JOHN WALTER BURKE

CALTRAGH LRD

NEWTOWNHOLMES ROAD, CALTRAGH & CORNAGEEHA, Co. SLIGO

TRAFFIC AND TRANSPORT ASSESSMENT

May 2024

Job No. 6736

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DOCUMENT APPROVAL

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6736/405/JD

CALTRAGH LRD
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EXECUTIVE SUMMARY

This traffic and transport assessment (TTA) has been carried out by Jennings O'Donovan and Partners Limited. The purpose of the TTA is to determine the effects of the traffic generated by the proposed Caltragh Large-scale Residential Development (LRD) at Newtownholmes Road, Caltragh & Cornaheega, Sligo on the public road network and associated junctions.

The proposed Caltragh LRD will consist of 118 residential units, creche, ancillary structures, public and private open spaces, landscaping, footpaths, roads and parking areas. Access to the proposed Caltragh LRD will be from two priority T-junctions constructed on Newtownholmes Road. The development is located in a 50km/h speed limit zone which is lit by existing public lighting. The development includes the construction of a footpath and cycleway along the development boundary with Newtownholmes Road which will link to Sligo County Council's Active Travel plans to upgrade the existing footpath and cycle facilities on Newtownholmes Road

During the AM peak hour traffic period, the proposed development will contribute 111 additional trips to the public road network, resulting in a total of 44 arrivals and 67 departures during this period. During the PM peak hour traffic period, the proposed development will contribute 117 additional trips to the public road network resulting in a of 66 arrivals and 51 departures during this period

The results of the traffic analysis for the proposed development show that the existing junctions in the vicinity of the development have capacity to accommodate the additional traffic generated by the development and will continue to operate within capacity when the development is occupied. The traffic analysis shows that the proposed development junction and associated junctions in the vicinity of the development have capacity to accommodate future developments on zoned lands in the Caltragh area which may access onto Newtownholmes Road in the future.

Car and bicycle parking will be provided for residents and visitors within the proposed development grounds.

1. INTRODUCTION

1.1 Brief

Jennings O'Donovan & Partners Limited has been appointed by John Walter Burke, to carry out a Traffic and Transport Assessment (TTA) to review the impact of traffic associated with a proposed 118 unit residential development and creche at Newtownholmes Road, Caltragh & Cornageeha, Sligo. The TTA has been carried out as the development will generate additional traffic volumes and turning movements on Newtownholmes Road.

1.2 Objectives

The objective of this report is to examine the traffic implications associated with the proposed residential development in terms of how traffic generated by the development integrates with the existing traffic in the area. The TTA will determine and quantify the volume of traffic generated by the development and the impact of the development traffic on the public road network. The TTA will examine the impact of the development on Newtownholmes Road and at the Crozon Roundabout which will be used by vehicular traffic to access the development.

1.3 Statement of Authority

This report has been prepared by John Doogan of Jennings O'Donovan & Partners Limited, Finisklin Sligo. Established in Sligo in 1950 Jennings O'Donovan & Partners Limited is a Clean Tech Company providing consulting engineering services in the areas of road design, renewable energy, civil and structural engineering, water supply, wastewater collection and treatment, environmental resource management and impact assessment and in the area of industrial and commercial development.

1.4 Design References / Standards

The TTA for the proposed residential development has been based on the following technical documents:

- Sligo County Council Development Plan.
- Transport Infrastructure Ireland publications:
  - PE-PDV-02045 Traffic and Transport Assessment Guidelines.
  - PE-PAG-02017 Travel Demand Projections.
  - PE-PAG-02039, Expansion Factors for Short Period Traffic Counts.
  - Spatial Planning and National Roads.
  - Design Manual for Roads and Bridges.

Specification for Road Works.

- Design Manual for Urban Roads and Streets - DMURS
- Junctions 9 Traffic Analysis Software.

1.5 Methodology

The methodology adopted for this Traffic and Transport Assessment involved:

A site visit was undertaken on Tuesday 06th April 2022 to record traffic volumes and turning movements of vehicles at the Crozon Roundabout and at the junction between Newtownhomes Road and Caltragh Heights.

Traffic Counts were carried out between 8.00am and 9.15am in the morning and between 4.00pm and 6.00pm in the evening.

A traffic analysis was carried out at the Crozon Roundabout and at Newtownhomes Road / Caltragh Heights junction to determine if capacity problems exist at the junctions in the vicinity of the proposed residential development.

Future year traffic assessments were then carried out with the proposed residential development in place to determine if capacity problems would arise at junctions with the development fully occupied combined with projected traffic growth on the public road network. The analysis was carried out for 2025 (year of opening), 2030 (5 years after opening) and 2040 (fifteen years after opening).

A traffic assessment was carried out with the development operating in 2040 with additional traffic from unrelated planned and consented developments to determine if capacity problems would arise at the junctions due to combined traffic volumes in the vicinity of the residential development.

1.6 Consultation With Local Authority

The development project team held a pre-planning meeting with Sligo County Council Roads and Active Travel representatives via MS Teams on 27th February 2023 to discuss the proposed Sligo County Council Active Travel plans to improve pedestrian and cycle facilities on Newtownholmes Road.

2. PROPOSED DEVELOPMENT

2.1 Site Location

The proposed Caltragh LRD is located to the west of Newtownholmes Road in Caltragh & Cornageeha, Sligo. The development is located approximately 1.5km to the south of Sligo City Centre. The location of the proposed residential development is shown in **Figure 1** and the location of the proposed development site entrance on Newtownholmes Road is shown on **Plate 1**.

Plate 1 – Site Location

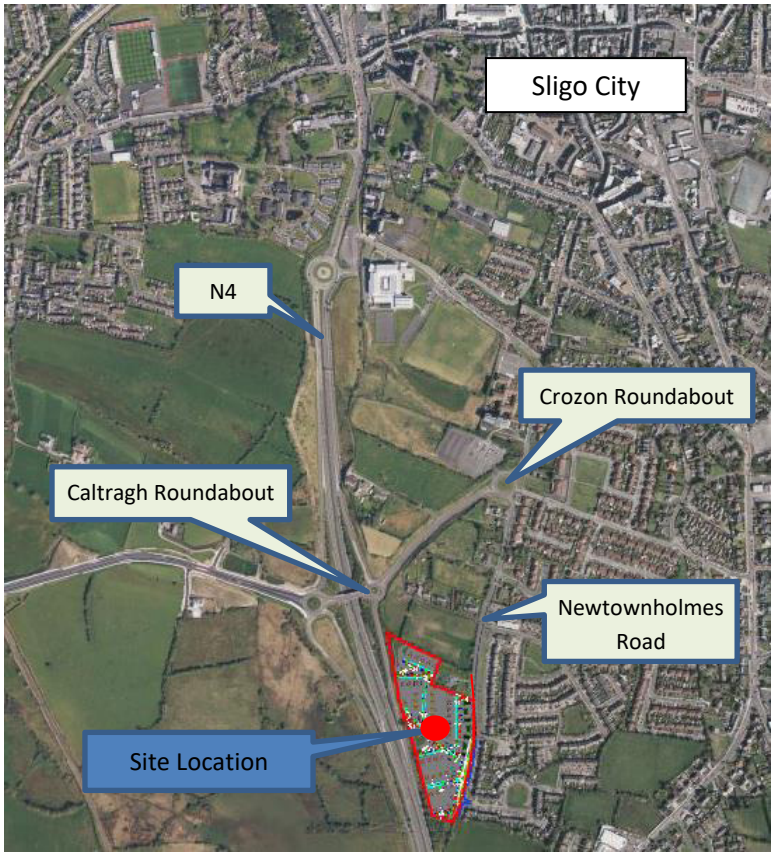


Figure 1 – Site Location

2.2 Proposed Development

The proposed Caltragh LRD will consist of 90 houses, 28 apartments and a creche with two priority T-junctions onto Newtownholmes Road. The layout of the proposed Caltragh LRD is shown in **Figure 2**.

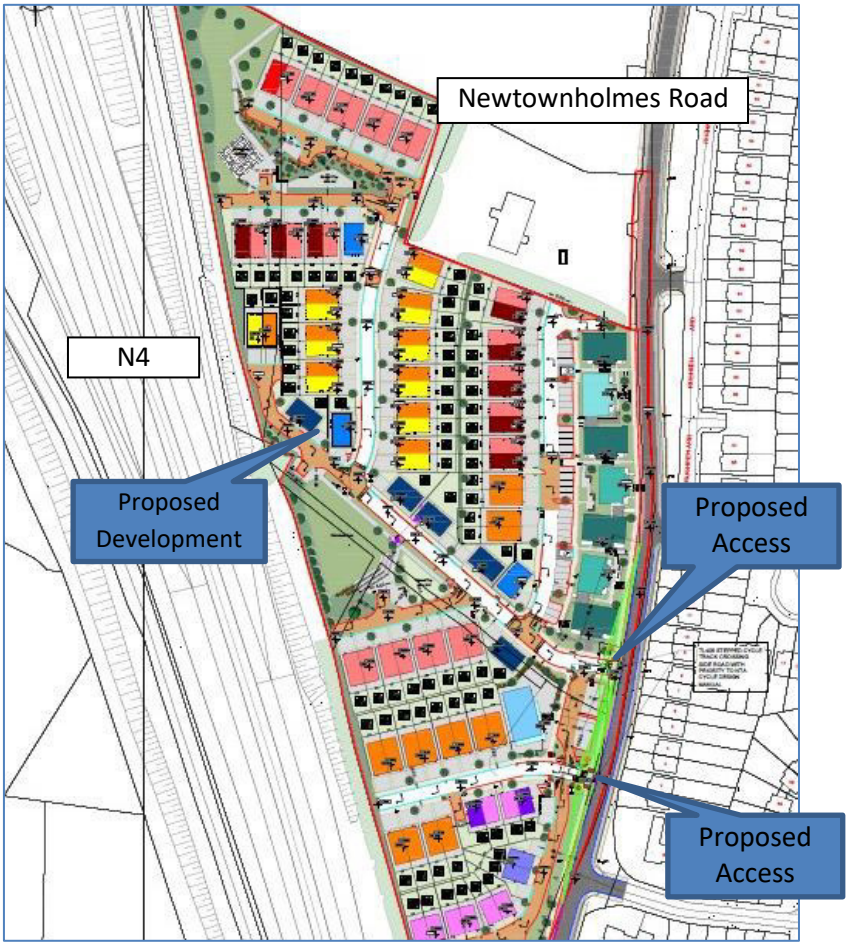


Figure 2 – Proposed Caltragh LRD Layout Plan

3. EXISTING ROAD NETWORK AND TRAFFIC

3.1 Existing Traffic Flows

In order to assess the impact of the proposed development on the existing road network when the proposed Caltragh LRD is constructed and fully occupied, baseline traffic volumes in the area are required. Jennings O'Donovan carried out classified traffic counts at the Crozon Roundabout and at the junction between Newtownholmes Road and Caltragh Heights on Tuesday 06th April 2022. The traffic counts were carried out between the hours of 8.00am and 9.15am in the morning and between 4.00pm and 6.00pm in the evening. The recorded traffic flows at the Crozon Roundabout are used to determine peak traffic periods in the area and are summerised in **Table 1**.

	Total Vehicles Through Junction
8.00am to 8.15am	122
8.15am to 8.30am	172
8.30am to 8.45am	311
8.45am to 9.00am	288
9.00am to 9.15am	189
16.00pm to 16.15pm	248
16.15pm to 16.30pm	235
16.30pm to 16.45pm	206
16.45pm to 17.00pm	217
17.00pm to 17.15pm	243
17.15pm to 17.30pm	247
17.30pm to 17.45pm	220
17.45pm to 18.00pm	191

Table 1 – Crozon Roundabout Traffic Flows

Peak hour traffic periods for the public road network in the vicinity of the proposed development are obtained from the Crozon Roundabout traffic count data shown in **Table 1**. The Traffic data shows that peak traffic occurs 8.30am during the morning and that traffic flows at the roundabout are relatively constant during the evening period with peak flows occurring between 5.00pm and 5.30pm. The peak hour periods shown in **Table 2** are used to carry out capacity analysis for the development.

AM Peak Hour	8.00 – 9.00
PM Peak Hour	16.45 – 17.45

Table 2 –Peak Hour Traffic Periods

3.2 Access to the Proposed Residential Development on Newtownholmes Road

Access to the proposed Caltragh LRD will be from two site access junctions on Newtownholmes Road. The site access junctions will be constructed as part of the development and will consist of simple T-junctions with priority for Newtownholmes Road traffic. The proposed site access junctions will be located in a 50km/h speed limit zone which is lit by existing public lighting. The junctions will have visibility splays of 49m in each direction in accordance with DMURS requirements. The development will have a footpath and cycleway constructed as part of the development works along the site boundary with Newtownholmes Road. The footpath and cycleway will tie into Sligo County Council's Active Travel works on Newtownholmes Road involving footpath and cycleway improvement in the area. The layout of the proposed junction is shown on **Figure 3**.

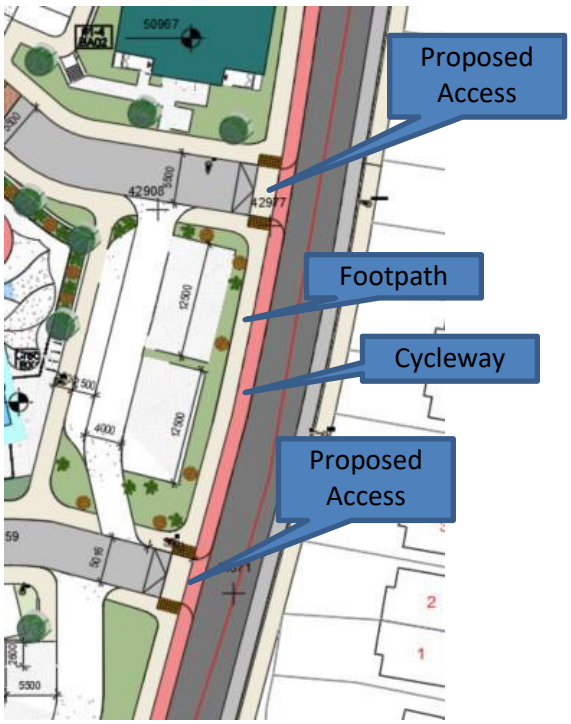


Figure 3 – Proposed Caltragh LRD Junction Layout

3.3 Existing Crozon Roundabout

The existing Crozon roundabout **(Reference Plate 2)** will be used by all vehicular traffic to access the site. The roundabout consists of a five-arm junction with an inscribed circle diameter of 50m. The roundabout links the proposed development junction on Caltragh Road with Newtownholmes Road North, Crozon Park Road and Caltragh Lane which leads to the N4 intersection at junction S2. The fifth arm of the roundabout is a gated entrance to a staff car park at the department of social welfare which is currently closed. The roundabout is located in a 50km/h speed limit zone and is lit by public lighting. The roundabout is signposted with regulatory and directional signage and is clearly marked with road markings. The carriageway surface of the roundabout is in good condition with occasional minor defects. There are dedicated facilities for pedestrians and cyclists at the roundabout, however crossing points at the roundabout are not fitted with dropped kerbs or tactile paving. No capacity issues were observed at the roundabout during the site visit carried out by Jennings O'Donovan.

Plate 2 – Crozon Roundabout

Traffic analysis carried out at the Crozon Roundabout junction using the 2022 classified traffic count data with TII growth factor show that the junction is operating within capacity in 2024 and does not exceed the 0.85 Ratio to Flow Capacity (RFC) during the AM or PM peak hour traffic periods. The ratio of flow to capacity (RFC) is calculated from Junctions 9 ARCADY software. An RFC value of 1.0 indicates that the junction is operating at full capacity with a value of 0.85 considered to be the maximum RFC value after which the junction will begin to experience some capacity issues. A summary of the traffic analysis for the junction showing turning movements using forecast 2024 traffic flows is shown in **Figure 4**. Full details of the Traffic analysis are included in **Appendix A.**

	AM							PM						
	Queue (PCU)	Delay (s)	RFC	LOS	Junction Delay (s)	Junction LOS	Network Residual Capacity	Queue (PCU)	Delay (s)	RFC	LOS	Junction Delay (s)	Junction LOS	Network Residual Capacity
Crozon Roundabout - 2024 Existing Traffic Flows - No Development														
Arm 1	0.2	3.90	0.18	A	4.21	A	131 % [Arm 3]	**0.3**	**4.46**	**0.21**	**A**	**4.36**	**A**	**140 % [Arm 5]**
Arm 2	0.3	4.29	0.21	A				**0.2**	**4.31**	**0.17**	**A**			
Arm 3	0.6	4.38	0.36	A				**0.3**	**3.64**	**0.25**	**A**			
Arm 4	0.0	0.00	0.00	A				**0.0**	**0.00**	**0.00**	**A**			
Arm 5	0.1	3.77	0.08	A				**0.4**	**5.09**	**0.30**	**A**			

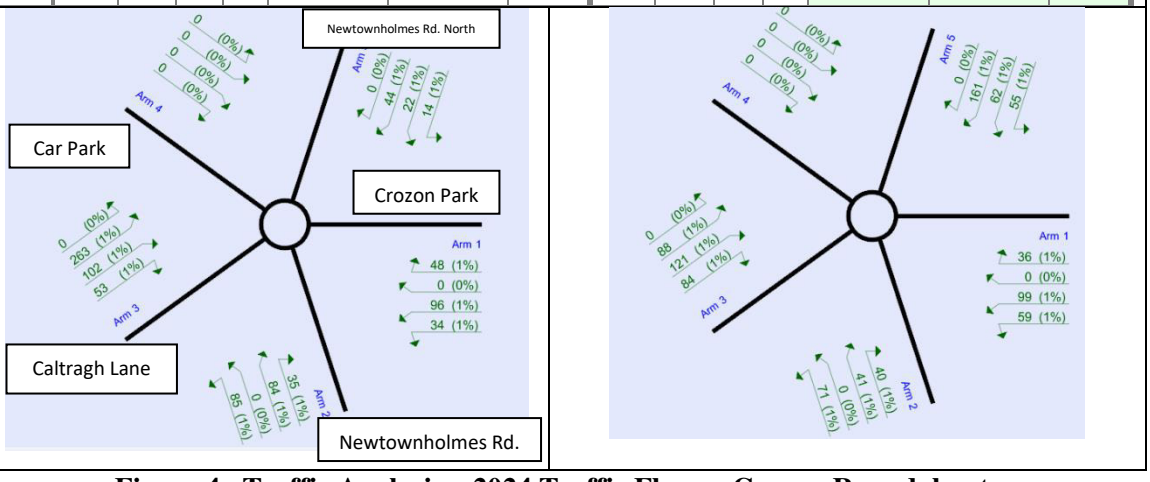


Figure 4 –Traffic Analysis – 2024 Traffic Flows - Crozon Roundabout

3.4 Existing Newtownholmes Road / Caltragh Heights Junction

The existing junction between Newtownholmes Road and Caltragh Heights **(Reference Plate 3)** will be affected by increased traffic generated by the proposed residential development due to its location between Crozon Roundabout and the development site entrance. The Caltragh Heights junction is a typical junction layout on Newtownholmes Road and consists of a simple stop-controlled priority junction with public lighting and pedestrian footpaths. No capacity issues were observed at the junction during the site visit carried out by Jennings O'Donovan.

Plate 3 – Newtownholmes Road / Caltragh Heights Junction

Traffic analysis carried out at the Newtownholmes Road / Caltragh Heights junction using the 2022 classified traffic count data with TII growth factor show that the junction is operating within capacity in 2024 and does not exceed the 0.85 Ratio to Flow Capacity (RFC) during the AM or PM peak hour traffic periods. The ratio of flow to capacity (RFC) is calculated from Junctions 9 PICADY software. An RFC value of 1.0 indicates that the junction is operating at full capacity with a value of 0.85 considered to be the maximum RFC value after which the junction will begin to experience some capacity issues. A summary of the traffic analysis for the junction showing turning movements using forecast 2024 traffic flows is shown in **Figure 5**. Full details of the Traffic analysis are included in **Appendix A.**

	AM							PM						
	Queue (PCU)	Delay (s)	RFC	LOS	Junction Delay (s)	Junction LOS	Network Residual Capacity	Queue (PCU)	Delay (s)	RFC	LOS	Junction Delay (s)	Junction LOS	Network Residual Capacity
Caltragh Heights Junction – 2024 Existing Traffic Flows - No Development														
Stream B-AC	0.1	8.89	0.10	A	1.15	A	300 %	0.1	9.49	0.08	A	0.80	A	255 %
Stream C-AB	0.0	5.00	0.01	A			[Stream B-AC]	0.0	5.32	0.01	A			[Stream B-AC]

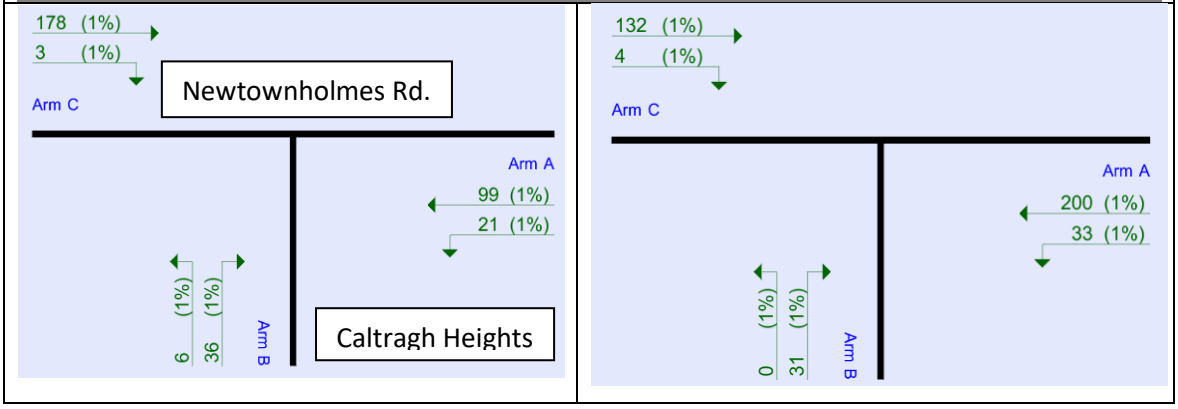


Figure 5 –Traffic Analysis – 2024 Traffic Flows - Newtownholmes Road / Caltragh Heights Junction

3.5 Existing Newtownholmes Road

The existing Newtownholmes Road **(Reference Plate 4)** will be used by all vehicular traffic to access the development. Newtownholmes Road is currently a cul de sac and terminates approximately 0.1km to the south of the proposed development access junctions. The road is approximately 6.0m wide and provides access to existing residential and commercial developments. The existing pedestrian footpath along Newtownholmes Road does not provide a continuous link for pedestrians and will be upgraded along the development boundary as part of the development and by Sligo County Council as part of the proposed Active Travel program of works in the future.

Plate 4 – Existing Newtownholmes Road

3.6 Accident Data

Latest mapped statistics for accident data in the area were not available from the RSA website in April 2024.

3.7 Parking Facilities

Car and bicycle parking facilities to be provided within the grounds of the residential development. There will be 211 parking spaces within the development.

3.8 Facilities for Pedestrians and Cyclists

The proposed Caltragh LRD is located approximately 1.5km from Sligo City Centre and is linked to the existing footpath network on Newtownholmes Road. The existing footpath on Newtownholmes Road is not continuous and is to be updated by Sligo County Council as part of the Active Travel scheme to provide a continuous footpath and cycleway along Newtownholmes Road. Pedestrian footpaths with dropped kerbs and tactile paving at crossing points are to be provided along the development boundary with Newtownholmes Road and within the grounds of the proposed development.

3.9 Public Transport Accessibility of the Proposed Development

The development is located close to local bus route No. S1 which runs between Caltragh and Carton Village. Sligo City is serviced by national and regional bus services, national rail and private taxi services. Electric bicycles are available for public rental from docking stations at various locations around Sligo City.

4. TRAFFIC GENERATION AND TRIP DISTRIBUTION

4.1 Trip Generation Associated with the Proposed Development

The proposed development will consist of a residential development with 90 houses, 28 apartments and a creche with a GFA of 393sqm. The trip rates for the proposed development are based on published data for similar sized developments in Ireland. Trip rates for residential units and creche are shown in **Table 3**. The resultant trip rates for the proposed development are shown in **Table 4**. All trips to and from the development are analysed as new trips on the road network.

	Trip Rate Arrivals (AM Peak Hour)	Trip Rate Departures (AM Peak Hour)	Trip Rate Arrivals (PM Peak Hour)	Trip Rate Departures (PM Peak Hour)
Per Dwelling	0.25	0.5	0.5	0.3
Per Apartment	0.1	0.2	0.25	0.15
Creche (Per 100m^2)	4.5	4.0	3.5	4.5

Table 3 – Trip Rates for Residential Dwellings

	Trip Rate Arrivals (AM Peak Hour)	Trip Rate Departures (AM Peak Hour)	Trip Rate Arrivals (PM Peak Hour)	Trip Rate Departures (PM Peak Hour)
90 dwellings	23	45	45	27
28 apartments	3	6	7	5
Creche (393sqm)	18	16	14	19
Total Trips	**44**	**67**	**66**	**51**

Table 4 – Trip Rates Generated by the Proposed Development

4.2 Traffic Distribution

The distribution of traffic generated by the proposed residential development to the public road network is based on recorded traffic flows taken on Newtownholmes Road at the Caltragh Heights junction and at the Crozon Roundabout. During the morning period 100% of departures from the development will exit via the Crozon Roundabout and 100% of arrivals will approach from Crozon Roundabout. During the evening period 100% of arrivals to the development will approach from Crozon Roundabout and 100% of departures from the development will exit in the direction of Crozon roundabout. The distribution of development traffic for the purpose of the junction analysis is shown in **Table 5**.

	Arrivals	Departures
	From Crozon Roundabout	To Crozon Roundabout
AM Peak Hour Development Traffic	44	66
PM Peak Hour Development Traffic	67	51

Table 5 – Development Trip Rates

5. FUTURE TRAFFIC GENERATION

5.1 Future Traffic Growth on the Public Road Network

Traffic Infrastructure Ireland (TII) forecasts for future traffic growth on the public road network are published in PE-PAG-02017 "Travel Demand Projections". The growth factors are applied to the baseline traffic flows to approximate the traffic flows on the public road network in the future when the development is opened in 2025, five years after opening in 2030 and fifteen years after opening in 2040. The growth factors for the relevant assessment years using the central-growth scenario are shown in **Table 6**.

Year	Growth Factor
2024	1.02
2025	1.03
2030	1.09
2040	1.13

Table 6 – Traffic Growth Factors for Public Roads

5.2 Traffic Analysis of the Proposed Development Junction on Newtownholmes Road

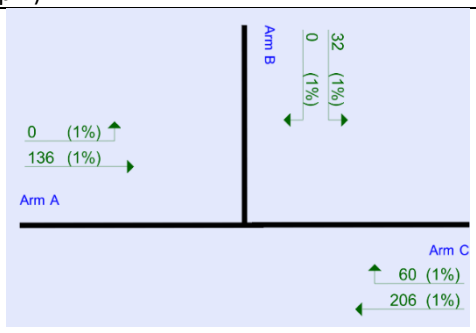
A traffic analysis of the proposed Caltragh LRD junctions on Newtownholmes Road has been carried out with the proposed development in place to determine if the junction will operate within capacity when the development is constructed and fully occupied in 2025, five years after opening in 2030 and fifteen years after opening in 2040. For the purpose of traffic analysis, the two proposed development access points are analysed as one single priority junction. The traffic analysis has been carried out using traffic volumes obtained from the traffic counts taken on Netownholmes Road in 2022 with TII growth factors for the relevant years combined development traffic. The results of the analysis show that the junction will not exceed the 0.85 ratio of flow to capacity (RFC) value during the AM or PM hours in 2025, 2030 and will continue to operate with reserve capacity beyond 2040. The ratio of flow to capacity (RFC) is calculated from Junctions 9 PICADY software. An RFC value of 1.0 indicates that the junction is operating at full capacity with a value of 0.85 considered to be the maximum RFC

value after which the junction will begin to experience some capacity issues. The results of the analysis are summarized in **Figure 6**, full results from the analysis are included in **Appendix A**.

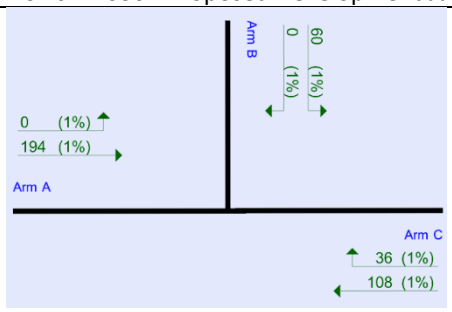
Traffic Analysis – 2025 - Proposed Caltragh LRD Access on Newtownholmes Road

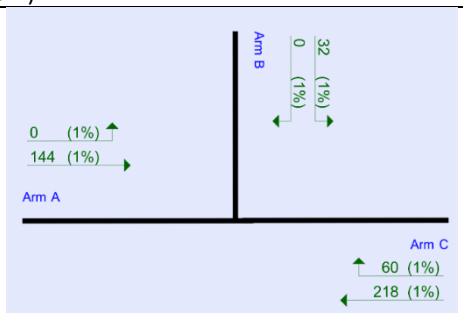
	AM							PM						
	Queue (PCU)	Delay (s)	RFC	LOS	Junction Delay (s)	Junction LOS	Network Residual Capacity	Queue (PCU)	Delay (s)	RFC	LOS	Junction Delay (s)	Junction LOS	Network Residual Capacity
	Residential Development Junction - 2025 With Fully Occupied Development													
Stream B-AC	0.1	7.00	0.11	A	1.73	A	359 % [Stream B-AC]	0.1	6.45	0.06	A	1.47	A	266 % [Stream C-AB]
Stream C-AB	0.1	5.67	0.07	A				0.2	5.34	0.12	A			
	Residential Development Junction - 2030 With Fully Occupied Development													
Stream B-AC	0.1	7.04	0.11	A	1.66	A	348 % [Stream B-AC]	0.1	6.47	0.06	A	1.42	A	255 % [Stream C-AB]
Stream C-AB	0.1	5.67	0.07	A				0.2	5.30	0.12	A			
	Residential Development Junction - 2040 With Fully Occupied Development													
Stream B-AC	0.1	7.06	0.11	A	1.63	A	341 % [Stream B-AC]	0.1	6.49	0.06	A	1.39	A	248 % [Stream C-AB]
Stream C-AB	0.1	5.66	0.07	A				0.2	5.28	0.12	A			

Traffic Flows – 2025 - Proposed Development Junction (am / pm)

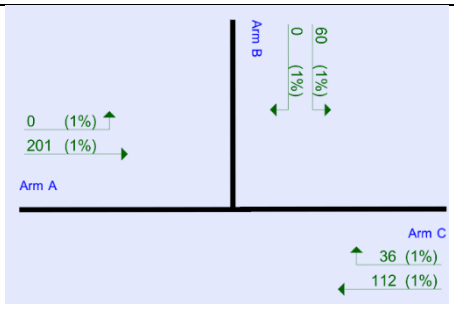


Traffic Flows – 2030 - Proposed Development Junction (am / pm)





Traffic Flows – 2040 - Proposed Development Junction (am / pm)



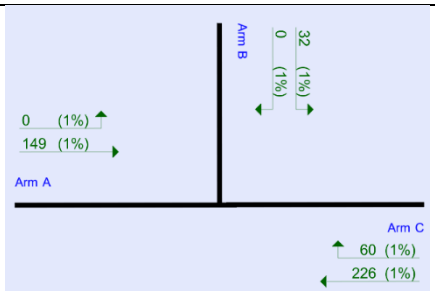


Figure 6 – Traffic Analysis Summary for the Residential Development Junction - Future Traffic Flows 2025, 2030 and 2040 With Proposed Development in Place

5.3 Road and Junction Improvements

Access to the proposed Caltragh LRD will be from two new T-junctions constructed on Newtownholmes Road as part of the development. A footpath and cycleway will be constructed along the development boundary with Newtownholmes Road. The development footpath and cycleway will link with the future Active Travel works on Newtownholmes Road planned by Sligo County Council to improve facilities for pedestrians and cyclists in the area.

5.4 Consented and Proposed Developments

The lands surrounding the proposed residential development are zoned for residential development and may be developed in the future. There is one planned development with 65 residential units adjacent to the Caltragh LRD which will generate traffic on Newtownholmes Road. The planned residential development will generate 39 additional trips to the public road network during the am peak hour period (13 arrivals and 26 departures) and 39 additional trips to the public road network during the pm period (26 arrivals and 13 departures). In addition to the 65 unit planned development, there are approximately 3.7ha of development land which could potentially access onto Newtownholmes Road. Fully developed, the zoned lands could support approximately 185 residential units. 185 residential units would generate an additional 140 trips on Newtownholmes Road (46 arrivals / 93 departures) during the morning peak hour traffic period and an additional 150 trips (93 arrivals / 56 departures) during the evening peak hour traffic period. A traffic analysis has been carried out for 2040 at the Newtownholmes Road junctions with the proposed development, Caltragh Heights junction and at the Crozon Roundabout to determine if capacity problems would arise on the public road network when the area is fully developed. The results of the analysis show that the junctions will continue to operate within capacity with the additional developments in place and will have reserve capacity beyond 2040 to accommodate additional traffic growth. The results of the junction analysis are included in **Appendix A**.

6. SUMMARY

This transport assessment was carried out by Jennings O'Donovan and Partners Limited. The purpose of the TTA is to determine the effects of the traffic generated by the proposed Caltragh LRD on the public road network when the development is constructed and fully occupied in 2025, five years after opening in 2030 and fifteen years after opening in 2040.

- The proposed development will consist of 90 houses, 28 apartments and a creche.

- The proposed development will be accessed from two new priority T-junctions on Newtownholmes Road which will be constructed as part of the development

- During the AM peak hour traffic period, the proposed development will contribute 111 additional trips to the public road network, resulting in a total of 66 arrivals and 51 departures during this period.

- During the PM peak hour traffic period, the proposed development will contribute 117 additional trips to the public road network resulting in a of 60 arrivals and 32 departures during this period.

- The results of the traffic analysis show that the proposed development junctions on Newtownholmes Road will operate within capacity in 2025 when the development is constructed and fully occupied and will continue to operate within capacity beyond 2040 fifteen years after the development has opened.

- The results of the traffic analysis show that the existing junctions in the vicinity of the development have capacity to accommodate the additional traffic generated by the development.

- The results of the traffic analysis show that the proposed development junction and associated junctions in the vicinity of the development have capacity to accommodate future developments on zoned lands in the Caltragh area which may access onto Newtownholmes Road.

- Car and bicycle parking are provided for residents and visitors within the proposed development grounds.

- Foothpath and cycleways constructed as part of the proposed development have been designed to accommodate future Active Travel works by Sligo County Council on Newtownholmes Road to improve facilities for pedestrians and cyclists.

7. CONCLUSION

The results of the Traffic and Transport Assessment show that the traffic generated by the proposed Caltragh LRD will not impact adversely on the public road network. The proposed development will lead to a slight increase in traffic volumes on the Newtownholmes Road and will generate turning movements at the development entrance and at the Crozon Roundabout.

The assessment shows that the existing junctions in the vicinity of the proposed development have capacity to accommodate the additional traffic generated by the residential development. The traffic

analysis shows that the junctions will operate within capacity when the development is opened in 2025, five years after opening in 2030, fifteen years after opening in 2040 and will cater for increased traffic growth on the public road network beyond 2040.

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Appendix A
Traffic Analysis

Junctions 9

PICADY 9 - Priority Intersection Module

Version: 9.5.1.7462

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Filename: Newtownforbes Rd - Residential Development Junction.j9
Path: P:\Jod-jobs\6736 Burkes Cornageeha\400 Planning\403 Planning Application\1 Submissions\TTA\Traffic Analysis
Report generation date: 06/10/2023 16:41:11

Summary of junction performance

	AM							PM						
	Queue (PCU)	Delay (s)	RFC	LOS	Junction Delay (s)	Junction LOS	Network Residual Capacity	Queue (PCU)	Delay (s)	RFC	LOS	Junction Delay (s)	Junction LOS	Network Residual Capacity
	Residential Development Junction - 2025 With Fully Occupied Development													
Stream B-AC	0.1	7.00	0.11	A	1.73	A	359 % [Stream B-AC]	0.1	6.45	0.06	A	1.47	A	266 % [Stream C-AB]
Stream C-AB	0.1	5.67	0.07	A				0.2	5.34	0.12	A			
	Residential Development Junction - 2030 With Fully Occupied Development													
Stream B-AC	0.1	7.04	0.11	A	1.66	A	348 % [Stream B-AC]	0.1	6.47	0.06	A	1.42	A	255 % [Stream C-AB]
Stream C-AB	0.1	5.67	0.07	A				0.2	5.30	0.12	A			
	Residential Development Junction - 2040 With Fully Occupied Development													
Stream B-AC	0.1	7.06	0.11	A	1.63	A	341 % [Stream B-AC]	0.1	6.49	0.06	A	1.39	A	248 % [Stream C-AB]
Stream C-AB	0.1	5.66	0.07	A				0.2	5.28	0.12	A			
	Residential Development Junction - 2040 With Fully Occupied Development + 225 Additional Houses													
Stream B-AC	0.3	8.12	0.23	A	3.24	A	185 % [Stream B-AC]	0.1	6.49	0.06	A	1.39	A	248 % [Stream C-AB]
Stream C-AB	0.3	6.48	0.19	A				0.2	5.28	0.12	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. Junction LOS and Junction Delay are demand-weighted averages. Network Residual Capacity indicates the amount by which network flow could be increased before a user-definable threshold (see Analysis Options) is met.

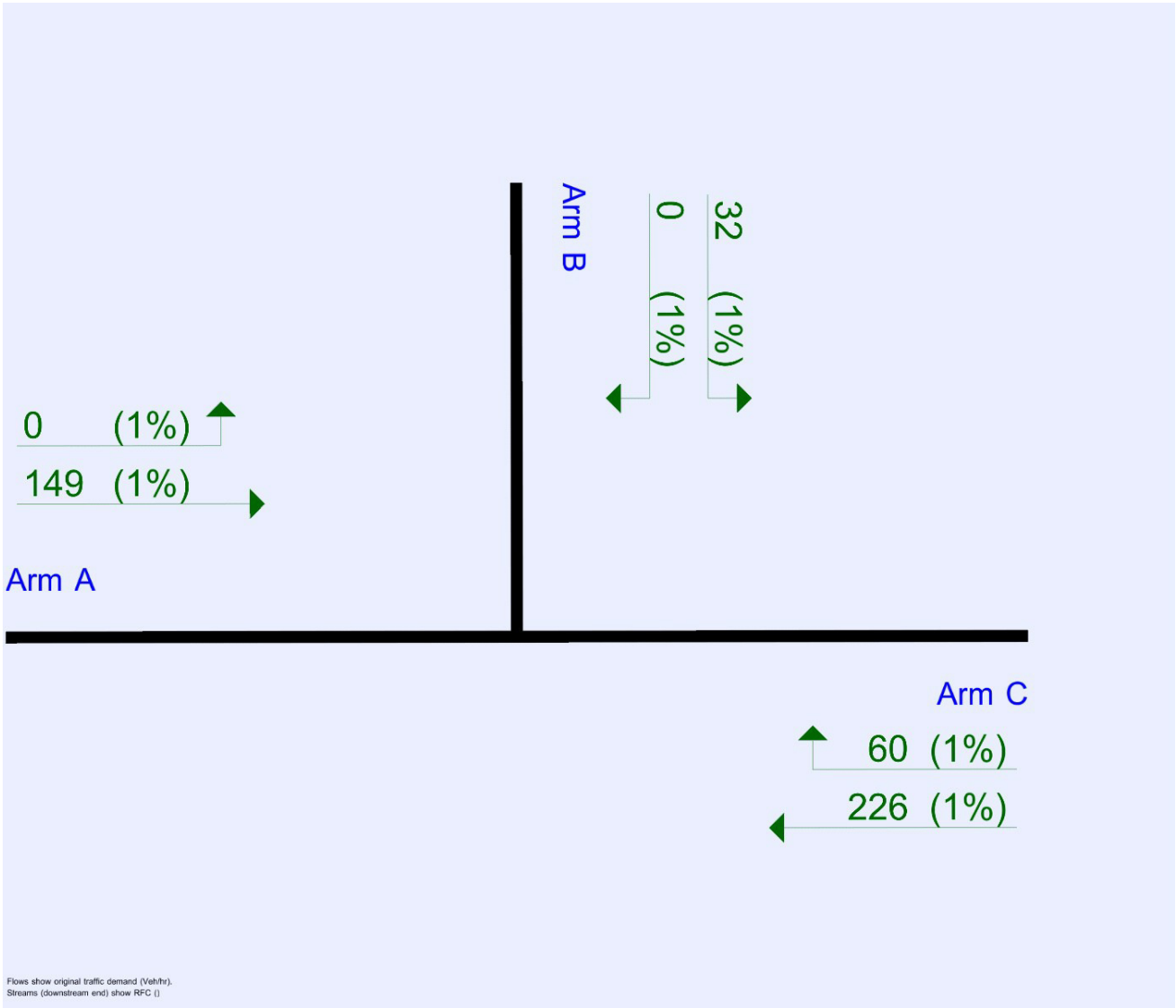
File summary

File Description

Title	Newtownholmes Road - Caltragh LHD
Location	Sligo
Site number	
Date	06/10/2023
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	JODIRELAND\jdoogan
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	Veh	PCU	perHour	s	-Min	perMin



The junction diagram reflects the last run of Junctions.

Analysis Options

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

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D1	Residential Development Junction - 2025 With Fully Occupied Development	AM	ONE HOUR	08:00	09:30	15
D2	Residential Development Junction - 2025 With Fully Occupied Development	PM	ONE HOUR	16:45	18:15	15
D3	Residential Development Junction - 2030 With Fully Occupied Development	AM	ONE HOUR	08:00	09:30	15
D4	Residential Development Junction - 2030 With Fully Occupied Development	PM	ONE HOUR	16:45	18:15	15
D5	Residential Development Junction - 2040 With Fully Occupied Development	AM	ONE HOUR	08:00	09:30	15
D6	Residential Development Junction - 2040 With Fully Occupied Development	PM	ONE HOUR	16:45	18:15	15
D7	Residential Development Junction - 2040 With Fully Occupied Development + 225 Additional Houses	AM	ONE HOUR	08:00	09:30	15
D8	Residential Development Junction - 2040 With Fully Occupied Development + 225 Additional Houses	PM	ONE HOUR	16:45	18:15	15

Analysis Set Details

ID	Network flow scaling factor (%)
A1	100.000

Residential Development Junction - 2025 With Fully Occupied Development, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way		1.73	A

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	359	Stream B-AC

Arms

Arms

Arm	Name	Description	Arm type
A	Newtownholmes Road / Crpzon		Major
B	Caltragh Heights		Minor
C	Newtownholmes Road		Major

Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Has right turn bay	Visibility for right turn (m)	Blocks?	Blocking queue (PCU)
C	6.00			160.0	✓	0.00

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

Minor Arm Geometry

Arm	Minor arm type	Lane width (m)	Visibility to left (m)	Visibility to right (m)
B	One lane	3.00	20	20

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Stream	Intercept (PCU/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
B-A	494	0.090	0.227	0.143	0.325
B-C	637	0.098	0.247	-	-
C-B	667	0.258	0.258	-	-

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

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

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

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D1	Residential Development Junction - 2025 With Fully Occupied Development	AM	ONE HOUR	08:00	09:30	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A		✓	183	100.000
B		✓	60	100.000
C		✓	138	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		A	B	C
From	A	0	0	183
	B	0	0	60
	C	102	36	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A	B	C
From	A	0	1	1
	B	1	0	1
	C	1	1	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max 95th percentile Queue (PCU)	Max LOS
B-AC	0.11	7.00	0.1	0.5	A
C-AB	0.07	5.67	0.1	0.5	A
C-A					
A-B					
A-C					

Main Results for each time segment

08:00 - 08:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	46	602	0.076	45	0.1	6.527	A
C-AB	31	681	0.045	31	0.1	5.590	A
C-A	74			74			
A-B	0			0			
A-C	139			139			

08:15 - 08:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	54	595	0.091	54	0.1	6.720	A
C-AB	38	684	0.055	38	0.1	5.625	A
C-A	87			87			
A-B	0			0			
A-C	166			166			

08:30 - 08:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	67	586	0.114	67	0.1	6.995	A
C-AB	48	689	0.070	48	0.1	5.674	A
C-A	105			105			
A-B	0			0			
A-C	204			204			

08:45 - 09:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	67	586	0.114	67	0.1	6.997	A
C-AB	48	689	0.070	48	0.1	5.675	A
C-A	105			105			
A-B	0			0			
A-C	204			204			

09:00 - 09:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	54	595	0.091	55	0.1	6.722	A
C-AB	38	684	0.055	38	0.1	5.627	A
C-A	87			87			
A-B	0			0			
A-C	166			166			

09:15 - 09:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	46	602	0.076	46	0.1	6.537	A
C-AB	31	681	0.045	31	0.1	5.594	A
C-A	74			74			
A-B	0			0			
A-C	139			139			

Queue Variation Results for each time segment

08:00 - 08:15

Stream	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.08	0.00	0.00	0.08	0.08			N/A	N/A
C-AB	0.06	0.00	0.00	0.06	0.06			N/A	N/A

08:15 - 08:30

Stream	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.10	0.03	0.25	0.45	0.48			N/A	N/A
C-AB	0.07	0.03	0.25	0.46	0.48			N/A	N/A

08:30 - 08:45

Stream	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.13	0.03	0.26	0.47	0.50			N/A	N/A
C-AB	0.09	0.03	0.27	0.48	0.50			N/A	N/A

08:45 - 09:00

Stream	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.13	0.03	0.25	0.45	0.48			N/A	N/A
C-AB	0.09	0.00	0.00	0.09	0.09			N/A	N/A

09:00 - 09:15

Stream	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.10	0.00	0.00	0.10	0.10			N/A	N/A
C-AB	0.07	0.00	0.00	0.07	0.07			N/A	N/A

09:15 - 09:30

Stream	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.08	0.00	0.00	0.08	0.08			N/A	N/A
C-AB	0.06	0.00	0.00	0.06	0.06			N/A	N/A

Residential Development Junction - 2025 With Fully Occupied Development, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way		1.47	A

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	266	Stream C-AB

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D2	Residential Development Junction - 2025 With Fully Occupied Development	PM	ONE HOUR	16:45	18:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A		✓	136	100.000
B		✓	32	100.000
C		✓	266	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		A	B	C
From	A	0	0	136
	B	0	0	32
	C	206	60	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A	B	C
From	A	0	1	1
	B	1	0	1
	C	1	1	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max 95th percentile Queue (PCU)	Max LOS
B-AC	0.06	6.45	0.1	0.5	A
C-AB	0.12	5.34	0.2	0.5	A
C-A					
A-B					
A-C					

Main Results for each time segment

16:45 - 17:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	24	611	0.040	24	0.0	6.194	A
C-AB	58	741	0.078	57	0.1	5.318	A
C-A	144			144			
A-B	0			0			
A-C	103			103			

17:00 - 17:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	29	606	0.048	29	0.1	6.300	A
C-AB	73	756	0.096	72	0.1	5.322	A
C-A	169			169			
A-B	0			0			
A-C	123			123			

17:15 - 17:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	36	599	0.059	36	0.1	6.450	A
C-AB	95	777	0.122	95	0.2	5.332	A
C-A	201			201			
A-B	0			0			
A-C	151			151			

17:30 - 17:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	36	599	0.059	36	0.1	6.450	A
C-AB	95	777	0.122	95	0.2	5.335	A
C-A	201			201			
A-B	0			0			
A-C	151			151			

17:45 - 18:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	29	606	0.048	29	0.1	6.301	A
C-AB	73	756	0.096	73	0.1	5.325	A
C-A	169			169			
A-B	0			0			
A-C	123			123			

18:00 - 18:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	24	611	0.040	24	0.0	6.199	A
C-AB	58	741	0.078	58	0.1	5.329	A
C-A	144			144			
A-B	0			0			
A-C	103			103			

Queue Variation Results for each time segment

16:45 - 17:00

Stream	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.04	0.00	0.00	0.04	0.04			N/A	N/A
C-AB	0.11	0.00	0.00	0.11	0.11			N/A	N/A

17:00 - 17:15

Stream	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.05	0.03	0.25	0.46	0.48			N/A	N/A
C-AB	0.15	0.00	0.00	0.15	0.15			N/A	N/A

17:15 - 17:30

Stream	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.06	0.03	0.26	0.47	0.50			N/A	N/A
C-AB	0.20	0.03	0.27	0.48	0.50			N/A	N/A

17:30 - 17:45

Stream	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.06	0.00	0.00	0.06	0.06			N/A	N/A
C-AB	0.20	0.03	0.25	0.45	0.48			N/A	N/A

17:45 - 18:00

Stream	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.05	0.00	0.00	0.05	0.05			N/A	N/A
C-AB	0.15	0.00	0.00	0.15	0.15			N/A	N/A

18:00 - 18:15

Stream	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.04	0.00	0.00	0.04	0.04			N/A	N/A
C-AB	0.12	0.00	0.00	0.12	0.12			N/A	N/A

Residential Development Junction - 2030 With Fully Occupied Development, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way		1.66	A

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	348	Stream B-AC

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D3	Residential Development Junction - 2030 With Fully Occupied Development	AM	ONE HOUR	08:00	09:30	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A		✓	194	100.000
B		✓	60	100.000
C		✓	144	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		A	B	C
From	A	0	0	194
	B	0	0	60
	C	108	36	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A	B	C
From	A	0	1	1
	B	1	0	1
	C	1	1	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max 95th percentile Queue (PCU)	Max LOS
B-AC	0.11	7.04	0.1	0.5	A
C-AB	0.07	5.67	0.1	0.5	A
C-A					
A-B					
A-C					

Main Results for each time segment

08:00 - 08:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	46	600	0.076	45	0.1	6.548	A
C-AB	31	682	0.046	31	0.1	5.584	A
C-A	78			78			
A-B	0			0			
A-C	148			148			

08:15 - 08:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	54	593	0.092	54	0.1	6.749	A
C-AB	38	685	0.056	38	0.1	5.618	A
C-A	92			92			
A-B	0			0			
A-C	176			176			

08:30 - 08:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	67	583	0.114	67	0.1	7.034	A
C-AB	49	690	0.070	48	0.1	5.665	A
C-A	112			112			
A-B	0			0			
A-C	216			216			

08:45 - 09:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	67	583	0.114	67	0.1	7.037	A
C-AB	49	690	0.070	49	0.1	5.667	A
C-A	112			112			
A-B	0			0			
A-C	216			216			

09:00 - 09:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	54	593	0.092	55	0.1	6.752	A
C-AB	38	685	0.056	38	0.1	5.620	A
C-A	92			92			
A-B	0			0			
A-C	176			176			

09:15 - 09:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	46	600	0.076	46	0.1	6.558	A
C-AB	31	682	0.046	31	0.1	5.590	A
C-A	78			78			
A-B	0			0			
A-C	148			148			

Queue Variation Results for each time segment

08:00 - 08:15

Stream	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.08	0.00	0.00	0.08	0.08			N/A	N/A
C-AB	0.06	0.00	0.00	0.06	0.06			N/A	N/A

08:15 - 08:30

Stream	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.10	0.03	0.25	0.45	0.48			N/A	N/A
C-AB	0.07	0.03	0.25	0.46	0.48			N/A	N/A

08:30 - 08:45

Stream	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.13	0.03	0.26	0.47	0.50			N/A	N/A
C-AB	0.10	0.03	0.27	0.48	0.50			N/A	N/A

08:45 - 09:00

Stream	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.13	0.03	0.25	0.45	0.48			N/A	N/A
C-AB	0.10	0.00	0.00	0.10	0.10			N/A	N/A

09:00 - 09:15

Stream	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.10	0.00	0.00	0.10	0.10			N/A	N/A
C-AB	0.07	0.00	0.00	0.07	0.07			N/A	N/A

09:15 - 09:30

Stream	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.08	0.00	0.00	0.08	0.08			N/A	N/A
C-AB	0.06	0.00	0.00	0.06	0.06			N/A	N/A

Residential Development Junction - 2030 With Fully Occupied Development, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way		1.42	A

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	255	Stream C-AB

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D4	Residential Development Junction - 2030 With Fully Occupied Development	PM	ONE HOUR	16:45	18:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A		✓	144	100.000
B		✓	32	100.000
C		✓	278	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		A	B	C
From	A	0	0	144
	B	0	0	32
	C	218	60	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A	B	C
From	A	0	1	1
	B	1	0	1
	C	1	1	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max 95th percentile Queue (PCU)	Max LOS
B-AC	0.06	6.47	0.1	0.5	A
C-AB	0.12	5.30	0.2	0.5	A
C-A					
A-B					
A-C					

Main Results for each time segment

16:45 - 17:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	24	610	0.040	24	0.0	6.209	A
C-AB	59	745	0.079	58	0.1	5.290	A
C-A	153			153			
A-B	0			0			
A-C	109			109			

17:00 - 17:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	29	604	0.048	29	0.1	6.319	A
C-AB	74	761	0.097	74	0.1	5.290	A
C-A	179			179			
A-B	0			0			
A-C	131			131			

17:15 - 17:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	36	597	0.060	36	0.1	6.474	A
C-AB	97	784	0.124	97	0.2	5.296	A
C-A	212			212			
A-B	0			0			
A-C	160			160			

17:30 - 17:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	36	597	0.060	36	0.1	6.474	A
C-AB	97	784	0.124	97	0.2	5.297	A
C-A	212			212			
A-B	0			0			
A-C	160			160			

17:45 - 18:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	29	604	0.048	29	0.1	6.323	A
C-AB	74	761	0.097	74	0.2	5.293	A
C-A	179			179			
A-B	0			0			
A-C	131			131			

18:00 - 18:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	24	610	0.040	24	0.0	6.213	A
C-AB	59	745	0.079	59	0.1	5.300	A
C-A	153			153			
A-B	0			0			
A-C	109			109			

Queue Variation Results for each time segment

16:45 - 17:00

Stream	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.04	0.00	0.00	0.04	0.04			N/A	N/A
C-AB	0.12	0.00	0.00	0.12	0.12			N/A	N/A

17:00 - 17:15

Stream	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.05	0.03	0.25	0.46	0.48			N/A	N/A
C-AB	0.15	0.00	0.00	0.15	0.15			N/A	N/A

17:15 - 17:30

Stream	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.06	0.03	0.26	0.47	0.50			N/A	N/A
C-AB	0.20	0.03	0.27	0.48	0.50			N/A	N/A

17:30 - 17:45

Stream	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.06	0.00	0.00	0.06	0.06			N/A	N/A
C-AB	0.21	0.03	0.25	0.45	0.48			N/A	N/A

17:45 - 18:00

Stream	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.05	0.00	0.00	0.05	0.05			N/A	N/A
C-AB	0.15	0.00	0.00	0.15	0.15			N/A	N/A

18:00 - 18:15

Stream	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.04	0.00	0.00	0.04	0.04			N/A	N/A
C-AB	0.12	0.00	0.00	0.12	0.12			N/A	N/A

Residential Development Junction - 2040 With Fully Occupied Development, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way		1.63	A

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	341	Stream B-AC

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D5	Residential Development Junction - 2040 With Fully Occupied Development	AM	ONE HOUR	08:00	09:30	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A		✓	201	100.000
B		✓	60	100.000
C		✓	148	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		A	B	C
From	A	0	0	201
	B	0	0	60
	C	112	36	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A	B	C
From	A	0	1	1
	B	1	0	1
	C	1	1	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max 95th percentile Queue (PCU)	Max LOS
B-AC	0.11	7.06	0.1	0.5	A
C-AB	0.07	5.66	0.1	0.5	A
C-A					
A-B					
A-C					

Main Results for each time segment

08:00 - 08:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	46	599	0.076	45	0.1	6.564	A
C-AB	31	683	0.046	31	0.1	5.580	A
C-A	81			81			
A-B	0			0			
A-C	153			153			

08:15 - 08:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	54	591	0.092	54	0.1	6.770	A
C-AB	38	686	0.056	38	0.1	5.613	A
C-A	96			96			
A-B	0			0			
A-C	183			183			

08:30 - 08:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	67	581	0.115	67	0.1	7.061	A
C-AB	49	691	0.071	49	0.1	5.660	A
C-A	116			116			
A-B	0			0			
A-C	224			224			

08:45 - 09:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	67	581	0.115	67	0.1	7.064	A
C-AB	49	691	0.071	49	0.1	5.663	A
C-A	116			116			
A-B	0			0			
A-C	224			224			

09:00 - 09:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	54	591	0.092	55	0.1	6.772	A
C-AB	38	686	0.056	39	0.1	5.618	A
C-A	96			96			
A-B	0			0			
A-C	183			183			

09:15 - 09:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	46	599	0.076	46	0.1	6.573	A
C-AB	31	683	0.046	31	0.1	5.584	A
C-A	81			81			
A-B	0			0			
A-C	153			153			

Queue Variation Results for each time segment

08:00 - 08:15

Stream	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.08	0.00	0.00	0.08	0.08			N/A	N/A
C-AB	0.06	0.00	0.00	0.06	0.06			N/A	N/A

08:15 - 08:30

Stream	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.10	0.03	0.25	0.45	0.48			N/A	N/A
C-AB	0.07	0.03	0.25	0.46	0.48			N/A	N/A

08:30 - 08:45

Stream	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.13	0.03	0.26	0.47	0.50			N/A	N/A
C-AB	0.10	0.03	0.27	0.48	0.50			N/A	N/A

08:45 - 09:00

Stream	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.13	0.03	0.25	0.45	0.48			N/A	N/A
C-AB	0.10	0.00	0.00	0.10	0.10			N/A	N/A

09:00 - 09:15

Stream	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.10	0.00	0.00	0.10	0.10			N/A	N/A
C-AB	0.08	0.00	0.00	0.08	0.08			N/A	N/A

09:15 - 09:30

Stream	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.08	0.00	0.00	0.08	0.08			N/A	N/A
C-AB	0.06	0.00	0.00	0.06	0.06			N/A	N/A

Residential Development Junction - 2040 With Fully Occupied Development, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way		1.39	A

Junction Network Options

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

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D6	Residential Development Junction - 2040 With Fully Occupied Development	PM	ONE HOUR	16:45	18:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A		✓	149	100.000
B		✓	32	100.000
C		✓	286	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		A	B	C
From	A	0	0	149
	B	0	0	32
	C	226	60	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A	B	C
From	A	0	1	1
	B	1	0	1
	C	1	1	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max 95th percentile Queue (PCU)	Max LOS
B-AC	0.06	6.49	0.1	0.5	A
C-AB	0.12	5.28	0.2	0.5	A
C-A					
A-B					
A-C					

Main Results for each time segment

16:45 - 17:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	24	609	0.040	24	0.0	6.220	A
C-AB	59	748	0.079	59	0.1	5.271	A
C-A	158			158			
A-B	0			0			
A-C	113			113			

17:00 - 17:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	29	603	0.048	29	0.1	6.332	A
C-AB	75	765	0.098	74	0.2	5.267	A
C-A	185			185			
A-B	0			0			
A-C	135			135			

17:15 - 17:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	36	596	0.060	36	0.1	6.491	A
C-AB	98	788	0.125	98	0.2	5.272	A
C-A	220			220			
A-B	0			0			
A-C	166			166			

17:30 - 17:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	36	596	0.060	36	0.1	6.491	A
C-AB	98	788	0.125	98	0.2	5.275	A
C-A	220			220			
A-B	0			0			
A-C	166			166			

17:45 - 18:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	29	603	0.048	29	0.1	6.336	A
C-AB	75	765	0.098	75	0.2	5.274	A
C-A	185			185			
A-B	0			0			
A-C	135			135			

18:00 - 18:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	24	609	0.040	24	0.0	6.223	A
C-AB	59	748	0.079	60	0.1	5.282	A
C-A	158			158			
A-B	0			0			
A-C	113			113			

Queue Variation Results for each time segment

16:45 - 17:00

Stream	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.04	0.00	0.00	0.04	0.04			N/A	N/A
C-AB	0.12	0.00	0.00	0.12	0.12			N/A	N/A

17:00 - 17:15

Stream	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.05	0.03	0.25	0.46	0.48			N/A	N/A
C-AB	0.15	0.00	0.00	0.15	0.15			N/A	N/A

17:15 - 17:30

Stream	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.06	0.03	0.26	0.47	0.50			N/A	N/A
C-AB	0.21	0.03	0.27	0.48	0.53			N/A	N/A

17:30 - 17:45

Stream	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.06	0.00	0.00	0.06	0.06			N/A	N/A
C-AB	0.21	0.03	0.25	0.45	0.48			N/A	N/A

17:45 - 18:00

Stream	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.05	0.00	0.00	0.05	0.05			N/A	N/A
C-AB	0.16	0.00	0.00	0.16	0.16			N/A	N/A

18:00 - 18:15

Stream	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.04	0.00	0.00	0.04	0.04			N/A	N/A
C-AB	0.12	0.00	0.00	0.12	0.12			N/A	N/A

Residential Development Junction - 2040 With Fully Occupied Development + 225 Additional Houses, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way		3.24	A

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	185	Stream B-AC

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D7	Residential Development Junction - 2040 With Fully Occupied Development + 225 Additional Houses	AM	ONE HOUR	08:00	09:30	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A		✓	201	100.000
B		✓	120	100.000
C		✓	208	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		A	B	C
From	A	0	0	201
	B	0	0	120
	C	112	96	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A	B	C
From	A	0	1	1
	B	1	0	1
	C	1	1	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max 95th percentile Queue (PCU)	Max LOS
B-AC	0.23	8.12	0.3	1.4	A
C-AB	0.19	6.48	0.3	1.1	A
C-A					
A-B					
A-C					

Main Results for each time segment

08:00 - 08:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	91	599	0.152	91	0.2	7.143	A
C-AB	83	683	0.122	83	0.2	6.058	A
C-A	75			75			
A-B	0			0			
A-C	153			153			

08:15 - 08:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	109	591	0.184	109	0.2	7.526	A
C-AB	102	686	0.149	102	0.2	6.228	A
C-A	86			86			
A-B	0			0			
A-C	183			183			

08:30 - 08:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	133	581	0.230	133	0.3	8.107	A
C-AB	130	691	0.189	130	0.3	6.479	A
C-A	101			101			
A-B	0			0			
A-C	224			224			

08:45 - 09:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	133	581	0.230	133	0.3	8.117	A
C-AB	130	691	0.189	130	0.3	6.485	A
C-A	101			101			
A-B	0			0			
A-C	224			224			

09:00 - 09:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	109	591	0.184	109	0.2	7.543	A
C-AB	102	686	0.149	103	0.2	6.236	A
C-A	86			86			
A-B	0			0			
A-C	183			183			

09:15 - 09:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	91	599	0.152	91	0.2	7.168	A
C-AB	83	683	0.122	84	0.2	6.075	A
C-A	75			75			
A-B	0			0			
A-C	153			153			

Queue Variation Results for each time segment

08:00 - 08:15

Stream	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.18	0.00	0.00	0.18	0.18			N/A	N/A
C-AB	0.16	0.00	0.00	0.16	0.16			N/A	N/A

08:15 - 08:30

Stream	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.23	0.00	0.00	0.23	0.23			N/A	N/A
C-AB	0.20	0.00	0.00	0.20	0.20			N/A	N/A

08:30 - 08:45

Stream	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.30	0.03	0.26	0.46	0.49			N/A	N/A
C-AB	0.28	0.03	0.26	0.47	0.49			N/A	N/A

08:45 - 09:00

Stream	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.30	0.03	0.31	1.06	1.38			N/A	N/A
C-AB	0.28	0.03	0.29	0.74	1.13			N/A	N/A

09:00 - 09:15

Stream	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.23	0.00	0.00	0.23	0.23			N/A	N/A
C-AB	0.21	0.00	0.00	0.21	0.21			N/A	N/A

09:15 - 09:30

Stream	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.18	0.00	0.00	0.18	0.18			N/A	N/A
C-AB	0.16	0.00	0.00	0.16	0.16			N/A	N/A

Residential Development Junction - 2040 With Fully Occupied Development + 225 Additional Houses, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way		1.39	A

Junction Network Options

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

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D8	Residential Development Junction - 2040 With Fully Occupied Development + 225 Additional Houses	PM	ONE HOUR	16:45	18:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A		✓	149	100.000
B		✓	32	100.000
C		✓	286	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		A	B	C
From	A	0	0	149
	B	0	0	32
	C	226	60	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A	B	C
From	A	0	1	1
	B	1	0	1
	C	1	1	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max 95th percentile Queue (PCU)	Max LOS
B-AC	0.06	6.49	0.1	0.5	A
C-AB	0.12	5.28	0.2	0.5	A
C-A					
A-B					
A-C					

Main Results for each time segment

16:45 - 17:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	24	609	0.040	24	0.0	6.220	A
C-AB	59	748	0.079	59	0.1	5.271	A
C-A	158			158			
A-B	0			0			
A-C	113			113			

17:00 - 17:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	29	603	0.048	29	0.1	6.332	A
C-AB	75	765	0.098	74	0.2	5.267	A
C-A	185			185			
A-B	0			0			
A-C	135			135			

17:15 - 17:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	36	596	0.060	36	0.1	6.491	A
C-AB	98	788	0.125	98	0.2	5.272	A
C-A	220			220			
A-B	0			0			
A-C	166			166			

17:30 - 17:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	36	596	0.060	36	0.1	6.491	A
C-AB	98	788	0.125	98	0.2	5.275	A
C-A	220			220			
A-B	0			0			
A-C	166			166			

17:45 - 18:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	29	603	0.048	29	0.1	6.336	A
C-AB	75	765	0.098	75	0.2	5.274	A
C-A	185			185			
A-B	0			0			
A-C	135			135			

18:00 - 18:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	24	609	0.040	24	0.0	6.223	A
C-AB	59	748	0.079	60	0.1	5.282	A
C-A	158			158			
A-B	0			0			
A-C	113			113			

Queue Variation Results for each time segment

16:45 - 17:00

Stream	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.04	0.00	0.00	0.04	0.04			N/A	N/A
C-AB	0.12	0.00	0.00	0.12	0.12			N/A	N/A

17:00 - 17:15

Stream	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.05	0.03	0.25	0.46	0.48			N/A	N/A
C-AB	0.15	0.00	0.00	0.15	0.15			N/A	N/A

17:15 - 17:30

Stream	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.06	0.03	0.26	0.47	0.50			N/A	N/A
C-AB	0.21	0.03	0.27	0.48	0.53			N/A	N/A

17:30 - 17:45

Stream	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.06	0.00	0.00	0.06	0.06			N/A	N/A
C-AB	0.21	0.03	0.25	0.45	0.48			N/A	N/A

17:45 - 18:00

Stream	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.05	0.00	0.00	0.05	0.05			N/A	N/A
C-AB	0.16	0.00	0.00	0.16	0.16			N/A	N/A

18:00 - 18:15

Stream	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.04	0.00	0.00	0.04	0.04			N/A	N/A
C-AB	0.12	0.00	0.00	0.12	0.12			N/A	N/A

Junctions 9

ARCADY 9 - Roundabout Module

Version: 9.5.1.7462

Filename: Crozon Roundabout.j9
Path: P:\Jod-jobs\6736 Burkes Cornageeha\400 Planning\403 Planning Application\1 Submissions\TTA\Traffic Analysis
Report generation date: 06/10/2023 16:44:25

Summary of junction performance

	AM							PM						
	Queue (PCU)	Delay (s)	RFC	LOS	Junction Delay (s)	Junction LOS	Network Residual Capacity	Queue (PCU)	Delay (s)	RFC	LOS	Junction Delay (s)	Junction LOS	Network Residual Capacity
	Crozon Roundabout - 2023 Existing Traffic Flows - No Development													
Arm 1	0.2	3.90	0.18	A	4.21	A	131 % [Arm 3]	0.3	4.46	0.21	A	4.36	A	140 % [Arm 5]
Arm 2	0.3	4.29	0.21	A				0.2	4.31	0.17	A			
Arm 3	0.6	4.38	0.36	A				0.3	3.64	0.25	A			
Arm 4	0.0	0.00	0.00	A				0.0	0.00	0.00	A			
Arm 5	0.1	3.77	0.08	A				0.4	5.09	0.30	A			
	Crozon Roundabout - 2040 With Fully Occupied Development													
Arm 1	0.3	4.17	0.21	A	4.76	A	92 % [Arm 3]	0.4	5.02	0.27	A	4.86	A	98 % [Arm 5]
Arm 2	0.4	4.93	0.30	A				0.3	4.61	0.21	A			
Arm 3	0.8	5.08	0.43	A				0.4	3.97	0.30	A			
Arm 4	0.0	0.00	0.00	A				0.0	0.00	0.00	A			
Arm 5	0.1	3.97	0.11	A				0.6	5.85	0.37	A			
	Crozon Roundabout - 2040 With Fully Occupied Development + 250 Additional Houses													
Arm 1	0.3	4.37	0.24	A	4.91	A	84 % [Arm 3]	0.5	5.68	0.32	A	5.43	A	73 % [Arm 5]
Arm 2	0.4	4.93	0.30	A				0.4	5.10	0.28	A			
Arm 3	0.8	5.31	0.46	A				0.5	4.32	0.35	A			
Arm 4	0.0	0.00	0.00	A				0.0	0.00	0.00	A			
Arm 5	0.1	4.10	0.12	A				0.8	6.70	0.43	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. Junction LOS and Junction Delay are demand-weighted averages. Network Residual Capacity indicates the amount by which network flow could be increased before a user-definable threshold (see Analysis Options) is met.

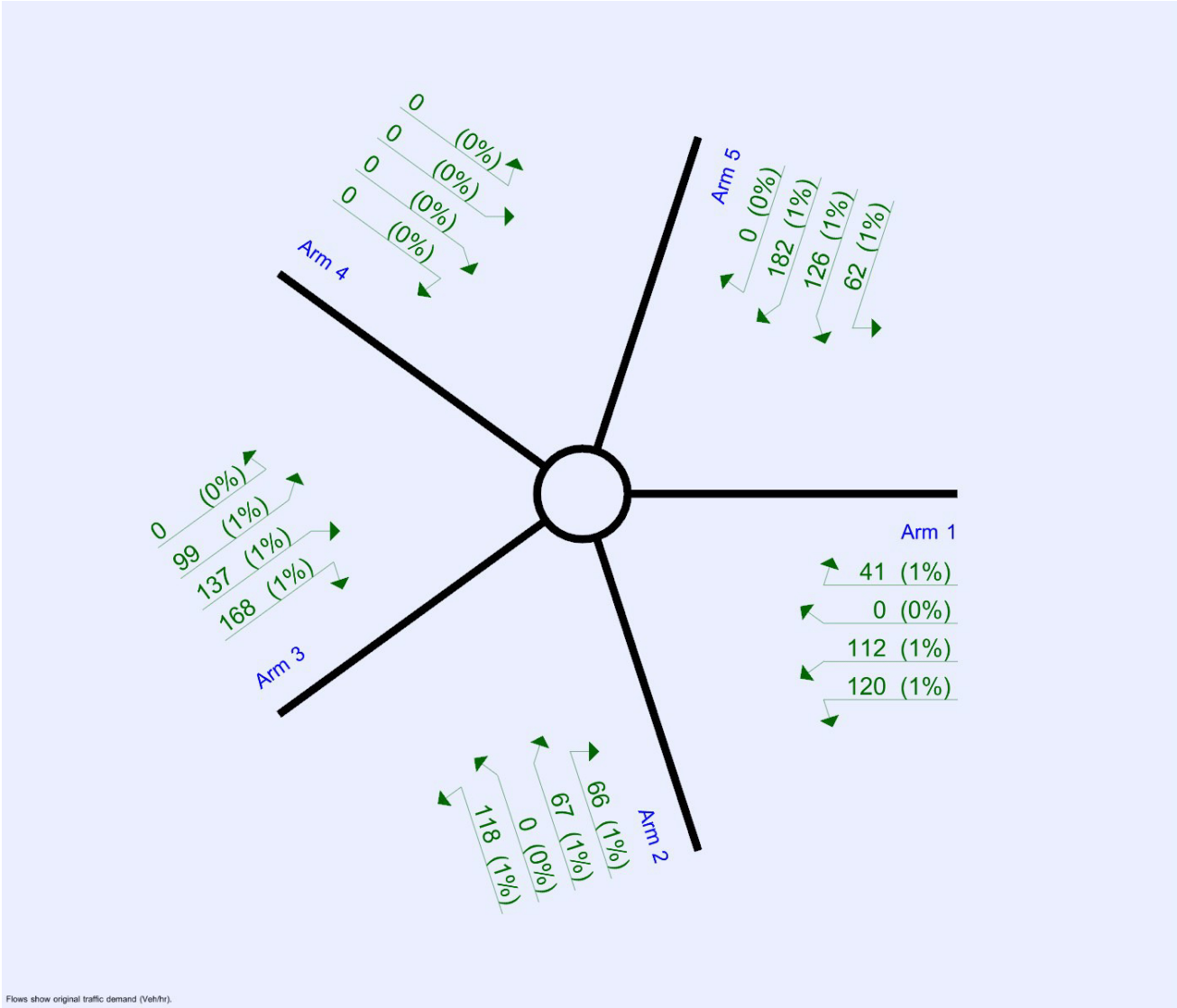
File summary

File Description

Title	
Location	
Site number	
Date	06/10/2023
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	JODIRELAND\jdoogan
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	Veh	PCU	perHour	s	-Min	perMin



The junction diagram reflects the last run of Junctions.

Analysis Options

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

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D1	Crozon Roundabout - 2023 Existing Traffic Flows - No Development	AM	ONE HOUR	08:00	09:30	15
D2	Crozon Roundabout - 2023 Existing Traffic Flows - No Development	PM	ONE HOUR	16:45	18:15	15
D3	Crozon Roundabout - 2040 With Fully Occupied Development	AM	ONE HOUR	08:00	09:30	15
D4	Crozon Roundabout - 2040 With Fully Occupied Development	PM	ONE HOUR	16:45	18:15	15
D5	Crozon Roundabout - 2040 With Fully Occupied Development + 250 Additional Houses	AM	ONE HOUR	08:00	09:30	15
D6	Crozon Roundabout - 2040 With Fully Occupied Development + 250 Additional Houses	PM	ONE HOUR	16:45	18:15	15

Analysis Set Details

ID	Network flow scaling factor (%)
A1	100.000

Crozon Roundabout - 2023 Existing Traffic Flows - No Development, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4, 5	4.21	A

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	131	Arm 3

Arms

Arms

Arm	Name	Description
1	Crozon	
2	Newtownholmes Road	
3	Caltragh Lane	
4	Car Park Entrance	
5	Newtownholmes Rd. North	

Roundabout Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	l' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Exit only
1	4.00	5.00	5.0	5.0	50.0	30.0	
2	3.00	6.00	5.0	20.0	50.0	40.0	
3	4.00	5.50	5.0	15.0	50.0	35.0	
4	3.00	4.00	5.0	5.0	50.0	30.0	
5	3.00	6.00	5.0	20.0	50.0	45.0	

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
1	0.470	1192
2	0.500	1178
3	0.541	1395
4	0.421	933
5	0.491	1157

The slope and intercept shown above include any corrections and adjustments.

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D1	Crozon Roundabout - 2023 Existing Traffic Flows - No Development	AM	ONE HOUR	08:00	09:30	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1		✓	178	100.000
2		✓	204	100.000
3		✓	418	100.000
4		✓	0	100.000
5		✓	80	100.000

Origin-Destination Data

Demand (Veh/hr)

		To				
		1	2	3	4	5
From	1	0	34	96	0	48
	2	35	0	85	0	84
	3	102	53	0	0	263
	4	0	0	0	0	0
	5	14	22	44	0	0

Vehicle Mix

Heavy Vehicle Percentages

		To				
		1	2	3	4	5
From	1	0	1	1	0	1
	2	1	0	1	0	1
	3	1	1	0	0	1
	4	0	0	0	0	0
	5	1	1	1	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max 95th percentile Queue (PCU)	Max LOS
1	0.18	3.90	0.2	0.5	A
2	0.21	4.29	0.3	1.2	A
3	0.36	4.38	0.6	2.6	A
4	0.00	0.00	0.0	~1	A
5	0.08	3.77	0.1	0.5	A

Main Results for each time segment

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	135	90	1149	0.118	135	0.1	3.581	A
2	155	142	1107	0.140	154	0.2	3.816	A
3	318	126	1327	0.240	317	0.3	3.594	A
4	0	443	747	0.000	0	0.0	0.000	A
5	61	144	1086	0.056	61	0.1	3.545	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	162	108	1141	0.142	161	0.2	3.711	A
2	185	171	1093	0.170	185	0.2	4.006	A
3	380	152	1313	0.289	379	0.4	3.889	A
4	0	531	710	0.000	0	0.0	0.000	A
5	73	172	1072	0.068	73	0.1	3.636	A

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	198	132	1130	0.175	198	0.2	3.900	A
2	227	209	1074	0.211	227	0.3	4.292	A
3	465	186	1295	0.359	464	0.6	4.374	A
4	0	650	660	0.000	0	0.0	0.000	A
5	89	211	1053	0.084	89	0.1	3.769	A

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	198	132	1130	0.175	198	0.2	3.902	A
2	227	209	1073	0.211	227	0.3	4.294	A
3	465	186	1295	0.359	465	0.6	4.380	A
4	0	651	659	0.000	0	0.0	0.000	A
5	89	211	1053	0.084	89	0.1	3.770	A

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	162	108	1141	0.142	162	0.2	3.716	A
2	185	171	1093	0.170	185	0.2	4.009	A
3	380	152	1313	0.289	380	0.4	3.900	A
4	0	532	709	0.000	0	0.0	0.000	A
5	73	173	1072	0.068	73	0.1	3.638	A

09:15 - 09:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	135	91	1149	0.118	135	0.1	3.588	A
2	155	143	1106	0.140	155	0.2	3.822	A
3	318	127	1327	0.240	318	0.3	3.609	A
4	0	445	746	0.000	0	0.0	0.000	A
5	61	145	1086	0.056	61	0.1	3.546	A

Queue Variation Results for each time segment

08:00 - 08:15

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	0.13	0.00	0.00	0.13	0.13			N/A	N/A
2	0.16	0.00	0.00	0.16	0.16			N/A	N/A
3	0.32	0.00	0.00	0.32	0.32			N/A	N/A
4	0.00	0.00	0.00	0.00	0.00			N/A	N/A
5	0.06	0.00	0.00	0.06	0.06			N/A	N/A

08:15 - 08:30

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	0.17	0.00	0.00	0.17	0.17			N/A	N/A
2	0.21	0.00	0.00	0.21	0.21			N/A	N/A
3	0.41	0.00	0.00	0.41	0.41			N/A	N/A
4	0.00	0.00	0.00	0.00	0.00			N/A	N/A
5	0.07	0.03	0.25	0.46	0.48			N/A	N/A

08:30 - 08:45

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	0.21	0.03	0.26	0.46	0.49			N/A	N/A
2	0.27	0.03	0.26	0.46	0.49			N/A	N/A
3	0.56	0.03	0.26	0.56	0.56			N/A	N/A
4	0.00	0.00	0.00	0.00	0.00			N/A	N/A
5	0.09	0.03	0.26	0.47	0.50			N/A	N/A

08:45 - 09:00

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	0.21	0.03	0.26	0.46	0.49			N/A	N/A
2	0.27	0.03	0.30	0.84	1.19			N/A	N/A
3	0.56	0.03	0.30	1.29	2.62			N/A	N/A
4	0.00	0.00	0.00	0.00	0.00			N/A	N/A
5	0.09	0.00	0.00	0.09	0.09			N/A	N/A

09:00 - 09:15

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	0.17	0.00	0.00	0.17	0.17			N/A	N/A
2	0.21	0.00	0.00	0.21	0.21			N/A	N/A
3	0.41	0.00	0.00	0.41	0.41			N/A	N/A
4	0.00	0.00	0.00	0.00	0.00			N/A	N/A
5	0.07	0.00	0.00	0.07	0.07			N/A	N/A

09:15 - 09:30

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	0.14	0.00	0.00	0.14	0.14			N/A	N/A
2	0.17	0.00	0.00	0.17	0.17			N/A	N/A
3	0.32	0.00	0.00	0.32	0.32			N/A	N/A
4	0.00	0.00	0.00	0.00	0.00			N/A	N/A
5	0.06	0.00	0.00	0.06	0.06			N/A	N/A

Crozon Roundabout - 2023 Existing Traffic Flows - No Development, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4, 5	4.36	A

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	140	Arm 5

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D2	Crozon Roundabout - 2023 Existing Traffic Flows - No Development	PM	ONE HOUR	16:45	18:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1		✓	194	100.000
2		✓	152	100.000
3		✓	293	100.000
4		✓	0	100.000
5		✓	278	100.000

Origin-Destination Data

Demand (Veh/hr)

		To				
		1	2	3	4	5
From	1	0	59	99	0	36
	2	40	0	71	0	41
	3	121	84	0	0	88
	4	0	0	0	0	0
	5	55	62	161	0	0

Vehicle Mix

Heavy Vehicle Percentages

		To				
		1	2	3	4	5
From	1	0	1	1	0	1
	2	1	0	1	0	1
	3	1	1	0	0	1
	4	0	0	0	0	0
	5	1	1	1	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max 95th percentile Queue (PCU)	Max LOS
1	0.21	4.46	0.3	1.2	A
2	0.17	4.31	0.2	0.5	A
3	0.25	3.64	0.3	1.4	A
4	0.00	0.00	0.0	~1	A
5	0.30	5.09	0.4	1.8	A

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	148	232	1083	0.136	147	0.2	3.883	A
2	116	224	1066	0.108	115	0.1	3.821	A
3	223	89	1347	0.165	222	0.2	3.229	A
4	0	311	802	0.000	0	0.0	0.000	A
5	211	186	1066	0.198	210	0.2	4.247	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	176	278	1061	0.166	176	0.2	4.109	A
2	138	268	1044	0.132	138	0.2	4.014	A
3	266	106	1338	0.199	266	0.2	3.391	A
4	0	372	777	0.000	0	0.0	0.000	A
5	252	222	1048	0.241	252	0.3	4.569	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	216	341	1032	0.209	215	0.3	4.454	A
2	169	329	1014	0.167	169	0.2	4.302	A
3	326	130	1325	0.246	326	0.3	3.638	A
4	0	455	741	0.000	0	0.0	0.000	A
5	309	272	1023	0.302	309	0.4	5.085	A

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	216	341	1031	0.209	216	0.3	4.457	A
2	169	329	1013	0.167	169	0.2	4.305	A
3	326	130	1325	0.246	326	0.3	3.638	A
4	0	456	741	0.000	0	0.0	0.000	A
5	309	272	1023	0.302	309	0.4	5.092	A

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	176	279	1061	0.166	176	0.2	4.113	A
2	138	269	1043	0.132	138	0.2	4.018	A
3	266	106	1338	0.199	266	0.3	3.396	A
4	0	373	776	0.000	0	0.0	0.000	A
5	252	223	1047	0.241	253	0.3	4.579	A

18:00 - 18:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	148	234	1082	0.136	148	0.2	3.893	A
2	116	225	1065	0.108	116	0.1	3.828	A
3	223	89	1347	0.165	223	0.2	3.234	A
4	0	312	802	0.000	0	0.0	0.000	A
5	211	186	1065	0.198	212	0.3	4.260	A

Queue Variation Results for each time segment

16:45 - 17:00

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	0.16	0.00	0.00	0.16	0.16			N/A	N/A
2	0.12	0.00	0.00	0.12	0.12			N/A	N/A
3	0.20	0.00	0.00	0.20	0.20			N/A	N/A
4	0.00	0.00	0.00	0.00	0.00			N/A	N/A
5	0.25	0.00	0.00	0.25	0.25			N/A	N/A

17:00 - 17:15

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	0.20	0.00	0.00	0.20	0.20			N/A	N/A
2	0.15	0.00	0.00	0.15	0.15			N/A	N/A
3	0.25	0.00	0.00	0.25	0.25			N/A	N/A
4	0.00	0.00	0.00	0.00	0.00			N/A	N/A
5	0.32	0.00	0.00	0.32	0.32			N/A	N/A

17:15 - 17:30

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	0.27	0.03	0.26	0.46	0.49			N/A	N/A
2	0.20	0.03	0.26	0.46	0.49			N/A	N/A
3	0.33	0.03	0.26	0.46	0.48			N/A	N/A
4	0.00	0.00	0.00	0.00	0.00			N/A	N/A
5	0.43	0.03	0.26	0.46	0.49			N/A	N/A

17:30 - 17:45

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	0.27	0.03	0.29	0.80	1.17			N/A	N/A
2	0.20	0.03	0.25	0.46	0.48			N/A	N/A
3	0.33	0.03	0.32	1.12	1.39			N/A	N/A
4	0.00	0.00	0.00	0.00	0.00			N/A	N/A
5	0.44	0.03	0.31	1.36	1.81			N/A	N/A

17:45 - 18:00

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	0.20	0.00	0.00	0.20	0.20			N/A	N/A
2	0.15	0.00	0.00	0.15	0.15			N/A	N/A
3	0.25	0.00	0.00	0.25	0.25			N/A	N/A
4	0.00	0.00	0.00	0.00	0.00			N/A	N/A
5	0.32	0.00	0.00	0.32	0.32			N/A	N/A

18:00 - 18:15

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	0.16	0.00	0.00	0.16	0.16			N/A	N/A
2	0.12	0.00	0.00	0.12	0.12			N/A	N/A
3	0.20	0.00	0.00	0.20	0.20			N/A	N/A
4	0.00	0.00	0.00	0.00	0.00			N/A	N/A
5	0.25	0.00	0.00	0.25	0.25			N/A	N/A

Crozon Roundabout - 2040 With Fully Occupied Development, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4, 5	4.76	A

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	92	Arm 3

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D3	Crozon Roundabout - 2040 With Fully Occupied Development	AM	ONE HOUR	08:00	09:30	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1		✓	212	100.000
2		✓	291	100.000
3		✓	490	100.000
4		✓	0	100.000
5		✓	98	100.000

Origin-Destination Data

Demand (Veh/hr)

		To				
		1	2	3	4	5
From	1	0	49	108	0	54
	2	50	0	121	0	120
	3	115	78	0	0	297
	4	0	0	0	0	0
	5	16	33	50	0	0

Vehicle Mix

Heavy Vehicle Percentages

		To				
		1	2	3	4	5
From	1	0	1	1	0	1
	2	1	0	1	0	1
	3	1	1	0	0	1
	4	0	0	0	0	0
	5	1	1	1	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max 95th percentile Queue (PCU)	Max LOS
1	0.21	4.17	0.3	1.2	A
2	0.30	4.93	0.4	1.8	A
3	0.43	5.08	0.8	2.5	A
4	0.00	0.00	0.0	~1	A
5	0.11	3.97	0.1	0.5	A

Main Results for each time segment

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	161	122	1135	0.142	161	0.2	3.731	A
2	221	161	1098	0.201	220	0.3	4.139	A
3	373	169	1304	0.286	371	0.4	3.893	A
4	0	541	706	0.000	0	0.0	0.000	A
5	75	184	1067	0.070	75	0.1	3.665	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	193	146	1123	0.171	192	0.2	3.906	A
2	264	193	1082	0.244	264	0.3	4.443	A
3	445	203	1285	0.346	445	0.5	4.321	A
4	0	648	660	0.000	0	0.0	0.000	A
5	89	220	1049	0.085	89	0.1	3.788	A

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	236	178	1108	0.213	236	0.3	4.167	A
2	323	236	1060	0.305	323	0.4	4.927	A
3	545	248	1261	0.432	544	0.8	5.068	A
4	0	793	599	0.000	0	0.0	0.000	A
5	109	269	1025	0.107	109	0.1	3.972	A

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	236	178	1108	0.213	236	0.3	4.169	A
2	323	236	1060	0.305	323	0.4	4.934	A
3	545	249	1261	0.433	545	0.8	5.082	A
4	0	794	599	0.000	0	0.0	0.000	A
5	109	270	1024	0.107	109	0.1	3.973	A

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	193	146	1123	0.171	193	0.2	3.910	A
2	264	193	1081	0.244	264	0.3	4.453	A
3	445	203	1285	0.346	446	0.5	4.337	A
4	0	650	660	0.000	0	0.0	0.000	A
5	89	221	1048	0.085	89	0.1	3.793	A

09:15 - 09:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	161	122	1134	0.142	161	0.2	3.739	A
2	221	162	1097	0.201	221	0.3	4.152	A
3	373	170	1303	0.286	373	0.4	3.914	A
4	0	544	704	0.000	0	0.0	0.000	A
5	75	185	1066	0.070	75	0.1	3.670	A

Queue Variation Results for each time segment

08:00 - 08:15

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	0.17	0.00	0.00	0.17	0.17			N/A	N/A
2	0.25	0.00	0.00	0.25	0.25			N/A	N/A
3	0.40	0.00	0.00	0.40	0.40			N/A	N/A
4	0.00	0.00	0.00	0.00	0.00			N/A	N/A
5	0.08	0.00	0.00	0.08	0.08			N/A	N/A

08:15 - 08:30

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	0.21	0.00	0.00	0.21	0.21			N/A	N/A
2	0.32	0.00	0.00	0.32	0.32			N/A	N/A
3	0.53	0.53	1.01	1.41	1.46			N/A	N/A
4	0.00	0.00	0.00	0.00	0.00			N/A	N/A
5	0.09	0.03	0.26	0.46	0.49			N/A	N/A

08:30 - 08:45

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	0.27	0.03	0.26	0.46	0.49			N/A	N/A
2	0.44	0.03	0.26	0.46	0.49			N/A	N/A
3	0.76	0.03	0.26	0.76	0.76			N/A	N/A
4	0.00	0.00	0.00	0.00	0.00			N/A	N/A
5	0.12	0.03	0.26	0.47	0.49			N/A	N/A

08:45 - 09:00

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	0.27	0.03	0.30	0.86	1.20			N/A	N/A
2	0.44	0.03	0.31	1.36	1.84			N/A	N/A
3	0.77	0.03	0.28	0.77	2.51			N/A	N/A
4	0.00	0.00	0.00	0.00	0.00			N/A	N/A
5	0.12	0.00	0.00	0.12	0.12			N/A	N/A

09:00 - 09:15

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	0.21	0.00	0.00	0.21	0.21			N/A	N/A
2	0.33	0.00	0.00	0.33	0.33			N/A	N/A
3	0.54	0.54	1.01	1.41	1.46			N/A	N/A
4	0.00	0.00	0.00	0.00	0.00			N/A	N/A
5	0.09	0.00	0.00	0.09	0.09			N/A	N/A

09:15 - 09:30

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	0.17	0.00	0.00	0.17	0.17			N/A	N/A
2	0.26	0.00	0.00	0.26	0.26			N/A	N/A
3	0.41	0.00	0.00	0.41	0.41			N/A	N/A
4	0.00	0.00	0.00	0.00	0.00			N/A	N/A
5	0.08	0.00	0.00	0.08	0.08			N/A	N/A

Crozon Roundabout - 2040 With Fully Occupied Development, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4, 5	4.86	A

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	98	Arm 5

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D4	Crozon Roundabout - 2040 With Fully Occupied Development	PM	ONE HOUR	16:45	18:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1		✓	237	100.000
2		✓	184	100.000
3		✓	356	100.000
4		✓	0	100.000
5		✓	332	100.000

Origin-Destination Data

Demand (Veh/hr)

		To				
		1	2	3	4	5
From	1	0	85	112	0	41
	2	48	0	86	0	49
	3	137	120	0	0	99
	4	0	0	0	0	0
	5	62	88	182	0	0

Vehicle Mix

Heavy Vehicle Percentages

		To				
		1	2	3	4	5
From	1	0	1	1	0	1
	2	1	0	1	0	1
	3	1	1	0	0	1
	4	0	0	0	0	0
	5	1	1	1	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max 95th percentile Queue (PCU)	Max LOS
1	0.27	5.02	0.4	1.1	A
2	0.21	4.61	0.3	1.1	A
3	0.30	3.97	0.4	1.8	A
4	0.00	0.00	0.0	~1	A
5	0.37	5.85	0.6	2.7	A

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	180	295	1053	0.171	180	0.2	4.159	A
2	140	253	1051	0.133	139	0.2	3.983	A
3	271	105	1339	0.202	270	0.3	3.398	A
4	0	374	776	0.000	0	0.0	0.000	A
5	253	231	1043	0.242	251	0.3	4.582	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	215	354	1026	0.210	215	0.3	4.485	A
2	167	303	1026	0.163	167	0.2	4.229	A
3	323	125	1327	0.244	323	0.3	3.620	A
4	0	448	744	0.000	0	0.0	0.000	A
5	302	277	1021	0.295	301	0.4	5.049	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	264	433	988	0.267	263	0.4	5.014	A
2	204	371	992	0.206	204	0.3	4.611	A
3	396	153	1312	0.302	396	0.4	3.964	A
4	0	549	702	0.000	0	0.0	0.000	A
5	369	339	991	0.373	369	0.6	5.840	A

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	264	434	988	0.267	264	0.4	5.020	A
2	204	372	992	0.206	204	0.3	4.615	A
3	396	154	1312	0.302	396	0.4	3.968	A
4	0	550	702	0.000	0	0.0	0.000	A
5	369	339	990	0.373	369	0.6	5.853	A

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	215	355	1025	0.210	216	0.3	4.496	A
2	167	304	1026	0.163	167	0.2	4.236	A
3	323	126	1327	0.244	324	0.3	3.623	A
4	0	449	744	0.000	0	0.0	0.000	A
5	302	277	1021	0.295	302	0.4	5.066	A

18:00 - 18:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	180	297	1052	0.171	181	0.2	4.174	A
2	140	255	1051	0.133	140	0.2	3.992	A
3	271	105	1338	0.202	271	0.3	3.409	A
4	0	376	775	0.000	0	0.0	0.000	A
5	253	232	1043	0.242	253	0.3	4.606	A

Queue Variation Results for each time segment

16:45 - 17:00

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	0.21	0.00	0.00	0.21	0.21			N/A	N/A
2	0.15	0.00	0.00	0.15	0.15			N/A	N/A
3	0.25	0.00	0.00	0.25	0.25			N/A	N/A
4	0.00	0.00	0.00	0.00	0.00			N/A	N/A
5	0.32	0.00	0.00	0.32	0.32			N/A	N/A

17:00 - 17:15

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	0.27	0.00	0.00	0.27	0.27			N/A	N/A
2	0.19	0.00	0.00	0.19	0.19			N/A	N/A
3	0.32	0.00	0.00	0.32	0.32			N/A	N/A
4	0.00	0.00	0.00	0.00	0.00			N/A	N/A
5	0.42	0.00	0.00	0.42	0.42			N/A	N/A

17:15 - 17:30

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	0.37	0.03	0.26	0.46	0.49			N/A	N/A
2	0.26	0.03	0.26	0.46	0.49			N/A	N/A
3	0.43	0.03	0.26	0.46	0.48			N/A	N/A
4	0.00	0.00	0.00	0.00	0.00			N/A	N/A
5	0.59	0.03	0.26	0.59	0.59			N/A	N/A

17:30 - 17:45

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	0.37	0.03	0.32	1.14	1.14			N/A	N/A
2	0.26	0.03	0.29	0.75	1.14			N/A	N/A
3	0.44	0.03	0.32	1.37	1.78			N/A	N/A
4	0.00	0.00	0.00	0.00	0.00			N/A	N/A
5	0.60	0.03	0.29	1.23	2.72			N/A	N/A

17:45 - 18:00

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	0.27	0.00	0.00	0.27	0.27			N/A	N/A
2	0.20	0.00	0.00	0.20	0.20			N/A	N/A
3	0.33	0.00	0.00	0.33	0.33			N/A	N/A
4	0.00	0.00	0.00	0.00	0.00			N/A	N/A
5	0.43	0.00	0.00	0.43	0.43			N/A	N/A

18:00 - 18:15

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	0.21	0.00	0.00	0.21	0.21			N/A	N/A
2	0.16	0.00	0.00	0.16	0.16			N/A	N/A
3	0.26	0.00	0.00	0.26	0.26			N/A	N/A
4	0.00	0.00	0.00	0.00	0.00			N/A	N/A
5	0.32	0.00	0.00	0.32	0.32			N/A	N/A

Crozon Roundabout - 2040 With Fully Occupied Development + 250 Additional Houses, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4, 5	4.91	A

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	84	Arm 3

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D5	Crozon Roundabout - 2040 With Fully Occupied Development + 250 Additional Houses	AM	ONE HOUR	08:00	09:30	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1		✓	231	100.000
2		✓	291	100.000
3		✓	517	100.000
4		✓	0	100.000
5		✓	110	100.000

Origin-Destination Data

Demand (Veh/hr)

		To				
		1	2	3	4	5
From	1	0	68	108	0	54
	2	50	0	121	0	120
	3	115	105	0	0	297
	4	0	0	0	0	0
	5	16	44	50	0	0

Vehicle Mix

Heavy Vehicle Percentages

		To				
		1	2	3	4	5
From	1	0	1	1	0	1
	2	1	0	1	0	1
	3	1	1	0	0	1
	4	0	0	0	0	0
	5	1	1	1	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max 95th percentile Queue (PCU)	Max LOS
1	0.24	4.37	0.3	1.3	A
2	0.30	4.93	0.4	1.8	A
3	0.46	5.31	0.8	2.2	A
4	0.00	0.00	0.0	~1	A
5	0.12	4.10	0.1	0.5	A

Main Results for each time segment

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	175	150	1121	0.156	175	0.2	3.836	A
2	221	161	1098	0.201	220	0.3	4.139	A
3	393	169	1304	0.302	392	0.4	3.980	A
4	0	561	697	0.000	0	0.0	0.000	A
5	83	204	1057	0.079	83	0.1	3.734	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	209	180	1107	0.189	209	0.2	4.048	A
2	264	193	1082	0.244	264	0.3	4.443	A
3	470	203	1285	0.365	469	0.6	4.452	A
4	0	672	650	0.000	0	0.0	0.000	A
5	99	245	1037	0.096	99	0.1	3.879	A

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	257	221	1088	0.236	256	0.3	4.370	A
2	323	236	1060	0.305	323	0.4	4.927	A
3	575	248	1261	0.456	574	0.8	5.289	A
4	0	823	587	0.000	0	0.0	0.000	A
5	122	300	1010	0.121	122	0.1	4.094	A

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	257	221	1088	0.236	257	0.3	4.373	A
2	323	236	1060	0.305	323	0.4	4.934	A
3	575	249	1261	0.456	575	0.8	5.305	A
4	0	824	586	0.000	0	0.0	0.000	A
5	122	300	1010	0.121	122	0.1	4.095	A

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	209	181	1107	0.189	210	0.2	4.054	A
2	264	193	1081	0.244	264	0.3	4.453	A
3	470	203	1285	0.366	471	0.6	4.472	A
4	0	674	649	0.000	0	0.0	0.000	A
5	99	245	1036	0.096	100	0.1	3.883	A

09:15 - 09:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	175	151	1121	0.157	176	0.2	3.847	A
2	221	162	1097	0.201	221	0.3	4.153	A
3	393	170	1303	0.302	394	0.4	4.002	A
4	0	564	696	0.000	0	0.0	0.000	A
5	83	205	1056	0.079	83	0.1	3.740	A

Queue Variation Results for each time segment

08:00 - 08:15

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	0.19	0.00	0.00	0.19	0.19			N/A	N/A
2	0.25	0.00	0.00	0.25	0.25			N/A	N/A
3	0.43	0.00	0.00	0.43	0.43			N/A	N/A
4	0.00	0.00	0.00	0.00	0.00			N/A	N/A
5	0.09	0.00	0.00	0.09	0.09			N/A	N/A

08:15 - 08:30

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	0.23	0.00	0.00	0.23	0.23			N/A	N/A
2	0.32	0.00	0.00	0.32	0.32			N/A	N/A
3	0.58	0.09	0.83	1.38	1.45			N/A	N/A
4	0.00	0.00	0.00	0.00	0.00			N/A	N/A
5	0.11	0.00	0.00	0.11	0.11			N/A	N/A

08:30 - 08:45

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	0.31	0.03	0.26	0.46	0.49			N/A	N/A
2	0.44	0.03	0.26	0.46	0.49			N/A	N/A
3	0.84	0.03	0.26	0.84	0.84			N/A	N/A
4	0.00	0.00	0.00	0.00	0.00			N/A	N/A
5	0.14	0.03	0.26	0.47	0.49			N/A	N/A

08:45 - 09:00

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	0.31	0.03	0.32	1.07	1.34			N/A	N/A
2	0.44	0.03	0.31	1.36	1.84			N/A	N/A
3	0.84	0.03	0.28	0.84	2.21			N/A	N/A
4	0.00	0.00	0.00	0.00	0.00			N/A	N/A
5	0.14	0.03	0.25	0.45	0.48			N/A	N/A

09:00 - 09:15

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	0.24	0.00	0.00	0.24	0.24			N/A	N/A
2	0.33	0.00	0.00	0.33	0.33			N/A	N/A
3	0.59	0.56	1.01	1.41	1.46			N/A	N/A
4	0.00	0.00	0.00	0.00	0.00			N/A	N/A
5	0.11	0.00	0.00	0.11	0.11			N/A	N/A

09:15 - 09:30

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	0.19	0.00	0.00	0.19	0.19			N/A	N/A
2	0.26	0.00	0.00	0.26	0.26			N/A	N/A
3	0.44	0.00	0.00	0.44	0.44			N/A	N/A
4	0.00	0.00	0.00	0.00	0.00			N/A	N/A
5	0.09	0.00	0.00	0.09	0.09			N/A	N/A

Crozon Roundabout - 2040 With Fully Occupied Development + 250 Additional Houses, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4, 5	5.43	A

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	73	Arm 5

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D6	Crozon Roundabout - 2040 With Fully Occupied Development + 250 Additional Houses	PM	ONE HOUR	16:45	18:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1		✓	273	100.000
2		✓	251	100.000
3		✓	404	100.000
4		✓	0	100.000
5		✓	370	100.000

Origin-Destination Data

Demand (Veh/hr)

		To				
		1	2	3	4	5
From	1	0	120	112	0	41
	2	66	0	118	0	67
	3	137	168	0	0	99
	4	0	0	0	0	0
	5	62	126	182	0	0

Vehicle Mix

Heavy Vehicle Percentages

		To				
		1	2	3	4	5
From	1	0	1	1	0	1
	2	1	0	1	0	1
	3	1	1	0	0	1
	4	0	0	0	0	0
	5	1	1	1	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max 95th percentile Queue (PCU)	Max LOS
1	0.32	5.68	0.5	2.1	A
2	0.28	5.10	0.4	1.5	A
3	0.35	4.32	0.5	2.5	A
4	0.00	0.00	0.0	~1	A
5	0.43	6.70	0.8	2.8	A

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	207	360	1022	0.203	206	0.3	4.449	A
2	191	253	1052	0.182	190	0.2	4.216	A
3	307	131	1324	0.232	306	0.3	3.566	A
4	0	438	749	0.000	0	0.0	0.000	A
5	281	281	1019	0.276	280	0.4	4.909	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	247	432	989	0.250	247	0.3	4.899	A
2	228	303	1026	0.222	228	0.3	4.551	A
3	367	158	1310	0.280	367	0.4	3.853	A
4	0	524	712	0.000	0	0.0	0.000	A
5	336	336	992	0.339	335	0.5	5.535	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	303	528	943	0.321	303	0.5	5.668	A
2	279	371	992	0.281	279	0.4	5.090	A
3	449	193	1291	0.348	449	0.5	4.315	A
4	0	642	663	0.000	0	0.0	0.000	A
5	412	412	955	0.431	411	0.8	6.669	A

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	303	529	943	0.321	303	0.5	5.681	A
2	279	372	992	0.281	279	0.4	5.099	A
3	449	193	1291	0.348	449	0.5	4.321	A
4	0	643	663	0.000	0	0.0	0.000	A
5	412	412	954	0.431	412	0.8	6.696	A

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	247	433	988	0.250	248	0.3	4.915	A
2	228	304	1026	0.222	228	0.3	4.563	A
3	367	158	1310	0.280	368	0.4	3.862	A
4	0	526	712	0.000	0	0.0	0.000	A
5	336	337	991	0.339	337	0.5	5.566	A

18:00 - 18:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	207	362	1021	0.203	208	0.3	4.469	A
2	191	255	1051	0.182	191	0.2	4.232	A
3	307	132	1324	0.232	308	0.3	3.581	A
4	0	440	748	0.000	0	0.0	0.000	A
5	281	282	1018	0.276	282	0.4	4.941	A

Queue Variation Results for each time segment

16:45 - 17:00

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	0.26	0.00	0.00	0.26	0.26			N/A	N/A
2	0.22	0.00	0.00	0.22	0.22			N/A	N/A
3	0.30	0.00	0.00	0.30	0.30			N/A	N/A
4	0.00	0.00	0.00	0.00	0.00			N/A	N/A
5	0.38	0.00	0.00	0.38	0.38			N/A	N/A

17:00 - 17:15

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	0.33	0.00	0.00	0.33	0.33			N/A	N/A
2	0.29	0.00	0.00	0.29	0.29			N/A	N/A
3	0.39	0.00	0.00	0.39	0.39			N/A	N/A
4	0.00	0.00	0.00	0.00	0.00			N/A	N/A
5	0.51	0.51	1.01	1.41	1.46			N/A	N/A

17:15 - 17:30

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	0.47	0.03	0.26	0.47	0.49			N/A	N/A
2	0.39	0.03	0.26	0.46	0.49			N/A	N/A
3	0.54	0.03	0.26	0.54	0.54			N/A	N/A
4	0.00	0.00	0.00	0.00	0.00			N/A	N/A
5	0.76	0.03	0.26	0.76	0.76			N/A	N/A

17:30 - 17:45

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	0.48	0.03	0.31	1.39	2.05			N/A	N/A
2	0.39	0.03	0.32	1.30	1.46			N/A	N/A
3	0.54	0.03	0.30	1.34	2.51			N/A	N/A
4	0.00	0.00	0.00	0.00	0.00			N/A	N/A
5	0.76	0.03	0.28	0.76	2.79			N/A	N/A

17:45 - 18:00

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	0.34	0.00	0.00	0.34	0.34			N/A	N/A
2	0.29	0.00	0.00	0.29	0.29			N/A	N/A
3	0.40	0.00	0.00	0.40	0.40			N/A	N/A
4	0.00	0.00	0.00	0.00	0.00			N/A	N/A
5	0.52	0.52	1.01	1.41	1.46			N/A	N/A

18:00 - 18:15

Arm	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
1	0.26	0.00	0.00	0.26	0.26			N/A	N/A
2	0.23	0.00	0.00	0.23	0.23			N/A	N/A
3	0.31	0.00	0.00	0.31	0.31			N/A	N/A
4	0.00	0.00	0.00	0.00	0.00			N/A	N/A
5	0.39	0.00	0.00	0.39	0.39			N/A	N/A

Junctions 9

PICADY 9 - Priority Intersection Module

Version: 9.5.1.7462

For sales and distribution information, program advice and maintenance, contact TRL:
+44 (0)1344 379777 software@trl.co.uk www.trlsoftware.co.uk

Filename: Newtownforbes Rd - Caltragh Heights Junction.j9
Path: P:\Jod-jobs\6736 Burkes Cornageeha\400 Planning\403 Planning Application\1 Submissions\TTA\Traffic Analysis
Report generation date: 06/10/2023 17:01:33

Summary of junction performance

	AM							PM						
	Queue (PCU)	Delay (s)	RFC	LOS	Junction Delay (s)	Junction LOS	Network Residual Capacity	Queue (PCU)	Delay (s)	RFC	LOS	Junction Delay (s)	Junction LOS	Network Residual Capacity
	Caltragh Heights Junction - 2023 Existing Traffic Flows - No Development													
Stream B-AC	0.1	8.89	0.10	A	1.15	A	300 % [Stream B-AC]	0.1	9.49	0.08	A	0.80	A	255 % [Stream B-AC]
Stream C-AB	0.0	5.00	0.01	A				0.0	5.32	0.01	A			
	Caltragh Heights Junction - 2040 Traffic Flows - With Residential Development													
Stream B-AC	0.1	9.63	0.12	A	0.99	A	205 % [Stream B-AC]	0.1	10.43	0.10	B	0.73	A	170 % [Stream B-AC]
Stream C-AB	0.0	4.79	0.01	A				0.0	5.27	0.01	A			
	Caltragh Heights Junction - 2040 Traffic Flows - With Residential Development + 250 Additional Houses													
Stream B-AC	0.2	10.60	0.13	B	0.79	A	141 % [Stream B-AC]	0.1	11.81	0.11	B	0.61	A	111 % [Stream B-AC]
Stream C-AB	0.0	4.50	0.01	A				0.0	5.14	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. Junction LOS and Junction Delay are demand-weighted averages. Network Residual Capacity indicates the amount by which network flow could be increased before a user-definable threshold (see Analysis Options) is met.

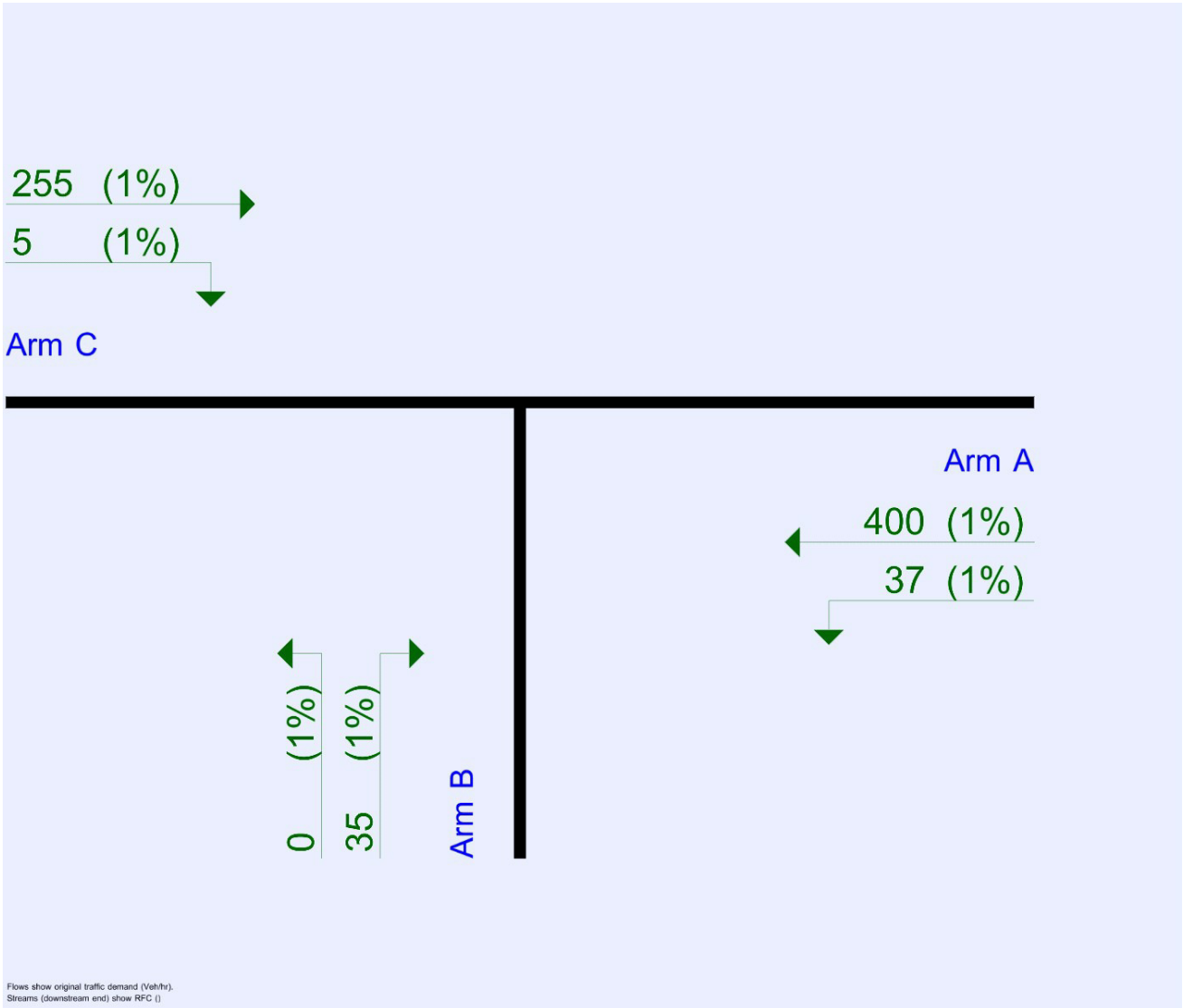
File summary

File Description

Title	Newtownholmes Road - Caltragh Heights Junction
Location	Sligo
Site number	
Date	16/10/2023
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	JODIRELAND\jdoogan
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	Veh	PCU	perHour	s	-Min	perMin



The junction diagram reflects the last run of Junctions.

Analysis Options

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

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D1	Caltragh Heights Junction - 2023 Existing Traffic Flows - No Development	AM	ONE HOUR	08:00	09:30	15
D2	Caltragh Heights Junction - 2023 Existing Traffic Flows - No Development	PM	ONE HOUR	16:45	18:15	15
D3	Caltragh Heights Junction - 2040 Traffic Flows - With Residential Development	AM	ONE HOUR	08:00	09:30	15
D4	Caltragh Heights Junction - 2040 Traffic Flows - With Residential Development	PM	ONE HOUR	16:45	18:15	15
D5	Caltragh Heights Junction - 2040 Traffic Flows - With Residential Development + 250 Additional Houses	AM	ONE HOUR	08:00	09:30	15
D6	Caltragh Heights Junction - 2040 Traffic Flows - With Residential Development + 250 Additional Houses	PM	ONE HOUR	16:45	18:15	15

Analysis Set Details

ID	Network flow scaling factor (%)
A1	100.000

Caltragh Heights Junction - 2023 Existing Traffic Flows - No Development, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way		1.15	A

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	300	Stream B-AC

Arms

Arms

Arm	Name	Description	Arm type
A	Newtownholmes Road / Crpzon		Major
B	Caltragh Heights		Minor
C	Newtownholmes Road		Major

Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Has right turn bay	Visibility for right turn (m)	Blocks?	Blocking queue (PCU)
C	6.00			160.0	✓	0.00

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

Minor Arm Geometry

Arm	Minor arm type	Lane width (m)	Visibility to left (m)	Visibility to right (m)
B	One lane	3.00	20	20

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Stream	Intercept (PCU/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
B-A	494	0.090	0.227	0.143	0.325
B-C	637	0.098	0.247	-	-
C-B	667	0.258	0.258	-	-

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

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

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

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D1	Caltragh Heights Junction - 2023 Existing Traffic Flows - No Development	AM	ONE HOUR	08:00	09:30	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A		✓	120	100.000
B		✓	42	100.000
C		✓	181	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		A	B	C
From	A	0	21	99
	B	36	0	6
	C	178	3	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A	B	C
From	A	0	1	1
	B	1	0	1
	C	1	1	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max 95th percentile Queue (PCU)	Max LOS
B-AC	0.10	8.89	0.1	0.5	A
C-AB	0.01	5.00	0.0	0.5	A
C-A					
A-B					
A-C					

Main Results for each time segment

08:00 - 08:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	32	473	0.068	32	0.1	8.235	A
C-AB	3	730	0.004	3	0.0	4.999	A
C-A	135			135			
A-B	16			16			
A-C	75			75			

08:15 - 08:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	38	466	0.082	38	0.1	8.502	A
C-AB	3	743	0.005	3	0.0	4.917	A
C-A	161			161			
A-B	19			19			
A-C	90			90			

08:30 - 08:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	47	456	0.103	47	0.1	8.888	A
C-AB	5	761	0.006	5	0.0	4.808	A
C-A	197			197			
A-B	23			23			
A-C	110			110			

08:45 - 09:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	47	456	0.103	47	0.1	8.892	A
C-AB	5	761	0.006	5	0.0	4.808	A
C-A	197			197			
A-B	23			23			
A-C	110			110			

09:00 - 09:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	38	466	0.082	38	0.1	8.510	A
C-AB	3	743	0.005	3	0.0	4.917	A
C-A	161			161			
A-B	19			19			
A-C	90			90			

09:15 - 09:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	32	473	0.068	32	0.1	8.247	A
C-AB	3	730	0.004	3	0.0	4.999	A
C-A	135			135			
A-B	16			16			
A-C	75			75			

Queue Variation Results for each time segment

08:00 - 08:15

Stream	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.07	0.00	0.00	0.07	0.07			N/A	N/A
C-AB	0.00	0.00	0.00	0.00	0.00			N/A	N/A

08:15 - 08:30

Stream	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.09	0.03	0.26	0.47	0.49			N/A	N/A
C-AB	0.00	0.00	0.25	0.46	0.48			N/A	N/A

08:30 - 08:45

Stream	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.11	0.03	0.26	0.47	0.50			N/A	N/A
C-AB	0.01	0.00	0.00	0.01	0.01			N/A	N/A

08:45 - 09:00

Stream	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.11	0.03	0.25	0.45	0.48			N/A	N/A
C-AB	0.01	0.00	0.00	0.01	0.01			N/A	N/A

09:00 - 09:15

Stream	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.09	0.00	0.00	0.09	0.09			N/A	N/A
C-AB	0.00	0.00	0.00	0.00	0.00			N/A	N/A

09:15 - 09:30

Stream	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.07	0.00	0.00	0.07	0.07			N/A	N/A
C-AB	0.00	0.00	0.00	0.00	0.00			N/A	N/A

Caltragh Heights Junction - 2023 Existing Traffic Flows - No Development, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way		0.80	A

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	255	Stream B-AC

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D2	Caltragh Heights Junction - 2023 Existing Traffic Flows - No Development	PM	ONE HOUR	16:45	18:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A		✓	233	100.000
B		✓	31	100.000
C		✓	136	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		A	B	C
From	A	0	33	200
	B	31	0	0
	C	132	4	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A	B	C
From	A	0	1	1
	B	1	0	1
	C	1	1	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max 95th percentile Queue (PCU)	Max LOS
B-AC	0.08	9.49	0.1	0.5	A
C-AB	0.01	5.32	0.0	0.5	A
C-A					
A-B					
A-C					

Main Results for each time segment

16:45 - 17:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	24	442	0.053	23	0.1	8.686	A
C-AB	4	687	0.005	4	0.0	5.322	A
C-A	100			100			
A-B	25			25			
A-C	152			152			

17:00 - 17:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	28	432	0.065	28	0.1	9.009	A
C-AB	4	691	0.006	4	0.0	5.294	A
C-A	119			119			
A-B	30			30			
A-C	182			182			

17:15 - 17:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	34	418	0.083	34	0.1	9.486	A
C-AB	6	698	0.008	6	0.0	5.254	A
C-A	146			146			
A-B	37			37			
A-C	222			222			

17:30 - 17:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	34	418	0.083	34	0.1	9.490	A
C-AB	6	698	0.008	6	0.0	5.254	A
C-A	146			146			
A-B	37			37			
A-C	222			222			

17:45 - 18:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	28	432	0.065	28	0.1	9.017	A
C-AB	4	691	0.006	4	0.0	5.294	A
C-A	119			119			
A-B	30			30			
A-C	182			182			

18:00 - 18:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	24	442	0.053	24	0.1	8.697	A
C-AB	4	687	0.005	4	0.0	5.324	A
C-A	100			100			
A-B	25			25			
A-C	152			152			

Queue Variation Results for each time segment

16:45 - 17:00

Stream	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.06	0.00	0.00	0.06	0.06			N/A	N/A
C-AB	0.01	0.00	0.00	0.01	0.01			N/A	N/A

17:00 - 17:15

Stream	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.07	0.03	0.25	0.46	0.48			N/A	N/A
C-AB	0.01	0.01	0.25	0.46	0.48			N/A	N/A

17:15 - 17:30

Stream	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.09	0.03	0.26	0.47	0.50			N/A	N/A
C-AB	0.01	0.00	0.00	0.01	0.01			N/A	N/A

17:30 - 17:45

Stream	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.09	0.03	0.25	0.45	0.48			N/A	N/A
C-AB	0.01	0.00	0.00	0.01	0.01			N/A	N/A

17:45 - 18:00

Stream	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.07	0.00	0.00	0.07	0.07			N/A	N/A
C-AB	0.01	0.00	0.00	0.01	0.01			N/A	N/A

18:00 - 18:15

Stream	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.06	0.00	0.00	0.06	0.06			N/A	N/A
C-AB	0.01	0.00	0.00	0.01	0.01			N/A	N/A

Caltragh Heights Junction - 2040 Traffic Flows - With Residential Development, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way		0.99	A

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	205	Stream B-AC

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D3	Caltragh Heights Junction - 2040 Traffic Flows - With Residential Development	AM	ONE HOUR	08:00	09:30	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A		✓	172	100.000
B		✓	47	100.000
C		✓	265	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		A	B	C
From	A	0	24	148
	B	41	0	7
	C	261	3	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A	B	C
From	A	0	1	1
	B	1	0	1
	C	1	1	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max 95th percentile Queue (PCU)	Max LOS
B-AC	0.12	9.63	0.1	0.5	A
C-AB	0.01	4.79	0.0	0.5	A
C-A					
A-B					
A-C					

Main Results for each time segment

08:00 - 08:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	36	456	0.079	36	0.1	8.651	A
C-AB	3	762	0.005	3	0.0	4.795	A
C-A	198			198			
A-B	18			18			
A-C	112			112			

08:15 - 08:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	43	445	0.097	43	0.1	9.042	A
C-AB	4	781	0.006	4	0.0	4.681	A
C-A	236			236			
A-B	22			22			
A-C	134			134			

08:30 - 08:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	53	430	0.123	53	0.1	9.626	A
C-AB	6	808	0.007	6	0.0	4.531	A
C-A	288			288			
A-B	26			26			
A-C	164			164			

08:45 - 09:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	53	430	0.123	53	0.1	9.632	A
C-AB	6	808	0.007	6	0.0	4.531	A
C-A	288			288			
A-B	26			26			
A-C	164			164			

09:00 - 09:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	43	445	0.097	43	0.1	9.053	A
C-AB	4	781	0.006	4	0.0	4.683	A
C-A	236			236			
A-B	22			22			
A-C	134			134			

09:15 - 09:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	36	456	0.079	36	0.1	8.669	A
C-AB	3	762	0.005	3	0.0	4.795	A
C-A	198			198			
A-B	18			18			
A-C	112			112			

Queue Variation Results for each time segment

08:00 - 08:15

Stream	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.09	0.00	0.00	0.09	0.09			N/A	N/A
C-AB	0.00	0.00	0.00	0.00	0.00			N/A	N/A

08:15 - 08:30

Stream	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.11	0.00	0.00	0.11	0.11			N/A	N/A
C-AB	0.01	0.01	0.25	0.46	0.48			N/A	N/A

08:30 - 08:45

Stream	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.14	0.03	0.26	0.47	0.50			N/A	N/A
C-AB	0.01	0.00	0.00	0.01	0.01			N/A	N/A

08:45 - 09:00

Stream	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.14	0.03	0.25	0.45	0.48			N/A	N/A
C-AB	0.01	0.00	0.00	0.01	0.01			N/A	N/A

09:00 - 09:15

Stream	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.11	0.00	0.00	0.11	0.11			N/A	N/A
C-AB	0.01	0.00	0.00	0.01	0.01			N/A	N/A

09:15 - 09:30

Stream	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.09	0.00	0.00	0.09	0.09			N/A	N/A
C-AB	0.00	0.00	0.00	0.00	0.00			N/A	N/A

Caltragh Heights Junction - 2040 Traffic Flows - With Residential Development, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way		0.73	A

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	170	Stream B-AC

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D4	Caltragh Heights Junction - 2040 Traffic Flows - With Residential Development	PM	ONE HOUR	16:45	18:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A		✓	323	100.000
B		✓	35	100.000
C		✓	186	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		A	B	C
From	A	0	37	286
	B	35	0	0
	C	181	5	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A	B	C
From	A	0	1	1
	B	1	0	1
	C	1	1	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max 95th percentile Queue (PCU)	Max LOS
B-AC	0.10	10.43	0.1	0.5	B
C-AB	0.01	5.27	0.0	0.5	A
C-A					
A-B					
A-C					

Main Results for each time segment

16:45 - 17:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	27	421	0.063	26	0.1	9.206	A
C-AB	4	695	0.006	4	0.0	5.265	A
C-A	137			137			
A-B	28			28			
A-C	217			217			

17:00 - 17:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	32	407	0.078	32	0.1	9.690	A
C-AB	5	701	0.008	5	0.0	5.224	A
C-A	163			163			
A-B	34			34			
A-C	260			260			

17:15 - 17:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	39	387	0.101	39	0.1	10.427	B
C-AB	7	711	0.010	7	0.0	5.164	A
C-A	199			199			
A-B	41			41			
A-C	318			318			

17:30 - 17:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	39	387	0.101	39	0.1	10.434	B
C-AB	7	711	0.010	7	0.0	5.166	A
C-A	199			199			
A-B	41			41			
A-C	318			318			

17:45 - 18:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	32	407	0.078	32	0.1	9.697	A
C-AB	5	701	0.008	5	0.0	5.224	A
C-A	163			163			
A-B	34			34			
A-C	260			260			

18:00 - 18:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	27	421	0.063	27	0.1	9.222	A
C-AB	4	695	0.006	4	0.0	5.265	A
C-A	137			137			
A-B	28			28			
A-C	217			217			

Queue Variation Results for each time segment

16:45 - 17:00

Stream	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.07	0.00	0.00	0.07	0.07			N/A	N/A
C-AB	0.01	0.00	0.00	0.01	0.01			N/A	N/A

17:00 - 17:15

Stream	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.08	0.03	0.26	0.48	0.50			N/A	N/A
C-AB	0.01	0.01	0.25	0.46	0.48			N/A	N/A

17:15 - 17:30

Stream	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.11	0.03	0.26	0.47	0.50			N/A	N/A
C-AB	0.01	0.00	0.00	0.01	0.01			N/A	N/A

17:30 - 17:45

Stream	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.11	0.03	0.25	0.45	0.48			N/A	N/A
C-AB	0.01	0.00	0.00	0.01	0.01			N/A	N/A

17:45 - 18:00

Stream	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.09	0.00	0.00	0.09	0.09			N/A	N/A
C-AB	0.01	0.00	0.00	0.01	0.01			N/A	N/A

18:00 - 18:15

Stream	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.07	0.00	0.00	0.07	0.07			N/A	N/A
C-AB	0.01	0.00	0.00	0.01	0.01			N/A	N/A

Caltragh Heights Junction - 2040 Traffic Flows - With Residential Development + 250 Additional Houses, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way		0.79	A

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	141	Stream B-AC

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D5	Caltragh Heights Junction - 2040 Traffic Flows - With Residential Development + 250 Additional Houses	AM	ONE HOUR	08:00	09:30	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A		✓	234	100.000
B		✓	47	100.000
C		✓	388	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		A	B	C
From	A	0	24	210
	B	41	0	7
	C	385	3	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A	B	C
From	A	0	1	1
	B	1	0	1
	C	1	1	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max 95th percentile Queue (PCU)	Max LOS
B-AC	0.13	10.60	0.2	0.5	B
C-AB	0.01	4.50	0.0	0.5	A
C-A					
A-B					
A-C					

Main Results for each time segment

08:00 - 08:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	36	432	0.084	36	0.1	9.163	A
C-AB	4	813	0.005	4	0.0	4.496	A
C-A	291			291			
A-B	18			18			
A-C	160			160			

08:15 - 08:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	43	417	0.103	43	0.1	9.723	A
C-AB	5	843	0.006	5	0.0	4.342	A
C-A	347			347			
A-B	22			22			
A-C	191			191			

08:30 - 08:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	53	396	0.133	53	0.2	10.596	B
C-AB	7	885	0.008	7	0.0	4.142	A
C-A	425			425			
A-B	26			26			
A-C	234			234			

08:45 - 09:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	53	396	0.133	53	0.2	10.604	B
C-AB	7	885	0.008	7	0.0	4.143	A
C-A	425			425			
A-B	26			26			
A-C	234			234			

09:00 - 09:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	43	417	0.103	43	0.1	9.737	A
C-AB	5	843	0.006	5	0.0	4.342	A
C-A	347			347			
A-B	22			22			
A-C	191			191			

09:15 - 09:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	36	432	0.084	36	0.1	9.186	A
C-AB	4	813	0.005	4	0.0	4.498	A
C-A	291			291			
A-B	18			18			
A-C	160			160			

Queue Variation Results for each time segment

08:00 - 08:15

Stream	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.09	0.00	0.00	0.09	0.09			N/A	N/A
C-AB	0.01	0.00	0.00	0.01	0.01			N/A	N/A

08:15 - 08:30

Stream	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.12	0.00	0.00	0.12	0.12			N/A	N/A
C-AB	0.01	0.01	0.25	0.46	0.48			N/A	N/A

08:30 - 08:45

Stream	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.15	0.03	0.26	0.47	0.50			N/A	N/A
C-AB	0.01	0.01	0.25	0.45	0.48			N/A	N/A

08:45 - 09:00

Stream	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.15	0.03	0.25	0.46	0.48			N/A	N/A
C-AB	0.01	0.00	0.00	0.01	0.01			N/A	N/A

09:00 - 09:15

Stream	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.12	0.00	0.00	0.12	0.12			N/A	N/A
C-AB	0.01	0.00	0.00	0.01	0.01			N/A	N/A

09:15 - 09:30

Stream	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.09	0.00	0.00	0.09	0.09			N/A	N/A
C-AB	0.01	0.00	0.00	0.01	0.01			N/A	N/A

Caltragh Heights Junction - 2040 Traffic Flows - With Residential Development + 250 Additional Houses, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way		0.61	A

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	111	Stream B-AC

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D6	Caltragh Heights Junction - 2040 Traffic Flows - With Residential Development + 250 Additional Houses	PM	ONE HOUR	16:45	18:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A		✓	437	100.000
B		✓	35	100.000
C		✓	260	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		A	B	C
From	A	0	37	400
	B	35	0	0
	C	255	5	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A	B	C
From	A	0	1	1
	B	1	0	1
	C	1	1	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max 95th percentile Queue (PCU)	Max LOS
B-AC	0.11	11.81	0.1	0.5	B
C-AB	0.01	5.14	0.0	0.5	A
C-A					
A-B					
A-C					

Main Results for each time segment

16:45 - 17:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	27	393	0.068	26	0.1	9.907	A
C-AB	5	712	0.007	5	0.0	5.139	A
C-A	193			193			
A-B	28			28			
A-C	304			304			

17:00 - 17:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	32	374	0.085	32	0.1	10.626	B
C-AB	6	723	0.008	6	0.0	5.070	A
C-A	230			230			
A-B	34			34			
A-C	363			363			

17:15 - 17:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	39	347	0.112	39	0.1	11.799	B
C-AB	8	739	0.011	8	0.0	4.972	A
C-A	280			280			
A-B	41			41			
A-C	445			445			

17:30 - 17:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	39	347	0.112	39	0.1	11.809	B
C-AB	8	739	0.011	8	0.0	4.974	A
C-A	280			280			
A-B	41			41			
A-C	445			445			

17:45 - 18:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	32	374	0.085	32	0.1	10.640	B
C-AB	6	723	0.008	6	0.0	5.072	A
C-A	230			230			
A-B	34			34			
A-C	363			363			

18:00 - 18:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	27	393	0.068	27	0.1	9.919	A
C-AB	5	712	0.007	5	0.0	5.141	A
C-A	193			193			
A-B	28			28			
A-C	304			304			

Queue Variation Results for each time segment

16:45 - 17:00

Stream	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.07	0.00	0.00	0.07	0.07			N/A	N/A
C-AB	0.01	0.00	0.00	0.01	0.01			N/A	N/A

17:00 - 17:15

Stream	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.09	0.03	0.25	0.45	0.48			N/A	N/A
C-AB	0.01	0.01	0.25	0.46	0.48			N/A	N/A

17:15 - 17:30

Stream	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.13	0.03	0.26	0.47	0.50			N/A	N/A
C-AB	0.01	0.00	0.00	0.01	0.01			N/A	N/A

17:30 - 17:45

Stream	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.13	0.03	0.25	0.45	0.48			N/A	N/A
C-AB	0.01	0.00	0.00	0.01	0.01			N/A	N/A

17:45 - 18:00

Stream	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.10	0.00	0.00	0.10	0.10			N/A	N/A
C-AB	0.01	0.00	0.00	0.01	0.01			N/A	N/A

18:00 - 18:15

Stream	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.07	0.00	0.00	0.07	0.07			N/A	N/A
C-AB	0.01	0.00	0.00	0.01	0.01			N/A	N/A