

Residential Development at Bearna

Traffic and Transport Assessment

Burkeway Homes Ltd.

July 2020



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1. Introduction

1.1. Proposed Scheme

This report details the Traffic and Transportation Assessment (TTA) associated with a planning application for the proposed residential development at Bearna, Go. Galway. The site is located adjacent to the existing residential development and thus represents the second phase of this development. A full description of the proposed development is included in the Planning Report and full details of road layouts are contained within the Engineering Report and associated Engineering Drawings, all of which accompany this application.

The proposed development is to consist of 121 no. residential units along with all associated internal roads and infrastructural works. The proposed development will utilise the existing development access onto the adjacent L1321 Local Road.

1.2. Methodology

This report deals with the following aspects associated with the proposed development:

- Receiving Environment;
- Proposed Development;
- Future Transport Proposals;
- Trip Generation and Distribution;
- Baseline Traffic;
- Traffic Impact.

1.3. Reference Documents

This document should be read with reference to all other submitted planning application documentation including the Engineers Report and Engineering Drawings, and the Architectural and Landscape Architectural Layout Plans and the Stage 1/2 Road Safety Audit.

1.4. Policy and Best Practice

During the preparation of this TTA, the following planning and best practice guidance documents were referenced:

1.4.1. Planning Policy Documents

- National Planning Framework, Project Ireland 2040;
- Galway Transport Strategy;
- Smarter Travel – A Sustainable Transport Future 2009 – 2020;
- National Cycle Policy Framework: 2009 – 2020;
- Galway County Development Plan 2015 – 2021;
- Galway City Development Plan 2017 – 2023;
- Galway Metropolitan Area Bus and Cycle Network Plan 2013;
- Galway County Walking and Cycling Strategy Plan 2013
- Bearna Local Area Plan 2007 – 2017 (including variations);
- Other relevant documents.

1.4.2. Best Practice Guidance Documents

- Transport Infrastructure Ireland (TII) Traffic and Transport Assessment guidance 2014;
- Design Manual for Urban Roads and Streets (DMURS);
- National Transport Authority National Cycle Manual (NCM);
- National Transport Authority: Permeability Best Practise Guide;
- Transport Infrastructure Ireland Project Appraisal Guidelines;
- Other relevant documents

2. Receiving Environment

2.1. Site Location

The location of the site is shown in Figure 2-1 below. The site area is approximately 5.38 hectares in size. The site is located along the L1321 north of Bearna Village Centre. It is bordered by the existing housing development to the west and agricultural lands to the east, north and south. Access to the site will be provided through the existing residential development access junction and access road.

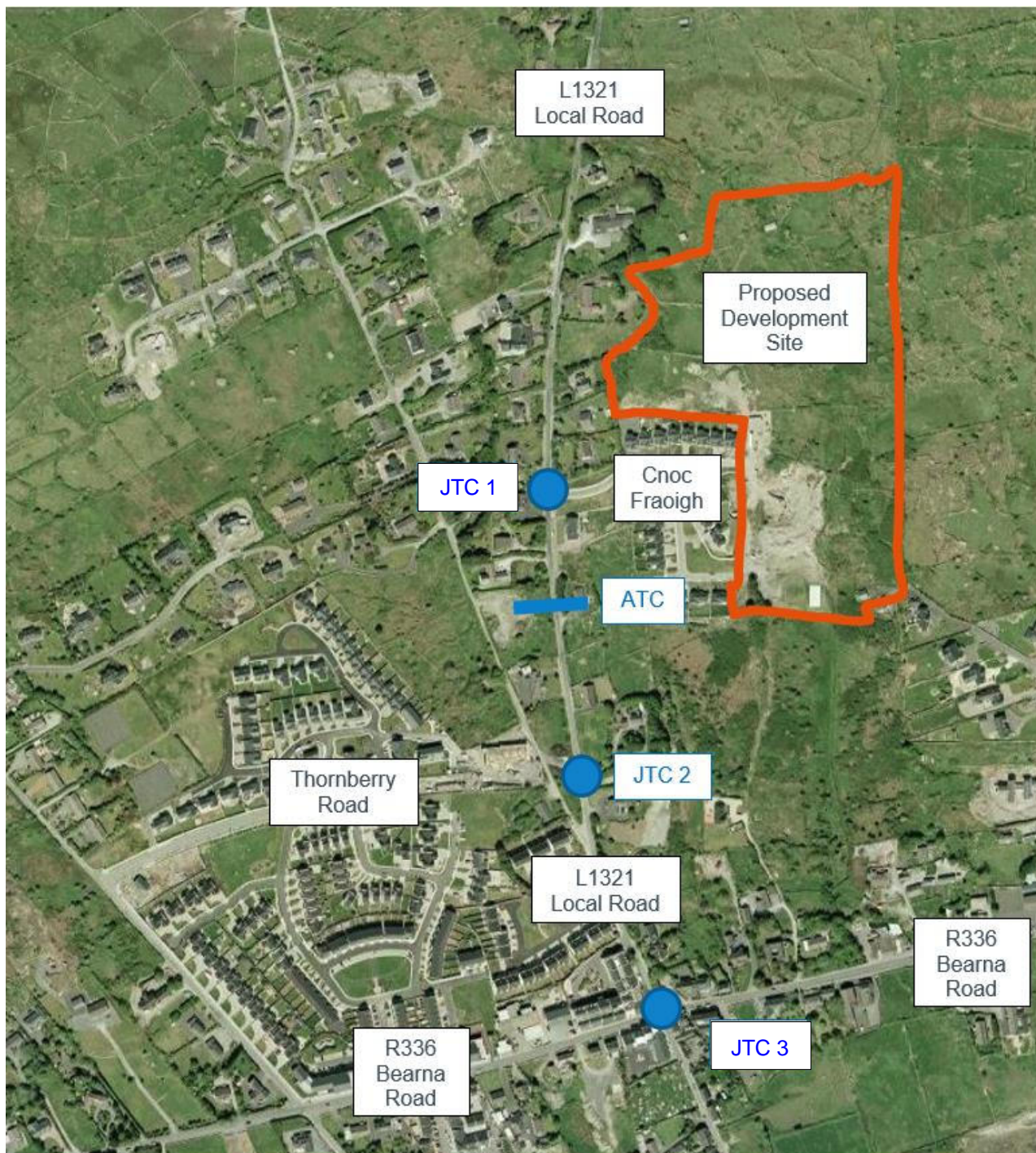


Figure 2-1 Site Location

2.2. Public Transport

There are a number of bus services that operate within vicinity of the proposed development site. Table 2-1 outlines the specific operational details associated with each service. Bus stops located within 800m from the proposed development along the R336 Bearna Road 200m east of the Bearna Road / L1321 Local Road Junction.

Table 2-1 Bus Services

Route	Direction	Start	Destination
City Direct Route 414	City Inbound	Bearna (Post Office) 08:00 12:30	Eyre Square North 08:25 12:55
	City Outbound	Eyre Square North 08:45 12:45	Bearna Road 09:14 13:14
Bus Eireann Route 424	City Inbound	Bearna (Garys Cycles) • 08:00 • 08:30 • 09:00 • 10:00 • 11:30 • 14:30 • 16:00 • 17:30 • 20:30	Galway (Bus Station) • 08:40 • 08:50 • 09:20 • 10:20 • 11:50 • 14:50 • 16:20 • 17:50 • 20:50
	City Outbound	Galway (Bus Station) • 07:30 • 08:20 • 11:30 • 14:30 • 15:30 • 16:30 • 17:00 • 18:00	Bearna (Garys Cycles) • 07:50 • 08:40 • 11:50 • 13:20 • 14:50 • 15:50 • 17:20 • 18:20

2.3. Local Road Network

The local road network in vicinity of the proposed development site is generally made up of single carriageway roads and streets. Junctions are predominantly priority controlled with the exception a traffic signal junction on the R336 Bearna Road which provides access on route to the proposed development site. A summary of the local road network is provided below.

2.3.1. Bearna Road (R336)

Throughout Bearna village centre, the R336 Bearna Road has an approximate width of 6.0m. Along the approaches to and within the village centre there are footpaths provided on both sides of the road. These footpaths are generally of adequate width and provide access to numerous local services and amenities. There are several uncontrolled crossings along the roads length as it intersects with side roads. Controlled crossings are provided at the Bearna Road / Pier Road / L1321 Local Road traffic signal junction. A mid-block traffic signal-controlled crossing is located in vicinity of the Supervalu. On street parking, of the order of 20 no. spaces, is provided along the northern side of the road adjacent to the retail buildings associated with the Creagán residential development. The urban speed limit is 50km/h.

2.3.2. Local Road (L1321)

The proposed development is located approximately 480m north of Bearna village centre along the L1321 Local Road that links the R336 Bearna Road to the N59. This road has a width ranging from 5.5m to 6.0m. A footpath of adequate width is located along the western side of the road. This extends along the road for only 180m and terminates just prior to the Thornberry Road (Bearna Inner Relief Road).

Uncontrolled crossings are provided where the path intersect with side roads. There is some on street parking, provision for 3 no. spaces, along the western side of the road in vicinity of the village centre. The existing access to the existing adjacent residential development intersects with this local road in the form of a priority-controlled junction and will facilitate access to the proposed development. The urban speed limit is 50 km/h.

2.3.3. Thornberry Road (Bearna Inner Relief Road)

The Bearna Inner Relief Road is proposed to act as a new village street located to the north of the current village centre. Currently, a 400m section of this relief road has been built, known as Thornberry Road. This extends from the L1321 Local Road to the L5387 Local Road. This road is approximately 8.0m wide with a 1.0m verge and a 1.8m wide footpath on both sides of the road. Uncontrolled crossings are provided at side road intersections. The relief road intersects with the L1321 Local Road in the form of a priority junction. This junction is located approximately 230m from the village centre and 250m from the existing access to the existing residential development adjacent the proposed development. The urban speed limit is 50 km/h

2.4. Collision History

There have been no collisions in vicinity of the existing access to the existing adjacent residential development and the proposed development, or along the L1321 Local Road, over the recorded period from 2005 to 2016. 15 no. collisions have taken place along the R336 Bearna Road. 13 of these are minor in severity and two were classified as serious. Pedestrian collisions were recoded for both serious and minor incidents.

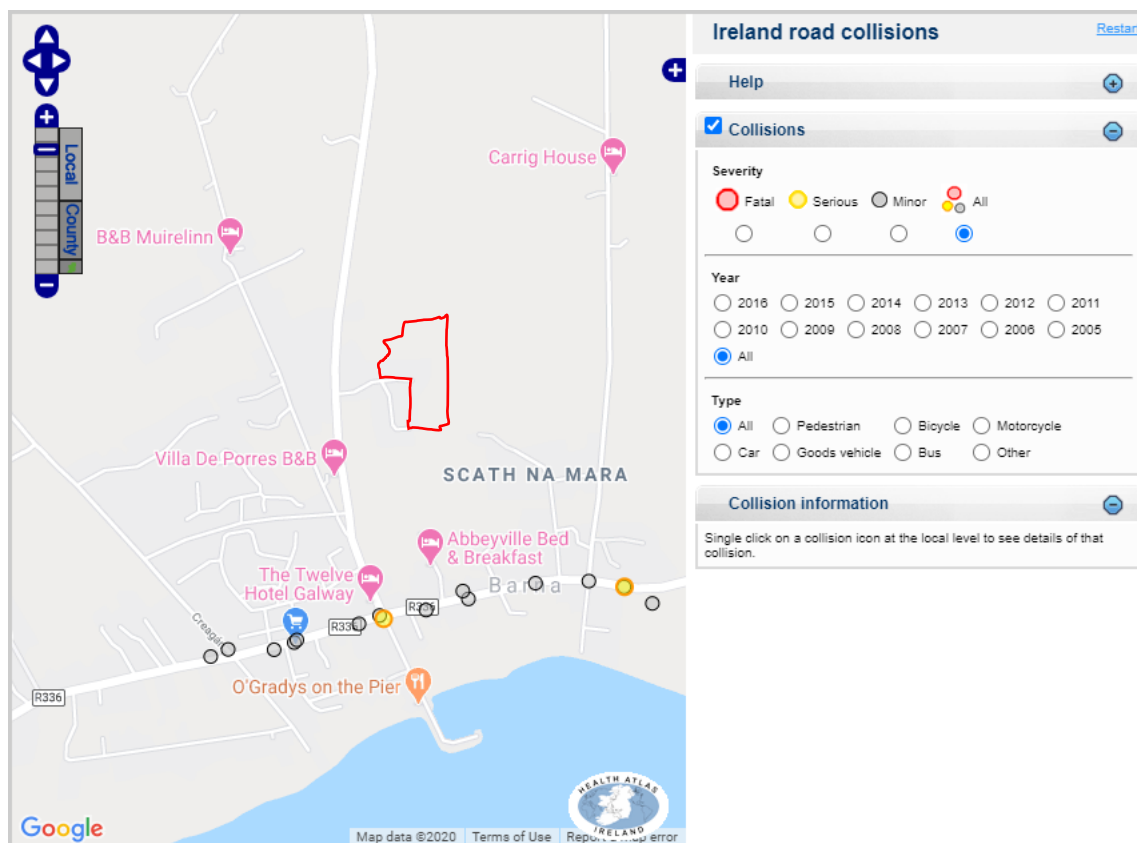


Figure 2-2 Collision Viewer

2.5. Traffic Surveys

Traffic surveys were undertaken during May 2018. Three Junction Turning Counts (JTC) were undertaken as well as one Automatic Traffic Count (ATC). The JTC counts were 12-hour, classified, counts conducted between 07h00 and 19h00 on a normal weekday. The ATC count was carried out over a 7-day period at a single location.

The ATC count commenced on the same day as the JTC counts for a period of 7 days. The survey locations are as follows and as indicated on Figure 2.1: Site Location:

- JTC: R336 Bearna Road / L1321 Local Road;
- JTC: L1321 Local Road / Thornberry Road (Bearna Inner Relief Road);
- JTC: L1321 Local Road / Cnoc Fraoigh Development Access Road; and
- ATC: L1321.

The JTC surveys were undertaken on Tuesday 15th May 2018, covering a 12-hour period from 07h00 to 19h00. These traffic counts have been taken at 15 minute intervals and were classified into four vehicle categories namely car, light vehicles (LV), heavy vehicles (HV) and bus. These have then been converted to passenger carrier units (PCU) using the following conversion factors:

- Car 1.0 PCU
- LV 1.0 PCU
- HV 2.0 PCU
- Bus 2.0 PCU

The turning movement traffic volumes for the AM and PM peak periods in PCUs are presented in Figure 6-1 of Chapter 6.

2.6. Walking and Cycling Catchment

A review of walking and cycling distances has been undertaken. The assessment included walking distances for all five minute intervals within a 25 minute period. The assumed average walking speed is 1.5 m/s and the cycling speed is assumed to be 4 m/s. The walking and cycling distances achievable with these average speeds are presented in Table 2-2 below.

Table 2-2 Walking / Cycling Distances and Times

Time Interval	Walking Distance	Cycling Distances
5 minutes	450m	1,200m
10 minutes	900m	2,400m
15 minutes	1,350m	3,600m
20 minutes	1,800m	4,800m
25 minutes	2,250m	6,000m

The walking and cycling distances are graphically represented in the following Figures.

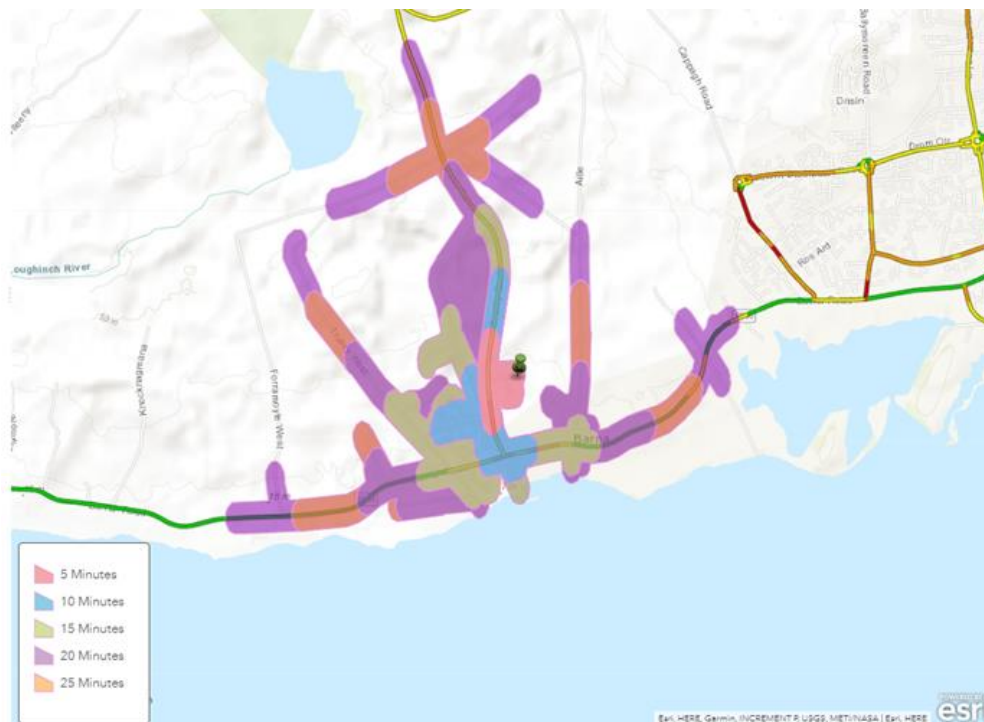


Figure 2-3 Walking Catchment

It can be seen that all services and amenities within Bearna Village Centre are easily accessible and are within a 15 to 20 minute walking time.

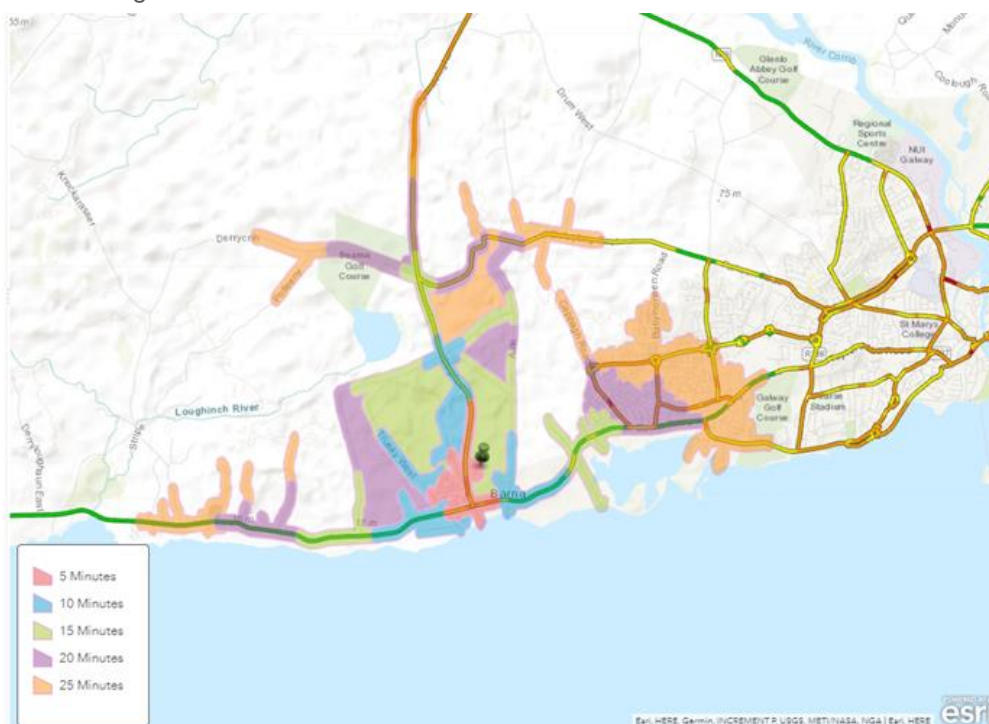


Figure 2-4 Cycling Catchment

It can also be seen from the above graphic that all services and amenities within Bearna Village Centre are easily accessible within a 5 to 10 minute cycling time. It is also shown that the western area of Galway City is accessible to commuter cyclists within a cycling time of 25 minutes.

3. Proposed Development

3.1. Subject Application

The proposed development consists of apartment, duplexes and housing units as well as a creche. In total, there are 33 no. apartments, 36 no. duplexes and 52 no. house units. The mix of units and number of bedrooms are illustrated in a Table 3-1 below.

Table 3-1 Proposed Accommodation Layout

Unit Type	No of Units	No of Bedrooms
1 Bed Apartment	9	9
2 Bed Apartment	24	48
2 Bed Duplex	18	36
3 Bed Duplex	18	54
3 Bed House	37	111
4 Bed House	15	60
Total	121	318

3.2. Development Access and Internal Layout

3.2.1. Development Access

The proposed development will utilise the existing access to the existing adjacent development off the L1321. This access is a 3 arm priority 'T' junction with priority given to the traffic along the L1321. There exists an uncontrolled pedestrian crossing on the minor arm (i.e. the development arm) of the junction.

3.2.2. Internal Road Street and Junction Layout

The internal street layout has been designed in accordance with DMURS and generally consists of a 5.5m wide carriageway with 2m footpaths provided either on one side of the road or both. The road alignment consists of smooth horizontal curves which are complemented with raised tables at specific locations to ensure that speeds are self-regulated below 30kph.

Internal junctions operate under priority control and generally consist of small radius curves to encourage slow approach speeds

3.2.3. Facilities for Pedestrians and Cyclists

Cyclists are facilitated on street where they will cycle centrally within the traffic lane. The internal roads layout is designed to ensure vehicular speeds are low thereby providing a sense of safety and conform to cyclist and encouraging them to 'take the lane'.

Pedestrians are facilitated by footpaths adjacent to the street carriageway either on one side or both sides. Where large open space areas are provided, additional footpaths are provided within these areas to facilitate desire lines and open the green space for activity and enjoyment.

Figure 3-1 illustrates the internal development layout. Further information is contained within the Engineering Report.



Figure 3-1 Proposed Development Site Layout

3.3. Parking

3.3.1. Car Parking

Car parking will be provided for each residential unit in line with the parking standards set out in the Galway County Development Plan 2015 - 2021. Table 3-2 outlines the car parking spaces to be provided.

Table 3-2 Proposed Number of Car Parking Spaces

Unit Type	No of Units	Standard	Spaces Provided
1 Bed Apartment	9	1	9
2 Bed Apartment	24	1	24
2 Bed Duplex	18	1	18
3 Bed Duplex	18	1	18
3 Bed House	37	2	74
4 Bed House	15	2	30
Creche	n/a	n/a	8
Visitor Space	n/a	n/a	17
Total	121	n/a	198

3.3.2. Cycle Parking

Cycle parking has been provided generally in accordance with the Galway County Development Plan.

House units require 2 no. spaces per dwelling. However, all rear gardens associated with house type units including semi-detached and terraced units can be accessed, thus secure and private bicycle parking is provided within these locations. As such this is considered appropriate to cater for the bicycle parking requirements of these units.

With regards to duplexes, cycle parking is also provided within gardens for those located at ground level. For the upper level duplexes and apartments secure private cycle parking will need to be provided externally. This is provided at a standard of 1.5 spaces per unit.

Visitor parking is to be provided at 10% of the resident bicycle space provision.

The bicycle parking breakdown is shown in **Error! Not a valid bookmark self-reference.** below.

Table 3-3 Proposed Number of Bicycle Parking Spaces

Unit Type	No of Units	Standard	Type	Spaces Actually Provided
1 Bed Apartment	9	1.5	Bike Store (Block) / Communal Bike Store	14
2 Bed Apartment	24	1.5	Bike Store (Block) / Communal Bike Store	39
2 Bed Duplex	18	1.5	Garden (Direct Access)	n/a
3 Bed Duplex	18	1.5	Communal Store	42
3 Bed House	37	2	Rear Garden	n/a
4 Bed House	15	2	Rear Garden	n/a
Creche	n/a	n/a	Sheffield Stands	6
Visitor Space	n/a	10% of Bike Capacity	Sheffield Stands	16
Total	121	n/a		117

3.3.3. Motor Cycling

Motorcycle parking is provided for within the development.

3.4. External Pedestrian and Cyclist Improvements

Works are proposed to the L1321 Local Road to support the accessibility of both pedestrians and cyclist and improve connectivity with Bearna village centre. This includes for an extension of the footpath on the eastern side of the L1321 southwards for a length of circa 300m. This is accompanied with an uncontrolled crossing to facilitate pedestrian progression to the footpath on the western side of the L1321 that links directly with the footpath network associated with the village centre.

In addition, to accommodate these footpath works the carriageway of the L1321 is amended to ensure that a consistent 5.5m wide carriageway is maintained. This will ensure that the road will accommodate two-way car traffic whilst also being substantially narrow to encourage slow speeds along the local road thereby making the road attractive to cyclists in terms of safety and comfort. Further information is contained within the Engineering Report.

4. Future Transport Proposals

4.1. Galway County Development Plan

Bearna is located within the Galway Metropolitan Area as identified within the Galway County Development Plan 2015 to 2021. As such there are a number of future projects and objectives outlined within the Plan for Bearna. These are as follows.

- The R336 Bearna Road from Bearna to Scrib via Ros An Mhíl is identified for upgrade as Priority Transportation Infrastructure during the life time of the Plan;
- The plan outlines to support, promote and implement walking and cycling strategies for other towns in County Galway, inclusive of Bearna, which will link in with the National Cycle Network Scoping Study (2010) and the Galway County Walking and Cycling Strategy;
- The Plan identifies the design and development of a coastal walkway/cycleway from Bearna to Oranmore in conjunction with Galway City Council;
- The Plan identifies the need for a review of the Traffic Management Plan within and on the approaches to Bearna Village Centre.

4.2. Variation No. 2(a) of the Galway County Development Plan 2015-2021 (Bearna Plan)

The Galway County Development Plan 2015 to 2021 has been varied to incorporate the Bearna Plan. This variation will inform and manage all future development within Bearna. Future projects and objectives identified within the Bearna Plan with regards to Movement and Transport are outlined following

Objective RT1 - Transport Network

Facilitate improvements to the existing transportation network in Bearna village to promote the principles of National Smarter Travel, including the following road-related measures:

- *Preparation and implementation of a traffic management plan for Bearna*
- *Provision of radar control speed signs along the R336 within the plan area, in particular in advance of the national school.*
- *Provision of tactile paving and dished kerbs at all crossing points to facilitate ease of access for the mobility impaired. Providing raised pavement areas at various junctions along the existing R336, in order to ensure slow traffic speeds.*
- *Providing advance radar speed analyses to activate traffic lights, where excessive speeds noted.*

Objective RT2 - New Village Street

Support the completion of the proposed new Village Street (Inner Relief Road) north of the existing R336 and prohibit any development that would affect the future construction of the approved route.

Objective RT3 - Public Footpath & Lighting Network

- *Support improvements to the existing public footpaths network within the plan area.*
- *New development shall be required to connect to the footpath and public lighting network that currently serves the village centre.*
- *Support the provision of footpaths and public lighting from the existing residential development to the village centre. In order to protect light sensitive species such as bats, lighting fixtures should provide only the amount of light necessary for personal safety and should be designed so as to avoid creating glare or emitting light above a horizontal plane.*
- *Facilitate the provision of pedestrian crossings adjacent to the national school, residential areas and at other appropriate locations within the plan area, as required.*

Objective RT4 – Schools

Promote and facilitate greater ease of traffic movement and safe routes to the national school, in partnership with the local school, and ensure that the existing school has a safe drop off/collection facilities for pedestrians, cyclists and vehicles and adequate and appropriately located staff parking.

Objective RT5 - Bus Services, Stops and Shelters

Promote an improved bus service in Bearna and investigate the potential to provide more frequent stops and bus shelters along the R336 and new Village Street

4.3. Galway City to Bearna Greenway

The Galway City to Bearna Greenway scheme represents a significant opportunity to create a high-quality greenway for pedestrians and cyclists linking Wolfe Tone Bridge in the city centre to Bearna Pier at the western edge of Bearna Village.

The over-arching vision for the Bearna Greenway is that it will ultimately form part of a continuous network of greenways within Galway City and County. It is envisaged that the proposed greenway will serve as both an amenity route along Galway's Atlantic seaboard for recreational users and as a commuter route from the key residential areas in the southwest of the City such as Knocknacarra.

The development of this greenway facility would allow for an extremely attractive and safe route for cyclists of the proposed development to access Galway City and its associated services and amenities.

The scheme is being developed by the National Transport Authority, Galway City Council and their consultants and is currently at preliminary design stage.

5. Trip Generation and Distribution

5.1. Trip Rates and Traffic Generation

A trip rate estimation exercise has been undertaken using the TRICS (Trip Rate Information Computer System) v7.5.1 online system. The land uses chosen for the trip rate analysis were '03 Residential/A-Houses Privately Owned'. It is assumed that the creche will cater exclusively for internal trips and, as such, is not expected to generate any primary trips.

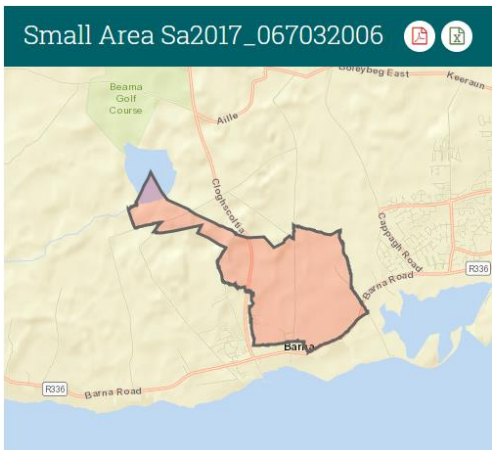
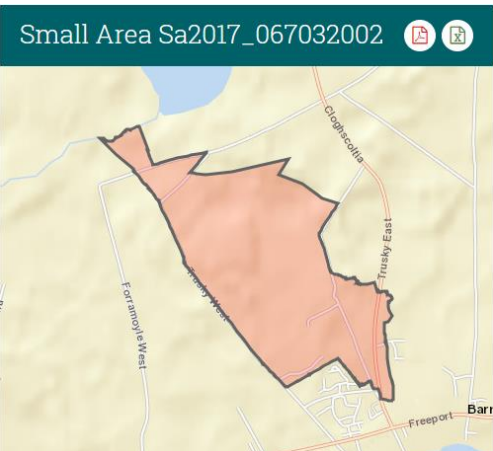
Trip rates calculated are derived from multimodal surveys and thus the trip rates presented below relate to total people arriving and departing. Trip rates are based on a calculation factor of 1 housing unit. A number of selection criteria have been applied to obtain a representative sample size of comparable sites. Refer to Appendix A for details of the TRICS data. Table 5-1 below details the multi modal total people trip rates estimated for the development during 08:00 – 09:00 AM and 17:00 – 18:00 PM peak hours.

Table 5-1 Multimodal Trip Rates

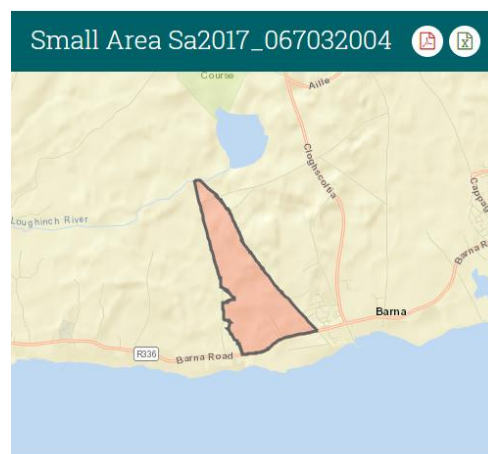
Type	Period	Units	No. Dwellings	Arrival	Departure	Total
Houses	AM	Dwellings	121	0.220	0.841	1.061
	PM			0.611	0.321	0.923

In order to determine an appropriate mode share associated with private vehicles arriving and departing the proposed development, a review of the 'Small Areas' adjacent to the site were reviewed and amalgamated to derive an appropriate mode share. The 'Small Areas' utilised are presented below:

Table 5-2 Small Area Sites

Small Area ID	Small Area Extents
Small Area sa2017_067032006	
Small Area sa2017_067032002	

Small Area sa2017_067032004



The amalgamation of the above 'Small Areas' results in the following mode shares:

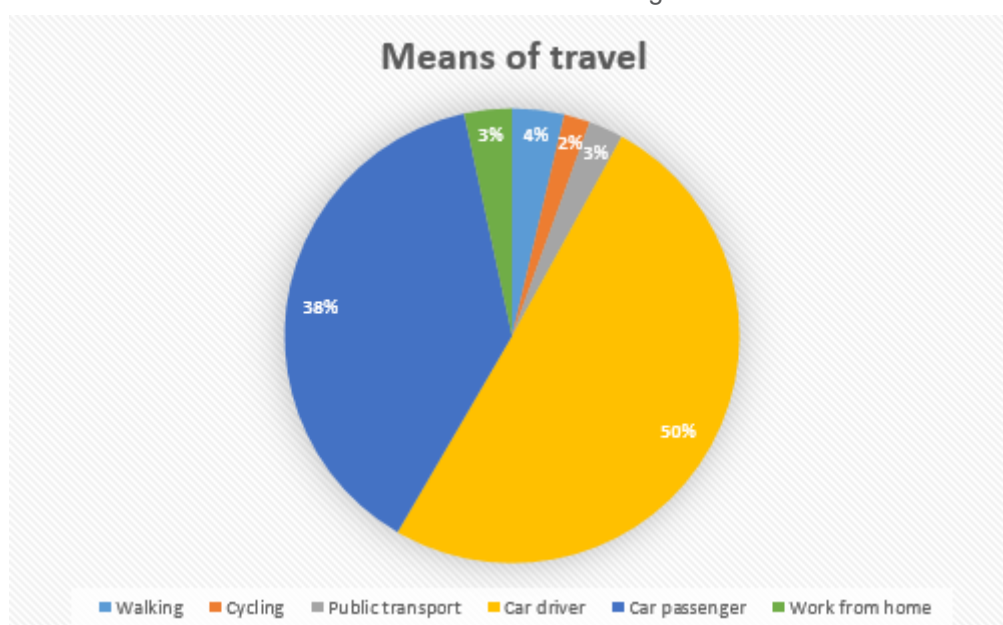


Figure 5-1 Localised Mode Share

As such, a mode share of 50% has been applied to the multi modal total people trip rates to derive localised vehicle trip rates. Table 5-3 below indicates these.

Table 5-3 Vehicle Trip Rate

Type	Period	Units	No. Dwellings	Arrival	Departure	Two-way
Houses	AM	Dwellings	121	0.111	0.424	0.535
	PM			0.308	0.162	0.465

The resultant vehicle trip generation in terms of volumes for the proposed development is presented below in Table 5-4.

Table 5-4 Vehicles Trip Volume

Type	Period	Units	No. Dwellings	Arrival	Departure	Two-way
Houses	AM	Dwellings	121	13	51	65
	PM			37	20	56

5.2. Trip Distribution and Assignment

The trip distribution of vehicles originating and terminating at the proposed development has been based on the distribution of traffic arriving and departing the local road network inclusive of the Bearna Road junction, the Thornberry Road junction and the Cnoc Fraoigh Road junction. The distribution percentages for each entry and exit point to this local road network has been calculated from the available traffic turning proportions from the traffic surveys undertaken on the 15th May 2018. These percentages are presented in Table 5-5 below.

Table 5-5 Trip Distribution

Period Zone	AM		PM	
	%In	%Out	%In	%Out
Junction 1 Main Road	5	14	5	7
Cnoc Fraoigh	4	0	0	1
Thornberry Junction	8	2	3	3
Bearna Rd East	40	44	51	41
Bearna Rd West	43	40	41	48
Total	100	100	100	100

The resultant distribution and assignment of development traffic generation volumes are illustrated in Figure 5.3 below

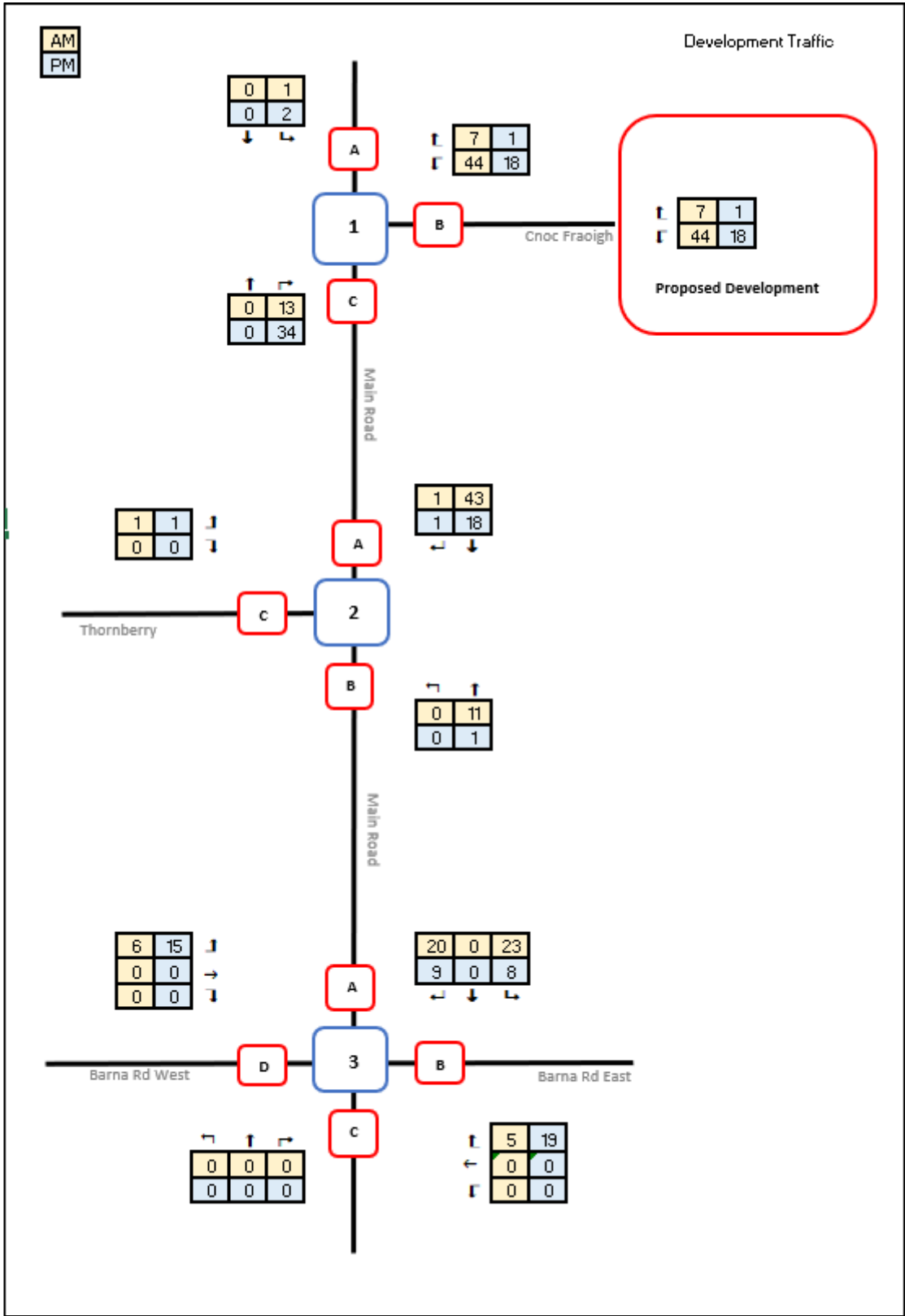


Figure 5-2 Overall Development Traffic Generation, Assignment and Distribution

6. Baseline Traffic

6.1. Baseline Traffic Movements

An analysis of the 2018 base year flows has been undertaken. The associated turning movements for each junction are presented below.

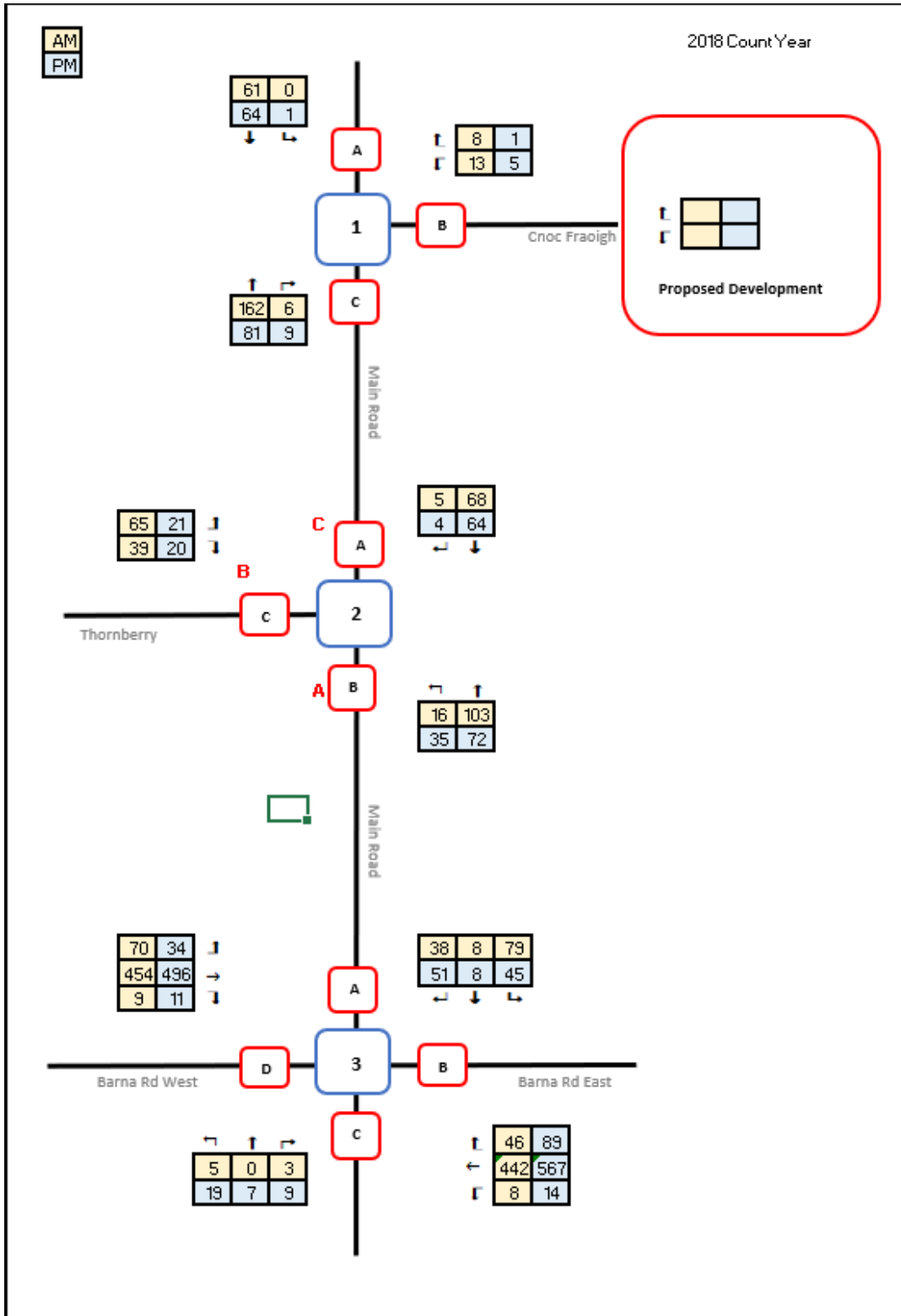


Figure 6-1 Baseline Traffic Movement

6.2. Junction Assessment Terminology

Traffic signal-controlled junctions are modelled using JCT's LINSIG V3.2. This was utilised for junction 3, whilst priority-controlled junctions are modelled using the PICADY module within TRL's Junctions 9. This programme was used junction 1 and 2.

The following Terminology should be referenced when interpreting the assessment results:

6.2.1. Traffic Signal Junctions:

- **DOS:** This is the ratio of demand flow to capacity on a link. The saturation level is normally 90%. A degree of saturation below 90% represents a junction that is operating in an efficient and stable condition. If a link has a degree of saturation of between 90% and 100% it may still be operating to an adequate standard depending on the acceptability of queuing and delay. A degree of saturation of above 100% is considered to be over-capacity;
- **Mean Maximum Queue:** The sum of the maximum queue on a link (including uniform, random and oversaturation queues) averaged over all the cycles in the modelled time period;
- **Average Delay:** The average delay for each passenger car unit (pcu) on the lane averaged over the modelled time period.

6.2.2. Priority Junctions:

- **RFC:** This is the ratio of demand flow to capacity. The practical capacity threshold is normally 0.85. An RFC below 0.85 represents a junction which is operating in an efficient and stable condition. An RFC between 0.85 and 1 represents variable operation, and may be said to be operating adequately, if the queuing and delay are deemed acceptable. RFC values in excess of 1 represent an oversaturated condition;
- **Max Queue Length:** This represents the maximum queue length of vehicles waiting to enter the junction on each arm;
- **Average Delay:** This shows the average amount of traffic delay at the junction per vehicle over the peak hour period.

Results for Junction 1 are located in Appendix C, results for Junction 2 are located in Appendix D and finally results for Junction 3 are located with Appendix E.

6.3. Base Year Assessment

Table 6-1 2018 Assessment: Junction 1 - Cnoc Fraoigh Access Junction

Scenario	Arm	AM			PM		
		Queue (PCU)	Delay (s)	RFC	Queue (PCU)	Delay (s)	RFC
Without Dev	Stream B-AC	0.0	7.00	0.04	0.0	6.28	0.01
	Stream C-AB	0.0	5.35	0.01	0.0	5.74	0.02

The above assessment results indicate that during the base year 2018 scenario, the proposed access junction at Cnoc Fraoigh operates well within capacity.

Table 6-2 2018 Assessment: Junction 2 - Thornberry Road Junction

Scenario	Arm	AM			PM		
		Queue (PCU)	Delay (s)	RFC	Queue (PCU)	Delay (s)	RFC
Without Dev	Stream B-AC	0.2	7.41	0.19	0.1	6.85	0.08
	Stream C-AB	0.0	5.80	0.01	0.0	5.78	0.01

The above assessment results indicate that during the base year 2018 scenario, the Thornberry Road junction operates well within capacity.

Table 6-3 2018 Assessment: Junction 3 - Bearna Road Junction

Scenario	Arm	AM			PM		
		Queue (PCU)	Delay (s)	Degree of saturation (%)	Queue (PCU)	Delay (s)	Degree of saturation (%)
Without Dev	A	3.3	48.5	47.7%	3.1	61.7	57.5%
	B	7.8	14.8	49.6%	11.0	14.8	62.0%
	C	0.2	40.7	3.1%	0.9	49.7	19.5%
	D	8.1	14.1	47.4%	7.3	11.5	44.2%

The above assessment results indicate that during the base year 2018 scenario, the Bearna Road junction operates within capacity.

7. Traffic Impact

An assessment of the traffic impact imposed on the local road network by the proposed development has been undertaken. This assessment includes for the:

- The Existing Development Access Junction at the existing (Cnoc Fraoigh) Residential Estate;
- Thornberry Road (Future Bearna Inner Relief Road), and;
- The Bearna Road Junction.

Traffic flow diagrams for all scenarios are contained within Appendix B. Results for Junction 1 are in Appendix C, results for Junction 2 are located in Appendix D and finally results for Junction 3 are located with Appendix E.

To determine the impact of the proposed development site and to demonstrate that it can operate sustainably within the local road network, the AM and PM peak capacity of junctions identified above have been modelled for the following assessment years:

- 2022 Opening Year without Development;
- 2022 Opening Year with Development;
- 2027 Opening Year +5 without Development;
- 2027 Opening Year +5 with Development;
- 2037 Opening Year +15 without Development;
- 2037 Opening Year +15 with Development;

The recorded traffic data for the 2018 count year has been projected to future assessment years using the TII Project Appraisal Guidelines for National Roads Unit 5.3 'Travel Demand Projections'. The 'Link Based Methodology' has been utilised and 'Central' growth factors as associated with 'Galway Metropolitan Area' have been applied. The baseline flows have thus been projected to the 2022 opening year, the 2027 opening year plus five and the 2037 opening year plus fifteen.

The results of each scenario for each junction are presented on the following pages.

7.1. Opening Year Assessment

Table 7-1 2022 Assessment: Junction 1 - Cnoc Fraoigh Access Junction

Scenario	Arm	AM			PM		
		Queue (PCU)	Delay (s)	RFC	Queue (PCU)	Delay (s)	RFC
Without Dev	Stream B-AC	0.0	7.09	0.05	0.0	6.29	0.01
	Stream C-AB	0.0	5.32	0.01	0.0	5.72	0.02
With Dev	Stream B-AC	0.2	7.45	0.14	0.1	6.37	0.05
	Stream C-AB	0.1	5.41	0.04	0.2	6.07	0.09

The above assessment results indicate that during the future year 2022 without and with development scenario, the existing access junction at Cnoc Fraoigh, which will be utilised by the proposed development, will operate well within capacity.

Table 7-2 2022 Assessment: Junction 2 - Thornberry Road Junction

Scenario	Arm	AM			PM		
		Queue (PCU)	Delay (s)	RFC	Queue (PCU)	Delay (s)	RFC
Without Dev	Stream B-AC	0.3	7.59	0.21	0.1	6.94	0.08
	Stream C-AB	0.0	5.79	0.01	0.0	5.76	0.01
With Dev	Stream B-AC	0.3	7.63	0.21	0.1	7.16	0.08
	Stream C-AB	0.1	5.72	0.01	0.0	5.76	0.01

The above assessment results indicate that during the future year 2022 without and with development scenario, the Thornberry Road junction will operate well within capacity.

Table 7-3 2022 Assessment: Junction 3 - Bearna Road Junction

Scenario	Arm	AM			PM		
		Queue (PCU)	Delay (s)	Degree of saturation (%)	Queue (PCU)	Delay (s)	Degree of saturation (%)
Without Dev	A	3.6	49.4	50.8%	3.3	63.0	59.7%
	B	8.5	15.4	53.1%	12.3	15.8	66.2%
	C	0.2	40.7	3.1%	1.0	49.9	20.6%
	D	8.9	14.6	50.7%	8.2	11.9	47.4%
With Dev	A	4.0	48.7	53.6%	3.8	61.4	62.2%
	B	9.3	16.5	55.9%	13.4	17.2	69.1%
	C	0.2	39.3	2.9%	0.9	47.4	18.6%
	D	9.5	15.6	53.2%	8.8	12.8	49.7%

The above assessment results indicate that during the future year 2022 without and with development scenario, the Bearna Road junction will operate within capacity. Queuing and delay are all of an acceptable level for an urban traffic signal junction with single lane approaches and as can be seen the introduction of the proposed development results in an almost negligible impact.

7.2. Opening Year Plus 5 Assessment

Table 7-4 2027 Assessment: Junction 1 - Cnoc Fraoigh Access Junction

Scenario	Arm	AM			PM		
		Queue (PCU)	Delay (s)	RFC	Queue (PCU)	Delay (s)	RFC
Without Dev	Stream B-AC	0.1	7.10	0.05	0.0	6.28	0.01
	Stream C-AB	0.0	5.27	0.01	0.0	5.70	0.02
With Dev	Stream B-AC	0.2	7.50	0.15	0.1	6.39	0.05
	Stream C-AB	0.1	5.37	0.04	0.1	6.05	0.09

The above assessment results indicate that during the future year 2027 without and with development scenario, the proposed access junction at Cnoc Fraoigh will operate well within capacity.

Table 7-5 2027 Assessment: Junction 2 - Thornberry Road Junction

Scenario	Arm	AM			PM		
		Queue (PCU)	Delay (s)	RFC	Queue (PCU)	Delay (s)	RFC
Without Dev	Stream B-AC	0.3	7.84	0.23	0.1	7.01	0.09
	Stream C-AB	0.0	5.78	0.01	0.0	5.76	0.01
With Dev	Stream B-AC	0.3	7.93	0.23	0.1	7.03	0.09
	Stream C-AB	0.0	5.61	0.01	0.0	5.69	0.01

The above assessment results indicate that during the future year 2027 without and with development scenario, the Thornberry Road junction will operate well within capacity.

Table 7-6 2027 Assessment: Junction 3 - Bearna Road Junction

Scenario	Arm	AM			PM		
		Queue (PCU)	Delay (s)	Degree of saturation (%)	Queue (PCU)	Delay (s)	Degree of saturation (%)
Without Dev	A	4.0	51.1	55.4%	3.8	67.8	66.4%
	B	9.8	16.3	57.7%	14.5	17.5	72.0%
	C	0.2	40.7	3.1%	1.1	50.2	22.3%
	D	10.1	15.3	55.0%	9.3	12.5	51.6%
With Dev	A	5.0	47.3	58.5%	4.4	66.3	68.8%
	B	10.7	19.0	61.7%	15.7	19.3	75.0%
	C	0.2	36.7	2.6%	1.0	47.7	20.0%
	D	11.1	17.9	59.1%	9.9	13.4	54.0%

The above assessment results indicate that during the future year 2027 without and with development scenario, the Bearna Road junction will operate within capacity. Queuing and delay are all of an acceptable level for an urban traffic signal junction with single lane approaches and as can be seen the introduction of the proposed development results in an almost negligible impact.

7.3. Opening Year Plus 15 Assessment

Table 7-7 2037 Assessment: Junction 1 - Cnoc Fraoigh Access Junction

Scenario	Arm	AM			PM		
		Queue (PCU)	Delay (s)	RFC	Queue (PCU)	Delay (s)	RFC
Without Dev	Stream B-AC	0.1	7.21	0.06	0.0	6.29	0.02
	Stream C-AB	0.0	5.20	0.02	0.0	5.68	0.02
With Dev	Stream B-AC	0.2	7.69	0.16	0.1	6.53	0.05
	Stream C-AB	0.1	5.30	0.05	0.1	6.02	0.09

The above assessment results indicate that during the future year 2037 without and with development scenario, the proposed access junction at Cnoc Fraoigh will operate well within capacity.

Table 7-8 2037 Assessment: Junction 2 - Thornberry Road Junction

Scenario	Arm	AM			PM		
		Queue (PCU)	Delay (s)	RFC	Queue (PCU)	Delay (s)	RFC
Without Dev	Stream B-AC	0.3	8.22	0.25	0.1	7.16	0.10
	Stream C-AB	0.0	5.78	0.01	0.0	5.73	0.01
With Dev	Stream B-AC	0.3	8.31	0.26	0.1	7.19	0.10
	Stream C-AB	0.1	5.59	0.01	0.0	5.67	0.01

The above assessment results indicate that during the future year 2037 without and with development scenario, the Thornberry Road junction will operate well within capacity.

Table 7-9 2037 Assessment: Junction 3 - Bearna Road Junction

Scenario	Arm	AM			PM		
		Queue (PCU)	Delay (s)	Degree of saturation (%)	Queue (PCU)	Delay (s)	Degree of saturation (%)
Without Dev	A	4.6	54.1	62.3%	4.7	77.2	75.2%
	B	11.8	18.0	65.1%	18.7	21.6	81.1%
	C	0.2	40.7	3.9%	1.2	50.9	25.6%
	D	12.3	16.8	62.3%	11.1	13.5	57.9%
With Dev	A	5.9	53.7	68.3%	5.2	74.4	76.2%
	B	12.7	20.1	68.2%	20.5	24.4	84.2%
	C	0.2	38.0	3.4%	1.2	48.2	23.1%
	D	13.1	18.7	65.3%	11.8	14.6	60.5%

The above assessment results indicate that during the future year 2037 without and with development scenario, the Bearna Road junction will operate within capacity. Queuing and delay are all of an acceptable level for an urban traffic signal junction with single lane approaches and as can be seen the introduction of the proposed development results in an almost negligible impact.

8. Conclusion

This report details the Traffic and Transportation Assessment (TTA) associated with the planning application for the proposed Strategic Housing Development at Bearna, Co. Galway. The proposed development is to consist of 121 residential units and a creche.

The proposed development is well located in terms of proximity to Bearna village centre, with upgraded walking facilities proposed along the L1321 Local Road, ensuring that all services and amenities are appropriately accessible within 15 to 20 minutes walking time.

There are good public transport options available to potential Galway City commuters with multiple services available during morning and evening peak periods. Galway City is also accessible via bicycle with an expected journey time of approximately 25mins.

The proposed development complies with the Galway County Development Plan in terms of car parking and cycle parking provisions. In total, 198 car parking bays and 117 bicycle parking bays are provided in the development plan.

The internal development street layout complies with the principles of DMURS.

The traffic impact assessment indicates that in terms of base year traffic, all key junctions assessed operate well within capacity. The assessment of all future scenarios also demonstrates that with the introduction of traffic generation associated with the proposed development on the adjacent local road network, all junctions are expected to operate within capacity with no adverse impacts in terms of traffic queuing, delay or capacity.

In this context it is concluded that in terms of traffic, the proposed developed is both sustainable and appropriate for the area.

Appendices



Appendix A. TRICS

Calculation Reference: AUDIT-332901-180613-0647

TRIP RATE CALCULATION SELECTION PARAMETERS:

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

Selected regions and areas:

02	SOUTH EAST	
	ES EAST SUSSEX	3 days
	KC KENT	2 days
	SC SURREY	1 days
	WS WEST SUSSEX	2 days
03	SOUTH WEST	
	SM SOMERSET	1 days
04	EAST ANGLIA	
	NF NORFOLK	1 days
	SF SUFFOLK	1 days
06	WEST MIDLANDS	
	SH SHROPSHIRE	2 days
	WK WARWICKSHIRE	1 days
07	YORKSHIRE & NORTH LINCOLNSHIRE	
	NE NORTH EAST LINCOLNSHIRE	1 days
	NY NORTH YORKSHIRE	2 days
08	NORTH WEST	
	CH CHESHIRE	1 days
10	WALES	
	VG VALE OF GLAMORGAN	1 days
12	CONNAUGHT	
	RO ROSCOMMON	1 days
13	MUNSTER	
	WA WATERFORD	1 days
16	ULSTER (REPUBLIC OF IRELAND)	
	CV CAVAN	1 days
	DN DONEGAL	3 days
17	ULSTER (NORTHERN IRELAND)	
	AN ANTRIM	1 days
	AR ARMAGH	1 days
	DO DOWN	1 days

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

Secondary Filtering selection:

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

Parameter: Number of dwellings
 Actual Range: 7 to 805 (units:)
 Range Selected by User: 4 to 250 (units:)

Public Transport Provision:

Selection by: Include all surveys

Date Range: 01/01/10 to 27/11/17

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

Selected survey days:

Monday	5 days
Tuesday	4 days
Wednesday	6 days
Thursday	9 days
Friday	4 days

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

Selected survey types:

Manual count	28 days
Directional ATC Count	0 days

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

Selected Locations:

Edge of Town

28

This data displays the number of surveys per main location category within the selected set. The main location categories consist of Free Standing, Edge of Town, Suburban Area, Neighbourhood Centre, Edge of Town Centre, Town Centre and

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

Secondary Filtering selection:

Use Class:

C3 28 days

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

Population within 1 mile:

1,000 or Less	1 days
1,001 to 5,000	8 days
5,001 to 10,000	5 days
10,001 to 15,000	11 days
15,001 to 20,000	2 days
20,001 to 25,000	1 days

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

Population within 5 miles:

5,000 or Less	2 days
5,001 to 25,000	6 days
25,001 to 50,000	3 days
50,001 to 75,000	6 days
75,001 to 100,000	7 days
100,001 to 125,000	1 days
125,001 to 250,000	3 days

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

Car ownership within 5 miles:

0.6 to 1.0	6 days
1.1 to 1.5	21 days
1.6 to 2.0	1 days

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

Travel Plan:

Yes	3 days
No	25 days

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

PTAL Rating:

No PTAL Present	28 days
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This data displays the number of selected surveys with PTAL Ratings.

LIST OF SITES relevant to selection parameters

1	AN-03-A-09 SLOEFIELD DRIVE	DETACHED & SEMI -DETACHED	ANTRIM
	CARRICKFERGUS Edge of Town No Sub Category Total Number of dwellings:	151	
	<i>Survey date: WEDNESDAY</i>	<i>12/10/16</i>	<i>Survey Type: MANUAL</i>
2	AR-03-A-01 BIRCHDALE MANOR	MIXED HOUSES	ARMAGH
	LURGAN Edge of Town Residential Zone Total Number of dwellings:	153	
	<i>Survey date: TUESDAY</i>	<i>15/06/10</i>	<i>Survey Type: MANUAL</i>
3	CH-03-A-09 GREYSTOKE ROAD HURDSFIELD MACCLESFIELD	TERRACED HOUSES	CHESHIRE
	Edge of Town Residential Zone Total Number of dwellings:	24	
	<i>Survey date: MONDAY</i>	<i>24/11/14</i>	<i>Survey Type: MANUAL</i>
4	CV-03-A-01 DUBLIN ROAD	DETACHED	CAVAN
	CAVAN Edge of Town No Sub Category Total Number of dwellings:	37	
	<i>Survey date: TUESDAY</i>	<i>18/12/12</i>	<i>Survey Type: MANUAL</i>
5	DN-03-A-02 GLENFIN ROAD	DETACHED	DONEGAL
	BALLYBOFEY Edge of Town Residential Zone Total Number of dwellings:	7	
	<i>Survey date: THURSDAY</i>	<i>05/09/13</i>	<i>Survey Type: MANUAL</i>
6	DN-03-A-03 THE GRANGE GLENCAR IRISH LETTERKENNY	DETACHED/SEMI -DETACHED	DONEGAL
	Edge of Town Residential Zone Total Number of dwellings:	50	
	<i>Survey date: MONDAY</i>	<i>01/09/14</i>	<i>Survey Type: MANUAL</i>
7	DN-03-A-04 GORTLEE ROAD GORTLEE LETTERKENNY	SEMI -DETACHED	DONEGAL
	Edge of Town Residential Zone Total Number of dwellings:	83	
	<i>Survey date: FRIDAY</i>	<i>26/09/14</i>	<i>Survey Type: MANUAL</i>
8	DO-03-A-03 OLD MILL HEIGHTS DUNDONALD BELFAST	DETACHED/SEMI DETACHED	DOWN
	Edge of Town Residential Zone Total Number of dwellings:	79	
	<i>Survey date: WEDNESDAY</i>	<i>23/10/13</i>	<i>Survey Type: MANUAL</i>

LIST OF SITES relevant to selection parameters (Cont.)

9	ES-03-A-02	PRIVATE HOUSING	EAST SUSSEX
	SOUTH COAST ROAD		
	PEACEHAVEN		
	Edge of Town		
	Residential Zone		
	Total Number of dwellings: 37		
	<i>Survey date: FRIDAY 18/11/11</i>		<i>Survey Type: MANUAL</i>
10	ES-03-A-03	MIXED HOUSES & FLATS	EAST SUSSEX
	SHEPHAM LANE		
	POLEGATE		
	Edge of Town		
	Residential Zone		
	Total Number of dwellings: 212		
	<i>Survey date: MONDAY 11/07/16</i>		<i>Survey Type: MANUAL</i>
11	ES-03-A-04	MIXED HOUSES & FLATS	EAST SUSSEX
	NEW LYDD ROAD		
	CAMBER		
	Edge of Town		
	Residential Zone		
	Total Number of dwellings: 134		
	<i>Survey date: FRIDAY 15/07/16</i>		<i>Survey Type: MANUAL</i>
12	KC-03-A-04	SEMI-DETACHED & TERRACED	KENT
	KILN BARN ROAD		
	DITTON		
	AYLESFORD		
	Edge of Town		
	Residential Zone		
	Total Number of dwellings: 110		
	<i>Survey date: FRIDAY 22/09/17</i>		<i>Survey Type: MANUAL</i>
13	KC-03-A-07	MIXED HOUSES	KENT
	RECULVER ROAD		
	HERNE BAY		
	Edge of Town		
	Residential Zone		
	Total Number of dwellings: 288		
	<i>Survey date: WEDNESDAY 27/09/17</i>		<i>Survey Type: MANUAL</i>
14	NE-03-A-02	SEMI DETACHED & DETACHED	NORTH EAST LINCOLNSHIRE
	HANOVER WALK		
	SCUNTHORPE		
	Edge of Town		
	No Sub Category		
	Total Number of dwellings: 432		
	<i>Survey date: MONDAY 12/05/14</i>		<i>Survey Type: MANUAL</i>
15	NF-03-A-03	DETACHED HOUSES	NORFOLK
	HALING WAY		
	THETFORD		
	Edge of Town		
	Residential Zone		
	Total Number of dwellings: 10		
	<i>Survey date: WEDNESDAY 16/09/15</i>		<i>Survey Type: MANUAL</i>
16	NY-03-A-10	HOUSES AND FLATS	NORTH YORKSHIRE
	BOROUGHBRIDGE ROAD		
	RIPON		
	Edge of Town		
	No Sub Category		
	Total Number of dwellings: 71		
	<i>Survey date: TUESDAY 17/09/13</i>		<i>Survey Type: MANUAL</i>
17	NY-03-A-11	PRIVATE HOUSING	NORTH YORKSHIRE
	HORSEFAIR		
	BOROUGHBRIDGE		
	Edge of Town		
	Residential Zone		
	Total Number of dwellings: 23		
	<i>Survey date: WEDNESDAY 18/09/13</i>		<i>Survey Type: MANUAL</i>

LIST OF SITES relevant to selection parameters (Cont.)

18	RO-03-A-03	DETACHED HOUSES	ROSCOMMON
	N61		
	GREATMEADOW		
	BOYLE		
	Edge of Town		
	No Sub Category		
	Total Number of dwellings:	23	
	Survey date: THURSDAY	25/09/14	Survey Type: MANUAL
19	SC-03-A-04	DETACHED & TERRACED	SURREY
	HIGH ROAD		
	BYFLEET		
	Edge of Town		
	Residential Zone		
	Total Number of dwellings:	71	
	Survey date: THURSDAY	23/01/14	Survey Type: MANUAL
20	SF-03-A-05	DETACHED HOUSES	SUFFOLK
	VALE LANE		
	BURY ST EDMUNDS		
	Edge of Town		
	Residential Zone		
	Total Number of dwellings:	18	
	Survey date: WEDNESDAY	09/09/15	Survey Type: MANUAL
21	SH-03-A-05	SEMI-DETACHED/TERRACED	SHROPSHIRE
	SANDCROFT		
	SUTTON HILL		
	TELFORD		
	Edge of Town		
	Residential Zone		
	Total Number of dwellings:	54	
	Survey date: THURSDAY	24/10/13	Survey Type: MANUAL
22	SH-03-A-06	BUNGALOWS	SHROPSHIRE
	ELLESMERE ROAD		
	SHREWSBURY		
	Edge of Town		
	Residential Zone		
	Total Number of dwellings:	16	
	Survey date: THURSDAY	22/05/14	Survey Type: MANUAL
23	SM-03-A-01	DETACHED & SEMI	SOMERSET
	WEMBDON ROAD		
	NORTHFIELD		
	BRIDGWATER		
	Edge of Town		
	Residential Zone		
	Total Number of dwellings:	33	
	Survey date: THURSDAY	24/09/15	Survey Type: MANUAL
24	VG-03-A-01	SEMI-DETACHED & TERRACED	VALE OF GLAMORGAN
	ARTHUR STREET		
	BARRY		
	Edge of Town		
	Residential Zone		
	Total Number of dwellings:	12	
	Survey date: MONDAY	08/05/17	Survey Type: MANUAL
25	WA-03-A-04	DETACHED	WATERFORD
	MAYPARK LANE		
	WATERFORD		
	Edge of Town		
	Residential Zone		
	Total Number of dwellings:	280	
	Survey date: TUESDAY	24/06/14	Survey Type: MANUAL
26	WK-03-A-02	BUNGALOWS	WARWICKSHIRE
	NARBERTH WAY		
	POTTERS GREEN		
	COVENTRY		
	Edge of Town		
	Residential Zone		
	Total Number of dwellings:	17	
	Survey date: THURSDAY	17/10/13	Survey Type: MANUAL

LIST OF SITES relevant to selection parameters (Cont.)

27	WS-03-A-04	MIXED HOUSES		WEST SUSSEX
	HILLS FARM LANE			
	BROADBRIDGE HEATH			
	HORSHAM			
	Edge of Town			
	Residential Zone			
	Total Number of dwellings:		151	
	<i>Survey date: THURSDAY</i>		<i>11/12/14</i>	<i>Survey Type: MANUAL</i>
28	WS-03-A-06	MIXED HOUSES		WEST SUSSEX
	ELLIS ROAD			
	S BROADBRIDGE HEATH			
	WEST HORSHAM			
	Edge of Town			
	Residential Zone			
	Total Number of dwellings:		805	
	<i>Survey date: THURSDAY</i>		<i>02/03/17</i>	<i>Survey Type: MANUAL</i>

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

TRIP RATE for Land Use 03 - RESIDENTIAL/A - HOUSES PRIVATELY OWNED

MULTI-MODAL VEHICLES

Calculation factor: 1 DWELLS

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	28	121	0.069	28	121	0.282	28	121	0.351
08:00 - 09:00	28	121	0.150	28	121	0.434	28	121	0.584
09:00 - 10:00	28	121	0.162	28	121	0.197	28	121	0.359
10:00 - 11:00	28	121	0.134	28	121	0.161	28	121	0.295
11:00 - 12:00	28	121	0.147	28	121	0.175	28	121	0.322
12:00 - 13:00	28	121	0.182	28	121	0.168	28	121	0.350
13:00 - 14:00	28	121	0.189	28	121	0.191	28	121	0.380
14:00 - 15:00	28	121	0.208	28	121	0.215	28	121	0.423
15:00 - 16:00	28	121	0.290	28	121	0.201	28	121	0.491
16:00 - 17:00	28	121	0.314	28	121	0.193	28	121	0.507
17:00 - 18:00	28	121	0.379	28	121	0.188	28	121	0.567
18:00 - 19:00	28	121	0.332	28	121	0.211	28	121	0.543
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			2.556			2.616			5.172

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

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

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Parameter summary

Trip rate parameter range selected:	7 - 805 (units:)
Survey date date range:	01/01/10 - 27/11/17
Number of weekdays (Monday-Friday):	28
Number of Saturdays:	0
Number of Sundays:	0
Surveys automatically removed from selection:	0
Surveys manually removed from selection:	0

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

TRIP RATE for Land Use 03 - RESIDENTIAL/A - HOUSES PRIVATELY OWNED

MULTI-MODAL TOTAL PEOPLE

Calculation factor: 1 DWELLS

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	28	121	0.104	28	121	0.417	28	121	0.521
08:00 - 09:00	28	121	0.220	28	121	0.841	28	121	1.061
09:00 - 10:00	28	121	0.229	28	121	0.322	28	121	0.551
10:00 - 11:00	28	121	0.201	28	121	0.262	28	121	0.463
11:00 - 12:00	28	121	0.221	28	121	0.273	28	121	0.494
12:00 - 13:00	28	121	0.261	28	121	0.255	28	121	0.516
13:00 - 14:00	28	121	0.298	28	121	0.296	28	121	0.594
14:00 - 15:00	28	121	0.328	28	121	0.325	28	121	0.653
15:00 - 16:00	28	121	0.608	28	121	0.338	28	121	0.946
16:00 - 17:00	28	121	0.574	28	121	0.313	28	121	0.887
17:00 - 18:00	28	121	0.611	28	121	0.312	28	121	0.923
18:00 - 19:00	28	121	0.505	28	121	0.351	28	121	0.856
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			4.160			4.305			8.465

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

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

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Parameter summary

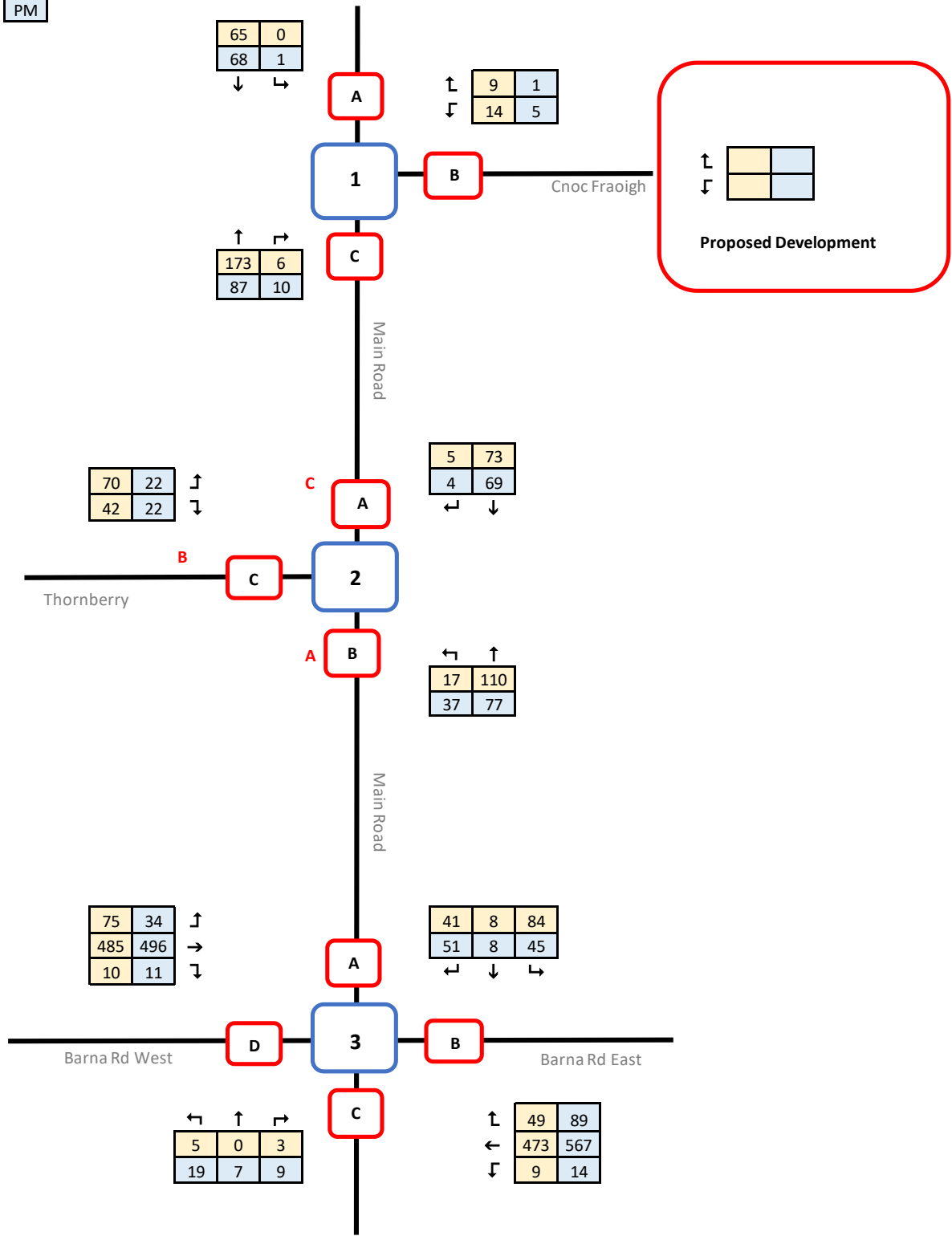
Trip rate parameter range selected:	7 - 805 (units:)
Survey date date range:	01/01/10 - 27/11/17
Number of weekdays (Monday-Friday):	28
Number of Saturdays:	0
Number of Sundays:	0
Surveys automatically removed from selection:	0
Surveys manually removed from selection:	0

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

Appendix B. Traffic Turning Movements

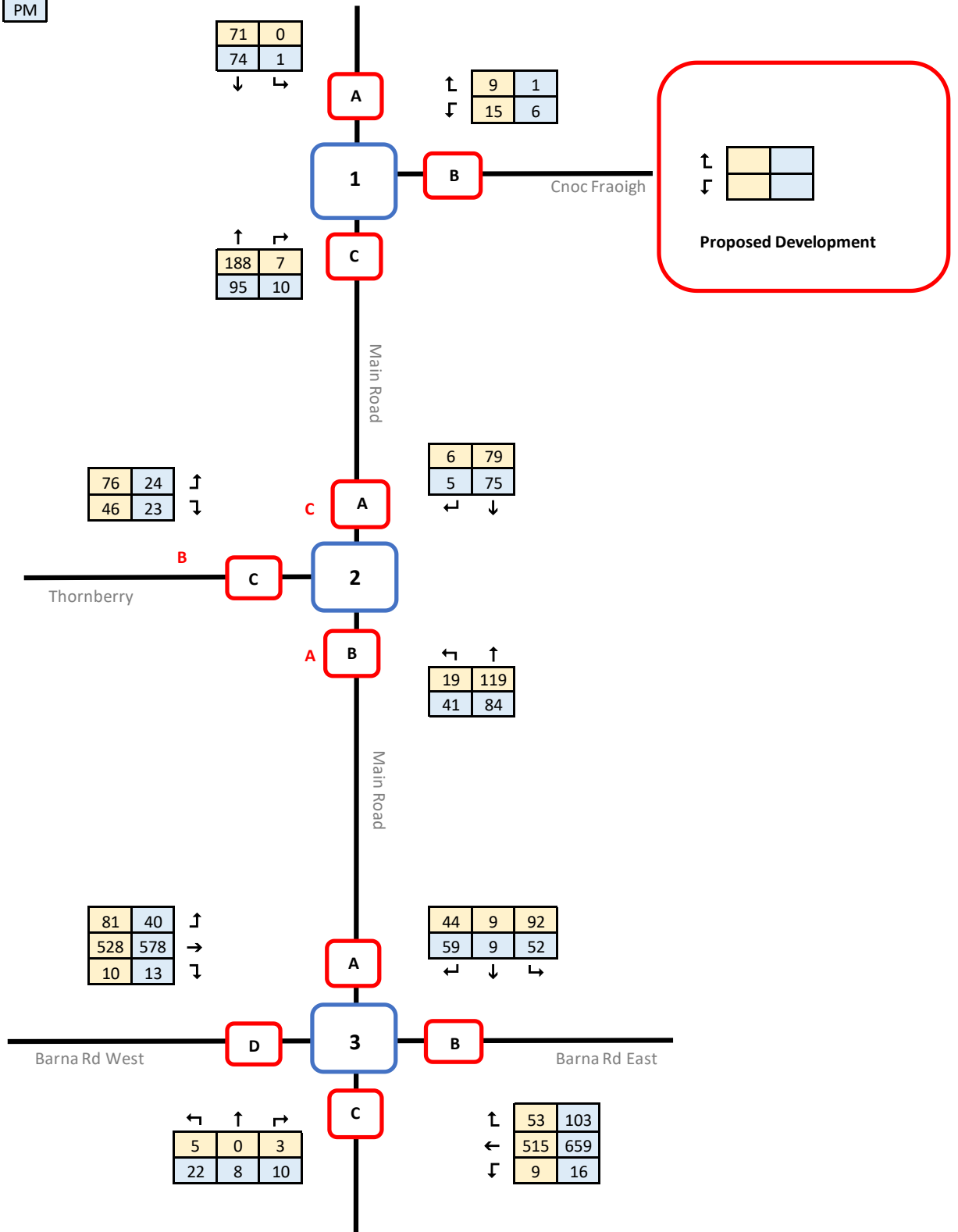
AM
PM

2022 OPENING YEAR



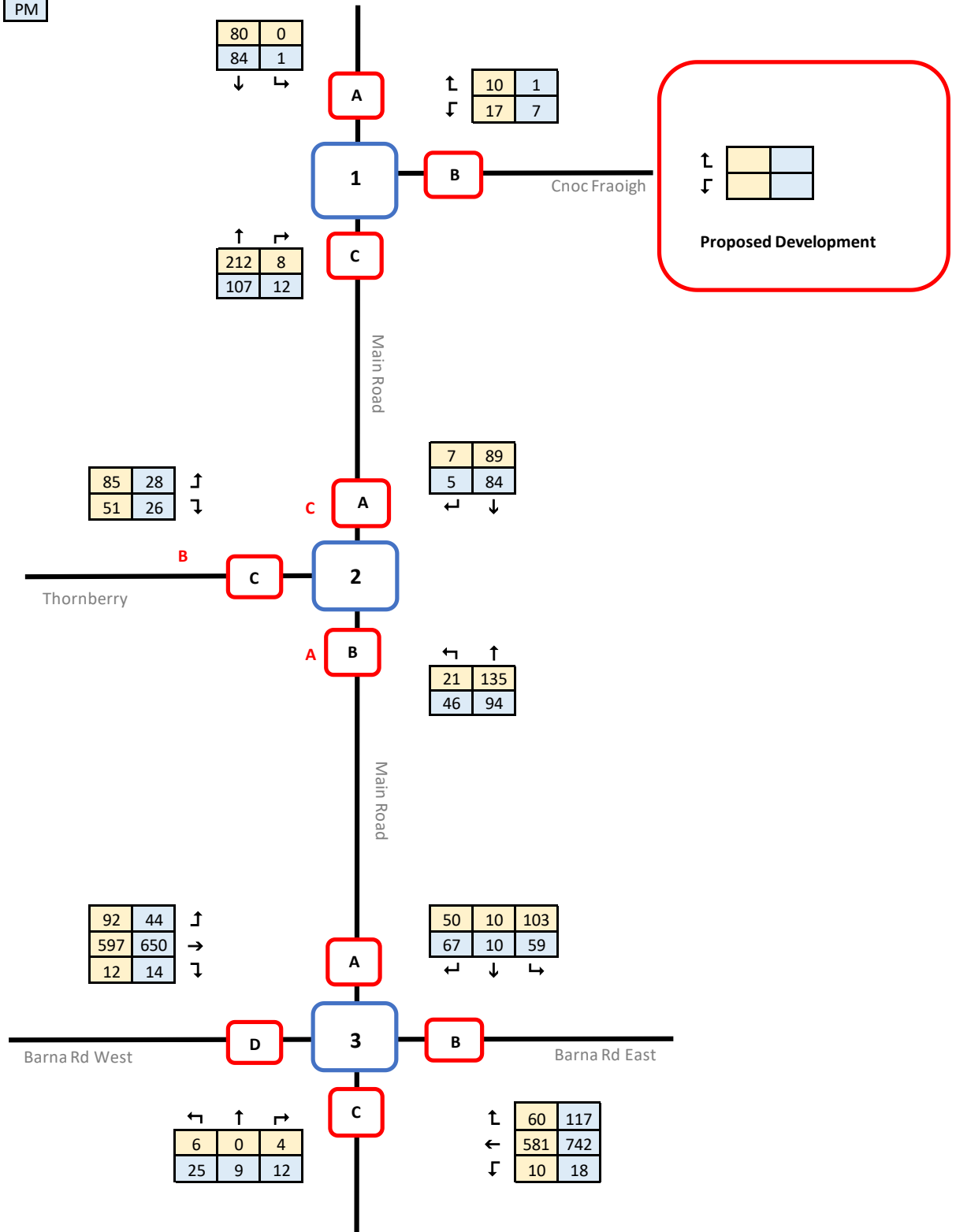
AM
PM

2027 OPENING YEAR +5



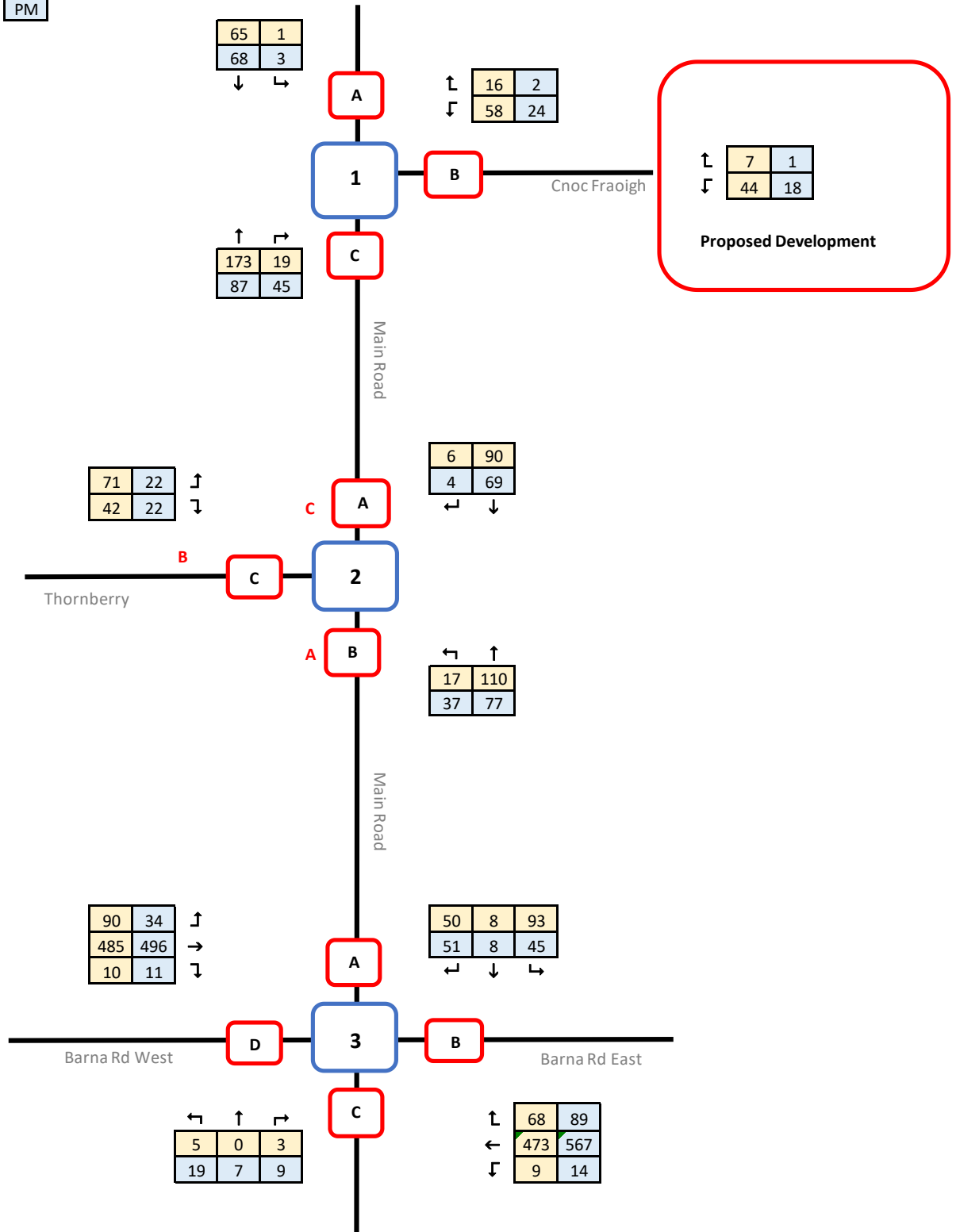
AM
PM

2037 OPENING YEAR +15



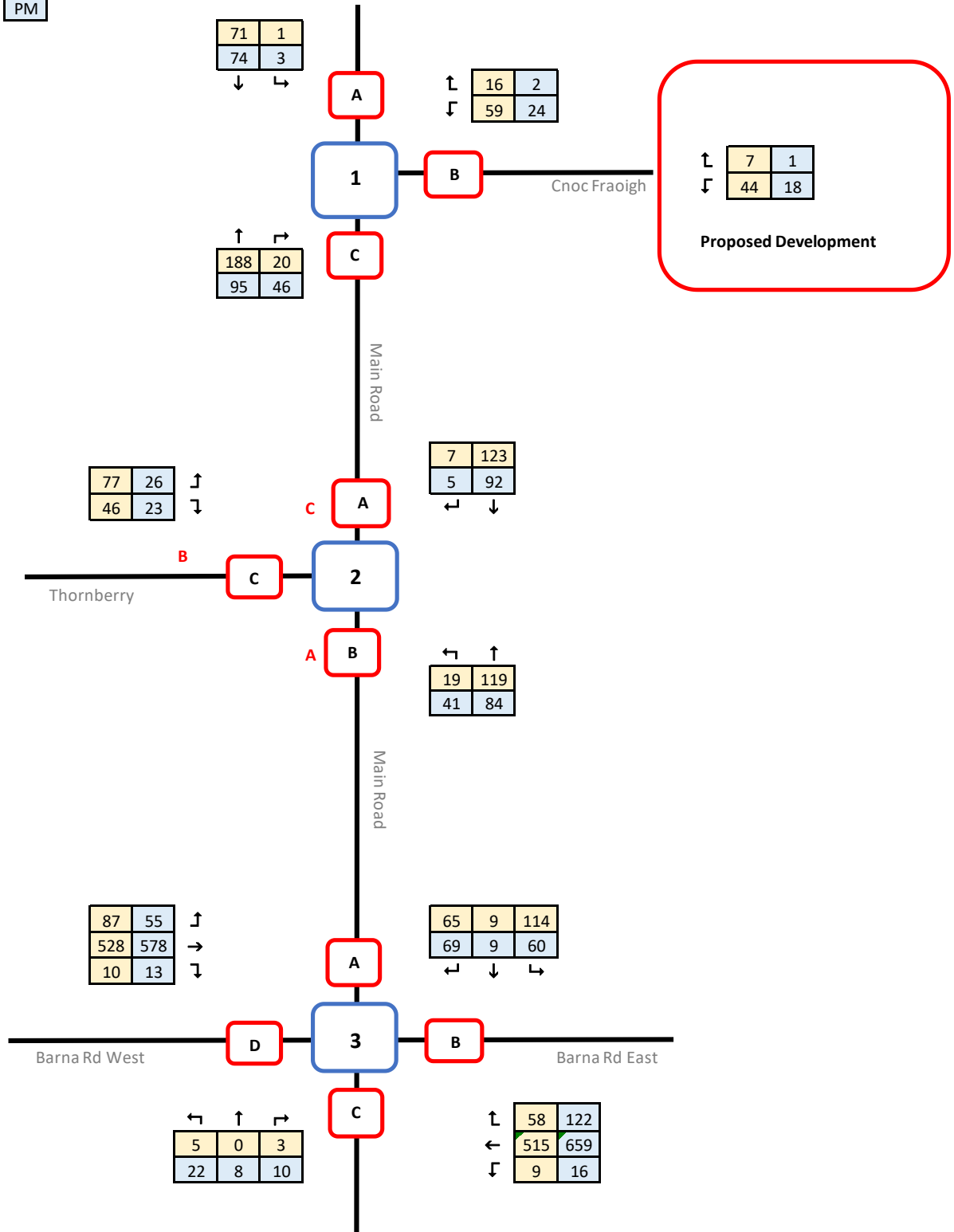
AM
PM

2022 OPENING YEAR WITH DEVELOPMENT



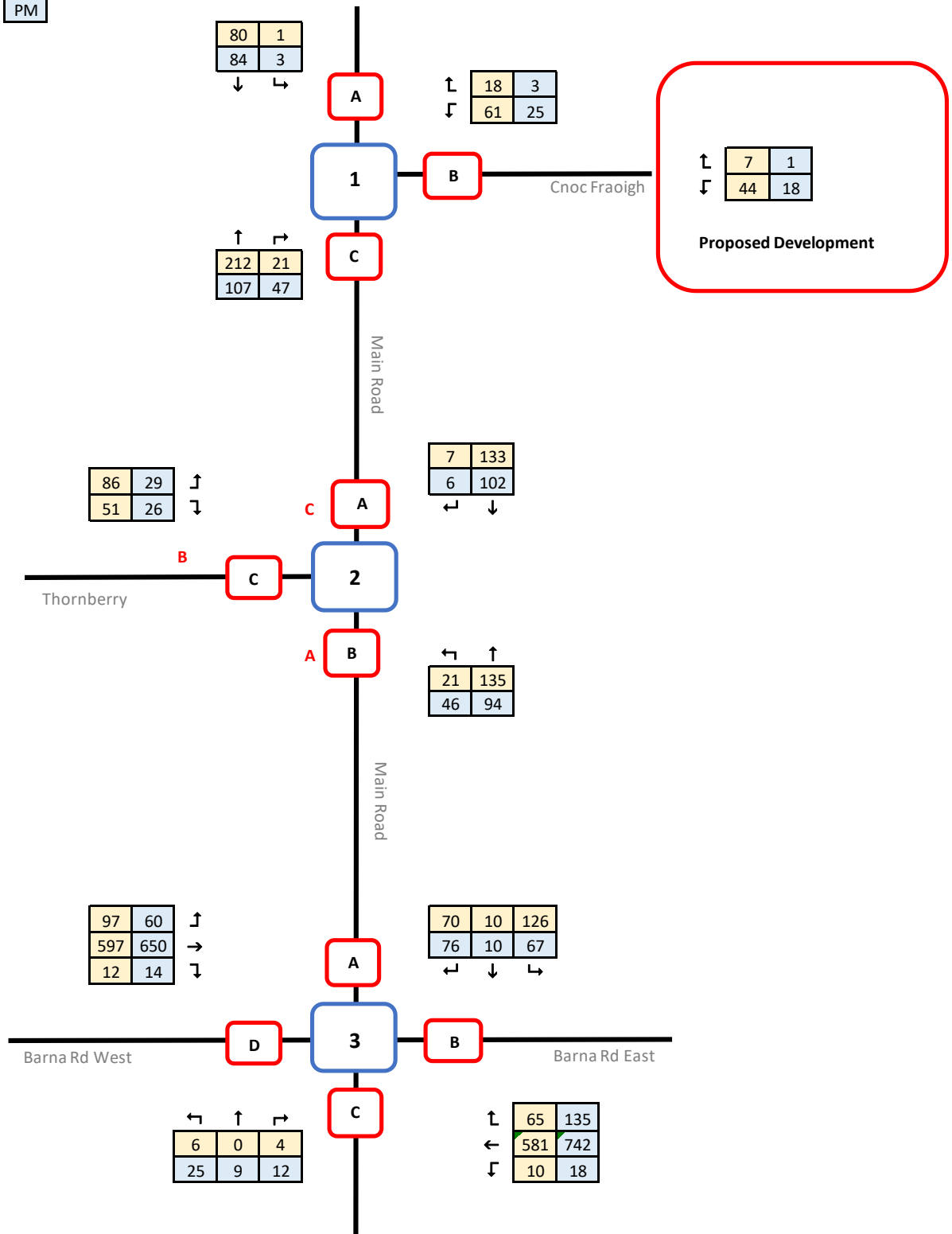
AM
PM

2027 OPENING YEAR +5 WITH DEVELOPMENT



AM
PM

2037 OPENING YEAR +15 WITH DE



Appendix C. Junction 1 – PICADY Results

<h1>Junctions 9</h1>
<h2>PICADY 9 - Priority Intersection Module</h2>
Version: 9.5.1.7462 © Copyright TRL Limited, 2019
For sales and distribution information, program advice and maintenance, contact TRL: +44 (0)1344 379777 software@trl.co.uk www.trlsoftware.co.uk
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Filename: Junction 1.j9

Path: U:\5167317\7 Calcs\72Model

Report generation date: 29/05/2020 16:47:34

-
- »2018 Count year, AM
 - »2018 Count year, PM
 - »2022 Opening year, AM
 - »2022 Opening year, PM
 - »2027 Opening year +5, AM
 - »2027 Opening year +5, PM
 - »2037 Opening year +15, AM
 - »2037 Opening year +15, PM
 - »2022 Opening year with Dev, AM
 - »2022 Opening year with Dev, PM
 - »2027 Opening year +5 with Dev, AM
 - »2027 Opening year +5 with Dev, PM
 - »2037 Opening year +15 with Dev, AM
 - »2037 Opening year +15 with Dev, PM

Summary of junction performance

	AM					PM				
	Set ID	Queue (PCU)	Delay (s)	RFC	LOS	Set ID	Queue (PCU)	Delay (s)	RFC	LOS
2018 Count year										
Stream B-AC	D1	0.0	7.00	0.04	A	D2	0.0	6.28	0.01	A
Stream C-AB		0.0	5.35	0.01	A		0.0	5.74	0.02	A
2022 Opening year										
Stream B-AC	D3	0.0	7.09	0.05	A	D4	0.0	6.29	0.01	A
Stream C-AB		0.0	5.32	0.01	A		0.0	5.72	0.02	A
2027 Opening year +5										
Stream B-AC	D5	0.1	7.10	0.05	A	D6	0.0	6.28	0.01	A
Stream C-AB		0.0	5.27	0.01	A		0.0	5.70	0.02	A
2037 Opening year +15										
Stream B-AC	D7	0.1	7.21	0.06	A	D8	0.0	6.29	0.02	A
Stream C-AB		0.0	5.20	0.02	A		0.0	5.68	0.02	A
2022 Opening year with Dev										
Stream B-AC	D9	0.2	7.45	0.14	A	D10	0.1	6.37	0.05	A
Stream C-AB		0.1	5.41	0.04	A		0.1	6.07	0.09	A
2027 Opening year +5 with Dev										
Stream B-AC	D11	0.2	7.50	0.15	A	D12	0.1	6.39	0.05	A
Stream C-AB		0.1	5.37	0.04	A		0.1	6.05	0.09	A
2037 Opening year +15 with Dev										
Stream B-AC	D13	0.2	7.69	0.16	A	D14	0.1	6.53	0.05	A
Stream C-AB		0.1	5.30	0.05	A		0.1	6.02	0.09	A

Values shown are the highest values encountered over all time segments. Delay is the maximum value of average delay per arriving vehicle.

File summary

File Description

Title	(untitled)
Location	
Site number	
Date	06/06/2018
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	ATKINSMCCARTHY\Collins
Description	

Units

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

Analysis Options

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

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D1	2018 Count year	AM	ONE HOUR	07:45	09:15	15
D2	2018 Count year	PM	ONE HOUR	16:45	18:15	15
D3	2022 Opening year	AM	ONE HOUR	07:45	09:15	15
D4	2022 Opening year	PM	ONE HOUR	16:45	18:15	15
D5	2027 Opening year +5	AM	ONE HOUR	07:45	09:15	15
D6	2027 Opening year +5	PM	ONE HOUR	16:45	18:15	15
D7	2037 Opening year +15	AM	ONE HOUR	07:45	09:15	15
D8	2037 Opening year +15	PM	ONE HOUR	16:45	18:15	15
D9	2022 Opening year with Dev	AM	ONE HOUR	07:45	09:15	15
D10	2022 Opening year with Dev	PM	ONE HOUR	16:45	18:15	15
D11	2027 Opening year +5 with Dev	AM	ONE HOUR	07:45	09:15	15
D12	2027 Opening year +5 with Dev	PM	ONE HOUR	16:45	18:15	15
D13	2037 Opening year +15 with Dev	AM	ONE HOUR	07:45	09:15	15
D14	2037 Opening year +15 with Dev	PM	ONE HOUR	16:45	18:15	15

Analysis Set Details

ID	Network flow scaling factor (%)
A1	100.000

2018 Count year, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way		0.75	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

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

Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Has right turn bay	Visibility for right turn (m)	Blocks?	Blocking queue (PCU)
C	6.00			60.0	✓	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	2.90	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	489	0.089	0.225	0.142	0.322
B-C	630	0.097	0.244	-	-
C-B	609	0.236	0.236	-	-

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	2018 Count year	AM	ONE HOUR	07:45	09:15	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 (PCU/hr)	Scaling Factor (%)
A		✓	61	100.000
B		✓	21	100.000
C		✓	168	100.000

Origin-Destination Data

Demand (PCU/hr)

From	To			
	A	B	C	
A	0	0	61	
B	8	0	13	
C	162	6	0	

Vehicle Mix

Heavy Vehicle Percentages

From	To			
	A	B	C	
A	0	0	5	
B	0	0	0	
C	1	0	0	

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-AC	0.04	7.00	0.0	A
C-AB	0.01	5.35	0.0	A
C-A				
A-B				
A-C				

Main Results for each time segment

07:45 - 08:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	16	547	0.029	16	0.0	6.775	A
C-AB	6	679	0.008	5	0.0	5.351	A
C-A	121			121			
A-B	0			0			
A-C	46			46			

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	19	543	0.035	19	0.0	6.870	A
C-AB	7	693	0.010	7	0.0	5.254	A
C-A	144			144			
A-B	0			0			
A-C	55			55			

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	23	537	0.043	23	0.0	7.003	A
C-AB	9	712	0.012	9	0.0	5.127	A
C-A	176			176			
A-B	0			0			
A-C	67			67			

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	23	537	0.043	23	0.0	7.003	A
C-AB	9	712	0.012	9	0.0	5.130	A
C-A	176			176			
A-B	0			0			
A-C	67			67			

08:45 - 09:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	19	543	0.035	19	0.0	6.874	A
C-AB	7	693	0.010	7	0.0	5.256	A
C-A	144			144			
A-B	0			0			
A-C	55			55			

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	16	547	0.029	16	0.0	6.778	A
C-AB	6	679	0.008	6	0.0	5.354	A
C-A	121			121			
A-B	0			0			
A-C	46			46			

2018 Count year, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way		0.60	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

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	2018 Count year	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 (PCU/hr)	Scaling Factor (%)
A		✓	65	100.000
B		✓	6	100.000
C		✓	90	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A	B	C
From	A	0	1	64
	B	1	0	5
	C	81	9	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A	B	C
From	A	0	0	2
	B	0	0	0
	C	4	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-AC	0.01	6.28	0.0	A
C-AB	0.02	5.74	0.0	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	5	587	0.008	4	0.0	6.182	A
C-AB	7	638	0.012	7	0.0	5.730	A
C-A	60			60			
A-B	0.75			0.75			
A-C	48			48			

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	5	584	0.009	5	0.0	6.222	A
C-AB	9	644	0.014	9	0.0	5.695	A
C-A	72			72			
A-B	0.90			0.90			
A-C	58			58			

17:15 - 17:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	7	580	0.011	7	0.0	6.278	A
C-AB	11	652	0.018	11	0.0	5.650	A
C-A	88			88			
A-B	1			1			
A-C	70			70			

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	7	580	0.011	7	0.0	6.278	A
C-AB	11	652	0.018	11	0.0	5.652	A
C-A	88			88			
A-B	1			1			
A-C	70			70			

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	5	584	0.009	5	0.0	6.222	A
C-AB	9	644	0.014	9	0.0	5.701	A
C-A	72			72			
A-B	0.90			0.90			
A-C	58			58			

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	5	587	0.008	5	0.0	6.185	A
C-AB	7	638	0.012	8	0.0	5.735	A
C-A	60			60			
A-B	0.75			0.75			
A-C	48			48			

2022 Opening year, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way		0.77	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

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	2022 Opening year	AM	ONE HOUR	07:45	09:15	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 (PCU/hr)	Scaling Factor (%)
A		✓	65	100.000
B		✓	23	100.000
C		✓	179	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A	B	C
From	A	0	0	65
	B	9	0	14
	C	173	6	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A	B	C
From	A	0	0	5
	B	0	0	0
	C	1	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-AC	0.05	7.09	0.0	A
C-AB	0.01	5.32	0.0	A
C-A				
A-B				
A-C				

Main Results for each time segment

07:45 - 08:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	17	544	0.032	17	0.0	6.834	A
C-AB	6	684	0.008	6	0.0	5.314	A
C-A	129			129			
A-B	0			0			
A-C	49			49			

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	21	539	0.038	21	0.0	6.939	A
C-AB	7	699	0.010	7	0.0	5.211	A
C-A	154			154			
A-B	0			0			
A-C	58			58			

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	25	533	0.047	25	0.0	7.086	A
C-AB	9	720	0.013	9	0.0	5.077	A
C-A	188			188			
A-B	0			0			
A-C	72			72			

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	25	533	0.047	25	0.0	7.086	A
C-AB	9	720	0.013	9	0.0	5.078	A
C-A	188			188			
A-B	0			0			
A-C	72			72			

08:45 - 09:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	21	539	0.038	21	0.0	6.940	A
C-AB	7	699	0.010	7	0.0	5.216	A
C-A	154			154			
A-B	0			0			
A-C	58			58			

09:00 - 09:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	17	544	0.032	17	0.0	6.837	A
C-AB	6	684	0.008	6	0.0	5.317	A
C-A	129			129			
A-B	0			0			
A-C	49			49			

2022 Opening year, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way		0.60	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

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	2022 Opening year	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 (PCU/hr)	Scaling Factor (%)
A		✓	69	100.000
B		✓	6	100.000
C		✓	97	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A	B	C
From	A	0	1	68
	B	1	0	5
	C	87	10	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A	B	C
From	A	0	0	2
	B	0	0	0
	C	4	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-AC	0.01	6.29	0.0	A
C-AB	0.02	5.72	0.0	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	5	586	0.008	4	0.0	6.193	A
C-AB	8	640	0.013	8	0.0	5.719	A
C-A	65			65			
A-B	0.75			0.75			
A-C	51			51			

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	5	583	0.009	5	0.0	6.235	A
C-AB	10	646	0.016	10	0.0	5.682	A
C-A	77			77			
A-B	0.90			0.90			
A-C	61			61			

17:15 - 17:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	7	579	0.011	7	0.0	6.293	A
C-AB	13	655	0.020	13	0.0	5.634	A
C-A	94			94			
A-B	1			1			
A-C	75			75			

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	7	579	0.011	7	0.0	6.293	A
C-AB	13	655	0.020	13	0.0	5.636	A
C-A	94			94			
A-B	1			1			
A-C	75			75			

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	5	583	0.009	5	0.0	6.237	A
C-AB	10	646	0.016	10	0.0	5.687	A
C-A	77			77			
A-B	0.90			0.90			
A-C	61			61			

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	5	586	0.008	5	0.0	6.195	A
C-AB	8	640	0.013	8	0.0	5.722	A
C-A	65			65			
A-B	0.75			0.75			
A-C	51			51			

2027 Opening year +5, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way		0.76	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

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	2027 Opening year +5	AM	ONE HOUR	07:45	09:15	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 (PCU/hr)	Scaling Factor (%)
A		✓	71	100.000
B		✓	24	100.000
C		✓	195	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A	B	C
From	A	0	0	71
	B	9	0	15
	C	188	7	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A	B	C
From	A	0	0	5
	B	0	0	0
	C	1	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-AC	0.05	7.10	0.1	A
C-AB	0.01	5.27	0.0	A
C-A				
A-B				
A-C				

Main Results for each time segment

07:45 - 08:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	18	544	0.033	18	0.0	6.835	A
C-AB	7	691	0.010	7	0.0	5.272	A
C-A	140			140			
A-B	0			0			
A-C	53			53			

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	22	540	0.040	22	0.0	6.947	A
C-AB	8	707	0.012	8	0.0	5.163	A
C-A	167			167			
A-B	0			0			
A-C	64			64			

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	26	533	0.050	26	0.1	7.104	A
C-AB	11	729	0.015	11	0.0	5.022	A
C-A	204			204			
A-B	0			0			
A-C	78			78			

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	26	533	0.050	26	0.1	7.104	A
C-AB	11	729	0.015	11	0.0	5.025	A
C-A	204			204			
A-B	0			0			
A-C	78			78			

08:45 - 09:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	22	540	0.040	22	0.0	6.950	A
C-AB	8	707	0.012	8	0.0	5.166	A
C-A	167			167			
A-B	0			0			
A-C	64			64			

09:00 - 09:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	18	544	0.033	18	0.0	6.838	A
C-AB	7	691	0.010	7	0.0	5.273	A
C-A	140			140			
A-B	0			0			
A-C	53			53			

2027 Opening year +5, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way		0.59	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

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	2027 Opening year +5	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 (PCU/hr)	Scaling Factor (%)
A		✓	75	100.000
B		✓	7	100.000
C		✓	105	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A	B	C
From	A	0	1	74
	B	1	0	6
	C	95	10	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A	B	C
From	A	0	0	2
	B	0	0	0
	C	4	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-AC	0.01	6.28	0.0	A
C-AB	0.02	5.70	0.0	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	5	589	0.009	5	0.0	6.168	A
C-AB	8	643	0.013	8	0.0	5.694	A
C-A	71			71			
A-B	0.75			0.75			
A-C	56			56			

17:00 - 17:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	6	586	0.011	6	0.0	6.213	A
C-AB	10	650	0.016	10	0.0	5.653	A
C-A	84			84			
A-B	0.90			0.90			
A-C	67			67			

17:15 - 17:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	8	581	0.013	8	0.0	6.277	A
C-AB	13	660	0.020	13	0.0	5.599	A
C-A	103			103			
A-B	1			1			
A-C	81			81			

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	8	581	0.013	8	0.0	6.277	A
C-AB	13	660	0.020	13	0.0	5.602	A
C-A	103			103			
A-B	1			1			
A-C	81			81			

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	6	586	0.011	6	0.0	6.216	A
C-AB	10	650	0.016	10	0.0	5.659	A
C-A	84			84			
A-B	0.90			0.90			
A-C	67			67			

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	5	589	0.009	5	0.0	6.171	A
C-AB	8	643	0.013	8	0.0	5.700	A
C-A	71			71			
A-B	0.75			0.75			
A-C	56			56			

2037 Opening year +15, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way		0.77	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

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	2037 Opening year +15	AM	ONE HOUR	07:45	09:15	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 (PCU/hr)	Scaling Factor (%)
A		✓	80	100.000
B		✓	27	100.000
C		✓	220	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A	B	C
From	A	0	0	80
	B	10	0	17
	C	212	8	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A	B	C
From	A	0	0	5
	B	0	0	0
	C	1	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-AC	0.06	7.21	0.1	A
C-AB	0.02	5.20	0.0	A
C-A				
A-B				
A-C				

Main Results for each time segment

07:45 - 08:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	20	542	0.037	20	0.0	6.895	A
C-AB	8	701	0.011	8	0.0	5.201	A
C-A	158			158			
A-B	0			0			
A-C	60			60			

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	24	537	0.045	24	0.0	7.023	A
C-AB	10	720	0.014	10	0.0	5.083	A
C-A	188			188			
A-B	0			0			
A-C	72			72			

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	30	529	0.056	30	0.1	7.205	A
C-AB	13	745	0.017	13	0.0	4.930	A
C-A	229			229			
A-B	0			0			
A-C	88			88			

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	30	529	0.056	30	0.1	7.205	A
C-AB	13	745	0.017	13	0.0	4.933	A
C-A	229			229			
A-B	0			0			
A-C	88			88			

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	24	537	0.045	24	0.0	7.024	A
C-AB	10	720	0.014	10	0.0	5.087	A
C-A	188			188			
A-B	0			0			
A-C	72			72			

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	20	542	0.037	20	0.0	6.898	A
C-AB	8	701	0.011	8	0.0	5.202	A
C-A	158			158			
A-B	0			0			
A-C	60			60			

2037 Opening year +15, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way		0.62	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

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	2037 Opening year +15	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 (PCU/hr)	Scaling Factor (%)
A		✓	85	100.000
B		✓	8	100.000
C		✓	119	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A	B	C
From	A	0	1	84
	B	1	0	7
	C	107	12	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A	B	C
From	A	0	0	2
	B	0	0	0
	C	4	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-AC	0.02	6.29	0.0	A
C-AB	0.02	5.68	0.0	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	6	590	0.010	6	0.0	6.164	A
C-AB	10	648	0.016	10	0.0	5.675	A
C-A	79			79			
A-B	0.75			0.75			
A-C	63			63			

17:00 - 17:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	7	586	0.012	7	0.0	6.215	A
C-AB	13	655	0.019	13	0.0	5.630	A
C-A	94			94			
A-B	0.90			0.90			
A-C	76			76			

17:15 - 17:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	9	581	0.015	9	0.0	6.286	A
C-AB	16	666	0.024	16	0.0	5.573	A
C-A	115			115			
A-B	1			1			
A-C	92			92			

17:30 - 17:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	9	581	0.015	9	0.0	6.286	A
C-AB	16	666	0.024	16	0.0	5.578	A
C-A	115			115			
A-B	1			1			
A-C	92			92			

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	7	586	0.012	7	0.0	6.217	A
C-AB	13	655	0.019	13	0.0	5.637	A
C-A	94			94			
A-B	0.90			0.90			
A-C	76			76			

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	6	590	0.010	6	0.0	6.167	A
C-AB	10	648	0.016	10	0.0	5.681	A
C-A	79			79			
A-B	0.75			0.75			
A-C	63			63			

2022 Opening year with Dev, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way		2.07	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D9	2022 Opening year with Dev	AM	ONE HOUR	07:45	09:15	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 (PCU/hr)	Scaling Factor (%)
A		✓	66	100.000
B		✓	74	100.000
C		✓	192	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A	B	C
From	A	0	1	65
	B	16	0	58
	C	173	19	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A	B	C
From	A	0	0	5
	B	0	0	0
	C	1	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-AC	0.14	7.45	0.2	A
C-AB	0.04	5.41	0.1	A
C-A				
A-B				
A-C				

Main Results for each time segment

07:45 - 08:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	56	574	0.097	55	0.1	6.939	A
C-AB	18	684	0.026	18	0.0	5.412	A
C-A	127			127			
A-B	0.75			0.75			
A-C	49			49			

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	67	570	0.117	66	0.1	7.150	A
C-AB	22	699	0.031	22	0.0	5.329	A
C-A	151			151			
A-B	0.90			0.90			
A-C	58			58			

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	81	564	0.144	81	0.2	7.451	A
C-AB	28	719	0.040	28	0.1	5.224	A
C-A	183			183			
A-B	1			1			
A-C	72			72			

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	81	564	0.144	81	0.2	7.454	A
C-AB	29	719	0.040	29	0.1	5.224	A
C-A	183			183			
A-B	1			1			
A-C	72			72			

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	570	0.117	67	0.1	7.160	A
C-AB	22	699	0.032	22	0.0	5.332	A
C-A	151			151			
A-B	0.90			0.90			
A-C	58			58			

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	56	574	0.097	56	0.1	6.955	A
C-AB	18	684	0.026	18	0.0	5.414	A
C-A	127			127			
A-B	0.75			0.75			
A-C	49			49			

2022 Opening year with Dev, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way		2.09	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D10	2022 Opening year with Dev	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 (PCU/hr)	Scaling Factor (%)
A		✓	71	100.000
B		✓	26	100.000
C		✓	132	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A	B	C
From	A	0	3	68
	B	2	0	24
	C	87	45	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A	B	C
From	A	0	0	2
	B	0	0	0
	C	4	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-AC	0.05	6.37	0.1	A
C-AB	0.09	6.07	0.1	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	20	601	0.033	19	0.0	6.186	A
C-AB	38	640	0.059	37	0.1	5.996	A
C-A	62			62			
A-B	2			2			
A-C	51			51			

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	23	598	0.039	23	0.0	6.261	A
C-AB	46	646	0.071	46	0.1	6.025	A
C-A	73			73			
A-B	3			3			
A-C	61			61			

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	29	594	0.048	29	0.1	6.366	A
C-AB	58	655	0.089	58	0.1	6.065	A
C-A	87			87			
A-B	3			3			
A-C	75			75			

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	29	594	0.048	29	0.1	6.366	A
C-AB	58	655	0.089	58	0.1	6.069	A
C-A	87			87			
A-B	3			3			
A-C	75			75			

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	23	598	0.039	23	0.0	6.265	A
C-AB	46	646	0.071	46	0.1	6.033	A
C-A	73			73			
A-B	3			3			
A-C	61			61			

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	20	601	0.033	20	0.0	6.189	A
C-AB	38	640	0.059	38	0.1	6.008	A
C-A	62			62			
A-B	2			2			
A-C	51			51			

2027 Opening year +5 with Dev, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way		1.99	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D11	2027 Opening year +5 with Dev	AM	ONE HOUR	07:45	09:15	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 (PCU/hr)	Scaling Factor (%)
A		✓	72	100.000
B		✓	75	100.000
C		✓	208	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A	B	C
From	A	0	1	71
	B	16	0	59
	C	188	20	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A	B	C
From	A	0	0	5
	B	0	0	0
	C	1	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-AC	0.15	7.50	0.2	A
C-AB	0.04	5.37	0.1	A
C-A				
A-B				
A-C				

Main Results for each time segment

07:45 - 08:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	56	572	0.099	56	0.1	6.965	A
C-AB	19	691	0.027	19	0.0	5.370	A
C-A	138			138			
A-B	0.75			0.75			
A-C	53			53			

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	67	568	0.119	67	0.1	7.184	A
C-AB	24	707	0.033	24	0.0	5.283	A
C-A	163			163			
A-B	0.90			0.90			
A-C	64			64			

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	83	562	0.147	82	0.2	7.499	A
C-AB	31	729	0.042	31	0.1	5.169	A
C-A	198			198			
A-B	1			1			
A-C	78			78			

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	83	562	0.147	83	0.2	7.502	A
C-AB	31	729	0.042	31	0.1	5.169	A
C-A	198			198			
A-B	1			1			
A-C	78			78			

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	568	0.119	68	0.1	7.191	A
C-AB	24	707	0.034	24	0.0	5.287	A
C-A	163			163			
A-B	0.90			0.90			
A-C	64			64			

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	56	572	0.099	57	0.1	6.979	A
C-AB	19	691	0.027	19	0.0	5.374	A
C-A	138			138			
A-B	0.75			0.75			
A-C	53			53			

2027 Opening year +5 with Dev, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way		2.00	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D12	2027 Opening year +5 with Dev	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 (PCU/hr)	Scaling Factor (%)
A		✓	77	100.000
B		✓	26	100.000
C		✓	141	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A	B	C
From	A	0	3	74
	B	2	0	24
	C	95	46	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A	B	C
From	A	0	0	2
	B	0	0	0
	C	4	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-AC	0.05	6.39	0.1	A
C-AB	0.09	6.05	0.1	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	20	600	0.033	19	0.0	6.199	A
C-AB	39	643	0.061	39	0.1	5.981	A
C-A	67			67			
A-B	2			2			
A-C	56			56			

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	23	597	0.039	23	0.0	6.278	A
C-AB	48	650	0.073	48	0.1	6.007	A
C-A	79			79			
A-B	3			3			
A-C	67			67			

17:15 - 17:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	29	592	0.048	29	0.1	6.386	A
C-AB	60	659	0.091	60	0.1	6.044	A
C-A	95			95			
A-B	3			3			
A-C	81			81			

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	29	592	0.048	29	0.1	6.386	A
C-AB	60	659	0.091	60	0.1	6.051	A
C-A	95			95			
A-B	3			3			
A-C	81			81			

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	23	597	0.039	23	0.0	6.281	A
C-AB	48	650	0.073	48	0.1	6.019	A
C-A	79			79			
A-B	3			3			
A-C	67			67			

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	20	600	0.033	20	0.0	6.202	A
C-AB	39	643	0.061	39	0.1	5.993	A
C-A	67			67			
A-B	2			2			
A-C	56			56			

2037 Opening year +15 with Dev, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way		1.94	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D13	2037 Opening year +15 with Dev	AM	ONE HOUR	07:45	09:15	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 (PCU/hr)	Scaling Factor (%)
A		✓	81	100.000
B		✓	79	100.000
C		✓	233	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A	B	C
From	A	0	1	80
	B	18	0	61
	C	212	21	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A	B	C
From	A	0	0	5
	B	0	0	0
	C	1	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-AC	0.16	7.69	0.2	A
C-AB	0.05	5.30	0.1	A
C-A				
A-B				
A-C				

Main Results for each time segment

07:45 - 08:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	59	567	0.105	59	0.1	7.081	A
C-AB	20	701	0.029	20	0.0	5.299	A
C-A	155			155			
A-B	0.75			0.75			
A-C	60			60			

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	71	562	0.126	71	0.1	7.326	A
C-AB	26	720	0.036	26	0.0	5.203	A
C-A	184			184			
A-B	0.90			0.90			
A-C	72			72			

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	87	555	0.157	87	0.2	7.681	A
C-AB	34	745	0.045	34	0.1	5.076	A
C-A	223			223			
A-B	1			1			
A-C	88			88			

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	87	555	0.157	87	0.2	7.685	A
C-AB	34	745	0.045	34	0.1	5.080	A
C-A	223			223			
A-B	1			1			
A-C	88			88			

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	71	562	0.126	71	0.1	7.337	A
C-AB	26	720	0.036	26	0.0	5.205	A
C-A	184			184			
A-B	0.90			0.90			
A-C	72			72			

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	59	567	0.105	60	0.1	7.098	A
C-AB	21	701	0.029	21	0.0	5.304	A
C-A	155			155			
A-B	0.75			0.75			
A-C	60			60			

2037 Opening year +15 with Dev, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way		1.92	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D14	2037 Opening year +15 with Dev	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 (PCU/hr)	Scaling Factor (%)
A		✓	87	100.000
B		✓	28	100.000
C		✓	154	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A	B	C
From	A	0	3	84
	B	3	0	25
	C	107	47	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A	B	C
From	A	0	0	2
	B	0	0	0
	C	4	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-AC	0.05	6.53	0.1	A
C-AB	0.09	6.02	0.1	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	21	592	0.036	21	0.0	6.306	A
C-AB	40	647	0.062	40	0.1	5.955	A
C-A	76			76			
A-B	2			2			
A-C	63			63			

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	25	588	0.043	25	0.0	6.397	A
C-AB	50	655	0.076	49	0.1	5.977	A
C-A	89			89			
A-B	3			3			
A-C	76			76			

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	31	582	0.053	31	0.1	6.525	A
C-AB	63	666	0.095	63	0.1	6.010	A
C-A	107			107			
A-B	3			3			
A-C	92			92			

17:30 - 17:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	31	582	0.053	31	0.1	6.525	A
C-AB	63	666	0.095	63	0.1	6.016	A
C-A	107			107			
A-B	3			3			
A-C	92			92			

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	25	588	0.043	25	0.0	6.401	A
C-AB	50	655	0.076	50	0.1	5.990	A
C-A	89			89			
A-B	3			3			
A-C	76			76			

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	21	592	0.036	21	0.0	6.312	A
C-AB	40	647	0.063	41	0.1	5.968	A
C-A	75			75			
A-B	2			2			
A-C	63			63			

Appendix D. Junction 2 – PICADY Results

<h1>Junctions 9</h1>
<h2>PICADY 9 - Priority Intersection Module</h2>
Version: 9.5.1.7462 © Copyright TRL Limited, 2019
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Filename: Junction 2.j9

Path: U:\5167317\7 Calcs\72Model

Report generation date: 29/05/2020 20:11:56

-
- »2018 Count year, AM
 - »2018 Count year, PM
 - »2022 Opening year, AM
 - »2022 Opening year, PM
 - »2027 Opening year +5, AM
 - »2027 Opening year +5, PM
 - »2037 Opening year +15, AM
 - »2037 Opening year +15, PM
 - »2022 Opening year with Dev, AM
 - »2022 Opening year with Dev, PM
 - »2027 Opening year +5 with Dev, AM
 - »2027 Opening year +5 with Dev, PM
 - »2037 Opening year +15 with Dev, AM
 - »2037 Opening year +15 with Dev, PM

Summary of junction performance

	AM					PM				
	Set ID	Queue (PCU)	Delay (s)	RFC	LOS	Set ID	Queue (PCU)	Delay (s)	RFC	LOS
2018 Count year										
Stream B-AC	D1	0.2	7.41	0.19	A	D2	0.1	6.85	0.08	A
Stream C-AB		0.0	5.80	0.01	A		0.0	5.78	0.01	A
2022 Opening year										
Stream B-AC	D3	0.3	7.59	0.21	A	D4	0.1	6.94	0.08	A
Stream C-AB		0.0	5.79	0.01	A		0.0	5.76	0.01	A
2027 Opening year +5										
Stream B-AC	D5	0.3	7.84	0.23	A	D6	0.1	7.01	0.09	A
Stream C-AB		0.0	5.78	0.01	A		0.0	5.76	0.01	A
2037 Opening year +15										
Stream B-AC	D7	0.3	8.22	0.25	A	D8	0.1	7.16	0.10	A
Stream C-AB		0.0	5.78	0.01	A		0.0	5.73	0.01	A
2022 Opening year with Dev										
Stream B-AC	D9	0.3	7.63	0.21	A	D10	0.1	6.94	0.08	A
Stream C-AB		0.0	5.72	0.01	A		0.0	5.76	0.01	A
2027 Opening year +5 with Dev										
Stream B-AC	D11	0.3	7.93	0.23	A	D12	0.1	7.03	0.09	A
Stream C-AB		0.0	5.61	0.01	A		0.0	5.69	0.01	A
2037 Opening year +15 with Dev										
Stream B-AC	D13	0.3	8.31	0.26	A	D14	0.1	7.19	0.10	A
Stream C-AB		0.0	5.59	0.01	A		0.0	5.67	0.01	A

Values shown are the highest values encountered over all time segments. Delay is the maximum value of average delay per arriving vehicle.

File summary

File Description

Title	(untitled)
Location	
Site number	
Date	06/06/2018
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	ATKINSMCCARTHY\MCollins
Description	

Units

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

Analysis Options

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

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D1	2018 Count year	AM	ONE HOUR	07:45	09:15	15
D2	2018 Count year	PM	ONE HOUR	16:45	18:15	15
D3	2022 Opening year	AM	ONE HOUR	07:45	09:15	15
D4	2022 Opening year	PM	ONE HOUR	16:45	18:15	15
D5	2027 Opening year +5	AM	ONE HOUR	07:45	09:15	15
D6	2027 Opening year +5	PM	ONE HOUR	16:45	18:15	15
D7	2037 Opening year +15	AM	ONE HOUR	07:45	09:15	15
D8	2037 Opening year +15	PM	ONE HOUR	16:45	18:15	15
D9	2022 Opening year with Dev	AM	ONE HOUR	07:45	09:15	15
D10	2022 Opening year with Dev	PM	ONE HOUR	16:45	18:15	15
D11	2027 Opening year +5 with Dev	AM	ONE HOUR	07:45	09:15	15
D12	2027 Opening year +5 with Dev	PM	ONE HOUR	16:45	18:15	15
D13	2037 Opening year +15 with Dev	AM	ONE HOUR	07:45	09:15	15
D14	2037 Opening year +15 with Dev	PM	ONE HOUR	16:45	18:15	15

Analysis Set Details

ID	Network flow scaling factor (%)
A1	100.000

2018 Count year, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way		2.71	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

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

Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Has right turn bay	Visibility for right turn (m)	Blocks?	Blocking queue (PCU)
C	6.00			70.0	✓	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	4.00	45	25

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	555	0.101	0.255	0.161	0.365
B-C	704	0.108	0.273	-	-
C-B	615	0.238	0.238	-	-

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	2018 Count year	AM	ONE HOUR	07:45	09:15	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 (PCU/hr)	Scaling Factor (%)
A		✓	119	100.000
B		✓	104	100.000
C		✓	73	100.000

Origin-Destination Data

Demand (PCU/hr)

	To			
	A	B	C	
From	A	0	16	103
	B	39	0	65
	C	68	5	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
	A	B	C	
From	A	0	0	1
	B	0	0	0
	C	4	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-AC	0.19	7.41	0.2	A
C-AB	0.01	5.80	0.0	A
C-A				
A-B				
A-C				

Main Results for each time segment

07:45 - 08:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	78	613	0.128	78	0.1	6.724	A
C-AB	4	627	0.007	4	0.0	5.792	A
C-A	51			51			
A-B	12			12			
A-C	78			78			

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	93	607	0.154	93	0.2	7.003	A
C-AB	5	630	0.008	5	0.0	5.777	A
C-A	61			61			
A-B	14			14			
A-C	93			93			

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	115	600	0.191	114	0.2	7.408	A
C-AB	6	634	0.010	6	0.0	5.759	A
C-A	74			74			
A-B	18			18			
A-C	113			113			

08:30 - 08:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	115	600	0.191	115	0.2	7.414	A
C-AB	6	634	0.010	6	0.0	5.761	A
C-A	74			74			
A-B	18			18			
A-C	113			113			

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	93	607	0.154	94	0.2	7.011	A
C-AB	5	630	0.008	5	0.0	5.784	A
C-A	61			61			
A-B	14			14			
A-C	93			93			

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	78	613	0.128	78	0.1	6.741	A
C-AB	4	627	0.007	4	0.0	5.796	A
C-A	51			51			
A-B	12			12			
A-C	78			78			

2018 Count year, PM

Data Errors and Warnings

No errors or warnings

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
Left	Normal/unknown

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	2018 Count year	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 (PCU/hr)	Scaling Factor (%)
A		✓	107	100.000
B		✓	41	100.000
C		✓	68	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A	B	C
From	A	0	35	72
	B	20	0	21
	C	64	4	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A	B	C
From	A	0	0	2
	B	0	0	7
	C	2	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-AC	0.08	6.85	0.1	A
C-AB	0.01	5.78	0.0	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	31	600	0.051	31	0.1	6.546	A
C-AB	3	628	0.005	3	0.0	5.774	A
C-A	48			48			
A-B	26			26			
A-C	54			54			

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	37	595	0.062	37	0.1	6.670	A
C-AB	4	630	0.006	4	0.0	5.757	A
C-A	57			57			
A-B	31			31			
A-C	65			65			

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	45	589	0.077	45	0.1	6.846	A
C-AB	5	634	0.008	5	0.0	5.734	A
C-A	70			70			
A-B	39			39			
A-C	79			79			

17:30 - 17:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	45	589	0.077	45	0.1	6.846	A
C-AB	5	634	0.008	5	0.0	5.737	A
C-A	70			70			
A-B	39			39			
A-C	79			79			

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	37	595	0.062	37	0.1	6.674	A
C-AB	4	630	0.006	4	0.0	5.759	A
C-A	57			57			
A-B	31			31			
A-C	65			65			

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	31	600	0.051	31	0.1	6.551	A
C-AB	3	628	0.005	3	0.0	5.775	A
C-A	48			48			
A-B	26			26			
A-C	54			54			

2022 Opening year, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way		2.79	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

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	2022 Opening year	AM	ONE HOUR	07:45	09:15	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 (PCU/hr)	Scaling Factor (%)
A		✓	127	100.000
B		✓	112	100.000
C		✓	78	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A	B	C
From	A	0	17	110
	B	42	0	70
	C	73	5	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A	B	C
From	A	0	0	1
	B	0	0	0
	C	4	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-AC	0.21	7.59	0.3	A
C-AB	0.01	5.79	0.0	A
C-A				
A-B				
A-C				

Main Results for each time segment

07:45 - 08:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	84	611	0.138	84	0.2	6.822	A
C-AB	4	629	0.007	4	0.0	5.783	A
C-A	55			55			
A-B	13			13			
A-C	83			83			

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	101	605	0.166	101	0.2	7.133	A
C-AB	5	632	0.008	5	0.0	5.766	A
C-A	65			65			
A-B	15			15			
A-C	99			99			

08:15 - 08:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	123	597	0.206	123	0.3	7.587	A
C-AB	6	636	0.010	6	0.0	5.745	A
C-A	80			80			
A-B	19			19			
A-C	121			121			

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	123	597	0.206	123	0.3	7.593	A
C-AB	6	636	0.010	6	0.0	5.750	A
C-A	80			80			
A-B	19			19			
A-C	121			121			

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	101	605	0.166	101	0.2	7.142	A
C-AB	5	632	0.008	5	0.0	5.773	A
C-A	65			65			
A-B	15			15			
A-C	99			99			

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	84	611	0.138	84	0.2	6.842	A
C-AB	4	629	0.007	4	0.0	5.788	A
C-A	55			55			
A-B	13			13			
A-C	83			83			

2022 Opening year, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way		1.43	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

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	2022 Opening year	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 (PCU/hr)	Scaling Factor (%)
A		✓	114	100.000
B		✓	44	100.000
C		✓	73	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A	B	C
From	A	0	37	77
	B	22	0	22
	C	69	4	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A	B	C
From	A	0	0	2
	B	0	0	7
	C	2	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-AC	0.08	6.94	0.1	A
C-AB	0.01	5.76	0.0	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	33	596	0.056	33	0.1	6.603	A
C-AB	3	629	0.005	3	0.0	5.763	A
C-A	52			52			
A-B	28			28			
A-C	58			58			

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	40	591	0.067	40	0.1	6.742	A
C-AB	4	632	0.006	4	0.0	5.743	A
C-A	62			62			
A-B	33			33			
A-C	69			69			

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	48	585	0.083	48	0.1	6.936	A
C-AB	5	636	0.008	5	0.0	5.717	A
C-A	75			75			
A-B	41			41			
A-C	85			85			

17:30 - 17:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	48	585	0.083	48	0.1	6.936	A
C-AB	5	636	0.008	5	0.0	5.721	A
C-A	75			75			
A-B	41			41			
A-C	85			85			

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	40	591	0.067	40	0.1	6.746	A
C-AB	4	632	0.006	4	0.0	5.748	A
C-A	62			62			
A-B	33			33			
A-C	69			69			

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	33	596	0.056	33	0.1	6.612	A
C-AB	3	629	0.005	3	0.0	5.764	A
C-A	52			52			
A-B	28			28			
A-C	58			58			

2027 Opening year +5, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way		2.89	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

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	2027 Opening year +5	AM	ONE HOUR	07:45	09:15	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 (PCU/hr)	Scaling Factor (%)
A		✓	138	100.000
B		✓	122	100.000
C		✓	85	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A	B	C
From	A	0	19	119
	B	46	0	76
	C	79	6	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A	B	C
From	A	0	0	1
	B	0	0	0
	C	4	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-AC	0.23	7.84	0.3	A
C-AB	0.01	5.78	0.0	A
C-A				
A-B				
A-C				

Main Results for each time segment

07:45 - 08:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	92	608	0.151	91	0.2	6.959	A
C-AB	5	630	0.008	5	0.0	5.782	A
C-A	59			59			
A-B	14			14			
A-C	90			90			

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	110	602	0.182	109	0.2	7.311	A
C-AB	6	633	0.010	6	0.0	5.765	A
C-A	70			70			
A-B	17			17			
A-C	107			107			

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	134	593	0.226	134	0.3	7.833	A
C-AB	8	637	0.012	8	0.0	5.744	A
C-A	86			86			
A-B	21			21			
A-C	131			131			

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	134	593	0.226	134	0.3	7.842	A
C-AB	8	637	0.012	8	0.0	5.748	A
C-A	86			86			
A-B	21			21			
A-C	131			131			

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	110	602	0.182	110	0.2	7.322	A
C-AB	6	633	0.010	6	0.0	5.770	A
C-A	70			70			
A-B	17			17			
A-C	107			107			

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	92	608	0.151	92	0.2	6.980	A
C-AB	5	630	0.008	5	0.0	5.785	A
C-A	59			59			
A-B	14			14			
A-C	90			90			

2027 Opening year +5, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way		1.44	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

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	2027 Opening year +5	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 (PCU/hr)	Scaling Factor (%)
A		✓	125	100.000
B		✓	47	100.000
C		✓	80	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A	B	C
From	A	0	41	84
	B	23	0	24
	C	75	5	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A	B	C
From	A	0	0	2
	B	0	0	7
	C	2	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-AC	0.09	7.01	0.1	A
C-AB	0.01	5.76	0.0	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	35	596	0.059	35	0.1	6.643	A
C-AB	4	630	0.007	4	0.0	5.761	A
C-A	56			56			
A-B	31			31			
A-C	63			63			

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	42	590	0.072	42	0.1	6.794	A
C-AB	5	633	0.008	5	0.0	5.741	A
C-A	67			67			
A-B	37			37			
A-C	76			76			

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	52	583	0.089	52	0.1	7.007	A
C-AB	6	638	0.010	6	0.0	5.715	A
C-A	82			82			
A-B	45			45			
A-C	92			92			

17:30 - 17:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	52	583	0.089	52	0.1	7.007	A
C-AB	6	638	0.010	6	0.0	5.718	A
C-A	82			82			
A-B	45			45			
A-C	92			92			

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	42	590	0.072	42	0.1	6.796	A
C-AB	5	633	0.008	5	0.0	5.746	A
C-A	67			67			
A-B	37			37			
A-C	76			76			

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	35	596	0.059	35	0.1	6.649	A
C-AB	4	630	0.007	4	0.0	5.762	A
C-A	56			56			
A-B	31			31			
A-C	63			63			

2037 Opening year +15, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way		3.00	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

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	2037 Opening year +15	AM	ONE HOUR	07:45	09:15	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 (PCU/hr)	Scaling Factor (%)
A		✓	156	100.000
B		✓	136	100.000
C		✓	96	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A	B	C
From	A	0	21	135
	B	51	0	85
	C	89	7	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A	B	C
From	A	0	0	1
	B	0	0	0
	C	4	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-AC	0.25	8.22	0.3	A
C-AB	0.01	5.78	0.0	A
C-A				
A-B				
A-C				

Main Results for each time segment

07:45 - 08:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	102	604	0.170	102	0.2	7.152	A
C-AB	6	632	0.009	6	0.0	5.775	A
C-A	66			66			
A-B	16			16			
A-C	102			102			

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	122	597	0.205	122	0.3	7.573	A
C-AB	7	635	0.011	7	0.0	5.757	A
C-A	79			79			
A-B	19			19			
A-C	121			121			

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	150	588	0.255	149	0.3	8.216	A
C-AB	9	640	0.014	9	0.0	5.733	A
C-A	97			97			
A-B	23			23			
A-C	149			149			

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	150	588	0.255	150	0.3	8.222	A
C-AB	9	640	0.014	9	0.0	5.736	A
C-A	97			97			
A-B	23			23			
A-C	149			149			

08:45 - 09:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	122	597	0.205	123	0.3	7.590	A
C-AB	7	635	0.011	7	0.0	5.765	A
C-A	79			79			
A-B	19			19			
A-C	121			121			

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	102	604	0.170	103	0.2	7.184	A
C-AB	6	632	0.009	6	0.0	5.778	A
C-A	66			66			
A-B	16			16			
A-C	102			102			

2037 Opening year +15, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way		1.48	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

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	2037 Opening year +15	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 (PCU/hr)	Scaling Factor (%)
A		✓	140	100.000
B		✓	54	100.000
C		✓	89	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A	B	C
From	A	0	46	94
	B	26	0	28
	C	84	5	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A	B	C
From	A	0	0	2
	B	0	0	7
	C	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-AC	0.10	7.16	0.1	A
C-AB	0.01	5.73	0.0	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	41	594	0.068	40	0.1	6.732	A
C-AB	4	632	0.007	4	0.0	5.734	A
C-A	63			63			
A-B	35			35			
A-C	71			71			

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	49	588	0.083	48	0.1	6.908	A
C-AB	5	636	0.008	5	0.0	5.709	A
C-A	75			75			
A-B	41			41			
A-C	85			85			

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	59	580	0.103	59	0.1	7.156	A
C-AB	6	641	0.010	6	0.0	5.676	A
C-A	92			92			
A-B	51			51			
A-C	103			103			

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	59	580	0.103	59	0.1	7.159	A
C-AB	6	641	0.010	6	0.0	5.678	A
C-A	92			92			
A-B	51			51			
A-C	103			103			

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	49	588	0.083	49	0.1	6.910	A
C-AB	5	636	0.008	5	0.0	5.712	A
C-A	75			75			
A-B	41			41			
A-C	85			85			

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	41	594	0.068	41	0.1	6.739	A
C-AB	4	632	0.007	4	0.0	5.734	A
C-A	63			63			
A-B	35			35			
A-C	71			71			

2022 Opening year with Dev, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way		2.68	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D9	2022 Opening year with Dev	AM	ONE HOUR	07:45	09:15	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 (PCU/hr)	Scaling Factor (%)
A		✓	127	100.000
B		✓	113	100.000
C		✓	96	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A	B	C
From	A	0	17	110
	B	42	0	71
	C	90	6	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A	B	C
From	A	0	0	1
	B	0	0	0
	C	4	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-AC	0.21	7.63	0.3	A
C-AB	0.01	5.72	0.0	A
C-A				
A-B				
A-C				

Main Results for each time segment

07:45 - 08:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	85	610	0.139	84	0.2	6.840	A
C-AB	5	637	0.008	5	0.0	5.717	A
C-A	67			67			
A-B	13			13			
A-C	83			83			

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	102	604	0.168	101	0.2	7.158	A
C-AB	6	642	0.010	6	0.0	5.688	A
C-A	80			80			
A-B	15			15			
A-C	99			99			

08:15 - 08:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	124	596	0.209	124	0.3	7.624	A
C-AB	8	648	0.012	8	0.0	5.650	A
C-A	98			98			
A-B	19			19			
A-C	121			121			

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	124	596	0.209	124	0.3	7.630	A
C-AB	8	648	0.012	8	0.0	5.653	A
C-A	98			98			
A-B	19			19			
A-C	121			121			

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	102	604	0.168	102	0.2	7.170	A
C-AB	6	642	0.010	6	0.0	5.694	A
C-A	80			80			
A-B	15			15			
A-C	99			99			

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	85	610	0.139	85	0.2	6.863	A
C-AB	5	637	0.008	5	0.0	5.720	A
C-A	67			67			
A-B	13			13			
A-C	83			83			

2022 Opening year with Dev, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way		1.43	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D10	2022 Opening year with Dev	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 (PCU/hr)	Scaling Factor (%)
A		✓	114	100.000
B		✓	44	100.000
C		✓	73	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A	B	C
From	A	0	37	77
	B	22	0	22
	C	69	4	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A	B	C
From	A	0	0	2
	B	0	0	7
	C	2	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-AC	0.08	6.94	0.1	A
C-AB	0.01	5.76	0.0	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	33	596	0.056	33	0.1	6.603	A
C-AB	3	629	0.005	3	0.0	5.763	A
C-A	52			52			
A-B	28			28			
A-C	58			58			

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	40	591	0.067	40	0.1	6.742	A
C-AB	4	632	0.006	4	0.0	5.743	A
C-A	62			62			
A-B	33			33			
A-C	69			69			

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	48	585	0.083	48	0.1	6.936	A
C-AB	5	636	0.008	5	0.0	5.717	A
C-A	75			75			
A-B	41			41			
A-C	85			85			

17:30 - 17:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	48	585	0.083	48	0.1	6.936	A
C-AB	5	636	0.008	5	0.0	5.721	A
C-A	75			75			
A-B	41			41			
A-C	85			85			

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	40	591	0.067	40	0.1	6.746	A
C-AB	4	632	0.006	4	0.0	5.748	A
C-A	62			62			
A-B	33			33			
A-C	69			69			

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	33	596	0.056	33	0.1	6.612	A
C-AB	3	629	0.005	3	0.0	5.764	A
C-A	52			52			
A-B	28			28			
A-C	58			58			

2027 Opening year +5 with Dev, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way		2.62	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D11	2027 Opening year +5 with Dev	AM	ONE HOUR	07:45	09:15	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 (PCU/hr)	Scaling Factor (%)
A		✓	138	100.000
B		✓	123	100.000
C		✓	130	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A	B	C
From	A	0	19	119
	B	46	0	77
	C	123	7	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A	B	C
From	A	0	0	1
	B	0	0	0
	C	4	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-AC	0.23	7.93	0.3	A
C-AB	0.01	5.61	0.0	A
C-A				
A-B				
A-C				

Main Results for each time segment

07:45 - 08:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	93	605	0.153	92	0.2	6.998	A
C-AB	6	652	0.009	6	0.0	5.603	A
C-A	92			92			
A-B	14			14			
A-C	90			90			

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	111	599	0.185	110	0.2	7.371	A
C-AB	8	660	0.011	8	0.0	5.553	A
C-A	109			109			
A-B	17			17			
A-C	107			107			

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	135	590	0.230	135	0.3	7.917	A
C-AB	10	670	0.014	10	0.0	5.488	A
C-A	133			133			
A-B	21			21			
A-C	131			131			

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	135	590	0.230	135	0.3	7.927	A
C-AB	10	670	0.014	10	0.0	5.494	A
C-A	133			133			
A-B	21			21			
A-C	131			131			

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	111	599	0.185	111	0.2	7.383	A
C-AB	8	660	0.011	8	0.0	5.561	A
C-A	109			109			
A-B	17			17			
A-C	107			107			

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	93	605	0.153	93	0.2	7.026	A
C-AB	6	652	0.009	6	0.0	5.607	A
C-A	92			92			
A-B	14			14			
A-C	90			90			

2027 Opening year +5 with Dev, PM

Data Errors and Warnings

No errors or warnings

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
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D12	2027 Opening year +5 with Dev	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 (PCU/hr)	Scaling Factor (%)
A		✓	125	100.000
B		✓	49	100.000
C		✓	97	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A	B	C
From	A	0	41	84
	B	23	0	26
	C	92	5	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A	B	C
From	A	0	0	2
	B	0	0	7
	C	2	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-AC	0.09	7.03	0.1	A
C-AB	0.01	5.69	0.0	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	37	597	0.062	37	0.1	6.647	A
C-AB	4	639	0.007	4	0.0	5.686	A
C-A	69			69			
A-B	31			31			
A-C	63			63			

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	44	592	0.074	44	0.1	6.805	A
C-AB	5	643	0.008	5	0.0	5.652	A
C-A	82			82			
A-B	37			37			
A-C	76			76			

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	54	585	0.092	54	0.1	7.028	A
C-AB	7	650	0.010	7	0.0	5.607	A
C-A	100			100			
A-B	45			45			
A-C	92			92			

17:30 - 17:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	54	584	0.092	54	0.1	7.028	A
C-AB	7	650	0.010	7	0.0	5.610	A
C-A	100			100			
A-B	45			45			
A-C	92			92			

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	44	592	0.074	44	0.1	6.807	A
C-AB	5	643	0.008	5	0.0	5.655	A
C-A	82			82			
A-B	37			37			
A-C	76			76			

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	37	597	0.062	37	0.1	6.657	A
C-AB	4	639	0.007	4	0.0	5.690	A
C-A	69			69			
A-B	31			31			
A-C	63			63			

2037 Opening year +15 with Dev, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way		2.74	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D13	2037 Opening year +15 with Dev	AM	ONE HOUR	07:45	09:15	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 (PCU/hr)	Scaling Factor (%)
A		✓	156	100.000
B		✓	137	100.000
C		✓	140	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A	B	C
From	A	0	21	135
	B	51	0	86
	C	133	7	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A	B	C
From	A	0	0	1
	B	0	0	0
	C	4	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-AC	0.26	8.31	0.3	A
C-AB	0.01	5.59	0.0	A
C-A				
A-B				
A-C				

Main Results for each time segment

07:45 - 08:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	103	602	0.171	102	0.2	7.196	A
C-AB	6	654	0.010	6	0.0	5.589	A
C-A	99			99			
A-B	16			16			
A-C	102			102			

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	123	594	0.207	123	0.3	7.634	A
C-AB	8	662	0.012	8	0.0	5.536	A
C-A	118			118			
A-B	19			19			
A-C	121			121			

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	151	584	0.258	150	0.3	8.299	A
C-AB	10	673	0.015	10	0.0	5.467	A
C-A	144			144			
A-B	23			23			
A-C	149			149			

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	151	584	0.258	151	0.3	8.312	A
C-AB	10	673	0.015	10	0.0	5.471	A
C-A	144			144			
A-B	23			23			
A-C	149			149			

08:45 - 09:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	123	594	0.207	123	0.3	7.654	A
C-AB	8	662	0.012	8	0.0	5.546	A
C-A	118			118			
A-B	19			19			
A-C	121			121			

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	103	602	0.171	103	0.2	7.225	A
C-AB	6	654	0.010	6	0.0	5.595	A
C-A	99			99			
A-B	16			16			
A-C	102			102			

2037 Opening year +15 with Dev, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way		1.45	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D14	2037 Opening year +15 with Dev	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 (PCU/hr)	Scaling Factor (%)
A		✓	138	100.000
B		✓	55	100.000
C		✓	108	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A	B	C
From	A	0	44	94
	B	26	0	29
	C	102	6	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A	B	C
From	A	0	0	2
	B	0	0	7
	C	2	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-AC	0.10	7.19	0.1	A
C-AB	0.01	5.67	0.0	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	41	594	0.070	41	0.1	6.745	A
C-AB	5	641	0.008	5	0.0	5.670	A
C-A	76			76			
A-B	33			33			
A-C	71			71			

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	49	588	0.084	49	0.1	6.926	A
C-AB	6	647	0.010	6	0.0	5.633	A
C-A	91			91			
A-B	40			40			
A-C	85			85			

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	61	579	0.105	60	0.1	7.184	A
C-AB	8	655	0.012	8	0.0	5.584	A
C-A	111			111			
A-B	48			48			
A-C	103			103			

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	61	579	0.105	61	0.1	7.186	A
C-AB	8	655	0.012	8	0.0	5.588	A
C-A	111			111			
A-B	48			48			
A-C	103			103			

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	49	588	0.084	50	0.1	6.929	A
C-AB	6	647	0.010	6	0.0	5.637	A
C-A	91			91			
A-B	40			40			
A-C	85			85			

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	41	594	0.070	41	0.1	6.754	A
C-AB	5	641	0.008	5	0.0	5.674	A
C-A	76			76			
A-B	33			33			
A-C	71			71			

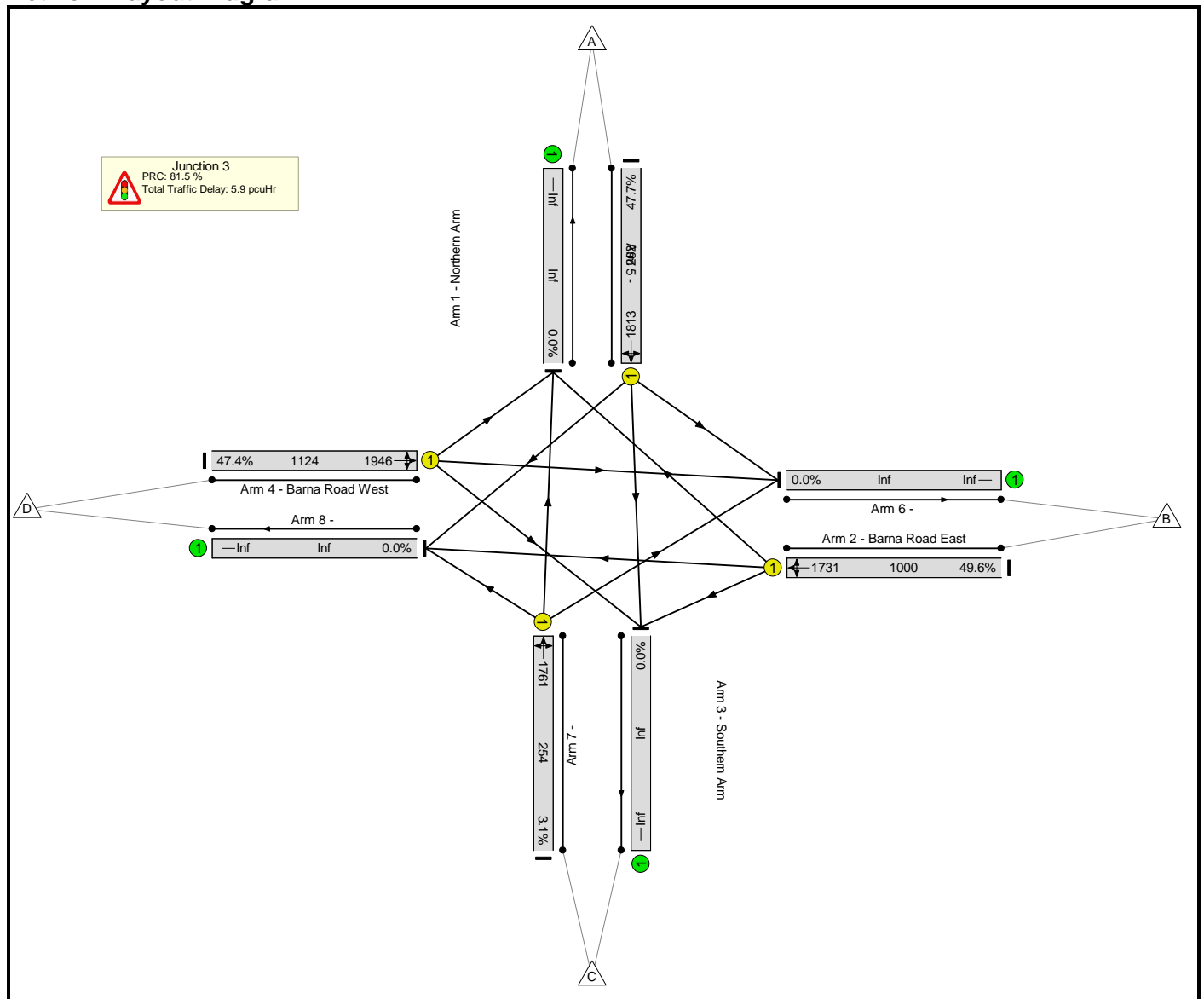
Appendix E. Junction 3 – LinSig Results

Basic Results Summary
Basic Results Summary

User and Project Details

Project:	
Title:	
Location:	
Additional detail:	
File name:	Junction 3 - V1.lsg3x
Author:	
Company:	
Address:	

Scenario 1: '2018 Count Year AM' (FG1: '2018 Count year AM', Plan 1: 'Network Control Plan 1')
Network Layout Diagram



Basic Results Summary

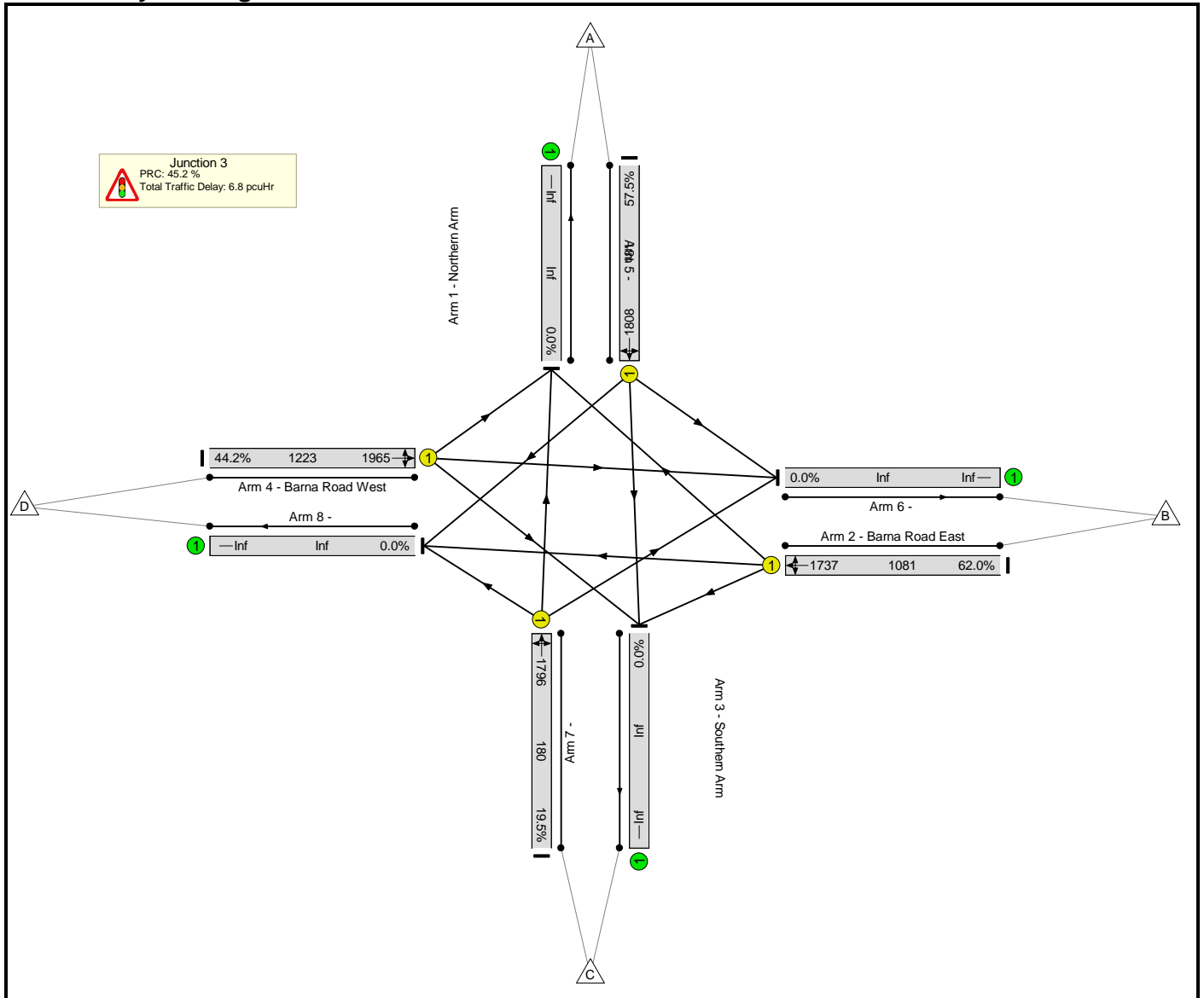
Network Results

Item	Lane Description	Lane Type	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Mean Max Queue (pcu)
Network	-	-	-		-	-	-	-	-	-	49.6%	0	0	0	5.9	-	-
Junction 3	-	-	-		-	-	-	-	-	-	49.6%	0	0	0	5.9	-	-
1/1	Northern Arm Left Ahead Right	U	A		1	12	-	125	1813	262	47.7%	-	-	-	1.7	48.5	3.3
2/1	Barna Road East Right Left Ahead	U	B		1	51	-	496	1731	1000	49.6%	-	-	-	2.0	14.8	7.8
3/1	Southern Arm Ahead Right Left	U	C		1	12	-	8	1761	254	3.1%	-	-	-	0.1	40.7	0.2
4/1	Barna Road West Left Ahead Right	U	D		1	51	-	533	1946	1124	47.4%	-	-	-	2.1	14.1	8.1
		C1			PRC for Signalled Lanes (%):		81.5	Total Delay for Signalled Lanes (pcuHr):		5.90		Cycle Time (s):		90			
					PRC Over All Lanes (%):		81.5	Total Delay Over All Lanes(pcuHr):		5.90							

Basic Results Summary

Scenario 2: '2018 Count Year PM' (FG2: '2018 Count Year PM', Plan 1: 'Network Control Plan 1')

Network Layout Diagram



Basic Results Summary

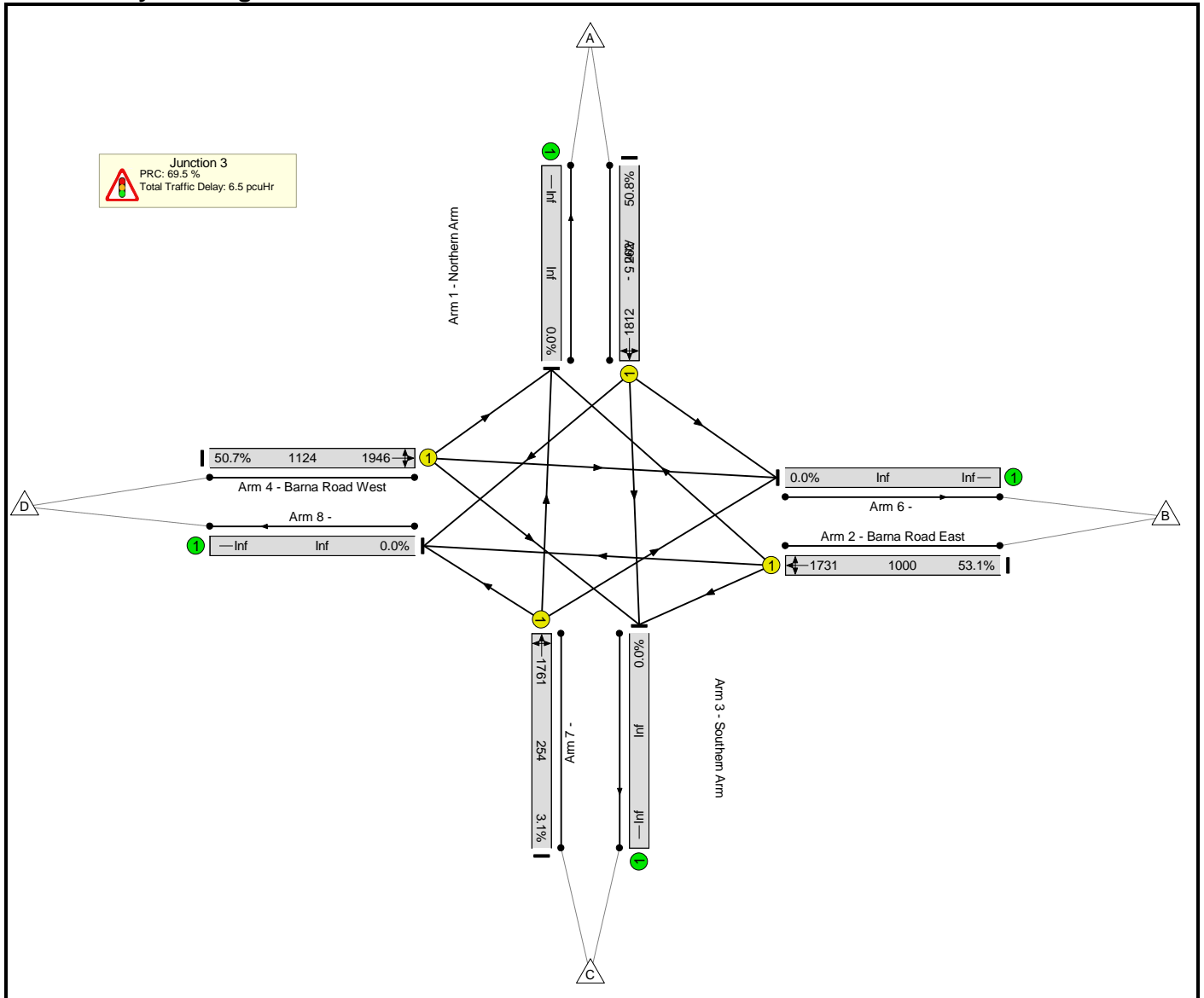
Network Results

Item	Lane Description	Lane Type	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Mean Max Queue (pcu)
Network	-	-	-		-	-	-	-	-	-	62.0%	0	0	0	6.8	-	-
Junction 3	-	-	-		-	-	-	-	-	-	62.0%	0	0	0	6.8	-	-
1/1	Northern Arm Left Ahead Right	U	A		1	8	-	104	1808	181	57.5%	-	-	-	1.8	61.7	3.1
2/1	Barna Road East Right Left Ahead	U	B		1	55	-	670	1737	1081	62.0%	-	-	-	2.8	14.8	11.0
3/1	Southern Arm Ahead Right Left	U	C		1	8	-	35	1796	180	19.5%	-	-	-	0.5	49.7	0.9
4/1	Barna Road West Left Ahead Right	U	D		1	55	-	541	1965	1223	44.2%	-	-	-	1.7	11.5	7.3
		C1			PRC for Signalled Lanes (%):		45.2	Total Delay for Signalled Lanes (pcuHr):		6.75		Cycle Time (s):		90			
					PRC Over All Lanes (%):		45.2	Total Delay Over All Lanes(pcuHr):		6.75							

Basic Results Summary

Scenario 3: '2022 Opening Year AM' (FG3: '2022 Opening Year AM', Plan 1: 'Network Control Plan 1')

Network Layout Diagram



Basic Results Summary

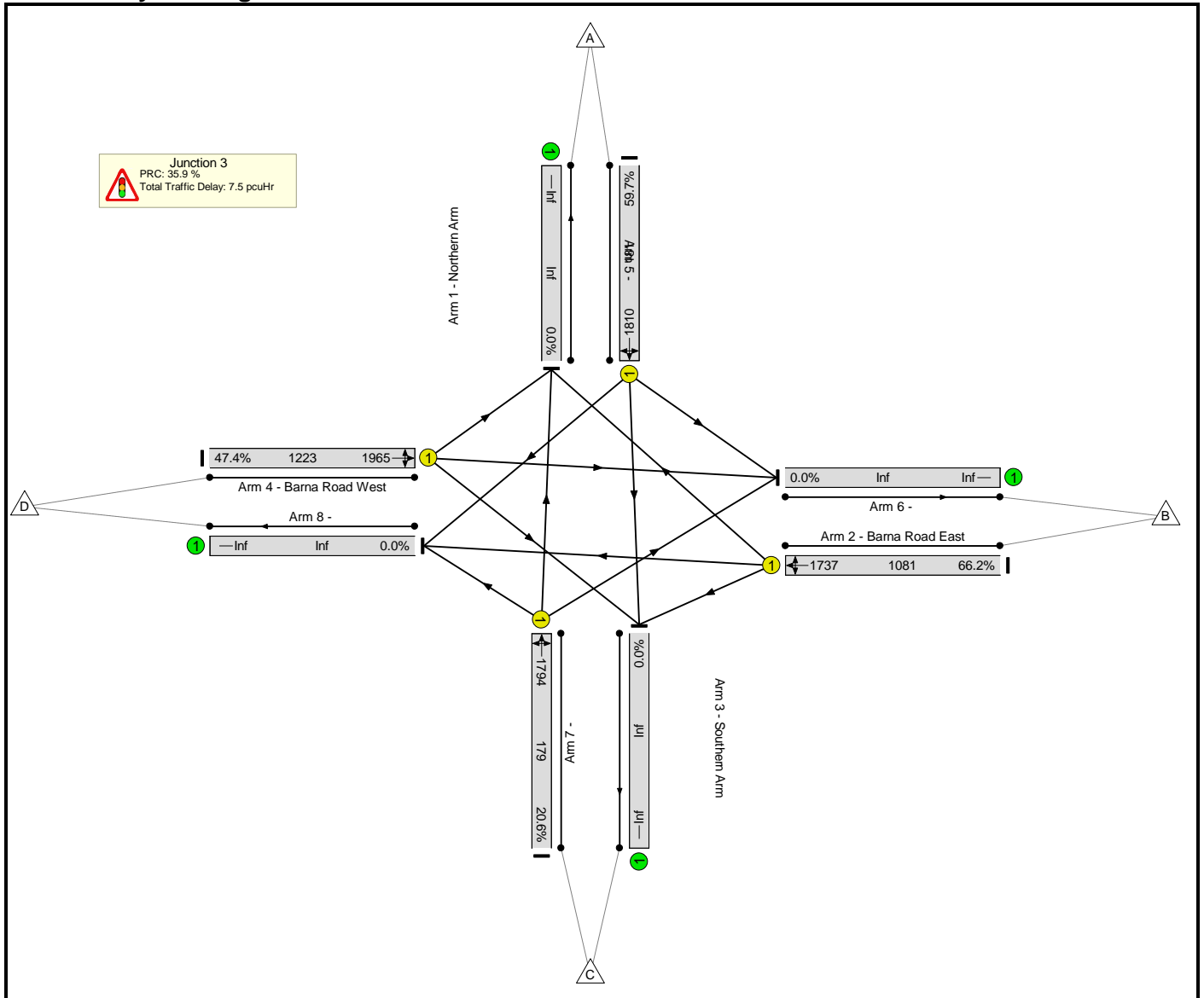
Network Results

Item	Lane Description	Lane Type	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Mean Max Queue (pcu)
Network	-	-	-		-	-	-	-	-	-	53.1%	0	0	0	6.5	-	-
Junction 3	-	-	-		-	-	-	-	-	-	53.1%	0	0	0	6.5	-	-
1/1	Northern Arm Left Ahead Right	U	A		1	12	-	133	1812	262	50.8%	-	-	-	1.8	49.4	3.6
2/1	Barna Road East Right Left Ahead	U	B		1	51	-	531	1731	1000	53.1%	-	-	-	2.3	15.4	8.5
3/1	Southern Arm Ahead Right Left	U	C		1	12	-	8	1761	254	3.1%	-	-	-	0.1	40.7	0.2
4/1	Barna Road West Left Ahead Right	U	D		1	51	-	570	1946	1124	50.7%	-	-	-	2.3	14.6	8.9
		C1		PRC for Signalled Lanes (%):		69.5	Total Delay for Signalled Lanes (pcuHr):		6.50	Cycle Time (s):		90					
				PRC Over All Lanes (%):		69.5	Total Delay Over All Lanes(pcuHr):		6.50								

Basic Results Summary

Scenario 4: '2022 Opening Year PM' (FG4: '2022 Opening year PM', Plan 1: 'Network Control Plan 1')

Network Layout Diagram



Basic Results Summary

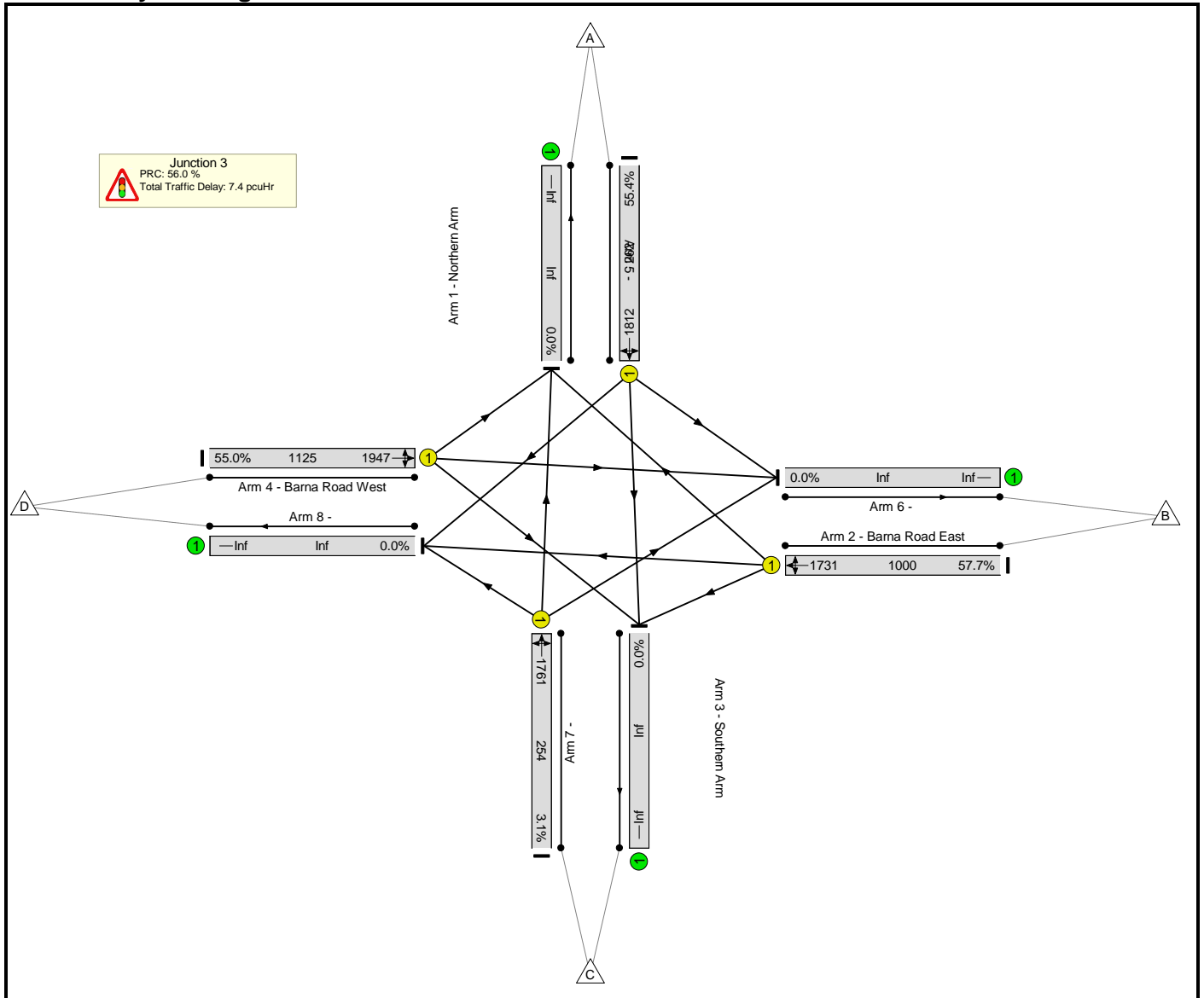
Network Results

Item	Lane Description	Lane Type	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Mean Max Queue (pcu)
Network	-	-	-		-	-	-	-	-	-	66.2%	0	0	0	7.5	-	-
Junction 3	-	-	-		-	-	-	-	-	-	66.2%	0	0	0	7.5	-	-
1/1	Northern Arm Left Ahead Right	U	A		1	8	-	108	1810	181	59.7%	-	-	-	1.9	63.0	3.3
2/1	Barna Road East Right Left Ahead	U	B		1	55	-	716	1737	1081	66.2%	-	-	-	3.1	15.8	12.3
3/1	Southern Arm Ahead Right Left	U	C		1	8	-	37	1794	179	20.6%	-	-	-	0.5	49.9	1.0
4/1	Barna Road West Left Ahead Right	U	D		1	55	-	579	1965	1223	47.4%	-	-	-	1.9	11.9	8.2
		C1		PRC for Signalled Lanes (%):		35.9		Total Delay for Signalled Lanes (pcuHr):		7.46		Cycle Time (s):		90			
				PRC Over All Lanes (%):		35.9		Total Delay Over All Lanes(pcuHr):		7.46							

Basic Results Summary

Scenario 5: '2027 Opening Year +5 AM' (FG5: '2027 Opening year +5 AM', Plan 1: 'Network Control Plan 1')

Network Layout Diagram



Basic Results Summary

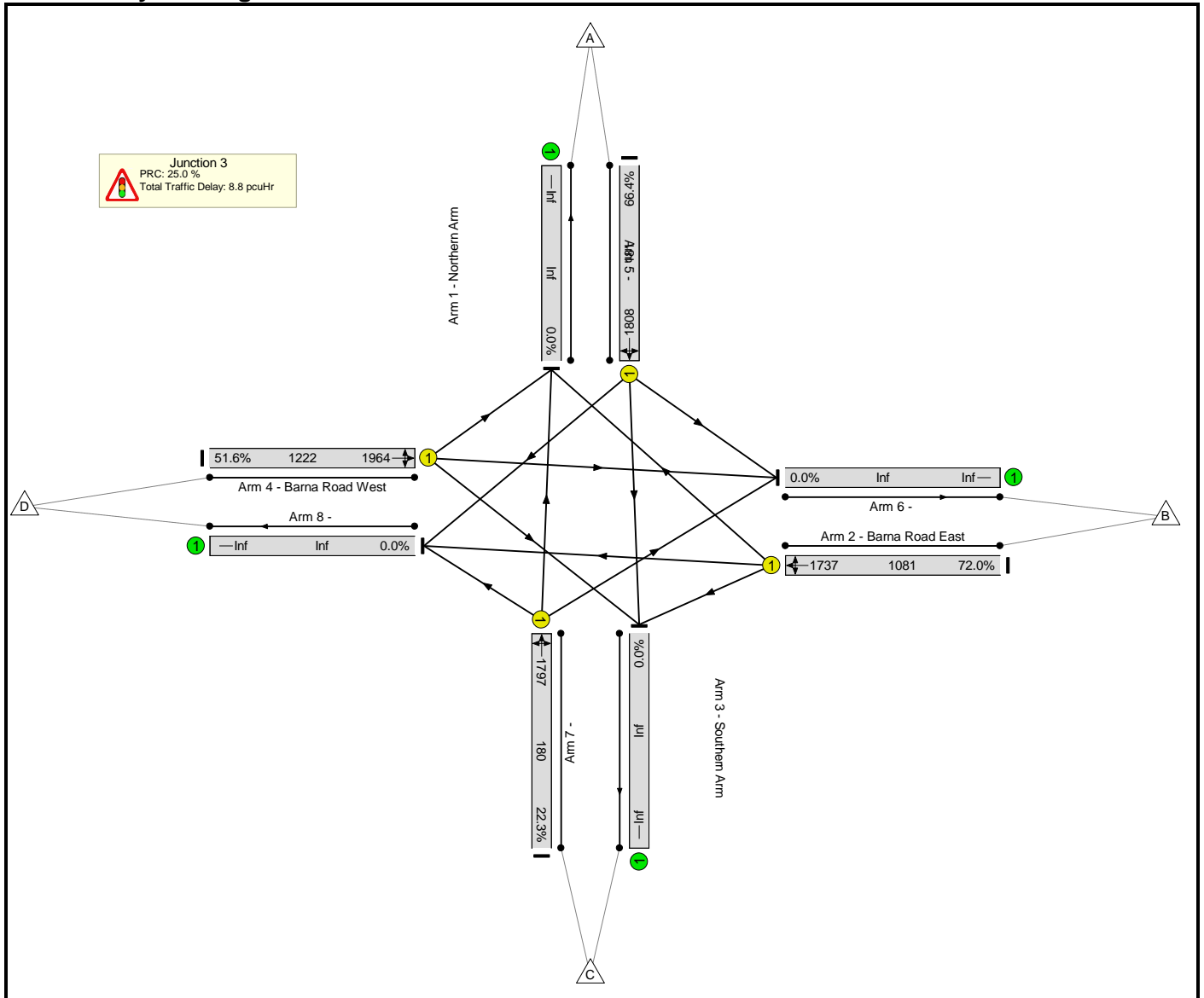
Network Results

Item	Lane Description	Lane Type	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Mean Max Queue (pcu)
Network	-	-	-		-	-	-	-	-	-	57.7%	0	0	0	7.4	-	-
Junction 3	-	-	-		-	-	-	-	-	-	57.7%	0	0	0	7.4	-	-
1/1	Northern Arm Left Ahead Right	U	A		1	12	-	145	1812	262	55.4%	-	-	-	2.1	51.1	4.0
2/1	Barna Road East Right Left Ahead	U	B		1	51	-	577	1731	1000	57.7%	-	-	-	2.6	16.3	9.8
3/1	Southern Arm Ahead Right Left	U	C		1	12	-	8	1761	254	3.1%	-	-	-	0.1	40.7	0.2
4/1	Barna Road West Left Ahead Right	U	D		1	51	-	619	1947	1125	55.0%	-	-	-	2.6	15.3	10.1
		C1		PRC for Signalled Lanes (%):		56.0		Total Delay for Signalled Lanes (pcuHr):		7.39		Cycle Time (s):		90			
				PRC Over All Lanes (%):		56.0		Total Delay Over All Lanes(pcuHr):		7.39							

Basic Results Summary

Scenario 6: '2027 Opening Year +5 PM' (FG6: '2027 Opening year +5 PM', Plan 1: 'Network Control Plan 1')

Network Layout Diagram



Basic Results Summary

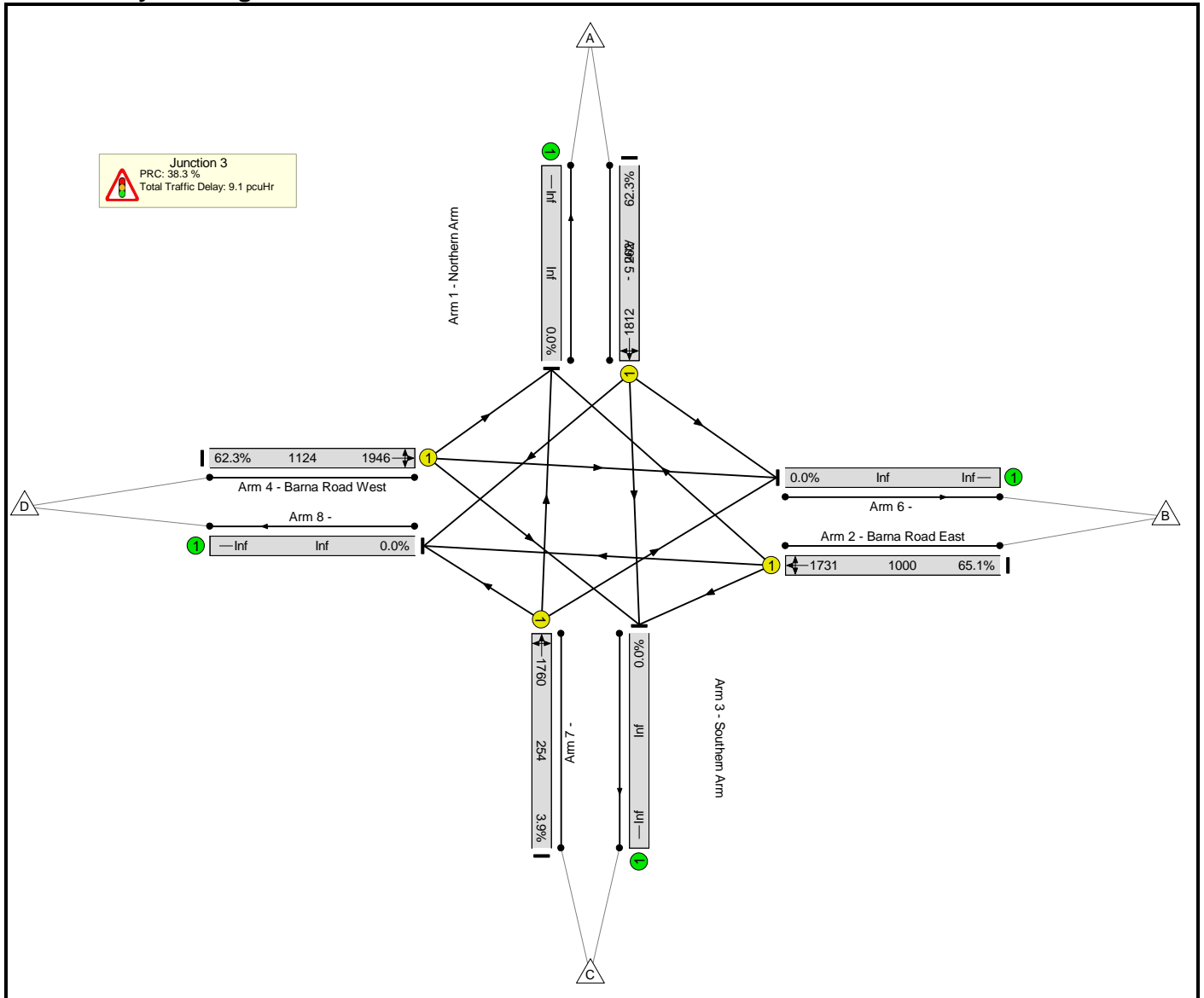
Network Results

Item	Lane Description	Lane Type	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Mean Max Queue (pcu)
Network	-	-	-		-	-	-	-	-	-	72.0%	0	0	0	8.8	-	-
Junction 3	-	-	-		-	-	-	-	-	-	72.0%	0	0	0	8.8	-	-
1/1	Northern Arm Left Ahead Right	U	A		1	8	-	120	1808	181	66.4%	-	-	-	2.3	67.8	3.8
2/1	Barna Road East Right Left Ahead	U	B		1	55	-	778	1737	1081	72.0%	-	-	-	3.8	17.5	14.5
3/1	Southern Arm Ahead Right Left	U	C		1	8	-	40	1797	180	22.3%	-	-	-	0.6	50.2	1.1
4/1	Barna Road West Left Ahead Right	U	D		1	55	-	631	1964	1222	51.6%	-	-	-	2.2	12.5	9.3
		C1		PRC for Signalled Lanes (%):		25.0		Total Delay for Signalled Lanes (pcuHr):		8.80		Cycle Time (s):		90			
				PRC Over All Lanes (%):		25.0		Total Delay Over All Lanes(pcuHr):		8.80							

Basic Results Summary

Scenario 7: '2037 Opening Year +15 AM' (FG7: '2037 Opening year +15 AM', Plan 1: 'Network Control Plan 1')

Network Layout Diagram



Basic Results Summary

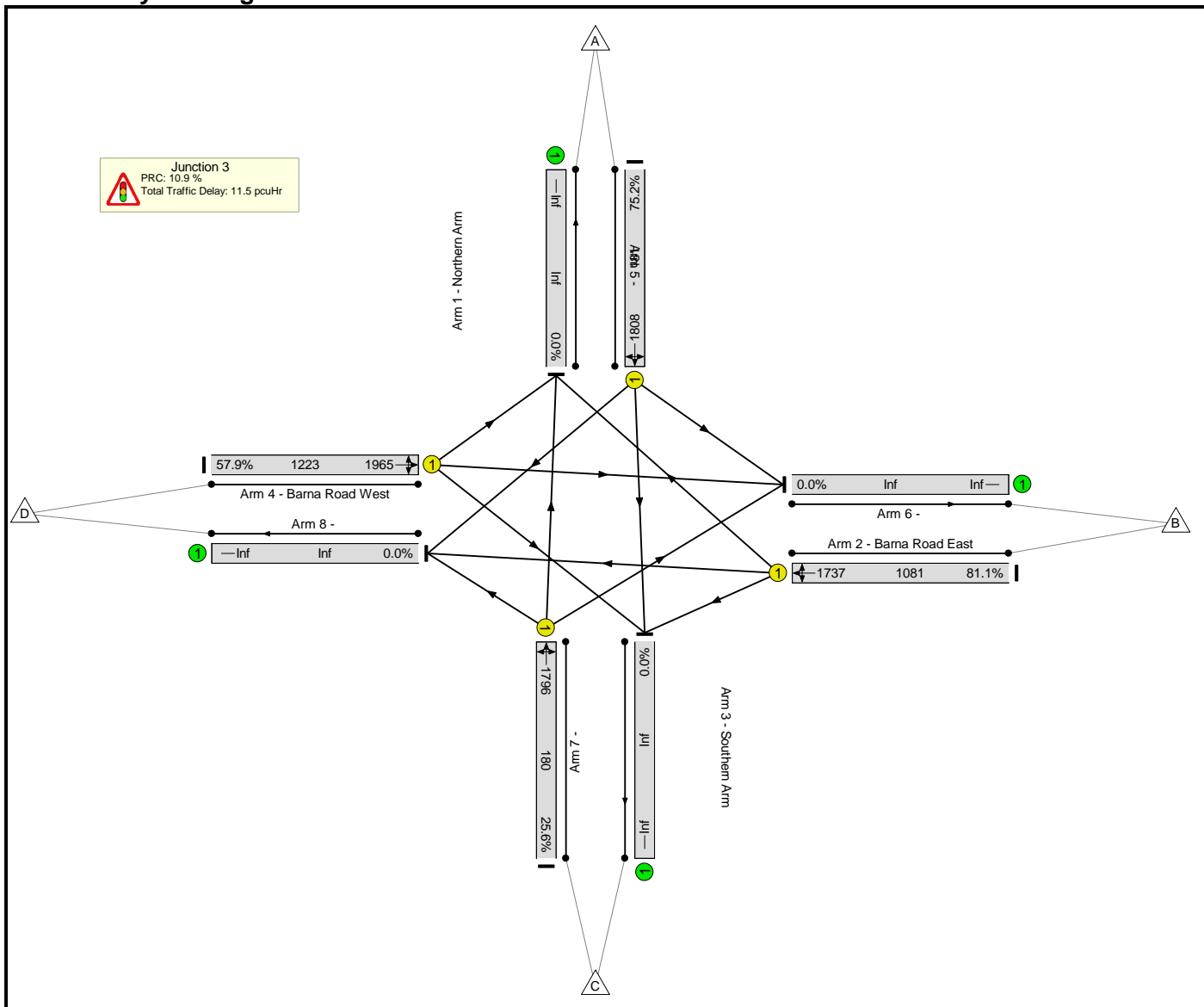
Network Results

Item	Lane Description	Lane Type	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Mean Max Queue (pcu)
Network	-	-	-		-	-	-	-	-	-	65.1%	0	0	0	9.1	-	-
Junction 3	-	-	-		-	-	-	-	-	-	65.1%	0	0	0	9.1	-	-
1/1	Northern Arm Left Ahead Right	U	A		1	12	-	163	1812	262	62.3%	-	-	-	2.5	54.1	4.6
2/1	Barna Road East Right Left Ahead	U	B		1	51	-	651	1731	1000	65.1%	-	-	-	3.3	18.0	11.8
3/1	Southern Arm Ahead Right Left	U	C		1	12	-	10	1760	254	3.9%	-	-	-	0.1	40.7	0.2
4/1	Barna Road West Left Ahead Right	U	D		1	51	-	701	1946	1124	62.3%	-	-	-	3.3	16.8	12.3
		C1		PRC for Signalled Lanes (%):		38.3		Total Delay for Signalled Lanes (pcuHr):		9.08		Cycle Time (s):		90			
				PRC Over All Lanes (%):		38.3		Total Delay Over All Lanes(pcuHr):		9.08							

Basic Results Summary

Scenario 8: '2037 Opening Year +15 PM' (FG8: '2037 Opening year +15 PM', Plan 1: 'Network Control Plan 1')

Network Layout Diagram



Basic Results Summary

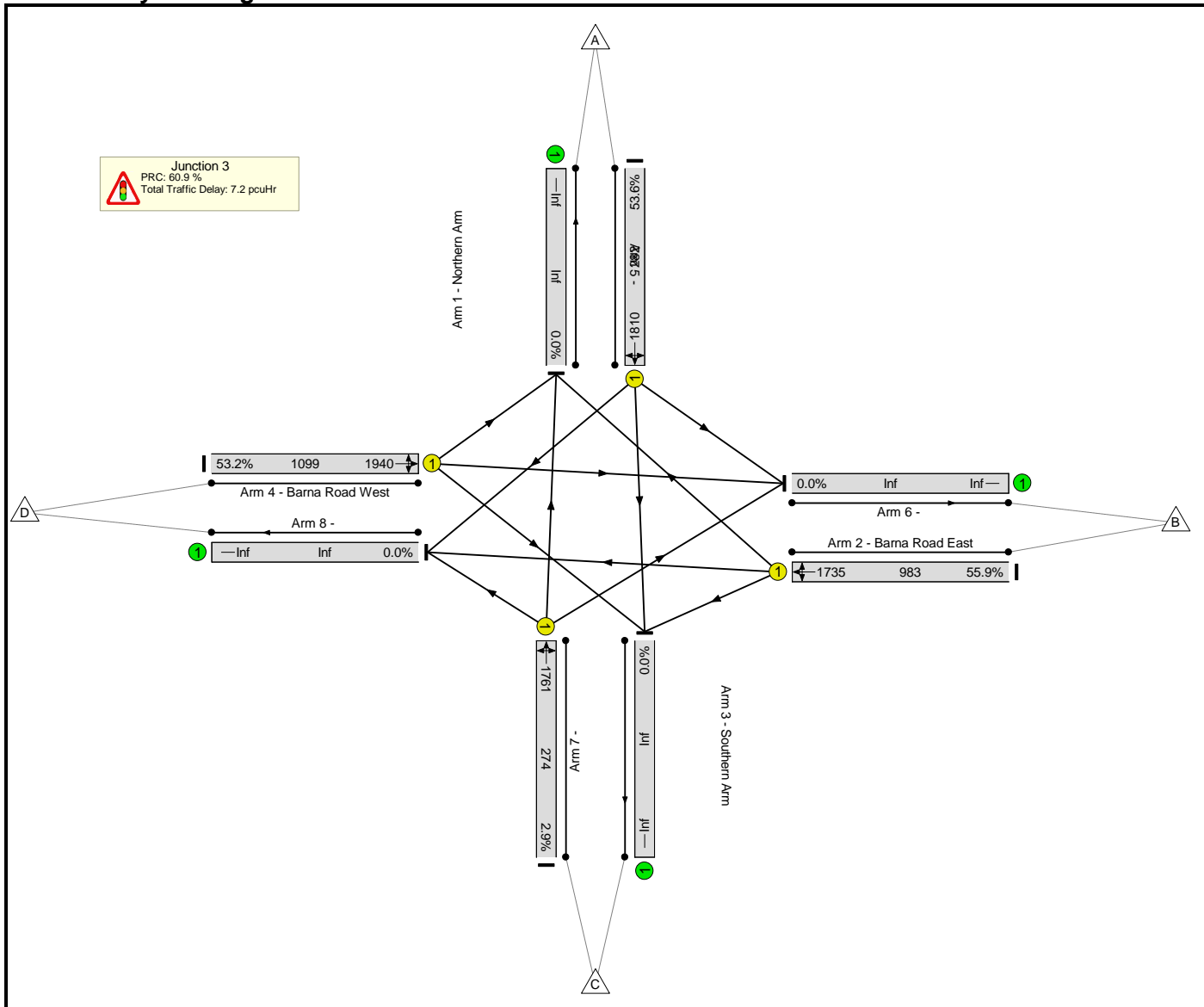
Network Results

Item	Lane Description	Lane Type	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Mean Max Queue (pcu)
Network	-	-	-		-	-	-	-	-	-	81.1%	0	0	0	11.5	-	-
Junction 3	-	-	-		-	-	-	-	-	-	81.1%	0	0	0	11.5	-	-
1/1	Northern Arm Left Ahead Right	U	A		1	8	-	136	1808	181	75.2%	-	-	-	2.9	77.2	4.7
2/1	Barna Road East Right Left Ahead	U	B		1	55	-	877	1737	1081	81.1%	-	-	-	5.3	21.6	18.7
3/1	Southern Arm Ahead Right Left	U	C		1	8	-	46	1796	180	25.6%	-	-	-	0.7	50.9	1.2
4/1	Barna Road West Left Ahead Right	U	D		1	55	-	708	1965	1223	57.9%	-	-	-	2.7	13.5	11.1
		C1		PRC for Signalled Lanes (%):		10.9		Total Delay for Signalled Lanes (pcuHr):		11.50		Cycle Time (s):		90			
				PRC Over All Lanes (%):		10.9		Total Delay Over All Lanes(pcuHr):		11.50							

Basic Results Summary

Scenario 9: '2022 Opening Year with Dev AM' (FG9: '2022 Opening year with development AM', Plan 1: 'Network Control Plan 1')

Network Layout Diagram



Basic Results Summary

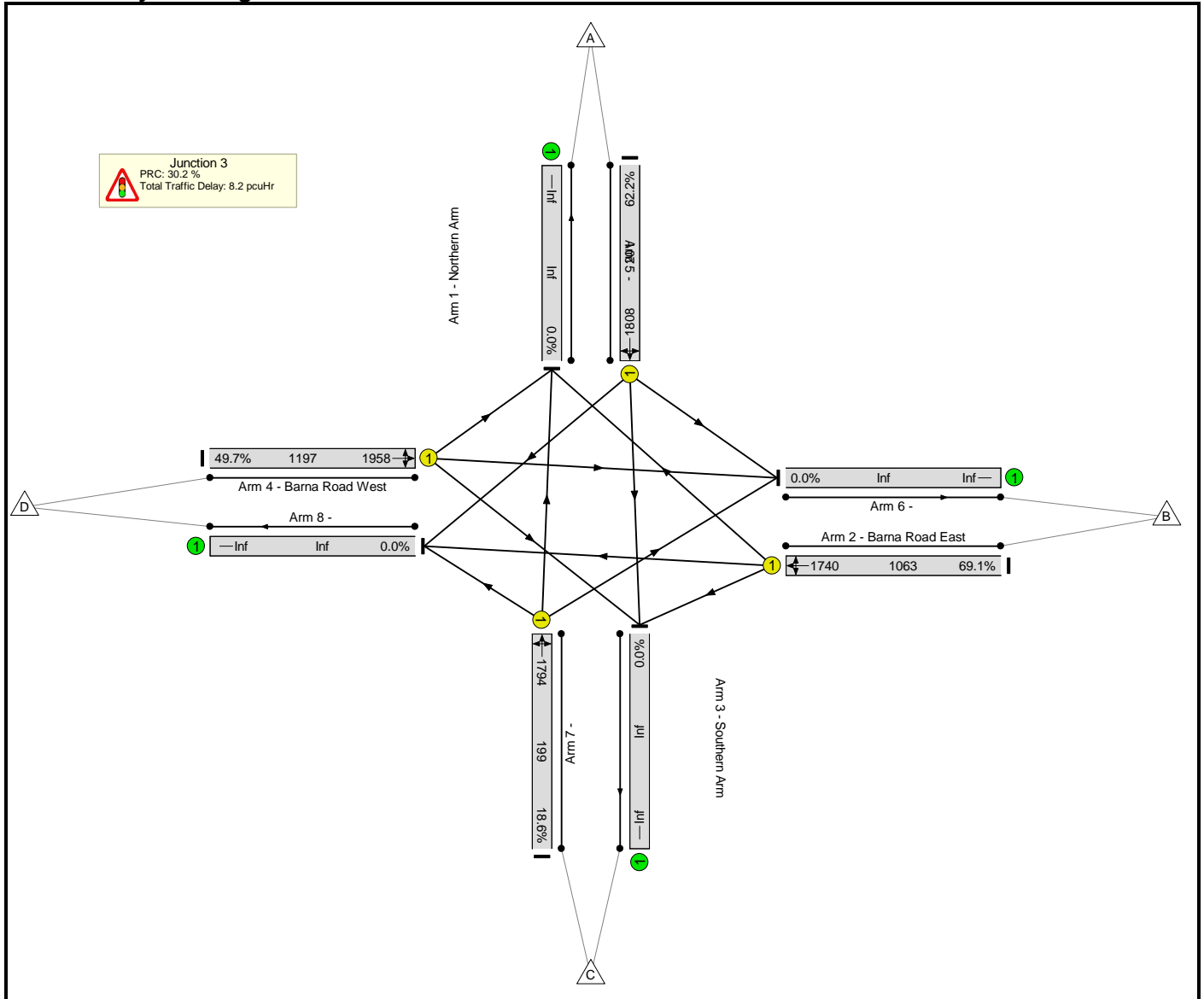
Network Results

Item	Lane Description	Lane Type	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Mean Max Queue (pcu)
Network	-	-	-		-	-	-	-	-	-	55.9%	0	0	0	7.2	-	-
Junction 3	-	-	-		-	-	-	-	-	-	55.9%	0	0	0	7.2	-	-
1/1	Northern Arm Left Ahead Right	U	A		1	13	-	151	1810	282	53.6%	-	-	-	2.0	48.7	4.0
2/1	Barna Road East Right Left Ahead	U	B		1	50	-	550	1735	983	55.9%	-	-	-	2.5	16.5	9.3
3/1	Southern Arm Ahead Right Left	U	C		1	13	-	8	1761	274	2.9%	-	-	-	0.1	39.3	0.2
4/1	Barna Road West Left Ahead Right	U	D		1	50	-	585	1940	1099	53.2%	-	-	-	2.5	15.6	9.5
		C1			PRC for Signalled Lanes (%):		60.9	Total Delay for Signalled Lanes (pcuHr):		7.19	Cycle Time (s):		90				
					PRC Over All Lanes (%):		60.9	Total Delay Over All Lanes(pcuHr):		7.19							

Basic Results Summary

Scenario 10: '2022 Opeing year with Dev PM' (FG10: '2022 Opening year with development PM', Plan 1: 'Network Control Plan 1')

Network Layout Diagram



Basic Results Summary

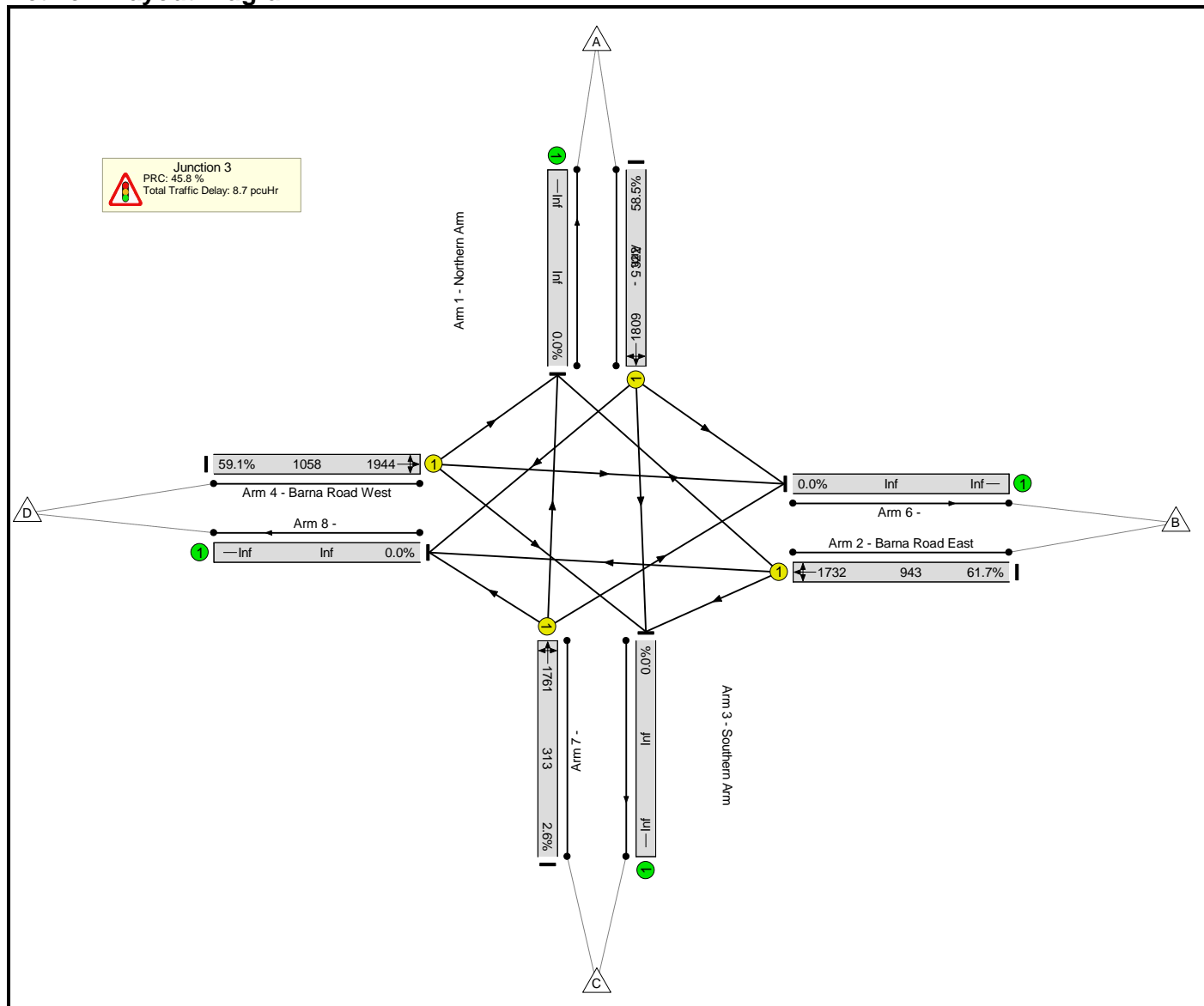
Network Results

Item	Lane Description	Lane Type	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Mean Max Queue (pcu)																
Network	-	-	-		-	-	-	-	-	-	69.1%	0	0	0	8.2	-	-																
Junction 3	-	-	-		-	-	-	-	-	-	69.1%	0	0	0	8.2	-	-																
1/1	Northern Arm Left Ahead Right	U	A		1	9	-	125	1808	201	62.2%	-	-	-	2.1	61.4	3.8																
2/1	Barna Road East Right Left Ahead	U	B		1	54	-	735	1740	1063	69.1%	-	-	-	3.5	17.2	13.4																
3/1	Southern Arm Ahead Right Left	U	C		1	9	-	37	1794	199	18.6%	-	-	-	0.5	47.4	0.9																
4/1	Barna Road West Left Ahead Right	U	D		1	54	-	595	1958	1197	49.7%	-	-	-	2.1	12.8	8.8																
<table style="width:100%; border:none;"> <tr> <td style="width:20%;"></td> <td style="width:20%;">C1</td> <td style="width:20%;">PRC for Signalled Lanes (%):</td> <td style="width:10%;">30.2</td> <td style="width:20%;">Total Delay for Signalled Lanes (pcuHr):</td> <td style="width:10%;">8.25</td> <td style="width:10%;">Cycle Time (s):</td> <td style="width:10%;">90</td> </tr> <tr> <td></td> <td></td> <td>PRC Over All Lanes (%):</td> <td>30.2</td> <td>Total Delay Over All Lanes(pcuHr):</td> <td>8.25</td> <td></td> <td></td> </tr> </table>																			C1	PRC for Signalled Lanes (%):	30.2	Total Delay for Signalled Lanes (pcuHr):	8.25	Cycle Time (s):	90			PRC Over All Lanes (%):	30.2	Total Delay Over All Lanes(pcuHr):	8.25		
	C1	PRC for Signalled Lanes (%):	30.2	Total Delay for Signalled Lanes (pcuHr):	8.25	Cycle Time (s):	90																										
		PRC Over All Lanes (%):	30.2	Total Delay Over All Lanes(pcuHr):	8.25																												

Basic Results Summary

Scenario 11: '2027 Opening Year +5 with Dev AM' (FG11: '2027 Opening year +5 with development AM', Plan 1: 'Network Control Plan 1')

Network Layout Diagram



Basic Results Summary

Network Results

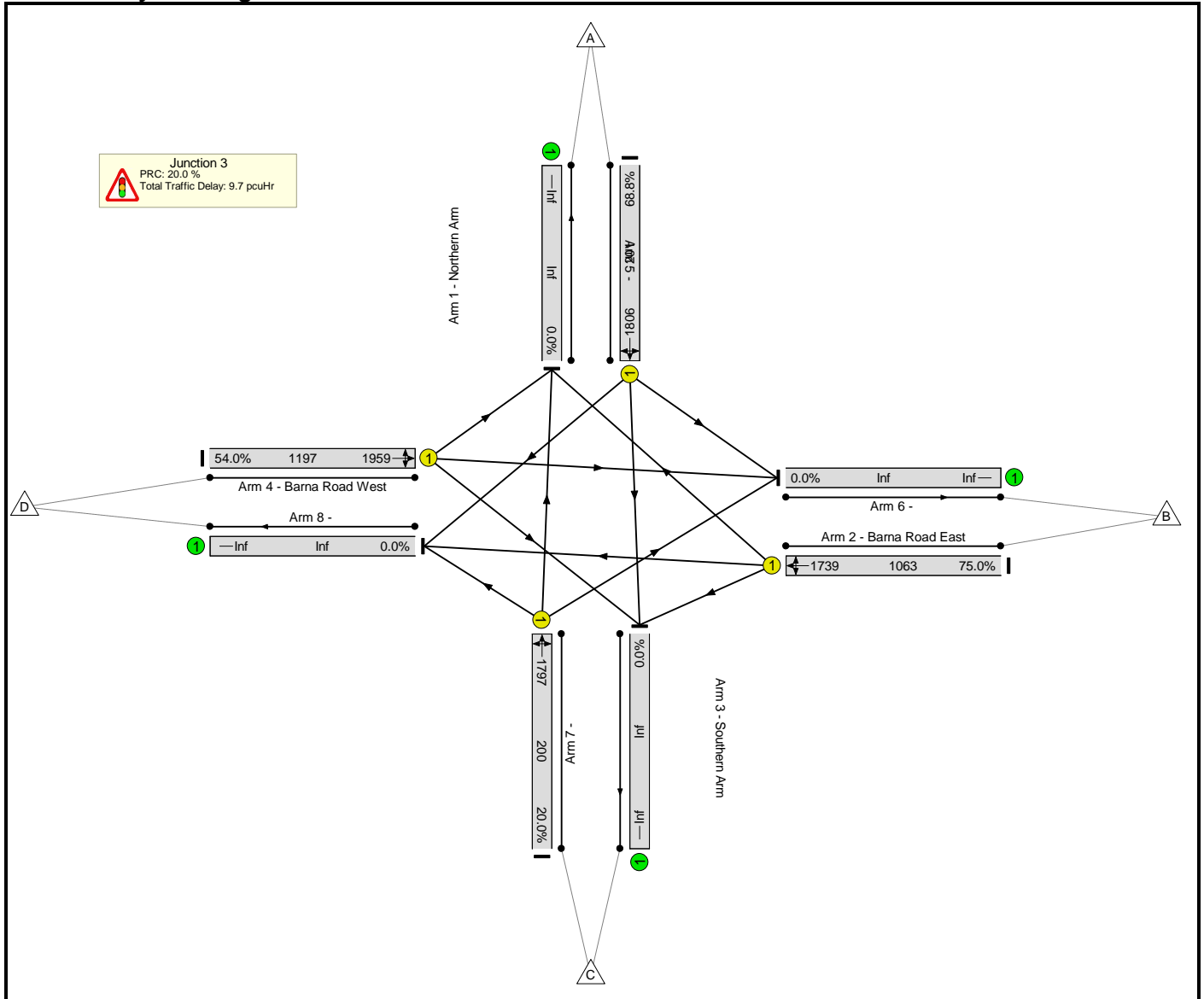
Item	Lane Description	Lane Type	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Mean Max Queue (pcu)
Network	-	-	-		-	-	-	-	-	-	61.7%	0	0	0	8.7	-	-
Junction 3	-	-	-		-	-	-	-	-	-	61.7%	0	0	0	8.7	-	-
1/1	Northern Arm Left Ahead Right	U	A		1	15	-	188	1809	322	58.5%	-	-	-	2.5	47.3	5.0
2/1	Barna Road East Right Left Ahead	U	B		1	48	-	582	1732	943	61.7%	-	-	-	3.1	19.0	10.7
3/1	Southern Arm Ahead Right Left	U	C		1	15	-	8	1761	313	2.6%	-	-	-	0.1	36.7	0.2
4/1	Barna Road West Left Ahead Right	U	D		1	48	-	625	1944	1058	59.1%	-	-	-	3.1	17.9	11.1
		C1		PRC for Signalled Lanes (%):		45.8		Total Delay for Signalled Lanes (pcuHr):		8.74		Cycle Time (s):		90			
				PRC Over All Lanes (%):		45.8		Total Delay Over All Lanes(pcuHr):		8.74							

Basic Results Summary

Scenario 12: '2027 Opening Year +5 with Dev PM' (FG12: '2027 Opening year +5 with development PM', Plan 1:

'Network Control Plan 1')

Network Layout Diagram



Basic Results Summary

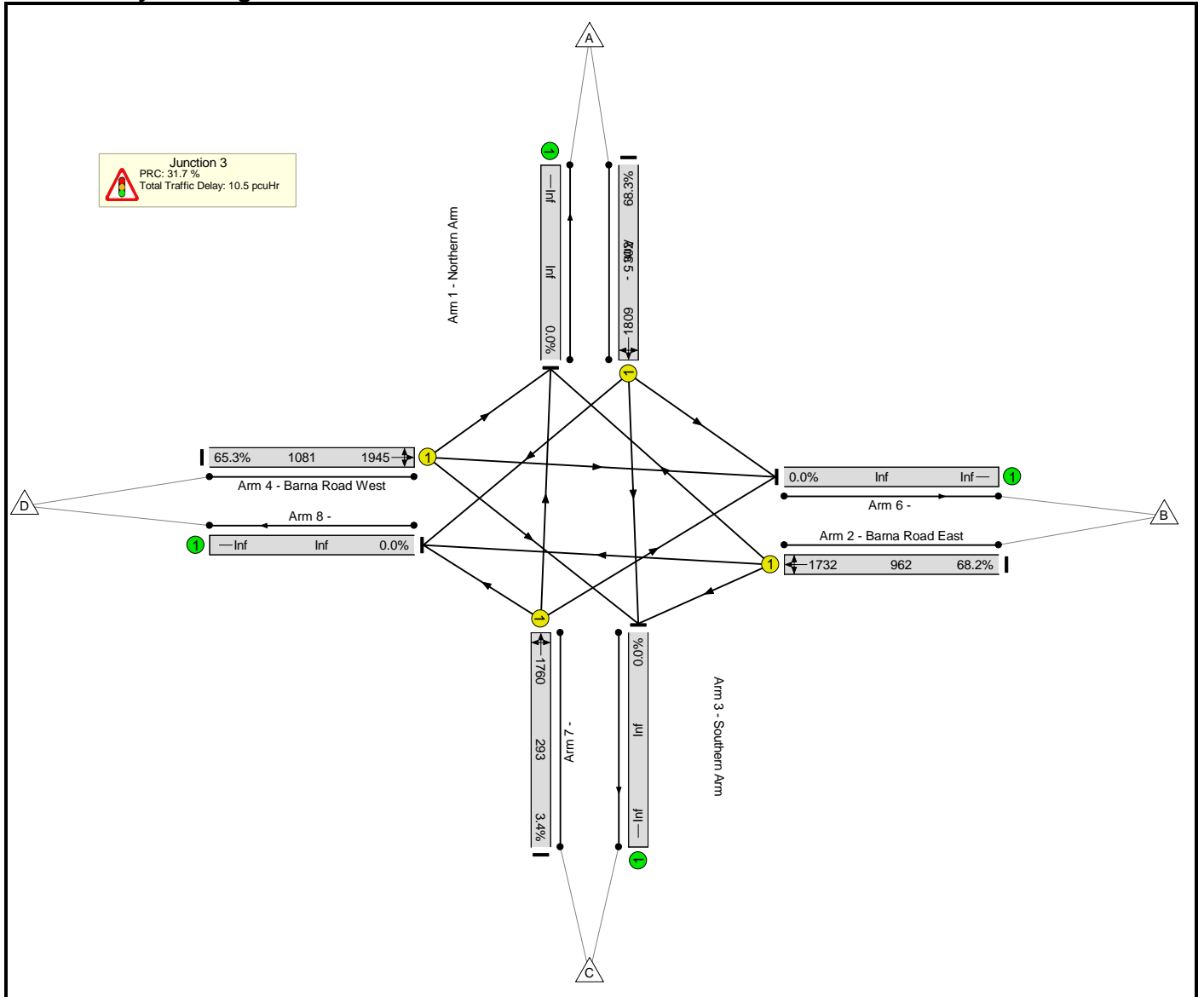
Network Results

Item	Lane Description	Lane Type	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Mean Max Queue (pcu)
Network	-	-	-		-	-	-	-	-	-	75.0%	0	0	0	9.7	-	-
Junction 3	-	-	-		-	-	-	-	-	-	75.0%	0	0	0	9.7	-	-
1/1	Northern Arm Left Ahead Right	U	A		1	9	-	138	1806	201	68.8%	-	-	-	2.5	66.3	4.4
2/1	Barna Road East Right Left Ahead	U	B		1	54	-	797	1739	1063	75.0%	-	-	-	4.3	19.3	15.7
3/1	Southern Arm Ahead Right Left	U	C		1	9	-	40	1797	200	20.0%	-	-	-	0.5	47.7	1.0
4/1	Barna Road West Left Ahead Right	U	D		1	54	-	646	1959	1197	54.0%	-	-	-	2.4	13.4	9.9
		C1		PRC for Signalled Lanes (%):		20.0		Total Delay for Signalled Lanes (pcuHr):		9.74		Cycle Time (s):		90			
				PRC Over All Lanes (%):		20.0		Total Delay Over All Lanes(pcuHr):		9.74							

Basic Results Summary

Scenario 13: '2037 Opening Year +15 with Dev AM' (FG13: '2037 Opening year +15 with development AM', Plan 1: 'Network Control Plan 1')

Network Layout Diagram



Basic Results Summary

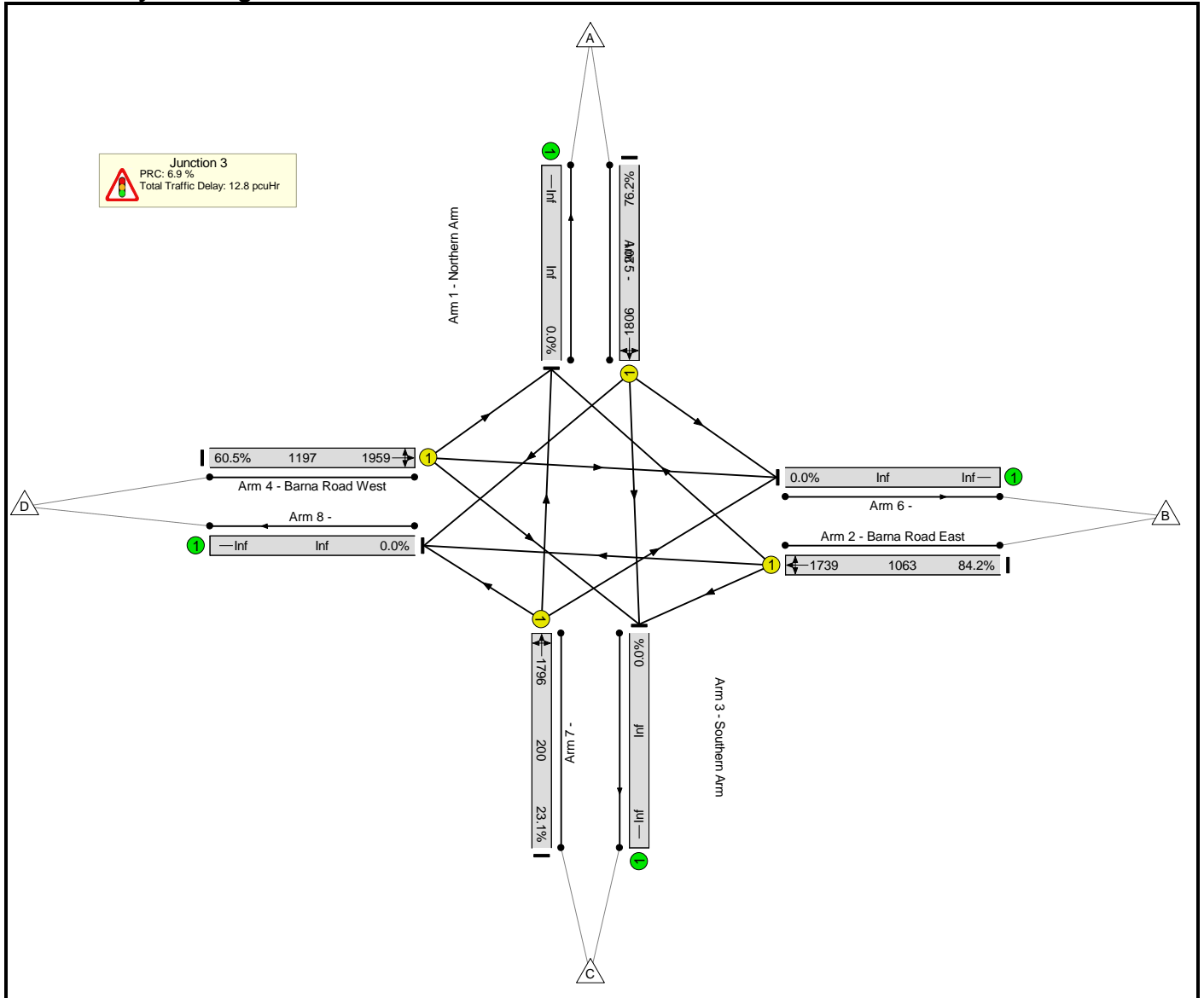
Network Results

Item	Lane Description	Lane Type	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Mean Max Queue (pcu)
Network	-	-	-		-	-	-	-	-	-	68.3%	0	0	0	10.5	-	-
Junction 3	-	-	-		-	-	-	-	-	-	68.3%	0	0	0	10.5	-	-
1/1	Northern Arm Left Ahead Right	U	A		1	14	-	206	1809	302	68.3%	-	-	-	3.1	53.7	5.9
2/1	Barna Road East Right Left Ahead	U	B		1	49	-	656	1732	962	68.2%	-	-	-	3.7	20.1	12.7
3/1	Southern Arm Ahead Right Left	U	C		1	14	-	10	1760	293	3.4%	-	-	-	0.1	38.0	0.2
4/1	Barna Road West Left Ahead Right	U	D		1	49	-	706	1945	1081	65.3%	-	-	-	3.7	18.7	13.1
		C1		PRC for Signalled Lanes (%):		31.7		Total Delay for Signalled Lanes (pcuHr):		10.53		Cycle Time (s):		90			
				PRC Over All Lanes (%):		31.7		Total Delay Over All Lanes(pcuHr):		10.53							

Basic Results Summary

Scenario 14: '2037 Opening Year +15 with Dev PM' (FG14: '2037 Opening year +15 with development PM', Plan 1: 'Network Control Plan 1')

Network Layout Diagram



Basic Results Summary

Network Results

Item	Lane Description	Lane Type	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Mean Max Queue (pcu)
Network	-	-	-		-	-	-	-	-	-	84.2%	0	0	0	12.8	-	-
Junction 3	-	-	-		-	-	-	-	-	-	84.2%	0	0	0	12.8	-	-
1/1	Northern Arm Left Ahead Right	U	A		1	9	-	153	1806	201	76.2%	-	-	-	3.2	74.4	5.2
2/1	Barna Road East Right Left Ahead	U	B		1	54	-	895	1739	1063	84.2%	-	-	-	6.1	24.4	20.5
3/1	Southern Arm Ahead Right Left	U	C		1	9	-	46	1796	200	23.1%	-	-	-	0.6	48.2	1.2
4/1	Barna Road West Left Ahead Right	U	D		1	54	-	724	1959	1197	60.5%	-	-	-	2.9	14.6	11.8
<p>C1 PRC for Signalled Lanes (%): 6.9 Total Delay for Signalled Lanes (pcuHr): 12.79 Cycle Time (s): 90 PRC Over All Lanes (%): 6.9 Total Delay Over All Lanes(pcuHr): 12.79</p>																	

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