Road/ Johnstown Close

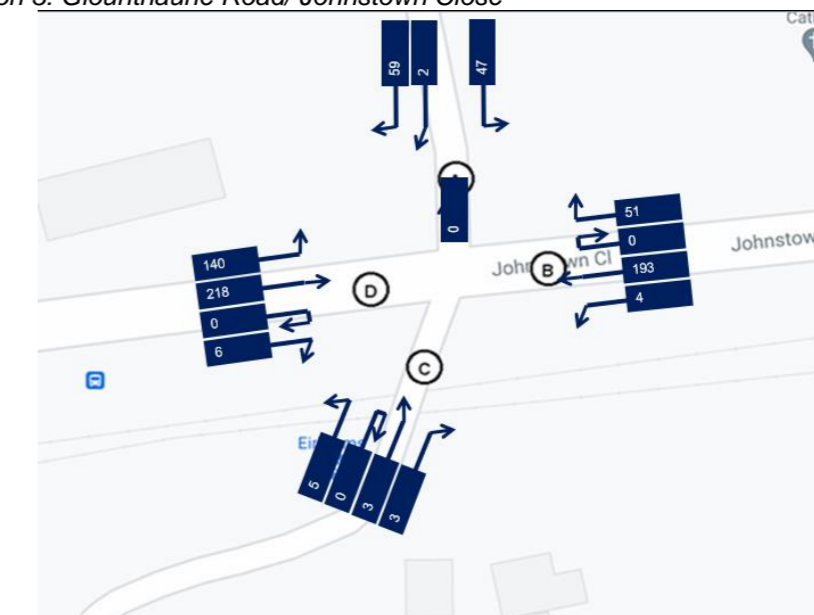


Fig 8.1.11: Junction 3 Arm Designation

AM		Destination				
Origin	A	B	C	D	Tot	
A	0	70	4	167	241	
B	52	0	1	271	324	
C	2	4	0	5	11	
D	74	205	3	0	282	
Tot	128	279	8	443	858	

PM		Destination				
Origin	A	B	C	D	Tot	
A	0	47	2	59	108	
B	51	0	193	4	248	
C	3	3	0	5	11	
D	140	218	6	0	364	
Tot	194	268	201	68	731	

Table 8.15 Junction 3: 2021 Existing AM/PM Peak Hour Traffic Movements

8.1.7 Junction 4: 'The Terrace'/L-2968

		Destination				Tot
		A	B	C	D	
Origin	A	0	75	4	179	258
	B	56	0	1	290	347
	C	2	4	0	5	12
	D	79	220	3	0	302
Tot		137	299	9	475	919

		Destination				Tot
		A	B	C	D	
Origin	A	0	50	2	63	116
	B	55	0	207	4	266
	C	3	3	0	5	12
	D	150	234	6	0	390
Tot		208	287	215	73	783

Table 8.16 Junction 3: 2026 Without Development AM/PM Peak Hour Traffic Movements

		Destination				Tot
		A	B	C	D	
Origin	A	0	99	5	208	312
	B	58	0	1	290	349
	C	2	4	0	5	12
	D	83	220	3	0	306
Tot		143	323	10	504	979

		Destination				Tot
		A	B	C	D	
Origin	A	0	57	2	79	139
	B	73	0	207	4	284
	C	4	3	0	5	13
	D	200	234	6	0	440
Tot		277	294	215	89	875

Table 8.17 Junction 3: 2026 With Development AM/PM Peak Hour Traffic Movements

		Destination				Tot
		A	B	C	D	
Origin	A	0	81	5	193	279
	B	60	0	1	313	375
	C	2	5	0	6	13
	D	86	237	3	0	326
Tot		148	323	9	512	993

		Destination				Tot
		A	B	C	D	
Origin	A	0	54	2	68	125
	B	59	0	223	5	287
	C	3	3	0	6	13
	D	162	252	7	0	421
Tot		224	310	233	79	846

Table 8.18 Junction 3: 2031 Without Development AM/PM Peak Hour Traffic Movements

		Destination				Tot
		A	B	C	D	
Origin	A	0	109	6	227	341
	B	62	0	1	313	377
	C	2	5	0	6	13
	D	90	237	3	0	331
Tot		155	351	10	546	1062

		Destination				Tot
		A	B	C	D	
Origin	A	0	62	2	87	152
	B	80	0	223	5	308
	C	5	3	0	6	14
	D	220	252	7	0	479
Tot		304	318	233	97	952

Table 8.19 Junction 3: 2031 With Development AM/PM Peak Hour Traffic Movements

		Destination				Tot
		A	B	C	D	
Origin	A	0	88	5	209	302
	B	65	0	1	339	406
	C	3	5	0	6	14
	D	93	257	4	0	353
Tot		160	349	10	555	1074

		Destination				Tot
		A	B	C	D	
Origin	A	0	59	3	74	135
	B	64	0	242	5	311
	C	4	4	0	6	14
	D	175	273	8	0	456
Tot		243	336	252	85	915

Table 8.20 Junction 3: 2041 Without Development AM/PM Peak Hour Traffic Movements

		Destination				Tot
		A	B	C	D	
Origin	A	0	118	6	245	369
	B	68	0	1	339	408
	C	3	5	0	6	14
	D	98	257	4	0	358
Tot		168	379	11	591	1150

		Destination				Tot
		A	B	C	D	
Origin	A	0	68	3	94	164
	B	86	0	242	5	333
	C	5	4	0	6	15
	D	238	273	8	0	518
Tot		329	344	252	105	1031

Table 8.21 Junction 3: 2041 With Development AM/PM Peak Hour Traffic Movements

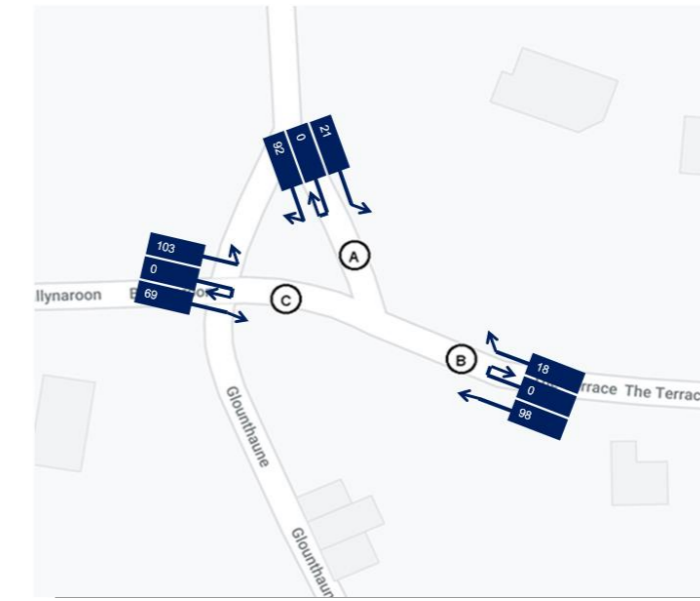


Fig 8.1.12: Junction 4 Arm Designation

		Destination				Tot
		A	B	C		
Origin	A	0	22	92		114
	B	24	0	96		120
	C	88	53	0		141
	Total	112	75	188		375

		Destination			Tot
		A	B	C	
Origin	A	0	20	32	52
	B	17	0	21	38
	C	20	24	0	44
	Total	37	44	53	134

Table 8.21 Junction 4: 2021 Existing AM/PM Peak Hour Traffic Movements

		Destination				Tot
		A	B	C		
Origin	A	0	24	99		122
	B	26	0	103		129
	C	94	57	0		151
	Total	120	80	201		402

		Destination			Tot
		A	B	C	
Origin	A	0	21	34	56
	B	18	0	22	41
	C	21	26	0	47
	Total	40	47	57	144

Table 8.22 Junction 4: 2026 Without Development AM/PM Peak Hour Traffic Movements

		Destination				Tot
		A	B	C		
Origin	A	0	33	141		173
	B	35	0	103		138
	C	125	57	0		182
	Total	160	89	243		493

		Destination			Tot
		A	B	C	
Origin	A	0	35	56	92
	B	25	0	22	48
	C	33	26	0	59
	Total	59	61	79	199

Table 8.23 Junction 4: 2026 With Development AM/PM Peak Hour Traffic Movements

		Destination				Tot
		A	B	C		
Origin	A	0	25	106		132
	B	28	0	111		139
	C	102	61	0		163
	Total	130	87	217		434

		Destination			Tot
		A	B	C	
Origin	A	0	23	37	60
	B	20	0	24	44
	C	23	28	0	51
	Total	43	51	61	155

Table 8.24 Junction 4: 2031 Without Development AM/PM Peak Hour Traffic Movements

AM		Destination			
		A	B	C	Tot
Origin	A	0	36	155	191
	B	38	0	111	149
	C	138	61	0	199
	Total	176	97	266	539
PM		Destination			
		A	B	C	Tot
Origin	A	0	39	62	102
	B	28	0	24	52
	C	37	28	0	65
	Total	65	67	87	219

Table 8.25 Junction 4: 2031 With Development AM/PM Peak Hour Traffic Movements

AM		Destination			
		A	B	C	Tot
Origin	A	0	28	115	143
	B	30	0	120	150
	C	110	66	0	177
	Total	140	94	235	470
PM		Destination			
		A	B	C	Tot
Origin	A	0	25	40	65
	B	21	0	26	48
	C	25	30	0	55
	Total	46	55	66	168

Table 8.26 Junction 4: 2041 Without Development AM/PM Peak Hour Traffic Movements

AM		Destination			
		A	B	C	Tot
Origin	A	0	28	115	143
	B	30	0	120	150
	C	110	66	0	177
	Total	140	94	235	470
PM		Destination			
		A	B	C	Tot
Origin	A	0	25	40	65
	B	21	0	26	48
	C	25	30	0	55
	Total	46	55	66	168

Table 8.27 Junction 4: 2041 With Development AM/PM Peak Hour Traffic Movements

8.1.8 Junction 5: Johnstown Close/ 'The Terrace'

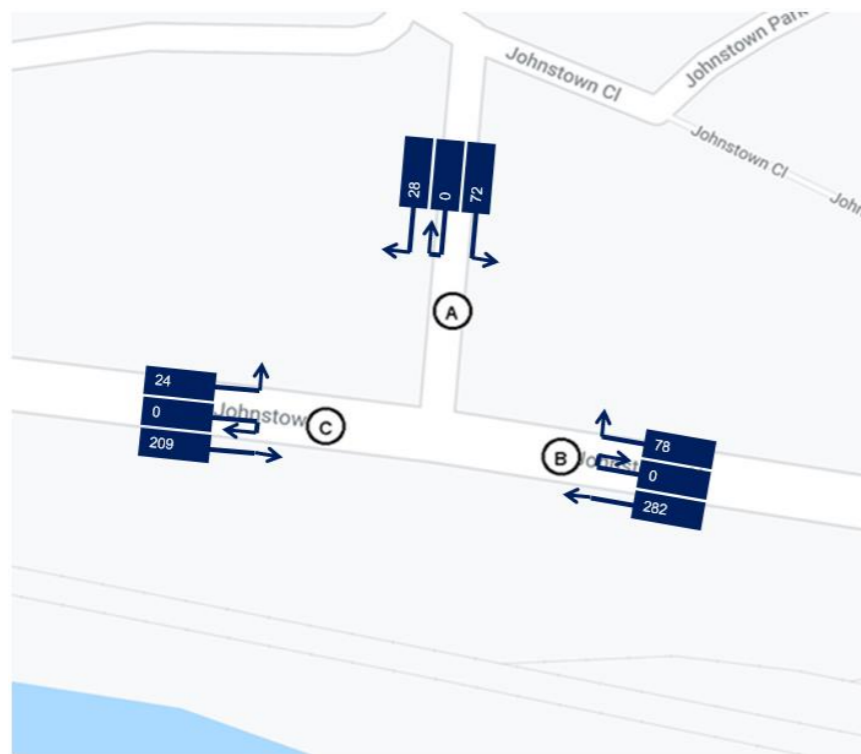


Fig 8.1.13: Junction 5 Arm Designation

AM		Destination			
		A	B	C	Tot
Origin	A	0	72	28	100
	B	78	0	282	360
	C	27	209	0	236
	Total	105	281	310	696
PM		Destination			
		A	B	C	Tot
Origin	A	0	27	18	45
	B	27	0	199	226
	C	29	226	0	255
	Total	56	253	217	526

Table 8.28 Junction 5: 2021 Existing AM/PM Peak Hour Traffic Movements

AM		Destination			
		A	B	C	Tot
Origin	A	0	77	30	107
	B	84	0	302	386
	C	29	224	0	253
	Total	112	301	332	746
PM		Destination			
		A	B	C	Tot
Origin	A	0	29	19	48
	B	29	0	213	242
	C	31	242	0	273
	Total	60	271	232	563

Table 8.29 Junction 5: 2026 Without Development AM/PM Peak Hour Traffic Movements

AM		Destination			
		A	B	C	Tot
Origin	A	0	83	33	116
	B	91	0	302	393
	C	31	248	0	279
	Total	121	331	335	788
PM		Destination			
		A	B	C	Tot
Origin	A	0	37	25	62
	B	32	0	213	245
	C	35	249	0	284
	Total	67	286	238	591

Table 8.30 Junction 5: 2026 With Development AM/PM Peak Hour Traffic Movements

AM		Destination			
		A	B	C	Tot
Origin	A	0	83	32	116
	B	90	0	326	416
	C	31	242	0	273
	Total	121	325	359	805
PM		Destination			
		A	B	C	Tot
Origin	A	0	31	21	52
	B	31	0	230	261
	C	34	261	0	295
	Total	65	293	251	608

Table 8.31 Junction 5: 2031 Without Development AM/PM Peak Hour Traffic Movements

AM		Destination			
		A	B	C	Tot
Origin	A	0	90	36	126
	B	98	0	326	425
	C	34	270	0	303
	Total	132	360	362	854
PM		Destination			
		A	B	C	Tot
Origin	A	0	40	28	68
	B	35	0	230	265
	C	38	270	0	308
	Total	73	310	258	641

Table 8.32 Junction 5: 2031 With Development AM/PM Peak Hour Traffic Movements

AM		Destination			
		A	B	C	Tot
Origin	A	0	90	35	125
	B	98	0	353	451
	C	34	262	0	296
	Total	131	352	388	872
PM		Destination			
		A	B	C	Tot
Origin	A	0	34	23	56
	B	34	0	249	283
	C	36	283	0	319
	Total	70	317	272	659

Table 8.33 Junction 5: 2041 Without Development AM/PM Peak Hour Traffic Movements

AM		Destination			
Origin	A	B	C	Tot	
A	0	98	43	140	
B	106	0	353	460	
C	36	292	0	328	
<b>Total</b>	<b>143</b>	<b>389</b>	<b>396</b>	<b>928</b>	

PM		Destination			
Origin	A	B	C	Tot	
A	0	44	33	76	
B	38	0	249	287	
C	41	292	0	333	
<b>Total</b>	<b>79</b>	<b>336</b>	<b>282</b>	<b>696</b>	

Table 8.34 Junction 5: 2041 With Development AM/PM Peak Hour Traffic Movements

## 9.0 NETWORK MODELLING RESULTS

### 9.1 INTRODUCTION

- 9.1.1 This section presents the results of the traffic modelling of the five identified junctions with the existing L2968/L2969 Junction presented both with/without development in place for the future year scenarios. Junctions 2,3,4 and 5 development access results are presented for both morning and evening peak periods. The complete results sheets of the generated models are provided as an appendix (Appendix A).
- 9.1.2 The LinSig modelling software produces a PRC % (Practical Reserve Capacity) and a Delay figure which are used to compare the effects the development will have on the junction being modelled. A PRC of 10% implies that the junction has reached capacity but is still operational with delay incurred. The delay figure produced (pcuHr) is a measure of the overall delay incurred on all arms of the junction and is based on the Demand Flow per arm multiplied by the Average Delay per PCU.
- 9.1.3 The Junctions 9: PICADY modelling software produces an RFC % (Ratio of Flow to Capacity), a Delay figure measured in seconds and a LOS (Level of Service) which are used to compare the effects the development will have on the junction being modelled. An RFC of 85% on a roundabout junction implies that the junction has reached capacity but is still operational with delay incurred. The following table describes the different LOS and the implications for the junction being assessed.

Level of Service A	Free-Flow
Level of Service B	Reasonably Free-Flow (no delay incurred)
Level of Service C	Stable Operation (busy but operational with acceptable delay incurred)
Level of Service D	Borderline Unstable (Junctions reaching capacity – but still operational-delay incurred)
Level of Service E	Extremely Unstable (Junctions at capacity or over, any incident will cause a grid-lock situation- significant delay incurred)
Level of Service F	Breakdown (Junctions over capacity, unacceptable delay traffic at a standstill)

Table 9.1 Level of Service

### 9.2 Junction 1: L2968/L2969

- 9.2.1 The Picady results for the junction both with/without development are presented in **Table 9.2** below.
- 9.2.2 The current year (2021) results are representative of how the junction currently operates during peak periods. This is borne out in terms of average measured queue lengths and observed delay recorded as part of the data collection process. The constructed model is deemed to be fit for purpose.
- 9.2.3 The results indicate that the junction currently operates within capacity for both AM & PM peak with measured RFC %'s (Ratio of Flow to Capacity) of 17% & 9% respectively. The junction is working at a Level of Service A.
- 9.2.4 Future year results, both with and without development, show a steady Level of Service A with no major delays.



	AM					PM						
	Set ID	Queue (PCU)	Delay (s)	RFC	LOS	Network Residual Capacity	Set ID	Queue (PCU)	Delay (s)	RFC	LOS	Network Residual Capacity
<b>Junction 1 - 2021</b>												
Stream B-ACD	D1	0.2	8.09	0.17	A	234 % [Stream B-ACD]	D2	0.1	8.29	0.09	A	380 % [Stream B-ACD]
Stream A-BCD		0.0	5.42	0.02	A			0.0	5.75	0.01	A	
Stream D-ABC		0.1	7.22	0.05	A			0.0	0.00	0.00	A	
Stream C-ABD		0.0	5.84	0.03	A			0.1	5.94	0.08	A	
<b>Junction 1 - 2026 Without Development</b>												
Stream B-ACD	D3	0.2	8.28	0.18	A	212 % [Stream B-ACD]	D4	0.1	8.44	0.09	A	344 % [Stream B-ACD]
Stream A-BCD		0.0	5.40	0.03	A			0.0	5.75	0.01	A	
Stream D-ABC		0.1	7.35	0.06	A			0.0	0.00	0.00	A	
Stream C-ABD		0.0	5.83	0.03	A			0.1	5.94	0.09	A	
<b>Junction 1 - 2026 With Development</b>												
Stream B-ACD	D5	0.2	8.37	0.18	A	201 % [Stream B-ACD]	D6	0.1	8.33	0.12	A	289 % [Stream B-ACD]
Stream A-BCD		0.0	5.44	0.03	A			0.0	5.66	0.01	A	
Stream D-ABC		0.1	7.50	0.06	A			0.0	6.99	0.01	A	
Stream C-ABD		0.1	5.72	0.04	A			0.1	5.98	0.10	A	
<b>Junction 1 - 2031 Without Development</b>												
Stream B-ACD	D7	0.2	8.54	0.20	A	188 % [Stream B-ACD]	D8	0.1	8.54	0.10	A	316 % [Stream B-ACD]
Stream A-BCD		0.0	5.37	0.03	A			0.0	5.75	0.01	A	
Stream D-ABC		0.1	7.48	0.06	A			0.0	0.00	0.00	A	
Stream C-ABD		0.1	5.81	0.04	A			0.1	5.94	0.09	A	
<b>Junction 1 - 2031 With Development</b>												
Stream B-ACD	D9	0.2	8.65	0.20	A	177 % [Stream B-ACD]	D10	0.1	8.46	0.13	A	260 % [Stream B-ACD]
Stream A-BCD		0.0	5.42	0.03	A			0.0	5.65	0.01	A	
Stream D-ABC		0.1	7.67	0.06	A			0.0	7.17	0.01	A	
Stream C-ABD		0.1	5.69	0.05	A			0.2	6.00	0.10	A	
<b>Junction 1 - 2041 Without Development</b>												
Stream B-ACD	D11	0.3	8.85	0.22	A	165 % [Stream B-ACD]	D12	0.1	8.73	0.11	A	283 % [Stream B-ACD]
Stream A-BCD		0.0	5.34	0.03	A			0.0	5.75	0.01	A	
Stream D-ABC		0.1	7.63	0.07	A			0.0	6.99	0.01	A	
Stream C-ABD		0.1	5.81	0.04	A			0.1	5.95	0.10	A	
<b>Junction 1 - 2041 With Development</b>												
Stream B-ACD	D13	0.3	8.97	0.22	A	156 % [Stream B-ACD]	D14	0.2	8.67	0.14	A	233 % [Stream B-ACD]
Stream A-BCD		0.0	5.40	0.03	A			0.0	5.64	0.01	A	
Stream D-ABC		0.1	7.84	0.07	A			0.0	7.26	0.01	A	
Stream C-ABD		0.1	5.67	0.05	A			0.2	6.01	0.11	A	

Table 9.2: Junction 1: L2968/L2969

9.3 Junction 2: Access to Cois Chuain from the L2968

- 9.3.1 The PICADY results for Junction 2 without development are presented in **Table 9.3** below.
- 9.3.2 The results indicate that the junction currently operates within capacity for both AM and PM peaks with a measured R.F.C (Ratio of Flow to Capacity) of 4% and 2% respectively. The junction is operating at a Level of Service A.
- 9.3.3 Future year results indicate that the junction will operate within capacity for both AM and PM peak hours.

	AM					PM						
	Set ID	Queue (PCU)	Delay (s)	RFC	LOS	Network Residual Capacity	Set ID	Queue (PCU)	Delay (s)	RFC	LOS	Network Residual Capacity
<b>Junction 2 - 2021</b>												
Stream B-AC	D1	0.0	7.98	0.04	A	412 % [Stream B-AC]	D2	0.0	8.06	0.02	A	578 % [Stream B-AC]
Stream C-AB		0.0	5.09	0.00	A			0.0	5.69	0.00	A	
<b>Junction 2 - 2026 Without Development</b>												
Stream B-AC	D3	0.0	8.12	0.04	A	376 % [Stream B-AC]	D4	0.0	8.12	0.04	A	376 % [Stream B-AC]
Stream C-AB		0.0	5.05	0.00	A			0.0	5.05	0.00	A	
<b>Junction 2 - 2026 With Development</b>												
Stream B-AC	D5	0.0	8.66	0.04	A	258 % [Stream B-AC]	D6	0.0	8.81	0.02	A	315 % [Stream B-AC]
Stream C-AB		0.0	4.76	0.01	A			0.0	5.56	0.01	A	
<b>Junction 2 - 2031 Without Development</b>												
Stream B-AC	D7	0.0	8.19	0.05	A	343 % [Stream B-AC]	D8	0.0	8.23	0.02	A	490 % [Stream B-AC]
Stream C-AB		0.0	4.99	0.00	A			0.0	5.66	0.00	A	
<b>Junction 2 - 2031 With Development</b>												
Stream B-AC	D9	0.1	8.82	0.05	A	228 % [Stream B-AC]	D10	0.0	8.23	0.02	A	490 % [Stream B-AC]
Stream C-AB		0.0	4.67	0.01	A			0.0	5.66	0.00	A	
<b>Junction 2 - 2041 Without Development</b>												
Stream B-AC	D11	0.1	8.36	0.05	A	309 % [Stream B-AC]	D12	0.0	8.34	0.02	A	443 % [Stream B-AC]
Stream C-AB		0.0	4.94	0.00	A			0.0	5.66	0.00	A	
<b>Junction 2 - 2041 With Development</b>												
Stream B-AC	D13	0.1	9.09	0.05	A	202 % [Stream B-AC]	D14	0.0	9.24	0.03	A	248 % [Stream B-AC]
Stream C-AB		0.0	4.60	0.01	A			0.0	5.52	0.01	A	

Table 9.3: Junction 2: Access to Cois Chuain from the L2968

9.4 Junction 3: Glounthaune Road/Johnstown Close

- 9.4.1 The PICADY results for Junction 3 with development are presented in **Table 9.4** below.
- 9.4.2 The results indicate that the junction currently operates within capacity for both AM & PM peak with measured RFC %'s (Ratio of Flow to Capacity) of 52% & 21% respectively. The junction is working at a Level of Service B.
- 9.4.3 Future year results, both with and without development, show a steady degradation in capacity at the junction with delay occurring in future year scenarios for traffic accessing the main road (Johnstown Close).

	Set ID	AM					Network Residual Capacity	Set ID	PM					Network Residual Capacity
		Queue (PCU)	Delay (s)	RFC	LOS	Queue (PCU)			Delay (s)	RFC	LOS			
<b>2021</b>														
Stream B-ACD	D1	0.0	7.80	0.03	A	37 %	D2	0.0	6.66	0.02	A	188 %		
Stream A-BCD		0.1	6.21	0.09	A			0.0	0.00	0.00	A			
Stream D-ABC		1.1	14.53	0.52	B			[Stream D-ABC]	0.3	7.82	0.21		A	[Stream D-ABC]
Stream C-ABD		0.0	6.07	0.01	A			0.0	5.68	0.01	A			
<b>2026 Without Development</b>														
Stream B-ACD	D3	0.0	7.99	0.03	A	28 %	D4	0.0	6.87	0.02	A	147 %		
Stream A-BCD		0.1	6.31	0.10	A			0.1	6.40	0.10	A			
Stream D-ABC		1.3	16.37	0.56	C			[Stream D-ABC]	0.3	8.36	0.23		A	[Stream D-ABC]
Stream C-ABD		0.0	6.14	0.01	A			0.0	5.95	0.01	A			
<b>2026 With Development</b>														
Stream B-ACD	D5	0.0	8.18	0.03	A	12 %	D6	0.0	6.82	0.02	A	139 %		
Stream A-BCD		0.1	6.53	0.13	A			0.0	5.79	0.01	A			
Stream D-ABC		2.1	22.75	0.69	C			[Stream D-ABC]	0.4	8.58	0.27		A	[Stream D-ABC]
Stream C-ABD		0.0	6.23	0.01	A			0.0	5.73	0.01	A			
<b>2031 Without Development</b>														
Stream B-ACD	D7	0.0	8.27	0.03	A	19 %	D8	0.0	6.85	0.02	A	130 %		
Stream A-BCD		0.1	6.41	0.10	A			0.1	6.52	0.11	A			
Stream D-ABC		1.6	19.37	0.62	C			[Stream D-ABC]	0.3	8.71	0.25		A	[Stream D-ABC]
Stream C-ABD		0.0	6.24	0.01	A			0.0	6.03	0.01	A			
<b>2031 With Development</b>														
Stream B-ACD	D9	0.0	8.53	0.03	A	2 %	D10	0.0	6.89	0.03	A	119 %		
Stream A-BCD		0.2	6.68	0.14	A			0.0	5.86	0.01	A			
Stream D-ABC		3.1	31.39	0.77	D			[Stream D-ABC]	0.4	9.04	0.29		A	[Stream D-ABC]
Stream C-ABD		0.0	6.34	0.01	A			0.0	5.79	0.01	A			
<b>2041 Without Development</b>														
Stream B-ACD	D11	0.0	8.64	0.04	A	9 %	D12	0.0	7.17	0.03	A	110 %		
Stream A-BCD		0.1	6.55	0.11	A			0.1	6.68	0.12	A			
Stream D-ABC		2.2	24.31	0.69	C			[Stream D-ABC]	0.4	9.21	0.28		A	[Stream D-ABC]
Stream C-ABD		0.0	6.36	0.01	A			0.0	6.12	0.01	A			
<b>2041 With Development</b>														
Stream B-ACD	D13	0.0	8.96	0.04	A	-5 %	D14	0.0	7.08	0.03	A	101 %		
Stream A-BCD		0.2	6.84	0.15	A			0.0	5.92	0.01	A			
Stream D-ABC		5.0	47.69	0.85	E			[Stream D-ABC]	0.5	9.58	0.33		A	[Stream D-ABC]
Stream C-ABD		0.0	6.47	0.01	A			0.0	5.85	0.01	A			

Table 9.4 Junction 3: Glounthaune Road/Johnstown Close

9.5 Junction 4: 'The Terrace'/L2968

- 9.5.1 The PICADY results for Junction 4 with development are presented in **Table 9.5** below.
- 9.5.2 The results indicate that the junction currently operates within capacity during both AM & PM peak for all future years.

	Set ID	AM					Network Residual Capacity	Set ID	PM					Network Residual Capacity
		Queue (PCU)	Delay (s)	RFC	LOS	Queue (PCU)			Delay (s)	RFC	LOS			
<b>2021</b>														
Stream B-AC	D1	0.3	8.44	0.23	A	180 %	D2	0.1	6.45	0.09	A	595 %		
Stream C-AB		0.1	6.01	0.05	A			[Stream B-AC]	0.0	6.19	0.03		A	[Stream B-AC]
<b>2026 Without Development</b>														
Stream B-AC	D3	0.3	8.72	0.25	A	160 %	D4	0.1	6.51	0.10	A	556 %		
Stream C-AB		0.1	6.01	0.06	A			[Stream B-AC]	0.0	6.21	0.03		A	[Stream B-AC]
<b>2026 With Development</b>														
Stream B-AC	D5	0.5	10.35	0.36	B	96 %	D6	0.2	7.06	0.16	A	329 %		
Stream C-AB		0.1	6.22	0.08	A			[Stream B-AC]	0.1	6.33	0.05		A	[Stream B-AC]
<b>2031 Without Development</b>														
Stream B-AC	D7	0.4	9.03	0.27	A	143 %	D8	0.1	6.59	0.11	A	501 %		
Stream C-AB		0.1	6.02	0.06	A			[Stream B-AC]	0.0	6.23	0.04		A	[Stream B-AC]
<b>2031 With Development</b>														
Stream B-AC	D9	0.6	11.13	0.39	B	79 %	D10	0.2	7.25	0.18	A	287 %		
Stream C-AB		0.1	6.26	0.08	A			[Stream B-AC]	0.1	6.37	0.05		A	[Stream B-AC]
<b>2041 Without Development</b>														
Stream B-AC	D11	0.4	9.45	0.29	A	124 %	D12	0.1	6.68	0.12	A	457 %		
Stream C-AB		0.1	6.02	0.07	A			[Stream B-AC]	0.0	6.24	0.04		A	[Stream B-AC]
<b>2041 With Development</b>														
Stream B-AC	D13	0.4	9.45	0.29	A	124 %	D14	0.1	6.68	0.12	A	457 %		
Stream C-AB		0.1	6.02	0.07	A			[Stream B-AC]	0.0	6.24	0.04		A	[Stream B-AC]

Table 9.5 Junction 4: 'The Terrace'/L2968

9.6 Junction 5: Johnstown Close/'The Terrace'

- 9.5.1 The PICADY results for Junction 5 with development are presented in **Table 9.5** below.
- 9.5.2 The results indicate that the junction currently operates within capacity during both AM & PM peak for all future years.

		AM					PM					
	Set ID	Queue (PCU)	Delay (s)	RFC	LOS	Network Residual Capacity	Set ID	Queue (PCU)	Delay (s)	RFC	LOS	Network Residual Capacity
<b>2021</b>												
Stream B-AC	D1	0.3	8.44	0.23	A	180 %	D2	0.1	6.45	0.09	A	595 %
Stream C-AB		0.1	6.01	0.05	A	[Stream B-AC]		0.0	6.19	0.03	A	[Stream B-AC]
<b>2026 Without Development</b>												
Stream B-AC	D3	0.3	8.72	0.25	A	160 %	D4	0.1	6.51	0.10	A	556 %
Stream C-AB		0.1	6.01	0.06	A	[Stream B-AC]		0.0	6.21	0.03	A	[Stream B-AC]
<b>2026 With Development</b>												
Stream B-AC	D5	0.5	10.35	0.36	B	96 %	D6	0.2	7.06	0.16	A	329 %
Stream C-AB		0.1	6.22	0.08	A	[Stream B-AC]		0.1	6.33	0.05	A	[Stream B-AC]
<b>2031 Without Development</b>												
Stream B-AC	D7	0.4	9.03	0.27	A	143 %	D8	0.1	6.59	0.11	A	501 %
Stream C-AB		0.1	6.02	0.06	A	[Stream B-AC]		0.0	6.23	0.04	A	[Stream B-AC]
<b>2031 With Development</b>												
Stream B-AC	D9	0.6	11.13	0.39	B	79 %	D10	0.2	7.25	0.18	A	287 %
Stream C-AB		0.1	6.26	0.08	A	[Stream B-AC]		0.1	6.37	0.05	A	[Stream B-AC]
<b>2041 Without Development</b>												
Stream B-AC	D11	0.4	9.45	0.29	A	124 %	D12	0.1	6.68	0.12	A	457 %
Stream C-AB		0.1	6.02	0.07	A	[Stream B-AC]		0.0	6.24	0.04	A	[Stream B-AC]
<b>2041 With Development</b>												
Stream B-AC	D13	0.4	9.45	0.29	A	124 %	D14	0.1	6.68	0.12	A	457 %
Stream C-AB		0.1	6.02	0.07	A	[Stream B-AC]		0.0	6.24	0.04	A	[Stream B-AC]

Table 9.6 Junction 5: Johnstown Close/'The Terrace'

**9.7 Junction 6: Proposed Signalised Junction Cois Chuain/L2968/Residential Development**

- 9.3.1 The LinSig results for Junction 2 with development are presented in **Table 9.7** below.
- 9.3.2 The results indicate that the junction will operate within capacity for both AM and PM peaks with a measured R.F.C (Ratio of Flow to Capacity) of 64% and a resulting queue of 5 pcu's.
- 9.3.3 Future year results with development show the junction operating within capacity with a cycle time of 60 seconds. It should be noted that each 60 second cycle includes a 12 second all-red pedestrian phase. This is a demand-based phase and is not utilised 'each and every cycle' implying that the presented results are conservative.

Proposed Signalised Junction at Residential Development		With Development		
		Deg Sat %	Av. Delay Per PCU (s/pcu)	Mean Max Queue (pcu)
2026	AM	64.8	49.2	4.6
	PM	39.1	41.4	3.2
2031	AM	67.7	48.2	5.3
	PM	59.1	40.2	3.9
2041	AM	74.9	53.1	6.5
	PM	52.6	39.5	4.1

Table 9.7: Junction 6: Proposed Signalised Junction Cois Chuain/L2968/ Residential Development

**9.5 TRAFFIC MODELLING CONCLUSIONS**

9.5.1 The traffic modelling results show that the proposed junction serving the development (Junction 6) operates within capacity up to and including the design year 2041.

Analysis of Junction 3: Glounthaune Road/Johnstown Close shows that the junction currently operates within capacity with a level of service B during the morning peak hour. With the addition of standard growth rates on existing traffic flows the level of service for 2026 goes to C for the AM time period. When development traffic is added the Junction LOS goes to E for 2041. The conclusion from the modelling is that the junction will deteriorate over time both with/without development taking place.

The results of the modelling were discussed with the Traffic & Transport Department of Cork County Council and it was agreed that the junction would be monitored overtime to determine if and when remedial measures will be required. Given that the area is well served with public transport and with the further completion of cycle facilities in the area as part of CMATS, it is anticipated that background growth rates, applied in accordance with TII Guidelines to existing traffic flows, will be negated by an increase in modal shift. If this was to occur, Junction 3 will continue to operate within capacity for all future years as per the 2026 modelling results.

**10.0 CUMULATIVE IMPACT**

10.1.1 As outlined in **Section 7.0** of this report, industry standard growth rates have been applied to background traffic for future year assessments (to account for further development within the area). These growth rates make allowance for modal shift targets as set by national policy but do not take account of site-specific measures that may be implemented to mitigate against traffic generation from a particular development. In this instance the development of strategic transport corridors in-line with the CMATS study and Bus Connects. A modest increase in modal shift from the recorded 16.5% level to 40% for future years has been applied. The 40% figure falls short of the national target of 45% implying that the analysis presented is robust.

10.1.2 The local primary school, and retail offerings in Glounthaune are all within walking distance of the site. Glounthaune train station is also within walking distance (20mins).

**11.0 ROAD SAFETY**

11.1.1 Existing Road Network Safety

The L2968 adjacent to the site operates at a 50kph speed limit and comprises a wide 6.0m carriageway. There are no cycle lane facilities on this stretch of road. The existing footpath runs on the opposite side of the development (western side) and varies in width along its length. The observed speed on this stretch of road is in excess of the posted speed limit which is attributed to the wide carriageway width and the downhill gradient.

11.1.2 Road Collision Database

A review of the RSA Road Collision Statistics was undertaken for the area in the vicinity of the applicants' site.

A number of minor collisions and one serious collision occurred in the wider area over the available 11-year period as shown in **Figure 11.2**.

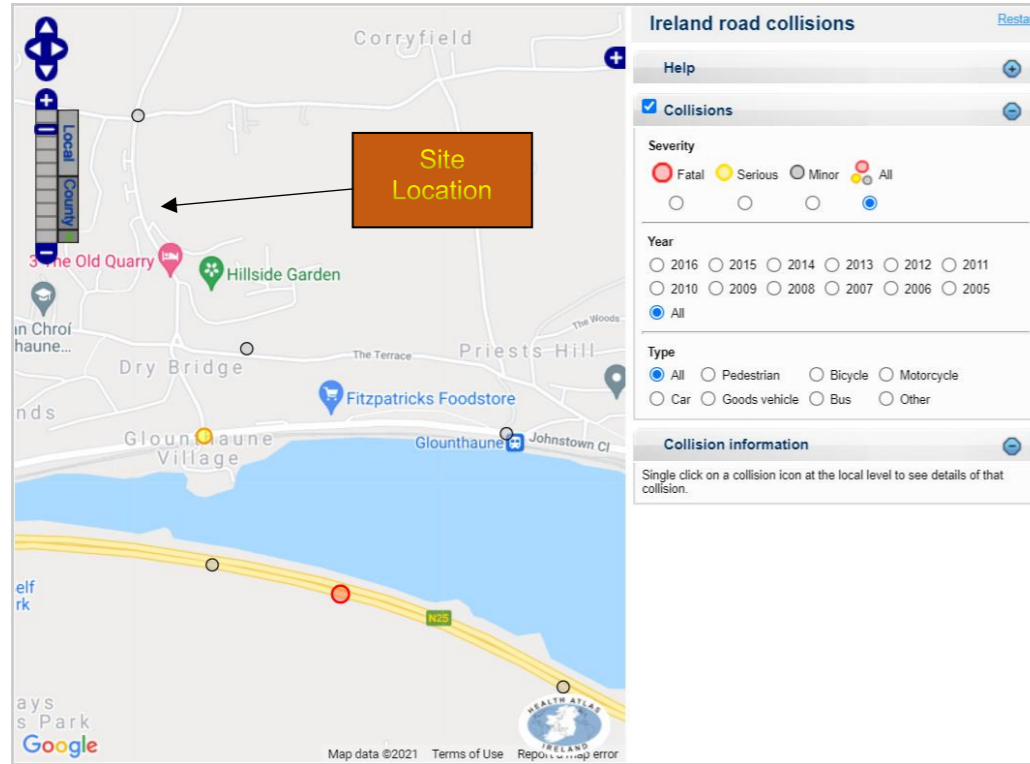


Fig 11.2: Collision statistics for Roads in the vicinity of the site

11.1.3 Proposed Road Safety Mitigation Measures

The proposed development will include a number of measures that are deemed necessary to improve road safety in the area. Internally within the scheme raised junctions, colour contrasted surfaces and minimal junction radii will create a low-speed regime where pedestrians will have the priority.

The main vehicular access to the site will be by means of a traffic signal-controlled junction which includes a full pedestrian phase onto the L-2968. In addition, a pedestrian/cycle access is being developed on 'The Terrace' within a traffic calmed zone. This will allow off-road access through a woodland pathway to the Johnstown Close Road adjoining Fitzpatrick's Foodstore, the recently completed IU-1 Interurban Cycleway and facilitating safe access to the train station, further east.



Fig 11.3: Primary Pedestrian Connectivity Map

12.0 ENVIRONMENTAL IMPACT

- 12.1 The proposed development has been designed in accordance with the principles of DMURS (Design Manual for Urban Roads and Streets) with all internal roads having a gradient of not greater than 5% and good pedestrian connectivity throughout.
- 12.2 The close proximity to current public transport facilities, via connection to the existing footpath network and proposed links, in conjunction with the continued development of the Strategic Transport Corridors, should result in the scheme moving closer to the target modal split as set out by Government (45%).

12.3 The construction stage of the scheme proposes to re-use / relocate the bulk of the excavation within the site implying that there will be a significant reduction in construction traffic generated to and from the site over and above a site where importation or exportation of earthworks is required. This will minimise the impact the development will have on the existing roads network during this period.

**13.0 INTERNAL LAYOUT & PARKING PROVISION**

13.1 **Figure 4.1.1** presents the proposed layout which includes the provision of on-street and own curtilage parking, shared cycle/footpaths, pedestrian/cycle permeability throughout the site on designated off-road routes, and a raised shared surface serving as a speed control measure.

13.2 Parking is provided in accordance with the LAP and is suitably located on site. With respect to cycle parking, dedicated cycle parking provision spaces are provided as part of the proposed development.

**14.0 PUBLIC TRANSPORT**

14.1 The train service runs a 15min service with Cork Kent Station as its terminus and serves Mallow, Midleton and Cobh. This service runs 7 days a week. The existing train station is located on Johnstown Close as shown in the following image.

14.2 Four buses stop at the bus stop on Johnstown Close and serve Cork City via Little Island and the Lower Glanmire Road. These buses are the 240, 241, 260 and 261. The most frequent of these buses is the 260, passing through Glounthaune on five occasions during the day.

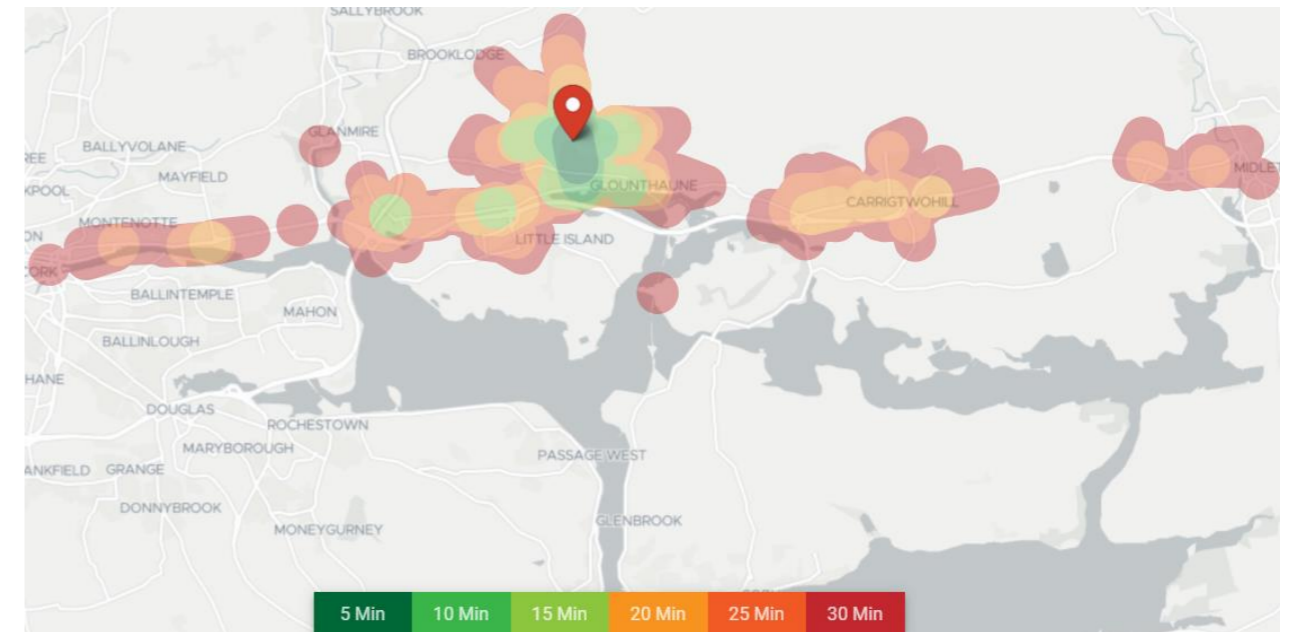


**Fig 14.1: Location of existing train station and Bus Stop on Johnstown Close**

14.3 The Cork Metropolitan Area Transport Strategy 2040 (CMATS) proposes significant improvements to the public transport facilities over and above what is currently available. With the provision of these facilities and other incentives as part of national policy, it is anticipated that a shift to public transport will occur over the construction phase of this scheme. CMATS has provided more certainty for the delivery of these enhancements. The LAP states that is an objective of the plan to *Support the achievement of high levels of modal shift by collaborating*

*with other agencies to improve public transport services and influence patterns of employment development to support use of sustainable modes and travel by public transport”.*

14.4 The following isochrone map shows the areas currently accessible by public transport based on time of travel from the site. Note: The distances include transfers to different services so are indicative only (delay may be experienced during transfer)



**Fig 14.2: Time of travel by Public Transport Options**

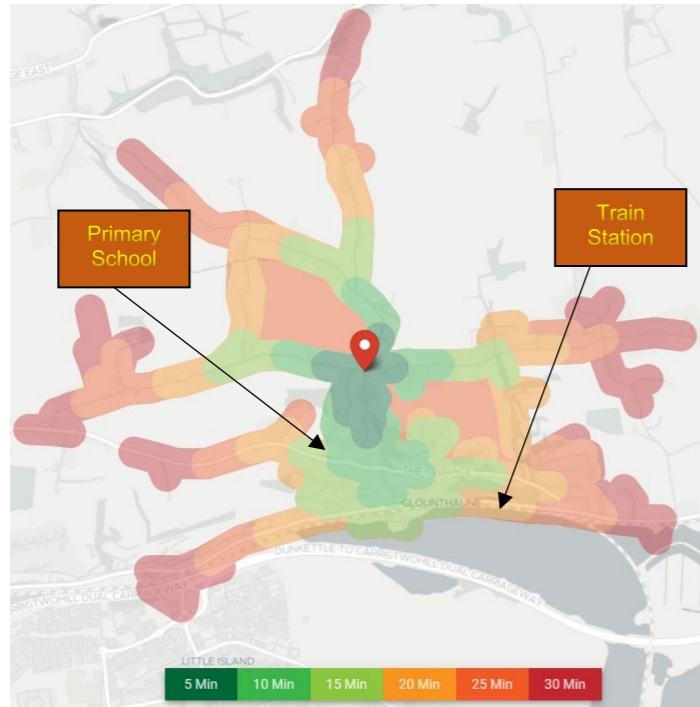
14.5 Evident from the above map is that current bus provision in the area allows travel to a wide area within 30 mins, with many of the main employment centres being within the 20 mins range. This is significantly shorter than CSO figures for other areas such as Dublin City 28.9 mins, South Dublin 30.6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

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

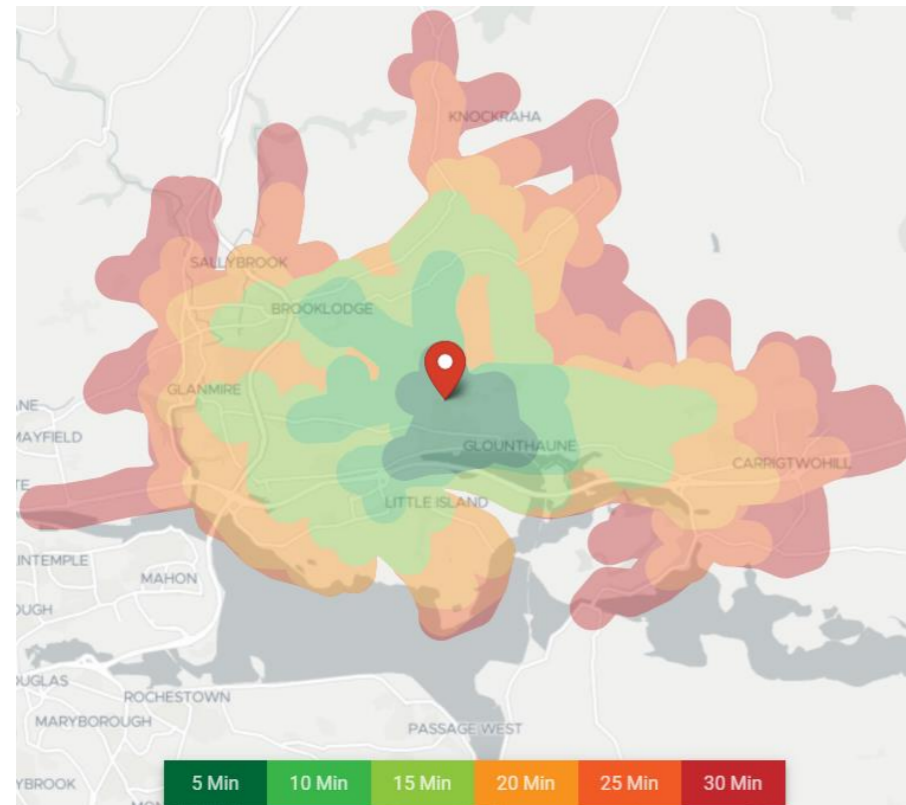
14.6 The aforementioned travel times are set to significantly improve as a result of CMATS which will include bus priority at junctions, additional on-road facilities such as covered shelters, real-time arrival departure boards and an increase in frequency of service. These measures, scheduled for delivery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

**15.0 ACCESSIBILITY AND INTEGRATION**

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



**Fig 15.1: Proposed Development: Walking distance to local area**

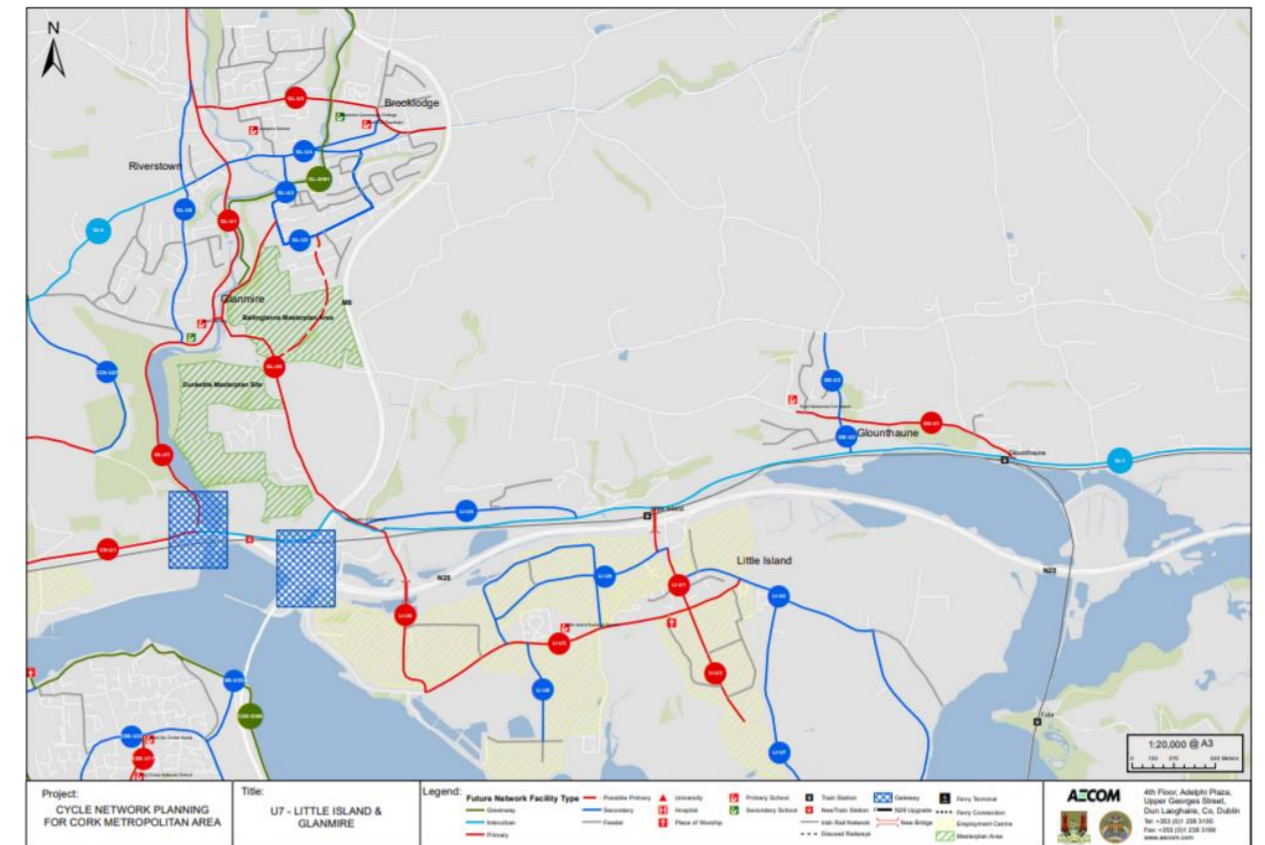


**Fig 15.2: Proposed Development: Cycle distance to local area**

- 15.2 Within 10 mins walk time from the site:
- Scoil Náisiúnta an Chroí Naofa (Glounthaune Primary School)
  - Hair Salon
  - Glounthaune Catholic Church

Within 20 mins walk time from the site:

- General Education Ireland, Preschool.
  - Glounthaune Community Center.
  - The Rising Tide Bar.
  - Glounthaune Playground.
  - Fitzpatrick's Foodstore.
- 15.3 The cycle range is presented in similar terms and relates to the average distance travelled in a specific time (16-19 kmh). Glanmire and Little Island both fall within the 20 min category based on unrestricted flow through junctions.
- Note: The travel speed used is on the low side, an experienced cyclist would have a 26-30kph average speed, however the speed used is more reflective of the topography in and around Tower.*
- 15.4 As part of the development of the scheme 'The Terrace' will be connected to Johnstown Close via a pedestrian link which will include a pedestrian crossing and associative traffic calming measures on 'The Terrace'. This will significantly improve connectivity to and from the development site as well as serving the Glounthaune train station for all local residents.
- 15.5 The Cork Cycle Network Plan includes a proposed primary route through the village of Glounthaune. The route will connect with the proposed inter urban route along the old N25 corridor providing strong linkages to Carrigwohill and Little Island. The key locations this cycle route wishes to serve are Scoil Náisiúnta an Chroí Naofa, the surrounding residential area and Glounthaune Station.



**Fig 15.3: Cork Cycle Network Plan for Glanmire, Glounthaune and Little Island**

## 16.0 ACCESS FOR PEOPLE WITH DISABILITIES

- 16.1 The internal layout of the development is designed to accommodate all road users and will adhere to national guidelines regarding people with disabilities. Proposed works to the public realm in the vicinity of the site will benefit all users both existing and future.

## 17.0 MOBILITY MANAGEMENT PLAN (SUSTAINABLE ACCESS STRATEGY)

- 17.1 As outlined previously, significant effort has been put in to delivering connectivity from the site to local services and public transport options. A 'Mobility Management Plan/Travel Plan' is a strategy for managing multi-modal access to a site or development, focusing on promoting access by sustainable modes. The objective of national and local policy is to reduce reliance on the car for travel. Inducements and encouragement should be applied in order to influence change and this can be achieved through the delivery of 'Mobility Management Plans'.
- 17.2 A mobility management plan relating to a residential development would form part of the sales/promotion package presented to would-be purchasers and would highlight the proximity of local services, public transport provision, schools and walking/cycle distances to same. The proposed 'hard measures' that will facilitate safer pedestrian, cycle and public bus access will be provided as part of the application and will be further complimented by scheduled Local Authority Works (CMATS).
- 17.3 An overview of the sustainable infrastructure proposed is as follows:
- Connection to existing pedestrian footpath network provides linkage to public transport offerings, schools, retail, and amenity destinations.
  - Car parking provision within the site is at the lower end of the scale in order to encourage the use of sustainable transport modes.
  - Provision of bicycle parking facilities allowing ease of access and protection against the weather.

## 18.0 REFERENCES

- National Roads Authority (May 2014) Traffic and Transport Assessment Guidelines NRA, Dublin
- Institution of Highways & Transportation (1994) Guidelines for Traffic Impact Assessment IHT, London
- National Roads Authority (2000) Road Geometry Handbook NRA, Dublin
- National Roads Authority (revised 2003) Design Manual For Roads and Bridges NRA, Dublin
- National Roads Authority (November 2004) Draft Traffic and Transport Assessment Guidelines NRA, Dublin
- RSA Ireland Road Collisions  
<http://www.rsa.ie/RSA/Road-Safety/Our-Research/Ireland-Road-Collisions/>

## APPENDIX A: TRAFFIC MODEL OUTPUTS – PICADY

<b>Junctions 9</b>
<b>PICADY 9 - Priority Intersection Module</b>
Version: 9.5.1.7462 © Copyright TRL Limited, 2019
For sales and distribution information, program advice and maintenance, contact TRL: +44 (0)1344 379777 software@trl.co.uk www.trlsoftware.co.uk
<b>The users of this computer program for the solution of an engineering problem are in no way relieved of their responsibility for the correctness of the solution</b>

Filename: Junction1.j9  
 Path: N:\TIA\20\_131TT\_Glounthaune Westhill\Traffic Modelling  
 Report generation date: 29/11/2021 16:30:35

- »Junction 1 - 2021, AM
- »Junction 1 - 2021, PM
- »Junction 1 - 2026 Without Development, AM
- »Junction 1 - 2026 Without Development, PM
- »Junction 1 - 2026 With Development, AM
- »Junction 1 - 2026 With Development, PM
- »Junction 1 - 2031 Without Development, AM
- »Junction 1 - 2031 Without Development, PM
- »Junction 1 - 2031 With Development, AM
- »Junction 1 - 2031 With Development, PM
- »Junction 1 - 2041 Without Development, AM
- »Junction 1 - 2041 Without Development, PM
- »Junction 1 - 2041 With Development, AM
- »Junction 1 - 2041 With Development, PM

Summary of junction performance

	AM						PM					
	Set ID	Queue (PCU)	Delay (s)	RFC	LOS	Network Residual Capacity	Set ID	Queue (PCU)	Delay (s)	RFC	LOS	Network Residual Capacity
<b>Junction 1 - 2021</b>												
Stream B-ACD	D1	0.2	8.09	0.17	A	234 % [Stream B-ACD]	D2	0.1	8.29	0.09	A	380 % [Stream B-ACD]
Stream A-BCD		0.0	5.42	0.02	A			0.0	5.76	0.01	A	
Stream D-ABC		0.1	7.22	0.05	A			0.0	0.00	0.00	A	
Stream C-ABD		0.0	5.84	0.03	A			0.1	5.94	0.08	A	
<b>Junction 1 - 2026 Without Development</b>												
Stream B-ACD	D3	0.2	8.28	0.18	A	212 % [Stream B-ACD]	D4	0.1	8.44	0.09	A	344 % [Stream B-ACD]
Stream A-BCD		0.0	5.40	0.03	A			0.0	5.75	0.01	A	
Stream D-ABC		0.1	7.35	0.06	A			0.0	0.00	0.00	A	
Stream C-ABD		0.0	5.83	0.03	A			0.1	5.94	0.09	A	
<b>Junction 1 - 2026 With Development</b>												
Stream B-ACD	D5	0.2	8.37	0.18	A	201 % [Stream B-ACD]	D6	0.1	8.33	0.12	A	289 % [Stream B-ACD]
Stream A-BCD		0.0	5.44	0.03	A			0.0	5.66	0.01	A	
Stream D-ABC		0.1	7.50	0.06	A			0.0	6.99	0.01	A	
Stream C-ABD		0.1	5.72	0.04	A			0.1	5.98	0.10	A	
<b>Junction 1 - 2031 Without Development</b>												
Stream B-ACD	D7	0.2	8.54	0.20	A	188 % [Stream B-ACD]	D8	0.1	8.54	0.10	A	316 % [Stream B-ACD]
Stream A-BCD		0.0	5.37	0.03	A			0.0	5.75	0.01	A	
Stream D-ABC		0.1	7.48	0.06	A			0.0	0.00	0.00	A	
Stream C-ABD		0.1	5.81	0.04	A			0.1	5.94	0.09	A	
<b>Junction 1 - 2031 With Development</b>												
Stream B-ACD	D9	0.2	8.65	0.20	A	177 % [Stream B-ACD]	D10	0.1	8.46	0.13	A	260 % [Stream B-ACD]
Stream A-BCD		0.0	5.42	0.03	A			0.0	5.65	0.01	A	
Stream D-ABC		0.1	7.67	0.06	A			0.0	7.17	0.01	A	
Stream C-ABD		0.1	5.69	0.05	A			0.2	6.00	0.10	A	
<b>Junction 1 - 2041 Without Development</b>												
Stream B-ACD	D11	0.3	8.85	0.22	A	165 % [Stream B-ACD]	D12	0.1	8.73	0.11	A	283 % [Stream B-ACD]
Stream A-BCD		0.0	5.34	0.03	A			0.0	5.75	0.01	A	
Stream D-ABC		0.1	7.63	0.07	A			0.0	6.99	0.01	A	
Stream C-ABD		0.1	5.81	0.04	A			0.1	5.95	0.10	A	
<b>Junction 1 - 2041 With Development</b>												
Stream B-ACD	D13	0.3	8.97	0.22	A	156 % [Stream B-ACD]	D14	0.2	8.67	0.14	A	233 % [Stream B-ACD]
Stream A-BCD		0.0	5.40	0.03	A			0.0	5.64	0.01	A	
Stream D-ABC		0.1	7.84	0.07	A			0.0	7.26	0.01	A	
Stream C-ABD		0.1	5.67	0.05	A			0.2	6.01	0.11	A	

There are warnings associated with one or more model runs - see the 'Data Errors and Warnings' tables for each Analysis or Demand Set.

Values shown are the highest values encountered over all time segments. Delay is the maximum value of average delay per arriving vehicle. Network Residual Capacity indicates the amount by which network flow could be increased before a user-definable threshold (see Analysis Options) is met.



File summary

File Description

Title	
Location	
Site number	
Date	23/07/2021
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	MHL\bmurphy
Description	

Units

Distance units	Speed units	Traffic units input	Traffic units results	Flow units	Average delay units	Total delay units	Rate of delay units
m	kph	PCU	PCU	perHour	s	-Min	perMin

Analysis Options

Calculate Queue Percentiles	Calculate residual capacity	Residual capacity criteria type	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)
	✓	Delay	0.85	36.00	20.00

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D1	2021	AM	ONE HOUR	08:00	09:30	15
D2	2021	PM	ONE HOUR	17:00	18:30	15
D3	2026 Without Development	AM	ONE HOUR	08:00	09:30	15
D4	2026 Without Development	PM	ONE HOUR	17:00	18:30	15
D5	2026 With Development	AM	ONE HOUR	08:00	09:30	15
D6	2026 With Development	PM	ONE HOUR	17:00	18:30	15
D7	2031 Without Development	AM	ONE HOUR	08:00	09:30	15
D8	2031 Without Development	PM	ONE HOUR	17:00	18:30	15
D9	2031 With Development	AM	ONE HOUR	08:00	09:30	15
D10	2031 With Development	PM	ONE HOUR	17:00	18:30	15
D11	2041 Without Development	AM	ONE HOUR	08:00	09:30	15
D12	2041 Without Development	PM	ONE HOUR	17:00	18:30	15
D13	2041 With Development	AM	ONE HOUR	08:00	09:30	15
D14	2041 With Development	PM	ONE HOUR	17:00	18:30	15

Analysis Set Details

ID	Name	Network flow scaling factor (%)
A1	Junction 1	100.000

# Junction 1 - 2021, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

## Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	Crossroads	Two-way		2.57	A

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	234	Stream B-ACD

## Arms

Arms

Arm	Name	Description	Arm type
A	untitled		Major
B	untitled		Minor
C	untitled		Major
D	untitled		Minor

Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Has right turn bay	Visibility for right turn (m)	Blocks?	Blocking queue (PCU)
A	6.00			85.0	✓	0.00
C	6.00			45.0	✓	0.00

Geometries for Arm C are measured opposite Arm B. Geometries for Arm A (if relevant) are measured opposite Arm D.

Minor Arm Geometry

Arm	Minor arm type	Lane width (m)	Visibility to left (m)	Visibility to right (m)
B	One lane	3.00	35	40
D	One lane	3.00	100	120

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Stream	Intercept (PCU/hr)	Slope for A-B	Slope for A-C	Slope for A-D	Slope for B-A	Slope for B-C	Slope for B-D	Slope for C-A	Slope for C-B	Slope for C-D	Slope for D-A	Slope for D-B	Slope for D-C
A-D	623	-	-	-	-	-	-	0.241	0.345	0.241	-	-	-
B-A	509	0.093	0.234	0.234	-	-	-	0.147	0.335	-	0.234	0.234	0.117
B-C	649	0.100	0.252	-	-	-	-	-	-	-	-	-	-
B-D, nearside lane	509	0.093	0.234	0.234	-	-	-	0.147	0.335	0.147	-	-	-
B-D, offside lane	509	0.093	0.234	0.234	-	-	-	0.147	0.335	0.147	-	-	-
C-B	600	0.232	0.232	0.332	-	-	-	-	-	-	-	-	-
D-A	699	-	-	-	-	-	-	0.271	-	0.107	-	-	-
D-B, nearside lane	571	0.165	0.165	0.376	-	-	-	0.263	0.263	0.104	-	-	-
D-B, offside lane	571	0.165	0.165	0.376	-	-	-	0.263	0.263	0.104	-	-	-
D-C	571	-	0.165	0.376	0.131	0.263	0.263	0.263	0.263	0.104	-	-	-

The slopes and intercepts shown above do NOT include any corrections or adjustments.  
Streams may be combined, in which case capacity will be adjusted.  
Values are shown for the first time segment only; they may differ for subsequent time segments.

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D1	2021	AM	ONE HOUR	08:00	09:30	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

### Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		✓	161	100.000
B		✓	81	100.000
C		✓	129	100.000
D		✓	25	100.000

## Origin-Destination Data

### Demand (PCU/hr)

From	To			
	A	B	C	D
A	0	1	149	11
B	14	0	51	16
C	96	15	0	18
D	7	2	16	0

## Vehicle Mix

### Heavy Vehicle Percentages

From	To			
	A	B	C	D
A	0	0	0	0
B	0	0	0	0
C	0	0	0	0
D	0	0	0	0

## Results

### Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-ACD	0.17	8.09	0.2	A
A-BCD	0.02	5.42	0.0	A
A-B				
A-C				
D-ABC	0.05	7.22	0.1	A
C-ABD	0.03	5.84	0.0	A
C-D				
C-A				

## Main Results for each time segment

### 08:00 - 08:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	61	551	0.111	60	0.1	7.324	A
A-BCD	10	674	0.015	10	0.0	5.421	A
A-B	0.74			0.74			
A-C	111			111			
D-ABC	19	551	0.034	19	0.0	6.767	A
C-ABD	13	630	0.021	13	0.0	5.838	A
C-D	13			13			
C-A	71			71			

### 08:15 - 08:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	73	544	0.134	73	0.2	7.634	A
A-BCD	12	684	0.018	12	0.0	5.358	A
A-B	0.88			0.88			
A-C	132			132			
D-ABC	22	540	0.042	22	0.0	6.951	A
C-ABD	16	636	0.025	16	0.0	5.809	A
C-D	16			16			
C-A	84			84			

### 08:30 - 08:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	89	534	0.167	89	0.2	8.088	A
A-BCD	16	698	0.023	16	0.0	5.273	A
A-B	1			1			
A-C	160			160			
D-ABC	28	526	0.052	27	0.1	7.219	A
C-ABD	21	644	0.032	20	0.0	5.771	A
C-D	19			19			
C-A	102			102			

### 08:45 - 09:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	89	534	0.167	89	0.2	8.095	A
A-BCD	16	698	0.023	16	0.0	5.276	A
A-B	1			1			
A-C	160			160			
D-ABC	28	526	0.052	28	0.1	7.220	A
C-ABD	21	644	0.032	21	0.0	5.772	A
C-D	19			19			
C-A	102			102			

09:00 - 09:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	73	544	0.134	73	0.2	7.646	A
A-BCD	12	684	0.018	12	0.0	5.361	A
A-B	0.88			0.88			
A-C	132			132			
D-ABC	22	540	0.042	23	0.0	6.954	A
C-ABD	16	636	0.025	16	0.0	5.813	A
C-D	16			16			
C-A	84			84			

09:15 - 09:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	61	551	0.111	61	0.1	7.345	A
A-BCD	10	674	0.015	10	0.0	5.424	A
A-B	0.74			0.74			
A-C	111			111			
D-ABC	19	550	0.034	19	0.0	6.775	A
C-ABD	13	630	0.021	13	0.0	5.841	A
C-D	13			13			
C-A	71			71			

## Junction 1 - 2021 , PM

### Data Errors and Warnings

Severity	Area	Item	Description
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

## Junction Network

### Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	Crossroads	Two-way		2.40	A

### Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	380	Stream B-ACD

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D2	2021	PM	ONE HOUR	17:00	18:30	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

### Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		✓	70	100.000
B		✓	37	100.000
C		✓	142	100.000
D		✓	4	100.000

## Origin-Destination Data

### Demand (PCU/hr)

		To			
		A	B	C	D
From	A	0	8	59	3
	B	8	0	4	25
	C	94	39	0	9
	D	1	0	3	0

## Vehicle Mix

Heavy Vehicle Percentages

From	To			
	A	B	C	D
A	0	0	0	0
B	0	0	0	0
C	0	0	0	0
D	0	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-ACD	0.09	8.29	0.1	A
A-BCD	0.01	5.76	0.0	A
A-B				
A-C				
D-ABC	0.00	0.00	0.0	A
C-ABD	0.08	5.94	0.1	A
C-D				
C-A				

Main Results for each time segment

17:00 - 17:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	28	490	0.057	28	0.1	7.790	A
A-BCD	2	628	0.004	2	0.0	5.753	A
A-B	6			6			
A-C	44			44			
D-ABC	0	563	0.000	0	0.0	0.000	A
C-ABD	33	640	0.052	33	0.1	5.934	A
C-D	6			6			
C-A	67			67			

17:15 - 17:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	33	483	0.069	33	0.1	7.996	A
A-BCD	3	629	0.005	3	0.0	5.748	A
A-B	7			7			
A-C	53			53			
D-ABC	0	556	0.000	0	0.0	0.000	A
C-ABD	41	648	0.063	41	0.1	5.933	A
C-D	8			8			
C-A	79			79			

17:30 - 17:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	41	475	0.086	41	0.1	8.291	A
A-BCD	4	631	0.006	4	0.0	5.740	A
A-B	9			9			
A-C	65			65			
D-ABC	0	547	0.000	0	0.0	0.000	A
C-ABD	52	659	0.079	52	0.1	5.933	A
C-D	9			9			
C-A	95			95			

17:45 - 18:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	41	475	0.086	41	0.1	8.292	A
A-BCD	4	631	0.006	4	0.0	5.740	A
A-B	9			9			
A-C	65			65			
D-ABC	0	547	0.000	0	0.0	0.000	A
C-ABD	52	659	0.079	52	0.1	5.935	A
C-D	9			9			
C-A	95			95			

18:00 - 18:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	33	483	0.069	33	0.1	8.003	A
A-BCD	3	629	0.005	3	0.0	5.748	A
A-B	7			7			
A-C	53			53			
D-ABC	0	556	0.000	0	0.0	0.000	A
C-ABD	41	648	0.063	41	0.1	5.938	A
C-D	8			8			
C-A	79			79			

18:15 - 18:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	28	489	0.057	28	0.1	7.802	A
A-BCD	2	628	0.004	2	0.0	5.756	A
A-B	6			6			
A-C	44			44			
D-ABC	0	563	0.000	0	0.0	0.000	A
C-ABD	33	640	0.052	34	0.1	5.938	A
C-D	6			6			
C-A	67			67			

# Junction 1 - 2026 Without Development, AM

## Data Errors and Warnings

Severity	Area	Item	Description
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

## Junction Network

### Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	Crossroads	Two-way		2.61	A

### Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	212	Stream B-ACD

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D3	2026 Without Development	AM	ONE HOUR	08:00	09:30	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

### Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		✓	173	100.000
B		✓	87	100.000
C		✓	138	100.000
D		✓	26	100.000

## Origin-Destination Data

### Demand (PCU/hr)

		To			
		A	B	C	D
From	A	0	1	160	12
	B	15	0	55	17
	C	103	16	0	19
	D	7	2	17	0

## Vehicle Mix

## Heavy Vehicle Percentages

		To			
		A	B	C	D
From	A	0	0	0	0
	B	0	0	0	0
	C	0	0	0	0
	D	0	0	0	0

## Results

### Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-ACD	0.18	8.28	0.2	A
A-BCD	0.03	5.40	0.0	A
A-B				
A-C				
D-ABC	0.06	7.35	0.1	A
C-ABD	0.03	5.83	0.0	A
C-D				
C-A				

### Main Results for each time segment

#### 08:00 - 08:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	65	549	0.119	65	0.1	7.427	A
A-BCD	11	678	0.016	11	0.0	5.397	A
A-B	0.74			0.74			
A-C	119			119			
D-ABC	20	545	0.036	19	0.0	6.847	A
C-ABD	14	632	0.022	14	0.0	5.828	A
C-D	14			14			
C-A	76			76			

#### 08:15 - 08:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	78	541	0.145	78	0.2	7.769	A
A-BCD	14	689	0.020	14	0.0	5.331	A
A-B	0.88			0.88			
A-C	141			141			
D-ABC	23	534	0.044	23	0.0	7.050	A
C-ABD	17	638	0.027	17	0.0	5.798	A
C-D	17			17			
C-A	90			90			

08:30 - 08:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	96	530	0.181	96	0.2	8.278	A
A-BCD	18	704	0.025	18	0.0	5.242	A
A-B	1			1			
A-C	172			172			
D-ABC	29	519	0.055	29	0.1	7.346	A
C-ABD	22	647	0.034	22	0.0	5.758	A
C-D	20			20			
C-A	109			109			

08:45 - 09:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	96	530	0.181	96	0.2	8.285	A
A-BCD	18	704	0.025	18	0.0	5.242	A
A-B	1			1			
A-C	172			172			
D-ABC	29	519	0.055	29	0.1	7.347	A
C-ABD	22	647	0.034	22	0.0	5.759	A
C-D	20			20			
C-A	109			109			

09:00 - 09:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	78	541	0.145	78	0.2	7.782	A
A-BCD	14	689	0.020	14	0.0	5.334	A
A-B	0.88			0.88			
A-C	141			141			
D-ABC	23	534	0.044	23	0.0	7.053	A
C-ABD	17	638	0.027	17	0.0	5.802	A
C-D	17			17			
C-A	90			90			

09:15 - 09:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	65	549	0.119	66	0.1	7.447	A
A-BCD	11	678	0.016	11	0.0	5.400	A
A-B	0.74			0.74			
A-C	118			118			
D-ABC	20	545	0.036	20	0.0	6.853	A
C-ABD	14	632	0.022	14	0.0	5.829	A
C-D	14			14			
C-A	76			76			

# Junction 1 - 2026 Without Development, PM

## Data Errors and Warnings

Severity	Area	Item	Description
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

## Junction Network

### Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	Crossroads	Two-way		2.44	A

### Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	344	Stream B-ACD

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D4	2026 Without Development	PM	ONE HOUR	17:00	18:30	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

### Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		✓	75	100.000
B		✓	40	100.000
C		✓	153	100.000
D		✓	4	100.000

## Origin-Destination Data

### Demand (PCU/hr)

		To			
		A	B	C	D
From	A	0	9	63	3
	B	9	0	4	27
	C	101	42	0	10
	D	1	0	3	0

## Vehicle Mix

Heavy Vehicle Percentages

		To			
		A	B	C	D
From	A	0	0	0	0
	B	0	0	0	0
	C	0	0	0	0
	D	0	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-ACD	0.09	8.44	0.1	A
A-BCD	0.01	5.75	0.0	A
A-B				
A-C				
D-ABC	0.00	0.00	0.0	A
C-ABD	0.09	5.94	0.1	A
C-D				
C-A				

Main Results for each time segment

17:00 - 17:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	30	486	0.062	30	0.1	7.885	A
A-BCD	2	628	0.004	2	0.0	5.750	A
A-B	7			7			
A-C	47			47			
D-ABC	0	561	0.000	0	0.0	0.000	A
C-ABD	36	643	0.057	36	0.1	5.932	A
C-D	7			7			
C-A	72			72			

17:15 - 17:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	36	480	0.075	36	0.1	8.114	A
A-BCD	3	630	0.005	3	0.0	5.744	A
A-B	8			8			
A-C	56			56			
D-ABC	0	553	0.000	0	0.0	0.000	A
C-ABD	45	652	0.069	45	0.1	5.931	A
C-D	8			8			
C-A	85			85			

17:30 - 17:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	44	470	0.094	44	0.1	8.439	A
A-BCD	4	631	0.006	4	0.0	5.734	A
A-B	10			10			
A-C	69			69			
D-ABC	0	543	0.000	0	0.0	0.000	A
C-ABD	57	663	0.086	57	0.1	5.934	A
C-D	10			10			
C-A	102			102			

17:45 - 18:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	44	470	0.094	44	0.1	8.443	A
A-BCD	4	631	0.006	4	0.0	5.737	A
A-B	10			10			
A-C	69			69			
D-ABC	0	543	0.000	0	0.0	0.000	A
C-ABD	57	663	0.086	57	0.1	5.936	A
C-D	10			10			
C-A	102			102			

18:00 - 18:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	36	479	0.075	36	0.1	8.121	A
A-BCD	3	630	0.005	3	0.0	5.745	A
A-B	8			8			
A-C	56			56			
D-ABC	0	553	0.000	0	0.0	0.000	A
C-ABD	45	652	0.069	45	0.1	5.934	A
C-D	8			8			
C-A	85			85			

18:15 - 18:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	30	486	0.062	30	0.1	7.899	A
A-BCD	2	628	0.004	2	0.0	5.751	A
A-B	7			7			
A-C	47			47			
D-ABC	0	561	0.000	0	0.0	0.000	A
C-ABD	36	643	0.057	36	0.1	5.936	A
C-D	7			7			
C-A	72			72			

# Junction 1 - 2026 With Development, AM

## Data Errors and Warnings

Severity	Area	Item	Description
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

## Junction Network

### Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	Crossroads	Two-way		2.51	A

### Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	201	Stream B-ACD

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D5	2026 With Development	AM	ONE HOUR	08:00	09:30	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

### Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		✓	175	100.000
B		✓	88	100.000
C		✓	174	100.000
D		✓	26	100.000

## Origin-Destination Data

### Demand (PCU/hr)

		To			
		A	B	C	D
From	A	0	1	162	12
	B	15	0	56	17
	C	130	20	0	24
	D	7	2	17	0

## Vehicle Mix

### Heavy Vehicle Percentages

		To			
		A	B	C	D
From	A	0	0	0	0
	B	0	0	0	0
	C	0	0	0	0
	D	0	0	0	0

## Results

### Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-ACD	0.18	8.37	0.2	A
A-BCD	0.03	5.44	0.0	A
A-B				
A-C				
D-ABC	0.06	7.50	0.1	A
C-ABD	0.04	5.72	0.1	A
C-D				
C-A				

### Main Results for each time segment

#### 08:00 - 08:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	66	547	0.121	66	0.1	7.468	A
A-BCD	11	672	0.016	11	0.0	5.442	A
A-B	0.74			0.74			
A-C	120			120			
D-ABC	20	538	0.036	19	0.0	6.938	A
C-ABD	18	648	0.028	18	0.0	5.718	A
C-D	18			18			
C-A	95			95			

#### 08:15 - 08:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	79	539	0.147	79	0.2	7.826	A
A-BCD	14	683	0.020	14	0.0	5.382	A
A-B	0.88			0.88			
A-C	143			143			
D-ABC	23	526	0.044	23	0.0	7.166	A
C-ABD	23	658	0.035	23	0.0	5.673	A
C-D	21			21			
C-A	113			113			



08:30 - 08:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	97	527	0.184	97	0.2	8.359	A
A-BCD	18	697	0.026	18	0.0	5.301	A
A-B	1			1			
A-C	174			174			
D-ABC	29	508	0.056	29	0.1	7.501	A
C-ABD	30	671	0.044	29	0.1	5.608	A
C-D	25			25			
C-A	137			137			

08:45 - 09:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	97	527	0.184	97	0.2	8.368	A
A-BCD	18	697	0.026	18	0.0	5.302	A
A-B	1			1			
A-C	174			174			
D-ABC	29	508	0.056	29	0.1	7.502	A
C-ABD	30	671	0.044	30	0.1	5.612	A
C-D	25			25			
C-A	137			137			

09:00 - 09:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	79	539	0.147	79	0.2	7.839	A
A-BCD	14	683	0.020	14	0.0	5.383	A
A-B	0.88			0.88			
A-C	143			143			
D-ABC	23	526	0.044	23	0.0	7.171	A
C-ABD	23	658	0.035	23	0.0	5.672	A
C-D	21			21			
C-A	113			113			

09:15 - 09:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	66	547	0.121	66	0.1	7.491	A
A-BCD	11	672	0.016	11	0.0	5.443	A
A-B	0.74			0.74			
A-C	120			120			
D-ABC	20	538	0.036	20	0.0	6.944	A
C-ABD	18	648	0.028	18	0.0	5.720	A
C-D	18			18			
C-A	95			95			

# Junction 1 - 2026 With Development, PM

## Data Errors and Warnings

Severity	Area	Item	Description
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

## Junction Network

### Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	Crossroads	Two-way		2.51	A

### Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	289	Stream B-ACD

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D6	2026 With Development	PM	ONE HOUR	17:00	18:30	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

### Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		✓	100	100.000
B		✓	51	100.000
C		✓	168	100.000
D		✓	5	100.000

## Origin-Destination Data

### Demand (PCU/hr)

		To			
		A	B	C	D
From	A	0	9	88	3
	B	9	0	15	27
	C	111	46	0	11
	D	1	0	4	0

## Vehicle Mix

Heavy Vehicle Percentages

From	To			
	A	B	C	D
A	0	0	0	0
B	0	0	0	0
C	0	0	0	0
D	0	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-ACD	0.12	8.33	0.1	A
A-BCD	0.01	5.66	0.0	A
A-B				
A-C				
D-ABC	0.01	6.99	0.0	A
C-ABD	0.10	5.98	0.1	A
C-D				
C-A				

Main Results for each time segment

17:00 - 17:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	38	506	0.076	38	0.1	7.691	A
A-BCD	3	638	0.004	3	0.0	5.662	A
A-B	7			7			
A-C	66			66			
D-ABC	4	543	0.007	4	0.0	6.669	A
C-ABD	40	644	0.063	40	0.1	5.954	A
C-D	8			8			
C-A	78			78			

17:15 - 17:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	46	498	0.092	46	0.1	7.953	A
A-BCD	3	641	0.005	3	0.0	5.640	A
A-B	8			8			
A-C	79			79			
D-ABC	4	534	0.008	4	0.0	6.802	A
C-ABD	50	653	0.076	50	0.1	5.964	A
C-D	9			9			
C-A	92			92			

17:30 - 17:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	56	488	0.115	56	0.1	8.329	A
A-BCD	4	646	0.006	4	0.0	5.607	A
A-B	10			10			
A-C	96			96			
D-ABC	6	520	0.011	5	0.0	6.992	A
C-ABD	64	666	0.095	63	0.1	5.978	A
C-D	11			11			
C-A	110			110			

17:45 - 18:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	56	488	0.115	56	0.1	8.333	A
A-BCD	4	646	0.006	4	0.0	5.607	A
A-B	10			10			
A-C	96			96			
D-ABC	6	520	0.011	6	0.0	6.993	A
C-ABD	64	666	0.095	64	0.1	5.980	A
C-D	11			11			
C-A	110			110			

18:00 - 18:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	46	498	0.092	46	0.1	7.959	A
A-BCD	3	641	0.005	3	0.0	5.643	A
A-B	8			8			
A-C	79			79			
D-ABC	4	534	0.008	5	0.0	6.803	A
C-ABD	50	653	0.076	50	0.1	5.968	A
C-D	9			9			
C-A	92			92			

18:15 - 18:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	38	506	0.076	38	0.1	7.707	A
A-BCD	3	638	0.004	3	0.0	5.664	A
A-B	7			7			
A-C	66			66			
D-ABC	4	543	0.007	4	0.0	6.674	A
C-ABD	40	644	0.063	41	0.1	5.962	A
C-D	8			8			
C-A	78			78			

# Junction 1 - 2031 Without Development, AM

## Data Errors and Warnings

Severity	Area	Item	Description
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

## Junction Network

### Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	Crossroads	Two-way		2.69	A

### Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	188	Stream B-ACD

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D7	2031 Without Development	AM	ONE HOUR	08:00	09:30	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

### Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		✓	186	100.000
B		✓	94	100.000
C		✓	149	100.000
D		✓	29	100.000

## Origin-Destination Data

### Demand (PCU/hr)

		To			
		A	B	C	D
From	A	0	1	172	13
	B	16	0	59	19
	C	111	17	0	21
	D	8	2	19	0

## Vehicle Mix

### Heavy Vehicle Percentages

		To			
		A	B	C	D
From	A	0	0	0	0
	B	0	0	0	0
	C	0	0	0	0
	D	0	0	0	0

## Results

### Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-ACD	0.20	8.54	0.2	A
A-BCD	0.03	5.37	0.0	A
A-B				
A-C				
D-ABC	0.06	7.48	0.1	A
C-ABD	0.04	5.81	0.1	A
C-D				
C-A				

### Main Results for each time segment

#### 08:00 - 08:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	71	545	0.130	70	0.1	7.567	A
A-BCD	12	682	0.018	12	0.0	5.373	A
A-B	0.74			0.74			
A-C	127			127			
D-ABC	22	541	0.040	22	0.0	6.924	A
C-ABD	15	635	0.024	15	0.0	5.811	A
C-D	15			15			
C-A	82			82			

#### 08:15 - 08:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	85	537	0.157	84	0.2	7.954	A
A-BCD	15	694	0.022	15	0.0	5.303	A
A-B	0.88			0.88			
A-C	151			151			
D-ABC	26	529	0.049	26	0.1	7.150	A
C-ABD	19	642	0.029	19	0.0	5.778	A
C-D	18			18			
C-A	97			97			

08:30 - 08:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	103	525	0.197	103	0.2	8.533	A
A-BCD	20	711	0.028	20	0.0	5.209	A
A-B	1			1			
A-C	184			184			
D-ABC	32	513	0.062	32	0.1	7.484	A
C-ABD	24	652	0.037	24	0.1	5.734	A
C-D	22			22			
C-A	118			118			

08:45 - 09:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	103	525	0.197	103	0.2	8.542	A
A-BCD	20	711	0.028	20	0.0	5.210	A
A-B	1			1			
A-C	184			184			
D-ABC	32	513	0.062	32	0.1	7.485	A
C-ABD	24	652	0.037	24	0.1	5.735	A
C-D	22			22			
C-A	118			118			

09:00 - 09:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	85	537	0.157	85	0.2	7.969	A
A-BCD	15	694	0.022	15	0.0	5.306	A
A-B	0.88			0.88			
A-C	151			151			
D-ABC	26	529	0.049	26	0.1	7.153	A
C-ABD	19	642	0.029	19	0.0	5.779	A
C-D	18			18			
C-A	97			97			

09:15 - 09:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	71	545	0.130	71	0.2	7.590	A
A-BCD	12	682	0.018	12	0.0	5.374	A
A-B	0.74			0.74			
A-C	127			127			
D-ABC	22	541	0.040	22	0.0	6.933	A
C-ABD	15	635	0.024	15	0.0	5.814	A
C-D	15			15			
C-A	82			82			

# Junction 1 - 2031 Without Development, PM

## Data Errors and Warnings

Severity	Area	Item	Description
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

## Junction Network

### Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	Crossroads	Two-way		2.47	A

### Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	316	Stream B-ACD

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D8	2031 Without Development	PM	ONE HOUR	17:00	18:30	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

### Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		✓	80	100.000
B		✓	43	100.000
C		✓	164	100.000
D		✓	4	100.000

## Origin-Destination Data

### Demand (PCU/hr)

From	To			
	A	B	C	D
A	0	9	68	3
B	9	0	5	29
C	109	45	0	10
D	1	0	3	0

## Vehicle Mix

Heavy Vehicle Percentages

		To			
		A	B	C	D
From	A	0	0	0	0
	B	0	0	0	0
	C	0	0	0	0
	D	0	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-ACD	0.10	8.54	0.1	A
A-BCD	0.01	5.75	0.0	A
A-B				
A-C				
D-ABC	0.00	0.00	0.0	A
C-ABD	0.09	5.94	0.1	A
C-D				
C-A				

Main Results for each time segment

17:00 - 17:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	32	486	0.067	32	0.1	7.929	A
A-BCD	2	629	0.004	2	0.0	5.746	A
A-B	7			7			
A-C	51			51			
D-ABC	0	558	0.000	0	0.0	0.000	A
C-ABD	39	646	0.061	39	0.1	5.926	A
C-D	7			7			
C-A	77			77			

17:15 - 17:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	39	479	0.081	39	0.1	8.178	A
A-BCD	3	630	0.005	3	0.0	5.740	A
A-B	8			8			
A-C	61			61			
D-ABC	0	550	0.000	0	0.0	0.000	A
C-ABD	48	655	0.074	48	0.1	5.930	A
C-D	8			8			
C-A	91			91			

17:30 - 17:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	47	469	0.101	47	0.1	8.534	A
A-BCD	4	632	0.006	4	0.0	5.729	A
A-B	10			10			
A-C	74			74			
D-ABC	0	539	0.000	0	0.0	0.000	A
C-ABD	62	668	0.092	62	0.1	5.936	A
C-D	10			10			
C-A	109			109			

17:45 - 18:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	47	469	0.101	47	0.1	8.538	A
A-BCD	4	632	0.006	4	0.0	5.730	A
A-B	10			10			
A-C	74			74			
D-ABC	0	539	0.000	0	0.0	0.000	A
C-ABD	62	668	0.092	62	0.1	5.940	A
C-D	10			10			
C-A	109			109			

18:00 - 18:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	39	479	0.081	39	0.1	8.185	A
A-BCD	3	630	0.005	3	0.0	5.741	A
A-B	8			8			
A-C	61			61			
D-ABC	0	550	0.000	0	0.0	0.000	A
C-ABD	48	655	0.074	49	0.1	5.934	A
C-D	8			8			
C-A	91			91			

18:15 - 18:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	32	486	0.067	32	0.1	7.945	A
A-BCD	2	629	0.004	2	0.0	5.748	A
A-B	7			7			
A-C	51			51			
D-ABC	0	558	0.000	0	0.0	0.000	A
C-ABD	39	646	0.061	39	0.1	5.936	A
C-D	7			7			
C-A	77			77			

# Junction 1 - 2031 With Development, AM

## Data Errors and Warnings

Severity	Area	Item	Description
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

## Junction Network

### Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	Crossroads	Two-way		2.58	A

### Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	177	Stream B-ACD

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D9	2031 With Development	AM	ONE HOUR	08:00	09:30	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

### Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		✓	189	100.000
B		✓	95	100.000
C		✓	191	100.000
D		✓	29	100.000

## Origin-Destination Data

### Demand (PCU/hr)

		To			
		A	B	C	D
From	A	0	1	175	13
	B	16	0	60	19
	C	142	22	0	27
	D	8	2	19	0

## Vehicle Mix

### Heavy Vehicle Percentages

		To			
		A	B	C	D
From	A	0	0	0	0
	B	0	0	0	0
	C	0	0	0	0
	D	0	0	0	0

## Results

### Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-ACD	0.20	8.65	0.2	A
A-BCD	0.03	5.42	0.0	A
A-B				
A-C				
D-ABC	0.06	7.67	0.1	A
C-ABD	0.05	5.69	0.1	A
C-D				
C-A				

### Main Results for each time segment

#### 08:00 - 08:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	72	543	0.132	71	0.2	7.620	A
A-BCD	12	676	0.018	12	0.0	5.422	A
A-B	0.74			0.74			
A-C	129			129			
D-ABC	22	533	0.041	22	0.0	7.033	A
C-ABD	21	653	0.031	20	0.0	5.687	A
C-D	20			20			
C-A	104			104			

#### 08:15 - 08:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	85	534	0.160	85	0.2	8.028	A
A-BCD	15	687	0.022	15	0.0	5.358	A
A-B	0.88			0.88			
A-C	154			154			
D-ABC	26	520	0.050	26	0.1	7.290	A
C-ABD	26	664	0.039	26	0.1	5.638	A
C-D	23			23			
C-A	123			123			

08:30 - 08:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	105	521	0.201	104	0.2	8.639	A
A-BCD	20	702	0.028	20	0.0	5.274	A
A-B	1			1			
A-C	187			187			
D-ABC	32	501	0.064	32	0.1	7.673	A
C-ABD	33	679	0.049	33	0.1	5.572	A
C-D	28			28			
C-A	149			149			

08:45 - 09:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	105	521	0.201	105	0.2	8.650	A
A-BCD	20	702	0.028	20	0.0	5.274	A
A-B	1			1			
A-C	187			187			
D-ABC	32	501	0.064	32	0.1	7.674	A
C-ABD	33	679	0.049	33	0.1	5.573	A
C-D	28			28			
C-A	149			149			

09:00 - 09:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	85	533	0.160	86	0.2	8.043	A
A-BCD	15	687	0.022	15	0.0	5.360	A
A-B	0.88			0.88			
A-C	154			154			
D-ABC	26	520	0.050	26	0.1	7.296	A
C-ABD	26	664	0.039	26	0.1	5.643	A
C-D	23			23			
C-A	123			123			

09:15 - 09:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	72	543	0.132	72	0.2	7.644	A
A-BCD	12	676	0.018	12	0.0	5.425	A
A-B	0.74			0.74			
A-C	129			129			
D-ABC	22	533	0.041	22	0.0	7.039	A
C-ABD	21	653	0.032	21	0.0	5.694	A
C-D	20			20			
C-A	104			104			

# Junction 1 - 2031 With Development, PM

## Data Errors and Warnings

Severity	Area	Item	Description
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

## Junction Network

### Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	Crossroads	Two-way		2.57	A

### Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	260	Stream B-ACD

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D10	2031 With Development	PM	ONE HOUR	17:00	18:30	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

### Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		✓	109	100.000
B		✓	56	100.000
C		✓	182	100.000
D		✓	6	100.000

## Origin-Destination Data

### Demand (PCU/hr)

		To			
		A	B	C	D
From	A	0	9	97	3
	B	9	0	18	29
	C	120	50	0	12
	D	1	0	5	0

## Vehicle Mix

Heavy Vehicle Percentages

From		To			
		A	B	C	D
A	0	0	0	0	0
B	0	0	0	0	0
C	0	0	0	0	0
D	0	0	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-ACD	0.13	8.46	0.1	A
A-BCD	0.01	5.65	0.0	A
A-B				
A-C				
D-ABC	0.01	7.17	0.0	A
C-ABD	0.10	6.00	0.2	A
C-D				
C-A				

Main Results for each time segment

17:00 - 17:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	42	506	0.083	42	0.1	7.744	A
A-BCD	3	640	0.004	3	0.0	5.646	A
A-B	7			7			
A-C	73			73			
D-ABC	5	535	0.008	4	0.0	6.790	A
C-ABD	44	648	0.069	44	0.1	5.959	A
C-D	8			8			
C-A	84			84			

17:15 - 17:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	50	498	0.101	50	0.1	8.031	A
A-BCD	3	644	0.005	3	0.0	5.620	A
A-B	8			8			
A-C	87			87			
D-ABC	5	524	0.010	5	0.0	6.944	A
C-ABD	55	658	0.084	55	0.1	5.972	A
C-D	10			10			
C-A	99			99			

17:30 - 17:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	62	487	0.127	62	0.1	8.451	A
A-BCD	4	649	0.006	4	0.0	5.583	A
A-B	10			10			
A-C	106			106			
D-ABC	7	509	0.013	7	0.0	7.165	A
C-ABD	70	671	0.105	70	0.2	5.992	A
C-D	12			12			
C-A	118			118			

17:45 - 18:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	62	487	0.127	62	0.1	8.457	A
A-BCD	4	649	0.006	4	0.0	5.583	A
A-B	10			10			
A-C	106			106			
D-ABC	7	509	0.013	7	0.0	7.166	A
C-ABD	70	671	0.105	70	0.2	5.995	A
C-D	12			12			
C-A	118			118			

18:00 - 18:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	50	498	0.101	50	0.1	8.040	A
A-BCD	3	643	0.005	3	0.0	5.623	A
A-B	8			8			
A-C	87			87			
D-ABC	5	524	0.010	5	0.0	6.948	A
C-ABD	55	658	0.084	55	0.1	5.979	A
C-D	10			10			
C-A	99			99			

18:15 - 18:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	42	506	0.083	42	0.1	7.761	A
A-BCD	3	640	0.004	3	0.0	5.650	A
A-B	7			7			
A-C	73			73			
D-ABC	5	534	0.008	5	0.0	6.793	A
C-ABD	45	648	0.069	45	0.1	5.969	A
C-D	8			8			
C-A	84			84			



# Junction 1 - 2041 Without Development, AM

## Data Errors and Warnings

Severity	Area	Item	Description
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

## Junction Network

### Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	Crossroads	Two-way		2.78	A

### Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	165	Stream B-ACD

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D11	2041 Without Development	AM	ONE HOUR	08:00	09:30	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

### Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		✓	202	100.000
B		✓	102	100.000
C		✓	162	100.000
D		✓	32	100.000

## Origin-Destination Data

### Demand (PCU/hr)

		To			
		A	B	C	D
From	A	0	1	187	14
	B	18	0	64	20
	C	120	19	0	23
	D	9	3	20	0

## Vehicle Mix

### Heavy Vehicle Percentages

		To			
		A	B	C	D
From	A	0	0	0	0
	B	0	0	0	0
	C	0	0	0	0
	D	0	0	0	0

## Results

### Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-ACD	0.22	8.85	0.3	A
A-BCD	0.03	5.34	0.0	A
A-B				
A-C				
D-ABC	0.07	7.63	0.1	A
C-ABD	0.04	5.81	0.1	A
C-D				
C-A				

### Main Results for each time segment

#### 08:00 - 08:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	77	541	0.142	76	0.2	7.726	A
A-BCD	13	687	0.019	13	0.0	5.341	A
A-B	0.74			0.74			
A-C	138			138			
D-ABC	24	538	0.045	24	0.0	7.006	A
C-ABD	17	638	0.027	17	0.0	5.802	A
C-D	17			17			
C-A	88			88			

#### 08:15 - 08:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	92	532	0.172	92	0.2	8.165	A
A-BCD	17	700	0.024	17	0.0	5.265	A
A-B	0.88			0.88			
A-C	164			164			
D-ABC	29	525	0.055	29	0.1	7.258	A
C-ABD	21	645	0.033	21	0.0	5.768	A
C-D	20			20			
C-A	104			104			

08:30 - 08:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	112	519	0.216	112	0.3	8.837	A
A-BCD	22	718	0.030	22	0.0	5.166	A
A-B	1			1			
A-C	200			200			
D-ABC	35	507	0.070	35	0.1	7.632	A
C-ABD	28	656	0.042	28	0.1	5.724	A
C-D	24			24			
C-A	127			127			

08:45 - 09:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	112	519	0.216	112	0.3	8.848	A
A-BCD	22	718	0.030	22	0.0	5.166	A
A-B	1			1			
A-C	200			200			
D-ABC	35	507	0.070	35	0.1	7.633	A
C-ABD	28	656	0.042	28	0.1	5.727	A
C-D	24			24			
C-A	127			127			

09:00 - 09:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	92	532	0.172	92	0.2	8.184	A
A-BCD	17	700	0.024	17	0.0	5.266	A
A-B	0.88			0.88			
A-C	164			164			
D-ABC	29	525	0.055	29	0.1	7.261	A
C-ABD	21	645	0.033	21	0.0	5.770	A
C-D	20			20			
C-A	104			104			

09:15 - 09:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	77	541	0.142	77	0.2	7.756	A
A-BCD	13	687	0.019	13	0.0	5.344	A
A-B	0.74			0.74			
A-C	138			138			
D-ABC	24	537	0.045	24	0.0	7.013	A
C-ABD	17	638	0.027	17	0.0	5.806	A
C-D	17			17			
C-A	88			88			

# Junction 1 - 2041 Without Development, PM

## Data Errors and Warnings

Severity	Area	Item	Description
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

## Junction Network

### Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	Crossroads	Two-way		2.59	A

### Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	283	Stream B-ACD

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D12	2041 Without Development	PM	ONE HOUR	17:00	18:30	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

### Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		✓	88	100.000
B		✓	46	100.000
C		✓	178	100.000
D		✓	5	100.000

## Origin-Destination Data

### Demand (PCU/hr)

		To			
		A	B	C	D
From	A	0	10	74	4
	B	10	0	5	31
	C	118	49	0	11
	D	1	0	4	0

## Vehicle Mix

Heavy Vehicle Percentages

From		To			
		A	B	C	D
A	0	0	0	0	0
B	0	0	0	0	0
C	0	0	0	0	0
D	0	0	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-ACD	0.11	8.73	0.1	A
A-BCD	0.01	5.75	0.0	A
A-B				
A-C				
D-ABC	0.01	6.99	0.0	A
C-ABD	0.10	5.95	0.1	A
C-D				
C-A				

Main Results for each time segment

17:00 - 17:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	35	481	0.072	34	0.1	8.047	A
A-BCD	3	630	0.005	3	0.0	5.747	A
A-B	7			7			
A-C	55			55			
D-ABC	4	544	0.007	4	0.0	6.665	A
C-ABD	43	650	0.067	43	0.1	5.929	A
C-D	8			8			
C-A	83			83			

17:15 - 17:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	41	474	0.087	41	0.1	8.325	A
A-BCD	4	631	0.006	4	0.0	5.741	A
A-B	9			9			
A-C	66			66			
D-ABC	4	534	0.008	4	0.0	6.797	A
C-ABD	54	660	0.081	53	0.1	5.936	A
C-D	9			9			
C-A	97			97			

17:30 - 17:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	51	463	0.109	51	0.1	8.727	A
A-BCD	5	633	0.008	5	0.0	5.730	A
A-B	11			11			
A-C	81			81			
D-ABC	6	521	0.011	5	0.0	6.986	A
C-ABD	68	674	0.102	68	0.1	5.948	A
C-D	11			11			
C-A	117			117			

17:45 - 18:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	51	463	0.109	51	0.1	8.731	A
A-BCD	5	633	0.008	5	0.0	5.732	A
A-B	11			11			
A-C	81			81			
D-ABC	6	521	0.011	6	0.0	6.987	A
C-ABD	68	674	0.102	68	0.1	5.950	A
C-D	11			11			
C-A	117			117			

18:00 - 18:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	41	474	0.087	41	0.1	8.332	A
A-BCD	4	631	0.006	4	0.0	5.744	A
A-B	9			9			
A-C	66			66			
D-ABC	4	534	0.008	5	0.0	6.801	A
C-ABD	54	660	0.081	54	0.1	5.943	A
C-D	9			9			
C-A	97			97			

18:15 - 18:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	35	481	0.072	35	0.1	8.063	A
A-BCD	3	629	0.005	3	0.0	5.749	A
A-B	7			7			
A-C	55			55			
D-ABC	4	544	0.007	4	0.0	6.670	A
C-ABD	43	650	0.067	44	0.1	5.938	A
C-D	8			8			
C-A	83			83			

# Junction 1 - 2041 With Development, AM

## Data Errors and Warnings

Severity	Area	Item	Description
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

## Junction Network

### Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	Crossroads	Two-way		2.67	A

### Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	156	Stream B-ACD

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D13	2041 With Development	AM	ONE HOUR	08:00	09:30	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

### Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		✓	204	100.000
B		✓	103	100.000
C		✓	207	100.000
D		✓	32	100.000

## Origin-Destination Data

### Demand (PCU/hr)

		To			
		A	B	C	D
From	A	0	1	189	14
	B	18	0	65	20
	C	154	24	0	29
	D	9	3	20	0

## Vehicle Mix

### Heavy Vehicle Percentages

		To			
		A	B	C	D
From	A	0	0	0	0
	B	0	0	0	0
	C	0	0	0	0
	D	0	0	0	0

## Results

### Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-ACD	0.22	8.97	0.3	A
A-BCD	0.03	5.40	0.0	A
A-B				
A-C				
D-ABC	0.07	7.84	0.1	A
C-ABD	0.05	5.67	0.1	A
C-D				
C-A				

### Main Results for each time segment

#### 08:00 - 08:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	78	539	0.144	77	0.2	7.783	A
A-BCD	13	680	0.020	13	0.0	5.396	A
A-B	0.74			0.74			
A-C	139			139			
D-ABC	24	529	0.046	24	0.0	7.124	A
C-ABD	23	658	0.035	23	0.0	5.665	A
C-D	21			21			
C-A	112			112			

#### 08:15 - 08:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	93	529	0.175	92	0.2	8.246	A
A-BCD	17	692	0.024	17	0.0	5.329	A
A-B	0.88			0.88			
A-C	166			166			
D-ABC	29	514	0.056	29	0.1	7.411	A
C-ABD	29	670	0.043	29	0.1	5.616	A
C-D	25			25			
C-A	132			132			

08:30 - 08:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	113	515	0.220	113	0.3	8.954	A
A-BCD	22	709	0.031	22	0.0	5.240	A
A-B	1			1			
A-C	202			202			
D-ABC	35	494	0.071	35	0.1	7.841	A
C-ABD	37	687	0.055	37	0.1	5.545	A
C-D	30			30			
C-A	160			160			

08:45 - 09:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	113	515	0.220	113	0.3	8.967	A
A-BCD	22	709	0.031	22	0.0	5.242	A
A-B	1			1			
A-C	202			202			
D-ABC	35	494	0.071	35	0.1	7.844	A
C-ABD	38	687	0.055	37	0.1	5.547	A
C-D	30			30			
C-A	160			160			

09:00 - 09:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	93	529	0.175	93	0.2	8.265	A
A-BCD	17	692	0.024	17	0.0	5.330	A
A-B	0.88			0.88			
A-C	166			166			
D-ABC	29	514	0.056	29	0.1	7.415	A
C-ABD	29	670	0.043	29	0.1	5.619	A
C-D	25			25			
C-A	132			132			

09:15 - 09:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	78	539	0.144	78	0.2	7.813	A
A-BCD	13	680	0.020	13	0.0	5.400	A
A-B	0.74			0.74			
A-C	139			139			
D-ABC	24	529	0.046	24	0.0	7.132	A
C-ABD	23	658	0.035	23	0.0	5.670	A
C-D	21			21			
C-A	112			112			

# Junction 1 - 2041 With Development, PM

## Data Errors and Warnings

Severity	Area	Item	Description
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

## Junction Network

### Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	Crossroads	Two-way		2.61	A

### Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	233	Stream B-ACD

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D14	2041 With Development	PM	ONE HOUR	17:00	18:30	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

### Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		✓	119	100.000
B		✓	60	100.000
C		✓	197	100.000
D		✓	6	100.000

## Origin-Destination Data

### Demand (PCU/hr)

		To			
		A	B	C	D
From	A	0	10	105	4
	B	10	0	19	31
	C	130	54	0	13
	D	1	0	5	0

## Vehicle Mix

Heavy Vehicle Percentages

		To			
		A	B	C	D
From	A	0	0	0	0
	B	0	0	0	0
	C	0	0	0	0
	D	0	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-ACD	0.14	8.67	0.2	A
A-BCD	0.01	5.64	0.0	A
A-B				
A-C				
D-ABC	0.01	7.26	0.0	A
C-ABD	0.11	6.01	0.2	A
C-D				
C-A				

Main Results for each time segment

17:00 - 17:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	45	502	0.090	45	0.1	7.864	A
A-BCD	3	642	0.005	3	0.0	5.640	A
A-B	7			7			
A-C	79			79			
D-ABC	5	530	0.009	4	0.0	6.850	A
C-ABD	49	652	0.075	48	0.1	5.962	A
C-D	9			9			
C-A	91			91			

17:15 - 17:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	54	493	0.109	54	0.1	8.186	A
A-BCD	4	646	0.007	4	0.0	5.612	A
A-B	9			9			
A-C	94			94			
D-ABC	5	518	0.010	5	0.0	7.018	A
C-ABD	60	662	0.091	60	0.1	5.979	A
C-D	11			11			
C-A	106			106			

17:30 - 17:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	66	481	0.137	66	0.2	8.660	A
A-BCD	5	651	0.008	5	0.0	5.572	A
A-B	11			11			
A-C	115			115			
D-ABC	7	502	0.013	7	0.0	7.263	A
C-ABD	78	677	0.115	77	0.2	6.006	A
C-D	13			13			
C-A	127			127			

17:45 - 18:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	66	481	0.137	66	0.2	8.666	A
A-BCD	5	651	0.008	5	0.0	5.575	A
A-B	11			11			
A-C	115			115			
D-ABC	7	502	0.013	7	0.0	7.264	A
C-ABD	78	677	0.115	78	0.2	6.010	A
C-D	13			13			
C-A	127			127			

18:00 - 18:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	54	493	0.109	54	0.1	8.196	A
A-BCD	4	646	0.007	4	0.0	5.613	A
A-B	9			9			
A-C	94			94			
D-ABC	5	518	0.010	5	0.0	7.020	A
C-ABD	60	662	0.091	61	0.1	5.984	A
C-D	11			11			
C-A	106			106			

18:15 - 18:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	45	502	0.090	45	0.1	7.882	A
A-BCD	3	642	0.005	3	0.0	5.643	A
A-B	7			7			
A-C	79			79			
D-ABC	5	530	0.009	5	0.0	6.853	A
C-ABD	49	652	0.075	49	0.1	5.973	A
C-D	9			9			
C-A	90			90			

<b>Junctions 9</b>
<b>PICADY 9 - Priority Intersection Module</b>
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Filename: Junction 2.j9  
 Path: N:\TIA\20\_131TT\_Glounthaune Westhill\Traffic Modelling  
 Report generation date: 29/11/2021 16:32:42

- »Junction 2 - 2021, AM
- »Junction 2 - 2021, PM
- »Junction 2 - 2026 Without Development, AM
- »Junction 2 - 2026 Without Development, PM
- »Junction 2 - 2026 With Development, AM
- »Junction 2 - 2026 With Development, PM
- »Junction 2 - 2031 Without Development, AM
- »Junction 2 - 2031 Without Development, PM
- »Junction 2 - 2031 With Development, AM
- »Junction 2 - 2031 With Development, PM
- »Junction 2 - 2041 Without Development, AM
- »Junction 2 - 2041 Without Development, PM
- »Junction 2 - 2041 With Development, AM
- »Junction 2 - 2041 With Development, PM

Summary of junction performance

	AM						PM					
	Set ID	Queue (PCU)	Delay (s)	RFC	LOS	Network Residual Capacity	Set ID	Queue (PCU)	Delay (s)	RFC	LOS	Network Residual Capacity
<b>Junction 2 - 2021</b>												
Stream B-AC	D1	0.0	7.98	0.04	A	412 %	D2	0.0	8.06	0.02	A	578 %
Stream C-AB		0.0	5.09	0.00	A	[Stream B-AC]		0.0	5.69	0.00	A	[Stream B-AC]
<b>Junction 2 - 2026 Without Development</b>												
Stream B-AC	D3	0.0	8.12	0.04	A	376 %	D4	0.0	8.12	0.04	A	376 %
Stream C-AB		0.0	5.05	0.00	A	[Stream B-AC]		0.0	5.05	0.00	A	[Stream B-AC]
<b>Junction 2 - 2026 With Development</b>												
Stream B-AC	D5	0.0	8.66	0.04	A	258 %	D6	0.0	8.81	0.02	A	315 %
Stream C-AB		0.0	4.76	0.01	A	[Stream B-AC]		0.0	5.56	0.01	A	[Stream B-AC]
<b>Junction 2 - 2031 Without Development</b>												
Stream B-AC	D7	0.0	8.19	0.05	A	343 %	D8	0.0	8.23	0.02	A	490 %
Stream C-AB		0.0	4.99	0.00	A	[Stream B-AC]		0.0	5.66	0.00	A	[Stream B-AC]
<b>Junction 2 - 2031 With Development</b>												
Stream B-AC	D9	0.1	8.82	0.05	A	228 %	D10	0.0	8.23	0.02	A	490 %
Stream C-AB		0.0	4.67	0.01	A	[Stream B-AC]		0.0	5.66	0.00	A	[Stream B-AC]
<b>Junction 2 - 2041 Without Development</b>												
Stream B-AC	D11	0.1	8.36	0.05	A	309 %	D12	0.0	8.34	0.02	A	443 %
Stream C-AB		0.0	4.94	0.00	A	[Stream B-AC]		0.0	5.66	0.00	A	[Stream B-AC]
<b>Junction 2 - 2041 With Development</b>												
Stream B-AC	D13	0.1	9.09	0.05	A	202 %	D14	0.0	9.24	0.03	A	248 %
Stream C-AB		0.0	4.60	0.01	A	[Stream B-AC]		0.0	5.52	0.01	A	[Stream B-AC]

There are warnings associated with one or more model runs - see the 'Data Errors and Warnings' tables for each Analysis or Demand Set.

Values shown are the highest values encountered over all time segments. Delay is the maximum value of average delay per arriving vehicle. Network Residual Capacity indicates the amount by which network flow could be increased before a user-definable threshold (see Analysis Options) is met.

File summary

File Description

Title	
Location	
Site number	
Date	23/07/2021
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	MHL\bmurphy
Description	

Units

Distance units	Speed units	Traffic units input	Traffic units results	Flow units	Average delay units	Total delay units	Rate of delay units
m	kph	PCU	PCU	perHour	s	-Min	perMin

Analysis Options

Calculate Queue Percentiles	Calculate residual capacity	Residual capacity criteria type	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)
	✓	Delay	0.85	36.00	20.00

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D1	2021	AM	ONE HOUR	08:00	09:30	15
D2	2021	PM	ONE HOUR	17:00	18:30	15
D3	2026 Without Development	AM	ONE HOUR	08:00	09:30	15
D4	2026 Without Development	PM	ONE HOUR	17:00	18:30	15
D5	2026 With Development	AM	ONE HOUR	08:00	09:30	15
D6	2026 With Development	PM	ONE HOUR	17:00	18:30	15
D7	2031 Without Development	AM	ONE HOUR	08:00	09:30	15
D8	2031 Without Development	PM	ONE HOUR	17:00	18:30	15
D9	2031 With Development	AM	ONE HOUR	08:00	09:30	15
D10	2031 With Development	PM	ONE HOUR	17:00	18:30	15
D11	2041 Without Development	AM	ONE HOUR	08:00	09:30	15
D12	2041 Without Development	PM	ONE HOUR	17:00	18:30	15
D13	2041 With Development	AM	ONE HOUR	08:00	09:30	15
D14	2041 With Development	PM	ONE HOUR	17:00	18:30	15

Analysis Set Details

ID	Name	Network flow scaling factor (%)
A2	Junction 2	100.000

# Junction 2 - 2021, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

## Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way		0.37	A

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	412	Stream B-AC

## Arms

Arms

Arm	Name	Description	Arm type
A	untitled		Major
B	untitled		Minor
C	untitled		Major

Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Has right turn bay	Visibility for right turn (m)	Blocks?	Blocking queue (PCU)
C	6.00			80.0	✓	0.00

Geometries for Arm C are measured opposite Arm B. Geometries for Arm A (if relevant) are measured opposite Arm D.

Minor Arm Geometry

Arm	Minor arm type	Lane width (m)	Visibility to left (m)	Visibility to right (m)
B	One lane	3.00	90	0

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Stream	Intercept (PCU/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
B-A	506	0.092	0.233	0.147	0.333
B-C	624	0.096	0.242	-	-
C-B	620	0.240	0.240	-	-

The slopes and intercepts shown above do NOT include any corrections or adjustments.

Streams may be combined, in which case capacity will be adjusted.

Values are shown for the first time segment only; they may differ for subsequent time segments.



## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D1	2021	AM	ONE HOUR	08:00	09:30	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

### Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		✓	128	100.000
B		✓	16	100.000
C		✓	221	100.000

## Origin-Destination Data

### Demand (PCU/hr)

From	To		
	A	B	C
A	0	6	122
B	12	0	4
C	220	1	0

## Vehicle Mix

### Heavy Vehicle Percentages

From	To		
	A	B	C
A	0	0	0
B	0	0	0
C	0	0	0

## Results

### Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-AC	0.04	7.98	0.0	A
C-AB	0.00	5.09	0.0	A
C-A				
A-B				
A-C				

## Main Results for each time segment

### 08:00 - 08:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	12	489	0.025	12	0.0	7.550	A
C-AB	0.98	708	0.001	0.98	0.0	5.092	A
C-A	165			165			
A-B	5			5			
A-C	92			92			

### 08:15 - 08:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	14	480	0.030	14	0.0	7.727	A
C-AB	1	725	0.002	1	0.0	4.971	A
C-A	197			197			
A-B	5			5			
A-C	110			110			

### 08:30 - 08:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	18	469	0.038	18	0.0	7.981	A
C-AB	2	750	0.002	2	0.0	4.811	A
C-A	242			242			
A-B	7			7			
A-C	134			134			

### 08:45 - 09:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	18	469	0.038	18	0.0	7.981	A
C-AB	2	750	0.002	2	0.0	4.811	A
C-A	242			242			
A-B	7			7			
A-C	134			134			

### 09:00 - 09:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	14	480	0.030	14	0.0	7.730	A
C-AB	1	725	0.002	1	0.0	4.971	A
C-A	197			197			
A-B	5			5			
A-C	110			110			

### 09:15 - 09:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	12	489	0.025	12	0.0	7.557	A
C-AB	0.98	708	0.001	0.99	0.0	5.092	A
C-A	165			165			
A-B	5			5			
A-C	92			92			

# Junction 2 - 2021, PM

## Data Errors and Warnings

Severity	Area	Item	Description
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

## Junction Network

### Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way		0.29	A

### Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	578	Stream B-AC

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D2	2021	PM	ONE HOUR	17:00	18:30	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

### Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		✓	152	100.000
B		✓	8	100.000
C		✓	82	100.000

## Origin-Destination Data

### Demand (PCU/hr)

		To		
		A	B	C
From	A	0	9	143
	B	8	0	0
	C	81	1	0

## Vehicle Mix

### Heavy Vehicle Percentages

		To		
		A	B	C
From	A	0	0	0
	B	0	0	0
	C	0	0	0

## Results

### Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-AC	0.02	8.06	0.0	A
C-AB	0.00	5.69	0.0	A
C-A				
A-B				
A-C				

### Main Results for each time segment

#### 17:00 - 17:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	6	471	0.013	6	0.0	7.735	A
C-AB	0.83	634	0.001	0.83	0.0	5.687	A
C-A	61			61			
A-B	7			7			
A-C	108			108			

#### 17:15 - 17:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	7	465	0.015	7	0.0	7.871	A
C-AB	1	637	0.002	1	0.0	5.664	A
C-A	73			73			
A-B	8			8			
A-C	129			129			

#### 17:30 - 17:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	9	455	0.019	9	0.0	8.065	A
C-AB	1	641	0.002	1	0.0	5.631	A
C-A	89			89			
A-B	10			10			
A-C	157			157			

#### 17:45 - 18:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	9	455	0.019	9	0.0	8.065	A
C-AB	1	641	0.002	1	0.0	5.631	A
C-A	89			89			
A-B	10			10			
A-C	157			157			

18:00 - 18:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	7	465	0.015	7	0.0	7.871	A
C-AB	1	637	0.002	1	0.0	5.666	A
C-A	73			73			
A-B	8			8			
A-C	129			129			

18:15 - 18:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	6	471	0.013	6	0.0	7.737	A
C-AB	0.83	634	0.001	0.83	0.0	5.690	A
C-A	61			61			
A-B	7			7			
A-C	108			108			

## Junction 2 - 2026 Without Development, AM

### Data Errors and Warnings

Severity	Area	Item	Description
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

## Junction Network

### Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way		0.37	A

### Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	376	Stream B-AC

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D3	2026 Without Development	AM	ONE HOUR	08:00	09:30	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

### Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		✓	137	100.000
B		✓	17	100.000
C		✓	237	100.000

## Origin-Destination Data

### Demand (PCU/hr)

		To		
		A	B	C
From	A	0	6	131
	B	13	0	4
	C	236	1	0

## Vehicle Mix

### Heavy Vehicle Percentages

		To		
		A	B	C
From	A	0	0	0
	B	0	0	0
	C	0	0	0

## Results

### Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-AC	0.04	8.12	0.0	A
C-AB	0.00	5.05	0.0	A
C-A				
A-B				
A-C				

### Main Results for each time segment

#### 08:00 - 08:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	13	484	0.026	13	0.0	7.641	A
C-AB	1	714	0.001	1.00	0.0	5.045	A
C-A	177			177			
A-B	5			5			
A-C	99			99			

#### 08:15 - 08:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	15	475	0.032	15	0.0	7.836	A
C-AB	1	733	0.002	1	0.0	4.917	A
C-A	212			212			
A-B	5			5			
A-C	118			118			

#### 08:30 - 08:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	19	462	0.041	19	0.0	8.118	A
C-AB	2	760	0.002	2	0.0	4.749	A
C-A	259			259			
A-B	7			7			
A-C	144			144			

#### 08:45 - 09:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	19	462	0.041	19	0.0	8.118	A
C-AB	2	760	0.002	2	0.0	4.751	A
C-A	259			259			
A-B	7			7			
A-C	144			144			

#### 09:00 - 09:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	15	475	0.032	15	0.0	7.839	A
C-AB	1	733	0.002	1	0.0	4.919	A
C-A	212			212			
A-B	5			5			
A-C	118			118			

#### 09:15 - 09:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	13	484	0.026	13	0.0	7.648	A
C-AB	1	714	0.001	1	0.0	5.047	A
C-A	177			177			
A-B	5			5			
A-C	99			99			

# Junction 2 - 2026 Without Development, PM

## Data Errors and Warnings

Severity	Area	Item	Description
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

## Junction Network

### Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way		0.37	A

### Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	376	Stream B-AC

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D4	2026 Without Development	PM	ONE HOUR	17:00	18:30	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

### Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		✓	137	100.000
B		✓	17	100.000
C		✓	237	100.000

## Origin-Destination Data

### Demand (PCU/hr)

		To		
		A	B	C
From	A	0	6	131
	B	13	0	4
	C	236	1	0

## Vehicle Mix

### Heavy Vehicle Percentages

		To		
		A	B	C
From	A	0	0	0
	B	0	0	0
	C	0	0	0

## Results

### Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-AC	0.04	8.12	0.0	A
C-AB	0.00	5.05	0.0	A
C-A				
A-B				
A-C				

### Main Results for each time segment

#### 17:00 - 17:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	13	484	0.026	13	0.0	7.641	A
C-AB	1	714	0.001	1.00	0.0	5.045	A
C-A	177			177			
A-B	5			5			
A-C	99			99			

#### 17:15 - 17:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	15	475	0.032	15	0.0	7.836	A
C-AB	1	733	0.002	1	0.0	4.917	A
C-A	212			212			
A-B	5			5			
A-C	118			118			

#### 17:30 - 17:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	19	462	0.041	19	0.0	8.118	A
C-AB	2	760	0.002	2	0.0	4.749	A
C-A	259			259			
A-B	7			7			
A-C	144			144			

#### 17:45 - 18:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	19	462	0.041	19	0.0	8.118	A
C-AB	2	760	0.002	2	0.0	4.751	A
C-A	259			259			
A-B	7			7			
A-C	144			144			

18:00 - 18:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	15	475	0.032	15	0.0	7.839	A
C-AB	1	733	0.002	1	0.0	4.919	A
C-A	212			212			
A-B	5			5			
A-C	118			118			

18:15 - 18:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	13	484	0.026	13	0.0	7.648	A
C-AB	1	714	0.001	1	0.0	5.047	A
C-A	177			177			
A-B	5			5			
A-C	99			99			

## Junction 2 - 2026 With Development, AM

### Data Errors and Warnings

Severity	Area	Item	Description
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

## Junction Network

### Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way		0.31	A

### Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	258	Stream B-AC

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D5	2026 With Development	AM	ONE HOUR	08:00	09:30	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

### Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		✓	183	100.000
B		✓	17	100.000
C		✓	344	100.000

## Origin-Destination Data

### Demand (PCU/hr)

		To		
		A	B	C
From	A	0	6	177
	B	13	0	4
	C	341	3	0

## Vehicle Mix

### Heavy Vehicle Percentages

		To		
		A	B	C
From	A	0	0	0
	B	0	0	0
	C	0	0	0

## Results

### Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-AC	0.04	8.66	0.0	A
C-AB	0.01	4.76	0.0	A
C-A				
A-B				
A-C				

### Main Results for each time segment

#### 08:00 - 08:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	13	465	0.028	13	0.0	7.957	A
C-AB	3	760	0.004	3	0.0	4.756	A
C-A	256			256			
A-B	5			5			
A-C	133			133			

#### 08:15 - 08:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	15	452	0.034	15	0.0	8.237	A
C-AB	4	788	0.006	4	0.0	4.591	A
C-A	305			305			
A-B	5			5			
A-C	159			159			

#### 08:30 - 08:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	19	435	0.043	19	0.0	8.656	A
C-AB	6	828	0.007	6	0.0	4.379	A
C-A	373			373			
A-B	7			7			
A-C	195			195			

#### 08:45 - 09:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	19	435	0.043	19	0.0	8.656	A
C-AB	6	828	0.007	6	0.0	4.381	A
C-A	373			373			
A-B	7			7			
A-C	195			195			

#### 09:00 - 09:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	15	452	0.034	15	0.0	8.239	A
C-AB	4	788	0.006	4	0.0	4.591	A
C-A	305			305			
A-B	5			5			
A-C	159			159			

#### 09:15 - 09:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	13	465	0.028	13	0.0	7.961	A
C-AB	3	760	0.005	3	0.0	4.758	A
C-A	256			256			
A-B	5			5			
A-C	133			133			

# Junction 2 - 2026 With Development, PM

## Data Errors and Warnings

Severity	Area	Item	Description
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

## Junction Network

### Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way		0.24	A

### Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	315	Stream B-AC

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D6	2026 With Development	PM	ONE HOUR	17:00	18:30	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

### Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		✓	252	100.000
B		✓	9	100.000
C		✓	149	100.000

## Origin-Destination Data

### Demand (PCU/hr)

		To		
		A	B	C
From	A	0	10	242
	B	9	0	0
	C	146	3	0

## Vehicle Mix

### Heavy Vehicle Percentages

		To		
		A	B	C
From	A	0	0	0
	B	0	0	0
	C	0	0	0

## Results

### Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-AC	0.02	8.81	0.0	A
C-AB	0.01	5.56	0.0	A
C-A				
A-B				
A-C				

### Main Results for each time segment

#### 17:00 - 17:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	7	446	0.015	7	0.0	8.190	A
C-AB	3	650	0.004	3	0.0	5.565	A
C-A	109			109			
A-B	8			8			
A-C	182			182			

#### 17:15 - 17:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	8	435	0.019	8	0.0	8.441	A
C-AB	3	656	0.005	3	0.0	5.516	A
C-A	131			131			
A-B	9			9			
A-C	218			218			

#### 17:30 - 17:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	10	418	0.024	10	0.0	8.812	A
C-AB	4	665	0.007	4	0.0	5.449	A
C-A	160			160			
A-B	11			11			
A-C	266			266			

#### 17:45 - 18:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	10	418	0.024	10	0.0	8.812	A
C-AB	4	665	0.007	4	0.0	5.449	A
C-A	160			160			
A-B	11			11			
A-C	266			266			



18:00 - 18:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	8	435	0.019	8	0.0	8.442	A
C-AB	3	656	0.005	3	0.0	5.519	A
C-A	131			131			
A-B	9			9			
A-C	218			218			

18:15 - 18:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	7	446	0.015	7	0.0	8.193	A
C-AB	3	650	0.004	3	0.0	5.565	A
C-A	109			109			
A-B	8			8			
A-C	182			182			

## Junction 2 - 2031 Without Development, AM

### Data Errors and Warnings

Severity	Area	Item	Description
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

## Junction Network

### Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way		0.39	A

### Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	343	Stream B-AC

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D7	2031 Without Development	AM	ONE HOUR	08:00	09:30	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

### Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		✓	148	100.000
B		✓	19	100.000
C		✓	255	100.000

## Origin-Destination Data

### Demand (PCU/hr)

		To		
		A	B	C
From	A	0	7	141
	B	14	0	5
	C	254	1	0

## Vehicle Mix

### Heavy Vehicle Percentages

		To		
		A	B	C
From	A	0	0	0
	B	0	0	0
	C	0	0	0

## Results

### Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-AC	0.05	8.19	0.0	A
C-AB	0.00	4.99	0.0	A
C-A				
A-B				
A-C				

### Main Results for each time segment

#### 08:00 - 08:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	14	484	0.030	14	0.0	7.667	A
C-AB	1	722	0.001	1	0.0	4.994	A
C-A	191			191			
A-B	5			5			
A-C	106			106			

#### 08:15 - 08:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	17	474	0.036	17	0.0	7.879	A
C-AB	1	742	0.002	1	0.0	4.859	A
C-A	228			228			
A-B	6			6			
A-C	127			127			

#### 08:30 - 08:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	21	461	0.045	21	0.0	8.187	A
C-AB	2	771	0.002	2	0.0	4.682	A
C-A	279			279			
A-B	8			8			
A-C	155			155			

#### 08:45 - 09:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	21	461	0.045	21	0.0	8.187	A
C-AB	2	771	0.002	2	0.0	4.682	A
C-A	279			279			
A-B	8			8			
A-C	155			155			

#### 09:00 - 09:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	17	474	0.036	17	0.0	7.880	A
C-AB	1	742	0.002	1	0.0	4.859	A
C-A	228			228			
A-B	6			6			
A-C	127			127			

#### 09:15 - 09:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	14	484	0.030	14	0.0	7.671	A
C-AB	1	722	0.001	1	0.0	4.994	A
C-A	191			191			
A-B	5			5			
A-C	106			106			

# Junction 2 - 2031 Without Development, PM

## Data Errors and Warnings

Severity	Area	Item	Description
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

## Junction Network

### Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way		0.29	A

### Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	490	Stream B-AC

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D8	2031 Without Development	PM	ONE HOUR	17:00	18:30	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

### Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		✓	175	100.000
B		✓	9	100.000
C		✓	95	100.000

## Origin-Destination Data

### Demand (PCU/hr)

		To		
		A	B	C
From	A	0	10	165
	B	9	0	0
	C	94	1	0

## Vehicle Mix

### Heavy Vehicle Percentages

		To		
		A	B	C
From	A	0	0	0
	B	0	0	0
	C	0	0	0

## Results

### Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-AC	0.02	8.23	0.0	A
C-AB	0.00	5.66	0.0	A
C-A				
A-B				
A-C				

### Main Results for each time segment

#### 17:00 - 17:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	7	466	0.015	7	0.0	7.838	A
C-AB	0.85	636	0.001	0.84	0.0	5.665	A
C-A	71			71			
A-B	8			8			
A-C	124			124			

#### 17:15 - 17:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	8	458	0.018	8	0.0	7.999	A
C-AB	1	640	0.002	1	0.0	5.636	A
C-A	84			84			
A-B	9			9			
A-C	148			148			

#### 17:30 - 17:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	10	447	0.022	10	0.0	8.230	A
C-AB	1	644	0.002	1	0.0	5.596	A
C-A	103			103			
A-B	11			11			
A-C	182			182			

#### 17:45 - 18:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	10	447	0.022	10	0.0	8.230	A
C-AB	1	644	0.002	1	0.0	5.598	A
C-A	103			103			
A-B	11			11			
A-C	182			182			

18:00 - 18:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	8	458	0.018	8	0.0	7.999	A
C-AB	1	640	0.002	1	0.0	5.638	A
C-A	84			84			
A-B	9			9			
A-C	148			148			

18:15 - 18:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	7	466	0.015	7	0.0	7.840	A
C-AB	0.85	636	0.001	0.85	0.0	5.665	A
C-A	71			71			
A-B	8			8			
A-C	124			124			

## Junction 2 - 2031 With Development, AM

### Data Errors and Warnings

Severity	Area	Item	Description
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

## Junction Network

### Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way		0.32	A

### Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	228	Stream B-AC

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D9	2031 With Development	AM	ONE HOUR	08:00	09:30	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

### Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		✓	201	100.000
B		✓	19	100.000
C		✓	379	100.000

## Origin-Destination Data

### Demand (PCU/hr)

		To		
		A	B	C
From	A	0	7	194
	B	14	0	5
	C	376	3	0

## Vehicle Mix

### Heavy Vehicle Percentages

		To		
		A	B	C
From	A	0	0	0
	B	0	0	0
	C	0	0	0

## Results

### Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-AC	0.05	8.82	0.1	A
C-AB	0.01	4.67	0.0	A
C-A				
A-B				
A-C				

### Main Results for each time segment

#### 08:00 - 08:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	14	462	0.031	14	0.0	8.033	A
C-AB	4	775	0.005	4	0.0	4.665	A
C-A	282			282			
A-B	5			5			
A-C	146			146			

#### 08:15 - 08:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	17	448	0.038	17	0.0	8.347	A
C-AB	5	807	0.006	5	0.0	4.488	A
C-A	336			336			
A-B	6			6			
A-C	174			174			

#### 08:30 - 08:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	21	429	0.049	21	0.1	8.819	A
C-AB	6	851	0.008	6	0.0	4.263	A
C-A	411			411			
A-B	8			8			
A-C	214			214			

#### 08:45 - 09:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	21	429	0.049	21	0.1	8.821	A
C-AB	6	851	0.008	6	0.0	4.265	A
C-A	411			411			
A-B	8			8			
A-C	214			214			

#### 09:00 - 09:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	17	448	0.038	17	0.0	8.348	A
C-AB	5	807	0.006	5	0.0	4.490	A
C-A	336			336			
A-B	6			6			
A-C	174			174			

#### 09:15 - 09:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	14	462	0.031	14	0.0	8.039	A
C-AB	4	775	0.005	4	0.0	4.667	A
C-A	282			282			
A-B	5			5			
A-C	146			146			

# Junction 2 - 2031 With Development, PM

## Data Errors and Warnings

Severity	Area	Item	Description
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

## Junction Network

### Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way		0.29	A

### Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	490	Stream B-AC

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D10	2031 With Development	PM	ONE HOUR	17:00	18:30	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

### Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		✓	175	100.000
B		✓	9	100.000
C		✓	95	100.000

## Origin-Destination Data

### Demand (PCU/hr)

		To		
		A	B	C
From	A	0	10	165
	B	9	0	0
	C	94	1	0

## Vehicle Mix

### Heavy Vehicle Percentages

		To		
		A	B	C
From	A	0	0	0
	B	0	0	0
	C	0	0	0

## Results

### Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-AC	0.02	8.23	0.0	A
C-AB	0.00	5.66	0.0	A
C-A				
A-B				
A-C				

### Main Results for each time segment

#### 17:00 - 17:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	7	466	0.015	7	0.0	7.838	A
C-AB	0.85	636	0.001	0.84	0.0	5.665	A
C-A	71			71			
A-B	8			8			
A-C	124			124			

#### 17:15 - 17:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	8	458	0.018	8	0.0	7.999	A
C-AB	1	640	0.002	1	0.0	5.636	A
C-A	84			84			
A-B	9			9			
A-C	148			148			

#### 17:30 - 17:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	10	447	0.022	10	0.0	8.230	A
C-AB	1	644	0.002	1	0.0	5.596	A
C-A	103			103			
A-B	11			11			
A-C	182			182			

#### 17:45 - 18:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	10	447	0.022	10	0.0	8.230	A
C-AB	1	644	0.002	1	0.0	5.598	A
C-A	103			103			
A-B	11			11			
A-C	182			182			

18:00 - 18:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	8	458	0.018	8	0.0	7.999	A
C-AB	1	640	0.002	1	0.0	5.638	A
C-A	84			84			
A-B	9			9			
A-C	148			148			

18:15 - 18:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	7	466	0.015	7	0.0	7.840	A
C-AB	0.85	636	0.001	0.85	0.0	5.665	A
C-A	71			71			
A-B	8			8			
A-C	124			124			

## Junction 2 - 2041 Without Development, AM

### Data Errors and Warnings

Severity	Area	Item	Description
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

## Junction Network

### Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way		0.38	A

### Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	309	Stream B-AC

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D11	2041 Without Development	AM	ONE HOUR	08:00	09:30	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

### Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		✓	161	100.000
B		✓	20	100.000
C		✓	276	100.000

## Origin-Destination Data

### Demand (PCU/hr)

	From	To		
		A	B	C
	A	0	8	153
	B	15	0	5
	C	275	1	0

## Vehicle Mix

### Heavy Vehicle Percentages

	From	To		
		A	B	C
	A	0	0	0
	B	0	0	0
	C	0	0	0

## Results

### Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-AC	0.05	8.36	0.1	A
C-AB	0.00	4.94	0.0	A
C-A				
A-B				
A-C				

### Main Results for each time segment

#### 08:00 - 08:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	15	478	0.032	15	0.0	7.777	A
C-AB	1	730	0.001	1	0.0	4.936	A
C-A	207			207			
A-B	6			6			
A-C	115			115			

#### 08:15 - 08:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	18	467	0.038	18	0.0	8.012	A
C-AB	1	752	0.002	1	0.0	4.793	A
C-A	247			247			
A-B	7			7			
A-C	138			138			

#### 08:30 - 08:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	22	453	0.049	22	0.1	8.357	A
C-AB	2	783	0.002	2	0.0	4.606	A
C-A	302			302			
A-B	9			9			
A-C	168			168			

#### 08:45 - 09:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	22	453	0.049	22	0.1	8.359	A
C-AB	2	783	0.002	2	0.0	4.606	A
C-A	302			302			
A-B	9			9			
A-C	168			168			

#### 09:00 - 09:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	18	467	0.038	18	0.0	8.015	A
C-AB	1	752	0.002	1	0.0	4.793	A
C-A	247			247			
A-B	7			7			
A-C	138			138			

#### 09:15 - 09:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	15	478	0.032	15	0.0	7.782	A
C-AB	1	730	0.001	1	0.0	4.936	A
C-A	207			207			
A-B	6			6			
A-C	115			115			



# Junction 2 - 2041 Without Development, PM

## Data Errors and Warnings

Severity	Area	Item	Description
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

## Junction Network

### Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way		0.30	A

### Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	443	Stream B-AC

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D12	2041 Without Development	PM	ONE HOUR	17:00	18:30	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

### Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		✓	190	100.000
B		✓	10	100.000
C		✓	102	100.000

## Origin-Destination Data

### Demand (PCU/hr)

		To		
		A	B	C
From	A	0	11	179
	B	10	0	0
	C	101	1	0

## Vehicle Mix

### Heavy Vehicle Percentages

		To		
		A	B	C
From	A	0	0	0
	B	0	0	0
	C	0	0	0

## Results

### Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-AC	0.02	8.34	0.0	A
C-AB	0.00	5.66	0.0	A
C-A				
A-B				
A-C				

### Main Results for each time segment

#### 17:00 - 17:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	8	463	0.016	7	0.0	7.908	A
C-AB	0.85	637	0.001	0.85	0.0	5.656	A
C-A	76			76			
A-B	8			8			
A-C	135			135			

#### 17:15 - 17:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	9	454	0.020	9	0.0	8.086	A
C-AB	1	641	0.002	1	0.0	5.626	A
C-A	91			91			
A-B	10			10			
A-C	161			161			

#### 17:30 - 17:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	11	442	0.025	11	0.0	8.343	A
C-AB	1	646	0.002	1	0.0	5.583	A
C-A	111			111			
A-B	12			12			
A-C	197			197			

#### 17:45 - 18:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	11	442	0.025	11	0.0	8.343	A
C-AB	1	646	0.002	1	0.0	5.583	A
C-A	111			111			
A-B	12			12			
A-C	197			197			

18:00 - 18:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	9	454	0.020	9	0.0	8.088	A
C-AB	1	641	0.002	1	0.0	5.628	A
C-A	91			91			
A-B	10			10			
A-C	161			161			

18:15 - 18:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	8	463	0.016	8	0.0	7.911	A
C-AB	0.86	637	0.001	0.86	0.0	5.658	A
C-A	76			76			
A-B	8			8			
A-C	135			135			

## Junction 2 - 2041 With Development, AM

### Data Errors and Warnings

Severity	Area	Item	Description
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

## Junction Network

### Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way		0.33	A

### Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	202	Stream B-AC

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D13	2041 With Development	AM	ONE HOUR	08:00	09:30	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

### Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		✓	218	100.000
B		✓	20	100.000
C		✓	411	100.000

## Origin-Destination Data

### Demand (PCU/hr)

		To		
		A	B	C
From	A	0	8	210
	B	15	0	5
	C	407	4	0

## Vehicle Mix

### Heavy Vehicle Percentages

		To		
		A	B	C
From	A	0	0	0
	B	0	0	0
	C	0	0	0

## Results

### Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-AC	0.05	9.09	0.1	A
C-AB	0.01	4.60	0.0	A
C-A				
A-B				
A-C				

### Main Results for each time segment

#### 08:00 - 08:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	15	454	0.033	15	0.0	8.189	A
C-AB	5	788	0.006	5	0.0	4.594	A
C-A	304			304			
A-B	6			6			
A-C	158			158			

#### 08:15 - 08:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	18	439	0.041	18	0.0	8.546	A
C-AB	6	823	0.008	6	0.0	4.410	A
C-A	363			363			
A-B	7			7			
A-C	189			189			

#### 08:30 - 08:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	22	418	0.053	22	0.1	9.088	A
C-AB	9	871	0.010	9	0.0	4.178	A
C-A	443			443			
A-B	9			9			
A-C	231			231			

#### 08:45 - 09:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	22	418	0.053	22	0.1	9.090	A
C-AB	9	871	0.010	9	0.0	4.179	A
C-A	443			443			
A-B	9			9			
A-C	231			231			

#### 09:00 - 09:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	18	439	0.041	18	0.0	8.548	A
C-AB	6	823	0.008	7	0.0	4.411	A
C-A	363			363			
A-B	7			7			
A-C	189			189			

#### 09:15 - 09:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	15	454	0.033	15	0.0	8.197	A
C-AB	5	788	0.006	5	0.0	4.596	A
C-A	304			304			
A-B	6			6			
A-C	158			158			

# Junction 2 - 2041 With Development, PM

## Data Errors and Warnings

Severity	Area	Item	Description
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

## Junction Network

### Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way		0.25	A

### Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	248	Stream B-AC

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D14	2041 With Development	PM	ONE HOUR	17:00	18:30	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

### Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		✓	302	100.000
B		✓	10	100.000
C		✓	179	100.000

## Origin-Destination Data

### Demand (PCU/hr)

		To		
		A	B	C
From	A	0	11	291
	B	10	0	0
	C	175	4	0

## Vehicle Mix

### Heavy Vehicle Percentages

		To		
		A	B	C
From	A	0	0	0
	B	0	0	0
	C	0	0	0

## Results

### Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-AC	0.03	9.24	0.0	A
C-AB	0.01	5.52	0.0	A
C-A				
A-B				
A-C				

### Main Results for each time segment

#### 17:00 - 17:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	8	434	0.017	7	0.0	8.437	A
C-AB	4	656	0.006	4	0.0	5.518	A
C-A	131			131			
A-B	8			8			
A-C	219			219			

#### 17:15 - 17:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	9	420	0.021	9	0.0	8.757	A
C-AB	5	664	0.007	5	0.0	5.461	A
C-A	156			156			
A-B	10			10			
A-C	262			262			

#### 17:30 - 17:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	11	401	0.027	11	0.0	9.237	A
C-AB	6	675	0.009	6	0.0	5.380	A
C-A	191			191			
A-B	12			12			
A-C	320			320			

#### 17:45 - 18:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	11	401	0.027	11	0.0	9.237	A
C-AB	6	675	0.009	6	0.0	5.382	A
C-A	191			191			
A-B	12			12			
A-C	320			320			

**18:00 - 18:15**

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	9	420	0.021	9	0.0	8.760	A
C-AB	5	664	0.007	5	0.0	5.463	A
C-A	156			156			
A-B	10			10			
A-C	262			262			

**18:15 - 18:30**

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	8	434	0.017	8	0.0	8.442	A
C-AB	4	656	0.006	4	0.0	5.519	A
C-A	131			131			
A-B	8			8			
A-C	219			219			

<b>Junctions 9</b>
<b>PICADY 9 - Priority Intersection Module</b>
Version: 9.5.1.7462 © Copyright TRL Limited, 2019
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**Filename:** Junction 3.j9  
**Path:** N:\TIA\20\_131TT\_Glounthaune Westhill\Traffic Modelling  
**Report generation date:** 29/11/2021 16:37:40

- »2021, AM
- »2021, PM
- »2026 Without Development, AM
- »2026 Without Development, PM
- »2026 With Development, AM
- »2026 With Development, PM
- »2031 Without Development, AM
- »2031 Without Development, PM
- »2031 With Development, AM
- »2031 With Development, PM
- »2041 Without Development, AM
- »2041 Without Development, PM
- »2041 With Development, AM
- »2041 With Development, PM

Summary of junction performance

	AM					Network Residual Capacity	PM					Network Residual Capacity
	Set ID	Queue (PCU)	Delay (s)	RFC	LOS		Set ID	Queue (PCU)	Delay (s)	RFC	LOS	
<b>2021</b>												
Stream B-ACD	D1	0.0	7.80	0.03	A	37 % [Stream D-ABC]	D2	0.0	6.66	0.02	A	188 % [Stream D-ABC]
Stream A-BCD		0.1	6.21	0.09	A			0.0	0.00	0.00	A	
Stream D-ABC		1.1	14.53	0.52	B			0.3	7.82	0.21	A	
Stream C-ABD		0.0	6.07	0.01	A			0.0	5.68	0.01	A	
<b>2026 Without Development</b>												
Stream B-ACD	D3	0.0	7.99	0.03	A	28 % [Stream D-ABC]	D4	0.0	6.87	0.02	A	147 % [Stream D-ABC]
Stream A-BCD		0.1	6.31	0.10	A			0.1	6.40	0.10	A	
Stream D-ABC		1.3	16.37	0.56	C			0.3	8.36	0.23	A	
Stream C-ABD		0.0	6.14	0.01	A			0.0	5.95	0.01	A	
<b>2026 With Development</b>												
Stream B-ACD	D5	0.0	8.18	0.03	A	12 % [Stream D-ABC]	D6	0.0	6.82	0.02	A	139 % [Stream D-ABC]
Stream A-BCD		0.1	6.53	0.13	A			0.0	5.79	0.01	A	
Stream D-ABC		2.1	22.75	0.69	C			0.4	8.58	0.27	A	
Stream C-ABD		0.0	6.23	0.01	A			0.0	5.73	0.01	A	
<b>2031 Without Development</b>												
Stream B-ACD	D7	0.0	8.27	0.03	A	19 % [Stream D-ABC]	D8	0.0	6.85	0.02	A	130 % [Stream D-ABC]
Stream A-BCD		0.1	6.41	0.10	A			0.1	6.52	0.11	A	
Stream D-ABC		1.6	19.37	0.62	C			0.3	8.71	0.25	A	
Stream C-ABD		0.0	6.24	0.01	A			0.0	6.03	0.01	A	
<b>2031 With Development</b>												
Stream B-ACD	D9	0.0	8.53	0.03	A	2 % [Stream D-ABC]	D10	0.0	6.89	0.03	A	119 % [Stream D-ABC]
Stream A-BCD		0.2	6.68	0.14	A			0.0	5.86	0.01	A	
Stream D-ABC		3.1	31.39	0.77	D			0.4	9.04	0.29	A	
Stream C-ABD		0.0	6.34	0.01	A			0.0	5.79	0.01	A	
<b>2041 Without Development</b>												
Stream B-ACD	D11	0.0	8.64	0.04	A	9 % [Stream D-ABC]	D12	0.0	7.17	0.03	A	110 % [Stream D-ABC]
Stream A-BCD		0.1	6.55	0.11	A			0.1	6.68	0.12	A	
Stream D-ABC		2.2	24.31	0.69	C			0.4	9.21	0.28	A	
Stream C-ABD		0.0	6.36	0.01	A			0.0	6.12	0.01	A	
<b>2041 With Development</b>												
Stream B-ACD	D13	0.0	8.96	0.04	A	-5 % [Stream D-ABC]	D14	0.0	7.08	0.03	A	101 % [Stream D-ABC]
Stream A-BCD		0.2	6.84	0.15	A			0.0	5.92	0.01	A	
Stream D-ABC		5.0	47.69	0.85	E			0.5	9.58	0.33	A	
Stream C-ABD		0.0	6.47	0.01	A			0.0	5.85	0.01	A	

There are warnings associated with one or more model runs - see the 'Data Errors and Warnings' tables for each Analysis or Demand Set.

Values shown are the highest values encountered over all time segments. Delay is the maximum value of average delay per arriving vehicle. Network Residual Capacity indicates the amount by which network flow could be increased before a user-definable threshold (see Analysis Options) is met.

File summary

File Description

Title	
Location	
Site number	
Date	23/07/2021
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	MHL\bmurphy
Description	

Units

Distance units	Speed units	Traffic units input	Traffic units results	Flow units	Average delay units	Total delay units	Rate of delay units
m	kph	PCU	PCU	perHour	s	-Min	perMin

Analysis Options

Calculate Queue Percentiles	Calculate residual capacity	Residual capacity criteria type	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)
	✓	Delay	0.85	36.00	20.00

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D1	2021	AM	ONE HOUR	08:00	09:30	15
D2	2021	PM	ONE HOUR	17:00	18:30	15
D3	2026 Without Development	AM	ONE HOUR	08:00	09:30	15
D4	2026 Without Development	PM	ONE HOUR	17:00	18:30	15
D5	2026 With Development	AM	ONE HOUR	08:00	09:30	15
D6	2026 With Development	PM	ONE HOUR	17:00	18:30	15
D7	2031 Without Development	AM	ONE HOUR	08:00	09:30	15
D8	2031 Without Development	PM	ONE HOUR	17:00	18:30	15
D9	2031 With Development	AM	ONE HOUR	08:00	09:30	15
D10	2031 With Development	PM	ONE HOUR	17:00	18:30	15
D11	2041 Without Development	AM	ONE HOUR	08:00	09:30	15
D12	2041 Without Development	PM	ONE HOUR	17:00	18:30	15
D13	2041 With Development	AM	ONE HOUR	08:00	09:30	15
D14	2041 With Development	PM	ONE HOUR	17:00	18:30	15

Analysis Set Details

ID	Network flow scaling factor (%)
A1	100.000

# 2021, AM

## Data Errors and Warnings

Severity	Area	Item	Description
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

## Junction Network

### Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	Crossroads	Two-way		4.98	A

### Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	37	Stream D-ABC

## Arms

### Arms

Arm	Name	Description	Arm type
A	untitled		Major
B	untitled		Minor
C	untitled		Major
D	untitled		Minor

### Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Has right turn bay	Width for right turn (m)	Visibility for right turn (m)	Blocks?	Blocking queue (PCU)
A	6.00		✓	3.00	120.0	✓	3.00
C	6.00		✓	3.00	120.0	✓	3.00

Geometries for Arm C are measured opposite Arm B. Geometries for Arm A (if relevant) are measured opposite Arm D.

### Minor Arm Geometry

Arm	Minor arm type	Lane width (m)	Visibility to left (m)	Visibility to right (m)
B	One lane	3.00	90	105
D	One lane	3.00	250	115

## Slope / Intercept / Capacity

### Priority Intersection Slopes and Intercepts

Stream	Intercept (PCU/hr)	Slope for A-B	Slope for A-C	Slope for A-D	Slope for B-A	Slope for B-C	Slope for B-D	Slope for C-A	Slope for C-B	Slope for C-D	Slope for D-A	Slope for D-B	Slope for D-C
A-D	699	-	-	-	-	-	-	0.271	0.387	0.271	-	-	-
B-A	560	0.102	0.258	0.258	-	-	-	0.162	0.368	-	0.258	0.258	0.129
B-C	690	0.106	0.267	-	-	-	-	-	-	-	-	-	-
B-D, nearside lane	560	0.102	0.258	0.258	-	-	-	0.162	0.368	0.162	-	-	-
B-D, offside lane	560	0.102	0.258	0.258	-	-	-	0.162	0.368	0.162	-	-	-
C-B	699	0.271	0.271	0.387	-	-	-	-	-	-	-	-	-
D-A	696	-	-	-	-	-	-	0.270	-	0.107	-	-	-
D-B, nearside lane	621	0.180	0.180	0.409	-	-	-	0.286	0.286	0.113	-	-	-
D-B, offside lane	621	0.180	0.180	0.409	-	-	-	0.286	0.286	0.113	-	-	-
D-C	621	-	0.180	0.409	0.143	0.286	0.286	0.286	0.286	0.113	-	-	-

The slopes and intercepts shown above do NOT include any corrections or adjustments.

Streams may be combined, in which case capacity will be adjusted.

Values are shown for the first time segment only; they may differ for subsequent time segments.

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D1	2021	AM	ONE HOUR	08:00	09:30	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

### Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		✓	323	100.000
B		✓	11	100.000
C		✓	213	100.000
D		✓	241	100.000

## Origin-Destination Data

### Demand (PCU/hr)

		To				
		A	B	C	D	
From	A	0	1	271	51	
	B	4	0	5	2	
	C	205	3	0	5	
	D	70	4	167	0	

## Vehicle Mix

### Heavy Vehicle Percentages

		To				
		A	B	C	D	
From	A	0	0	0	0	
	B	0	0	0	0	
	C	0	0	0	0	
	D	0	0	0	0	

## Results

### Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-ACD	0.03	7.80	0.0	A
A-BCD	0.09	6.21	0.1	A
A-B				
A-C				
D-ABC	0.52	14.53	1.1	B
C-ABD	0.01	6.07	0.0	A
C-D				
C-A				

### Main Results for each time segment

#### 08:00 - 08:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	8	519	0.016	8	0.0	7.046	A
A-BCD	38	656	0.059	38	0.1	5.824	A
A-B	0.75			0.75			
A-C	204			204			
D-ABC	181	554	0.327	180	0.5	9.557	A
C-ABD	2	629	0.004	2	0.0	5.742	A
C-D	4			4			
C-A	154			154			

#### 08:15 - 08:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	10	500	0.020	10	0.0	7.343	A
A-BCD	46	647	0.071	46	0.1	5.984	A
A-B	0.90			0.90			
A-C	244			244			
D-ABC	217	537	0.403	216	0.7	11.184	B
C-ABD	3	615	0.004	3	0.0	5.875	A
C-D	4			4			
C-A	184			184			

#### 08:30 - 08:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	12	473	0.026	12	0.0	7.802	A
A-BCD	56	636	0.088	56	0.1	6.210	A
A-B	1			1			
A-C	298			298			
D-ABC	265	513	0.517	264	1.0	14.363	B
C-ABD	3	596	0.006	3	0.0	6.068	A
C-D	6			6			
C-A	226			226			

#### 08:45 - 09:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	12	473	0.026	12	0.0	7.805	A
A-BCD	56	636	0.088	56	0.1	6.210	A
A-B	1			1			
A-C	298			298			
D-ABC	265	513	0.517	265	1.1	14.527	B
C-ABD	3	596	0.006	3	0.0	6.068	A
C-D	6			6			
C-A	226			226			

#### 09:00 - 09:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	10	500	0.020	10	0.0	7.347	A
A-BCD	46	647	0.071	46	0.1	5.988	A
A-B	0.90			0.90			
A-C	244			244			
D-ABC	217	537	0.403	218	0.7	11.344	B
C-ABD	3	615	0.004	3	0.0	5.875	A
C-D	4			4			
C-A	184			184			

#### 09:15 - 09:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	8	519	0.016	8	0.0	7.053	A
A-BCD	38	656	0.059	38	0.1	5.831	A
A-B	0.75			0.75			
A-C	204			204			
D-ABC	181	554	0.327	182	0.5	9.699	A
C-ABD	2	629	0.004	2	0.0	5.745	A
C-D	4			4			
C-A	154			154			



# 2021, PM

## Data Errors and Warnings

Severity	Area	Item	Description
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

## Junction Network

### Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	Crossroads	Two-way		1.75	A

### Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	188	Stream D-ABC

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D2	2021	PM	ONE HOUR	17:00	18:30	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

### Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		✓	197	100.000
B		✓	11	100.000
C		✓	229	100.000
D		✓	108	100.000

## Origin-Destination Data

### Demand (PCU/hr)

		To			
		A	B	C	D
From	A	0	193	4	0
	B	3	0	5	3
	C	218	6	0	5
	D	47	2	59	0

## Vehicle Mix

### Heavy Vehicle Percentages

		To			
		A	B	C	D
From	A	0	0	0	0
	B	0	0	0	0
	C	0	0	0	0
	D	0	0	0	0

## Results

### Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-ACD	0.02	6.66	0.0	A
A-BCD	0.00	0.00	0.0	A
A-B				
A-C				
D-ABC	0.21	7.82	0.3	A
C-ABD	0.01	5.68	0.0	A
C-D				
C-A				

### Main Results for each time segment

#### 17:00 - 17:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	8	572	0.014	8	0.0	6.385	A
A-BCD	0	1304	0.000	0	0.0	0.000	A
A-B	145			145			
A-C	3			3			
D-ABC	81	602	0.135	81	0.2	6.891	A
C-ABD	5	659	0.007	4	0.0	5.497	A
C-D	4			4			
C-A	164			164			

#### 17:15 - 17:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	10	564	0.018	10	0.0	6.497	A
A-BCD	0	1286	0.000	0	0.0	0.000	A
A-B	174			174			
A-C	4			4			
D-ABC	97	593	0.164	97	0.2	7.260	A
C-ABD	5	651	0.008	5	0.0	5.571	A
C-D	4			4			
C-A	196			196			

17:30 - 17:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	12	553	0.022	12	0.0	6.659	A
A-BCD	0	1261	0.000	0	0.0	0.000	A
A-B	212			212			
A-C	4			4			
D-ABC	119	579	0.205	119	0.3	7.810	A
C-ABD	7	641	0.010	7	0.0	5.676	A
C-D	6			6			
C-A	240			240			

17:45 - 18:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	12	553	0.022	12	0.0	6.659	A
A-BCD	0	1261	0.000	0	0.0	0.000	A
A-B	212			212			
A-C	4			4			
D-ABC	119	579	0.205	119	0.3	7.818	A
C-ABD	7	641	0.010	7	0.0	5.676	A
C-D	6			6			
C-A	240			240			

18:00 - 18:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	10	564	0.018	10	0.0	6.498	A
A-BCD	0	1286	0.000	0	0.0	0.000	A
A-B	174			174			
A-C	4			4			
D-ABC	97	593	0.164	97	0.2	7.270	A
C-ABD	5	651	0.008	5	0.0	5.571	A
C-D	4			4			
C-A	196			196			

18:15 - 18:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	8	572	0.014	8	0.0	6.389	A
A-BCD	0	1304	0.000	0	0.0	0.000	A
A-B	145			145			
A-C	3			3			
D-ABC	81	602	0.135	81	0.2	6.915	A
C-ABD	5	659	0.007	5	0.0	5.499	A
C-D	4			4			
C-A	164			164			

# 2026 Without Development, AM

## Data Errors and Warnings

Severity	Area	Item	Description
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

## Junction Network

### Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	Crossroads	Two-way		5.55	A

### Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	28	Stream D-ABC

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D3	2026 Without Development	AM	ONE HOUR	08:00	09:30	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

### Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		✓	346	100.000
B		✓	11	100.000
C		✓	228	100.000
D		✓	258	100.000

## Origin-Destination Data

### Demand (PCU/hr)

		To			
		A	B	C	D
From	A	0	1	290	55
	B	4	0	5	2
	C	220	3	0	5
	D	75	4	179	0

## Vehicle Mix

Heavy Vehicle Percentages

From	To			
	A	B	C	D
A	0	0	0	0
B	0	0	0	0
C	0	0	0	0
D	0	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-ACD	0.03	7.99	0.0	A
A-BCD	0.10	6.31	0.1	A
A-B				
A-C				
D-ABC	0.56	16.37	1.3	C
C-ABD	0.01	6.14	0.0	A
C-D				
C-A				

Main Results for each time segment

08:00 - 08:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	8	512	0.016	8	0.0	7.141	A
A-BCD	41	653	0.063	41	0.1	5.883	A
A-B	0.75			0.75			
A-C	218			218			
D-ABC	194	548	0.354	192	0.5	10.054	B
C-ABD	2	624	0.004	2	0.0	5.788	A
C-D	4			4			
C-A	166			166			

08:15 - 08:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	10	492	0.020	10	0.0	7.469	A
A-BCD	49	644	0.077	49	0.1	6.057	A
A-B	0.90			0.90			
A-C	261			261			
D-ABC	232	529	0.438	231	0.8	12.025	B
C-ABD	3	609	0.004	3	0.0	5.933	A
C-D	4			4			
C-A	198			198			

08:30 - 08:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	12	463	0.026	12	0.0	7.982	A
A-BCD	61	631	0.096	60	0.1	6.306	A
A-B	1			1			
A-C	319			319			
D-ABC	284	504	0.564	282	1.2	16.110	C
C-ABD	3	589	0.006	3	0.0	6.145	A
C-D	6			6			
C-A	242			242			

08:45 - 09:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	12	463	0.026	12	0.0	7.986	A
A-BCD	61	631	0.096	61	0.1	6.306	A
A-B	1			1			
A-C	319			319			
D-ABC	284	504	0.564	284	1.3	16.375	C
C-ABD	3	589	0.006	3	0.0	6.145	A
C-D	6			6			
C-A	242			242			

09:00 - 09:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	10	491	0.020	10	0.0	7.477	A
A-BCD	49	644	0.077	50	0.1	6.061	A
A-B	0.90			0.90			
A-C	261			261			
D-ABC	232	529	0.438	234	0.8	12.255	B
C-ABD	3	609	0.004	3	0.0	5.934	A
C-D	4			4			
C-A	198			198			

09:15 - 09:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	8	512	0.016	8	0.0	7.147	A
A-BCD	41	653	0.063	41	0.1	5.889	A
A-B	0.75			0.75			
A-C	218			218			
D-ABC	194	548	0.354	195	0.6	10.234	B
C-ABD	2	624	0.004	2	0.0	5.790	A
C-D	4			4			
C-A	166			166			

# 2026 Without Development, PM

## Data Errors and Warnings

Severity	Area	Item	Description
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

## Junction Network

### Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	Crossroads	Two-way		2.26	A

### Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	147	Stream D-ABC

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D4	2026 Without Development	PM	ONE HOUR	17:00	18:30	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

### Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		✓	269	100.000
B		✓	11	100.000
C		✓	245	100.000
D		✓	115	100.000

## Origin-Destination Data

### Demand (PCU/hr)

		To			
		A	B	C	D
From	A	0	207	4	58
	B	3	0	5	3
	C	234	6	0	5
	D	50	2	63	0

## Vehicle Mix

### Heavy Vehicle Percentages

		To			
		A	B	C	D
From	A	0	0	0	0
	B	0	0	0	0
	C	0	0	0	0
	D	0	0	0	0

## Results

### Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-ACD	0.02	6.87	0.0	A
A-BCD	0.10	6.40	0.1	A
A-B				
A-C				
D-ABC	0.23	8.36	0.3	A
C-ABD	0.01	5.95	0.0	A
C-D				
C-A				

### Main Results for each time segment

#### 17:00 - 17:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	8	561	0.015	8	0.0	6.509	A
A-BCD	44	649	0.067	43	0.1	5.941	A
A-B	156			156			
A-C	3			3			
D-ABC	87	587	0.147	86	0.2	7.169	A
C-ABD	5	640	0.007	4	0.0	5.668	A
C-D	4			4			
C-A	176			176			

#### 17:15 - 17:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	10	551	0.018	10	0.0	6.653	A
A-BCD	52	639	0.082	52	0.1	6.131	A
A-B	186			186			
A-C	4			4			
D-ABC	103	575	0.180	103	0.2	7.628	A
C-ABD	5	628	0.009	5	0.0	5.783	A
C-D	4			4			
C-A	210			210			

17:30 - 17:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	12	536	0.023	12	0.0	6.865	A
A-BCD	64	626	0.102	64	0.1	6.405	A
A-B	228			228			
A-C	4			4			
D-ABC	127	557	0.227	126	0.3	8.348	A
C-ABD	7	612	0.011	7	0.0	5.949	A
C-D	6			6			
C-A	258			258			

17:45 - 18:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	12	536	0.023	12	0.0	6.866	A
A-BCD	64	626	0.102	64	0.1	6.405	A
A-B	228			228			
A-C	4			4			
D-ABC	127	557	0.227	127	0.3	8.360	A
C-ABD	7	612	0.011	7	0.0	5.949	A
C-D	6			6			
C-A	258			258			

18:00 - 18:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	10	551	0.018	10	0.0	6.655	A
A-BCD	52	639	0.082	52	0.1	6.135	A
A-B	186			186			
A-C	4			4			
D-ABC	103	575	0.180	104	0.2	7.649	A
C-ABD	5	628	0.009	5	0.0	5.786	A
C-D	4			4			
C-A	210			210			

18:15 - 18:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	8	561	0.015	8	0.0	6.513	A
A-BCD	44	649	0.067	44	0.1	5.950	A
A-B	156			156			
A-C	3			3			
D-ABC	87	587	0.147	87	0.2	7.193	A
C-ABD	5	639	0.007	5	0.0	5.672	A
C-D	4			4			
C-A	176			176			

# 2026 With Development, AM

## Data Errors and Warnings

Severity	Area	Item	Description
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

## Junction Network

### Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	Crossroads	Two-way		8.40	A

### Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	12	Stream D-ABC

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D5	2026 With Development	AM	ONE HOUR	08:00	09:30	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

### Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		✓	364	100.000
B		✓	11	100.000
C		✓	228	100.000
D		✓	312	100.000

## Origin-Destination Data

### Demand (PCU/hr)

		To			
		A	B	C	D
From	A	0	1	290	73
	B	4	0	5	2
	C	220	3	0	5
	D	99	5	208	0

## Vehicle Mix

Heavy Vehicle Percentages

		To			
		A	B	C	D
From	A	0	0	0	0
	B	0	0	0	0
	C	0	0	0	0
	D	0	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-ACD	0.03	8.18	0.0	A
A-BCD	0.13	6.53	0.1	A
A-B				
A-C				
D-ABC	0.69	22.75	2.1	C
C-ABD	0.01	6.23	0.0	A
C-D				
C-A				

Main Results for each time segment

08:00 - 08:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	8	506	0.016	8	0.0	7.235	A
A-BCD	55	653	0.084	55	0.1	6.013	A
A-B	0.75			0.75			
A-C	218			218			
D-ABC	235	547	0.429	232	0.7	11.326	B
C-ABD	2	619	0.004	2	0.0	5.838	A
C-D	4			4			
C-A	166			166			

08:15 - 08:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	10	484	0.020	10	0.0	7.598	A
A-BCD	66	644	0.102	66	0.1	6.225	A
A-B	0.90			0.90			
A-C	261			261			
D-ABC	280	528	0.532	279	1.1	14.388	B
C-ABD	3	603	0.004	3	0.0	5.995	A
C-D	4			4			
C-A	198			198			

08:30 - 08:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	12	452	0.027	12	0.0	8.175	A
A-BCD	80	632	0.127	80	0.1	6.527	A
A-B	1			1			
A-C	319			319			
D-ABC	344	501	0.686	340	2.0	21.847	C
C-ABD	3	581	0.006	3	0.0	6.227	A
C-D	6			6			
C-A	242			242			

08:45 - 09:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	12	452	0.027	12	0.0	8.183	A
A-BCD	80	632	0.127	80	0.1	6.529	A
A-B	1			1			
A-C	319			319			
D-ABC	344	501	0.686	343	2.1	22.750	C
C-ABD	3	581	0.006	3	0.0	6.227	A
C-D	6			6			
C-A	242			242			

09:00 - 09:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	10	483	0.020	10	0.0	7.611	A
A-BCD	66	644	0.102	66	0.1	6.230	A
A-B	0.90			0.90			
A-C	261			261			
D-ABC	280	528	0.532	284	1.2	15.006	C
C-ABD	3	603	0.004	3	0.0	5.999	A
C-D	4			4			
C-A	198			198			

09:15 - 09:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	8	505	0.016	8	0.0	7.246	A
A-BCD	55	653	0.084	55	0.1	6.022	A
A-B	0.75			0.75			
A-C	218			218			
D-ABC	235	547	0.430	237	0.8	11.661	B
C-ABD	2	619	0.004	2	0.0	5.839	A
C-D	4			4			
C-A	166			166			

# 2026 With Development, PM

## Data Errors and Warnings

Severity	Area	Item	Description
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

## Junction Network

### Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	Crossroads	Two-way		2.17	A

### Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	139	Stream D-ABC

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D6	2026 With Development	PM	ONE HOUR	17:00	18:30	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

### Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		✓	215	100.000
B		✓	12	100.000
C		✓	245	100.000
D		✓	138	100.000

## Origin-Destination Data

### Demand (PCU/hr)

		To			
		A	B	C	D
From	A	0	207	4	4
	B	3	0	5	4
	C	234	6	0	5
	D	57	2	79	0

## Vehicle Mix

### Heavy Vehicle Percentages

		To			
		A	B	C	D
From	A	0	0	0	0
	B	0	0	0	0
	C	0	0	0	0
	D	0	0	0	0

## Results

### Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-ACD	0.02	6.82	0.0	A
A-BCD	0.01	5.79	0.0	A
A-B				
A-C				
D-ABC	0.27	8.58	0.4	A
C-ABD	0.01	5.73	0.0	A
C-D				
C-A				

### Main Results for each time segment

#### 17:00 - 17:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	9	562	0.016	9	0.0	6.504	A
A-BCD	3	649	0.005	3	0.0	5.572	A
A-B	156			156			
A-C	3			3			
D-ABC	104	596	0.174	103	0.2	7.287	A
C-ABD	5	655	0.007	4	0.0	5.531	A
C-D	4			4			
C-A	176			176			

#### 17:15 - 17:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	11	553	0.020	11	0.0	6.634	A
A-BCD	4	639	0.006	4	0.0	5.663	A
A-B	186			186			
A-C	4			4			
D-ABC	124	586	0.212	124	0.3	7.788	A
C-ABD	5	647	0.008	5	0.0	5.613	A
C-D	4			4			
C-A	210			210			

17:30 - 17:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	13	541	0.024	13	0.0	6.823	A
A-BCD	4	626	0.007	4	0.0	5.794	A
A-B	228			228			
A-C	4			4			
D-ABC	152	571	0.266	152	0.4	8.569	A
C-ABD	7	635	0.010	7	0.0	5.730	A
C-D	6			6			
C-A	258			258			

17:45 - 18:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	13	541	0.024	13	0.0	6.823	A
A-BCD	4	626	0.007	4	0.0	5.794	A
A-B	228			228			
A-C	4			4			
D-ABC	152	571	0.266	152	0.4	8.584	A
C-ABD	7	635	0.010	7	0.0	5.730	A
C-D	6			6			
C-A	258			258			

18:00 - 18:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	11	553	0.020	11	0.0	6.637	A
A-BCD	4	639	0.006	4	0.0	5.663	A
A-B	186			186			
A-C	4			4			
D-ABC	124	586	0.212	124	0.3	7.809	A
C-ABD	5	647	0.008	5	0.0	5.615	A
C-D	4			4			
C-A	210			210			

18:15 - 18:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	9	562	0.016	9	0.0	6.508	A
A-BCD	3	649	0.005	3	0.0	5.574	A
A-B	156			156			
A-C	3			3			
D-ABC	104	596	0.174	104	0.2	7.320	A
C-ABD	5	655	0.007	5	0.0	5.533	A
C-D	4			4			
C-A	176			176			

# 2031 Without Development, AM

## Data Errors and Warnings

Severity	Area	Item	Description
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

## Junction Network

### Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	Crossroads	Two-way		6.49	A

### Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	19	Stream D-ABC

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D7	2031 Without Development	AM	ONE HOUR	08:00	09:30	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

### Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		✓	373	100.000
B		✓	13	100.000
C		✓	245	100.000
D		✓	279	100.000

## Origin-Destination Data

### Demand (PCU/hr)

		To			
		A	B	C	D
From	A	0	1	313	59
	B	5	0	6	2
	C	237	3	0	5
	D	81	5	193	0

## Vehicle Mix



Heavy Vehicle Percentages

		To			
		A	B	C	D
From	A	0	0	0	0
	B	0	0	0	0
	C	0	0	0	0
	D	0	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-ACD	0.03	8.27	0.0	A
A-BCD	0.10	6.41	0.1	A
A-B				
A-C				
D-ABC	0.62	19.37	1.6	C
C-ABD	0.01	6.24	0.0	A
C-D				
C-A				

Main Results for each time segment

08:00 - 08:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	10	504	0.019	10	0.0	7.279	A
A-BCD	44	649	0.068	44	0.1	5.946	A
A-B	0.75			0.75			
A-C	236			236			
D-ABC	210	541	0.389	208	0.6	10.732	B
C-ABD	2	618	0.004	2	0.0	5.843	A
C-D	4			4			
C-A	178			178			

08:15 - 08:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	12	482	0.024	12	0.0	7.657	A
A-BCD	53	640	0.083	53	0.1	6.136	A
A-B	0.90			0.90			
A-C	281			281			
D-ABC	251	520	0.482	250	0.9	13.236	B
C-ABD	3	602	0.004	3	0.0	6.003	A
C-D	4			4			
C-A	213			213			

08:30 - 08:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	14	450	0.032	14	0.0	8.260	A
A-BCD	65	626	0.104	65	0.1	6.412	A
A-B	1			1			
A-C	345			345			
D-ABC	307	492	0.624	305	1.6	18.880	C
C-ABD	3	580	0.006	3	0.0	6.236	A
C-D	6			6			
C-A	261			261			

08:45 - 09:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	14	450	0.032	14	0.0	8.265	A
A-BCD	65	626	0.104	65	0.1	6.412	A
A-B	1			1			
A-C	345			345			
D-ABC	307	492	0.624	307	1.6	19.372	C
C-ABD	3	580	0.006	3	0.0	6.236	A
C-D	6			6			
C-A	261			261			

09:00 - 09:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	12	481	0.024	12	0.0	7.668	A
A-BCD	53	640	0.083	53	0.1	6.141	A
A-B	0.90			0.90			
A-C	281			281			
D-ABC	251	520	0.482	253	1.0	13.616	B
C-ABD	3	602	0.004	3	0.0	6.006	A
C-D	4			4			
C-A	213			213			

09:15 - 09:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	10	504	0.019	10	0.0	7.286	A
A-BCD	44	649	0.068	44	0.1	5.954	A
A-B	0.75			0.75			
A-C	236			236			
D-ABC	210	540	0.389	211	0.6	10.975	B
C-ABD	2	618	0.004	2	0.0	5.845	A
C-D	4			4			
C-A	178			178			

# 2031 Without Development, PM

## Data Errors and Warnings

Severity	Area	Item	Description
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

## Junction Network

### Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	Crossroads	Two-way		2.33	A

### Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	130	Stream D-ABC

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D8	2031 Without Development	PM	ONE HOUR	17:00	18:30	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

### Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		✓	290	100.000
B		✓	12	100.000
C		✓	264	100.000
D		✓	124	100.000

## Origin-Destination Data

### Demand (PCU/hr)

		To			
		A	B	C	D
From	A	0	223	5	62
	B	3	0	6	3
	C	252	7	0	5
	D	54	2	68	0

## Vehicle Mix

### Heavy Vehicle Percentages

		To			
		A	B	C	D
From	A	0	0	0	0
	B	0	0	0	0
	C	0	0	0	0
	D	0	0	0	0

## Results

### Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-ACD	0.02	6.85	0.0	A
A-BCD	0.11	6.52	0.1	A
A-B				
A-C				
D-ABC	0.25	8.71	0.3	A
C-ABD	0.01	6.03	0.0	A
C-D				
C-A				

### Main Results for each time segment

#### 17:00 - 17:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	9	565	0.016	9	0.0	6.474	A
A-BCD	47	645	0.072	46	0.1	6.010	A
A-B	168			168			
A-C	4			4			
D-ABC	93	583	0.160	93	0.2	7.338	A
C-ABD	5	635	0.008	5	0.0	5.717	A
C-D	4			4			
C-A	190			190			

#### 17:15 - 17:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	11	554	0.019	11	0.0	6.624	A
A-BCD	56	635	0.088	56	0.1	6.218	A
A-B	200			200			
A-C	4			4			
D-ABC	111	569	0.196	111	0.2	7.864	A
C-ABD	6	622	0.010	6	0.0	5.844	A
C-D	4			4			
C-A	227			227			

17:30 - 17:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	13	539	0.025	13	0.0	6.846	A
A-BCD	68	620	0.110	68	0.1	6.520	A
A-B	245			245			
A-C	6			6			
D-ABC	137	550	0.248	136	0.3	8.694	A
C-ABD	8	605	0.013	8	0.0	6.027	A
C-D	6			6			
C-A	277			277			

17:45 - 18:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	13	539	0.025	13	0.0	6.847	A
A-BCD	68	620	0.110	68	0.1	6.523	A
A-B	245			245			
A-C	6			6			
D-ABC	137	550	0.248	137	0.3	8.708	A
C-ABD	8	605	0.013	8	0.0	6.028	A
C-D	6			6			
C-A	277			277			

18:00 - 18:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	11	554	0.019	11	0.0	6.625	A
A-BCD	56	635	0.088	56	0.1	6.223	A
A-B	200			200			
A-C	4			4			
D-ABC	111	569	0.196	112	0.2	7.884	A
C-ABD	6	622	0.010	6	0.0	5.844	A
C-D	4			4			
C-A	227			227			

18:15 - 18:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	9	565	0.016	9	0.0	6.476	A
A-BCD	47	645	0.072	47	0.1	6.017	A
A-B	168			168			
A-C	4			4			
D-ABC	93	582	0.160	94	0.2	7.366	A
C-ABD	5	635	0.008	5	0.0	5.720	A
C-D	4			4			
C-A	190			190			

# 2031 With Development, AM

## Data Errors and Warnings

Severity	Area	Item	Description
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

## Junction Network

### Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	Crossroads	Two-way		11.47	B

### Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	2	Stream D-ABC

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D9	2031 With Development	AM	ONE HOUR	08:00	09:30	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

### Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		✓	394	100.000
B		✓	13	100.000
C		✓	245	100.000
D		✓	342	100.000

## Origin-Destination Data

### Demand (PCU/hr)

		To			
		A	B	C	D
From	A	0	1	313	80
	B	5	0	6	2
	C	237	3	0	5
	D	109	6	227	0

## Vehicle Mix

Heavy Vehicle Percentages

		To			
		A	B	C	D
From	A	0	0	0	0
	B	0	0	0	0
	C	0	0	0	0
	D	0	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-ACD	0.03	8.53	0.0	A
A-BCD	0.14	6.68	0.2	A
A-B				
A-C				
D-ABC	0.77	31.39	3.1	D
C-ABD	0.01	6.34	0.0	A
C-D				
C-A				

Main Results for each time segment

08:00 - 08:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	10	496	0.020	10	0.0	7.399	A
A-BCD	60	649	0.093	60	0.1	6.102	A
A-B	0.75			0.75			
A-C	236			236			
D-ABC	257	539	0.478	254	0.9	12.474	B
C-ABD	2	612	0.004	2	0.0	5.902	A
C-D	4			4			
C-A	178			178			

08:15 - 08:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	12	472	0.025	12	0.0	7.826	A
A-BCD	72	640	0.112	72	0.1	6.338	A
A-B	0.90			0.90			
A-C	281			281			
D-ABC	307	518	0.593	305	1.4	16.757	C
C-ABD	3	595	0.005	3	0.0	6.077	A
C-D	4			4			
C-A	213			213			

08:30 - 08:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	14	437	0.033	14	0.0	8.517	A
A-BCD	88	627	0.141	88	0.2	6.678	A
A-B	1			1			
A-C	344			344			
D-ABC	377	489	0.770	370	3.0	28.911	D
C-ABD	3	571	0.006	3	0.0	6.335	A
C-D	6			6			
C-A	261			261			

08:45 - 09:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	14	436	0.033	14	0.0	8.532	A
A-BCD	88	627	0.141	88	0.2	6.681	A
A-B	1			1			
A-C	344			344			
D-ABC	377	489	0.770	376	3.1	31.395	D
C-ABD	3	571	0.006	3	0.0	6.335	A
C-D	6			6			
C-A	261			261			

09:00 - 09:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	12	471	0.025	12	0.0	7.844	A
A-BCD	72	640	0.112	72	0.1	6.341	A
A-B	0.90			0.90			
A-C	281			281			
D-ABC	307	518	0.594	314	1.5	18.143	C
C-ABD	3	595	0.005	3	0.0	6.080	A
C-D	4			4			
C-A	213			213			

09:15 - 09:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	10	496	0.020	10	0.0	7.410	A
A-BCD	60	649	0.093	60	0.1	6.114	A
A-B	0.75			0.75			
A-C	236			236			
D-ABC	257	539	0.478	260	0.9	13.005	B
C-ABD	2	612	0.004	2	0.0	5.904	A
C-D	4			4			
C-A	178			178			

# 2031 With Development, PM

## Data Errors and Warnings

Severity	Area	Item	Description
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

## Junction Network

### Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	Crossroads	Two-way		2.31	A

### Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	119	Stream D-ABC

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D10	2031 With Development	PM	ONE HOUR	17:00	18:30	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

### Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		✓	233	100.000
B		✓	14	100.000
C		✓	264	100.000
D		✓	151	100.000

## Origin-Destination Data

### Demand (PCU/hr)

		To			
		A	B	C	D
From	A	0	223	5	5
	B	3	0	6	5
	C	252	7	0	5
	D	62	2	87	0

## Vehicle Mix

### Heavy Vehicle Percentages

		To			
		A	B	C	D
From	A	0	0	0	0
	B	0	0	0	0
	C	0	0	0	0
	D	0	0	0	0

## Results

### Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-ACD	0.03	6.89	0.0	A
A-BCD	0.01	5.86	0.0	A
A-B				
A-C				
D-ABC	0.29	9.04	0.4	A
C-ABD	0.01	5.79	0.0	A
C-D				
C-A				

### Main Results for each time segment

#### 17:00 - 17:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	11	561	0.019	10	0.0	6.537	A
A-BCD	4	645	0.006	4	0.0	5.613	A
A-B	168			168			
A-C	4			4			
D-ABC	114	592	0.192	113	0.2	7.505	A
C-ABD	5	652	0.008	5	0.0	5.570	A
C-D	4			4			
C-A	190			190			

#### 17:15 - 17:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	13	552	0.023	13	0.0	6.679	A
A-BCD	4	634	0.007	4	0.0	5.714	A
A-B	200			200			
A-C	4			4			
D-ABC	136	580	0.234	135	0.3	8.090	A
C-ABD	6	642	0.010	6	0.0	5.660	A
C-D	4			4			
C-A	227			227			

17:30 - 17:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	15	538	0.029	15	0.0	6.887	A
A-BCD	6	620	0.009	5	0.0	5.859	A
A-B	246			246			
A-C	6			6			
D-ABC	166	564	0.295	166	0.4	9.021	A
C-ABD	8	629	0.012	8	0.0	5.790	A
C-D	6			6			
C-A	277			277			

17:45 - 18:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	15	538	0.029	15	0.0	6.887	A
A-BCD	6	620	0.009	6	0.0	5.859	A
A-B	246			246			
A-C	6			6			
D-ABC	166	564	0.295	166	0.4	9.040	A
C-ABD	8	629	0.012	8	0.0	5.790	A
C-D	6			6			
C-A	277			277			

18:00 - 18:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	13	551	0.023	13	0.0	6.682	A
A-BCD	4	634	0.007	5	0.0	5.714	A
A-B	200			200			
A-C	4			4			
D-ABC	136	580	0.234	136	0.3	8.115	A
C-ABD	6	642	0.010	6	0.0	5.663	A
C-D	4			4			
C-A	227			227			

18:15 - 18:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	11	561	0.019	11	0.0	6.538	A
A-BCD	4	645	0.006	4	0.0	5.613	A
A-B	168			168			
A-C	4			4			
D-ABC	114	592	0.192	114	0.2	7.544	A
C-ABD	5	651	0.008	5	0.0	5.572	A
C-D	4			4			
C-A	190			190			

## 2041 Without Development, AM

### Data Errors and Warnings

Severity	Area	Item	Description
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

### Junction Network

#### Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	Crossroads	Two-way		8.02	A

#### Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	9	Stream D-ABC

### Traffic Demand

#### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D11	2041 Without Development	AM	ONE HOUR	08:00	09:30	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

#### Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		✓	404	100.000
B		✓	14	100.000
C		✓	266	100.000
D		✓	302	100.000

### Origin-Destination Data

#### Demand (PCU/hr)

		To			
		A	B	C	D
From	A	0	1	339	64
	B	5	0	6	3
	C	257	4	0	5
	D	88	5	209	0

### Vehicle Mix

Heavy Vehicle Percentages

		To			
		A	B	C	D
From	A	0	0	0	0
	B	0	0	0	0
	C	0	0	0	0
	D	0	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-ACD	0.04	8.64	0.0	A
A-BCD	0.11	6.55	0.1	A
A-B				
A-C				
D-ABC	0.69	24.31	2.2	C
C-ABD	0.01	6.36	0.0	A
C-D				
C-A				

Main Results for each time segment

08:00 - 08:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	11	491	0.021	10	0.0	7.491	A
A-BCD	48	645	0.075	48	0.1	6.027	A
A-B	0.75			0.75			
A-C	255			255			
D-ABC	227	532	0.427	224	0.7	11.599	B
C-ABD	3	611	0.005	3	0.0	5.916	A
C-D	4			4			
C-A	193			193			

08:15 - 08:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	13	467	0.027	13	0.0	7.929	A
A-BCD	58	634	0.091	57	0.1	6.239	A
A-B	0.90			0.90			
A-C	305			305			
D-ABC	271	510	0.532	270	1.1	14.900	B
C-ABD	4	594	0.006	4	0.0	6.094	A
C-D	4			4			
C-A	231			231			

08:30 - 08:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	15	432	0.036	15	0.0	8.636	A
A-BCD	71	620	0.114	70	0.1	6.546	A
A-B	1			1			
A-C	373			373			
D-ABC	333	479	0.693	329	2.1	23.238	C
C-ABD	4	571	0.008	4	0.0	6.357	A
C-D	6			6			
C-A	283			283			

08:45 - 09:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	15	432	0.036	15	0.0	8.645	A
A-BCD	71	620	0.114	71	0.1	6.549	A
A-B	1			1			
A-C	373			373			
D-ABC	333	479	0.694	332	2.2	24.313	C
C-ABD	4	571	0.008	4	0.0	6.358	A
C-D	6			6			
C-A	283			283			

09:00 - 09:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	13	466	0.027	13	0.0	7.940	A
A-BCD	58	634	0.091	58	0.1	6.244	A
A-B	0.90			0.90			
A-C	305			305			
D-ABC	271	510	0.532	275	1.2	15.598	C
C-ABD	4	594	0.006	4	0.0	6.095	A
C-D	4			4			
C-A	231			231			

09:15 - 09:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	11	491	0.021	11	0.0	7.503	A
A-BCD	48	645	0.075	48	0.1	6.035	A
A-B	0.75			0.75			
A-C	255			255			
D-ABC	227	532	0.428	229	0.8	11.954	B
C-ABD	3	611	0.005	3	0.0	5.920	A
C-D	4			4			
C-A	193			193			

# 2041 Without Development, PM

## Data Errors and Warnings

Severity	Area	Item	Description
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

## Junction Network

### Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	Crossroads	Two-way		2.47	A

### Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	110	Stream D-ABC

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D12	2041 Without Development	PM	ONE HOUR	17:00	18:30	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

### Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		✓	315	100.000
B		✓	14	100.000
C		✓	286	100.000
D		✓	136	100.000

## Origin-Destination Data

### Demand (PCU/hr)

		To			
		A	B	C	D
From	A	0	242	5	68
	B	4	0	6	4
	C	273	8	0	5
	D	59	3	74	0

## Vehicle Mix

### Heavy Vehicle Percentages

		To			
		A	B	C	D
From	A	0	0	0	0
	B	0	0	0	0
	C	0	0	0	0
	D	0	0	0	0

## Results

### Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-ACD	0.03	7.17	0.0	A
A-BCD	0.12	6.68	0.1	A
A-B				
A-C				
D-ABC	0.28	9.21	0.4	A
C-ABD	0.01	6.12	0.0	A
C-D				
C-A				

### Main Results for each time segment

#### 17:00 - 17:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	11	547	0.019	10	0.0	6.704	A
A-BCD	51	641	0.080	51	0.1	6.103	A
A-B	182			182			
A-C	4			4			
D-ABC	102	576	0.178	102	0.2	7.572	A
C-ABD	6	629	0.010	6	0.0	5.775	A
C-D	4			4			
C-A	206			206			

#### 17:15 - 17:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	13	535	0.024	13	0.0	6.892	A
A-BCD	61	629	0.097	61	0.1	6.337	A
A-B	218			218			
A-C	4			4			
D-ABC	122	561	0.218	122	0.3	8.195	A
C-ABD	7	616	0.012	7	0.0	5.917	A
C-D	4			4			
C-A	245			245			



17:30 - 17:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	15	517	0.030	15	0.0	7.173	A
A-BCD	75	614	0.122	75	0.1	6.679	A
A-B	266			266			
A-C	6			6			
D-ABC	150	540	0.277	149	0.4	9.196	A
C-ABD	9	597	0.015	9	0.0	6.123	A
C-D	6			6			
C-A	301			301			

17:45 - 18:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	15	517	0.030	15	0.0	7.174	A
A-BCD	75	614	0.122	75	0.1	6.682	A
A-B	266			266			
A-C	6			6			
D-ABC	150	540	0.277	150	0.4	9.215	A
C-ABD	9	597	0.015	9	0.0	6.124	A
C-D	6			6			
C-A	301			301			

18:00 - 18:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	13	535	0.024	13	0.0	6.897	A
A-BCD	61	629	0.097	61	0.1	6.342	A
A-B	218			218			
A-C	4			4			
D-ABC	122	561	0.218	123	0.3	8.220	A
C-ABD	7	615	0.012	7	0.0	5.918	A
C-D	4			4			
C-A	245			245			

18:15 - 18:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	11	547	0.019	11	0.0	6.707	A
A-BCD	51	641	0.080	51	0.1	6.112	A
A-B	182			182			
A-C	4			4			
D-ABC	102	576	0.178	103	0.2	7.609	A
C-ABD	6	629	0.010	6	0.0	5.777	A
C-D	4			4			
C-A	206			206			

# 2041 With Development, AM

## Data Errors and Warnings

Severity	Area	Item	Description
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

## Junction Network

### Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	Crossroads	Two-way		17.06	C

### Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	-5	Stream D-ABC

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D13	2041 With Development	AM	ONE HOUR	08:00	09:30	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

### Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		✓	426	100.000
B		✓	14	100.000
C		✓	266	100.000
D		✓	369	100.000

## Origin-Destination Data

### Demand (PCU/hr)

		To			
		A	B	C	D
From	A	0	1	339	86
	B	5	0	6	3
	C	257	4	0	5
	D	118	6	245	0

## Vehicle Mix

Heavy Vehicle Percentages

		To			
		A	B	C	D
From	A	0	0	0	0
	B	0	0	0	0
	C	0	0	0	0
	D	0	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-ACD	0.04	8.96	0.0	A
A-BCD	0.15	6.84	0.2	A
A-B				
A-C				
D-ABC	0.85	47.69	5.0	E
C-ABD	0.01	6.47	0.0	A
C-D				
C-A				

Main Results for each time segment

08:00 - 08:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	11	483	0.022	10	0.0	7.622	A
A-BCD	65	645	0.100	64	0.1	6.195	A
A-B	0.75			0.75			
A-C	255			255			
D-ABC	278	530	0.524	274	1.1	13.802	B
C-ABD	3	605	0.005	3	0.0	5.979	A
C-D	4			4			
C-A	193			193			

08:15 - 08:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	13	456	0.028	13	0.0	8.116	A
A-BCD	77	635	0.122	77	0.1	6.455	A
A-B	0.90			0.90			
A-C	305			305			
D-ABC	332	507	0.654	329	1.8	19.823	C
C-ABD	4	587	0.006	4	0.0	6.174	A
C-D	4			4			
C-A	231			231			

08:30 - 08:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	15	418	0.037	15	0.0	8.930	A
A-BCD	95	621	0.153	95	0.2	6.840	A
A-B	1			1			
A-C	373			373			
D-ABC	406	476	0.854	395	4.5	40.207	E
C-ABD	4	561	0.008	4	0.0	6.465	A
C-D	6			6			
C-A	283			283			

08:45 - 09:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	15	417	0.037	15	0.0	8.958	A
A-BCD	95	621	0.153	95	0.2	6.842	A
A-B	1			1			
A-C	373			373			
D-ABC	406	476	0.854	404	5.0	47.695	E
C-ABD	4	561	0.008	4	0.0	6.466	A
C-D	6			6			
C-A	283			283			

09:00 - 09:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	13	455	0.028	13	0.0	8.146	A
A-BCD	77	635	0.122	78	0.1	6.463	A
A-B	0.90			0.90			
A-C	305			305			
D-ABC	332	507	0.654	344	2.0	23.400	C
C-ABD	4	586	0.006	4	0.0	6.176	A
C-D	4			4			
C-A	231			231			

09:15 - 09:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	11	482	0.022	11	0.0	7.636	A
A-BCD	65	645	0.100	65	0.1	6.204	A
A-B	0.75			0.75			
A-C	255			255			
D-ABC	278	530	0.524	281	1.1	14.662	B
C-ABD	3	605	0.005	3	0.0	5.983	A
C-D	4			4			
C-A	193			193			

# 2041 With Development, PM

## Data Errors and Warnings

Severity	Area	Item	Description
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

## Junction Network

### Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	Crossroads	Two-way		2.46	A

### Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	101	Stream D-ABC

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D14	2041 With Development	PM	ONE HOUR	17:00	18:30	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

### Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		✓	252	100.000
B		✓	15	100.000
C		✓	286	100.000
D		✓	165	100.000

## Origin-Destination Data

### Demand (PCU/hr)

		To			
		A	B	C	D
From	A	0	242	5	5
	B	4	0	6	5
	C	273	8	0	5
	D	68	3	94	0

## Vehicle Mix

### Heavy Vehicle Percentages

		To			
		A	B	C	D
From	A	0	0	0	0
	B	0	0	0	0
	C	0	0	0	0
	D	0	0	0	0

## Results

### Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-ACD	0.03	7.08	0.0	A
A-BCD	0.01	5.92	0.0	A
A-B				
A-C				
D-ABC	0.33	9.58	0.5	A
C-ABD	0.01	5.85	0.0	A
C-D				
C-A				

### Main Results for each time segment

#### 17:00 - 17:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	11	551	0.020	11	0.0	6.667	A
A-BCD	4	640	0.006	4	0.0	5.653	A
A-B	182			182			
A-C	4			4			
D-ABC	124	587	0.212	123	0.3	7.746	A
C-ABD	6	648	0.009	6	0.0	5.610	A
C-D	4			4			
C-A	206			206			

#### 17:15 - 17:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	13	540	0.025	13	0.0	6.833	A
A-BCD	4	629	0.007	4	0.0	5.764	A
A-B	218			218			
A-C	4			4			
D-ABC	148	574	0.258	148	0.3	8.435	A
C-ABD	7	638	0.011	7	0.0	5.710	A
C-D	4			4			
C-A	245			245			

17:30 - 17:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	17	525	0.031	16	0.0	7.080	A
A-BCD	6	613	0.009	5	0.0	5.924	A
A-B	266			266			
A-C	6			6			
D-ABC	182	557	0.326	181	0.5	9.554	A
C-ABD	9	624	0.014	9	0.0	5.854	A
C-D	6			6			
C-A	301			301			

17:45 - 18:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	17	525	0.031	17	0.0	7.080	A
A-BCD	6	613	0.009	6	0.0	5.924	A
A-B	266			266			
A-C	6			6			
D-ABC	182	557	0.326	182	0.5	9.580	A
C-ABD	9	624	0.014	9	0.0	5.854	A
C-D	6			6			
C-A	301			301			

18:00 - 18:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	13	540	0.025	14	0.0	6.838	A
A-BCD	4	629	0.007	5	0.0	5.766	A
A-B	218			218			
A-C	4			4			
D-ABC	148	574	0.258	149	0.4	8.469	A
C-ABD	7	638	0.011	7	0.0	5.712	A
C-D	4			4			
C-A	245			245			

18:15 - 18:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	11	551	0.020	11	0.0	6.671	A
A-BCD	4	640	0.006	4	0.0	5.654	A
A-B	182			182			
A-C	4			4			
D-ABC	124	587	0.212	125	0.3	7.793	A
C-ABD	6	648	0.009	6	0.0	5.612	A
C-D	4			4			
C-A	206			206			

<b>Junctions 9</b>
<b>PICADY 9 - Priority Intersection Module</b>
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Filename: Junction 4.j9  
 Path: N:\TIA\20\_131TT\_Glounthaune Westhill\Traffic Modelling  
 Report generation date: 29/11/2021 16:38:52

- »2021, AM
- »2021, PM
- »2026 Without Development, AM
- »2026 Without Development, PM
- »2026 With Development, AM
- »2026 With Development, PM
- »2031 Without Development, AM
- »2031 Without Development, PM
- »2031 With Development, AM
- »2031 With Development, PM
- »2041 Without Development, AM
- »2041 Without Development, PM
- »2041 With Development, AM
- »2041 With Development, PM

Summary of junction performance

	AM						PM					
	Set ID	Queue (PCU)	Delay (s)	RFC	LOS	Network Residual Capacity	Set ID	Queue (PCU)	Delay (s)	RFC	LOS	Network Residual Capacity
<b>2021</b>												
Stream B-AC	D1	0.3	8.44	0.23	A	180 %	D2	0.1	6.45	0.09	A	595 %
Stream C-AB		0.1	6.01	0.05	A	[Stream B-AC]		0.0	6.19	0.03	A	[Stream B-AC]
<b>2026 Without Development</b>												
Stream B-AC	D3	0.3	8.72	0.25	A	160 %	D4	0.1	6.51	0.10	A	556 %
Stream C-AB		0.1	6.01	0.06	A	[Stream B-AC]		0.0	6.21	0.03	A	[Stream B-AC]
<b>2026 With Development</b>												
Stream B-AC	D5	0.5	10.35	0.36	B	96 %	D6	0.2	7.06	0.16	A	329 %
Stream C-AB		0.1	6.22	0.08	A	[Stream B-AC]		0.1	6.33	0.05	A	[Stream B-AC]
<b>2031 Without Development</b>												
Stream B-AC	D7	0.4	9.03	0.27	A	143 %	D8	0.1	6.59	0.11	A	501 %
Stream C-AB		0.1	6.02	0.06	A	[Stream B-AC]		0.0	6.23	0.04	A	[Stream B-AC]
<b>2031 With Development</b>												
Stream B-AC	D9	0.6	11.13	0.39	B	79 %	D10	0.2	7.25	0.18	A	287 %
Stream C-AB		0.1	6.26	0.08	A	[Stream B-AC]		0.1	6.37	0.05	A	[Stream B-AC]
<b>2041 Without Development</b>												
Stream B-AC	D11	0.4	9.45	0.29	A	124 %	D12	0.1	6.68	0.12	A	457 %
Stream C-AB		0.1	6.02	0.07	A	[Stream B-AC]		0.0	6.24	0.04	A	[Stream B-AC]
<b>2041 With Development</b>												
Stream B-AC	D13	0.4	9.45	0.29	A	124 %	D14	0.1	6.68	0.12	A	457 %
Stream C-AB		0.1	6.02	0.07	A	[Stream B-AC]		0.0	6.24	0.04	A	[Stream B-AC]

There are warnings associated with one or more model runs - see the 'Data Errors and Warnings' tables for each Analysis or Demand Set.

Values shown are the highest values encountered over all time segments. Delay is the maximum value of average delay per arriving vehicle. Network Residual Capacity indicates the amount by which network flow could be increased before a user-definable threshold (see Analysis Options) is met.

File summary

File Description

Title	
Location	
Site number	
Date	26/07/2021
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	MHL\bmurphy
Description	

Units

Distance units	Speed units	Traffic units input	Traffic units results	Flow units	Average delay units	Total delay units	Rate of delay units
m	kph	PCU	PCU	perHour	s	-Min	perMin

Analysis Options

Calculate Queue Percentiles	Calculate residual capacity	Residual capacity criteria type	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)
	✓	Delay	0.85	36.00	20.00

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D1	2021	AM	ONE HOUR	00:00	01:30	15
D2	2021	PM	ONE HOUR	00:00	01:30	15
D3	2026 Without Development	AM	ONE HOUR	00:00	01:30	15
D4	2026 Without Development	PM	ONE HOUR	00:00	01:30	15
D5	2026 With Development	AM	ONE HOUR	00:00	01:30	15
D6	2026 With Development	PM	ONE HOUR	00:00	01:30	15
D7	2031 Without Development	AM	ONE HOUR	00:00	01:30	15
D8	2031 Without Development	PM	ONE HOUR	00:00	01:30	15
D9	2031 With Development	AM	ONE HOUR	00:00	01:30	15
D10	2031 With Development	PM	ONE HOUR	00:00	01:30	15
D11	2041 Without Development	AM	ONE HOUR	00:00	01:30	15
D12	2041 Without Development	PM	ONE HOUR	00:00	01:30	15
D13	2041 With Development	AM	ONE HOUR	00:00	01:30	15
D14	2041 With Development	PM	ONE HOUR	00:00	01:30	15

Analysis Set Details

ID	Network flow scaling factor (%)
A1	100.000

# 2021, AM

## Data Errors and Warnings

Severity	Area	Item	Description
Warning	Major arm width	Arm C - Major arm geometry	For two-way major roads, please interpret results with caution if the total major carriageway width is less than 6m.
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

## Junction Network

### Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way		3.02	A

### Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	180	Stream B-AC

## Arms

### Arms

Arm	Name	Description	Arm type
A	untitled		Major
B	untitled		Minor
C	untitled		Major

### Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Has right turn bay	Visibility for right turn (m)	Blocks?	Blocking queue (PCU)
C	4.00			40.0	✓	0.00

Geometries for Arm C are measured opposite Arm B. Geometries for Arm A (if relevant) are measured opposite Arm D.

### Minor Arm Geometry

Arm	Minor arm type	Lane width (m)	Visibility to left (m)	Visibility to right (m)
B	One lane	3.50	40	130

### Slope / Intercept / Capacity

#### Priority Intersection Slopes and Intercepts

Stream	Intercept (PCU/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
B-A	583	0.115	0.292	0.183	0.416
B-C	741	0.123	0.312	-	-
C-B	597	0.251	0.251	-	-

The slopes and intercepts shown above do NOT include any corrections or adjustments.

Streams may be combined, in which case capacity will be adjusted.

Values are shown for the first time segment only; they may differ for subsequent time segments.

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D1	2021	AM	ONE HOUR	00:00	01:30	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

### Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		✓	141	100.000
B		✓	114	100.000
C		✓	120	100.000

## Origin-Destination Data

### Demand (PCU/hr)

		To		
		A	B	C
From	A	0	88	53
	B	92	0	22
	C	96	24	0

## Vehicle Mix

### Heavy Vehicle Percentages

		To		
		A	B	C
From	A	0	0	0
	B	0	0	0
	C	0	0	0

## Results

### Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-AC	0.23	8.44	0.3	A
C-AB	0.05	6.01	0.1	A
C-A				
A-B				
A-C				

Main Results for each time segment

00:00 - 00:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	86	570	0.151	85	0.2	7.419	A
C-AB	20	620	0.033	20	0.0	6.003	A
C-A	70			70			
A-B	66			66			
A-C	40			40			

00:15 - 00:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	102	562	0.182	102	0.2	7.824	A
C-AB	25	624	0.040	25	0.1	6.007	A
C-A	83			83			
A-B	79			79			
A-C	48			48			

00:30 - 00:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	126	552	0.227	125	0.3	8.432	A
C-AB	32	631	0.050	32	0.1	6.006	A
C-A	100			100			
A-B	97			97			
A-C	58			58			

00:45 - 01:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	126	552	0.227	126	0.3	8.442	A
C-AB	32	631	0.050	32	0.1	6.008	A
C-A	100			100			
A-B	97			97			
A-C	58			58			

01:00 - 01:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	102	562	0.182	103	0.2	7.840	A
C-AB	25	624	0.040	25	0.1	6.007	A
C-A	83			83			
A-B	79			79			
A-C	48			48			

01:15 - 01:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	86	570	0.151	86	0.2	7.449	A
C-AB	20	620	0.033	21	0.0	6.009	A
C-A	70			70			
A-B	66			66			
A-C	40			40			

# 2021, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Major arm width	Arm C - Major arm geometry	For two-way major roads, please interpret results with caution if the total major carriageway width is less than 6m.
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

## Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way		3.32	A

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	595	Stream B-AC

## Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D2	2021	PM	ONE HOUR	00:00	01:30	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		✓	44	100.000
B		✓	52	100.000
C		✓	38	100.000

## Origin-Destination Data

Demand (PCU/hr)

		To		
		A	B	C
From	A	0	20	24
	B	32	0	20
	C	21	17	0

## Vehicle Mix

Heavy Vehicle Percentages

		To		
		A	B	C
From	A	0	0	0
	B	0	0	0
	C	0	0	0

## Results

### Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-AC	0.09	6.45	0.1	A
C-AB	0.03	6.19	0.0	A
C-A				
A-B				
A-C				

### Main Results for each time segment

#### 00:00 - 00:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	39	622	0.063	39	0.1	6.176	A
C-AB	13	599	0.022	13	0.0	6.139	A
C-A	15			15			
A-B	15			15			
A-C	18			18			

#### 00:15 - 00:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	47	619	0.076	47	0.1	6.291	A
C-AB	16	600	0.026	16	0.0	6.162	A
C-A	18			18			
A-B	18			18			
A-C	22			22			

#### 00:30 - 00:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	57	615	0.093	57	0.1	6.450	A
C-AB	19	601	0.032	19	0.0	6.194	A
C-A	22			22			
A-B	22			22			
A-C	26			26			

#### 00:45 - 01:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	57	615	0.093	57	0.1	6.450	A
C-AB	19	601	0.032	19	0.0	6.194	A
C-A	22			22			
A-B	22			22			
A-C	26			26			

#### 01:00 - 01:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	47	619	0.076	47	0.1	6.295	A
C-AB	16	600	0.026	16	0.0	6.163	A
C-A	18			18			
A-B	18			18			
A-C	22			22			

#### 01:15 - 01:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	39	621	0.063	39	0.1	6.182	A
C-AB	13	599	0.022	13	0.0	6.142	A
C-A	15			15			
A-B	15			15			
A-C	18			18			



# 2026 Without Development, AM

## Data Errors and Warnings

Severity	Area	Item	Description
Warning	Major arm width	Arm C - Major arm geometry	For two-way major roads, please interpret results with caution if the total major carriageway width is less than 6m.
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

## Junction Network

### Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way		3.12	A

### Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	160	Stream B-AC

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D3	2026 Without Development	AM	ONE HOUR	00:00	01:30	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

### Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		✓	151	100.000
B		✓	123	100.000
C		✓	129	100.000

## Origin-Destination Data

### Demand (PCU/hr)

		To		
		A	B	C
From	A	0	94	57
	B	99	0	24
	C	103	26	0

## Vehicle Mix

### Heavy Vehicle Percentages

		To		
		A	B	C
From	A	0	0	0
	B	0	0	0
	C	0	0	0

## Results

### Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-AC	0.25	8.72	0.3	A
C-AB	0.06	6.01	0.1	A
C-A				
A-B				
A-C				

### Main Results for each time segment

#### 00:00 - 00:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	93	567	0.163	92	0.2	7.561	A
C-AB	22	622	0.036	22	0.0	6.004	A
C-A	75			75			
A-B	71			71			
A-C	43			43			

#### 00:15 - 00:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	111	559	0.198	110	0.2	8.019	A
C-AB	27	627	0.044	27	0.1	6.009	A
C-A	89			89			
A-B	85			85			
A-C	51			51			

#### 00:30 - 00:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	135	548	0.247	135	0.3	8.710	A
C-AB	35	634	0.055	35	0.1	6.010	A
C-A	107			107			
A-B	103			103			
A-C	63			63			

#### 00:45 - 01:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	135	548	0.247	135	0.3	8.724	A
C-AB	35	634	0.055	35	0.1	6.012	A
C-A	107			107			
A-B	103			103			
A-C	63			63			

01:00 - 01:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	111	559	0.198	111	0.2	8.039	A
C-AB	27	627	0.044	28	0.1	6.009	A
C-A	88			88			
A-B	85			85			
A-C	51			51			

01:15 - 01:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	93	567	0.163	93	0.2	7.593	A
C-AB	22	622	0.036	22	0.0	6.008	A
C-A	75			75			
A-B	71			71			
A-C	43			43			

## 2026 Without Development, PM

### Data Errors and Warnings

Severity	Area	Item	Description
Warning	Major arm width	Arm C - Major arm geometry	For two-way major roads, please interpret results with caution if the total major carriageway width is less than 6m.
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

## Junction Network

### Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way		3.34	A

### Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	556	Stream B-AC

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D4	2026 Without Development	PM	ONE HOUR	00:00	01:30	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

### Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		✓	47	100.000
B		✓	55	100.000
C		✓	40	100.000

## Origin-Destination Data

### Demand (PCU/hr)

		To		
		A	B	C
From	A	0	21	26
	B	34	0	21
	C	22	18	0

## Vehicle Mix

### Heavy Vehicle Percentages

		To		
		A	B	C
From	A	0	0	0
	B	0	0	0
	C	0	0	0

## Results

### Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-AC	0.10	6.51	0.1	A
C-AB	0.03	6.21	0.0	A
C-A				
A-B				
A-C				

### Main Results for each time segment

#### 00:00 - 00:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	41	620	0.067	41	0.1	6.214	A
C-AB	14	599	0.023	14	0.0	6.148	A
C-A	16			16			
A-B	16			16			
A-C	20			20			

#### 00:15 - 00:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	49	617	0.080	49	0.1	6.337	A
C-AB	17	600	0.028	17	0.0	6.173	A
C-A	19			19			
A-B	19			19			
A-C	23			23			

#### 00:30 - 00:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	61	614	0.099	60	0.1	6.508	A
C-AB	21	600	0.034	21	0.0	6.208	A
C-A	23			23			
A-B	23			23			
A-C	29			29			

#### 00:45 - 01:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	61	614	0.099	61	0.1	6.509	A
C-AB	21	600	0.034	21	0.0	6.208	A
C-A	23			23			
A-B	23			23			
A-C	29			29			

#### 01:00 - 01:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	49	617	0.080	50	0.1	6.342	A
C-AB	17	600	0.028	17	0.0	6.173	A
C-A	19			19			
A-B	19			19			
A-C	23			23			

#### 01:15 - 01:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	41	620	0.067	41	0.1	6.223	A
C-AB	14	599	0.023	14	0.0	6.151	A
C-A	16			16			
A-B	16			16			
A-C	20			20			

# 2026 With Development, AM

## Data Errors and Warnings

Severity	Area	Item	Description
Warning	Major arm width	Arm C - Major arm geometry	For two-way major roads, please interpret results with caution if the total major carriageway width is less than 6m.
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

## Junction Network

### Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way		4.17	A

### Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	96	Stream B-AC

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D5	2026 With Development	AM	ONE HOUR	00:00	01:30	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

### Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		✓	182	100.000
B		✓	174	100.000
C		✓	138	100.000

## Origin-Destination Data

### Demand (PCU/hr)

		To		
		A	B	C
From	A	0	125	57
	B	141	0	33
	C	103	35	0

## Vehicle Mix

### Heavy Vehicle Percentages

		To		
		A	B	C
From	A	0	0	0
	B	0	0	0
	C	0	0	0

## Results

### Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-AC	0.36	10.35	0.5	B
C-AB	0.08	6.22	0.1	A
C-A				
A-B				
A-C				

### Main Results for each time segment

#### 00:00 - 00:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	131	561	0.233	130	0.3	8.324	A
C-AB	30	616	0.049	30	0.1	6.142	A
C-A	74			74			
A-B	94			94			
A-C	43			43			

#### 00:15 - 00:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	156	552	0.283	156	0.4	9.085	A
C-AB	37	620	0.060	37	0.1	6.174	A
C-A	87			87			
A-B	112			112			
A-C	51			51			

#### 00:30 - 00:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	192	539	0.355	191	0.5	10.311	B
C-AB	47	626	0.075	47	0.1	6.221	A
C-A	105			105			
A-B	138			138			
A-C	63			63			

#### 00:45 - 01:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	192	539	0.355	192	0.5	10.346	B
C-AB	47	626	0.075	47	0.1	6.225	A
C-A	105			105			
A-B	138			138			
A-C	63			63			

01:00 - 01:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	156	552	0.283	157	0.4	9.129	A
C-AB	37	620	0.060	37	0.1	6.177	A
C-A	87			87			
A-B	112			112			
A-C	51			51			

01:15 - 01:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	131	561	0.234	131	0.3	8.389	A
C-AB	30	616	0.049	30	0.1	6.146	A
C-A	74			74			
A-B	94			94			
A-C	43			43			

## 2026 With Development, PM

### Data Errors and Warnings

Severity	Area	Item	Description
Warning	Major arm width	Arm C - Major arm geometry	For two-way major roads, please interpret results with caution if the total major carriageway width is less than 6m.
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

## Junction Network

### Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way		4.09	A

### Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	329	Stream B-AC

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D6	2026 With Development	PM	ONE HOUR	00:00	01:30	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

### Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		✓	59	100.000
B		✓	91	100.000
C		✓	47	100.000

## Origin-Destination Data

### Demand (PCU/hr)

		To		
		A	B	C
From	A	0	33	26
	B	56	0	35
	C	22	25	0

## Vehicle Mix

### Heavy Vehicle Percentages

		To		
		A	B	C
From	A	0	0	0
	B	0	0	0
	C	0	0	0

## Results

### Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-AC	0.16	7.06	0.2	A
C-AB	0.05	6.33	0.1	A
C-A				
A-B				
A-C				

### Main Results for each time segment

#### 00:00 - 00:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	69	618	0.111	68	0.1	6.541	A
C-AB	19	597	0.032	19	0.0	6.227	A
C-A	16			16			
A-B	25			25			
A-C	20			20			

#### 00:15 - 00:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	82	615	0.133	82	0.2	6.753	A
C-AB	23	597	0.039	23	0.0	6.272	A
C-A	19			19			
A-B	30			30			
A-C	23			23			

#### 00:30 - 00:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	100	610	0.164	100	0.2	7.057	A
C-AB	29	597	0.048	29	0.1	6.331	A
C-A	23			23			
A-B	36			36			
A-C	29			29			

#### 00:45 - 01:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	100	610	0.164	100	0.2	7.060	A
C-AB	29	597	0.048	29	0.1	6.331	A
C-A	23			23			
A-B	36			36			
A-C	29			29			

#### 01:00 - 01:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	82	615	0.133	82	0.2	6.763	A
C-AB	23	597	0.039	23	0.0	6.275	A
C-A	19			19			
A-B	30			30			
A-C	23			23			

#### 01:15 - 01:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	69	618	0.111	69	0.1	6.557	A
C-AB	19	597	0.032	19	0.0	6.230	A
C-A	16			16			
A-B	25			25			
A-C	20			20			

# 2031 Without Development, AM

## Data Errors and Warnings

Severity	Area	Item	Description
Warning	Major arm width	Arm C - Major arm geometry	For two-way major roads, please interpret results with caution if the total major carriageway width is less than 6m.
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

## Junction Network

### Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way		3.20	A

### Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	143	Stream B-AC

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D7	2031 Without Development	AM	ONE HOUR	00:00	01:30	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

### Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		✓	163	100.000
B		✓	131	100.000
C		✓	139	100.000

## Origin-Destination Data

### Demand (PCU/hr)

		To		
		A	B	C
From	A	0	102	61
	B	106	0	25
	C	111	28	0

## Vehicle Mix

### Heavy Vehicle Percentages

		To		
		A	B	C
From	A	0	0	0
	B	0	0	0
	C	0	0	0

## Results

### Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-AC	0.27	9.03	0.4	A
C-AB	0.06	6.02	0.1	A
C-A				
A-B				
A-C				

### Main Results for each time segment

#### 00:00 - 00:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	99	563	0.175	98	0.2	7.719	A
C-AB	24	624	0.039	24	0.1	6.004	A
C-A	80			80			
A-B	77			77			
A-C	46			46			

#### 00:15 - 00:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	118	555	0.212	118	0.3	8.231	A
C-AB	30	629	0.048	30	0.1	6.011	A
C-A	95			95			
A-B	92			92			
A-C	55			55			

#### 00:30 - 00:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	144	543	0.266	144	0.4	9.016	A
C-AB	38	637	0.060	38	0.1	6.016	A
C-A	115			115			
A-B	112			112			
A-C	67			67			

#### 00:45 - 01:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	144	543	0.266	144	0.4	9.033	A
C-AB	38	637	0.060	38	0.1	6.017	A
C-A	115			115			
A-B	112			112			
A-C	67			67			

01:00 - 01:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	118	555	0.212	118	0.3	8.254	A
C-AB	30	629	0.048	30	0.1	6.013	A
C-A	95			95			
A-B	92			92			
A-C	55			55			

01:15 - 01:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	99	563	0.175	99	0.2	7.755	A
C-AB	24	624	0.039	24	0.1	6.009	A
C-A	80			80			
A-B	77			77			
A-C	46			46			

## 2031 Without Development, PM

### Data Errors and Warnings

Severity	Area	Item	Description
Warning	Major arm width	Arm C - Major arm geometry	For two-way major roads, please interpret results with caution if the total major carriageway width is less than 6m.
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

## Junction Network

### Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way		3.39	A

### Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	501	Stream B-AC

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D8	2031 Without Development	PM	ONE HOUR	00:00	01:30	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

### Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		✓	51	100.000
B		✓	60	100.000
C		✓	44	100.000

## Origin-Destination Data

### Demand (PCU/hr)

		To		
		A	B	C
From	A	0	23	28
	B	37	0	23
	C	24	20	0

## Vehicle Mix

### Heavy Vehicle Percentages

		To		
		A	B	C
From	A	0	0	0
	B	0	0	0
	C	0	0	0



## Results

### Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-AC	0.11	6.59	0.1	A
C-AB	0.04	6.23	0.0	A
C-A				
A-B				
A-C				

### Main Results for each time segment

#### 00:00 - 00:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	45	619	0.073	45	0.1	6.266	A
C-AB	16	600	0.026	15	0.0	6.162	A
C-A	18			18			
A-B	17			17			
A-C	21			21			

#### 00:15 - 00:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	54	616	0.088	54	0.1	6.403	A
C-AB	19	600	0.031	19	0.0	6.190	A
C-A	21			21			
A-B	21			21			
A-C	25			25			

#### 00:30 - 00:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	66	612	0.108	66	0.1	6.594	A
C-AB	23	601	0.038	23	0.0	6.229	A
C-A	25			25			
A-B	25			25			
A-C	31			31			

#### 00:45 - 01:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	66	612	0.108	66	0.1	6.594	A
C-AB	23	601	0.038	23	0.0	6.229	A
C-A	25			25			
A-B	25			25			
A-C	31			31			

#### 01:00 - 01:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	54	616	0.088	54	0.1	6.408	A
C-AB	19	600	0.031	19	0.0	6.191	A
C-A	21			21			
A-B	21			21			
A-C	25			25			

#### 01:15 - 01:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	45	619	0.073	45	0.1	6.273	A
C-AB	16	600	0.026	16	0.0	6.163	A
C-A	18			18			
A-B	17			17			
A-C	21			21			

# 2031 With Development, AM

## Data Errors and Warnings

Severity	Area	Item	Description
Warning	Major arm width	Arm C - Major arm geometry	For two-way major roads, please interpret results with caution if the total major carriageway width is less than 6m.
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

## Junction Network

### Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way		4.48	A

### Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	79	Stream B-AC

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D9	2031 With Development	AM	ONE HOUR	00:00	01:30	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

### Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		✓	199	100.000
B		✓	191	100.000
C		✓	149	100.000

## Origin-Destination Data

### Demand (PCU/hr)

		To		
		A	B	C
From	A	0	138	61
	B	155	0	36
	C	111	38	0

## Vehicle Mix

### Heavy Vehicle Percentages

		To		
		A	B	C
From	A	0	0	0
	B	0	0	0
	C	0	0	0

## Results

### Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-AC	0.39	11.13	0.6	B
C-AB	0.08	6.26	0.1	A
C-A				
A-B				
A-C				

### Main Results for each time segment

#### 00:00 - 00:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	144	557	0.258	142	0.3	8.655	A
C-AB	33	617	0.054	33	0.1	6.162	A
C-A	79			79			
A-B	104			104			
A-C	46			46			

#### 00:15 - 00:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	172	547	0.314	171	0.5	9.563	A
C-AB	41	621	0.066	41	0.1	6.199	A
C-A	93			93			
A-B	124			124			
A-C	55			55			

#### 00:30 - 00:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	210	534	0.394	210	0.6	11.083	B
C-AB	52	627	0.083	52	0.1	6.255	A
C-A	112			112			
A-B	152			152			
A-C	67			67			

#### 00:45 - 01:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	210	534	0.394	210	0.6	11.134	B
C-AB	52	628	0.083	52	0.1	6.257	A
C-A	112			112			
A-B	152			152			
A-C	67			67			

01:00 - 01:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	172	547	0.314	172	0.5	9.629	A
C-AB	41	621	0.066	41	0.1	6.206	A
C-A	93			93			
A-B	124			124			
A-C	55			55			

01:15 - 01:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	144	557	0.258	144	0.4	8.733	A
C-AB	33	617	0.054	33	0.1	6.169	A
C-A	79			79			
A-B	104			104			
A-C	46			46			

## 2031 With Development, PM

### Data Errors and Warnings

Severity	Area	Item	Description
Warning	Major arm width	Arm C - Major arm geometry	For two-way major roads, please interpret results with caution if the total major carriageway width is less than 6m.
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

### Junction Network

#### Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way		4.21	A

#### Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	287	Stream B-AC

### Traffic Demand

#### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D10	2031 With Development	PM	ONE HOUR	00:00	01:30	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

#### Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		✓	65	100.000
B		✓	101	100.000
C		✓	52	100.000

### Origin-Destination Data

#### Demand (PCU/hr)

		To		
		A	B	C
From	A	0	37	28
	B	62	0	39
	C	24	28	0

### Vehicle Mix

#### Heavy Vehicle Percentages

		To		
		A	B	C
From	A	0	0	0
	B	0	0	0
	C	0	0	0

## Results

### Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-AC	0.18	7.25	0.2	A
C-AB	0.05	6.37	0.1	A
C-A				
A-B				
A-C				

### Main Results for each time segment

#### 00:00 - 00:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	76	616	0.123	75	0.1	6.647	A
C-AB	22	597	0.036	22	0.0	6.254	A
C-A	17			17			
A-B	28			28			
A-C	21			21			

#### 00:15 - 00:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	91	613	0.148	91	0.2	6.893	A
C-AB	26	597	0.044	26	0.0	6.305	A
C-A	21			21			
A-B	33			33			
A-C	25			25			

#### 00:30 - 00:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	111	608	0.183	111	0.2	7.243	A
C-AB	32	597	0.054	32	0.1	6.373	A
C-A	25			25			
A-B	41			41			
A-C	31			31			

#### 00:45 - 01:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	111	608	0.183	111	0.2	7.249	A
C-AB	32	597	0.054	32	0.1	6.373	A
C-A	25			25			
A-B	41			41			
A-C	31			31			

#### 01:00 - 01:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	91	613	0.148	91	0.2	6.904	A
C-AB	26	597	0.044	26	0.0	6.308	A
C-A	21			21			
A-B	33			33			
A-C	25			25			

#### 01:15 - 01:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	76	616	0.123	76	0.1	6.664	A
C-AB	22	597	0.036	22	0.0	6.258	A
C-A	17			17			
A-B	28			28			
A-C	21			21			

# 2041 Without Development, AM

## Data Errors and Warnings

Severity	Area	Item	Description
Warning	Major arm width	Arm C - Major arm geometry	For two-way major roads, please interpret results with caution if the total major carriageway width is less than 6m.
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

## Junction Network

### Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way		3.35	A

### Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	124	Stream B-AC

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D11	2041 Without Development	AM	ONE HOUR	00:00	01:30	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

### Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		✓	176	100.000
B		✓	143	100.000
C		✓	150	100.000

## Origin-Destination Data

### Demand (PCU/hr)

		To		
		A	B	C
From	A	0	110	66
	B	115	0	28
	C	120	30	0

## Vehicle Mix

### Heavy Vehicle Percentages

		To		
		A	B	C
From	A	0	0	0
	B	0	0	0
	C	0	0	0

## Results

### Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-AC	0.29	9.45	0.4	A
C-AB	0.07	6.02	0.1	A
C-A				
A-B				
A-C				

### Main Results for each time segment

#### 00:00 - 00:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	108	561	0.192	107	0.2	7.916	A
C-AB	26	626	0.042	26	0.1	6.002	A
C-A	87			87			
A-B	83			83			
A-C	50			50			

#### 00:15 - 00:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	129	551	0.233	128	0.3	8.506	A
C-AB	33	632	0.052	33	0.1	6.009	A
C-A	102			102			
A-B	99			99			
A-C	59			59			

#### 00:30 - 00:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	157	538	0.292	157	0.4	9.429	A
C-AB	42	640	0.065	42	0.1	6.015	A
C-A	123			123			
A-B	121			121			
A-C	73			73			

#### 00:45 - 01:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	157	538	0.292	157	0.4	9.450	A
C-AB	42	640	0.065	42	0.1	6.015	A
C-A	123			123			
A-B	121			121			
A-C	73			73			

01:00 - 01:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	129	551	0.233	129	0.3	8.535	A
C-AB	33	632	0.052	33	0.1	6.012	A
C-A	102			102			
A-B	99			99			
A-C	59			59			

01:15 - 01:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	108	561	0.192	108	0.2	7.960	A
C-AB	26	626	0.042	26	0.1	6.007	A
C-A	86			86			
A-B	83			83			
A-C	50			50			

## 2041 Without Development, PM

### Data Errors and Warnings

Severity	Area	Item	Description
Warning	Major arm width	Arm C - Major arm geometry	For two-way major roads, please interpret results with caution if the total major carriageway width is less than 6m.
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

## Junction Network

### Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way		3.42	A

### Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	457	Stream B-AC

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D12	2041 Without Development	PM	ONE HOUR	00:00	01:30	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

### Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		✓	55	100.000
B		✓	65	100.000
C		✓	47	100.000

## Origin-Destination Data

### Demand (PCU/hr)

		To		
		A	B	C
From	A	0	25	30
	B	40	0	25
	C	26	21	0

## Vehicle Mix

### Heavy Vehicle Percentages

		To		
		A	B	C
From	A	0	0	0
	B	0	0	0
	C	0	0	0

## Results

### Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-AC	0.12	6.68	0.1	A
C-AB	0.04	6.24	0.0	A
C-A				
A-B				
A-C				

### Main Results for each time segment

#### 00:00 - 00:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	49	618	0.079	49	0.1	6.315	A
C-AB	16	600	0.027	16	0.0	6.168	A
C-A	19			19			
A-B	19			19			
A-C	23			23			

#### 00:15 - 00:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	58	615	0.095	58	0.1	6.467	A
C-AB	20	600	0.033	20	0.0	6.197	A
C-A	23			23			
A-B	22			22			
A-C	27			27			

#### 00:30 - 00:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	72	611	0.117	71	0.1	6.676	A
C-AB	24	601	0.040	24	0.0	6.238	A
C-A	27			27			
A-B	28			28			
A-C	33			33			

#### 00:45 - 01:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	72	611	0.117	72	0.1	6.678	A
C-AB	24	601	0.040	24	0.0	6.238	A
C-A	27			27			
A-B	28			28			
A-C	33			33			

#### 01:00 - 01:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	58	615	0.095	59	0.1	6.470	A
C-AB	20	600	0.033	20	0.0	6.200	A
C-A	23			23			
A-B	22			22			
A-C	27			27			

#### 01:15 - 01:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	49	618	0.079	49	0.1	6.327	A
C-AB	16	600	0.027	16	0.0	6.171	A
C-A	19			19			
A-B	19			19			
A-C	23			23			

# 2041 With Development, AM

## Data Errors and Warnings

Severity	Area	Item	Description
Warning	Major arm width	Arm C - Major arm geometry	For two-way major roads, please interpret results with caution if the total major carriageway width is less than 6m.
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

## Junction Network

### Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way		3.35	A

### Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	124	Stream B-AC

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D13	2041 With Development	AM	ONE HOUR	00:00	01:30	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

### Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		✓	176	100.000
B		✓	143	100.000
C		✓	150	100.000

## Origin-Destination Data

### Demand (PCU/hr)

		To		
		A	B	C
From	A	0	110	66
	B	115	0	28
	C	120	30	0

## Vehicle Mix

### Heavy Vehicle Percentages

		To		
		A	B	C
From	A	0	0	0
	B	0	0	0
	C	0	0	0

## Results

### Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-AC	0.29	9.45	0.4	A
C-AB	0.07	6.02	0.1	A
C-A				
A-B				
A-C				

### Main Results for each time segment

#### 00:00 - 00:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	108	561	0.192	107	0.2	7.916	A
C-AB	26	626	0.042	26	0.1	6.002	A
C-A	87			87			
A-B	83			83			
A-C	50			50			

#### 00:15 - 00:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	129	551	0.233	128	0.3	8.506	A
C-AB	33	632	0.052	33	0.1	6.009	A
C-A	102			102			
A-B	99			99			
A-C	59			59			

#### 00:30 - 00:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	157	538	0.292	157	0.4	9.429	A
C-AB	42	640	0.065	42	0.1	6.015	A
C-A	123			123			
A-B	121			121			
A-C	73			73			

#### 00:45 - 01:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	157	538	0.292	157	0.4	9.450	A
C-AB	42	640	0.065	42	0.1	6.015	A
C-A	123			123			
A-B	121			121			
A-C	73			73			



01:00 - 01:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	129	551	0.233	129	0.3	8.535	A
C-AB	33	632	0.052	33	0.1	6.012	A
C-A	102			102			
A-B	99			99			
A-C	59			59			

01:15 - 01:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	108	561	0.192	108	0.2	7.960	A
C-AB	26	626	0.042	26	0.1	6.007	A
C-A	86			86			
A-B	83			83			
A-C	50			50			

## 2041 With Development, PM

### Data Errors and Warnings

Severity	Area	Item	Description
Warning	Major arm width	Arm C - Major arm geometry	For two-way major roads, please interpret results with caution if the total major carriageway width is less than 6m.
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

### Junction Network

#### Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way		3.42	A

#### Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	457	Stream B-AC

### Traffic Demand

#### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D14	2041 With Development	PM	ONE HOUR	00:00	01:30	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

#### Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		✓	55	100.000
B		✓	65	100.000
C		✓	47	100.000

### Origin-Destination Data

#### Demand (PCU/hr)

		To		
		A	B	C
From	A	0	25	30
	B	40	0	25
	C	26	21	0

### Vehicle Mix

#### Heavy Vehicle Percentages

		To		
		A	B	C
From	A	0	0	0
	B	0	0	0
	C	0	0	0

## Results

### Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-AC	0.12	6.68	0.1	A
C-AB	0.04	6.24	0.0	A
C-A				
A-B				
A-C				

### Main Results for each time segment

#### 00:00 - 00:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	49	618	0.079	49	0.1	6.315	A
C-AB	16	600	0.027	16	0.0	6.168	A
C-A	19			19			
A-B	19			19			
A-C	23			23			

#### 00:15 - 00:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	58	615	0.095	58	0.1	6.467	A
C-AB	20	600	0.033	20	0.0	6.197	A
C-A	23			23			
A-B	22			22			
A-C	27			27			

#### 00:30 - 00:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	72	611	0.117	71	0.1	6.676	A
C-AB	24	601	0.040	24	0.0	6.238	A
C-A	27			27			
A-B	28			28			
A-C	33			33			

#### 00:45 - 01:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	72	611	0.117	72	0.1	6.678	A
C-AB	24	601	0.040	24	0.0	6.238	A
C-A	27			27			
A-B	28			28			
A-C	33			33			

#### 01:00 - 01:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	58	615	0.095	59	0.1	6.470	A
C-AB	20	600	0.033	20	0.0	6.200	A
C-A	23			23			
A-B	22			22			
A-C	27			27			

#### 01:15 - 01:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	49	618	0.079	49	0.1	6.327	A
C-AB	16	600	0.027	16	0.0	6.171	A
C-A	19			19			
A-B	19			19			
A-C	23			23			

<b>Junctions 9</b>
<b>PICADY 9 - Priority Intersection Module</b>
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Filename: Junction 5.j9  
 Path: N:\TIA\20\_131TT\_Glounthaune Westhill\Traffic Modelling  
 Report generation date: 29/11/2021 16:41:12

- »2021, AM
- »2021, PM
- »2026 Without Development, AM
- »2026 Without Development, PM
- »2026 With Development, AM
- »2026 With Development, PM
- »2031 Without Development, AM
- »2031 Without Development, PM
- »2031 With Development, AM
- »2031 With Development, PM
- »2041 Without Development, AM
- »2041 Without Development, PM
- »2041 With Development, AM
- »2041 With Development, PM

Summary of junction performance

	AM						PM					
	Set ID	Queue (PCU)	Delay (s)	RFC	LOS	Network Residual Capacity	Set ID	Queue (PCU)	Delay (s)	RFC	LOS	Network Residual Capacity
<b>2021</b>												
Stream B-AC	D1	0.2	6.89	0.17	A	164 %	D2	0.1	6.26	0.08	A	266 %
Stream C-AB		0.3	5.08	0.16	A	[Stream B-AC]		0.1	4.90	0.05	A	[Stream B-AC]
<b>2026 Without Development</b>												
Stream B-AC	D3	0.2	7.11	0.19	A	146 %	D4	0.1	6.37	0.09	A	242 %
Stream C-AB		0.3	5.12	0.18	A	[Stream B-AC]		0.1	4.90	0.06	A	[Stream B-AC]
<b>2026 With Development</b>												
Stream B-AC	D5	0.3	7.42	0.21	A	129 %	D6	0.1	6.61	0.11	A	213 %
Stream C-AB		0.4	5.27	0.19	A	[Stream B-AC]		0.1	4.93	0.06	A	[Stream B-AC]
<b>2031 Without Development</b>												
Stream B-AC	D7	0.3	7.38	0.21	A	129 %	D8	0.1	6.55	0.09	A	216 %
Stream C-AB		0.4	5.17	0.20	A	[Stream B-AC]		0.1	4.89	0.06	A	[Stream B-AC]
<b>2031 With Development</b>												
Stream B-AC	D9	0.3	7.80	0.23	A	111 %	D10	0.1	6.85	0.12	A	187 %
Stream C-AB		0.4	5.35	0.22	A	[Stream B-AC]		0.1	4.93	0.07	A	[Stream B-AC]
<b>2041 Without Development</b>												
Stream B-AC	D11	0.3	7.76	0.23	A	111 %	D12	0.1	6.75	0.11	A	191 %
Stream C-AB		0.4	5.25	0.22	A	[Stream B-AC]		0.1	4.88	0.07	A	[Stream B-AC]
<b>2041 With Development</b>												
Stream B-AC	D13	0.4	8.43	0.27	A	91 %	D14	0.2	7.17	0.14	A	160 %
Stream C-AB		0.5	5.44	0.24	A	[Stream B-AC]		0.1	4.93	0.08	A	[Stream B-AC]

There are warnings associated with one or more model runs - see the 'Data Errors and Warnings' tables for each Analysis or Demand Set.

Values shown are the highest values encountered over all time segments. Delay is the maximum value of average delay per arriving vehicle. Network Residual Capacity indicates the amount by which network flow could be increased before a user-definable threshold (see Analysis Options) is met.

File summary

File Description

Title	
Location	
Site number	
Date	26/07/2021
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	MHL\bmurphy
Description	

Units

Distance units	Speed units	Traffic units input	Traffic units results	Flow units	Average delay units	Total delay units	Rate of delay units
m	kph	PCU	PCU	perHour	s	-Min	perMin

**Analysis Options**

Calculate Queue Percentiles	Calculate residual capacity	Residual capacity criteria type	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)
	✓	Delay	0.85	36.00	20.00

**Demand Set Summary**

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D1	2021	AM	ONE HOUR	00:00	01:30	15
D2	2021	PM	ONE HOUR	00:00	01:30	15
D3	2026 Without Development	AM	ONE HOUR	00:00	01:30	15
D4	2026 Without Development	PM	ONE HOUR	00:00	01:30	15
D5	2026 With Development	AM	ONE HOUR	00:00	01:30	15
D6	2026 With Development	PM	ONE HOUR	00:00	01:30	15
D7	2031 Without Development	AM	ONE HOUR	00:00	01:30	15
D8	2031 Without Development	PM	ONE HOUR	00:00	01:30	15
D9	2031 With Development	AM	ONE HOUR	00:00	01:30	15
D10	2031 With Development	PM	ONE HOUR	00:00	01:30	15
D11	2041 Without Development	AM	ONE HOUR	00:00	01:30	15
D12	2041 Without Development	PM	ONE HOUR	00:00	01:30	15
D13	2041 With Development	AM	ONE HOUR	00:00	01:30	15
D14	2041 With Development	PM	ONE HOUR	00:00	01:30	15

**Analysis Set Details**

ID	Network flow scaling factor (%)
A1	100.000

# 2021, AM

**Data Errors and Warnings**

Severity	Area	Item	Description
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

## Junction Network

**Junctions**

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way		1.83	A

**Junction Network Options**

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	164	Stream B-AC

## Arms

**Arms**

Arm	Name	Description	Arm type
A	untitled		Major
B	untitled		Minor
C	untitled		Major

**Major Arm Geometry**

Arm	Width of carriageway (m)	Has kerbed central reserve	Has right turn bay	Visibility for right turn (m)	Blocks?	Blocking queue (PCU)
C	6.00			250.0	✓	0.00

*Geometries for Arm C are measured opposite Arm B. Geometries for Arm A (if relevant) are measured opposite Arm D.*

**Minor Arm Geometry**

Arm	Minor arm type	Lane width (m)	Visibility to left (m)	Visibility to right (m)
B	One lane	3.00	220	240

**Slope / Intercept / Capacity**

**Priority Intersection Slopes and Intercepts**

Stream	Intercept (PCU/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
B-A	680	0.124	0.313	0.197	0.447
B-C	775	0.119	0.300	-	-
C-B	719	0.278	0.278	-	-

*The slopes and intercepts shown above do NOT include any corrections or adjustments.*

*Streams may be combined, in which case capacity will be adjusted.*

*Values are shown for the first time segment only; they may differ for subsequent time segments.*

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D1	2021	AM	ONE HOUR	00:00	01:30	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

### Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		✓	236	100.000
B		✓	100	100.000
C		✓	360	100.000

## Origin-Destination Data

### Demand (PCU/hr)

From	To		
	A	B	C
A	0	27	209
B	28	0	72
C	282	78	0

## Vehicle Mix

### Heavy Vehicle Percentages

From	To		
	A	B	C
A	0	0	0
B	0	0	0
C	0	0	0

## Results

### Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-AC	0.17	6.89	0.2	A
C-AB	0.16	5.08	0.3	A
C-A				
A-B				
A-C				

## Main Results for each time segment

### 00:00 - 00:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	75	670	0.112	75	0.1	6.044	A
C-AB	80	803	0.099	79	0.2	4.974	A
C-A	191			191			
A-B	20			20			
A-C	157			157			

### 00:15 - 00:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	90	654	0.137	90	0.2	6.373	A
C-AB	102	820	0.124	101	0.2	5.009	A
C-A	222			222			
A-B	24			24			
A-C	188			188			

### 00:30 - 00:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	110	633	0.174	110	0.2	6.880	A
C-AB	136	846	0.161	136	0.3	5.076	A
C-A	260			260			
A-B	30			30			
A-C	230			230			

### 00:45 - 01:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	110	633	0.174	110	0.2	6.887	A
C-AB	136	846	0.161	136	0.3	5.078	A
C-A	260			260			
A-B	30			30			
A-C	230			230			

### 01:00 - 01:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	90	654	0.137	90	0.2	6.381	A
C-AB	102	821	0.124	102	0.2	5.016	A
C-A	222			222			
A-B	24			24			
A-C	188			188			

### 01:15 - 01:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	75	670	0.112	75	0.1	6.057	A
C-AB	80	803	0.100	80	0.2	4.985	A
C-A	191			191			
A-B	20			20			
A-C	157			157			

# 2021, PM

## Data Errors and Warnings

Severity	Area	Item	Description
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

## Junction Network

### Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way		0.87	A

### Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	266	Stream B-AC

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D2	2021	PM	ONE HOUR	00:00	01:30	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

### Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		✓	255	100.000
B		✓	45	100.000
C		✓	226	100.000

## Origin-Destination Data

### Demand (PCU/hr)

		To		
		A	B	C
From	A	0	29	226
	B	18	0	27
	C	199	27	0

## Vehicle Mix

### Heavy Vehicle Percentages

		To		
		A	B	C
From	A	0	0	0
	B	0	0	0
	C	0	0	0

## Results

### Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-AC	0.08	6.26	0.1	A
C-AB	0.05	4.90	0.1	A
C-A				
A-B				
A-C				

### Main Results for each time segment

#### 00:00 - 00:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	34	660	0.051	34	0.1	5.747	A
C-AB	25	760	0.033	25	0.0	4.901	A
C-A	145			145			
A-B	22			22			
A-C	170			170			

#### 00:15 - 00:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	40	645	0.063	40	0.1	5.951	A
C-AB	32	769	0.041	32	0.1	4.883	A
C-A	171			171			
A-B	26			26			
A-C	203			203			

#### 00:30 - 00:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	50	625	0.079	49	0.1	6.256	A
C-AB	41	782	0.053	41	0.1	4.864	A
C-A	207			207			
A-B	32			32			
A-C	249			249			

#### 00:45 - 01:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	50	625	0.079	50	0.1	6.256	A
C-AB	41	782	0.053	41	0.1	4.865	A
C-A	207			207			
A-B	32			32			
A-C	249			249			

01:00 - 01:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	40	645	0.063	41	0.1	5.953	A
C-AB	32	769	0.041	32	0.1	4.887	A
C-A	171			171			
A-B	26			26			
A-C	203			203			

01:15 - 01:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	34	660	0.051	34	0.1	5.753	A
C-AB	25	760	0.033	25	0.0	4.904	A
C-A	145			145			
A-B	22			22			
A-C	170			170			

## 2026 Without Development, AM

### Data Errors and Warnings

Severity	Area	Item	Description
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

## Junction Network

### Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way		1.90	A

### Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	146	Stream B-AC

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D3	2026 Without Development	AM	ONE HOUR	00:00	01:30	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

### Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		✓	253	100.000
B		✓	107	100.000
C		✓	386	100.000

## Origin-Destination Data

### Demand (PCU/hr)

		To		
		A	B	C
From	A	0	29	224
	B	30	0	77
	C	302	84	0

## Vehicle Mix

### Heavy Vehicle Percentages

		To		
		A	B	C
From	A	0	0	0
	B	0	0	0
	C	0	0	0

## Results

### Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-AC	0.19	7.11	0.2	A
C-AB	0.18	5.12	0.3	A
C-A				
A-B				
A-C				

### Main Results for each time segment

#### 00:00 - 00:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	81	664	0.121	80	0.1	6.158	A
C-AB	88	809	0.109	87	0.2	4.986	A
C-A	203			203			
A-B	22			22			
A-C	169			169			

#### 00:15 - 00:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	96	647	0.149	96	0.2	6.527	A
C-AB	113	828	0.136	112	0.2	5.033	A
C-A	234			234			
A-B	26			26			
A-C	201			201			

#### 00:30 - 00:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	118	624	0.189	118	0.2	7.106	A
C-AB	152	855	0.177	151	0.3	5.117	A
C-A	273			273			
A-B	32			32			
A-C	247			247			

#### 00:45 - 01:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	118	624	0.189	118	0.2	7.112	A
C-AB	152	856	0.177	152	0.3	5.123	A
C-A	273			273			
A-B	32			32			
A-C	247			247			

#### 01:00 - 01:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	96	647	0.149	96	0.2	6.538	A
C-AB	113	828	0.136	113	0.2	5.039	A
C-A	234			234			
A-B	26			26			
A-C	201			201			

#### 01:15 - 01:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	81	664	0.121	81	0.1	6.172	A
C-AB	88	809	0.109	88	0.2	4.998	A
C-A	202			202			
A-B	22			22			
A-C	169			169			



# 2026 Without Development, PM

## Data Errors and Warnings

Severity	Area	Item	Description
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

## Junction Network

### Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way		0.88	A

### Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	242	Stream B-AC

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D4	2026 Without Development	PM	ONE HOUR	00:00	01:30	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

### Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		✓	273	100.000
B		✓	48	100.000
C		✓	242	100.000

## Origin-Destination Data

### Demand (PCU/hr)

		To		
		A	B	C
From	A	0	31	242
	B	19	0	29
	C	213	29	0

## Vehicle Mix

### Heavy Vehicle Percentages

		To		
		A	B	C
From	A	0	0	0
	B	0	0	0
	C	0	0	0

## Results

### Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-AC	0.09	6.37	0.1	A
C-AB	0.06	4.90	0.1	A
C-A				
A-B				
A-C				

### Main Results for each time segment

#### 00:00 - 00:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	36	655	0.055	36	0.1	5.812	A
C-AB	28	763	0.036	27	0.0	4.893	A
C-A	155			155			
A-B	23			23			
A-C	182			182			

#### 00:15 - 00:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	43	639	0.067	43	0.1	6.036	A
C-AB	35	773	0.045	35	0.1	4.877	A
C-A	183			183			
A-B	28			28			
A-C	218			218			

#### 00:30 - 00:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	53	618	0.086	53	0.1	6.373	A
C-AB	46	787	0.058	45	0.1	4.856	A
C-A	221			221			
A-B	34			34			
A-C	266			266			

#### 00:45 - 01:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	53	618	0.086	53	0.1	6.373	A
C-AB	46	787	0.058	46	0.1	4.857	A
C-A	221			221			
A-B	34			34			
A-C	266			266			

01:00 - 01:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	43	639	0.067	43	0.1	6.040	A
C-AB	35	773	0.045	35	0.1	4.879	A
C-A	183			183			
A-B	28			28			
A-C	218			218			

01:15 - 01:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	36	655	0.055	36	0.1	5.818	A
C-AB	28	763	0.036	28	0.1	4.899	A
C-A	154			154			
A-B	23			23			
A-C	182			182			

## 2026 With Development, AM

### Data Errors and Warnings

Severity	Area	Item	Description
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

## Junction Network

### Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way		2.02	A

### Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	129	Stream B-AC

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D5	2026 With Development	AM	ONE HOUR	00:00	01:30	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

### Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		✓	279	100.000
B		✓	116	100.000
C		✓	393	100.000

## Origin-Destination Data

### Demand (PCU/hr)

		To		
		A	B	C
From	A	0	31	248
	B	33	0	83
	C	302	91	0

## Vehicle Mix

### Heavy Vehicle Percentages

		To		
		A	B	C
From	A	0	0	0
	B	0	0	0
	C	0	0	0

## Results

### Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-AC	0.21	7.42	0.3	A
C-AB	0.19	5.27	0.4	A
C-A				
A-B				
A-C				

### Main Results for each time segment

#### 00:00 - 00:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	87	657	0.133	87	0.2	6.310	A
C-AB	96	804	0.119	95	0.2	5.073	A
C-A	200			200			
A-B	23			23			
A-C	187			187			

#### 00:15 - 00:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	104	638	0.163	104	0.2	6.736	A
C-AB	122	823	0.149	122	0.3	5.141	A
C-A	231			231			
A-B	28			28			
A-C	223			223			

#### 00:30 - 00:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	128	613	0.208	127	0.3	7.415	A
C-AB	165	849	0.195	165	0.4	5.266	A
C-A	268			268			
A-B	34			34			
A-C	273			273			

#### 00:45 - 01:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	128	613	0.208	128	0.3	7.421	A
C-AB	165	849	0.195	165	0.4	5.273	A
C-A	267			267			
A-B	34			34			
A-C	273			273			

#### 01:00 - 01:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	104	638	0.163	105	0.2	6.747	A
C-AB	123	823	0.149	123	0.3	5.150	A
C-A	231			231			
A-B	28			28			
A-C	223			223			

#### 01:15 - 01:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	87	656	0.133	88	0.2	6.331	A
C-AB	96	804	0.119	96	0.2	5.088	A
C-A	200			200			
A-B	23			23			
A-C	187			187			

# 2026 With Development, PM

## Data Errors and Warnings

Severity	Area	Item	Description
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

## Junction Network

### Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way		1.06	A

### Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	213	Stream B-AC

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D6	2026 With Development	PM	ONE HOUR	00:00	01:30	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

### Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		✓	284	100.000
B		✓	62	100.000
C		✓	245	100.000

## Origin-Destination Data

### Demand (PCU/hr)

		To		
		A	B	C
From	A	0	35	249
	B	25	0	37
	C	213	32	0

## Vehicle Mix

### Heavy Vehicle Percentages

		To		
		A	B	C
From	A	0	0	0
	B	0	0	0
	C	0	0	0

## Results

### Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-AC	0.11	6.61	0.1	A
C-AB	0.06	4.93	0.1	A
C-A				
A-B				
A-C				

### Main Results for each time segment

#### 00:00 - 00:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	47	652	0.072	46	0.1	5.945	A
C-AB	31	761	0.040	30	0.1	4.927	A
C-A	154			154			
A-B	26			26			
A-C	187			187			

#### 00:15 - 00:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	56	635	0.088	56	0.1	6.210	A
C-AB	38	770	0.050	38	0.1	4.920	A
C-A	182			182			
A-B	31			31			
A-C	224			224			

#### 00:30 - 00:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	68	613	0.111	68	0.1	6.609	A
C-AB	50	784	0.064	50	0.1	4.907	A
C-A	219			219			
A-B	39			39			
A-C	274			274			

#### 00:45 - 01:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	68	613	0.111	68	0.1	6.612	A
C-AB	50	784	0.064	50	0.1	4.910	A
C-A	219			219			
A-B	39			39			
A-C	274			274			

01:00 - 01:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	56	635	0.088	56	0.1	6.215	A
C-AB	38	770	0.050	39	0.1	4.920	A
C-A	182			182			
A-B	31			31			
A-C	224			224			

01:15 - 01:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	47	652	0.072	47	0.1	5.955	A
C-AB	31	761	0.040	31	0.1	4.932	A
C-A	154			154			
A-B	26			26			
A-C	187			187			

## 2031 Without Development, AM

### Data Errors and Warnings

Severity	Area	Item	Description
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

## Junction Network

### Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way		1.97	A

### Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	129	Stream B-AC

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D7	2031 Without Development	AM	ONE HOUR	00:00	01:30	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

### Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		✓	273	100.000
B		✓	115	100.000
C		✓	416	100.000

## Origin-Destination Data

### Demand (PCU/hr)

From	To		
	A	B	C
A	0	31	242
B	32	0	83
C	326	90	0

## Vehicle Mix

### Heavy Vehicle Percentages

From	To		
	A	B	C
A	0	0	0
B	0	0	0
C	0	0	0

## Results

### Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-AC	0.21	7.38	0.3	A
C-AB	0.20	5.17	0.4	A
C-A				
A-B				
A-C				

### Main Results for each time segment

#### 00:00 - 00:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	87	658	0.132	86	0.2	6.288	A
C-AB	97	817	0.119	96	0.2	4.994	A
C-A	216			216			
A-B	23			23			
A-C	182			182			

#### 00:15 - 00:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	103	640	0.162	103	0.2	6.708	A
C-AB	125	838	0.149	124	0.3	5.051	A
C-A	249			249			
A-B	28			28			
A-C	218			218			

#### 00:30 - 00:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	127	614	0.206	126	0.3	7.377	A
C-AB	170	868	0.195	169	0.4	5.157	A
C-A	288			288			
A-B	34			34			
A-C	266			266			

#### 00:45 - 01:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	127	614	0.206	127	0.3	7.383	A
C-AB	170	868	0.196	170	0.4	5.166	A
C-A	288			288			
A-B	34			34			
A-C	266			266			

#### 01:00 - 01:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	103	640	0.162	104	0.2	6.721	A
C-AB	125	838	0.149	125	0.3	5.059	A
C-A	249			249			
A-B	28			28			
A-C	218			218			

#### 01:15 - 01:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	87	658	0.132	87	0.2	6.308	A
C-AB	97	817	0.119	97	0.2	5.007	A
C-A	216			216			
A-B	23			23			
A-C	182			182			

# 2031 Without Development, PM

## Data Errors and Warnings

Severity	Area	Item	Description
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

## Junction Network

### Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way		0.91	A

### Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	216	Stream B-AC

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D8	2031 Without Development	PM	ONE HOUR	00:00	01:30	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

### Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		✓	295	100.000
B		✓	52	100.000
C		✓	261	100.000

## Origin-Destination Data

### Demand (PCU/hr)

		To		
		A	B	C
From	A	0	34	261
	B	21	0	31
	C	230	31	0

## Vehicle Mix

### Heavy Vehicle Percentages

		To		
		A	B	C
From	A	0	0	0
	B	0	0	0
	C	0	0	0

## Results

### Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-AC	0.09	6.55	0.1	A
C-AB	0.06	4.89	0.1	A
C-A				
A-B				
A-C				

### Main Results for each time segment

#### 00:00 - 00:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	39	648	0.060	39	0.1	5.910	A
C-AB	30	767	0.039	30	0.1	4.884	A
C-A	166			166			
A-B	26			26			
A-C	196			196			

#### 00:15 - 00:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	47	631	0.074	47	0.1	6.165	A
C-AB	38	778	0.049	38	0.1	4.867	A
C-A	197			197			
A-B	31			31			
A-C	235			235			

#### 00:30 - 00:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	57	607	0.094	57	0.1	6.550	A
C-AB	50	793	0.063	50	0.1	4.847	A
C-A	237			237			
A-B	37			37			
A-C	287			287			

#### 00:45 - 01:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	57	607	0.094	57	0.1	6.550	A
C-AB	50	793	0.063	50	0.1	4.847	A
C-A	237			237			
A-B	37			37			
A-C	287			287			

01:00 - 01:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	47	631	0.074	47	0.1	6.170	A
C-AB	38	778	0.049	38	0.1	4.869	A
C-A	197			197			
A-B	31			31			
A-C	235			235			

01:15 - 01:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	39	648	0.060	39	0.1	5.919	A
C-AB	30	767	0.039	30	0.1	4.889	A
C-A	166			166			
A-B	26			26			
A-C	196			196			

## 2031 With Development, AM

### Data Errors and Warnings

Severity	Area	Item	Description
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

### Junction Network

#### Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way		2.13	A

#### Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	111	Stream B-AC

### Traffic Demand

#### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D9	2031 With Development	AM	ONE HOUR	00:00	01:30	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

#### Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		✓	304	100.000
B		✓	126	100.000
C		✓	424	100.000

### Origin-Destination Data

#### Demand (PCU/hr)

		To		
		A	B	C
From	A	0	34	270
	B	36	0	90
	C	326	98	0

### Vehicle Mix

#### Heavy Vehicle Percentages

		To		
		A	B	C
From	A	0	0	0
	B	0	0	0
	C	0	0	0



## Results

### Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-AC	0.23	7.80	0.3	A
C-AB	0.22	5.35	0.4	A
C-A				
A-B				
A-C				

### Main Results for each time segment

#### 00:00 - 00:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	95	648	0.146	94	0.2	6.487	A
C-AB	106	811	0.130	105	0.2	5.095	A
C-A	213			213			
A-B	26			26			
A-C	203			203			

#### 00:15 - 00:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	113	628	0.180	113	0.2	6.983	A
C-AB	136	831	0.164	136	0.3	5.183	A
C-A	245			245			
A-B	31			31			
A-C	243			243			

#### 00:30 - 00:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	139	600	0.231	138	0.3	7.788	A
C-AB	186	860	0.216	185	0.4	5.339	A
C-A	281			281			
A-B	37			37			
A-C	297			297			

#### 00:45 - 01:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	139	600	0.231	139	0.3	7.800	A
C-AB	186	860	0.216	186	0.4	5.350	A
C-A	281			281			
A-B	37			37			
A-C	297			297			

#### 01:00 - 01:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	113	628	0.180	114	0.2	6.999	A
C-AB	137	832	0.164	137	0.3	5.193	A
C-A	245			245			
A-B	31			31			
A-C	243			243			

#### 01:15 - 01:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	95	648	0.146	95	0.2	6.509	A
C-AB	106	811	0.131	106	0.2	5.112	A
C-A	213			213			
A-B	26			26			
A-C	203			203			

# 2031 With Development, PM

## Data Errors and Warnings

Severity	Area	Item	Description
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

## Junction Network

### Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way		1.10	A

### Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	187	Stream B-AC

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D10	2031 With Development	PM	ONE HOUR	00:00	01:30	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

### Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		✓	308	100.000
B		✓	68	100.000
C		✓	265	100.000

## Origin-Destination Data

### Demand (PCU/hr)

		To		
		A	B	C
From	A	0	38	270
	B	28	0	40
	C	230	35	0

## Vehicle Mix

### Heavy Vehicle Percentages

		To		
		A	B	C
From	A	0	0	0
	B	0	0	0
	C	0	0	0

## Results

### Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-AC	0.12	6.85	0.1	A
C-AB	0.07	4.93	0.1	A
C-A				
A-B				
A-C				

### Main Results for each time segment

#### 00:00 - 00:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	51	643	0.080	51	0.1	6.074	A
C-AB	34	764	0.045	34	0.1	4.926	A
C-A	165			165			
A-B	29			29			
A-C	203			203			

#### 00:15 - 00:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	61	626	0.098	61	0.1	6.377	A
C-AB	43	775	0.055	43	0.1	4.921	A
C-A	195			195			
A-B	34			34			
A-C	243			243			

#### 00:30 - 00:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	75	601	0.125	75	0.1	6.842	A
C-AB	57	790	0.072	57	0.1	4.911	A
C-A	235			235			
A-B	42			42			
A-C	297			297			

#### 00:45 - 01:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	75	601	0.125	75	0.1	6.845	A
C-AB	57	790	0.072	57	0.1	4.913	A
C-A	235			235			
A-B	42			42			
A-C	297			297			

01:00 - 01:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	61	625	0.098	61	0.1	6.383	A
C-AB	43	775	0.056	43	0.1	4.922	A
C-A	195			195			
A-B	34			34			
A-C	243			243			

01:15 - 01:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	51	643	0.080	51	0.1	6.081	A
C-AB	34	764	0.045	34	0.1	4.931	A
C-A	165			165			
A-B	29			29			
A-C	203			203			

## 2041 Without Development, AM

### Data Errors and Warnings

Severity	Area	Item	Description
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

### Junction Network

#### Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way		2.08	A

#### Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	111	Stream B-AC

### Traffic Demand

#### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D11	2041 Without Development	AM	ONE HOUR	00:00	01:30	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

#### Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		✓	296	100.000
B		✓	125	100.000
C		✓	451	100.000

### Origin-Destination Data

#### Demand (PCU/hr)

From	To		
	A	B	C
A	0	34	262
B	35	0	90
C	353	98	0

### Vehicle Mix

#### Heavy Vehicle Percentages

From	To		
	A	B	C
A	0	0	0
B	0	0	0
C	0	0	0

## Results

### Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-AC	0.23	7.76	0.3	A
C-AB	0.22	5.25	0.4	A
C-A				
A-B				
A-C				

### Main Results for each time segment

#### 00:00 - 00:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	94	650	0.145	93	0.2	6.462	A
C-AB	109	825	0.132	108	0.2	5.014	A
C-A	231			231			
A-B	26			26			
A-C	197			197			

#### 00:15 - 00:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	112	630	0.178	112	0.2	6.952	A
C-AB	141	849	0.166	141	0.3	5.091	A
C-A	264			264			
A-B	31			31			
A-C	236			236			

#### 00:30 - 00:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	138	602	0.229	137	0.3	7.746	A
C-AB	194	881	0.220	193	0.4	5.235	A
C-A	303			303			
A-B	37			37			
A-C	288			288			

#### 00:45 - 01:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	138	602	0.229	138	0.3	7.758	A
C-AB	194	882	0.220	194	0.4	5.246	A
C-A	303			303			
A-B	37			37			
A-C	288			288			

#### 01:00 - 01:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	112	630	0.178	113	0.2	6.965	A
C-AB	141	849	0.167	142	0.3	5.103	A
C-A	264			264			
A-B	31			31			
A-C	236			236			

#### 01:15 - 01:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	94	650	0.145	94	0.2	6.484	A
C-AB	109	826	0.132	110	0.2	5.031	A
C-A	230			230			
A-B	26			26			
A-C	197			197			

# 2041 Without Development, PM

## Data Errors and Warnings

Severity	Area	Item	Description
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

## Junction Network

### Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way		0.94	A

### Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	191	Stream B-AC

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D12	2041 Without Development	PM	ONE HOUR	00:00	01:30	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

### Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		✓	319	100.000
B		✓	57	100.000
C		✓	283	100.000

## Origin-Destination Data

### Demand (PCU/hr)

		To		
		A	B	C
From	A	0	36	283
	B	23	0	34
	C	249	34	0

## Vehicle Mix

### Heavy Vehicle Percentages

		To		
		A	B	C
From	A	0	0	0
	B	0	0	0
	C	0	0	0

## Results

### Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-AC	0.11	6.75	0.1	A
C-AB	0.07	4.88	0.1	A
C-A				
A-B				
A-C				

### Main Results for each time segment

#### 00:00 - 00:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	43	640	0.067	43	0.1	6.020	A
C-AB	34	771	0.044	34	0.1	4.878	A
C-A	179			179			
A-B	27			27			
A-C	213			213			

#### 00:15 - 00:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	51	622	0.082	51	0.1	6.308	A
C-AB	43	783	0.055	43	0.1	4.863	A
C-A	212			212			
A-B	32			32			
A-C	254			254			

#### 00:30 - 00:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	63	596	0.105	63	0.1	6.749	A
C-AB	57	801	0.071	57	0.1	4.843	A
C-A	255			255			
A-B	40			40			
A-C	312			312			

#### 00:45 - 01:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	63	596	0.105	63	0.1	6.752	A
C-AB	57	801	0.071	57	0.1	4.845	A
C-A	254			254			
A-B	40			40			
A-C	312			312			

01:00 - 01:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	51	622	0.082	51	0.1	6.314	A
C-AB	43	783	0.055	43	0.1	4.864	A
C-A	211			211			
A-B	32			32			
A-C	254			254			

01:15 - 01:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	43	640	0.067	43	0.1	6.029	A
C-AB	34	771	0.044	34	0.1	4.882	A
C-A	179			179			
A-B	27			27			
A-C	213			213			

## 2041 With Development, AM

### Data Errors and Warnings

Severity	Area	Item	Description
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

### Junction Network

#### Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way		2.31	A

#### Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	91	Stream B-AC

### Traffic Demand

#### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D13	2041 With Development	AM	ONE HOUR	00:00	01:30	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

#### Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		✓	328	100.000
B		✓	141	100.000
C		✓	459	100.000

### Origin-Destination Data

#### Demand (PCU/hr)

From	To		
	A	B	C
A	0	36	292
B	43	0	98
C	353	106	0

### Vehicle Mix

#### Heavy Vehicle Percentages

From	To		
	A	B	C
A	0	0	0
B	0	0	0
C	0	0	0

## Results

### Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-AC	0.27	8.43	0.4	A
C-AB	0.24	5.44	0.5	A
C-A				
A-B				
A-C				

### Main Results for each time segment

#### 00:00 - 00:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	106	636	0.167	105	0.2	6.772	A
C-AB	118	820	0.144	117	0.2	5.121	A
C-A	227			227			
A-B	27			27			
A-C	220			220			

#### 00:15 - 00:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	127	614	0.206	127	0.3	7.381	A
C-AB	153	842	0.182	153	0.3	5.230	A
C-A	259			259			
A-B	32			32			
A-C	263			263			

#### 00:30 - 00:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	155	582	0.267	155	0.4	8.411	A
C-AB	211	874	0.241	210	0.5	5.432	A
C-A	294			294			
A-B	40			40			
A-C	321			321			

#### 00:45 - 01:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	155	582	0.267	155	0.4	8.428	A
C-AB	211	874	0.242	211	0.5	5.445	A
C-A	294			294			
A-B	40			40			
A-C	321			321			

#### 01:00 - 01:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	127	614	0.206	127	0.3	7.401	A
C-AB	154	842	0.182	154	0.3	5.245	A
C-A	259			259			
A-B	32			32			
A-C	263			263			

#### 01:15 - 01:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	106	636	0.167	106	0.2	6.802	A
C-AB	118	820	0.144	119	0.2	5.140	A
C-A	227			227			
A-B	27			27			
A-C	220			220			

# 2041 With Development, PM

## Data Errors and Warnings

Severity	Area	Item	Description
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

## Junction Network

### Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way		1.18	A

### Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	160	Stream B-AC

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D14	2041 With Development	PM	ONE HOUR	00:00	01:30	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

### Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		✓	333	100.000
B		✓	77	100.000
C		✓	287	100.000

## Origin-Destination Data

### Demand (PCU/hr)

		To		
		A	B	C
From	A	0	41	292
	B	33	0	44
	C	249	38	0

## Vehicle Mix

### Heavy Vehicle Percentages

		To		
		A	B	C
From	A	0	0	0
	B	0	0	0
	C	0	0	0

## Results

### Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-AC	0.14	7.17	0.2	A
C-AB	0.08	4.93	0.1	A
C-A				
A-B				
A-C				

### Main Results for each time segment

#### 00:00 - 00:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	58	633	0.092	58	0.1	6.249	A
C-AB	38	769	0.049	38	0.1	4.922	A
C-A	178			178			
A-B	31			31			
A-C	220			220			

#### 00:15 - 00:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	69	614	0.113	69	0.1	6.607	A
C-AB	48	780	0.062	48	0.1	4.916	A
C-A	210			210			
A-B	37			37			
A-C	263			263			

#### 00:30 - 00:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	85	587	0.145	85	0.2	7.171	A
C-AB	64	797	0.080	64	0.1	4.911	A
C-A	252			252			
A-B	45			45			
A-C	321			321			

#### 00:45 - 01:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	85	587	0.145	85	0.2	7.174	A
C-AB	64	797	0.080	64	0.1	4.913	A
C-A	252			252			
A-B	45			45			
A-C	321			321			



**01:00 - 01:15**

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	69	614	0.113	69	0.1	6.614	A
C-AB	48	780	0.062	48	0.1	4.921	A
C-A	210			210			
A-B	37			37			
A-C	263			263			

**01:15 - 01:30**

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	58	633	0.092	58	0.1	6.262	A
C-AB	38	769	0.049	38	0.1	4.929	A
C-A	178			178			
A-B	31			31			
A-C	220			220			

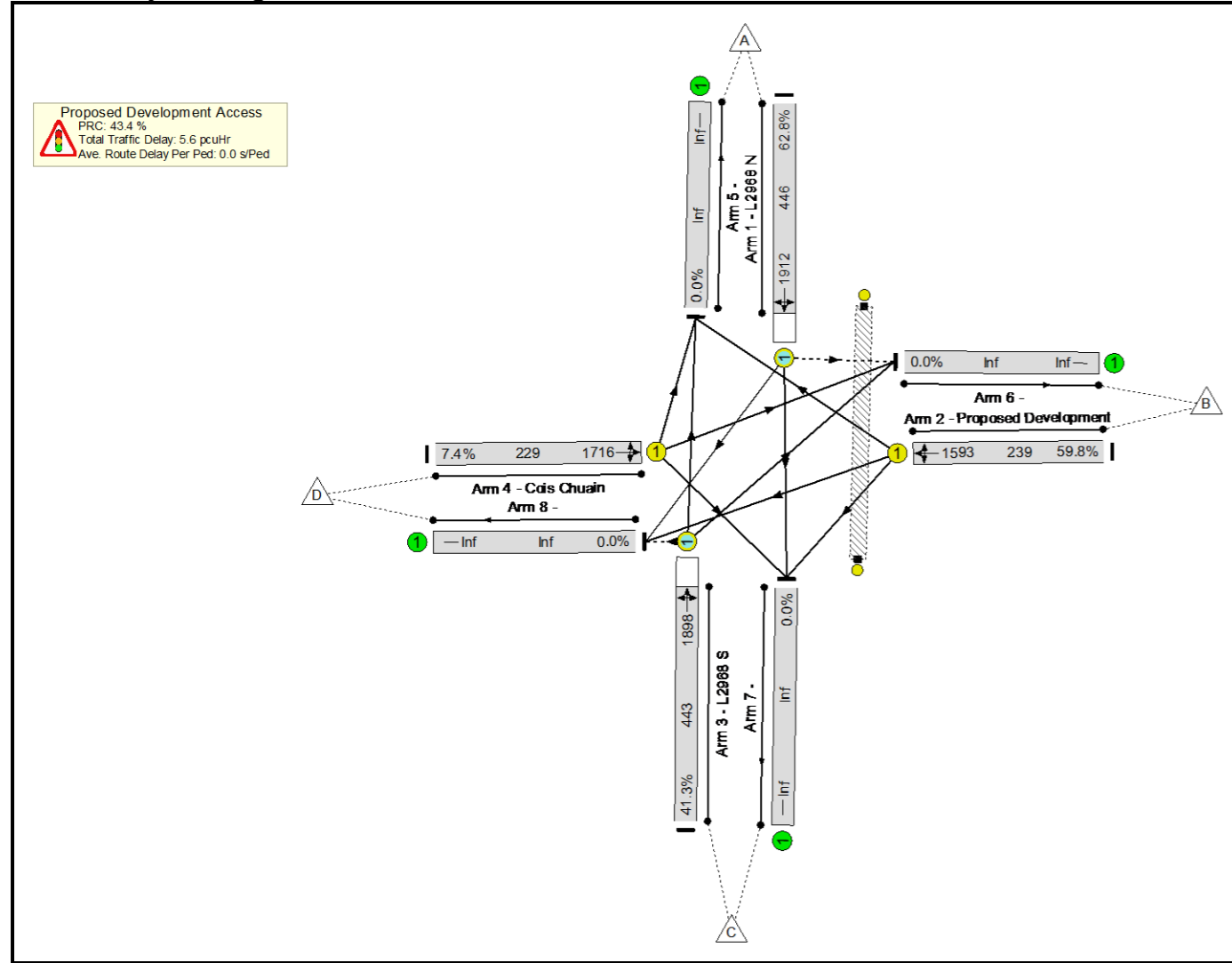
**APPENDIX B: TRAFFIC MODEL OUTPUTS – LINSIG**

Basic Results Summary  
**Basic Results Summary**

**User and Project Details**

<b>Project:</b>	Residential Dev Glounthaune
<b>Title:</b>	
<b>Location:</b>	
<b>Client:</b>	Westhill
<b>Additional detail:</b>	
<b>File name:</b>	Residential Access.lsg3x
<b>Author:</b>	K Manley
<b>Company:</b>	MHL
<b>Address:</b>	

**Scenario 1: '2026AM' (FG1: '2026 AM', Plan 1: 'Network Control Plan 1')**  
**Network Layout Diagram**



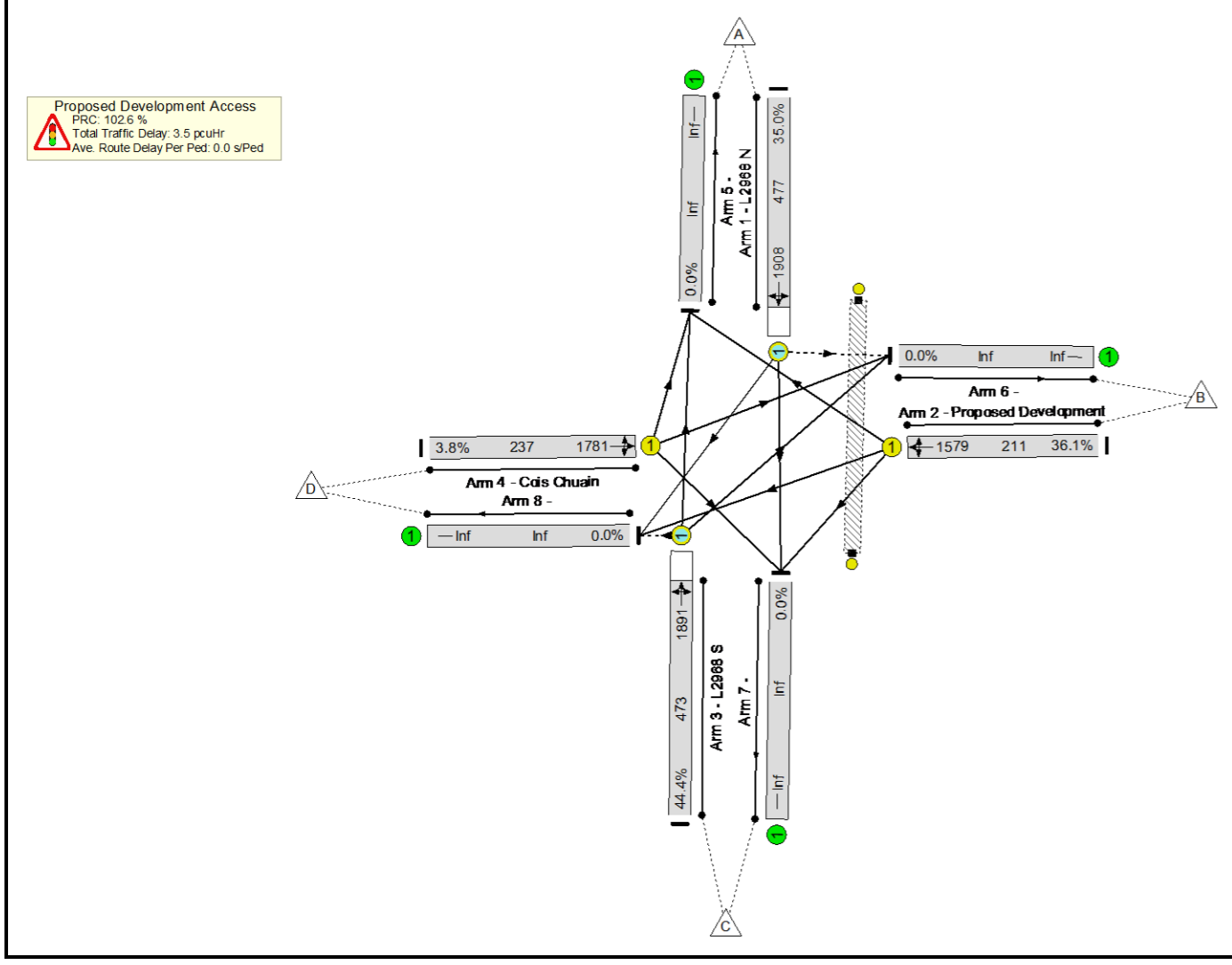
Basic Results Summary  
**Network Results**

Item	Lane Description	Lane Type	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Total Delay (pcuHr)	AV. Delay Per PCU (s/pcu)	Mean Max Queue (pcu)
Network	-	-	-	-	-	-	-	-	-	-	62.8%	7	0	0	5.6	-	-
Proposed Development Access	-	-	-	-	-	-	-	-	-	-	62.8%	7	0	0	5.6	-	-
1/1	L2968 N Left Ahead Right	O	A		1	13	-	280	1912	446	62.8%	1	0	0	2.4	31.4	5.0
2/1	Proposed Development Right Left Ahead	U	B		1	8	-	143	1593	239	59.8%	-	-	-	1.7	42.3	3.0
3/1	L2968 S Ahead Right Left	O	C		1	13	-	183	1898	443	41.3%	6	0	0	1.3	26.4	2.9
4/1	Cois Chuain Left Ahead Right	U	D		1	7	-	17	1716	229	7.4%	-	-	-	0.1	31.5	0.3
Ped Link: P1	Unnamed Ped Link	-	E		1	12	-	0	-	0	0.0%	-	-	-	-	-	-
		C1			PRC for Signalised Lanes (%): 43.4		PRC Over All Lanes (%): 43.4		Total Delay for Signalised Lanes (pcuHr): 5.61		Total Delay Over All Lanes(pcuHr): 5.61		Cycle Time (s): 60				

Basic Results Summary

Scenario 2: '2026PM' (FG2: '2026 PM', Plan 1: 'Network Control Plan 1')

Network Layout Diagram



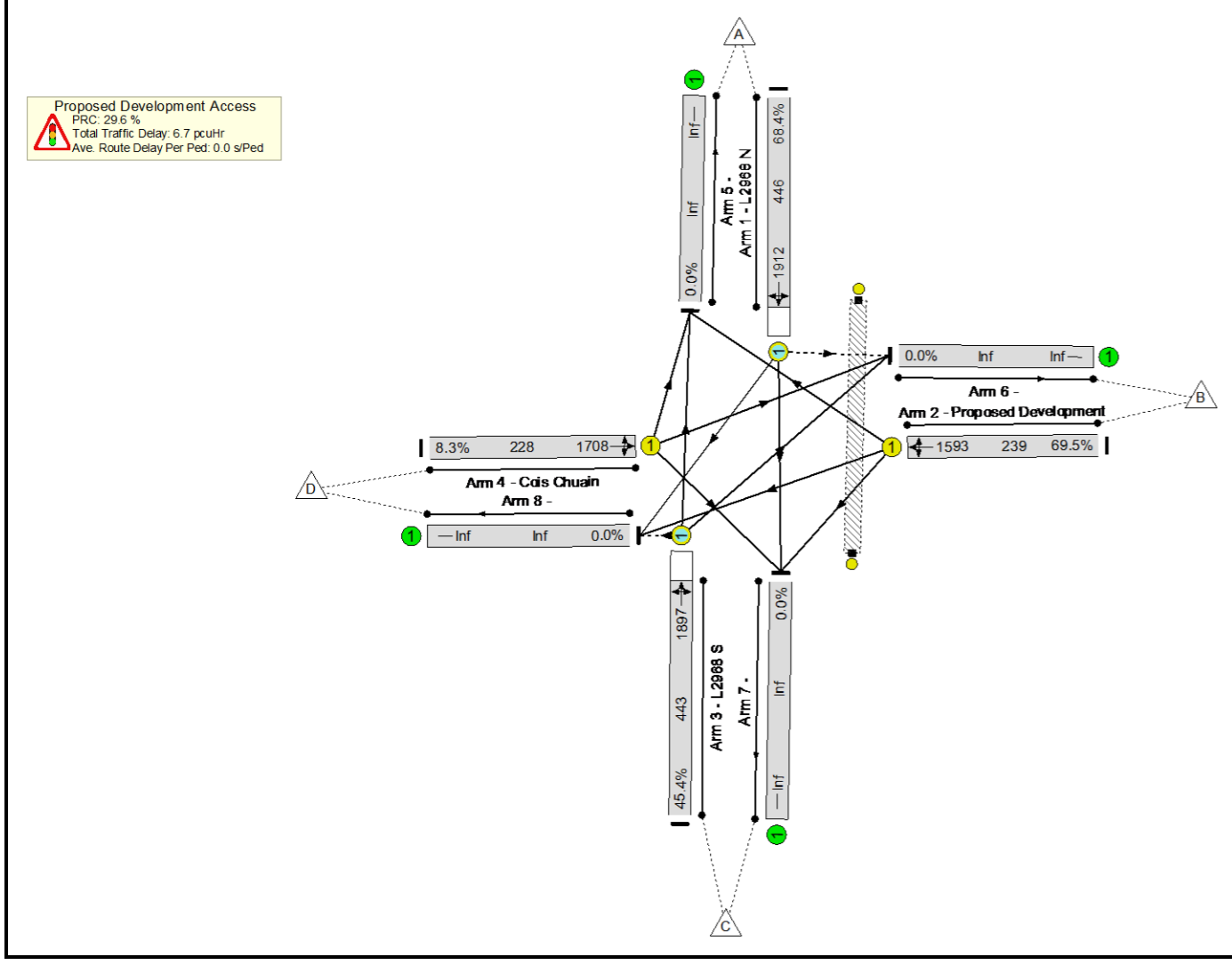
Basic Results Summary  
Network Results

Item	Lane Description	Lane Type	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Total Delay (pcuHr)	AV. Delay Per PCU (s/pcu)	Mean Max Queue (pcu)	
Network	-	-	-	-	-	-	-	-	-	-	44.4%	12	0	0	3.5	-	-	
Proposed Development Access	-	-	-	-	-	-	-	-	-	-	44.4%	12	0	0	3.5	-	-	
1/1	L2968 N Left Ahead Right	O	A		1	14	-	167	1908	477	35.0%	2	0	0	1.1	24.3	2.5	
2/1	Proposed Development Right Left Ahead	U	B		1	7	-	76	1579	211	36.1%	-	-	-	0.8	37.0	1.4	
3/1	L2968 S Ahead Right Left	O	C		1	14	-	210	1891	473	44.4%	10	0	0	1.5	25.8	3.3	
4/1	Cois Chuain Left Ahead Right	U	D		1	7	-	9	1781	237	3.8%	-	-	-	0.1	30.8	0.1	
Ped Link: P1	Unnamed Ped Link	-	E		1	12	-	0	-	0	0.0%	-	-	-	-	-	-	
		C1				PRC for Signalised Lanes (%): 102.6 PRC Over All Lanes (%): 102.6		Total Delay for Signalised Lanes (pcuHr): 3.49 Total Delay Over All Lanes (pcuHr): 3.49										Cycle Time (s): 60

Basic Results Summary

Scenario 3: '2031AM' (FG3: '2031 AM', Plan 1: 'Network Control Plan 1')

Network Layout Diagram



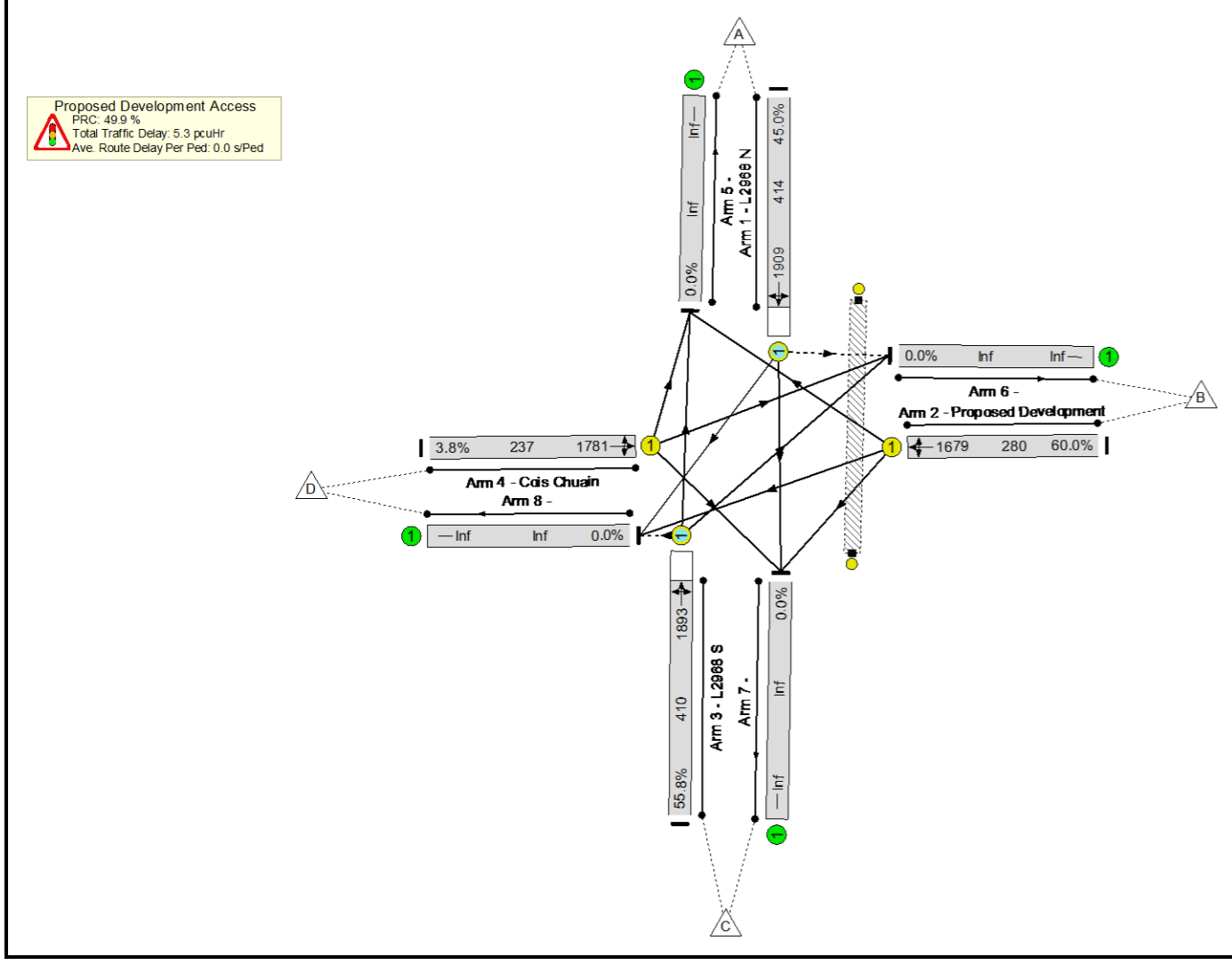
Basic Results Summary  
Network Results

Item	Lane Description	Lane Type	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Total Delay (pcuHr)	AV. Delay Per PCU (s/pcu)	Mean Max Queue (pcu)	
Network	-	-	-	-	-	-	-	-	-	-	69.5%	8	0	0	6.7	-	-	
Proposed Development Access	-	-	-	-	-	-	-	-	-	-	69.5%	8	0	0	6.7	-	-	
1/1	L2968 N Left Ahead Right	O	A		1	13	-	305	1912	446	68.4%	1	0	0	2.8	33.6	5.6	
2/1	Proposed Development Right Left Ahead	U	B		1	8	-	166	1593	239	69.5%	-	-	-	2.2	48.2	3.7	
3/1	L2968 S Ahead Right Left	O	C		1	13	-	201	1897	443	45.4%	7	0	0	1.5	27.2	3.3	
4/1	Cois Chuain Left Ahead Right	U	D		1	7	-	19	1708	228	8.3%	-	-	-	0.2	31.6	0.3	
Ped Link: P1	Unnamed Ped Link	-	E		1	12	-	0	-	0	0.0%	-	-	-	-	-	-	
		C1				PRC for Signalised Lanes (%): 29.6 PRC Over All Lanes (%): 29.6		Total Delay for Signalised Lanes (pcuHr): 6.75 Total Delay Over All Lanes (pcuHr): 6.75										Cycle Time (s): 60

Basic Results Summary

Scenario 4: '2031PM' (FG4: '2031 PM', Plan 1: 'Network Control Plan 1')

Network Layout Diagram



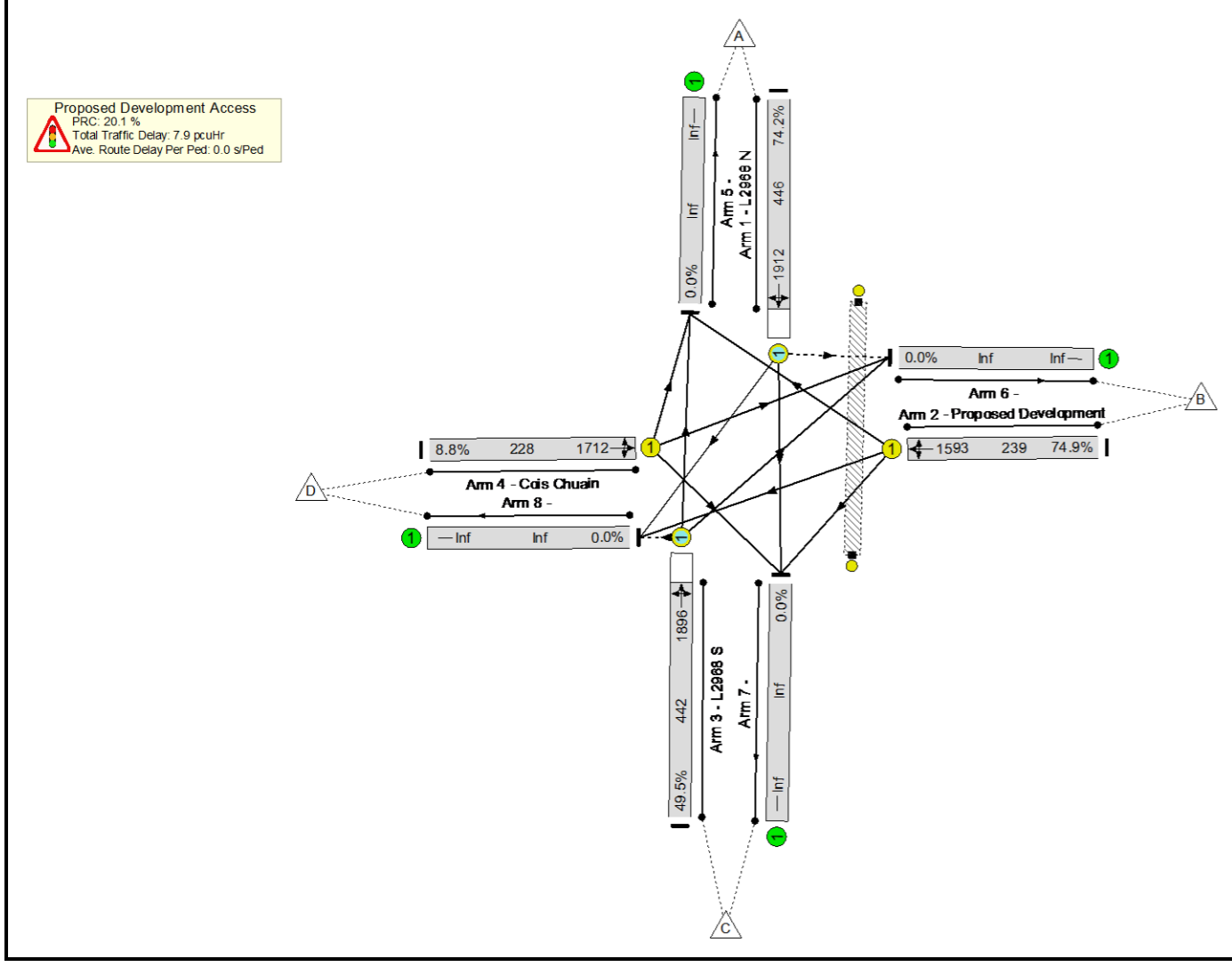
Basic Results Summary  
Network Results

Item	Lane Description	Lane Type	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Total Delay (pcuHr)	AV. Delay Per PCU (s/pcu)	Mean Max Queue (pcu)	
Network	-	-	-	-	-	-	-	-	-	-	60.0%	12	0	0	5.3	-	-	
Proposed Development Access	-	-	-	-	-	-	-	-	-	-	60.0%	12	0	0	5.3	-	-	
1/1	L2968 N Left Ahead Right	O	A		1	12	-	186	1909	414	45.0%	2	0	0	1.5	28.3	3.1	
2/1	Proposed Development Right Left Ahead	U	B		1	9	-	168	1679	280	60.0%	-	-	-	1.8	39.1	3.3	
3/1	L2968 S Ahead Right Left	O	C		1	12	-	229	1893	410	55.8%	10	0	0	2.0	30.8	4.0	
4/1	Cois Chuain Left Ahead Right	U	D		1	7	-	9	1781	237	3.8%	-	-	-	0.1	30.8	0.1	
Ped Link: P1	Unnamed Ped Link	-	E		1	12	-	0	-	0	0.0%	-	-	-	-	-	-	
		C1			PRC for Signalised Lanes (%): 49.9 PRC Over All Lanes (%): 49.9		Total Delay for Signalised Lanes (pcuHr): 5.32 Total Delay Over All Lanes (pcuHr): 5.32										Cycle Time (s): 60	

Basic Results Summary

Scenario 5: '2041AM' (FG5: '2041 AM', Plan 1: 'Network Control Plan 1')

Network Layout Diagram



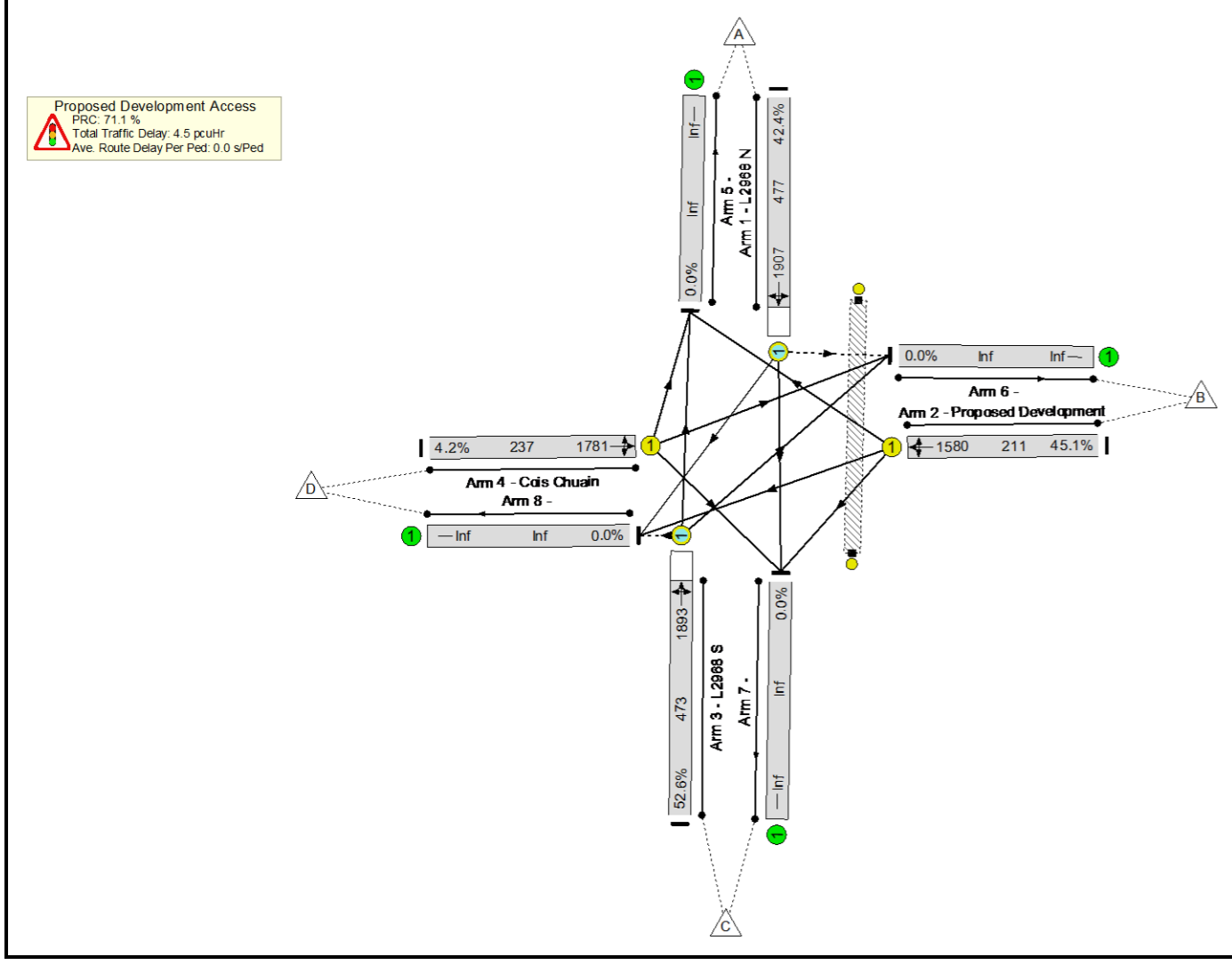
Basic Results Summary  
Network Results

Item	Lane Description	Lane Type	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Total Delay (pcuHr)	AV. Delay Per PCU (s/pcu)	Mean Max Queue (pcu)
Network	-	-	-	-	-	-	-	-	-	-	74.9%	9	0	0	7.9	-	-
Proposed Development Access	-	-	-	-	-	-	-	-	-	-	74.9%	9	0	0	7.9	-	-
1/1	L2968 N Left Ahead Right	O	A		1	13	-	331	1912	446	74.2%	1	0	0	3.4	36.6	6.5
2/1	Proposed Development Right Left Ahead	U	B		1	8	-	179	1593	239	74.9%	-	-	-	2.6	53.1	4.3
3/1	L2968 S Ahead Right Left	O	C		1	13	-	219	1896	442	49.5%	8	0	0	1.7	28.0	3.7
4/1	Cois Chuain Left Ahead Right	U	D		1	7	-	20	1712	228	8.8%	-	-	-	0.2	31.6	0.3
Ped Link: P1	Unnamed Ped Link	-	E		1	12	-	0	-	0	0.0%	-	-	-	-	-	-
		C1			PRC for Signalised Lanes (%): PRC Over All Lanes (%)		20.1 20.1	Total Delay for Signalised Lanes (pcuHr): Total Delay Over All Lanes (pcuHr):		7.88 7.88		Cycle Time (s): 60					

Basic Results Summary

Scenario 6: '2041PM' (FG6: '2041 PM', Plan 1: 'Network Control Plan 1')

Network Layout Diagram



Basic Results Summary  
Network Results

Item	Lane Description	Lane Type	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Total Delay (pcuHr)	AV. Delay Per PCU (s/pcu)	Mean Max Queue (pcu)	
Network	-	-	-	-	-	-	-	-	-	-	52.6%	14	0	0	4.5	-	-	
Proposed Development Access	-	-	-	-	-	-	-	-	-	-	52.6%	14	0	0	4.5	-	-	
1/1	L2968 N Left Ahead Right	O	A		1	14	-	202	1907	477	42.4%	3	0	0	1.4	25.4	3.2	
2/1	Proposed Development Right Left Ahead	U	B		1	7	-	95	1580	211	45.1%	-	-	-	1.0	39.5	1.9	
3/1	L2968 S Ahead Right Left	O	C		1	14	-	249	1893	473	52.6%	11	0	0	1.9	27.4	4.1	
4/1	Cois Chuain Left Ahead Right	U	D		1	7	-	10	1781	237	4.2%	-	-	-	0.1	30.9	0.2	
Ped Link: P1	Unnamed Ped Link	-	E		1	12	-	0	-	0	0.0%	-	-	-	-	-	-	
		C1				PRC for Signalled Lanes (%): 71.1 PRC Over All Lanes (%): 71.1		Total Delay for Signalled Lanes (pcuHr): 4.45 Total Delay Over All Lanes(pcuHr): 4.45										Cycle Time (s): 60

## TRIP RATE CALCULATION SELECTION PARAMETERS:

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

Selected regions and areas:

12	CONNAUGHT	
	CS SLIGO	2 days
	LT LEITRIM	2 days
	RO ROSCOMMON	2 days
13	MUNSTER	
	WA WATERFORD	1 days
14	LEINSTER	
	CC CARLOW	1 days
	WC WICKLOW	2 days
	WX WEXFORD	1 days
15	GREATER DUBLIN	
	DL DUBLIN	1 days
16	ULSTER (REPUBLIC OF IRELAND)	
	CV CAVAN	2 days
	DN DONEGAL	6 days
17	ULSTER (NORTHERN IRELAND)	
	AN ANTRIM	1 days
	DO DOWN	1 days

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

## Primary Filtering selection:

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

Parameter: No of Dwellings  
 Actual Range: 6 to 280 (units: )  
 Range Selected by User: 4 to 437 (units: )

Parking Spaces Range: All Surveys Included

Parking Spaces per Dwelling Range: All Surveys Included

Bedrooms per Dwelling Range: All Surveys Included

Percentage of dwellings privately owned: All Surveys Included

Public Transport Provision:

Selection by: Include all surveys

Date Range: 01/01/13 to 30/09/20

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

Selected survey days:

Monday	6 days
Tuesday	1 days
Wednesday	8 days
Thursday	4 days
Friday	3 days

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

Selected survey types:

Manual count	22 days
Directional ATC Count	0 days

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

Selected Locations:

Edge of Town Centre	3
Suburban Area (PPS6 Out of Centre)	5
Edge of Town	12
Neighbourhood Centre (PPS6 Local Centre)	2

## APPENDIX C: TRICS



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

Selected Location Sub Categories:

Residential Zone	14
Village	2
No Sub Category	6

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

Secondary Filtering selection:

Use Class:

C3	22 days
----	---------

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

Population within 500m Range:

All Surveys Included

Population within 1 mile:

1,000 or Less	2 days
1,001 to 5,000	9 days
5,001 to 10,000	5 days
10,001 to 15,000	5 days
15,001 to 20,000	1 days

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

Population within 5 miles:

5,000 or Less	4 days
5,001 to 25,000	13 days
25,001 to 50,000	3 days
50,001 to 75,000	1 days
75,001 to 100,000	1 days

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

Car ownership within 5 miles:

0.6 to 1.0	6 days
1.1 to 1.5	11 days
1.6 to 2.0	5 days

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

Travel Plan:

No	22 days
----	---------

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

PTAL Rating:

No PTAL Present	22 days
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*This data displays the number of selected surveys with PTAL Ratings.*

Covid-19 Restrictions	Yes	At least one survey within the selected data set was undertaken at a time of Covid-19 restrictions
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LIST OF SITES relevant to selection parameters

1	AN-03-A-09 SLOEFIELD DRIVE CARRICKFERGUS	DETACHED & SEMI-DETACHED	ANTRIM
	Edge of Town No Sub Category Total No of Dwellings: 151 Survey date: WEDNESDAY 12/10/16		Survey Type: MANUAL
2	CC-03-A-01 R417 ANTHY ROAD CARLOW	DETACHED HOUSES	CARLOW
	Edge of Town Residential Zone Total No of Dwellings: 23 Survey date: WEDNESDAY 25/05/16		Survey Type: MANUAL
3	CS-03-A-03 TOP ROAD STRANDHILL STRANDHILL Neighbourhood Centre (PPS6 Local Centre) Village	MIXED HOUSES	SLIGO
	Total No of Dwellings: 30 Survey date: THURSDAY 27/10/16		Survey Type: MANUAL
4	CS-03-A-04 R292 STRANDHILL	DETACHED & SEMI-DETACHED	SLIGO
	Neighbourhood Centre (PPS6 Local Centre) Village Total No of Dwellings: 63 Survey date: THURSDAY 27/10/16		Survey Type: MANUAL
5	CV-03-A-02 R212 DUBLIN ROAD CAVAN KILLYNEBBER Edge of Town No Sub Category	DETACHED & SEMI DETACHED	CAVAN
	Total No of Dwellings: 80 Survey date: MONDAY 22/05/17		Survey Type: MANUAL
6	CV-03-A-03 R212 DUBLIN ROAD CAVAN PULLAMORE NEAR Edge of Town No Sub Category	DETACHED HOUSES	CAVAN
	Total No of Dwellings: 37 Survey date: MONDAY 22/05/17		Survey Type: MANUAL
7	DL-03-A-10 R124 MALAHIDE SAINT HELENS Edge of Town Residential Zone	SEMI DETACHED & DETACHED	DUBLIN
	Total No of Dwellings: 65 Survey date: WEDNESDAY 20/06/18		Survey Type: MANUAL
8	DN-03-A-03 THE GRANGE LETTERKENNY GLENCAR IRISH Edge of Town Residential Zone	DETACHED/SEMI-DETACHED	DONEGAL
	Total No of Dwellings: 50 Survey date: MONDAY 01/09/14		Survey Type: MANUAL

*LIST OF SITES relevant to selection parameters (Cont.)*

9	DN-03-A-04	SEMI -DETACHED	DONEGAL
	GORTLEE ROAD LETTERKENNY GORTLEE Edge of Town Residential Zone Total No of Dwellings: 83 <i>Survey date: FRIDAY 26/09/14</i> <i>Survey Type: MANUAL</i>		
10	DN-03-A-05	DETACHED/SEMI -DETACHED	DONEGAL
	GORTLEE ROAD LETTERKENNY GORTLEE Suburban Area (PPS6 Out of Centre) Residential Zone Total No of Dwellings: 146 <i>Survey date: WEDNESDAY 03/09/14</i> <i>Survey Type: MANUAL</i>		
11	DN-03-A-06	DETACHED HOUSING	DONEGAL
	GLENFIN ROAD BALLYBOFEY  Edge of Town Residential Zone Total No of Dwellings: 6 <i>Survey date: WEDNESDAY 10/10/18</i> <i>Survey Type: MANUAL</i>		
12	DN-03-A-07	DETACHED & SEMI -DETACHED	DONEGAL
	ST ORANS ROAD BUNCRANA  Edge of Town Centre Residential Zone Total No of Dwellings: 9 <i>Survey date: WEDNESDAY 29/05/19</i> <i>Survey Type: MANUAL</i>		
13	DN-03-A-08	SEMI DETACHED & DETACHED	DONEGAL
	CHURCH ROAD CARNDONAGH  Suburban Area (PPS6 Out of Centre) Residential Zone Total No of Dwellings: 36 <i>Survey date: WEDNESDAY 30/09/20</i> <i>Survey Type: MANUAL</i>		
14	DO-03-A-03	DETACHED/SEMI DETACHED	DOWN
	OLD MILL HEIGHTS BELFAST DUNDONALD Edge of Town Residential Zone Total No of Dwellings: 79 <i>Survey date: WEDNESDAY 23/10/13</i> <i>Survey Type: MANUAL</i>		
15	LT-03-A-01	SEMI -DETACHED & DETACHED	LEITRIM
	ARD NA SI CARRICK-ON-SHANNON ATTIRORY Suburban Area (PPS6 Out of Centre) Residential Zone Total No of Dwellings: 90 <i>Survey date: FRIDAY 24/04/15</i> <i>Survey Type: MANUAL</i>		
16	LT-03-A-02	BUNGALOWS	LEITRIM
	ARD ALAINN CARRICK-ON-SHANNON GALLOW'S HILL Edge of Town Centre Residential Zone Total No of Dwellings: 10 <i>Survey date: MONDAY 22/05/17</i> <i>Survey Type: MANUAL</i>		

*LIST OF SITES relevant to selection parameters (Cont.)*

17	RO-03-A-03	DETACHED HOUSES	ROSCOMMON
	N61 BOYLE GREATMEADOW Edge of Town No Sub Category Total No of Dwellings: 23 <i>Survey date: THURSDAY 25/09/14</i> <i>Survey Type: MANUAL</i>		
18	RO-03-A-04	SEMI DET. & BUNGALOWS	ROSCOMMON
	EAGLE COURT ROSCOMMON ARDNANAGH Suburban Area (PPS6 Out of Centre) Residential Zone Total No of Dwellings: 39 <i>Survey date: FRIDAY 26/09/14</i> <i>Survey Type: MANUAL</i>		
19	WA-03-A-04	DETACHED	WATERFORD
	MAYPARK LANE WATERFORD  Edge of Town Residential Zone Total No of Dwellings: 280 <i>Survey date: TUESDAY 24/06/14</i> <i>Survey Type: MANUAL</i>		
20	WC-03-A-01	DETACHED HOUSES	WICKLOW
	STATION ROAD WICKLOW CORPORATION MURRAGH Edge of Town No Sub Category Total No of Dwellings: 50 <i>Survey date: MONDAY 28/05/18</i> <i>Survey Type: MANUAL</i>		
21	WC-03-A-02	DETACHED HOUSES	WICKLOW
	MARLTON ROAD WICKLOW FRIARSHILL Edge of Town Centre Residential Zone Total No of Dwellings: 45 <i>Survey date: MONDAY 28/05/18</i> <i>Survey Type: MANUAL</i>		
22	WX-03-A-01	SEMI -DETACHED	WEXFORD
	CLONARD ROAD WEXFORD  Suburban Area (PPS6 Out of Centre) No Sub Category Total No of Dwellings: 34 <i>Survey date: THURSDAY 25/09/14</i> <i>Survey Type: MANUAL</i>		

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

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

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	22	65	0.049	22	65	0.195	22	65	0.244
08:00 - 09:00	22	65	0.176	22	65	0.546	22	65	0.722
09:00 - 10:00	22	65	0.241	22	65	0.285	22	65	0.526
10:00 - 11:00	22	65	0.180	22	65	0.200	22	65	0.380
11:00 - 12:00	22	65	0.181	22	65	0.226	22	65	0.407
12:00 - 13:00	22	65	0.259	22	65	0.241	22	65	0.500
13:00 - 14:00	22	65	0.265	22	65	0.278	22	65	0.543
14:00 - 15:00	22	65	0.306	22	65	0.304	22	65	0.610
15:00 - 16:00	22	65	0.349	22	65	0.262	22	65	0.611
16:00 - 17:00	22	65	0.362	22	65	0.244	22	65	0.606
17:00 - 18:00	22	65	0.477	22	65	0.283	22	65	0.760
18:00 - 19:00	22	65	0.364	22	65	0.281	22	65	0.645
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
<b>Total Rates:</b>			3.209			3.345			6.554

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

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

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Parameter summary

Trip rate parameter range selected: 6 - 280 (units: )  
 Survey date range: 01/01/13 - 30/09/20  
 Number of weekdays (Monday-Friday): 22  
 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 shown. Finally, the number of survey days that have been manually removed from the selected set outside of the standard filtering procedure are displayed.