

**Tay Lane, Rathcoole Age-Friendly Development,  
Newcastle Road, Rathcoole, Dublin 24**

**Traffic and Transport Assessment**

**Client: Riverside Projects Ltd**

CORA Consulting Engineers

Dr Martin Rogers (MRCL)  
Transport Planning Professional  
Chartered Civil Engineer and Chartered Town Planner

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**Martin Rogers Consulting Ltd**

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## **1.0 INTRODUCTION**

### **1.1 GENERAL DESCRIPTION**

The Riverside Projects Ltd have appointed Dr Martin Rogers, Transport Planning Professional, to provide a Traffic Impact Assessment for a retirement housing development on Newcastle Road, Rathcoole, Dublin 24.

The development will comprise 54 No. retirement housing units in total over four floors (16 No. 1B/2P and 38 No. 2B/3P units).

30 No. car parking spaces are proposed for the retirement housing development. This equates to 0.56 car parking spaces per dwelling unit.

A bike storage facility is included within the facility.

The vehicular access is onto Tay Lane, to the west of the site of the proposed development.

It is assumed that the proposed development will open in 2026.

The application was lodged with South Dublin County Council on 23<sup>rd</sup> August 2022 (SD22A/0342).

On 20<sup>th</sup> October 2022 South Dublin County Council issued a request for further information comprising 16 No. items.

Item No. 5 refers to roads and requests that 'a Traffic and Transport assessment of the nearby junction(s), to confirm that the development will have no impact on the traffic flows on the Rathcoole main street'.

This report addresses this item.

### **1.2 PURPOSE OF THE TRAFFIC AND TRANSPORT ASSESSMENT**

The purpose of this Traffic and Transport Assessment is thus to assess the current operational efficiency of the existing transport environment and provide details of the assessment undertaken to identify the level of transport impact resulting from the proposed residential development. The scope of the assessment covers both transport and related sustainability issues, including means of vehicular access, pedestrian, cyclist and local public transport connections. The principal objective of the report is to quantify any level of impact across the local road network and subsequently ascertain both the existing and future operational performance of the local road network.

### **1.3 METHODOLOGY USED WITHIN THE TRAFFIC AND TRANSPORT ASSESSMENT**

This report was developed with guidance from the documents listed below;

- 'Traffic and Transport Assessment Guidelines' (May 2014) National Road Authority;
- 'Traffic Management Guidelines' Dublin Transportation Office & Department of the Environment and Local Government (May 2003);
- 'Guidelines for Traffic Impact Assessments' The Institution of Highways and Transportation; and
- South Dublin County Council Development Plan 2022-2028.

The methodology utilised can be divided into the following 5 No. phases, in compliance with the Traffic and Transport Assessment Guidelines referenced above:

The methodology utilised can be divided into the following 5 No. phases, in compliance with the Traffic and Transport Assessment Guidelines referenced above:

#### Audit of existing network

The report establishes the existing level of accessibility at present pertaining to the subject site in terms of the level of access available by walking, cycling and public transport.

#### Completion of Traffic Counts

The report details Junction traffic counts undertaken at the locations relevant to the proposed development, and analysed in order to assess existing operating efficiencies in the vicinity of the proposed development.

#### Estimation of Trip Generation Volumes

A trip generation exercise has been carried out to establish an estimate for the level of vehicle trips generated by the proposed residential development.

#### Distribution of Generated Trips

Based upon both the existing observed flow patterns in the local road network at the identified relevant junctions, the trips predicted to be generated by the proposed development are distributed / assigned onto the local road network.

#### Network Analysis detailing Impact of Generated Volumes

If requires, junction analysis models are utilised to analyse the impact of the estimated trip generation volumes on the operational efficiency of the junctions selected for detailed analysis.

This methodology within this report is thus consistent with the following sections required within a basic Traffic and Transport Assessment for compliance with the 2014 TTA Guidelines:

- Introduction / Existing conditions
- Extent of proposed development (including existing and future public transport and walking / cycling facilities)
- Vehicular Trip Generation
- Vehicular Trip Distribution / Assignment to network
- Impact on road network of trips generated by proposed development

### **1.4 SITE ACCESS TO ROAD NETWORK**

Figure 1-1 indicates the location of the Tay Lane site relative to the local road network (Tay Lane / L2004 Main Street Rathcoole)



Figure 1-1: Location of site relative to local road network

A map indicating the location of the traffic survey of the critical junction (Tay Lane / Main Street), providing access for development traffic to the local road network, is contained within Figure 1-2.

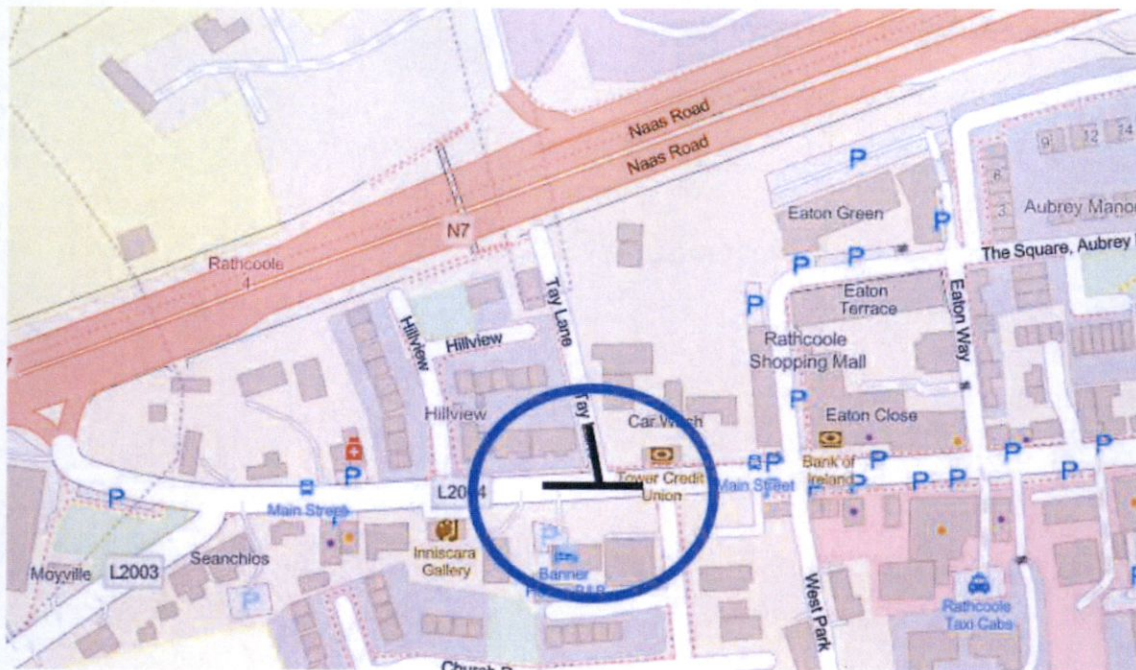


Figure 1-2: Map indicating location of traffic survey site where traffic generated by proposed development accesses local road network

The Tay Lane / Main Street junction is thus the critical intersection, providing direct entry to the local road network.

### 1.5 SCOPE OF THE REPORT

Section 2 provides details of the receiving environment, detailing existing conditions pertaining at the site of the proposed development and the surrounding local road network (stage 1 of TTA methodology as stated in section 1.3);

Section 3 details the parking requirements for the proposed development and the proposed provision.

Section 4 details the extent of the development together with the trips generated by it, and the distribution / assignment of those estimated flows at the critical nearby junction chosen for analysis (stages 2, 3 and 4 of TTA methodology as stated in section 1.3). Trips generated by adjacent permitted developments and their distributions are also detailed. The need for a traffic assessment based on the criteria within the 2014 Traffic and Transport Assessment Guidelines is also detailed;

Section 5 details an analysis of the traffic impact of the proposed and adjacent planned development on the nearby critical junction for the existing situation, the estimated year of opening, and within the design years, five and fifteen years thereafter (stage 5 of TTA methodology as stated in section 1.3); and

Section 6 makes some concluding comments regarding the impact of the proposed project in traffic impact terms, the mitigating factors pertaining to it and its overall sustainability.

## 2.0 RECEIVING ENVIRONMENT

### 2.1 LOCATION OF PROPOSED DEVELOPMENT

The site is located centrally within Rathcoole village, 80 metres north of Main Street / L2004.

Main Street has direct links to the west Dublin suburbs and the N7 / Naas Road.

### 2.2 EXISTING PUBLIC TRANSPORT FACILITIES

Figure 2-1 contains details of the LUAS and public transport facilities close to the proposed development.



Figure 2-1: Existing bus and LUAS transport facilities close to subject site

The 69 and 69x routes from Rathcoole to Hawkins Street runs 3 times per hour during the morning peak, with the 39A along Prussia Street running 8 times per hour during the peak.

The frequency of each of the above routes during the morning peak is detailed within Table 2-1.

Route	Origin	Destination	AM Peak time Frequency
69	Rathcoole	Hawkins Street	2 PER HOUR
69X (express, peak only)	Rathcoole	Hawkins Street	1 PER HOUR
TOTAL	-	-	3 PER HOUR

Table 2-1: Route origins, destinations and frequencies

Route 69 provides a direct link to the LUAS Red Line which terminates at Teach Saggart, 3 km east of the subject site.

Figure 2-2 provides a map detailing the LUAS network, and the location of the Saggart stop within it:

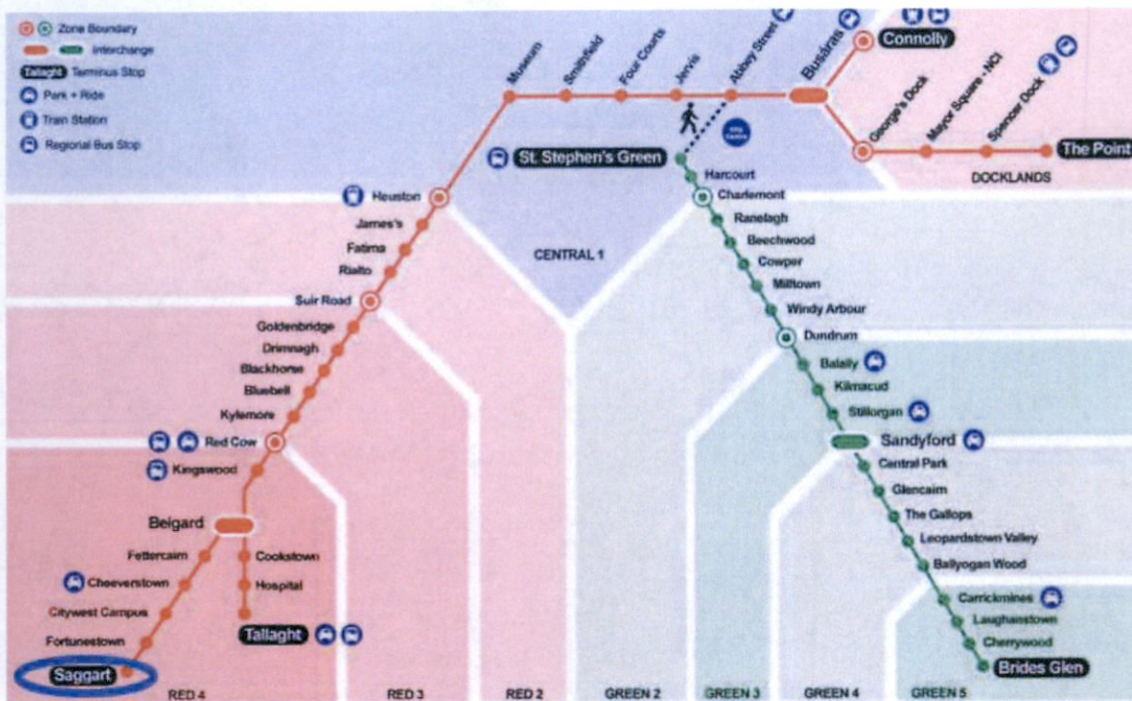


Figure 2-2: Location of the Saggart stop within the LUAS network

### 2.3 EXISTING CYCLING AND PEDESTRIAN FACILITIES

There are no cycle lanes in the vicinity of the proposed development.

The good quality footpath facilities within Rathcoole Village, and along one side of Tay Lane.

### 2.4 FUTURE PLANNED PUBLIC TRANSPORT AND CYCLING NETWORK IMPROVEMENTS

Greater Dublin Area Cycle Plan

Figure 2-3 details the network improvements proposed within the GDA cycle plan:

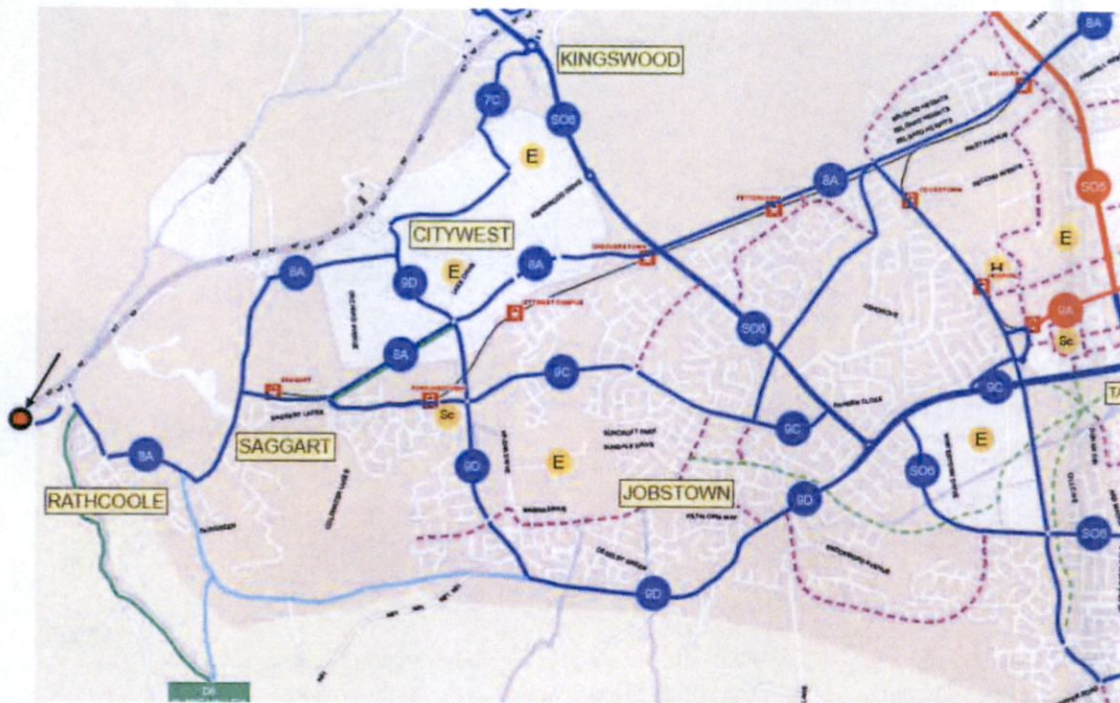


Figure 2-3: Proposed cycle facilities close to the subject site (GDA cycle plan) (primary routes in red, secondary in blue)

#### Radial Routes

##### Radial Route 8A

Route 8 runs from South Great George's Street via the Coombe area and Dolphin's Barn to the junction of Crumlin Road and Sundrive Road (Route SO2).

Route 8A follows Crumlin Road past the Children's Hospital, Bunting Road to Walkinstown, through Ballymount to cross the M50 at Junction 10 and out to Citywest / Fortunestown /Saggart via Belgard.

This route will run from the City Centre to the Navan Road via Grangegorman, Prussia Street, North Circular Road at Hanlon's Corner and Old Cabra Road

#### Bus Connects

In 2018, the National Transportation Agency (NTA) published the Core Bus Corridors Project Report ('Bus Connects Report'), a preliminary document outlining proposals for the delivery of a core bus corridor network within Dublin.

Figures 2-4 and 2-5 contains a map detailing the route of the proposed 93, 393 and W8 routes running close to the site.

Route 93 runs from Rathcoole to the Dublin Port area. It will be an all-day service, running every 60 minutes.

This route would start at the existing 69 terminus in Rathcoole, and connecting to Saggart, Citywest and Clondalkin, and onwards to the City Centre.

Route 393 runs from Rathcoole to the City Centre. It will be a peak-only express service, similar to the existing Route 69x, but with a second trip added in the morning in response to observed significant levels of demand.

The eastern sector of Rathcoole village would also be near the orbital Route W8, running from Maynooth to Tallaght. It will be an all-day service, every 30 minutes, and will provide a new regular link to Maynooth, Celbridge and Hazelhatch Station to the north, and to Saggart, Citywest and Tallaght to the south.





## 2.5 BASELINE TRAFFIC FLOWS AT TAY LANE/ L2020 (MAIN STREET) PRIORITY JUNCTION

On the network, peak flows typically occur on weekdays, with peak hourly flows typically occurring between 7am and 9am in the morning and between 4pm and 7pm in the evening.

A 24-hour Traffic survey at the critical nearby junction was carried out on Tuesday 8<sup>th</sup> November 2022.

The surveys indicated that the weekday morning peak occurred between 0900 and 1000 with the evening peak occurring between 1800 and 1900 - these were observed to be the timeframes during which the junctions were most heavily loaded. The following analysis is based on these peak periods.

Full details of all surveys utilised within this report are contained within Appendix 1.

It is assumed that the proposed development will open in 2026.

The analysis within this report is undertaken based on 1.7% annual growth in network traffic over the period 2022 to 2030 period, decreasing to 0.6% in the 2030 to 2041 period. These rates are consistent with the 'medium sensitivity' assumption for the four planning authorities within the Dublin metropolitan area as detailed within the 2019 Transport Infrastructure Ireland document 'Project Appraisal Guidelines for National Roads Unit 5.3 – Travel Demand Projections', PE-PAG-02017-2, May 2019.

The November 2022 flows at the critical junction in the vicinity of the proposed development are as follows:

*Morning peak*

Tay lane / L2004 (Main Street): 520 No. passenger car units (PCU)

*Evening peak*

Tay lane / L2004 (Main Street): 656 No. passenger car units (PCU)

*24-hours*

Tay lane / L2004 (Main Street): 8389 No. passenger car units (PCU)

One can see that the junction is relatively busy during both peaks. The overwhelming proportion of flows at the junction are through-flows along Main Street.

The observed morning peak hour, evening peak hour and all-day flows for November 2022 for the critical junction are detailed in Diagrams 1, 2 and 3 Appendix 2 respectively.

Figures 2-6, 2-7 and 2-8 contain diagrammatic representations of the morning peak hour, evening peak hour and all-day flows respectively at the critical adjacent junction:

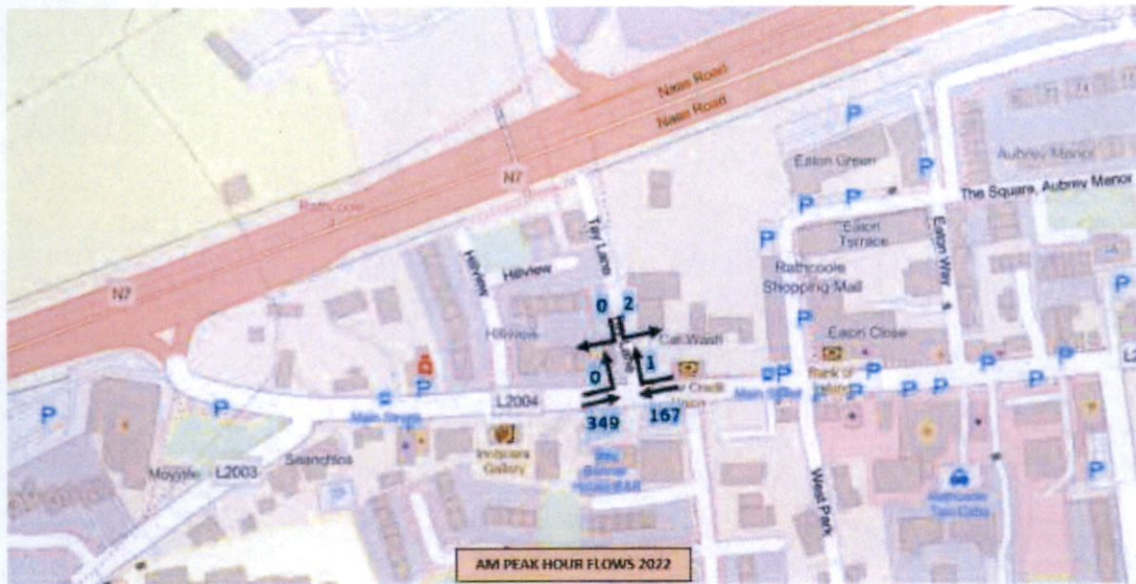


Figure 2-6: AM peak hour flows at Tay Lane / Main Street junction

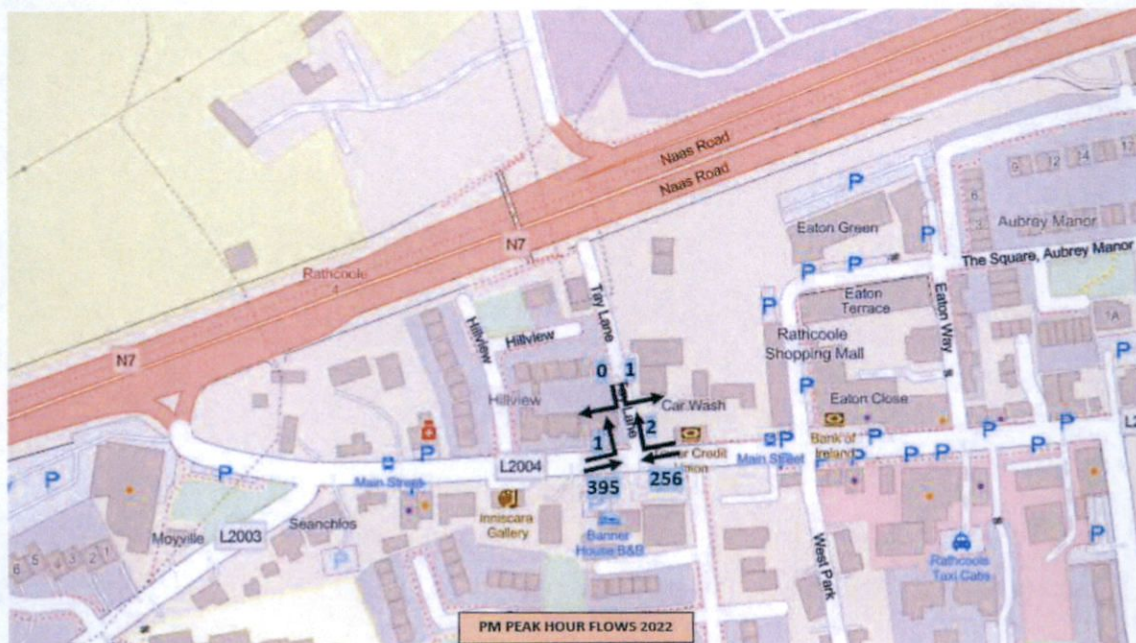


Figure 2-7: PM peak hour flows at Tay Lane / Main Street junction



Figure 2-8: All day flows Tay Lane / Main Street junction

### 3.0 REQUIRED AND PROPOSED CAR PARKING PROVISION

#### 3.1 INTRODUCTION

This section details the car and cycle parking requirements under the South Dublin Development Plan 2022 to 2028.

While no specific requirement for age-friendly housing is contained within the Development Plan, this report utilises the requirement for retirement homes and apartments stated in the document.

#### 3.2 CAR AND CYCLE PARKING REQUIREMENTS AS PER SDCC DEVELOPMENT PLAN

##### *Car Parking*

Tables 3-1 below details the maximum car parking standards for South Dublin County Council based on the rates contained within their 2022 – 2028 Development Plan Written Statement for both retirement homes and apartment developments.

The development comprises 16 No. 1-bed housing units (maximum occupancy 2 No. persons) and 38 No. 2-bed housing units (maximum occupancy 3 No. persons).

Therefore, the above development mix provides a maximum occupancy for the overall development of 154 No. persons

Development type	Units / Residents	Maximum car parking standards	Maximum parking required
Retirement Home	146 No. residents	1 per 8 No. residents	18 No.
Apartments	54 No. units ( 16 No. 1-bed + 38 No. 2-bed)	$(16 \times 0.75) + (1 \times 38) = 50$	50 No.

Table 3-1: Maximum Car Parking required under South Dublin County Council Development Plan Standards (The Site is in Rathcoole Village Centre which is identified as a Growth Town in the CDP Core Strategy, therefore, it is contended that Zone 2 is justified).

The proposed development will provide 30 No. car parking spaces for the proposed age-friendly housing development.

The provision of 30 No. car parking spaces is based on the following allocation:

- 24 No. spaces allocated to residents, based on 1 No. space per 4 bedrooms (92 No. beds in total within development);
- 2 No. spaces allocated to the community centre facility for hosting communal activities by the residents;
- 1 No. space for the Buildings Manager; and
- 3 No. visitor spaces

The figure of one space per 8 No. residents, yielding a requirement for 18 No. spaces, is very similar to the one space per 7 No. residents previously used by Cluid who are the ultimate end-users for the proposed development, with one space per 7 No. residents yielding a requirement of 21 No. spaces.

The overall figure of 30 No. spaces can be seen as striking a balance between apartment and retirement home standards, since no standard is provided for 'age friendly' development and the occupier profile of 'age friendly' development is markedly different to that of a standard apartment scheme, which would require 50 No. spaces for full compliance as detailed above within Table 3-1. It must be noted that residents of 'age-friendly' schemes will have a far greater degree of independence than care home / retirement home residents and so providing a higher level of car parking, relative to the care homes standard, is justified in this case. Furthermore, the majority of residents will not undertake daily work commutes which account for a high proportion of private car trips in a standard apartment development. Given that the site is within walking distance of local shops and facilities, providing a lower level of car parking relative to the standard for apartments is justified given the age profile and employment profile of the intended occupants.

Also, 2 No. spaces have been provided for the community centre. It could be argued that no extra parking requirement is generated by this facility as it will be used only by the residents and local community living nearby. This would bring the effective quantum of residents' car parking to 26 No., equivalent to 1 No. space per 5.6 No. residents.

At a residential development in Drogheda, County Louth, which included retirement housing, and which was granted permission in 2018, 1 No. car parking space per 3 No. units were proposed and accepted by the planning authority.

This would equate to 18 No. car parking spaces for residents ( $54 \div 3 = 18$ ), significantly lower than the overall quantum of 30 No. spaces proposed.

The TRICS figures indicate an average of less than 5 No. vehicles entering in any given hour, with a very similar exit flow, resulting in very low accumulations. A provision of 30 No. spaces equates to 5 No. vehicles arriving per hour for 6 hours with no exiting movements. The TRICS data indicates that such is not the case, with inflows practically matching outflows, with low accumulations as a result.

Thus, on the evidence of the TRICS data, 30 No. car parking spaces will be more than adequate.

#### *Cycle Parking*

It is proposed to provide 80 No. cycle parking spaces on site.

Table 3-2 details relevant cycle parking standards

Development type	Units / Residents	Minimum Cycle parking standards	Minimum parking required
Retirement Home	146 No. residents + 0 staff	$(146 \div 10) + (0 \div 5)$	15 No.
Apartments	54 No. units ( 16 No. 1-bed + 38 No. 2-bed)	$(16 \times 1) + (2 \times 38) + (54 \div 2) = 119$	119 No.

Table 3-2: Minimum Cycle Parking required under South Dublin County Council Development Plan Standards

The overall figure of 80 No. cycle spaces aims to strike an appropriate balance between residential apartment and care retirement home parking standards bearing in mind the age profile of the intended occupants.

The proposed provision of 80 No. spaces is 67% of the required provision for apartment developments. Given the targeted age profile for the proposed development, and the consequent reduced likelihood of cycling being a viable transport option for this age-cohort, this level of provision is seen as entirely justified.

It should also be noted that the proposed provision is five times the requirement for a retirement home / nursing home development.

## 4.0 TRIP GENERATION, DISTRIBUTION AND ASSIGNMENT ANALYSIS FOR PROPOSED FUTURE DEVELOPMENT

### 4.1 TRIP GENERATION ANALYSIS

The proposed development consists of 54 No. retirement housing units

TRICS typically gives the following weekday morning and evening peak-hour trip rates for retirement flats, comprising both flats, 'split' and non-split' houses:

		Weekday AM		Weekday PM		DAILY
		IN	OUT	IN	OUT	2-WAY
Retirement Housing	Trips/Unit	0.096	0.103	0.087	0.080	2.19

Table 4-1: Peak hour and daily trip rates for proposed development site

The above TRICS trip rates give rise to the following weekday morning and evening peak and daily trip volumes for retirement housing units:

	No. of units	Weekday AM		Weekday PM		DAILY
		IN	OUT	IN	OUT	2-WAY
Retirement Housing	54	5	6	5	5	118

Table 4-2: Peak hour and daily flows generated by proposed development site

Daily flows occur between 7AM and 7PM, a 12-hour time period.

Appendix 3 contains details of the sites in the UK and Ireland used to deduce the above rates, together with information on the day-long flow patterns.

The above flows equate to 1 No. vehicle entering or leaving every 5.5 minutes during the morning peak hour (9AM to 10AM), and 1 No. vehicle entering or leaving every 6 minutes during the evening peak hour (6PM to 7PM for the development), and, for the 12-hour time period between 7AM and 7PM, on average, during every 60-minute period, 1 No. vehicle enters or leaves on every 6 minutes.

One can thus conclude that the proposed development will be lightly trafficked, with flows relatively un-peaked, averaging 9 No. vehicles per hour over the 7AM to 9PM period.

### 4.2 DISTRIBUTION OF GENERATED FLOWS

On the basis of the existing flow patterns detailed within Figures 2-6 and 2-7 for the morning and evening peak hours respectively, the following distributions for development generated flows are assumed to be as follows:

#### AM peak

60% exiting eastwards towards Dublin, with 40% exiting westwards

All entering flows split 50:50

#### PM peak

60% entering eastwards from Dublin, with 40% entering from the west

All exiting flows split 50:50

The observed morning and evening peak hour development flows are detailed in Diagrams 4 and 5 Appendix 2 respectively.

Figures 4-1 and 4-2 below contain diagrammatic representations of the morning and evening peak hour development flows respectively at the Tay Lane / Main Street junction.



Figure 4-1: AM Peak Development Flows

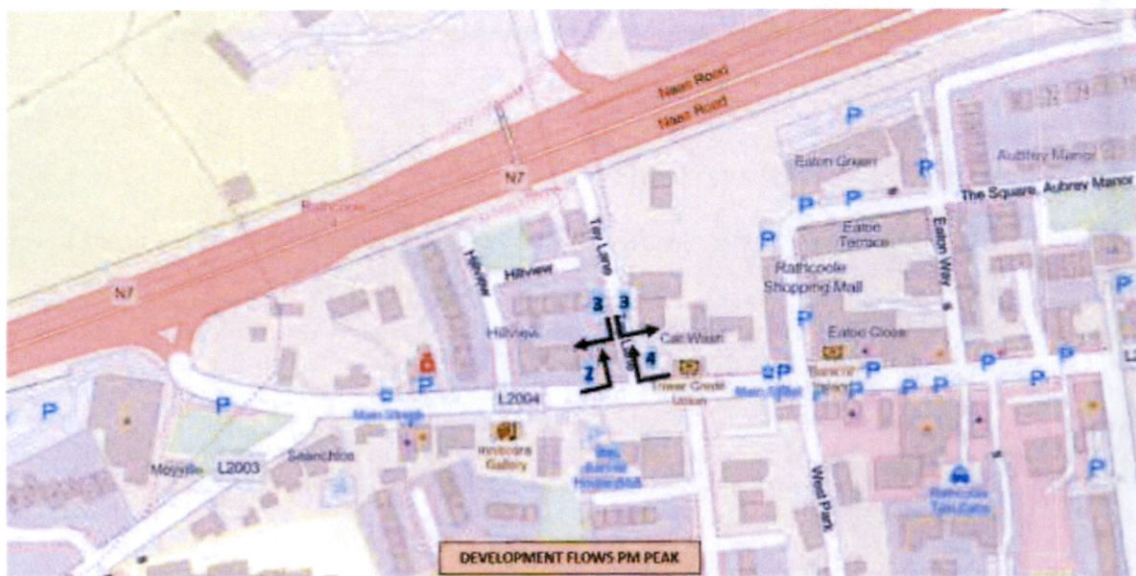


Figure 4-2: PM Peak Development Flows

### 4.3 TRIP ASSIGNMENT

The 2014 Traffic and Transport Assessment Guidelines published by the NRA requires that the relevant junctions be analysed for the existing situation, the year of opening (20264) with the proposed development in place, the design year 1 (year of opening plus 5) with the proposed and adjacent developments in place, and the design year 2 (year of opening plus 15) with the proposed development in place.

An annual growth rate of 1.7% has been assumed for the period 2022 to 2030, decreasing to 0.6% for 2031 to 2041, based on the central growth estimate for the Dublin Metropolitan Region, published by TII in 2019 (PE-PAG-02017-2).

The 2026 Do-Nothing ('without development') scenario is derived by factoring the survey results in Diagrams 1 and 2 within Appendix 2 up by 7%  $((1.017)^4 - 1 = 0.0698)$ . The 2026 Do-Something ('with proposed development')



scenario is derived by adding the development flows detailed within Diagrams 4 and 5 within Appendix 2 to these factored network flows.

The 2031 Do-Nothing ('without development') scenario is derived by factoring the survey results in Diagrams 1 and 2 within Appendix 2 up by 15.12%  $((1.017)^8 \times (1.006)^1) - 1 = 0.1512$ . The 2026 Do-Something ('with proposed development') scenario is derived by adding the development flows detailed within Diagrams 4 and 5 within Appendix 2 to these factored network flows.

The 2041 Do-Nothing ('without development') scenario is derived by factoring the survey results in Diagrams 1 and 2 within Appendix 2 up by 22.22%  $((1.017)^8 \times (1.006)^{11}) - 1 = 0.2222$ . The 2026 Do-Something ('with proposed development') scenario is derived by adding the development flows detailed within Diagrams 4 and 5 within Appendix 2 to these factored network flows.

In reality, it could reasonably be assumed going forward that traffic volume increases during the morning and evening peaks will be marginal over the coming years given the stated transportation policies recommending a shift away from use of the private car towards sustainable modes of travel in the 2020 to 2042 period within the Greater Dublin Area..

Table 4-3 below details the network and proposed development (candidate site) flows incident on the Tay Lane / Main Street (L2004) junction on the projected day of opening in 2026, within 2031, 5 years after opening and within 2041, 15 years after opening:

Tay Lane / Main Street (L2004) junction adjacent to site of proposed development	Network Flows		Proposed Development flows		Total flows		Development flows as % of total flows	
	AM	PM	AM	PM	AM	PM	AM	PM
Day of opening (2026)	556	701	11	10	567	711	1.98	1.43
Design Year 1 (2031)	599	755	11	10	610	765	1.84	1.32
Design Year 2 (2041)	635	801	11	10	646	811	1.73	1.25

Table 4-3: Network and proposed development flows at critical junction on day of opening (2026), Design Year 1 (2031) and Design Year 2 (2041)

The 2014 Traffic and Transport Assessment Guidelines requires the impact of the additional traffic volumes on the critical nearby junctions to be assessed in detail if:

- Development flows exceed 10% of existing turning movements at the two relevant junctions;
- Development flows exceed 5% of turning movements if the location has the potential to become congested.

It is noted that the generated flows from the subject site are significantly less than half the 5% threshold at the Tay Lane / Main Street (L2004) junction, with values at a maximum of just less than 2% (morning peak hour) in 2026.

Despite the generated flows being a fraction of the required threshold values, thus illustrating the insignificant impact of the proposed development in traffic impact terms, in the interests of robustness, a full analysis of the impact of the proposed development on the critical junction will thus be carried out in section 5.

## **5.0 ANALYSIS OF TRAFFIC IMPACT OF ALL PROPOSED DEVELOPMENT ON TAY LANE / MAIN STREET (L2004) T-JUNCTION**

### **5.1 INTRODUCTION**

The traffic analysis will analyse the performance of the relevant intersection for the following scenarios:

- Existing flows (AM and PM peak) – Scenario No. 1
- Year-of Opening (2026) flows with no development in place (AM and PM peak Do-Nothing) – Scenario No. 2
- Year-of Opening (2026) flows with proposed development in place (AM and PM peak Do-Something) – Scenario No. 3
- Year-of Opening plus 5 (2031) flows with no development in place (AM and PM peak Do-Nothing) – Scenario No. 4
- Year-of Opening plus 5 (2031) flows with proposed development in place (AM and PM peak Do-Something) – Scenario No. 5
- Year-of Opening plus 15 (2041) flows with no development in place (AM and PM peak Do-Nothing) – Scenario No. 6
- Year-of Opening plus 15 (2041) flows with proposed development in place (AM and PM peak Do-Something) – Scenario No. 7

The PICADY programme from the Junctions 10 suite will be used to analyse the Tay Lane / Main Street (L2004) priority junction for all 7 No. scenarios.

## 5.2 ANALYSIS OF THE TAY LANE / MAIN STREET (L2004) PRIORITY JUNCTION

### 5.2.1 Geometric parameters

For the junction in question, the analysis assumes that the Main Street major carriageway is 7.0 metres wide in the vicinity of the junction, with the Tay Lane minor approaches assumed to consist of 1 No. 3.0 metres-wide lane.

All sight distances for opposed traffic movements are assumed to be a minimum of 50 metres for the purposes of this analysis.

### 5.2.2 Analysis of AM and PM peak hour flows for the 7 No. scenarios

Full details of the analysis of the Academy Street / R147 priority junction are contained within Appendix 4.

Table 5-1 immediately below summarises the RFC's and queue lengths for the morning and evening peaks for each of the 7 No. scenarios for the Tay Lane / Main Street Rathcoole (L2004) priority junction:

	WITHOUT DEVELOPMENT			WITH TOTAL DEVELOPMENT		
	MAX RFC	QUEUE (VEH)	DELAY (SECS)	MAX RFC	QUEUE (VEHS)	DELAY (SECS)
AM 2022	0.01	0	7	-	-	-
AM 2026	0.01	0	7	0.03	0	10
AM 2031	0.01	0	8	0.03	0	10
AM 2041	0.01	0	8	0.04	0	10
PM 2022	0.01	0	7	-	-	-
PM 2026	0.01	0	7	0.03	0	10
PM 2031	0.01	0	7	0.03	0	10
PM 2041	0.02	0	7	0.03	0	10

Table 5-1: Critical ratios of flow to capacity queue lengths and delays during the morning and evening peak hours for each scenario

The above analysis indicates that the Tay Lane / Main Street Rathcoole (L2004) priority junction at present operates far below capacity on all approaches during both peak hours, with a maximum degree of saturation of 1%. Queuing is at zero and delays on all opposed movements into and out of Tay Lane are minimal (less than 10 seconds).

In 2026, 2031 and 2041, with network flow increases only allowed for and no development in place, the intersection will continue to operate far within capacity, with a maximum degree of saturation of 2% on all opposed movements by 2041, queuing remaining at zero and delays remaining minimal.

With the proposed development in place, by 2041, queuing will remain at zero, delays will not exceed 10 seconds and a minimum of 96% spare capacity will remain on all opposed movements.

Thus, the above analysis confirms that the traffic impact of the proposed development will be imperceptibly low, with effectively zero impact on the efficiency of all opposed traffic movements at the nearby Tay Lane / Main Street Rathcoole (L2004) priority junction.

## **6.0 SUMMARY COMMENTS ON TRAFFIC IMPACT PROPOSED RESIDENTIAL DEVELOPMENT ON TAY LANE**

### **6.1 INTRODUCTION**

This document contains a Traffic and Transport Assessment (TTA) for a proposed development located on Tay Lane, adjacent to its priority intersection with Main Street Rathcoole (L2004).

The development consists of 54 No. Independent Living Units.

It is proposed to provide 30 No. car parking spaces and 80 No. cycle parking spaces.

The function of this TTA is to quantify the existing transport environment in terms of the vehicular flows incident on it and to identify and assess the level of transport impact generated by the vehicular trips generated by the proposed residential development.

This TTA has carried out a range of assessments for the existing situation, within the year of opening in 2026, and within 2031 and 2041 design years (year of opening plus 5 and 15).

It is demonstrated that predicted generated flows are significantly below the threshold at which a traffic assessment would be required. Nonetheless, an assessment was completed which confirmed imperceptibly low levels of traffic impact.

### **6.2 MITIGATION**

The proposed development will have an insignificant impact on the local road network, increasing flows at the nearby critical priority junction by a maximum of just less than 2%.

The sustainability of the proposal will be greatly aided by the good public transport connectivity to the bus network and onwards to the LUAS network, and the significant emphasis on the cycling mode of transport at the proposed development, with 80 no. parking spaces proposed. Cycling will be further boosted when the GDA Cycle Plan proposals become operational.

### **6.3 CONCLUSIONS FROM ANALYSIS**

Based on the data and evaluations within this TTA, the following conclusions can be made:

1. The vehicular flows predicted to be generated by the proposed development on the candidate site are at very low levels, increasing flows at the nearby junction by a maximum of just less than 2%;
2. The site is well served by public transport, within the 69 route providing a regular service to Dublin City, and linkages to the LUAS stop at Teach Sagart;
3. Future proposals as stated within the GDA Cycle Network Plan will provide additional connectivity from the subject site into the city centre.

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**APPENDIX**

**1**

**TRAFFIC  
SURVEY  
DATA**











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**APPENDIX**

**2**

**BASELINE AND  
GENERATED  
TRAFFIC FLOWS**

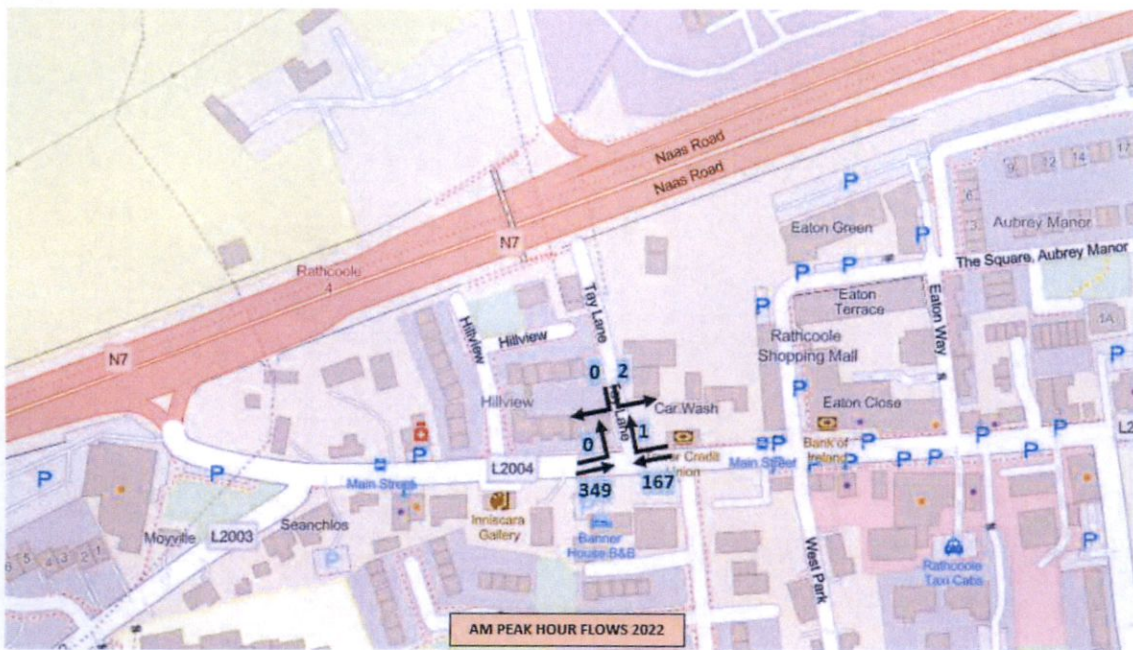


DIAGRAM 1 – AM NETWORK

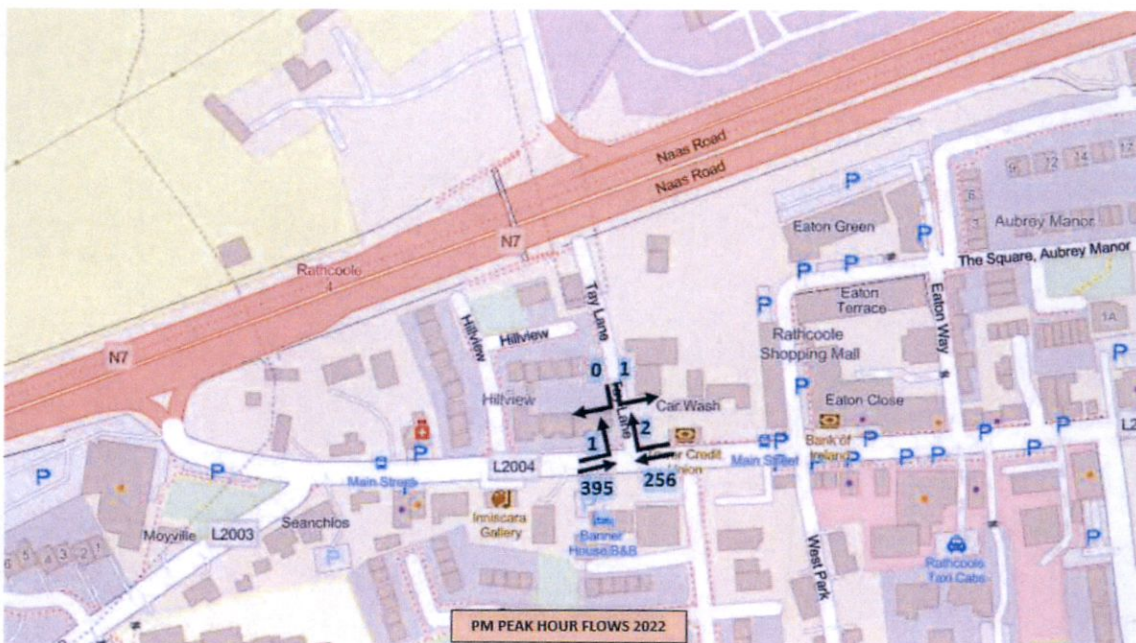


DIAGRAM 2 – PM NETWORK

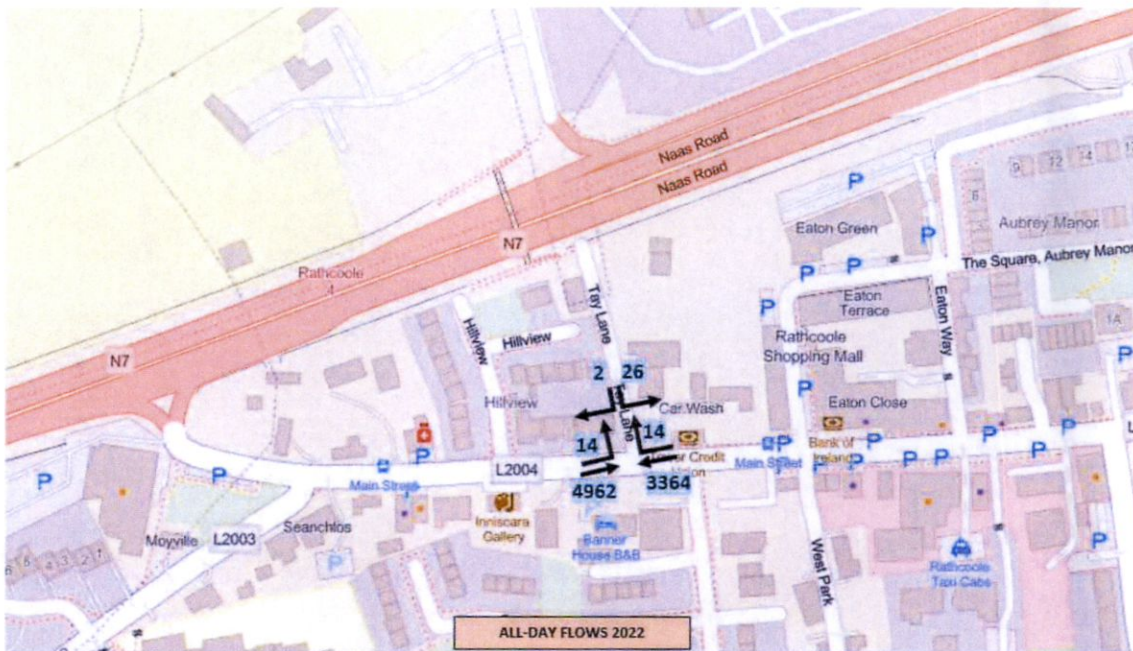


DIAGRAM 3 – ALL-DAY NETWORK

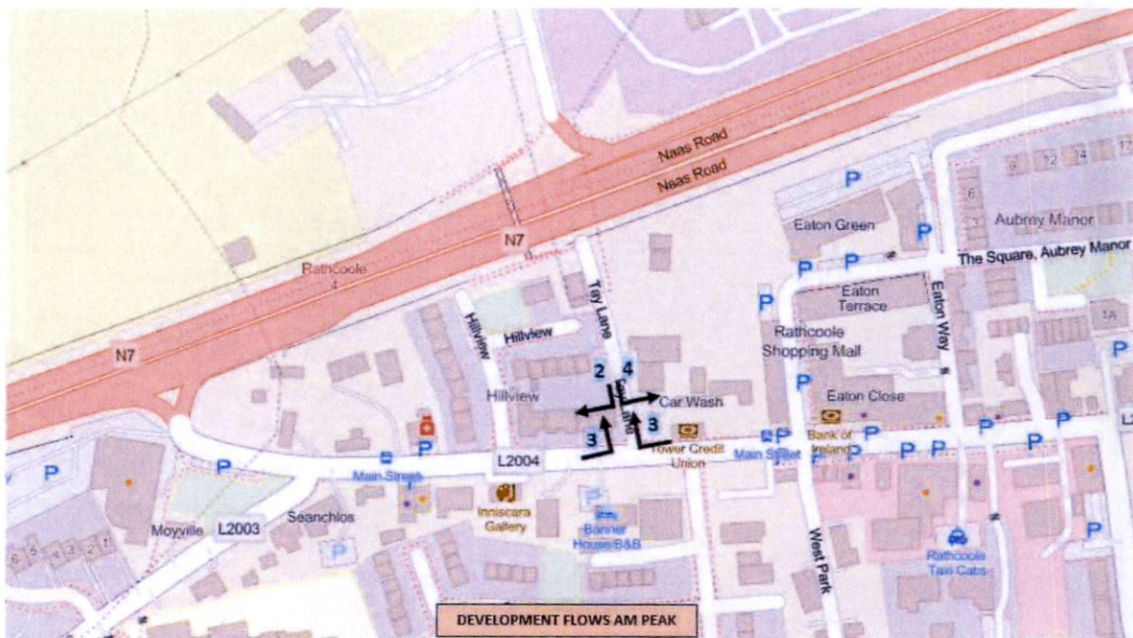


DIAGRAM 4 – AM GENERATED – PROPOSED DEVELOPMENT

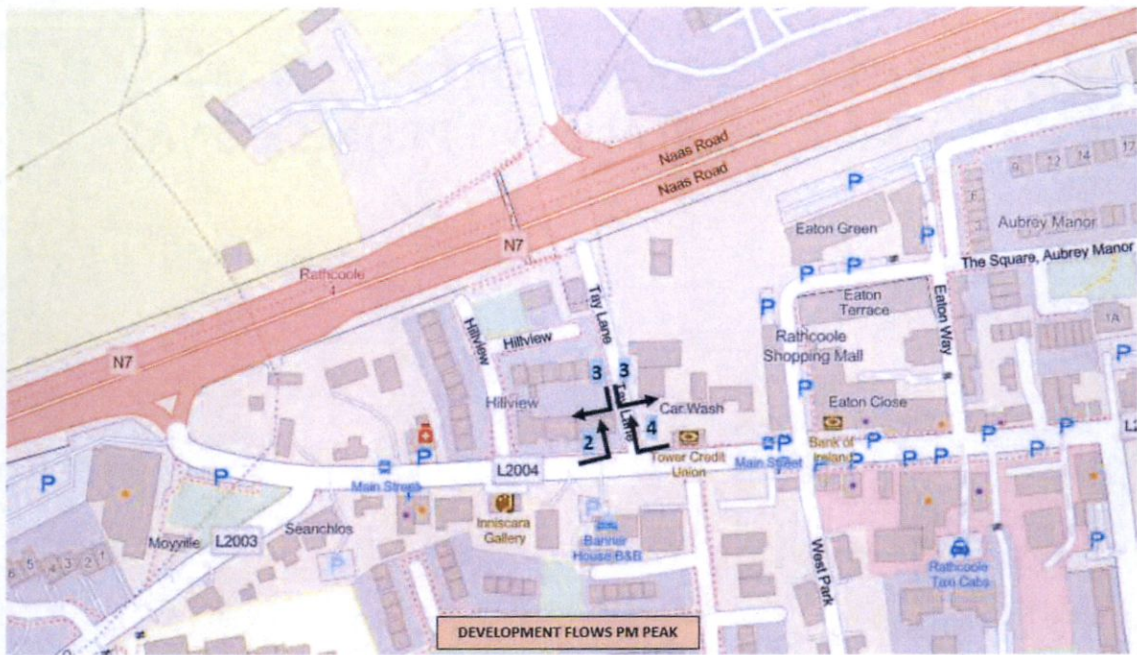


DIAGRAM 5 – PM GENERATED – PROPOSED DEVELOPMENT

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**APPENDIX**

**3**

**TRICS DATA –  
PRIVATE  
APARTMENTS  
AND ILU'S**

## INDEPENDENT LIVING UNITS

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Saturday 10/12/22

Page 1

OFF-LINE VERSION Martin Rogers Consulting Butterfield Avenue Dublin

Licence No: 306901

Calculation Reference: AUDIT-306901-221210-1209

### TRIP RATE CALCULATION SELECTION PARAMETERS:

Land Use : 03 - RESIDENTIAL  
Category : N - RETIREMENT FLATS

### TOTAL VEHICLES

#### Selected regions and areas:

<b>02 SOUTH EAST</b>		
IW ISLE OF WIGHT		1 days
KC KENT		1 days
WS WEST SUSSEX		1 days
<b>04 EAST ANGLIA</b>		
CA CAMBRIDGESHIRE		1 days
NF NORFOLK		1 days
<b>05 EAST MIDLANDS</b>		
DS DERBYSHIRE		1 days
LN LINCOLNSHIRE		1 days
<b>06 WEST MIDLANDS</b>		
WM WEST MIDLANDS		1 days
<b>07 YORKSHIRE &amp; NORTH LINCOLNSHIRE</b>		
NY NORTH YORKSHIRE		1 days
WY WEST YORKSHIRE		1 days
<b>08 NORTH WEST</b>		
CH CHESHIRE		1 days
<b>09 NORTH</b>		
TW TYNE & WEAR		1 days
<b>10 WALES</b>		
BG BRIDGEND		1 days
CF CARDIFF		1 days
MM MONMOUTHSHIRE		1 days
<b>11 SCOTLAND</b>		
EB CITY OF EDINBURGH		1 days
FI FIFE		1 days
<b>12 CONNAUGHT</b>		
GA GALWAY		1 days
<b>14 LEINSTER</b>		
KK KILKENNY		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: 25 to 88 (units: )  
 Range Selected by User: 17 to 88 (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: 01/01/14 to 20/10/21

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

**Selected survey days:**

Monday	3 days
Tuesday	5 days
Wednesday	3 days
Thursday	4 days
Friday	4 days

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

**Selected survey types:**

Manual count	19 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	8
Suburban Area (PPS6 Out of Centre)	4
Edge of Town	2
Neighbourhood Centre (PPS6 Local Centre)	5

*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	17
Village	1
No Sub Category	1

*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	19 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



**Secondary Filtering selection (Cont.):**Population within 1 mile:

1,000 or Less	1 days
1,001 to 5,000	4 days
10,001 to 15,000	2 days
15,001 to 20,000	2 days
20,001 to 25,000	2 days
25,001 to 50,000	6 days
50,001 to 100,000	2 days

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

Population within 5 miles:

5,000 or Less	2 days
5,001 to 25,000	1 days
25,001 to 50,000	2 days
50,001 to 75,000	1 days
75,001 to 100,000	2 days
100,001 to 125,000	3 days
125,001 to 250,000	4 days
250,001 to 500,000	4 days

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

Car ownership within 5 miles:

0.5 or Less	1 days
0.6 to 1.0	6 days
1.1 to 1.5	11 days
1.6 to 2.0	1 days

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

Travel Plan:

Yes	2 days
No	17 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	19 days
-----------------	---------

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

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

LIST OF SITES relevant to selection parameters

1	BG-03-N-01 PICTON AVENUE PORTHCAWL	RETIREMENT FLATS		BRIDGEND
	Edge of Town Centre Residential Zone Total No of Dwellings:		57	
	Survey date: TUESDAY		18/05/21	Survey Type: MANUAL
2	CA-03-N-02 DOGSTHORPE ROAD PETERBOROUGH	RETIREMENT FLATS		CAMBRIDGESHIRE
	Suburban Area (PPS6 Out of Centre) Residential Zone Total No of Dwellings:		32	
	Survey date: MONDAY		17/10/16	Survey Type: MANUAL
3	CF-03-N-01 CARDIFF ROAD CARDIFF LLANDAFF	RETIREMENT FLATS		CARDIFF
	Neighbourhood Centre (PPS6 Local Centre) Residential Zone Total No of Dwellings:		60	
	Survey date: WEDNESDAY		05/10/16	Survey Type: MANUAL
4	CH-03-N-01 HOBSON STREET MACCLESFIELD	RETIREMENT FLATS		CHESHIRE
	Edge of Town Centre Residential Zone Total No of Dwellings:		33	
	Survey date: FRIDAY		16/09/16	Survey Type: MANUAL
5	DS-03-N-02 LEAPER STREET DERBY	RETIREMENT FLATS		DERBYSHIRE
	Edge of Town Centre Residential Zone Total No of Dwellings:		35	
	Survey date: WEDNESDAY		20/10/21	Survey Type: MANUAL
6	EB-03-N-01 POLWARTH GARDENS EDINBURGH MERCHISTON	RETIREMENT FLATS		CITY OF EDINBURGH
	Edge of Town Centre Residential Zone Total No of Dwellings:		33	
	Survey date: FRIDAY		22/05/15	Survey Type: MANUAL
7	FI-03-N-01 ST MARGARET STREET DUNFERMLINE	RETIREMENT FLATS		FIFE
	Edge of Town Centre No Sub Category Total No of Dwellings:		47	
	Survey date: MONDAY		21/03/16	Survey Type: MANUAL
8	GA-03-N-01 BRIDGESTREET BALLINASLOE	RETIREMENT VILLAGE		GALWAY
	Edge of Town Centre Residential Zone Total No of Dwellings:		37	
	Survey date: THURSDAY		27/10/16	Survey Type: MANUAL

LIST OF SITES relevant to selection parameters (Cont.)

9	<b>IW-03-N-01</b> CHURCH ROAD BEMBRIDGE	<b>RETIREMENT FLATS</b>		<b>ISLE OF WIGHT</b>
	Edge of Town Residential Zone			
	Total No of Dwellings:	40		
	Survey date: THURSDAY	27/06/19		Survey Type: MANUAL
10	<b>KC-03-N-08</b> CANTERBURY ROAD HERNE BAY EDDINGTON	<b>RETIREMENT FLATS</b>		<b>KENT</b>
	Suburban Area (PPS6 Out of Centre) Residential Zone			
	Total No of Dwellings:	88		
	Survey date: TUESDAY	26/09/17		Survey Type: MANUAL
11	<b>KK-03-N-01</b> DONOUGHMORE BALLYRAGGET	<b>RETIREMENT FLATS</b>		<b>KILKENNY</b>
	Neighbourhood Centre (PPS6 Local Centre) Village			
	Total No of Dwellings:	55		
	Survey date: THURSDAY	26/10/17		Survey Type: MANUAL
12	<b>LN-03-N-01</b> NEWPORT ROAD LINCOLN ERMINE	<b>RETIREMENT FLATS</b>		<b>LINCOLNSHIRE</b>
	Suburban Area (PPS6 Out of Centre) Residential Zone			
	Total No of Dwellings:	39		
	Survey date: FRIDAY	26/06/19		Survey Type: MANUAL
13	<b>MM-03-N-01</b> BRYNGWYN ROAD NEWPORT	<b>RETIREMENT FLATS</b>		<b>MONMOUTHSHIRE</b>
	Neighbourhood Centre (PPS6 Local Centre) Residential Zone			
	Total No of Dwellings:	65		
	Survey date: FRIDAY	27/09/19		Survey Type: MANUAL
14	<b>NF-03-N-02</b> YARMOUTH ROAD NORWICH THORPE SAINT ANDREW	<b>RETIREMENT FLATS</b>		<b>NORFOLK</b>
	Neighbourhood Centre (PPS6 Local Centre) Residential Zone			
	Total No of Dwellings:	48		
	Survey date: WEDNESDAY	20/11/19		Survey Type: MANUAL
15	<b>NY-03-N-01</b> EASTGATE PICKERING	<b>RETIREMENT FLATS</b>		<b>NORTH YORKSHIRE</b>
	Edge of Town Residential Zone			
	Total No of Dwellings:	30		
	Survey date: MONDAY	26/09/16		Survey Type: MANUAL

LIST OF SITES relevant to selection parameters (Cont.)

16	TW-03-N-03 CHAPEL LANE WHITLEY BAY MONKSEATON Neighbourhood Centre (PPS6 Local Centre) Residential Zone Total No of Dwellings: 27 Survey date: TUESDAY 12/10/21	RETIREMENT FLATS	TYNE & WEAR	Survey Type: MANUAL
17	WM-03-N-01 SHORT STREET STOURBRIDGE  Edge of Town Centre Residential Zone Total No of Dwellings: 25 Survey date: TUESDAY 21/11/17	RETIREMENT BUNGALOWS	WEST MIDLANDS	Survey Type: MANUAL
18	WS-03-N-03 FITZALAN ROAD LITTLEHAMPTON  Edge of Town Centre Residential Zone Total No of Dwellings: 38 Survey date: THURSDAY 23/09/21	RETIREMENT FLATS	WEST SUSSEX	Survey Type: MANUAL
19	WY-03-N-01 GROVE AVENUE HALIFAX WHEATLEY Suburban Area (PPS6 Out of Centre) Residential Zone Total No of Dwellings: 34 Survey date: TUESDAY 23/10/18	RETIREMENT BUNGALOWS	WEST YORKSHIRE	Survey Type: MANUAL

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

TRIP RATE for Land Use 03 - RESIDENTIAL/N - RETIREMENT FLATS

**TOTAL VEHICLES**

Calculation factor: **1 DWELLS**

Estimated TRIP rate value per 54 DWELLS shown in shaded columns

**BOLD** print indicates peak (busiest) period

Time Range	ARRIVALS				DEPARTURES				TOTALS			
	No. Days	Ave. DWELLS	Trip Rate	Estimated Trip Rate	No. Days	Ave. DWELLS	Trip Rate	Estimated Trip Rate	No. Days	Ave. DWELLS	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	19	43	0.032	1.706	19	43	0.024	1.312	19	43	0.056	3.018
08:00 - 09:00	19	43	0.073	3.937	19	43	0.072	3.871	19	43	0.145	7.808
09:00 - 10:00	19	43	0.096	5.183	19	43	0.103	5.577	19	43	0.199	10.760
10:00 - 11:00	<b>19</b>	<b>43</b>	<b>0.125</b>	<b>6.758</b>	19	43	0.126	6.824	19	43	0.251	13.582
11:00 - 12:00	19	43	0.117	6.299	19	43	0.100	5.380	19	43	0.217	11.679
12:00 - 13:00	19	43	0.108	5.840	19	43	0.102	5.512	19	43	0.210	11.352
13:00 - 14:00	19	43	0.098	5.315	19	43	0.106	5.708	19	43	0.204	11.023
14:00 - 15:00	19	43	0.119	6.430	<b>19</b>	<b>43</b>	<b>0.134</b>	<b>7.217</b>	<b>19</b>	<b>43</b>	<b>0.253</b>	<b>13.647</b>
15:00 - 16:00	19	43	0.096	5.183	19	43	0.091	4.921	19	43	0.187	10.104
16:00 - 17:00	19	43	0.087	4.724	19	43	0.080	4.330	19	43	0.167	9.054
17:00 - 18:00	19	43	0.084	4.527	19	43	0.084	4.527	19	43	0.168	9.054
18:00 - 19:00	19	43	0.060	3.215	19	43	0.075	4.068	19	43	0.135	7.283
19:00 - 20:00												
20:00 - 21:00												
21:00 - 22:00												
22:00 - 23:00												
23:00 - 24:00												
Total Rates:			1.095	59.117			1.097	59.247			2.192	118.364

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: 25 - 88 (units: )  
 Survey date date range: 01/01/14 - 20/10/21  
 Number of weekdays (Monday-Friday): 19  
 Number of Saturdays: 0  
 Number of Sundays: 0  
 Surveys automatically removed from selection: 2  
 Surveys manually removed from selection: 0

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

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**APPENDIX**

**4**

**PICADY  
OUTPUT**

<b>Junctions 10</b>
<b>PICADY 10 - Priority Intersection Module</b>
Version: 10.0.1.1519 © Copyright TRL Software Limited, 2021
For sales and distribution information, program advice and maintenance, contact TRL Software: +44 (0)1344 379777 <a href="mailto:software@trl.co.uk">software@trl.co.uk</a> <a href="http://trlsoftware.com">trlsoftware.com</a>
<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: Tay Lane L2004 2022 exist.j10

Path: C:\Users\martin.rogers\Dropbox\rathcoole housing 2021\rfi

Report generation date: 11/12/2022 14:27:30

»[2022 exist, AM](#)

»[2022 exist, PM](#)

### Summary of junction performance

	AM					PM				
	Set ID	Queue (PCU)	Delay (s)	RFC	LOS	Set ID	Queue (PCU)	Delay (s)	RFC	LOS
<b>2022 exist</b>										
Stream B-AC	D1	0.0	6.89	0.01	A	D2	0.0	6.69	0.01	A
Stream C-AB		0.0	5.66	0.01	A		0.0	5.36	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.

### File summary

#### File Description

Title	Academy St / R147 Priority Junction
Location	Academy Street, Navan, County Meath
Site number	
Date	08/11/2022
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	ICTDOMAIN\martin.rogers
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	perTimeSegment	s	-Min	perMin

### Analysis Options

Calculate Queue Percentiles	Calculate residual capacity	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)
		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 period length (min)	Time segment length (min)
D1	2022 exist	AM	DIRECT	09:00	10:00	60	15
D2	2022 exist	PM	DIRECT	18:00	19:00	60	15

### Analysis Set Details

ID	Network flow scaling factor (%)
A1	100.000

## 2022 exist, 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	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way	Two-way	Two-way		0.04	A

### Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	0.04	A

## Arms

### Arms

Arm	Name	Description	Arm type
A	L2004 West		Major
B	Tay Lane		Minor
C	L2004 East		Major

### Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Has right-turn storage	Visibility for right turn (m)	Blocks?	Blocking queue (PCU)
C - L2004 East	7.00			50.0	✓	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 - Tay Lane	One lane	2.50	50	50

### Slope / Intercept / Capacity

#### Priority Intersection Slopes and Intercepts

Stream	Intercept (PCU/TS)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
B-A	123.138	0.086	0.217	0.136	0.310



B-C	155.651	0.091	0.231	-	-
C-B	150.730	0.223	0.223	-	-

The slopes and intercepts shown above include custom intercept adjustments only.  
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 period length (min)	Time segment length (min)
D1	2022 exist	AM	DIRECT	09:00	10:00	60	15

Vehicle mix source	PCU Factor for a HV (PCU)	O-D data varies over time
HV Percentages	2.00	✓

### Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Scaling Factor (%)
A - L2004 West		✓	100.000
B - Tay Lane		✓	100.000
C - L2004 East		✓	100.000

## Origin-Destination Data

### Demand (PCU/TS)

		To		
		A - L2004 West	B - Tay Lane	C - L2004 East
09:00 - 09:15	From			
	A - L2004 West	0.00	0.00	83.00
	B - Tay Lane	0.00	0.00	0.00
	C - L2004 East	34.00	0.00	0.00

### Demand (PCU/TS)

		To		
		A - L2004 West	B - Tay Lane	C - L2004 East
09:15 - 09:30	From			
	A - L2004 West	0.00	0.00	72.00
	B - Tay Lane	0.00	0.00	1.00
	C - L2004 East	51.00	0.00	0.00

### Demand (PCU/TS)

		To		
		A - L2004 West	B - Tay Lane	C - L2004 East
09:30 - 09:45	From			
	A - L2004 West	0.00	0.00	104.00
	B - Tay Lane	0.00	0.00	1.00
	C - L2004 East	46.00	1.00	0.00

### Demand (PCU/TS)

		To		
		A - L2004 West	B - Tay Lane	C - L2004 East
09:45 - 10:00	From			
	A - L2004 West	0.00	0.00	91.00
	B - Tay Lane	0.00	0.00	0.00
	C - L2004 East	36.00	0.00	0.00

## Vehicle Mix

### Heavy Vehicle Percentages

		To		
		A - L2004 West	B - Tay Lane	C - L2004 East
From	A - L2004 West	0	0	0
	B - Tay Lane	0	0	0
	C - L2004 East	0	0	0

## Results

### Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-AC	0.01	6.89	0.0	A
C-AB	0.01	5.66	0.0	A
C-A				
A-B				
A-C				

### Main Results for each time segment

#### 09:00 - 09:15

Stream	Total Demand (PCU/TS)	Capacity (PCU/TS)	RFC	Throughput (PCU/TS)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	0.00	115.76	0.000	0.00	0.0	0.000	A
C-AB	0.00	132.18	0.000	0.00	0.0	0.000	A
C-A	34.00			34.00			
A-B	0.00			0.00			
A-C	83.00			83.00			

#### 09:15 - 09:30

Stream	Total Demand (PCU/TS)	Capacity (PCU/TS)	RFC	Throughput (PCU/TS)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	1.00	139.04	0.007	0.99	0.0	6.519	A
C-AB	0.00	134.64	0.000	0.00	0.0	0.000	A
C-A	51.00			51.00			
A-B	0.00			0.00			
A-C	72.00			72.00			

#### 09:30 - 09:45

Stream	Total Demand (PCU/TS)	Capacity (PCU/TS)	RFC	Throughput (PCU/TS)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	1.00	131.65	0.008	1.00	0.0	6.887	A
C-AB	1.40	160.46	0.009	1.39	0.0	5.657	A
C-A	45.60			45.60			
A-B	0.00			0.00			
A-C	104.00			104.00			

#### 09:45 - 10:00

Stream	Total Demand (PCU/TS)	Capacity (PCU/TS)	RFC	Throughput (PCU/TS)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	0.00	134.65	0.000	0.01	0.0	0.000	A
C-AB	0.00	130.40	0.000	0.01	0.0	0.000	A
C-A	36.00			36.00			
A-B	0.00			0.00			
A-C	91.00			91.00			

## 2022 exist, 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	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way	Two-way	Two-way		0.04	A

### Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	0.04	A

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)
D2	2022 exist	PM	DIRECT	18:00	19:00	60	15

Vehicle mix source	PCU Factor for a HV (PCU)	O-D data varies over time
HV Percentages	2.00	✓

### Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Scaling Factor (%)
A - L2004 West		✓	100.000
B - Tay Lane		✓	100.000
C - L2004 East		✓	100.000

## Origin-Destination Data

### Demand (PCU/TS)

		To		
		A - L2004 West	B - Tay Lane	C - L2004 East
18:00 - 18:15	From			
	A - L2004 West	0.00	0.00	87.00
	B - Tay Lane	0.00	0.00	1.00
	C - L2004 East	81.00	1.00	0.00

### Demand (PCU/TS)

		To		
		A - L2004 West	B - Tay Lane	C - L2004 East
18:15 - 18:30	From			
	A - L2004 West	0.00	0.00	89.00
	B - Tay Lane	0.00	0.00	0.00
	C - L2004 East	61.00	0.00	0.00

## Demand (PCU/TS)

		To			
		A - L2004 West	B - Tay Lane	C - L2004 East	
18:30 - 18:45	From	A - L2004 West	0.00	0.00	85.00
		B - Tay Lane	0.00	0.00	0.00
		C - L2004 East	47.00	0.00	0.00

## Demand (PCU/TS)

		To			
		A - L2004 West	B - Tay Lane	C - L2004 East	
18:45 - 19:00	From	A - L2004 West	0.00	1.00	134.00
		B - Tay Lane	0.00	0.00	0.00
		C - L2004 East	67.00	1.00	0.00

## Vehicle Mix

## Heavy Vehicle Percentages

		To		
		A - L2004 West	B - Tay Lane	C - L2004 East
From	A - L2004 West	0	0	0
	B - Tay Lane	0	0	0
	C - L2004 East	0	0	0

## Results

## Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-AC	0.01	6.69	0.0	A
C-AB	0.01	5.36	0.0	A
C-A				
A-B				
A-C				

## Main Results for each time segment

## 18:00 - 18:15

Stream	Total Demand (PCU/TS)	Capacity (PCU/TS)	RFC	Throughput (PCU/TS)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	1.00	135.58	0.007	0.99	0.0	6.686	A
C-AB	1.75	188.66	0.009	1.74	0.0	4.814	A
C-A	80.25			80.25			
A-B	0.00			0.00			
A-C	87.00			87.00			

## 18:15 - 18:30

Stream	Total Demand (PCU/TS)	Capacity (PCU/TS)	RFC	Throughput (PCU/TS)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	0.00	135.12	0.000	0.01	0.0	0.000	A
C-AB	0.00	130.84	0.000	0.01	0.0	0.000	A
C-A	61.00			61.00			
A-B	0.00			0.00			
A-C	89.00			89.00			

## 18:30 - 18:45

Stream	Total Demand (PCU/TS)	Capacity (PCU/TS)	RFC	Throughput (PCU/TS)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	0.00	114.12	0.000	0.00	0.0	0.000	A
C-AB	0.00	131.74	0.000	0.00	0.0	0.000	A
C-A	47.00			47.00			
A-B	0.00			0.00			
A-C	85.00			85.00			

## 18:45 - 19:00

Stream	Total Demand (PCU/TS)	Capacity (PCU/TS)	RFC	Throughput (PCU/TS)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	0.00	100.74	0.000	0.00	0.0	0.000	A
C-AB	1.65	169.61	0.010	1.64	0.0	5.357	A
C-A	66.35			66.35			
A-B	1.00			1.00			
A-C	134.00			134.00			

<b>Junctions 10</b>
<b>PICADY 10 - Priority Intersection Module</b>
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Filename: Tay Lane L2004 2026 wod.j10  
 Path: C:\Users\martin.rogers\Dropbox\rathcoole housing 2021\rfi  
 Report generation date: 11/12/2022 18:03:37

»[2026 wod, AM](#)  
 »[2026 wod, PM](#)

### Summary of junction performance

	AM					PM				
	Set ID	Queue (PCU)	Delay (s)	RFC	LOS	Set ID	Queue (PCU)	Delay (s)	RFC	LOS
<b>2026 wod</b>										
Stream B-AC	D1	0.0	6.97	0.01	A	D2	0.0	6.76	0.01	A
Stream C-AB		0.0	5.63	0.01	A		0.0	5.30	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.*

### File summary

#### File Description

Title	Academy St / R147 Priority Junction
Location	Academy Street, Navan, County Meath
Site number	
Date	08/11/2022
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	ICTDOMAIN\martin.rogers
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	perTimeSegment	s	-Min	perMin

### Analysis Options

Calculate Queue Percentiles	Calculate residual capacity	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)
		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 period length (min)	Time segment length (min)
D1	2026 wod	AM	DIRECT	09:00	10:00	60	15
D2	2026 wod	PM	DIRECT	18:00	19:00	60	15

### Analysis Set Details

ID	Network flow scaling factor (%)
A1	100.000

## 2026 wod, 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	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way	Two-way	Two-way		0.04	A

### Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	0.04	A

## Arms

### Arms

Arm	Name	Description	Arm type
A	L2004 West		Major
B	Tay Lane		Minor
C	L2004 East		Major

### Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Has right-turn storage	Visibility for right turn (m)	Blocks?	Blocking queue (PCU)
C - L2004 East	7.00			50.0	✓	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 - Tay Lane	One lane	2.50	50	50

### Slope / Intercept / Capacity

#### Priority Intersection Slopes and Intercepts

Stream	Intercept (PCU/TS)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
B-A	123.138	0.086	0.217	0.136	0.310

B-C	155.651	0.091	0.231	-	-
C-B	150.730	0.223	0.223	-	-

The slopes and intercepts shown above include custom intercept adjustments only.

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 period length (min)	Time segment length (min)
D1	2026 wod	AM	DIRECT	09:00	10:00	60	15

Vehicle mix source	PCU Factor for a HV (PCU)	O-D data varies over time
HV Percentages	2.00	✓

### Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Scaling Factor (%)
A - L2004 West		✓	100.000
B - Tay Lane		✓	100.000
C - L2004 East		✓	100.000

## Origin-Destination Data

### Demand (PCU/TS)

		To		
		A - L2004 West	B - Tay Lane	C - L2004 East
09:00 - 09:15	From	A - L2004 West	0.00	89.00
		B - Tay Lane	0.00	0.00
		C - L2004 East	36.00	0.00

### Demand (PCU/TS)

		To		
		A - L2004 West	B - Tay Lane	C - L2004 East
09:15 - 09:30	From	A - L2004 West	0.00	77.00
		B - Tay Lane	0.00	1.00
		C - L2004 East	55.00	0.00

### Demand (PCU/TS)

		To		
		A - L2004 West	B - Tay Lane	C - L2004 East
09:30 - 09:45	From	A - L2004 West	0.00	111.00
		B - Tay Lane	0.00	1.00
		C - L2004 East	49.00	0.00

### Demand (PCU/TS)

		To		
		A - L2004 West	B - Tay Lane	C - L2004 East
09:45 - 10:00	From	A - L2004 West	0.00	97.00
		B - Tay Lane	0.00	0.00
		C - L2004 East	39.00	0.00



## Vehicle Mix

### Heavy Vehicle Percentages

		To		
		A - L2004 West	B - Tay Lane	C - L2004 East
From	A - L2004 West	0	0	0
	B - Tay Lane	0	0	0
	C - L2004 East	0	0	0

## Results

### Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-AC	0.01	6.97	0.0	A
C-AB	0.01	5.63	0.0	A
C-A				
A-B				
A-C				

### Main Results for each time segment

#### 09:00 - 09:15

Stream	Total Demand (PCU/TS)	Capacity (PCU/TS)	RFC	Throughput (PCU/TS)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	0.00	114.22	0.000	0.00	0.0	0.000	A
C-AB	0.00	130.84	0.000	0.00	0.0	0.000	A
C-A	36.00			36.00			
A-B	0.00			0.00			
A-C	89.00			89.00			

#### 09:15 - 09:30

Stream	Total Demand (PCU/TS)	Capacity (PCU/TS)	RFC	Throughput (PCU/TS)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	1.00	137.88	0.007	0.99	0.0	6.574	A
C-AB	0.00	133.52	0.000	0.00	0.0	0.000	A
C-A	55.00			55.00			
A-B	0.00			0.00			
A-C	77.00			77.00			

#### 09:30 - 09:45

Stream	Total Demand (PCU/TS)	Capacity (PCU/TS)	RFC	Throughput (PCU/TS)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	1.00	130.04	0.008	1.00	0.0	6.973	A
C-AB	1.44	161.22	0.009	1.43	0.0	5.632	A
C-A	48.56			48.56			
A-B	0.00			0.00			
A-C	111.00			111.00			

#### 09:45 - 10:00

Stream	Total Demand (PCU/TS)	Capacity (PCU/TS)	RFC	Throughput (PCU/TS)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	0.00	133.27	0.000	0.01	0.0	0.000	A
C-AB	0.00	129.06	0.000	0.01	0.0	0.000	A
C-A	39.00			39.00			
A-B	0.00			0.00			
A-C	97.00			97.00			

## 2026 wod, 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	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way	Two-way	Two-way		0.04	A

### Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	0.04	A

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)
D2	2026 wod	PM	DIRECT	18:00	19:00	60	15

Vehicle mix source	PCU Factor for a HV (PCU)	O-D data varies over time
HV Percentages	2.00	✓

### Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Scaling Factor (%)
A - L2004 West		✓	100.000
B - Tay Lane		✓	100.000
C - L2004 East		✓	100.000

## Origin-Destination Data

### Demand (PCU/TS)

		To		
		A - L2004 West	B - Tay Lane	C - L2004 East
18:00 - 18:15	From			
	A - L2004 West	0.00	0.00	93.00
	B - Tay Lane	0.00	0.00	1.00
	C - L2004 East	87.00	1.00	0.00

### Demand (PCU/TS)

		To		
		A - L2004 West	B - Tay Lane	C - L2004 East
18:15 - 18:30	From			
	A - L2004 West	0.00	0.00	95.00
	B - Tay Lane	0.00	0.00	0.00
	C - L2004 East	66.00	0.00	0.00

## Demand (PCU/TS)

		To			
		A - L2004 West	B - Tay Lane	C - L2004 East	
18:30 - 18:45	From	A - L2004 West	0.00	0.00	91.00
		B - Tay Lane	0.00	0.00	0.00
		C - L2004 East	50.00	0.00	0.00

## Demand (PCU/TS)

		To			
		A - L2004 West	B - Tay Lane	C - L2004 East	
18:45 - 19:00	From	A - L2004 West	0.00	1.00	144.00
		B - Tay Lane	0.00	0.00	0.00
		C - L2004 East	72.00	1.00	0.00

## Vehicle Mix

## Heavy Vehicle Percentages

		To		
		A - L2004 West	B - Tay Lane	C - L2004 East
From	A - L2004 West	0	0	0
	B - Tay Lane	0	0	0
	C - L2004 East	0	0	0

## Results

## Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-AC	0.01	6.76	0.0	A
C-AB	0.01	5.30	0.0	A
C-A				
A-B				
A-C				

## Main Results for each time segment

## 18:00 - 18:15

Stream	Total Demand (PCU/TS)	Capacity (PCU/TS)	RFC	Throughput (PCU/TS)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	1.00	134.19	0.007	0.99	0.0	6.756	A
C-AB	1.83	191.83	0.010	1.82	0.0	4.736	A
C-A	86.17			86.17			
A-B	0.00			0.00			
A-C	93.00			93.00			

## 18:15 - 18:30

Stream	Total Demand (PCU/TS)	Capacity (PCU/TS)	RFC	Throughput (PCU/TS)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	0.00	133.73	0.000	0.01	0.0	0.000	A
C-AB	0.00	129.50	0.000	0.01	0.0	0.000	A
C-A	66.00			66.00			
A-B	0.00			0.00			
A-C	95.00			95.00			

## 18:30 - 18:45

Stream	Total Demand (PCU/TS)	Capacity (PCU/TS)	RFC	Throughput (PCU/TS)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	0.00	112.48	0.000	0.00	0.0	0.000	A
C-AB	0.00	130.40	0.000	0.00	0.0	0.000	A
C-A	50.00			50.00			
A-B	0.00			0.00			
A-C	91.00			91.00			

## 18:45 - 19:00

Stream	Total Demand (PCU/TS)	Capacity (PCU/TS)	RFC	Throughput (PCU/TS)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	0.00	97.96	0.000	0.00	0.0	0.000	A
C-AB	1.72	171.40	0.010	1.71	0.0	5.303	A
C-A	71.28			71.28			
A-B	1.00			1.00			
A-C	144.00			144.00			

<h1>Junctions 10</h1>
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Filename: Tay Lane L2004 2026 wdev.j10

Path: C:\Users\martin.rogers\Dropbox\rathcoole housing 2021\rfi

Report generation date: 11/12/2022 18:07:50

[»2026 wdev, AM](#)

[»2026 wdev, PM](#)

### Summary of junction performance

	AM					PM				
	Set ID	Queue (PCU)	Delay (s)	RFC	LOS	Set ID	Queue (PCU)	Delay (s)	RFC	LOS
<b>2026 wdev</b>										
Stream B-AC	D1	0.0	9.39	0.03	A	D2	0.0	9.41	0.03	A
Stream C-AB		0.0	5.81	0.02	A		0.0	5.48	0.02	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.*

### File summary

#### File Description

Title	Academy St / R147 Priority Junction
Location	Academy Street, Navan, County Meath
Site number	
Date	08/11/2022
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	ICTDOMAIN\martin.rogers
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	perTimeSegment	s	-Min	perMin

### Analysis Options

Calculate Queue Percentiles	Calculate residual capacity	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)
		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 period length (min)	Time segment length (min)
D1	2026 wdev	AM	DIRECT	09:00	10:00	60	15
D2	2026 wdev	PM	DIRECT	18:00	19:00	60	15

### Analysis Set Details

ID	Network flow scaling factor (%)
A1	100.000

## 2026 wdev, 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	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way	Two-way	Two-way		0.19	A

### Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	0.19	A

## Arms

### Arms

Arm	Name	Description	Arm type
A	L2004 West		Major
B	Tay Lane		Minor
C	L2004 East		Major

### Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Has right-turn storage	Visibility for right turn (m)	Blocks?	Blocking queue (PCU)
C - L2004 East	7.00			50.0	✓	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 - Tay Lane	One lane	2.50	50	50

### Slope / Intercept / Capacity

#### Priority Intersection Slopes and Intercepts

Stream	Intercept (PCU/TS)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
B-A	123.138	0.086	0.217	0.136	0.310

B-C	155.651	0.091	0.231	-	-
C-B	150.730	0.223	0.223	-	-

The slopes and intercepts shown above include custom intercept adjustments only.  
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 period length (min)	Time segment length (min)
D1	2026 wdev	AM	DIRECT	09:00	10:00	60	15

Vehicle mix source	PCU Factor for a HV (PCU)	O-D data varies over time
HV Percentages	2.00	✓

### Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Scaling Factor (%)
A - L2004 West		✓	100.000
B - Tay Lane		✓	100.000
C - L2004 East		✓	100.000

## Origin-Destination Data

### Demand (PCU/TS)

		To		
		A - L2004 West	B - Tay Lane	C - L2004 East
09:00 - 09:15	From			
	A - L2004 West	0.00	1.00	89.00
	B - Tay Lane	1.00	0.00	0.00
	C - L2004 East	36.00	1.00	0.00

### Demand (PCU/TS)

		To		
		A - L2004 West	B - Tay Lane	C - L2004 East
09:15 - 09:30	From			
	A - L2004 West	0.00	1.00	77.00
	B - Tay Lane	1.00	0.00	1.00
	C - L2004 East	55.00	1.00	0.00

### Demand (PCU/TS)

		To		
		A - L2004 West	B - Tay Lane	C - L2004 East
09:30 - 09:45	From			
	A - L2004 West	0.00	1.00	111.00
	B - Tay Lane	1.00	0.00	2.00
	C - L2004 East	49.00	2.00	0.00

### Demand (PCU/TS)

		To		
		A - L2004 West	B - Tay Lane	C - L2004 East
09:45 - 10:00	From			
	A - L2004 West	0.00	1.00	97.00
	B - Tay Lane	1.00	0.00	0.00
	C - L2004 East	39.00	1.00	0.00

## Vehicle Mix

### Heavy Vehicle Percentages

		To		
		A - L2004 West	B - Tay Lane	C - L2004 East
From	A - L2004 West	0	0	0
	B - Tay Lane	0	0	0
	C - L2004 East	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	9.39	0.0	A
C-AB	0.02	5.81	0.0	A
C-A				
A-B				
A-C				

### Main Results for each time segment

#### 09:00 - 09:15

Stream	Total Demand (PCU/TS)	Capacity (PCU/TS)	RFC	Throughput (PCU/TS)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	1.00	98.53	0.010	0.99	0.0	9.226	A
C-AB	1.30	156.17	0.008	1.29	0.0	5.810	A
C-A	35.70			35.70			
A-B	1.00			1.00			
A-C	89.00			89.00			

#### 09:15 - 09:30

Stream	Total Demand (PCU/TS)	Capacity (PCU/TS)	RFC	Throughput (PCU/TS)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	2.00	114.81	0.017	1.99	0.0	7.977	A
C-AB	1.47	172.01	0.009	1.47	0.0	5.278	A
C-A	54.53			54.53			
A-B	1.00			1.00			
A-C	77.00			77.00			

#### 09:30 - 09:45

Stream	Total Demand (PCU/TS)	Capacity (PCU/TS)	RFC	Throughput (PCU/TS)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	3.00	114.03	0.026	2.99	0.0	8.105	A
C-AB	2.88	161.02	0.018	2.87	0.0	5.690	A
C-A	48.12			48.12			
A-B	1.00			1.00			
A-C	111.00			111.00			

#### 09:45 - 10:00

Stream	Total Demand (PCU/TS)	Capacity (PCU/TS)	RFC	Throughput (PCU/TS)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	1.00	96.84	0.010	1.02	0.0	9.393	A
C-AB	1.34	156.67	0.009	1.35	0.0	5.794	A
C-A	38.66			38.66			
A-B	1.00			1.00			
A-C	97.00			97.00			



## 2026 wdev, 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	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way	Two-way	Two-way		0.20	A

### Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	0.20	A

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)
D2	2026 wdev	PM	DIRECT	18:00	19:00	60	15

Vehicle mix source	PCU Factor for a HV (PCU)	O-D data varies over time
HV Percentages	2.00	✓

### Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Scaling Factor (%)
A - L2004 West		✓	100.000
B - Tay Lane		✓	100.000
C - L2004 East		✓	100.000

## Origin-Destination Data

### Demand (PCU/TS)

		To		
		A - L2004 West	B - Tay Lane	C - L2004 East
18:00 - 18:15	From			
	A - L2004 West	0.00	1.00	93.00
	B - Tay Lane	1.00	0.00	2.00
	C - L2004 East	87.00	2.00	0.00

### Demand (PCU/TS)

		To		
		A - L2004 West	B - Tay Lane	C - L2004 East
18:15 - 18:30	From			
	A - L2004 West	0.00	1.00	95.00
	B - Tay Lane	1.00	0.00	1.00
	C - L2004 East	66.00	1.00	0.00

## Demand (PCU/TS)

		To			
		A - L2004 West	B - Tay Lane	C - L2004 East	
18:30 - 18:45	From	A - L2004 West	0.00	1.00	91.00
		B - Tay Lane	1.00	0.00	1.00
		C - L2004 East	50.00	1.00	0.00

## Demand (PCU/TS)

		To			
		A - L2004 West	B - Tay Lane	C - L2004 East	
18:45 - 19:00	From	A - L2004 West	0.00	2.00	144.00
		B - Tay Lane	1.00	0.00	1.00
		C - L2004 East	72.00	2.00	0.00

## Vehicle Mix

## Heavy Vehicle Percentages

		To		
		A - L2004 West	B - Tay Lane	C - L2004 East
From	A - L2004 West	0	0	0
	B - Tay Lane	0	0	0
	C - L2004 East	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	9.41	0.0	A
C-AB	0.02	5.48	0.0	A
C-A				
A-B				
A-C				

## Main Results for each time segment

## 18:00 - 18:15

Stream	Total Demand (PCU/TS)	Capacity (PCU/TS)	RFC	Throughput (PCU/TS)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	3.00	115.49	0.026	2.97	0.0	7.997	A
C-AB	3.66	191.65	0.019	3.64	0.0	4.787	A
C-A	85.34			85.34			
A-B	1.00			1.00			
A-C	93.00			93.00			

## 18:15 - 18:30

Stream	Total Demand (PCU/TS)	Capacity (PCU/TS)	RFC	Throughput (PCU/TS)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	2.00	109.85	0.018	2.01	0.0	8.345	A
C-AB	1.61	176.33	0.009	1.62	0.0	5.153	A
C-A	65.39			65.39			
A-B	1.00			1.00			
A-C	95.00			95.00			

## 18:30 - 18:45

Stream	Total Demand (PCU/TS)	Capacity (PCU/TS)	RFC	Throughput (PCU/TS)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	2.00	112.18	0.018	2.00	0.0	8.168	A
C-AB	1.43	165.71	0.009	1.44	0.0	5.480	A
C-A	49.57			49.57			
A-B	1.00			1.00			
A-C	91.00			91.00			

## 18:45 - 19:00

Stream	Total Demand (PCU/TS)	Capacity (PCU/TS)	RFC	Throughput (PCU/TS)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	2.00	97.64	0.020	2.00	0.0	9.409	A
C-AB	3.46	171.21	0.020	3.44	0.0	5.364	A
C-A	70.54			70.54			
A-B	2.00			2.00			
A-C	144.00			144.00			

<b>Junctions 10</b>
<b>PICADY 10 - Priority Intersection Module</b>
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<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: Tay Lane L2004 2031 wod.j10

Path: C:\Users\martin.rogers\Dropbox\rathcoole housing 2021\rfi

Report generation date: 11/12/2022 18:11:49

» [2031 wod, AM](#)

» [2031 wod, PM](#)

### Summary of junction performance

	AM					PM				
	Set ID	Queue (PCU)	Delay (s)	RFC	LOS	Set ID	Queue (PCU)	Delay (s)	RFC	LOS
<b>2031 wod</b>										
Stream B-AC	D1	0.0	7.09	0.01	A	D2	0.0	6.84	0.01	A
Stream C-AB		0.0	5.59	0.01	A		0.0	5.25	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.*

### File summary

#### File Description

Title	Academy St / R147 Priority Junction
Location	Academy Street, Navan, County Meath
Site number	
Date	08/11/2022
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	ICTDOMAIN\martin.rogers
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	perTimeSegment	s	-Min	perMin

### Analysis Options

Calculate Queue Percentiles	Calculate residual capacity	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)
		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 period length (min)	Time segment length (min)
D1	2031 wod	AM	DIRECT	09:00	10:00	60	15
D2	2031 wod	PM	DIRECT	18:00	19:00	60	15

**Analysis Set Details**

ID	Network flow scaling factor (%)
A1	100.000

**2031 wod, 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	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way	Two-way	Two-way		0.04	A

**Junction Network**

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	0.04	A

**Arms****Arms**

Arm	Name	Description	Arm type
A	L2004 West		Major
B	Tay Lane		Minor
C	L2004 East		Major

**Major Arm Geometry**

Arm	Width of carriageway (m)	Has kerbed central reserve	Has right-turn storage	Visibility for right turn (m)	Blocks?	Blocking queue (PCU)
C - L2004 East	7.00			50.0	✓	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 - Tay Lane	One lane	2.50	50	50

**Slope / Intercept / Capacity****Priority Intersection Slopes and Intercepts**

Stream	Intercept (PCU/TS)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
B-A	123.138	0.086	0.217	0.136	0.310

B-C	155.651	0.091	0.231	-	-
C-B	150.730	0.223	0.223	-	-

The slopes and intercepts shown above include custom intercept adjustments only.

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 period length (min)	Time segment length (min)
D1	2031 wod	AM	DIRECT	09:00	10:00	60	15

Vehicle mix source	PCU Factor for a HV (PCU)	O-D data varies over time
HV Percentages	2.00	✓

### Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Scaling Factor (%)
A - L2004 West		✓	100.000
B - Tay Lane		✓	100.000
C - L2004 East		✓	100.000

## Origin-Destination Data

### Demand (PCU/TS)

		To		
		A - L2004 West	B - Tay Lane	C - L2004 East
09:00 - 09:15	From			
	A - L2004 West	0.00	0.00	96.00
	B - Tay Lane	0.00	0.00	0.00
	C - L2004 East	39.00	0.00	0.00

### Demand (PCU/TS)

		To		
		A - L2004 West	B - Tay Lane	C - L2004 East
09:15 - 09:30	From			
	A - L2004 West	0.00	0.00	83.00
	B - Tay Lane	0.00	0.00	1.00
	C - L2004 East	59.00	0.00	0.00

### Demand (PCU/TS)

		To		
		A - L2004 West	B - Tay Lane	C - L2004 East
09:30 - 09:45	From			
	A - L2004 West	0.00	0.00	120.00
	B - Tay Lane	0.00	0.00	1.00
	C - L2004 East	53.00	1.00	0.00

### Demand (PCU/TS)

		To		
		A - L2004 West	B - Tay Lane	C - L2004 East
09:45 - 10:00	From			
	A - L2004 West	0.00	0.00	104.00
	B - Tay Lane	0.00	0.00	0.00
	C - L2004 East	41.00	0.00	0.00

## Vehicle Mix

### Heavy Vehicle Percentages

		To		
		A - L2004 West	B - Tay Lane	C - L2004 East
From	A - L2004 West	0	0	0
	B - Tay Lane	0	0	0
	C - L2004 East	0	0	0

## Results

### Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-AC	0.01	7.09	0.0	A
C-AB	0.01	5.59	0.0	A
C-A				
A-B				
A-C				

### Main Results for each time segment

#### 09:00 - 09:15

Stream	Total Demand (PCU/TS)	Capacity (PCU/TS)	RFC	Throughput (PCU/TS)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	0.00	112.36	0.000	0.00	0.0	0.000	A
C-AB	0.00	129.28	0.000	0.00	0.0	0.000	A
C-A	39.00			39.00			
A-B	0.00			0.00			
A-C	96.00			96.00			

#### 09:15 - 09:30

Stream	Total Demand (PCU/TS)	Capacity (PCU/TS)	RFC	Throughput (PCU/TS)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	1.00	136.50	0.007	0.99	0.0	6.641	A
C-AB	0.00	132.18	0.000	0.00	0.0	0.000	A
C-A	59.00			59.00			
A-B	0.00			0.00			
A-C	83.00			83.00			

#### 09:30 - 09:45

Stream	Total Demand (PCU/TS)	Capacity (PCU/TS)	RFC	Throughput (PCU/TS)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	1.00	127.96	0.008	1.00	0.0	7.087	A
C-AB	1.48	162.32	0.009	1.47	0.0	5.595	A
C-A	52.52			52.52			
A-B	0.00			0.00			
A-C	120.00			120.00			

#### 09:45 - 10:00

Stream	Total Demand (PCU/TS)	Capacity (PCU/TS)	RFC	Throughput (PCU/TS)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	0.00	131.65	0.000	0.01	0.0	0.000	A
C-AB	0.00	127.49	0.000	0.01	0.0	0.000	A
C-A	41.00			41.00			
A-B	0.00			0.00			
A-C	104.00			104.00			

## 2031 wod, 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	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way	Two-way	Two-way		0.03	A

### Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	0.03	A

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)
D2	2031 wod	PM	DIRECT	18:00	19:00	60	15

Vehicle mix source	PCU Factor for a HV (PCU)	O-D data varies over time
HV Percentages	2.00	✓

### Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Scaling Factor (%)
A - L2004 West		✓	100.000
B - Tay Lane		✓	100.000
C - L2004 East		✓	100.000

## Origin-Destination Data

### Demand (PCU/TS)

		To		
		A - L2004 West	B - Tay Lane	C - L2004 East
18:00 - 18:15	From			
	A - L2004 West	0.00	0.00	100.00
	B - Tay Lane	0.00	0.00	1.00
	C - L2004 East	93.00	1.00	0.00

### Demand (PCU/TS)

		To		
		A - L2004 West	B - Tay Lane	C - L2004 East
18:15 - 18:30	From			
	A - L2004 West	0.00	0.00	103.00
	B - Tay Lane	0.00	0.00	0.00
	C - L2004 East	71.00	0.00	0.00



## Demand (PCU/TS)

		To			
		A - L2004 West	B - Tay Lane	C - L2004 East	
18:30 - 18:45	From	A - L2004 West	0.00	0.00	98.00
		B - Tay Lane	0.00	0.00	0.00
		C - L2004 East	54.00	0.00	0.00

## Demand (PCU/TS)

		To			
		A - L2004 West	B - Tay Lane	C - L2004 East	
18:45 - 19:00	From	A - L2004 West	0.00	1.00	154.00
		B - Tay Lane	0.00	0.00	0.00
		C - L2004 East	77.00	1.00	0.00

## Vehicle Mix

## Heavy Vehicle Percentages

		To		
		A - L2004 West	B - Tay Lane	C - L2004 East
From	A - L2004 West	0	0	0
	B - Tay Lane	0	0	0
	C - L2004 East	0	0	0

## Results

## Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-AC	0.01	6.84	0.0	A
C-AB	0.01	5.25	0.0	A
C-A				
A-B				
A-C				

## Main Results for each time segment

## 18:00 - 18:15

Stream	Total Demand (PCU/TS)	Capacity (PCU/TS)	RFC	Throughput (PCU/TS)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	1.00	132.58	0.008	0.99	0.0	6.839	A
C-AB	1.91	194.85	0.010	1.90	0.0	4.664	A
C-A	92.09			92.09			
A-B	0.00			0.00			
A-C	100.00			100.00			

## 18:15 - 18:30

Stream	Total Demand (PCU/TS)	Capacity (PCU/TS)	RFC	Throughput (PCU/TS)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	0.00	131.89	0.000	0.01	0.0	0.000	A
C-AB	0.00	127.72	0.000	0.01	0.0	0.000	A
C-A	71.00			71.00			
A-B	0.00			0.00			
A-C	103.00			103.00			

## 18:30 - 18:45

Stream	Total Demand (PCU/TS)	Capacity (PCU/TS)	RFC	Throughput (PCU/TS)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	0.00	110.52	0.000	0.00	0.0	0.000	A
C-AB	0.00	128.83	0.000	0.00	0.0	0.000	A
C-A	54.00			54.00			
A-B	0.00			0.00			
A-C	98.00			98.00			

## 18:45 - 19:00

Stream	Total Demand (PCU/TS)	Capacity (PCU/TS)	RFC	Throughput (PCU/TS)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	0.00	95.16	0.000	0.00	0.0	0.000	A
C-AB	1.80	173.23	0.010	1.79	0.0	5.249	A
C-A	76.20			76.20			
A-B	1.00			1.00			
A-C	154.00			154.00			

<b>Junctions 10</b>
<b>PICADY 10 - Priority Intersection Module</b>
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Filename: Tay Lane L2004 2031 wdev.j10

Path: C:\Users\martin.rogers\Dropbox\rathcoole housing 2021\rfi

Report generation date: 11/12/2022 18:15:26

» [2031 wdev, AM](#)

» [2031 wdev, PM](#)

### Summary of junction performance

	AM					PM				
	Set ID	Queue (PCU)	Delay (s)	RFC	LOS	Set ID	Queue (PCU)	Delay (s)	RFC	LOS
<b>2031 wdev</b>										
Stream B-AC	D1	0.0	9.57	0.03	A	D2	0.0	9.69	0.03	A
Stream C-AB		0.0	5.80	0.02	A		0.0	5.43	0.02	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.

### File summary

#### File Description

Title	Academy St / R147 Priority Junction
Location	Academy Street, Navan, County Meath
Site number	
Date	08/11/2022
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	ICTDOMAIN\martin.rogers
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	perTimeSegment	s	-Min	perMin

### Analysis Options

Calculate Queue Percentiles	Calculate residual capacity	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)
		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 period length (min)	Time segment length (min)
D1	2031 wdev	AM	DIRECT	09:00	10:00	60	15
D2	2031 wdev	PM	DIRECT	18:00	19:00	60	15

### Analysis Set Details

ID	Network flow scaling factor (%)
A1	100.000

## 2031 wdev, 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	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way	Two-way	Two-way		0.18	A

### Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	0.18	A

## Arms

### Arms

Arm	Name	Description	Arm type
A	L2004 West		Major
B	Tay Lane		Minor
C	L2004 East		Major

### Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Has right-turn storage	Visibility for right turn (m)	Blocks?	Blocking queue (PCU)
C - L2004 East	7.00			50.0	✓	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 - Tay Lane	One lane	2.50	50	50

### Slope / Intercept / Capacity

#### Priority Intersection Slopes and Intercepts

Stream	Intercept (PCU/TS)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
B-A	123.138	0.086	0.217	0.136	0.310

B-C	155.651	0.091	0.231	-	-
C-B	150.730	0.223	0.223	-	-

The slopes and intercepts shown above include custom intercept adjustments only.  
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 period length (min)	Time segment length (min)
D1	2031 wdev	AM	DIRECT	09:00	10:00	60	15

Vehicle mix source	PCU Factor for a HV (PCU)	O-D data varies over time
HV Percentages	2.00	✓

### Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Scaling Factor (%)
A - L2004 West		✓	100.000
B - Tay Lane		✓	100.000
C - L2004 East		✓	100.000

## Origin-Destination Data

### Demand (PCU/TS)

		To		
		A - L2004 West	B - Tay Lane	C - L2004 East
09:00 - 09:15	From			
	A - L2004 West	0.00	1.00	96.00
	B - Tay Lane	1.00	0.00	0.00
	C - L2004 East	39.00	1.00	0.00

### Demand (PCU/TS)

		To		
		A - L2004 West	B - Tay Lane	C - L2004 East
09:15 - 09:30	From			
	A - L2004 West	0.00	1.00	83.00
	B - Tay Lane	1.00	0.00	1.00
	C - L2004 East	59.00	1.00	0.00

### Demand (PCU/TS)

		To		
		A - L2004 West	B - Tay Lane	C - L2004 East
09:30 - 09:45	From			
	A - L2004 West	0.00	1.00	120.00
	B - Tay Lane	1.00	0.00	2.00
	C - L2004 East	53.00	2.00	0.00

### Demand (PCU/TS)

		To		
		A - L2004 West	B - Tay Lane	C - L2004 East
09:45 - 10:00	From			
	A - L2004 West	0.00	1.00	104.00
	B - Tay Lane	1.00	0.00	0.00
	C - L2004 East	41.00	1.00	0.00

## Vehicle Mix

### Heavy Vehicle Percentages

		To		
		A - L2004 West	B - Tay Lane	C - L2004 East
From	A - L2004 West	0	0	0
	B - Tay Lane	0	0	0
	C - L2004 East	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	9.57	0.0	A
C-AB	0.02	5.80	0.0	A
C-A				
A-B				
A-C				

### Main Results for each time segment

#### 09:00 - 09:15

Stream	Total Demand (PCU/TS)	Capacity (PCU/TS)	RFC	Throughput (PCU/TS)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	1.00	96.60	0.010	0.99	0.0	9.412	A
C-AB	1.33	156.87	0.008	1.32	0.0	5.785	A
C-A	38.67			38.67			
A-B	1.00			1.00			
A-C	96.00			96.00			

#### 09:15 - 09:30

Stream	Total Demand (PCU/TS)	Capacity (PCU/TS)	RFC	Throughput (PCU/TS)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	2.00	113.06	0.018	1.99	0.0	8.103	A
C-AB	1.52	173.66	0.009	1.52	0.0	5.227	A
C-A	58.48			58.48			
A-B	1.00			1.00			
A-C	83.00			83.00			

#### 09:30 - 09:45

Stream	Total Demand (PCU/TS)	Capacity (PCU/TS)	RFC	Throughput (PCU/TS)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	3.00	111.67	0.027	2.99	0.0	8.281	A
C-AB	2.97	162.13	0.018	2.96	0.0	5.654	A
C-A	52.03			52.03			
A-B	1.00			1.00			
A-C	120.00			120.00			

#### 09:45 - 10:00

Stream	Total Demand (PCU/TS)	Capacity (PCU/TS)	RFC	Throughput (PCU/TS)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	1.00	95.06	0.011	1.02	0.0	9.573	A
C-AB	1.36	156.68	0.009	1.37	0.0	5.797	A
C-A	40.64			40.64			
A-B	1.00			1.00			
A-C	104.00			104.00			

## 2031 wdev, 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	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way	Two-way	Two-way		0.19	A

### Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	0.19	A

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)
D2	2031 wdev	PM	DIRECT	18:00	19:00	60	15

Vehicle mix source	PCU Factor for a HV (PCU)	O-D data varies over time
HV Percentages	2.00	✓

### Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Scaling Factor (%)
A - L2004 West		✓	100.000
B - Tay Lane		✓	100.000
C - L2004 East		✓	100.000

## Origin-Destination Data

### Demand (PCU/TS)

		To		
		A - L2004 West	B - Tay Lane	C - L2004 East
18:00 - 18:15	From			
	A - L2004 West	0.00	1.00	100.00
	B - Tay Lane	1.00	0.00	2.00
	C - L2004 East	93.00	2.00	0.00

### Demand (PCU/TS)

		To		
		A - L2004 West	B - Tay Lane	C - L2004 East
18:15 - 18:30	From			
	A - L2004 West	0.00	1.00	103.00
	B - Tay Lane	1.00	0.00	1.00
	C - L2004 East	71.00	1.00	0.00

## Demand (PCU/TS)

		To			
		A - L2004 West	B - Tay Lane	C - L2004 East	
18:30 - 18:45	From	A - L2004 West	0.00	1.00	98.00
		B - Tay Lane	1.00	0.00	1.00
		C - L2004 East	54.00	1.00	0.00

## Demand (PCU/TS)

		To			
		A - L2004 West	B - Tay Lane	C - L2004 East	
18:45 - 19:00	From	A - L2004 West	0.00	2.00	154.00
		B - Tay Lane	1.00	0.00	1.00
		C - L2004 East	77.00	2.00	0.00

## Vehicle Mix

## Heavy Vehicle Percentages

		To		
		A - L2004 West	B - Tay Lane	C - L2004 East
From	A - L2004 West	0	0	0
	B - Tay Lane	0	0	0
	C - L2004 East	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	9.69	0.0	A
C-AB	0.02	5.43	0.0	A
C-A				
A-B				
A-C				



## Main Results for each time segment

## 18:00 - 18:15

Stream	Total Demand (PCU/TS)	Capacity (PCU/TS)	RFC	Throughput (PCU/TS)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	3.00	113.41	0.026	2.97	0.0	8.147	A
C-AB	3.83	194.68	0.020	3.81	0.0	4.715	A
C-A	91.17			91.17			
A-B	1.00			1.00			
A-C	100.00			100.00			

## 18:15 - 18:30

Stream	Total Demand (PCU/TS)	Capacity (PCU/TS)	RFC	Throughput (PCU/TS)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	2.00	107.55	0.019	2.01	0.0	8.527	A
C-AB	1.67	178.38	0.009	1.68	0.0	5.095	A
C-A	70.33			70.33			
A-B	1.00			1.00			
A-C	103.00			103.00			

## 18:30 - 18:45

Stream	Total Demand (PCU/TS)	Capacity (PCU/TS)	RFC	Throughput (PCU/TS)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	2.00	110.21	0.018	2.00	0.0	8.316	A
C-AB	1.48	167.18	0.009	1.48	0.0	5.433	A
C-A	53.52			53.52			
A-B	1.00			1.00			
A-C	98.00			98.00			

## 18:45 - 19:00

Stream	Total Demand (PCU/TS)	Capacity (PCU/TS)	RFC	Throughput (PCU/TS)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	2.00	94.84	0.021	2.00	0.0	9.693	A
C-AB	3.61	173.05	0.021	3.59	0.0	5.311	A
C-A	75.39			75.39			
A-B	2.00			2.00			
A-C	154.00			154.00			

<h1>Junctions 10</h1>
<b>PICADY 10 - Priority Intersection Module</b>
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Filename: Tay Lane L2004 2041 wod.j10  
 Path: C:\Users\martin.rogers\Dropbox\rathcoole housing 2021\rfi  
 Report generation date: 11/12/2022 18:19:23

» [2041 wod, AM](#)  
 » [2041 wod, PM](#)

### Summary of junction performance

	AM					PM				
	Set ID	Queue (PCU)	Delay (s)	RFC	LOS	Set ID	Queue (PCU)	Delay (s)	RFC	LOS
<b>2041 wod</b>										
Stream B-AC	D1	0.0	7.18	0.01	A	D2	0.0	6.98	0.02	A
Stream C-AB		0.0	5.57	0.01	A		0.0	5.19	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.*

### File summary

#### File Description

Title	Academy St / R147 Priority Junction
Location	Academy Street, Navan, County Meath
Site number	
Date	08/11/2022
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	ICTDOMAIN\martin.rogers
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	perTimeSegment	s	-Min	perMin

### Analysis Options

Calculate Queue Percentiles	Calculate residual capacity	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)
		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 period length (min)	Time segment length (min)
D1	2041 wod	AM	DIRECT	09:00	10:00	60	15
D2	2041 wod	PM	DIRECT	18:00	19:00	60	15

**Analysis Set Details**

ID	Network flow scaling factor (%)
A1	100.000

**2041 wod, 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	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way	Two-way	Two-way		0.04	A

**Junction Network**

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	0.04	A

**Arms****Arms**

Arm	Name	Description	Arm type
A	L2004 West		Major
B	Tay Lane		Minor
C	L2004 East		Major

**Major Arm Geometry**

Arm	Width of carriageway (m)	Has kerbed central reserve	Has right-turn storage	Visibility for right turn (m)	Blocks?	Blocking queue (PCU)
C - L2004 East	7.00			50.0	✓	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 - Tay Lane	One lane	2.50	50	50

**Slope / Intercept / Capacity****Priority Intersection Slopes and Intercepts**

Stream	Intercept (PCU/TS)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
B-A	123.138	0.086	0.217	0.136	0.310

B-C	155.651	0.091	0.231	-	-
C-B	150.730	0.223	0.223	-	-

The slopes and intercepts shown above include custom intercept adjustments only.  
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 period length (min)	Time segment length (min)
D1	2041 wod	AM	DIRECT	09:00	10:00	60	15

Vehicle mix source	PCU Factor for a HV (PCU)	O-D data varies over time
HV Percentages	2.00	✓

### Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Scaling Factor (%)
A - L2004 West		✓	100.000
B - Tay Lane		✓	100.000
C - L2004 East		✓	100.000

## Origin-Destination Data

### Demand (PCU/TS)

		To		
		A - L2004 West	B - Tay Lane	C - L2004 East
09:00 - 09:15	From			
	A - L2004 West	0.00	0.00	101.00
	B - Tay Lane	0.00	0.00	0.00
	C - L2004 East	42.00	0.00	0.00

### Demand (PCU/TS)

		To		
		A - L2004 West	B - Tay Lane	C - L2004 East
09:15 - 09:30	From			
	A - L2004 West	0.00	0.00	88.00
	B - Tay Lane	0.00	0.00	1.00
	C - L2004 East	62.00	0.00	0.00

### Demand (PCU/TS)

		To		
		A - L2004 West	B - Tay Lane	C - L2004 East
09:30 - 09:45	From			
	A - L2004 West	0.00	0.00	127.00
	B - Tay Lane	0.00	0.00	1.00
	C - L2004 East	56.00	1.00	0.00

### Demand (PCU/TS)

		To		
		A - L2004 West	B - Tay Lane	C - L2004 East
09:45 - 10:00	From			
	A - L2004 West	0.00	0.00	111.00
	B - Tay Lane	0.00	0.00	0.00
	C - L2004 East	44.00	0.00	0.00

## Vehicle Mix

### Heavy Vehicle Percentages

		To		
		A - L2004 West	B - Tay Lane	C - L2004 East
From	A - L2004 West	0	0	0
	B - Tay Lane	0	0	0
	C - L2004 East	0	0	0

## Results

### Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-AC	0.01	7.18	0.0	A
C-AB	0.01	5.57	0.0	A
C-A				
A-B				
A-C				

### Main Results for each time segment

#### 09:00 - 09:15

Stream	Total Demand (PCU/TS)	Capacity (PCU/TS)	RFC	Throughput (PCU/TS)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	0.00	110.94	0.000	0.00	0.0	0.000	A
C-AB	0.00	128.16	0.000	0.00	0.0	0.000	A
C-A	42.00			42.00			
A-B	0.00			0.00			
A-C	101.00			101.00			

#### 09:15 - 09:30

Stream	Total Demand (PCU/TS)	Capacity (PCU/TS)	RFC	Throughput (PCU/TS)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	1.00	135.35	0.007	0.99	0.0	6.698	A
C-AB	0.00	131.07	0.000	0.00	0.0	0.000	A
C-A	62.00			62.00			
A-B	0.00			0.00			
A-C	88.00			88.00			

#### 09:30 - 09:45

Stream	Total Demand (PCU/TS)	Capacity (PCU/TS)	RFC	Throughput (PCU/TS)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	1.00	126.35	0.008	1.00	0.0	7.179	A
C-AB	1.52	163.13	0.009	1.51	0.0	5.568	A
C-A	55.48			55.48			
A-B	0.00			0.00			
A-C	127.00			127.00			

#### 09:45 - 10:00

Stream	Total Demand (PCU/TS)	Capacity (PCU/TS)	RFC	Throughput (PCU/TS)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	0.00	130.04	0.000	0.01	0.0	0.000	A
C-AB	0.00	125.93	0.000	0.01	0.0	0.000	A
C-A	44.00			44.00			
A-B	0.00			0.00			
A-C	111.00			111.00			

## 2041 wod, 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	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way	Two-way	Two-way		0.04	A

### Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	0.04	A

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)
D2	2041 wod	PM	DIRECT	18:00	19:00	60	15

Vehicle mix source	PCU Factor for a HV (PCU)	O-D data varies over time
HV Percentages	2.00	✓

### Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Scaling Factor (%)
A - L2004 West		✓	100.000
B - Tay Lane		✓	100.000
C - L2004 East		✓	100.000

## Origin-Destination Data

### Demand (PCU/TS)

		To		
		A - L2004 West	B - Tay Lane	C - L2004 East
18:00 - 18:15	From			
	A - L2004 West	0.00	0.00	107.00
	B - Tay Lane	0.00	0.00	2.00
	C - L2004 East	99.00	1.00	0.00

### Demand (PCU/TS)

		To		
		A - L2004 West	B - Tay Lane	C - L2004 East
18:15 - 18:30	From			
	A - L2004 West	0.00	0.00	109.00
	B - Tay Lane	0.00	0.00	0.00
	C - L2004 East	75.00	0.00	0.00

## Demand (PCU/TS)

		To			
		A - L2004 West	B - Tay Lane	C - L2004 East	
18:30 - 18:45	From	A - L2004 West	0.00	0.00	104.00
		B - Tay Lane	0.00	0.00	0.00
		C - L2004 East	57.00	0.00	0.00

## Demand (PCU/TS)

		To			
		A - L2004 West	B - Tay Lane	C - L2004 East	
18:45 - 19:00	From	A - L2004 West	0.00	1.00	164.00
		B - Tay Lane	0.00	0.00	0.00
		C - L2004 East	82.00	1.00	0.00

## Vehicle Mix

## Heavy Vehicle Percentages

		To		
		A - L2004 West	B - Tay Lane	C - L2004 East
From	A - L2004 West	0	0	0
	B - Tay Lane	0	0	0
	C - L2004 East	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	6.98	0.0	A
C-AB	0.01	5.19	0.0	A
C-A				
A-B				
A-C				

## Main Results for each time segment

## 18:00 - 18:15

Stream	Total Demand (PCU/TS)	Capacity (PCU/TS)	RFC	Throughput (PCU/TS)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	2.00	130.96	0.015	1.98	0.0	6.977	A
C-AB	2.00	197.92	0.010	1.99	0.0	4.593	A
C-A	98.00			98.00			
A-B	0.00			0.00			
A-C	107.00			107.00			

## 18:15 - 18:30

Stream	Total Demand (PCU/TS)	Capacity (PCU/TS)	RFC	Throughput (PCU/TS)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	0.00	130.50	0.000	0.02	0.0	0.000	A
C-AB	0.00	126.37	0.000	0.01	0.0	0.000	A
C-A	75.00			75.00			
A-B	0.00			0.00			
A-C	109.00			109.00			

## 18:30 - 18:45

Stream	Total Demand (PCU/TS)	Capacity (PCU/TS)	RFC	Throughput (PCU/TS)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	0.00	108.87	0.000	0.00	0.0	0.000	A
C-AB	0.00	127.49	0.000	0.00	0.0	0.000	A
C-A	57.00			57.00			
A-B	0.00			0.00			
A-C	104.00			104.00			

## 18:45 - 19:00

Stream	Total Demand (PCU/TS)	Capacity (PCU/TS)	RFC	Throughput (PCU/TS)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	0.00	92.35	0.000	0.00	0.0	0.000	A
C-AB	1.88	175.11	0.011	1.87	0.0	5.194	A
C-A	81.12			81.12			
A-B	1.00			1.00			
A-C	164.00			164.00			



<b>Junctions 10</b>
<b>PICADY 10 - Priority Intersection Module</b>
Version: 10.0.1.1519 © Copyright TRL Software Limited, 2021
For sales and distribution information, program advice and maintenance, contact TRL Software: +44 (0)1344 379777 <a href="mailto:software@trl.co.uk">software@trl.co.uk</a> <a href="http://trlsoftware.com">trlsoftware.com</a>
<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: Tay Lane L2004 2041 wdev.j10  
 Path: C:\Users\martin.rogers\Dropbox\rathcoole housing 2021\rfi  
 Report generation date: 11/12/2022 18:23:41

- » [2041 wdev, AM](#)
- » [2041 wdev, PM](#)

#### Summary of junction performance

	AM					PM				
	Set ID	Queue (PCU)	Delay (s)	RFC	LOS	Set ID	Queue (PCU)	Delay (s)	RFC	LOS
<b>2041 wdev</b>										
Stream B-AC	D1	0.0	9.77	0.04	A	D2	0.0	10.00	0.03	A
Stream C-AB		0.0	5.77	0.02	A		0.0	5.40	0.02	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.*

#### File summary

##### File Description

Title	Academy St / R147 Priority Junction
Location	Academy Street, Navan, County Meath
Site number	
Date	08/11/2022
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	ICTDOMAIN\martin.rogers
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	perTimeSegment	s	-Min	perMin

#### Analysis Options

Calculate Queue Percentiles	Calculate residual capacity	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)
		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 period length (min)	Time segment length (min)
D1	2041 wdev	AM	DIRECT	09:00	10:00	60	15
D2	2041 wdev	PM	DIRECT	18:00	19:00	60	15

### Analysis Set Details

ID	Network flow scaling factor (%)
A1	100.000

## 2041 wdev, 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	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way	Two-way	Two-way		0.20	A

### Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	0.20	A

## Arms

### Arms

Arm	Name	Description	Arm type
A	L2004 West		Major
B	Tay Lane		Minor
C	L2004 East		Major

### Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Has right-turn storage	Visibility for right turn (m)	Blocks?	Blocking queue (PCU)
C - L2004 East	7.00			50.0	✓	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 - Tay Lane	One lane	2.50	50	50

### Slope / Intercept / Capacity

#### Priority Intersection Slopes and Intercepts

Stream	Intercept (PCU/TS)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
B-A	123.138	0.086	0.217	0.136	0.310

B-C	155.651	0.091	0.231	-	-
C-B	150.730	0.223	0.223	-	-

The slopes and intercepts shown above include custom intercept adjustments only.  
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 period length (min)	Time segment length (min)
D1	2041 wdev	AM	DIRECT	09:00	10:00	60	15

Vehicle mix source	PCU Factor for a HV (PCU)	O-D data varies over time
HV Percentages	2.00	✓

### Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Scaling Factor (%)
A - L2004 West		✓	100.000
B - Tay Lane		✓	100.000
C - L2004 East		✓	100.000

## Origin-Destination Data

### Demand (PCU/TS)

		To			
		A - L2004 West	B - Tay Lane	C - L2004 East	
09:00 - 09:15	From	A - L2004 West	0.00	1.00	101.00
		B - Tay Lane	1.00	0.00	0.00
		C - L2004 East	42.00	1.00	0.00

### Demand (PCU/TS)

		To			
		A - L2004 West	B - Tay Lane	C - L2004 East	
09:15 - 09:30	From	A - L2004 West	0.00	1.00	88.00
		B - Tay Lane	1.00	0.00	2.00
		C - L2004 East	62.00	1.00	0.00

### Demand (PCU/TS)

		To			
		A - L2004 West	B - Tay Lane	C - L2004 East	
09:30 - 09:45	From	A - L2004 West	0.00	1.00	127.00
		B - Tay Lane	2.00	0.00	2.00
		C - L2004 East	56.00	2.00	0.00

### Demand (PCU/TS)

		To			
		A - L2004 West	B - Tay Lane	C - L2004 East	
09:45 - 10:00	From	A - L2004 West	0.00	1.00	111.00
		B - Tay Lane	1.00	0.00	0.00
		C - L2004 East	44.00	1.00	0.00

## Vehicle Mix

### Heavy Vehicle Percentages

		To		
		A - L2004 West	B - Tay Lane	C - L2004 East
From	A - L2004 West	0	0	0
	B - Tay Lane	0	0	0
	C - L2004 East	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	9.77	0.0	A
C-AB	0.02	5.77	0.0	A
C-A				
A-B				
A-C				

### Main Results for each time segment

#### 09:00 - 09:15

Stream	Total Demand (PCU/TS)	Capacity (PCU/TS)	RFC	Throughput (PCU/TS)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	1.00	95.11	0.011	0.99	0.0	9.561	A
C-AB	1.36	158.00	0.009	1.35	0.0	5.745	A
C-A	41.64			41.64			
A-B	1.00			1.00			
A-C	101.00			101.00			

#### 09:15 - 09:30

Stream	Total Demand (PCU/TS)	Capacity (PCU/TS)	RFC	Throughput (PCU/TS)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	3.00	118.51	0.025	2.98	0.0	7.789	A
C-AB	1.55	174.82	0.009	1.55	0.0	5.193	A
C-A	61.45			61.45			
A-B	1.00			1.00			
A-C	88.00			88.00			

#### 09:30 - 09:45

Stream	Total Demand (PCU/TS)	Capacity (PCU/TS)	RFC	Throughput (PCU/TS)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	4.00	103.23	0.039	3.99	0.0	9.068	A
C-AB	3.05	162.93	0.019	3.04	0.0	5.628	A
C-A	54.95			54.95			
A-B	1.00			1.00			
A-C	127.00			127.00			

#### 09:45 - 10:00

Stream	Total Demand (PCU/TS)	Capacity (PCU/TS)	RFC	Throughput (PCU/TS)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	1.00	93.17	0.011	1.03	0.0	9.770	A
C-AB	1.39	157.42	0.009	1.41	0.0	5.768	A
C-A	43.61			43.61			
A-B	1.00			1.00			
A-C	111.00			111.00			

## 2041 wdev, 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	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way	Two-way	Two-way		0.18	A

### Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	0.18	A

## Traffic Demand

### Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)
D2	2041 wdev	PM	DIRECT	18:00	19:00	60	15

Vehicle mix source	PCU Factor for a HV (PCU)	O-D data varies over time
HV Percentages	2.00	✓

### Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Scaling Factor (%)
A - L2004 West		✓	100.000
B - Tay Lane		✓	100.000
C - L2004 East		✓	100.000

## Origin-Destination Data

### Demand (PCU/TS)

		To		
		A - L2004 West	B - Tay Lane	C - L2004 East
18:00 - 18:15	From			
	A - L2004 West	0.00	1.00	107.00
	B - Tay Lane	1.00	0.00	2.00
	C - L2004 East	99.00	2.00	0.00

### Demand (PCU/TS)

		To		
		A - L2004 West	B - Tay Lane	C - L2004 East
18:15 - 18:30	From			
	A - L2004 West	0.00	1.00	109.00
	B - Tay Lane	1.00	0.00	1.00
	C - L2004 East	75.00	1.00	0.00

## Demand (PCU/TS)

		To			
		A - L2004 West	B - Tay Lane	C - L2004 East	
18:30 - 18:45	From	A - L2004 West	0.00	1.00	104.00
		B - Tay Lane	1.00	0.00	1.00
		C - L2004 East	57.00	1.00	0.00

## Demand (PCU/TS)

		To			
		A - L2004 West	B - Tay Lane	C - L2004 East	
18:45 - 19:00	From	A - L2004 West	0.00	2.00	164.00
		B - Tay Lane	1.00	0.00	1.00
		C - L2004 East	82.00	2.00	0.00

## Vehicle Mix

## Heavy Vehicle Percentages

		To		
		A - L2004 West	B - Tay Lane	C - L2004 East
From	A - L2004 West	0	0	0
	B - Tay Lane	0	0	0
	C - L2004 East	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	10.00	0.0	A
C-AB	0.02	5.40	0.0	A
C-A				
A-B				
A-C				

## Main Results for each time segment

## 18:00 - 18:15

Stream	Total Demand (PCU/TS)	Capacity (PCU/TS)	RFC	Throughput (PCU/TS)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	3.00	111.32	0.027	2.97	0.0	8.304	A
C-AB	4.01	197.75	0.020	3.98	0.0	4.644	A
C-A	96.99			96.99			
A-B	1.00			1.00			
A-C	107.00			107.00			

## 18:15 - 18:30

Stream	Total Demand (PCU/TS)	Capacity (PCU/TS)	RFC	Throughput (PCU/TS)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	2.00	105.79	0.019	2.01	0.0	8.672	A
C-AB	1.72	180.13	0.010	1.74	0.0	5.046	A
C-A	74.28			74.28			
A-B	1.00			1.00			
A-C	109.00			109.00			

## 18:30 - 18:45

Stream	Total Demand (PCU/TS)	Capacity (PCU/TS)	RFC	Throughput (PCU/TS)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	2.00	108.56	0.018	2.00	0.0	8.445	A
C-AB	1.52	168.15	0.009	1.52	0.0	5.402	A
C-A	56.48			56.48			
A-B	1.00			1.00			
A-C	104.00			104.00			

## 18:45 - 19:00

Stream	Total Demand (PCU/TS)	Capacity (PCU/TS)	RFC	Throughput (PCU/TS)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	2.00	92.03	0.022	2.00	0.0	9.995	A
C-AB	3.77	174.93	0.022	3.75	0.0	5.257	A
C-A	80.23			80.23			
A-B	2.00			2.00			
A-C	164.00			164.00			