



Traffic & Transport Assessment (TTA)

Cherry Orchard Point – Proposed Development at Sites 4 and 5,
Park West Avenue, Dublin 10

October 2023

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Comments

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- A. Traffic Survey 2022
- B. Bus Timetables
- C. Junction Modelling Results

1. Introduction

1.1 Introduction

This Traffic and Transport Assessment (TTA) has been prepared by Waterman Moylan on behalf of the Land Development Agency (LDA) to accompany a planning application to Dublin City Council for a proposed new residential development on lands at Park West Avenue, Cherry Orchard, Dublin 10.

1.2 Location

The two sites for the proposed development, Site 4 (M50 / Cedarbrook Avenue) and Site 5 (Barnville), are located east and west of Park West Avenue, Dublin 10, immediately to the north of the Park West & Cherry Orchard Railway Station as shown in Figure 1.

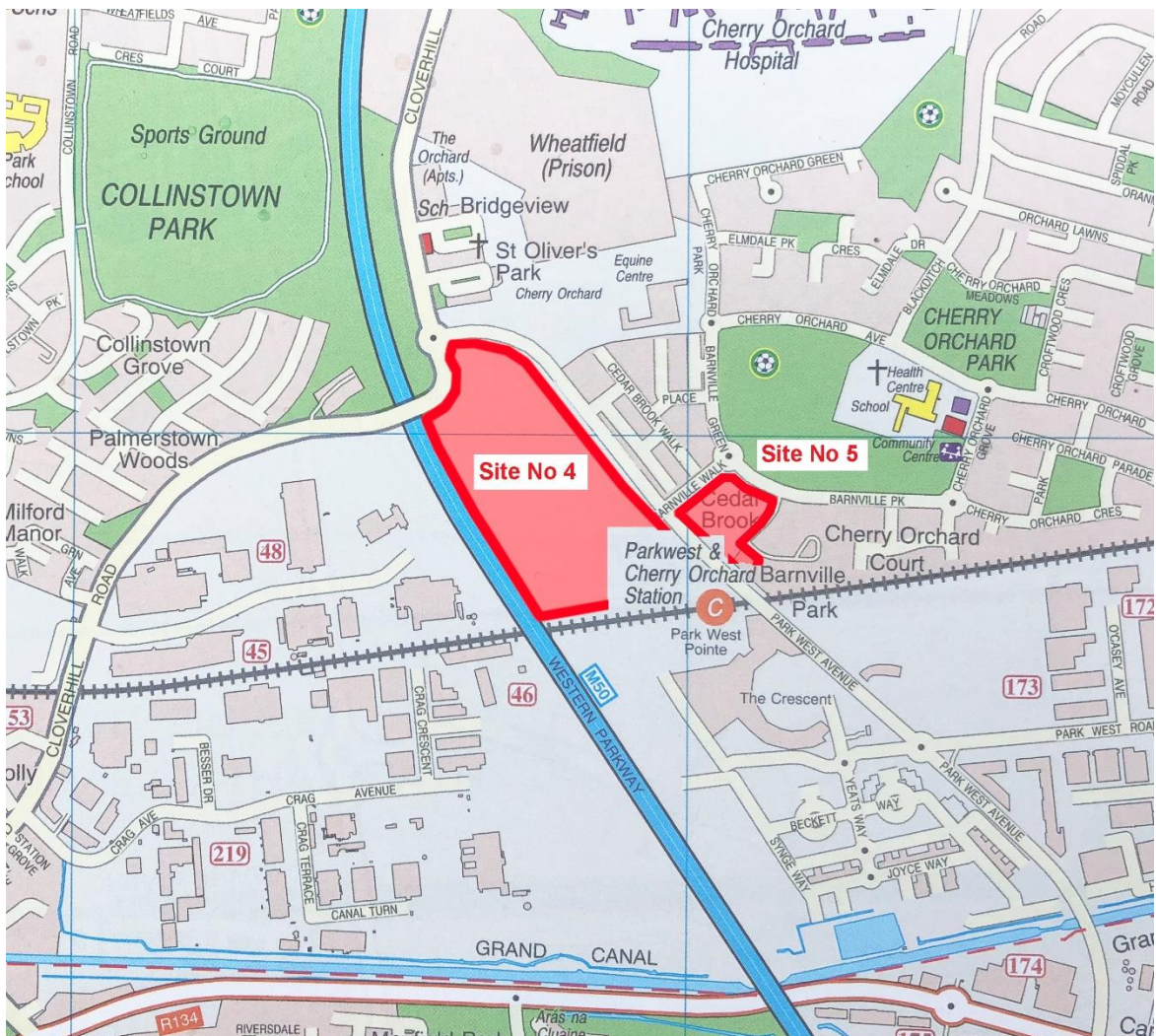


Figure 1: Location Map

1.3 Standards and Contents

The TTA for this development has been prepared in accordance with Section 2.2 of Appendix 5 *Transport and Mobility Technical Requirements* of the Dublin City Development Plan 2022- 2028, the TII Traffic and Transport Assessment Guidelines and the UK's Institution of Highways and Transportation Guidelines.

In compliance with these standards, the contents of this TTA include: -

- A Non-Technical Summary
- A description of the existing development and traffic/transportation conditions including information on the existing and proposed public transport facilities.
- A description of the proposed development.
- The traffic / transportation implications of the development including consideration of
 - (1) Trip attraction / mode choice
 - (2) Trip distribution
- The time periods applicable to the TTA.
- The impact(s) of the development on the local and surrounding street network including on-street car parking.
- The effect(s) of the development on the environment (natural and man-made) and urban fabric.
- Road and traffic considerations.

The TTA will be accompanied by a Mobility Management and Travel Plan prepared in accordance with Section 2.3 of Appendix 5 of the Dublin City Development Plan 2022 – 2028.

1.4 Methodology

In common with established practice and other transportation studies and reports, this TTA assesses the impact of the proposed development on the transportation network during the AM Peak.

The methodology for the preparation of this TTA included: -

- (a) Desktop review of the planning stage documentation provided by the project design team.
- (b) Visits to the site and surrounding area including survey of existing transportation facilities and observation of traffic movements.
- (c) Review of public transport services, routes, and timetables.
- (d) Review of proposals for transportation improvements by Transport Infrastructure Ireland (TII), National Transport Authority (NTA) and Dublin City Council (DCC).
- (e) Review of trips from future contiguous developments.
- (f) Review of future trips to and from the proposed development.
- (g) Review of public transport, both existing and proposed.
- (h) Assessment of the transportation impacts of the development.

During the preparation of this TTA, consultations were held by Waterman Moylan with Dublin City Council (DCC) on traffic, car parking, junction layout and public transport.

1.5 Phasing

It is proposed that Sites 4 and 5 be developed in four phases as shown on Figure 2.

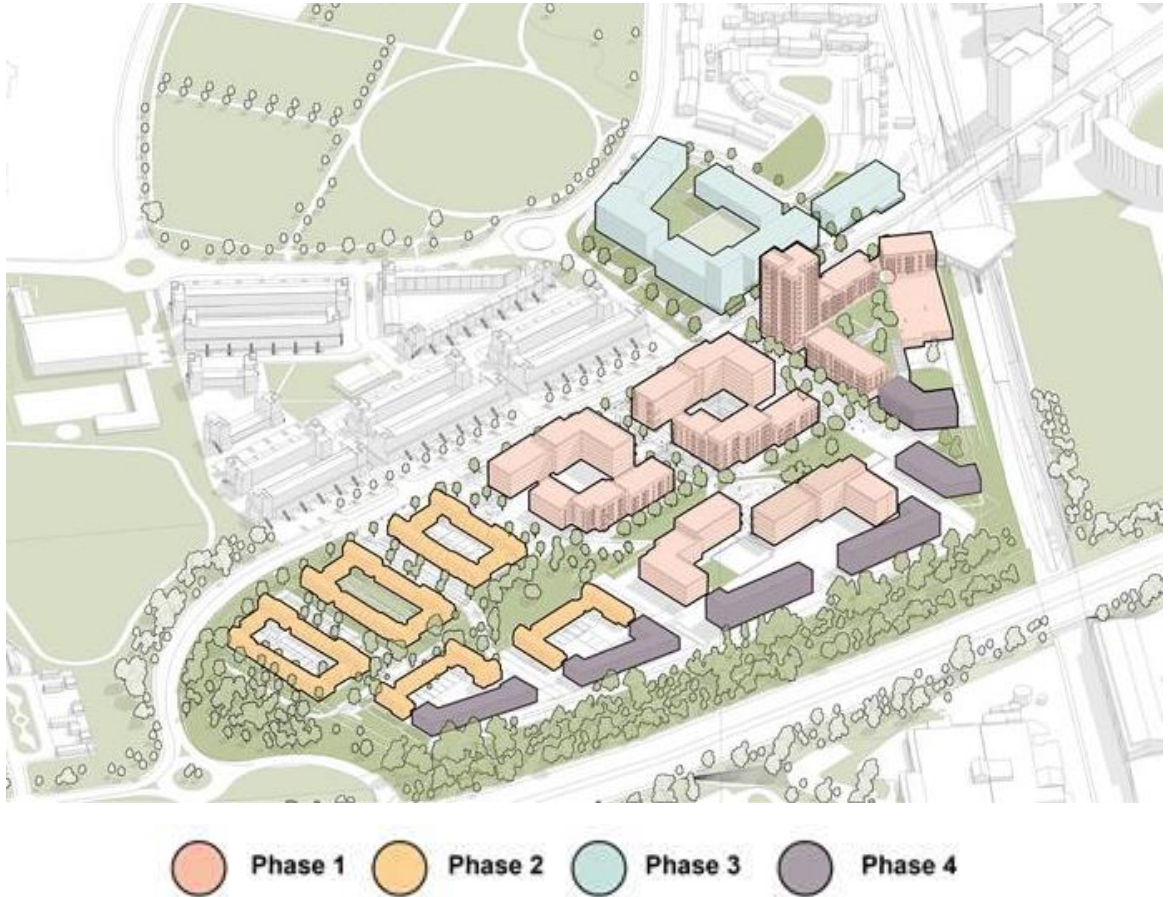


Figure 2: Project Phasing

1.6 Project Timescale

For the purpose of this TTA, the project timescale has been taken to be: -

- 2022 Base Year
- 2027 Opening Year
- 2032 Design Year (Opening Year + 5)
- 2042 Future Year (Opening Year + 15).

1.7 Documents Reviewed

The following documents were reviewed by Waterman Moylan during the preparation of this TTA for Sites 4 and 5:

- Park West – Cherry Orchard Local Area Plan (LAP), Dublin City Council, November 2019
- Dublin City Development Plan 2022 – 2028.
- Park and Ride Report, NTA, August 2015.
- National Rail Census Report 2019, NTA, July 2020.
- National Rail Census Report 2021, NTA, October 2022.
- Park & Ride Strategy; Greater Dublin Area, NTA Park and Ride Development Office, 2021.
- Preliminary Car Parking Review, Waterman Moylan, May 2022.
- Scoping for TTA, Waterman Moylan, September 2022.
- SHD Planning Applications, An Bord Pleanála, 2019 – 2022.
- Greater Dublin Area Transport Strategy 2022 – 2042, NTA.
- Technical Note on Park and Ride, Waterman Moylan, June 2022.
- Design Manual for Urban Roads and Streets (DMURS).
- Traffic and Transport Assessment Guidelines, TII, May 2014
- Project Appraisal Guidelines for National Roads Unit 5.3 – Travel Demand Projections, TII, May 2021.
- Traffic and Transport Assessment, Park West SHD, CS Consulting Group, November 2021.

The extent to which these various documents have been consulted is set out later in this TTA.

2. Receiving Environment

2.1 Location and Description

The site for the proposed development (part of the overall the Park West – Cherry Orchard Local Area Plan) is located in the administrative area of Dublin City Council (DCC) within the area bounded by the M50 Motorway to the west, Ballyfermot Road to the north, Le Fanu Road to the east and the Grand Canal to the south. See Figure 3.

The LAP extends to an area of 267.5 ha of which Sites 4 M50-Cedarbrook Avenue and Site 5 Barnville extend to a total of 13.0 ha.

At the time of writing in September 2023, the site comprised undeveloped greenfield sites. Both sites were unoccupied with no traffic movements in or out.

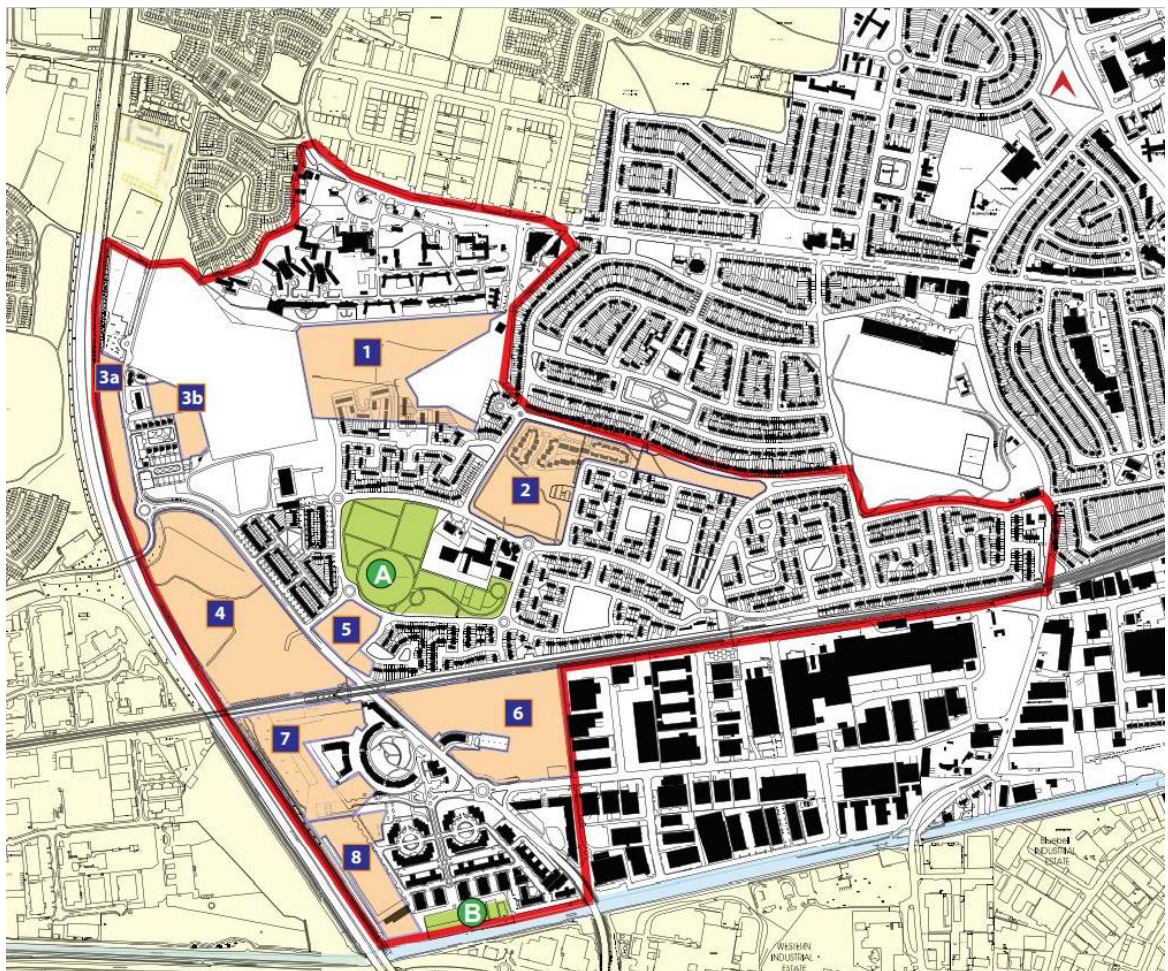


Figure 3: Location Map for Park West – Cherry Orchard LAP

2.2 Roads and Streets - Existing

The proposed development is located on either side of Park West Avenue between the R134 Nangor Road and Ballyfermot Road / Coldcut Road.

Park West Avenue is a wide single carriageway road with a north – south alignment and a posted speed limit of 50 kph. It is linked to Cloverhill Road via a roundabout junction at its northern end and to the R134 Nangor Road via a signalised crossroads at its southern end.

Park West Avenue has a 9.0-metre-wide carriageway with footpaths and cycle tracks on both sides. Speed ramps are provided for traffic calming. There are no parking restrictions. See Figure 4.



Figure 4: Park West Avenue looking north from the bridge over the railway.

2.3 Existing Traffic Conditions

Section 4.5.2 of the Park West - Cherry Orchard Local Area Plan 2019 advised that

'The road network serving Park West – Cherry Orchard experiences some traffic congestion during peak hours in areas such as Cloverhill Road, Park West Avenue and Le Fanu Road with the highest delays occurring where these roads connect to regional roads such as Ballyfermot Road and the New Nangor Road.'

2.4 Traffic Survey

Description

A classified traffic survey on the roads in the area of the proposed development was carried out by IDASO on Tuesday 8th November 2022 over a period of 24 hours at the locations shown in Figures 5 and 6.

The seven junctions included in the survey were:

- Junction 1: Cloverhill Road / Park West Avenue / Station Road (Three-arm Priority Roundabout).
- Junction 2: Park West Avenue / Cedar Brook (Priority T-Junction).
- Junction 3: Park West Avenue / Cedar Brook Walk (Priority T-Junction).
- Junction 4: Park West Avenue / Barnville Walk (Signalised T-Junction).
- Junction 5: Park West Avenue / Park West Road (Four-arm Priority Roundabout).
- Junction 6: Unnamed Road / Cedar Brook Way (Three-arm Priority Roundabout).
- Junction 7: Cedar Brook Way / Barnville Park (Priority T-Junction).

In addition to motorised traffic, the survey recorded pedestrians and pedal cycle movements. The survey confirmed the AM and PM Peak Hours to be 08:00 – 09:00 and 17:00 – 18:00.

The full results of the traffic survey carried out in November 2022 are included in Appendix A.

Results

From the results of the survey, the 24-hour traffic flow recorded on Park West Avenue was some 11,004 vehicles per day. The two-way traffic flow on Park West Avenue was some 1,103 vehicles per hour (vph) during the AM peak hour 8 – 9 reducing slightly to 1,046 vph during the PM peak hour 5 - 6. See Table 1.

Similarly, the 24-hour traffic flow recorded on Barnville Walk was some 4,092 vehicles per day. The two-way traffic flow on Barnville Walk was some 329 vehicles per hour (vph) during the AM peak hour 8 – 9 increasing to 422 vph during the PM peak hour 5 - 6.

The pedestrian and cycle movements recorded on Park West Avenue at Junction 4, the Cherry Orchard and Park West Station and Junction 5 are presented in Table 1.

Pedestrian and cycle movements recorded at the other junctions were significantly lower.

Table 1: Summary Results of Pedestrian and Cycle Survey

Location	Pedestrians			Cyclists		
	8 - 9	5 - 6	24-hour	8 - 9	5 - 6	24-hour
Junction 4	41	29	323	6	18	71
Station	206	201	1,116	6	7	28
Junction 5	90	73	507	7	15	109

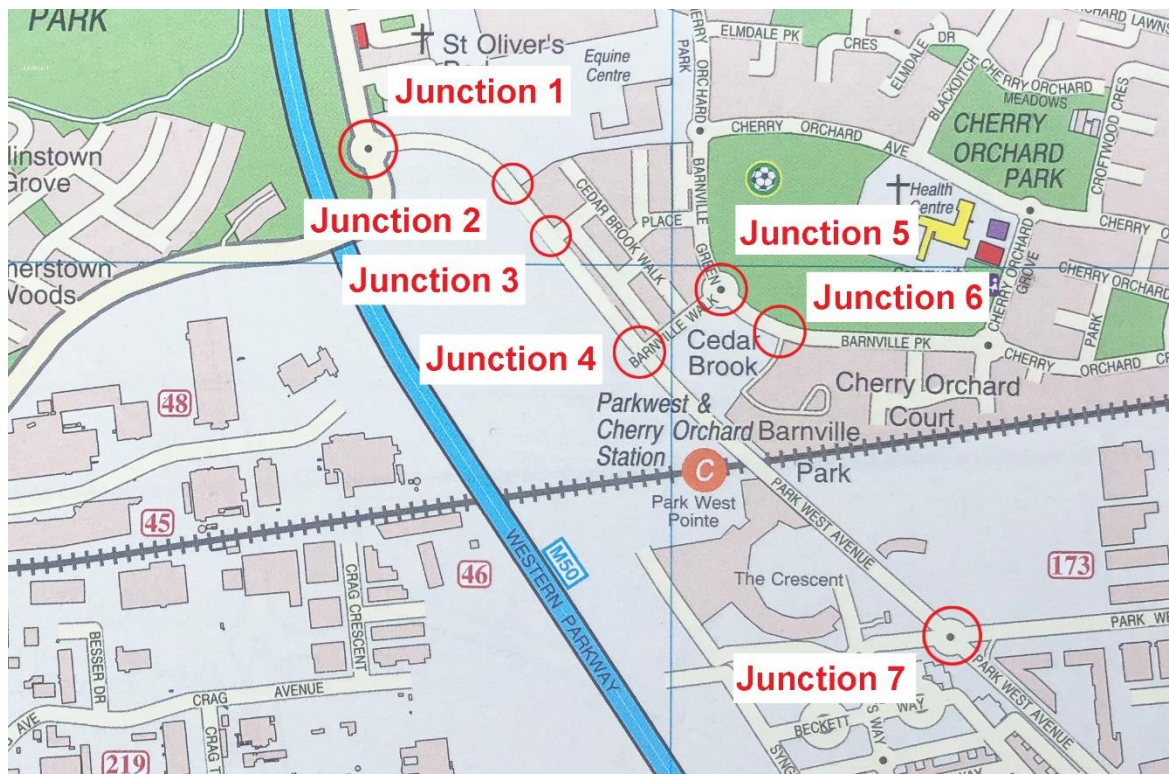


Figure 5: Locations of Traffic Surveys

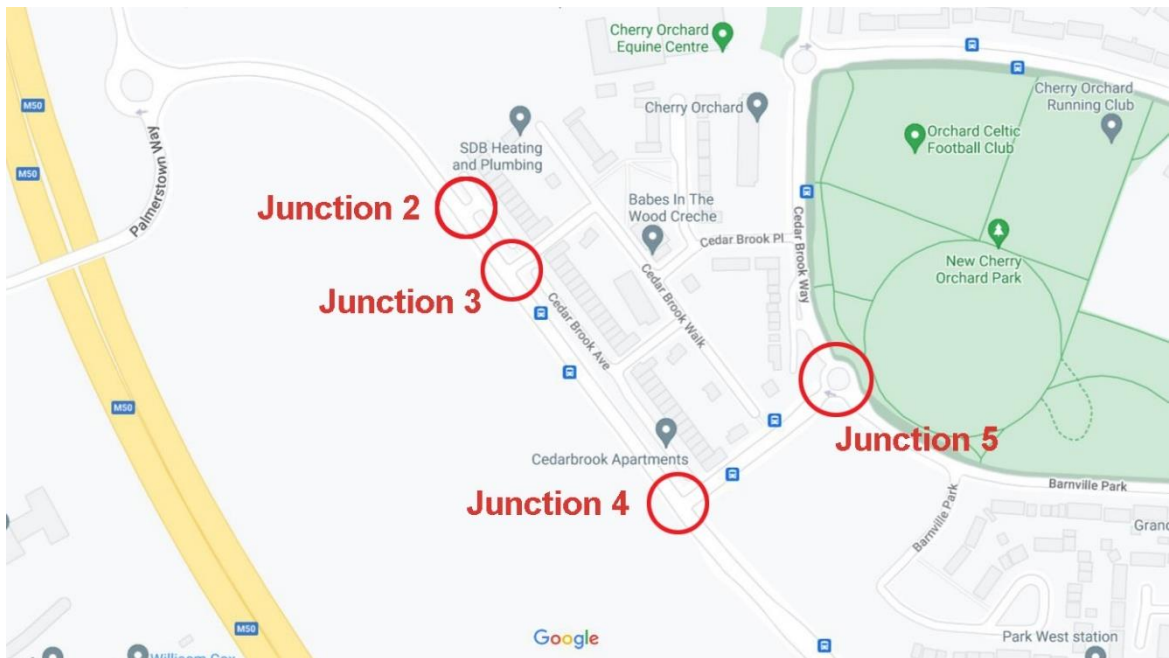


Figure 6: Locations of Traffic Survey – Cedar Brook

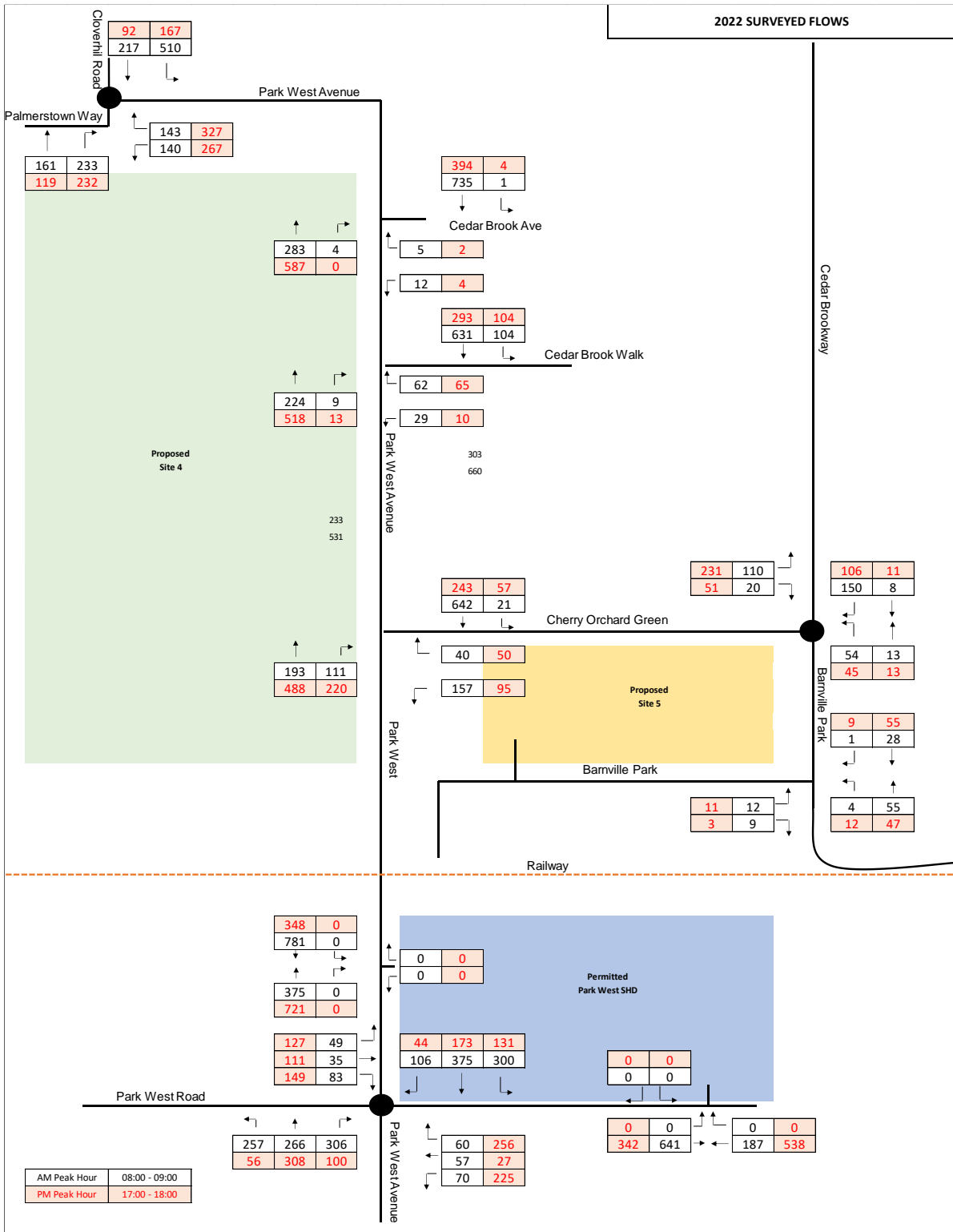


Figure 7: Baseline Traffic Flows 2022

2.5 Existing Bus Services

Park West Avenue

Bus services in the area of the proposed development are a combination of historic services operated by Dublin Bus and new services provided under the auspices of Bus Connects.

Dublin Bus Routes 79 and 79a which formerly served Park West Avenue, and the Park West & Cherry Orchard Station were replaced by Bus Connects Routes G1 and 60 in October 2022. See Figure 8. Timetables for Routes G1, 60 and 151 are included in Appendix B of this TTA.

Route G1 is a 24-hour service which is part of the G spine. It links the site for the proposed development to New Wapping Street in the City Centre via Inchicore and to the Luas Red Line at the Red Cow. Services operate at 15-minute intervals in both directions Monday – Saturday reducing to 20 minute intervals on Sundays. A reduced frequency operates during the early morning and at night.

Route 60 links the site to Sir John Rogerson's Quay in the City Centre via Heuston Station and to the Luas Red Line at the Red Cow via Clondalkin. Services operate at 60-minute intervals in both directions.

Bus stops for these services are located on Park West Avenue, Barnville Walk and Cedar Brook Way.

Passenger Capacity

Based on a review of the fleet of double deck buses operated by Dublin Bus in the area of the proposed development, the average capacity of each bus including standing passengers was found to be 87 passengers per bus.

Current timetables for Routes G1 and 60 provide for 5 buses per hour in each direction with a total capacity of 435 passengers per hour in each direction (5 buses x 87 passengers per bus).

For an assessment of future capacity to cater for future demand post development, See Section 14.6 of this TTA.

Nangor Road

Other contiguous services continue to be provided by Dublin Bus Route 151 along Nangor Road at a walking time of 16 minutes (1.3km) from the proposed development. Services operate at 20-minute intervals in both directions Monday – Saturday reducing to 30 minute intervals on Sundays. A reduced frequency operates during the early morning and at night.

Future Changes

Route 151 is due to be replaced by Routes D1 and D3 in April 2024.

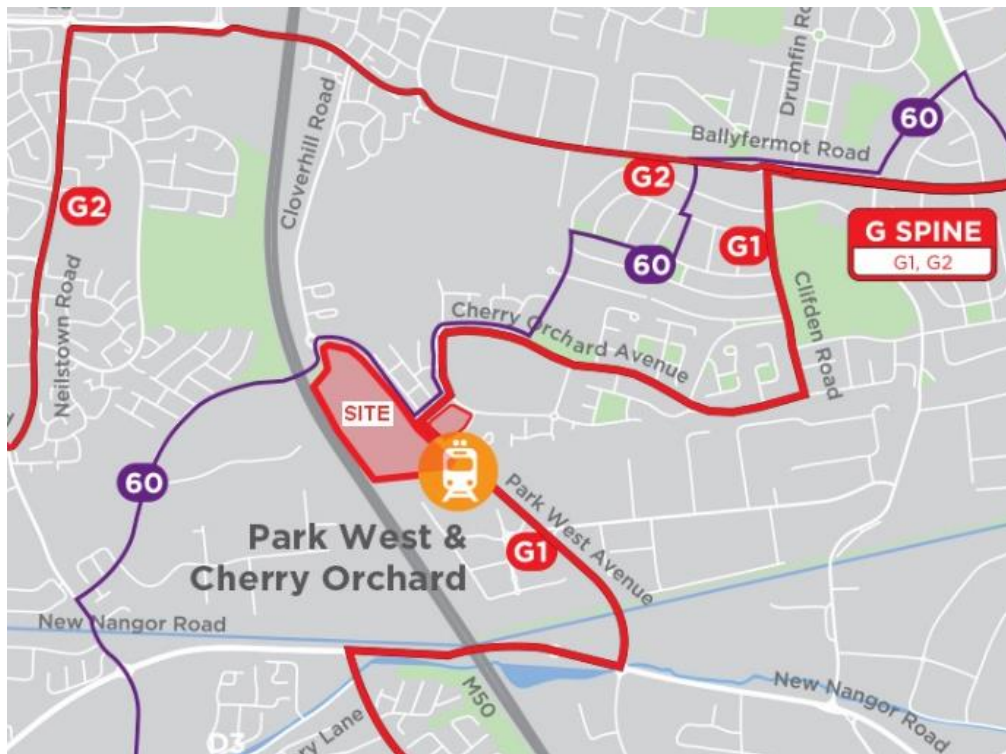


Figure 8: Extract from Bus Connects Map for G-Spine and Route 60

2.6 Existing Car Sharing Service

An existing car sharing base operated by GoCar Ireland is located at The Crescent Building in the Park West Business Park. This base is located in the Information Centre car park off Yeats Way at a walk time of 8 minutes (600 metres) from the subject site.

2.7 Existing Cycle Facilities

The existing cycle facilities in the area of the subject site comprise cycle tracks on both sides of Park West Road, partly on-road and partly off-road. See Figure 4

2.8 Existing Pedestrian Facilities

Existing pedestrian facilities in the area of the subject site comprise footpaths on both sides of Park West Road, Barnville Walk, Barnville Place, Cedar Brook Walk and Cedar Brook Way.

There are no footpaths on Cedar Brook Avenue which is primarily a residential parking area.

Pedestrian crossing facilities are provided at the following locations:

- Junction 1: Uncontrolled Crossing (Cloverhill Road / Park West Avenue)
- Junction 4: Signalised Crossing (Park West Avenue / Barnville Walk).

2.9 Existing Rail Services

Existing Station

Park West & Cherry Orchard which opened in 2008, is an intermediate station on the Kildare Commuter Line with regular commuter and inter-city services including stopping services from Portlaoise and Newbridge to Heuston Station and from Hazelhatch & Celbridge to Grand Canal Dock. See Figure 9.

Services

In common with established practice and other transportation studies and reports, this TTA assesses the impact of the proposed development on the rail service during the AM peak.

The journey time to Heuston is some 9 - 11 minutes and the journey time to Grand Canal Dock is some 40 – 45 minutes. There are 5 existing services from Park West and Cherry Orchard to the City Centre during the AM Peak Hour 8 – 9 departing as Table 2.

At other periods outside the AM Peak, rail services at Cherry Orchard & Park West are provided between Hazelhatch and Grand Canal Street at hourly intervals.

Table 2: Train Departures to Heuston and Grand Canal Dock

Departure	Service
08.05	07.35 Newbridge – Heuston
08.15	07.17 Portlaoise – Heuston
08.29	08.17 Hazelhatch & Celbridge -Grand Canal Dock
08.40	08.12 Newbridge – Heuston
08.47	08.35 Hazelhatch & Celbridge -Grand Canal Dock

Rail Mode Share

Section 2.9.1 of the Park West - Cherry Orchard Local Area Plan 2019 advised that

'In examining the Census data and the breakdown of sustainable modes of transport, rail represent a very low) 2%. This is despite its central location and despite 2,550 people having access to the station within a 15-minute walk.

Passenger Capacity – AM Peak

Commuter services in both directions from at Park West & Cherry Orchard are provided by four / eight car 29000 class railcar sets each with capacity of 640 / 1,280 passengers per set or a 6-car High Capacity Inter City railcar set with a capacity of 406 passengers.

For an assessment of future capacity to cater for future demand post development, See Section 14.6 of this TTA.

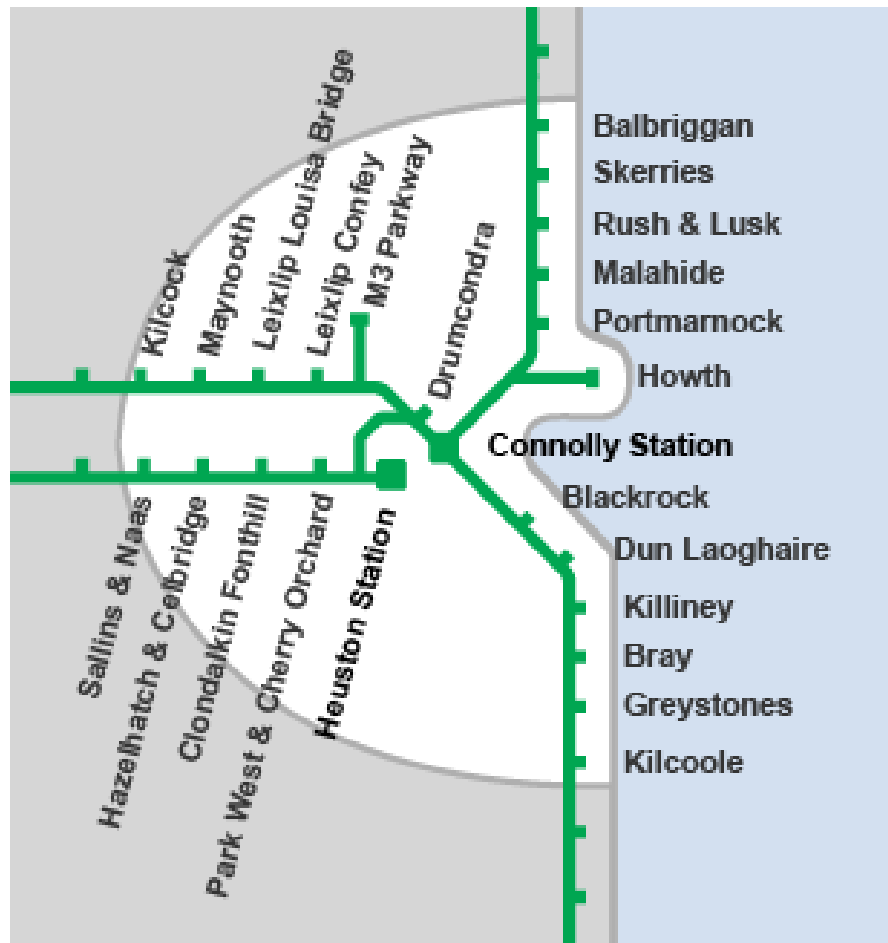


Figure 9: Commuter Rail Connections

(Note: A number of DART Stations are not shown for clarity)

2.10 National Rail Census 2019

The pre-Covid National Rail Census Report 2019 published by the NTA in July 2020 recorded the following information on rail services at Cherry Orchard & Park West in 2019: -

- The total numbers of passengers using the station at Park West Cherry & Orchard was 1,267 passengers per day.
- The total number of boardings was 651 per day with 428 travelling northbound and 223 travelling southbound.
- The total number of alightings was 616 per day with 156 northbound and 460 travelling southbound.
- The most heavily loaded train was the 07.19 Newbridge to Grand Canal Dock with a maximum of 404 passengers. This train departs Park West & Cherry Orchard at 07.48.

Commuter services in both directions from Park West & Cherry Orchard are provided by four / eight car 29000 class railcar sets each with capacity of 640 / 1,280 passengers per set or a 6-car High Capacity Inter City railcar set with a capacity of 406 passengers.

2.11 National Rail Census 2021

The most recent national rail census taken on Thursday 18th November 2021 during Covid-19 and published by the NTA in October 2022 recorded a significant fall in passenger numbers on the rail network including the Kildare Commuter Route through Cherry Orchard & Park West.

- The total numbers of passengers using the station at Park West Cherry & Orchard was 591 passengers per day down from 1,267 passengers per day in 2019.
- The total number of boardings was 307 per day with 208 travelling northbound and 99 travelling southbound down from 651 per day with 428 travelling northbound and 223 travelling southbound in 2019.
- The total number of alightings was 234 per day with 97 northbound and 187 travelling southbound down from 616 per day with 156 northbound and 460 travelling southbound in 2019.
- The most heavily loaded train was the 07.19 Newbridge to Grand Canal Dock with a maximum of 163 passengers down from a maximum of 404 passengers in 2019. This train departs Park West & Cherry Orchard at 07.48.

Overall, the census recorded a total of 98,093 passenger journeys across the network. This is a reduction of 45% compared to 2019.

In parallel, Iarnród Éireann reported 17.4m passenger journeys in the year 2021, which is a reduction of 65 % compared to 2019 when 50.1m journeys were recorded.

3. Planned Future Receiving Environment

3.1 Bus Services

Service improvements arising from the network redesign by Bus Connects in the Ballyfermot / Clondalkin area had only been partly implemented at the time of writing in September 2023.

Services G1 and 60 illustrated on Figure 10 are currently operational. In the near future, both are expected to be operated by the electric buses ordered by the NTA in June 2022.

In April 2024, services D1 and D3 on Spine Route D are expected to replace Dublin Bus Route 151 along the Nangor Road.

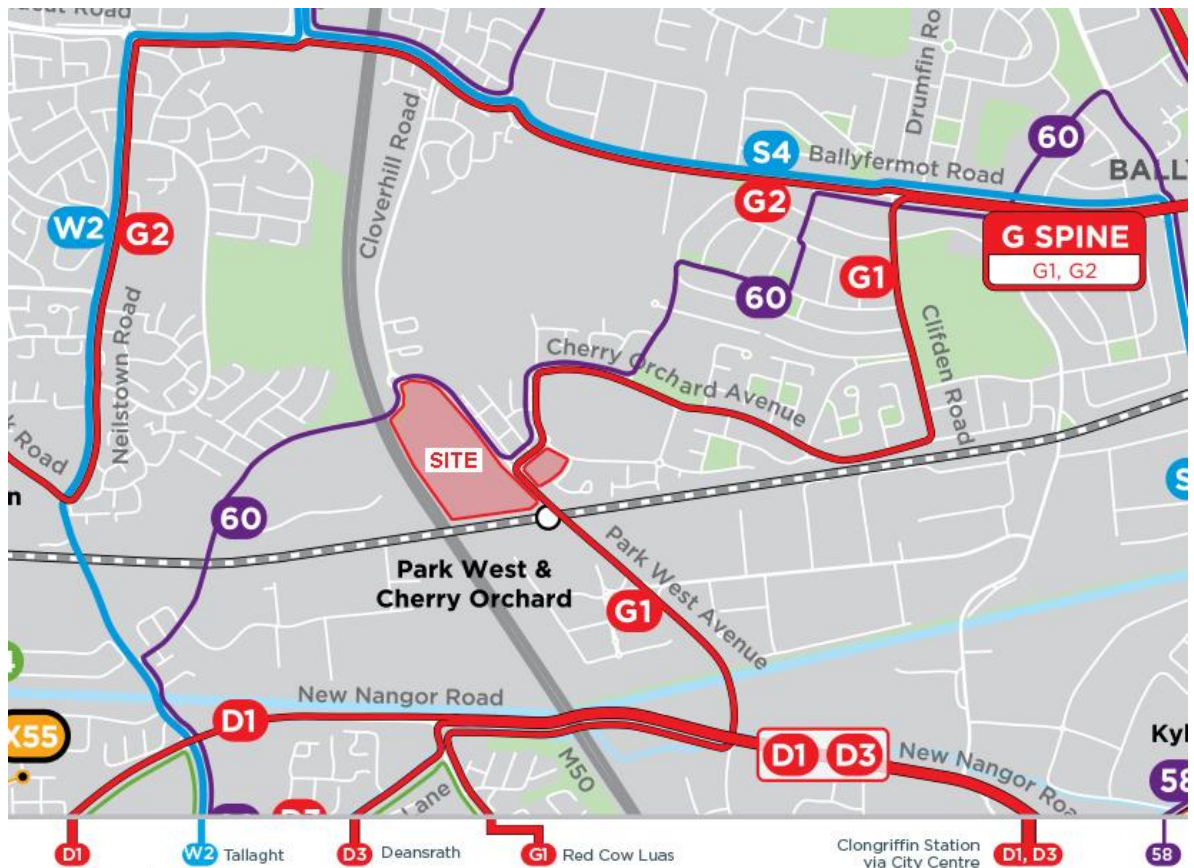


Figure 10: Extract from Bus Connects Map for the Ballyfermot/Clondalkin Area

3.2 Rail

The DART Expansion Project proposed by Irish Rail will deliver new electrified rail services between the existing DART network in the City Centre City Centre and Hazelhatch. The service through Park West & Cherry Orchard will provide an increased service frequency and enhanced passenger capacity.

The DART + South West project illustrated in Figure 11 will provide:

- An increase in train frequency from the current 12 trains per hour per direction to 23 trains per hour per direction on this corridor.
- A quadrupling of passenger capacity from 5,000 passengers per hour per direction to 20,000 per hour per direction.

An application for a Railway Order for the DART+ South West project was submitted to An Bord Pleanála in March 2023.

The works proposed in the Railway Order application include

- 20km of electrification and re-signalling of the Hazelhatch and Celbridge Line to Heuston and the south city via Phoenix Park Tunnel
- Construction of a new station at Heuston West to serve the community of Clancy Quay and Island Bridge
- Four-tracking of the rail line from Park West and Cherry Orchard Station to Heuston to enhance capacity
- Civil, bridge and ancillary works as necessary to accommodate the project
- Upgrading of the Phoenix Park Tunnel
- New electric DART carriages for the DART+ Programme will be deployed on Hazelhatch and Celbridge services.

Works at Park West and Cherry Orchard will include the erection of infrastructure to support the electrification of the commuter rail services through the station.

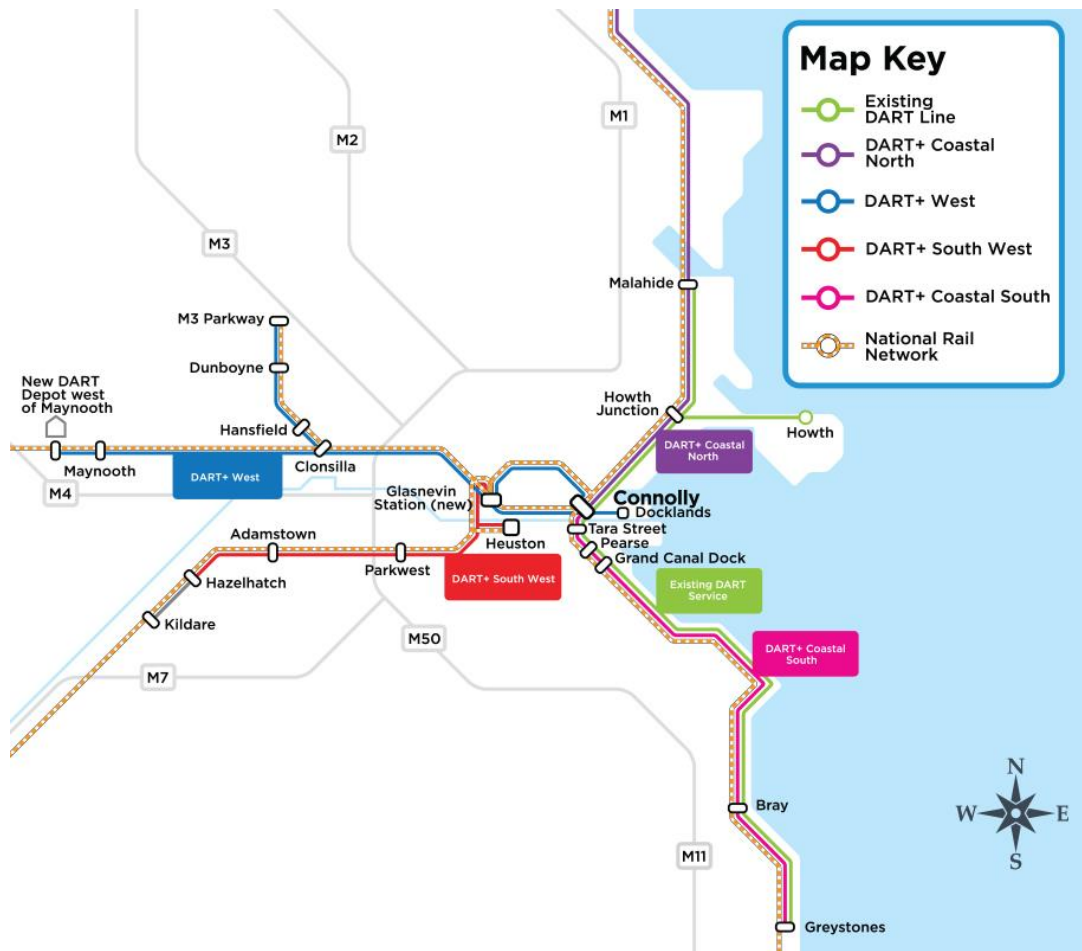


Figure 11: Extract from Irish Rail DART + Map

3.3 Car Sharing

A total of 14 No. new car sharing facilities are proposed in the area of the subject site as part of the adjacent Park West SHD in addition to the 11 new spaces proposed on the subject site.

3.4 Bleeper Bike

As part of the development of Site 4, it is proposed that the operating zone for the Bleeper Bike service be extended to include Cherry Orchard Point.

3.5 Pedestrian and Cycling Facilities

There are a number of new pedestrian or cycling facilities proposed in the area of the subject site including:-

- New / improved off road pedestrian and cycle facilities along Ballyfermot Road as part of the Bus Connects Liffey Valley to City Centre Core Bus Corridor works.

- New / improved pedestrian and cycle facilities within the adjacent City Edge development area immediately to the east and south of the subject site
- New cycle facilities as part of the Grand Canal Greenway.

New and improved pedestrian and cycle facilities within the curtilage of the subject site are described later in this TTA.

3.6 Roads and Junctions

Proposals for new or improved roads in the area of the subject site comprise the Cherry Orchard Link Roads shown as a line of black dots on Map D of the Dublin City Development Plan 2022 – 2028. This proposal does not affect or impact on the subject site. See Figure 12.

The applicants are not aware of any new other road or junction works proposed in the area of the subject site other than the improvements on the Clondalkin to Drimnagh Core Bus Corridor being promoted by Bus Connects along the Nangor Road. This Corridor is located at a walking distance of some 16 minutes (1.3km) from the subject site.

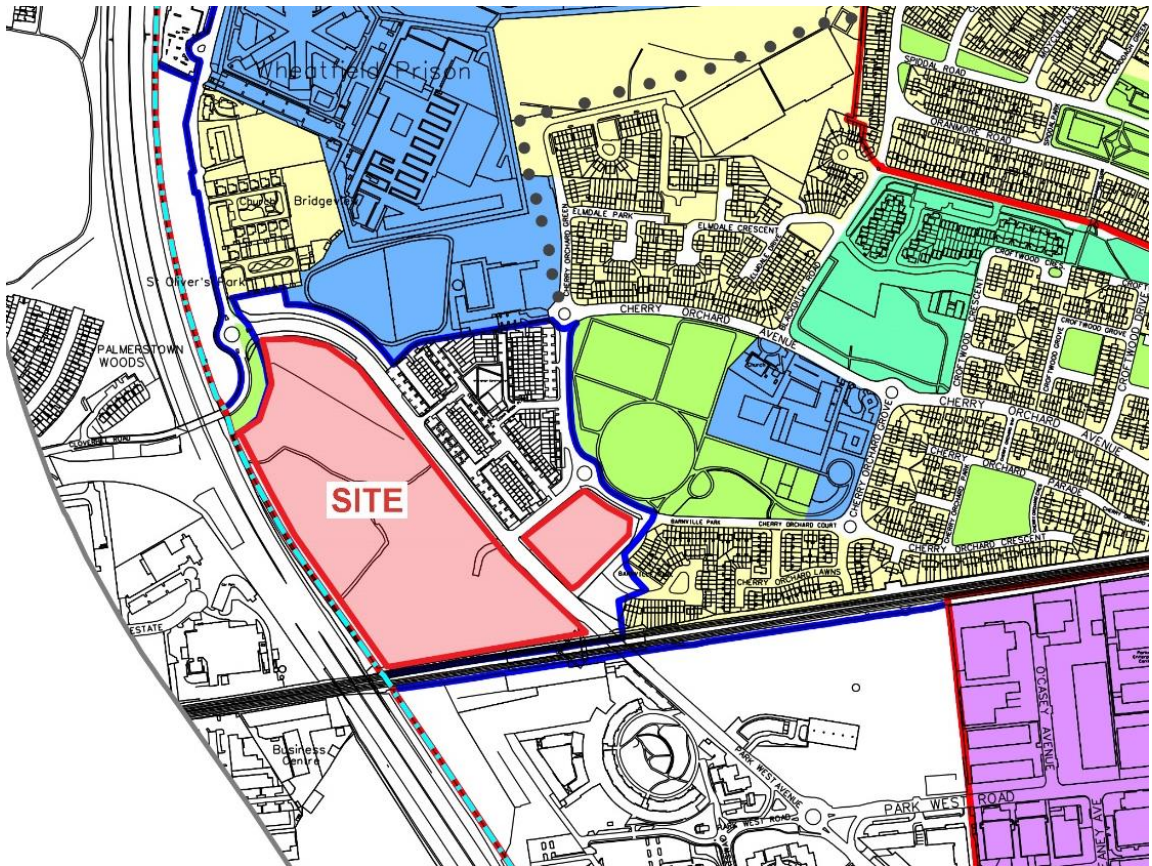


Figure 12: Extract Map D Dublin City Development Plan 2022 – 2028

4. Planning Background

4.1 Park West – Cherry Orchard Local Area Plan 2019

The Park West - Cherry Orchard Local Area Plan 2019 came into effect in November 2019 for the area illustrated in Figure 2. Relevant extracts from the LAP are reproduced below.

Section 2.9.1 Transport and Movement

The existing street network in the area is dominated by a car led approach, with wide distributor type roads and little focus on pedestrian or cycle infrastructure. Physical connections with surrounding areas and within the LAP are also extremely limited with restricted access points onto Ballyfermot Road and over the railway line and the Canal.

The enclosed nature of the larger institutional sites at Cherry Orchard Hospital and Wheatfield and Cloverhill Prisons form large impermeable blocks to the north and west, while the M50 to the west further restricts movement.

Rail users at Park West & Cherry Orchard Station represent a very low 2%. This is despite its central location and despite 2,550 people having access to the station within a 15-minute walk.

There is limited cycle infrastructure present throughout the LAP area.

Section 4.5.2 Vehicular Routes

As part of the preparation of the LAP, a high-level traffic analysis was undertaken for the LAP lands. At present the road network serving Park West – Cherry Orchard experiences some traffic congestion during peak hours in areas such as Cloverhill Road, Park West Avenue and Le Fanu Road with the highest delays occurring where these roads connect to regional roads such as Ballyfermot Road and the New Nangor Road. As vacant sites are developed, new employment and residential areas will generate additional demands on the existing transport network.

Planning applications for sites will be required to provide detailed junction analysis and to determine the impact of a development proposal on the local road network, identifying any capacity enhancements required.

Section 4.5 .3.1 Walking Catchment of Train Station

There is an opportunity to introduce a designated car parking facility near the station as part of future development opportunities This 'Park and Ride' facility in conjunction with the future arrival of DART services would facilitate the integration of private and public transport for the local and surrounding area. It is an objective of this LAP to support the development of a local park and ride facility as part of the development of site no. 4.

Section 4.5.3.2 Bus

It is an objective of this LAP to support the development of an integrated transport interchange hub in the vicinity.

Section 4.5.6 Movement Objective

MO14 *To explore the potential for car parking facilities including local Park and Ride near Park West – Cherry Orchard train station.*

MO15 *To support the development of an integrated transport interchange hub next to the train station.*

Site 4: M50-Cedarbrook Avenue Site

Examine possibility of providing local park and ride facilities at this location in close proximity to the rail station.

4.2 Proposed Development – Park West – Cherry Orchard LAP

The scale of development envisaged in the Park West – Cherry Orchard Local Area Plan (LAP) is summarised in Table 3.

From Table 3, it will be seen that access for Areas 3 – 8 would be predominantly to Cloverhill Road / Park West Avenue both north and south of the railway. See Figure 2.

Table 3: Schedule of Development Park West – Cherry Orchard LAP

Site	Area	Development	Site Access
1	7.7 ha	200 – 300 units	Link Road to Ballyfermot Road
2	7.6 ha	200 – 250 units	Cherry Orchard Avenue
3a	2.1 ha	120,000 sq ft	Cloverhill Road
3b	1.4 ha	40 – 60 units	Cloverhill Road
4	11.5 ha	600 – 700 units	Park West Avenue
5	1.5 ha	150 – 200 units	Park West Avenue
6	7.3 ha	550 – 650 units	Park West Road Park West Avenue
7	4.3 ha	400 – 500 units	Park West Avenue
8	3.8 ha	250 – 350 units	Park West Avenue
Sub-Total Development	47.2. ha	2,390 – 3,010 units	
Other	220.31 ha	-	
Total	267.51 ha	2,390 – 3,010 units	

4.3 Local Mobility Hub

The suitability of Park West – Cherry Orchard as a location for a Park and Ride facility as mooted in the Cherry Orchard Local Area Plan 2019 was assessed in the *Technical Note on Park and Ride*, prepared by Waterman Moylan in June 2022 based on the various review parameters for such a facility.

The purpose of the assessment was to determine if Site 4 is a suitable location for any of the following: -

- Strategic Park and Ride to facilitate the modal shift of long-distance car trips to public transport and to serve a wide hinterland of a strategic corridor to an urban centre.
- Local Park and Ride to provide parking facilities at transport nodes such as railway stations and bus stations serving smaller towns and villages on the regional public transport network.
- Local Mobility Hub to expand the local catchment of public transport services by catering for access to stops / stations for a range of mobility options.

The outcome of this assessment confirmed the outcome of previous assessments by the National Transport Authority that the site should not be included in the list of locations for new Park and Ride facilities.

The assessment also identified the inadequacy of local road access and the shortage of land for at-grade car parking both necessary for a local Park and Ride facility.

In view of this, it was concluded that the location was not suitable for a Park and Ride facility, either strategic or local, but would be an appropriate location for a Local Mobility Hub on Site 4.

The Local Mobility Hub will incorporate facilities to expand the local catchment of public transport services by catering for access to stops / stations for a range of mobility options.

4.4 Dublin City Development Plan 2022 – 2028

A Strategic Regional Development Area (SDRA) for Park West / Cherry Orchard is described in Section 13.6 of the Dublin City Development Plan 2022 – 2028.

The objectives for Urban Structure include:

- *Enhance accessibility and connectivity both within the Park West – Cherry Orchard area and to the surrounding areas to service the remaining development sites.*
- *Promote sustainable modes of transport by making them convenient and attractive (including walking and cycling) through the implementation of a well-connected, permeable, coherent street network with high levels of accessibility to an integrated public transport network with improved infrastructure to maximise its potential use.*

Road and Street Objectives including the Cherry Orchard Link Roads are set out in Chapter 8 of the Development Plan.

Primary Land Use Zoning and Specific Objectives are shown on Map D of the Development Plan. See Figure 11.

Technical Requirements for Transport and Mobility are set out in Appendix 5 of the Development Plan.

5. Contiguous Development

5.1 Background

For the purpose of cumulative impact, the Traffic and Transport Assessment Guidelines, issued by TII in May 2014 require that

'Traffic and Transport Assessment should consider all committed developments within the vicinity of the site. This includes sites which have previously been granted planning permission but which are yet to become operational as well as any planning applications that have been submitted but have yet to be determined'.

5.2 Scoping for TTA

The Scoping for TTA prepared by Waterman Moylan in September 2022 identified that, in addition to the trips that will be generated by the future development of Sites 4 and 5, the trips that would be generated by the approved Park West SHD development on Site 6 should be included in this TTA. See Section 12.1.

5.3 Site 6 Park West SHD

Planning permission for a residential development of 750 units and 552 car parking spaces on a 9.4 ha site at Park West, Dublin 12 was granted by An Bord Pleanála to Greenseed Ltd in June 2022 subject to 29 conditions (ABP Reg Ref 312290-21). The site included the Aspect Hotel.

Condition 15 required the submission of a Mobility Management Strategy and a Car Park Management Strategy to the planning authority.

5.4 Traffic and Transport Assessment

The application for the Park West SHD was accompanied by a Traffic and Transport Assessment prepared by CS Consulting in November 2020.

The methodology adopted in the TTA included:

- Traffic surveys over a period of 12 hours on Wednesday 13th February 2019 at 7 junctions over a 1.5 km length of Park West Avenue between Cloverhill Road and Nangor Road and a 1.2 km length of Park West Road between Park West Avenue and Killeen Road. The seven junctions surveyed are listed below:
 - Cloverhill Road / Cedarbrook Avenue (J1)
 - Park West Avenue / Cherry Orchard Green (J2)
 - Park West Avenue / Aspect Hotel (J3)
 - Park West Avenue / Park West Road (J4)
 - Park West Road / Yeats Way / Synge Way (J5)
 - Park West Avenue / Nangor Road / Oak Road (J6)
 - Park West Road / Killeen Road (J7)

- The proposed development would not generate excessive vehicular traffic flows.
- Combined arrivals and departures were predicted to be 204 pcu during the AM Peak Hour (08.00 – 09.00) reducing to 134 pcu during the PM Peak Hour (16.30 – 17.30).
- Determination of the likely traffic impact by the assessment of three key junctions using TRANSYT for Base Year 2021, Opening Year 2025, Future Year 2030 and Design Year 2040.
 - Park West Avenue / Site Access
 - Park West Avenue / Park West Road (Existing 4-arm Roundabout)
 - Park West Road / Site Access.

The assessment concluded that both site accesses would operate within effective capacity up to 2024 but the western arm of the roundabout at the intersection of Park West Avenue and Park West Rad would exceed effective capacity during the PM Peak by the year 2025.

5.5 Car Parking

The quantum of car parking provided and approved was a total of 552 spaces including 14 spaces for car sharing. The allocation of these spaces was a reduction on Development Plan standards and comprised:-

- 482 spaces for 750 apartments equivalent to 0.62 spaces per unit.
- 70 spaces for the Aspect Hotel (reduced from 112 spaces).

Some 314 spaces were located in an undercroft beneath the six blocks and the 238 remaining spaces on-street.

5.6 ABP Inspectors Report

Section 10.6.2 of the Inspector's Report prepared for An Bord Pleanala on the application was issued in June 2022. The report concluded:

I am satisfied that the quantum of development proposed at this location is entirely appropriate and can be easily accommodated within the confines of existing traffic and transport infrastructure.

The TTA submitted by the applicant demonstrates this, the planning authority agree and the TII and NTA do not oppose the development.

Subject to standard and technical conditions suggested by the planning authority I am satisfied that the proposed development will not impact on such infrastructure.

Section 10.6.7 of the report in relation to car parking noted that:

Finally, with reference to car parking, I note that the planning authority have no concerns about the quantum or design of car parking spaces. An observer has called into question the provision of car parking and that is materially contravenes the City Development Plan. I am satisfied that no material contravention of the statutory plan has taken place.

The planning authority have stated that the application site is located with Area 2 of the City Councils parking zone areas. The car parking provision has been assessed with respect to the Dublin City Development Plan 2016– 2022, at a car parking ratio of 0.62 for residential parking, it is entirely acceptable.

The quantum of car parking also equates acceptably with national guidance and the comments made by the NTA in their submission, that states car parking should be reduced in locations where public transport options are available.

6. Characteristics of the Proposed Development

6.1 Description of Proposed Development

The proposed development of Phase 1 on Site 4 at Cherry Orchard Point will comprise: -

- A total of 708 residential apartments in a number of blocks.
- A total of 4,790 sqm non-residential development comprising
 - Supermarket (2,523 sqm).
 - Retail Units (373 sqm)
 - Creche with accommodation for 25 staff and 104 children (672 sqm)
 - Community Facilities (1,222 sqm)
- A total of 444 number car parking spaces comprising
 - 159 number privately managed at surface spaces for residents.
 - 117 number spaces at lower ground / podium level (high density area) for residents
 - 92 number spaces at lower ground level for retail.
 - 34 number on street surface spaces for residents and general use on New Street
 - 18 number on street surface spaces for residents and general use on Park West Avenue
 - 7 number retail spaces on Park West Avenue (including a loading bay).
 - 6 number spaces for the Creche with 3 spaces allocated to staff and 3 spaces designated for drop-off / collection.
 - 11 number on street spaces for car sharing (GoCar).
- The total of 444 spaces numbers includes 22 spaces for disabled parking (5%).
- A total of 222 number spaces will be equipped with fully functional EV Charging Point(s) and the remaining 222 spaces are designed to facilitate the relevant infrastructure to accommodate future EV charging.
- Motorcycle parking (22 spaces).
- A total of 1,618 number bicycle parking spaces with 1,552 spaces for residents and visitors at the apartments and 66 spaces for staff, customers and visitors at the supermarket, retail, creche and community.

The layout of the proposed development (Phase 1 of the overall development) is illustrated on Figure 13 and on the drawings included with the planning application.

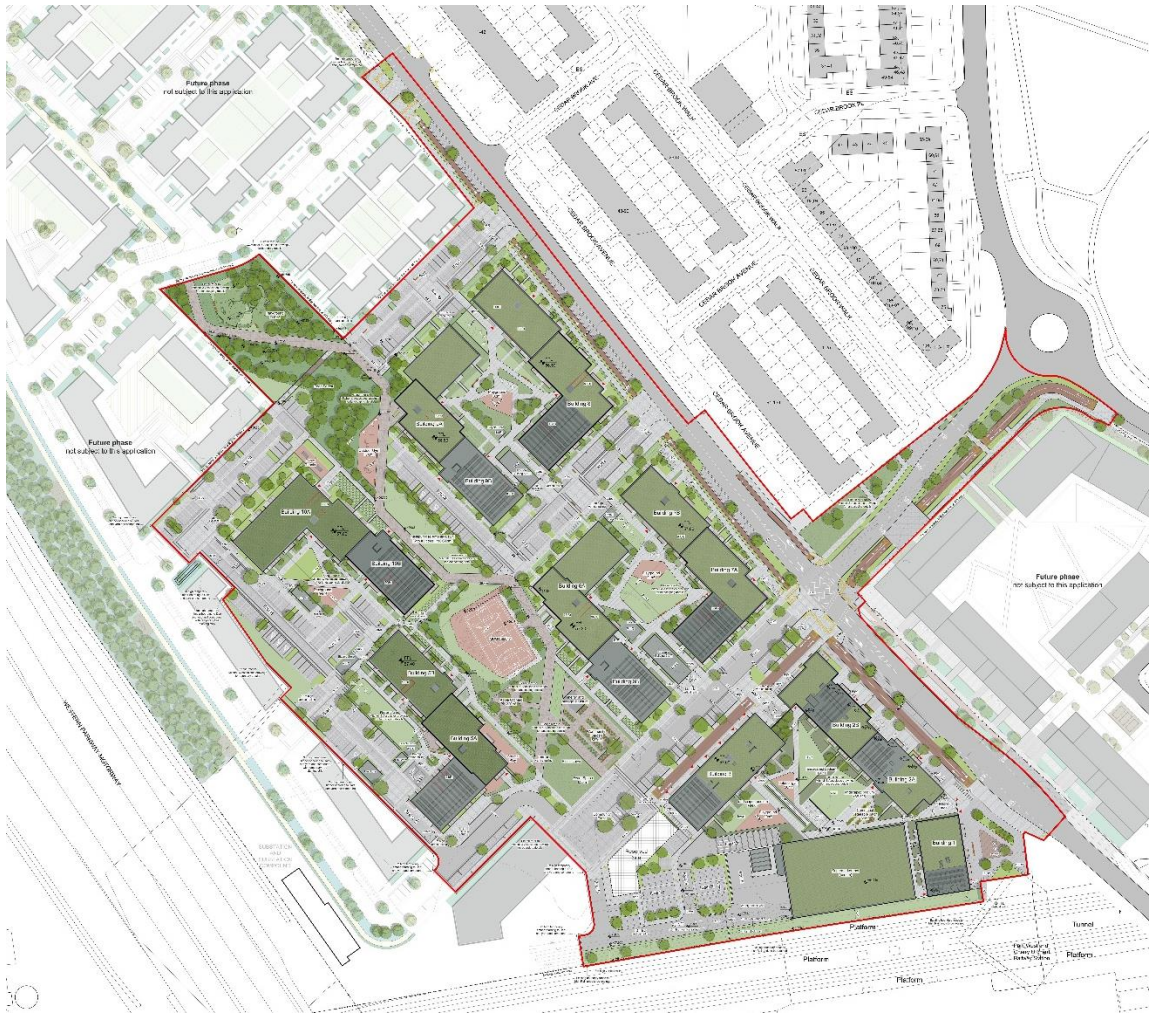


Figure 13: Site Development Layout
(Extract from Conroy Crowe Kelly Drg No 2202-PA-003)

6.2 Future Development – Phase 2

Future development of Phase 2 on Site 4 at Cherry Orchard Point is expected to comprise: -

- 53 residential houses.
- A total of 100 residential apartments in 6 blocks.
- A total of 105 number car parking spaces comprising
 - 53 spaces for houses (based on 1 space per house).
 - 50 number spaces for apartments (based on 0.5 spaces per apartment).
 - 2 number spaces for car sharing (GoCar)
- A total of 210 cycle parking spaces with 160 spaces for residents and 50 spaces for visitors.

The preliminary Phase 2 site layout can be seen in Figure 13.

6.3 Future Development – Phase 3

The future development of Phase 3 on Site 5 at Cherry Orchard Point is expected to comprise: -

- A total of 254 residential apartments in 6 blocks.
- A total of 1,200 sqm non-residential development comprising
 - Retail (800 sqm).
 - Community (400 sqm)
- A total of 132 number car parking spaces comprising
 - 127 number spaces for apartments (based on 0.5 spaces per unit).
 - 3 number spaces for retail (based on 1.0 space per 275 sqm).
 - 2 number spaces for car sharing (GoCar).
- A total of 544 cycle parking spaces with 533 spaces for residents and visitors at the apartments and 11 spaces for staff and customers at the retail.

The preliminary Phase 3 site layout can also be seen in Figure 13.

6.4 Future Development – Phase 4

The future development of Phase 4 on Site 4 at Cherry Orchard Point is expected to comprise: -

- Commercial units in 4 blocks (16,310 sqm).
- A total of 82 number car parking spaces.
- A total of 300 cycle parking spaces with 218 spaces for staff and 82 spaces for visitors.

The preliminary Phase 4 site layout can be seen in Figure 13 and on the drawings included with the planning application.

6.5 Overall Development

The overall development of Phases 1, 2, 3 and 4 on Sites 4 and 5 at Cherry Orchard Point is expected to comprise:-

- 1,115 residential units comprising: -
 - 53 number Houses.
 - 1,062 number Apartments (708 + 100 + 254).
- Total non-residential development of 22,300 sqm comprising:
 - 1 number Supermarket (2,523 sqm).
 - 3 number Retail (222 sqm + 151 sqm + 800 sqm).
 - 1 number Creche (672 sqm).
 - 4 number Commercial (16,310 sqm).
 - 2 number Community (1,222 sqm + 400 sqm).
- 763 number car parking spaces (444 + 105 + 132 + 82).
- 22 number motorcycle parking spaces.
- 2,537 number cycle parking spaces (1,618 + 210 + 409 + 300).

The overall site layout can be seen in Figure 13 and on the drawings included with the planning application.

6.6 Contiguous Development

As described in Section 5.0 of this TTA, planning permission for a residential development of 750 units and 552 car parking spaces on a 9.4 ha site at Park West, Dublin 12 was granted by An Bord Pleanála to Greenseed Ltd in June 2022 subject to 29 conditions (ABP Reg Ref 312290-21). The parking total included 14 spaces for car sharing.

The site included the Aspect Hotel which is located some 5 minutes' walk from Site 4 (400m).

6.7 Proposed Site Access

Access to the proposed development on Site 4 Phase 1 is proposed from four junctions on Park West Avenue as shown on Figures 13 and 14.

Three of the four junctions on Park West Avenue will be at-grade with priority control. Sightlines at these junctions will comply with the requirements of DMURS.

The fourth junction will form an at-grade signalised crossroads with Barnville Park. The signals at this junction will incorporate cycle and pedestrian phases.

Access to Site 5 will be from an at-grade priority junction to be located on Barnville Park.

6.8 Internal Site Layout

The proposed internal layout on Site 4 Phase 1 including roads, cycle facilities and pedestrian facilities is shown reproduced in Figure 14.

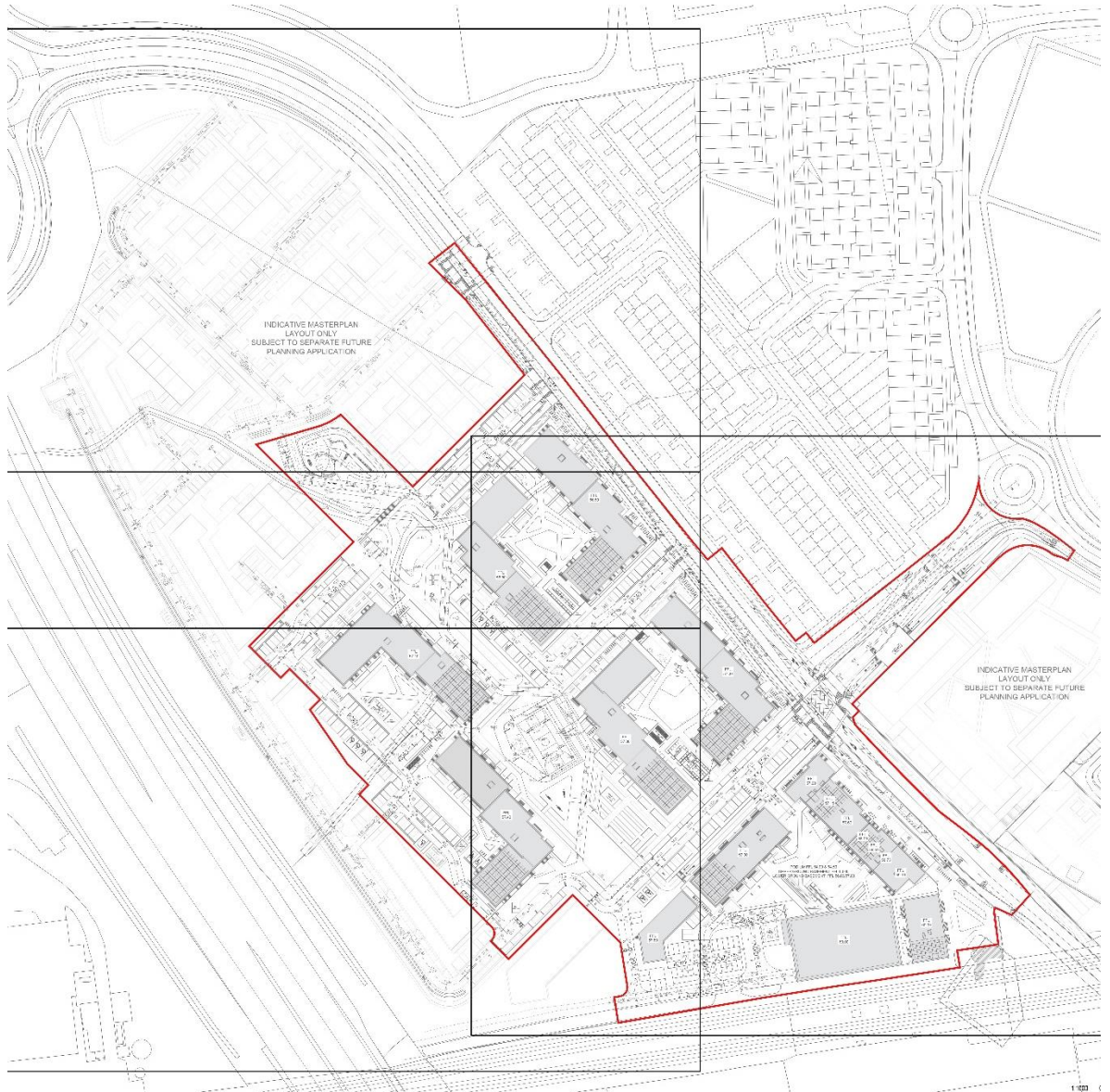


Figure 14: Proposed Internal Road Layout at Site 4.
(Extract from Waterman Moylan Drg No COP-WMC-PH1-00-DR-C-P100)

6.9 Waste Collection and Fire Tender Access

Tracking for refuse freighter and fire tender is shown on the engineering drawings included with the planning application.

6.10 Car Parking

A total of 444 number car parking spaces will be provided in Phase 1 comprising: -

- 159 number privately managed at surface spaces for residents (including 8 number spaces for disabled).
- 117 number spaces at lower ground / podium level (high density area) for residents (including 6 number spaces for disabled).
- 92 number spaces at lower ground level for retail (including 5 number spaces for the disabled).
- 34 number on street surface spaces for residents and general use on New Street (including 2 number spaces for disabled).
- 18 number on street surface spaces for residents and general use on Park West Avenue / New Street (including 1 number space for disabled).
- 7 number retail spaces on Park West Avenue (including a loading bay).
- 6 number spaces for the Creche.
- 11 number on street spaces for car sharing (GoCar).

The locations of the car parking spaces are shown on the architectural and engineering drawings included with the planning application.

6.11 Motorcycle Parking

The parking provision for motorcycles within the proposed development will be 22 spaces (5% of the car parking provision) at various locations around the development.

The locations of the motorcycle parking spaces are shown on the architectural and engineering drawings included with the planning application.

6.12 Cyclists and Pedestrians

The pedestrian and cycle access to the proposed development have been integrated with the proposals for the surrounding road network.

This development provides for upgraded footpaths and cycle tracks on the Park West Avenue together with pedestrian and cycle phases in the signalised junction at Barnville Walk.

6.13 Cycle Parking

In compliance with Section 3.0 of Appendix 5 of the Dublin City Development Plan 2022 – 2028, it is proposed that a total of 1,618 cycle parking spaces be provided within the proposed development.

A total of 1,601 spaces are required to meet the standards of the City Development Plan and a total of 1,618 spaces are provided.

The locations of the spaces are shown on Drg No 2202-PA-011 *Site Parking Layout* prepared by van Dijk Architects and included in the planning application.

Shower / changing facilities for staff will be provided in accordance with Section 3.2 of Appendix 5 of the City Development Plan.

6.14 Local Mobility Hub

During the preparation of this T &TA, Site 4 at Park West Avenue was identified as a suitable location for a Local Mobility Hub in conjunction with the provision of a limited car parking provision for the proposed development. The elements identified as appropriate for location at surface level adjacent to the railway station as well within the adjacent lower ground floor, deck and podium include: -

- Bus stop / set-down – on Park West Avenue.
- Bicycle parking – covered and secure at the deck parking area.
- Cargo bike parking – at the deck parking area.
- e-bike parking and charging- at the railway station by others.
- Taxi drop-off – Park West Avenue / New Street.
- Car club parking and charging. – New Street
- Private car drop-off – utilising on-street parking.
- Short term private car parking – pay and display.
- Private car EV charging – on-street and within deck parking area.

The locations of these various facilities are shown on the architectural and engineering drawings included in the planning application.

6.15 Apartments, Bedrooms and Design Population

The proposed development will comprise a total of 708 apartments with 1,174 bedrooms and a design population of 2,247 persons as set out in Table 4.

Table 4: Apartments, Bedrooms and Design Population– Site 4 Phase 1

Unit Size	Apartments	Bedrooms	Persons
1-Bed (2 persons)	291	291	582
2-Bed (3 persons)	52	104	156
2-Bed (4 persons)	316	632	1,264
3-Bed (5P)	49	147	245
Total	708	1,174	2,247

6.16 Mobility Management and Travel Plan⁴

The Traffic and Transport Assessment (T&TA) for the proposed development is accompanied by a Mobility Management and Travel Plan prepared by Waterman Moylan in September 2023 in accordance with Appendix 5 Section 2.3 of the Dublin City Development Plan 2022 - 2028.

7. Rationale for Car Parking Ratios

7.1 Background

The background to car parking in new residential developments is set out in Appendix 5: Transport and Mobility – Technical Requirements of the Dublin City Development Plan 2022 – 2028. Section 2.5 of Appendix 5 advises that: -

'The management of car parking provision within a development is an integral part of ensuring there is limited impact or overspill onto the adjoining road network. Where car parking is provided for residential or non-residential developments, a Car Parking Management Plan shall be provided regarding the continual management and assignment of spaces to uses and residents over time.

Generally, car parking spaces shall not be sold with units but shall be assigned and managed in a separate capacity via leasing or permit arrangements. A management scheme for any visitor car parking shall also put in place. Where car club spaces are provided within a development, a letter of confirmation from the relevant provider shall be included with an application and details submitted regarding the operation of the service within a development.

The maximum standards for car parking provision are set out in Table 2. Dublin City Council proactively works with developers to develop appropriate mobility strategies for new developments, including appropriate parking ratios. Car parking ratios for new developments are dependent on a number of factors in order to deliver a sustainable community. In particular locations, active travel (walking and cycling) infrastructure and provisions to support active travel modes and access to operational high frequency public transport corridors within 10 minutes walking distances are all key components for reduced car parking provision. Other applicable factors include access to services and amenities located within walking distance, high quality shared mobility provision, and service vehicles access and strategy which all seek to minimise the impact on the public transport corridors and other users of the surrounding road network.

Where car parking is provided for a residential development, a rationale for the quantum of car parking proposed shall be provided. This should include an analysis of census data in relation to the car ownership levels by occupiers of a similar development (i.e. houses or apartments) in the relevant electoral area and existing mode split. Reference shall also be included to the quantum of parking in the immediate area as a result of planned developments (which are subject to current planning applications or have been granted permission and not yet developed).'

7.2 Dublin City Development Plan 2022 – 2028

7.2.1 Parking Standards

Standards for car parking in new developments are set out in Appendix 5: Transport and Mobility – Technical Requirements of the Dublin City Development Plan 2022 – 2028. Parking standards are area-based with Cherry Orchard and the subject site in Area 2. See Figure 15.

For Houses, Apartments and Duplexes, Table 2 specifies a maximum provision of 1 space per unit in Zone 2.

For retail supermarkets exceeding 1,000 sqm in Area 2, the maximum provision is 1 per 100 sqm.

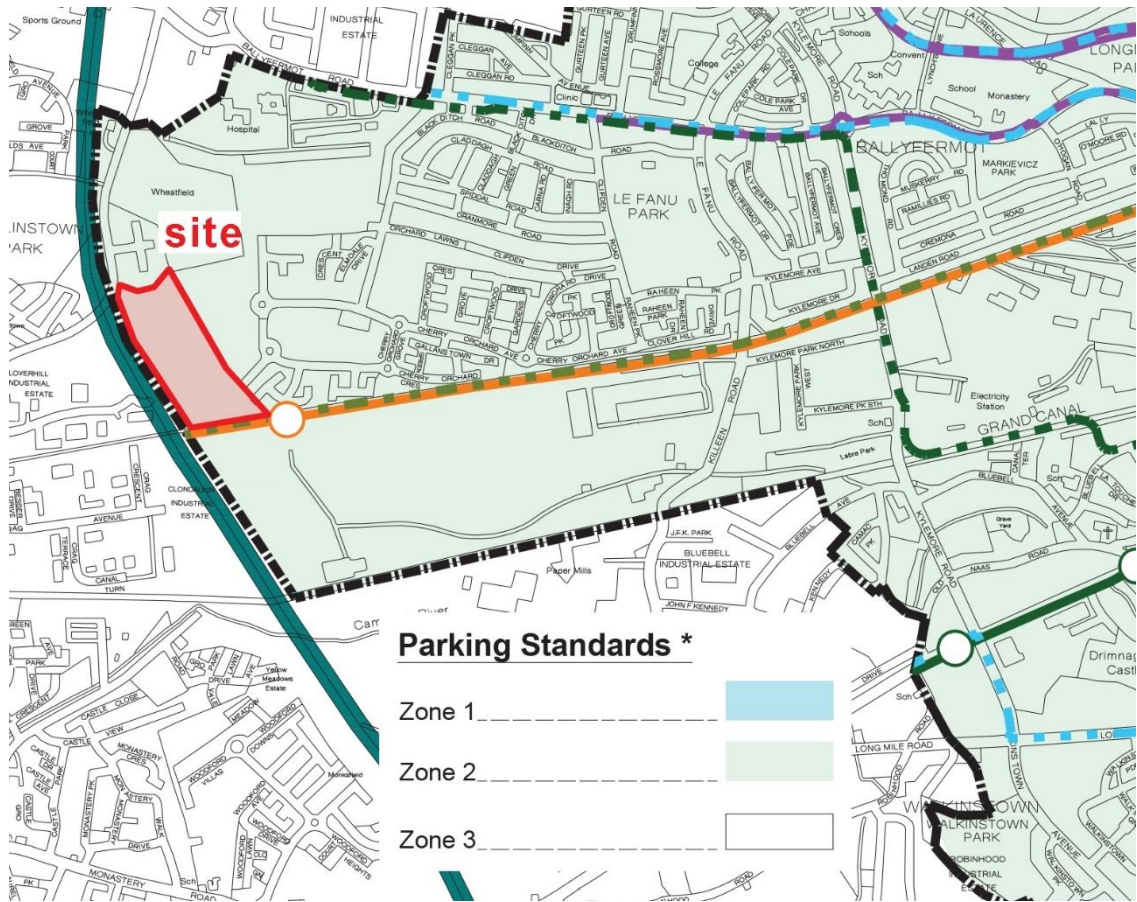


Figure 15: Extract from Development Plan Map J

7.2.2 Relaxation of Maximum Car Parking Standards

Section 4.0 of Appendix 5 advises that *'the purpose of the parking standards set out in Table 2 is to ensure that an appropriate level of parking is provided to serve all new development.*

In relation to a relaxation of the maximum car parking standard, Section 4.0 advises that: -

'A relaxation of maximum car parking standards will be considered in Zone 1 and Zone 2 for any site located within a highly accessible location. Applicants must set out a clear case satisfactorily demonstrating a reduction of parking need for the development based on the following criteria:

- *Locational suitability and advantages of the site.*
- *Proximity to High Frequency Public Transport services (10 minutes' walk).*
- *Walking and cycling accessibility/permeability and any improvement to same.*
- *The range of services and sources of employment available within walking distance of the development.*
- *Availability of shared mobility*
- *Impact on the amenities of surrounding properties or areas including overspill parking.*
- *Impact on traffic safety including obstruction of other road users.*
- *Robustness of Mobility Management Plan to support the development.*

Residential parking spaces are mainly to provide for car storage to support family friendly living policies in the City'.

In summary, an appropriate level of car parking must be provided in new developments. The primary criteria set by Dublin City Council for a relaxation of the maximum car parking standards set out in Table 2 of the Plan appear to be the support of family friendly living having regard to the services, facilities and amenities available with 10 minutes walking distance of a proposed development.

While the proposed provision of 444 car parking spaces within the proposed development may not be in compliance with the car parking standards, it is considered to be an appropriate provision as demonstrated in the following sections of this TTA.

7.2.3 Compliance with Section 4.0 of Appendix 5

Table 5 demonstrates that the subject site is a location where a relaxation of the maximum residential car parking standards may be appropriate.

Table 5: Compliance with Section 4.0 of Appendix 5

Criterion	Yes / No	
Locational suitability	Yes	11km from City Centre
Proximity to High Frequency Public Transport services	Yes	Less than 10 minutes walking distance to rail and bus services
Walking and cycling accessibility / permeability	Yes	
Range of services and sources of employment	Yes	Restricted access to retail within 40 minutes walking distance except for Local Retail at Park West (10 minutes walking distance) and the proposed supermarket to be constructed at Cherry Orchard Point.
Availability of shared mobility	Yes	GoCar at Park West (10 minutes walking distance)
Impact on the amenities of surrounding properties or areas including overspill parking		See Section 7.11
Impact on traffic safety including obstruction of other road users		See Section 7.11
Robustness of Mobility Management Plan to support the development		See Section 7.11

7.3 Design Standards for New Apartments 2022

7.3.1 Car Parking

Section 4.20 of this standard advises that:

'The quantum of car parking or the requirement for any such provision for apartment developments will vary, having regard to the types of location in cities and towns that may be suitable for apartment development, broadly based on proximity and accessibility criteria'.

In terms of accessibility, the subject site is located in an *Intermediate Urban Location*. For such locations, Section 4.23 of the Design Standards advises that:

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

7.3.2 Compliance with Section 4.23

Table 6 demonstrates that the subject site is in compliance with Section 4.23 of the Design Standard for New Apartments. Accordingly, a reduced overall parking standard and a maximum car parking standard will apply. The maximum standard is set out in the Development Plan 2022 – 2028 and the reduced standard is addressed in the following sections.

Table 6: Compliance with Section 4.21 of Design Standard for New Apartments

Criterion	Yes / No	Notes
Suburban location	Yes	11 km from City Centre Restricted access to retail
Served by public transport	Yes	Kildare Commuter Line Dublin Bus Routes G1 and 60. Restricted access to retail
Close to town centre	No	8km from Lucan 9km from Tallaght 11km from City Centre 12km from Blanchardstown Restricted access to retail
More than 45 dwellings per ha	Yes	

7.4 Transport Strategy for GDA, NTA, 2022 – 2042

Section 14 of the GDA Transport Strategy 2022 – 2042 addresses measures which could feasibly facilitate reduced car ownership rates across the GDA and an associated reduced demand for car parking.

Table 7 which is a reproduction of Table 14.1 of the Strategy sets out maximum parking provision for new residential developments in various locations. These parking ratios would apply in suburban centres where the public transport system offers an alternative to the car and where walking and cycling are viable transport options.

In the case of the subject site, which is located between the M50 and Canals, the maximum parking provision would be for residential 0 to 1.5 spaces per unit.

In contrast, Table 2 in Appendix 5 of the Dublin City Development Plan 2022 – 2028 specifies a maximum provision of 1 space per unit in Zone 2 and in the adjoining Zone 3 immediately to the west.

Table 7: NTA Maximum Parking Provision

Location	Maximum Parking Provision
Central Dublin (Inside Canals and including Docklands)	Zero to 0.5 spaces per unit
Locations Between the M50 and Canals	Zero to 1.5 space per unit
Locations Between the Metropolitan Boundary and the M50	Up to 1.5 space per unit
Hinterland Towns	Up to 2 spaces per unit
Small Settlements / Areas with low Accessibility levels	Subject to local assessment

In relation to Destination Parking Standards such as supermarkets and local retail, Measure TM12 in the Strategy advises that *'It is the intention of the NTA to develop guidance on maximum car parking standards for different land-uses and locations, in association with local authorities.*

7.5 Access to Local Services and Amenities

7.5.1 Introduction

Access to local services and amenities has been assessed on the basis of the time required to access these services and amenities either on foot or by cycle.

7.5.2 Walking Distance 0 – 40 Minutes

Access to the various services and amenities in the area of the subject site is set out in Tables 8 and 9. For the purpose of Tables 12 and 13, walking distance to the various services has been measured from Junction 4 at the intersection of Park West Avenue and Barnville Walk. See Figures 4 and 5.

Table 8: Access to Services and Amenities - Walking Distance 0 – 40 minutes

Service	Name	Location	Walking Distance
Bus Stop	Bus Connects	Park West Avenue	3 min (200m)
Car Sharing	GoCar	Yeats Way	8 min (600m)
Childcare	St Ultan's Centre	Cherry Orchard Ave	8 min (650m)
	Babes in the Wood	Cedarbrook	2 min (130m)
	Giraffe	Park West	7 min (800m)
Further Education	Ballyfermot College	Ballyfermot Road	32 min (2.6k)
Health Centre	Cherry Orchard HS	Cherry Orchard Ave	9 min (750m)
	Primary Care Centre	Ballyfermot Road	20 min (1.6km)
	Park West Medical	Park West Road	10 min (800m)
Hospital	Cherry Orchard Hosp	Ballyfermot Road	25 min (2km)
Hotel	Aspect Hotel	Park West	5 min (400m)
Neighbourhood Centre	Plaza	Park West	9 min (800m)
	Ballyfermot Store	Ballyfermot Road	30 min (2.5km)
Railway Station	Park West & Cherry Or	Park West Avenue	3 min (200m)
Retail - Local	Park West Plaza	Ground Floor	9 min (800m)
Retail - Supermarket	Lidl	Ballyfermot Road	21 min (1.7km)
	Centra	Ballyfermot Road	25 min (2.1km)
School - Primary	St Ultan's NS	Cherry Orchard Ave	8 min (650m)
School - Secondary	Pobalscoil Iosolde	Kennelsfort Road	35 min (2.0k)
Shopping Centre	Liffey Valley	Coldcut Road	40 min (3.2km)

Table 9: Access to Amenities - Walking Distance 0 – 40 minutes

Amenity	Name	Location	Walking Distance
Church	Holy Sacrament	Cherry Orchard Ave	7 min (550m)
	St Matthews	Blackditch Drive	19 min (1.6km)
Community Centre	Orchard	Cherry Orchard Grove	8 min (700m)
		Clifden Road	20 min (1.8km)
		Ballyfermot Road	23 min (1.8km)
Public Park	Cherry Orchard Park	Cherry Orchard Ave	4 min (350m)
	Collinstown Park	Cloverhill Road	22 min (1.8km)
	Le Fanu Park	Clifden Road	27 min (2.3km)
Sports & Leisure	Cherry Orchard Park	Cherry Orchard Ave	4 min (350m)
	Equine Centre	Cherry Orchard	5 min (400m)
	Ballyfermot United FC	Cloverhill Road	15 min (1.2 km)
	Cherry Orchard FC	Clifden Road	22 min (1.8km)
	Ballyfermot Leisure	Clifden Road	22min (1.8km)

7.5.3 Walking Distances 0-10, 10-20 and 20-40 Minutes

Walking distances at 0 – 10 minutes, 10 – 20 minutes and 20 – 40 minutes from the proposed development to various services and amenities in the surrounding area are presented in Tables 10, 11 and 12.

For the purpose of Table 10, 11 and 12, walking distance to the various services has been measured from Junction 4 at the intersection of Park West Avenue and Barnville Walk.

With the exception of the Park Plaza, the notable omissions from Tables 10 and 11 extending to 20 minutes walking distance are retail, supermarket and shopping centres. These are included in Table 12 at walking distances of between 20 and 40 minutes.

Table 10: Services and Amenities - Walking Distance 0 - 10 minutes

Amenities	Name	Location	Walking Distance
Childcare	Babes in the Wood	Cedarbrook	2 min (130m)
Bus Stop	Bus Connects	Park West Avenue	3 min (200m)
Railway Station	Park West & Cherry O	Park West Avenue	3 min (200m)
Public Park	Cherry Orchard Park	Cherry Orchard Ave	4 min (350m)
Sports & Leisure	Cherry Orchard Park	Cherry Orchard Ave	4 min (350m)
Hotel	Aspect Hotel	Park West	5 min (400m)
Sports & Leisure	Equine Centre	Cherry Orchard	5 min (400m)
Childcare	Giraffe	Park West	7 min (600m)
Church	Holy Sacrament	Cherry Orchard Ave	7 min (550m)
Car Sharing	GoCar	Yeats Way	8 min (600m)
Primary School	St Ultan's NS	Cherry Orchard Ave	8 min (650m)
Childcare	St Ultan's Centre	Cherry Orchard Ave	8 min (650m)
Community Centre	Orchard	Cherry Orchard Grove	8 min (700m)
Health Centre	Cherry Orchard HS	Cherry Orchard Ave	9 min (750m)
Retail - Local	Park West Plaza	Ground Floor	10 min (800m)
Health Centre	Park West Medical	Park West Road	10 min (800m)

Table 11: Services and Amenities - Walking Distance 10 – 20 Minutes

Service	Name	Location	Walking Distance
Sports & Leisure	Ballyfermot United FC	Cloverhill Road	15 min (1.2 km)
Church	St Matthews	Blackditch Drive	19 min (1.6km)
Health Centre	Primary Care Centre	Ballyfermot Road	20 min (1.6km)

Table 12: Services and Amenities - Walking Distance 20 – 40 minutes

Service	Name	Location	Walking Distance
Community Centre		Clifden Road	20 min (1.7km)
Retail - Supermarket	Lidl	Ballyfermot Road	21 min (1.7km)
Public Park	Collinstown Park	Cloverhill Road	22 min (1.8km)
Sports & Leisure	Cherry Orchard FC	Clifden Road	22 min (1.8km)
Sports & Leisure	Ballyfermot Leisure	Clifden Road	22min (1.8km)
Civic Centre	Ballyfermot Community	Ballyfermot Road	23 min (1.8km)
Hospital	Cherry Orchard	Ballyfermot Road	25 min (2.0+-km)
Retail - Supermarket	Centra	Ballyfermot Road	25 min (2.1km)
Public Park	Le Fanu Park	Clifden Road	27 min (2.3km)
Retail -	Ballyfermot Store	Ballyfermot Road	30 min (2.5km)
Further Education	Ballyfermot College	Ballyfermot Road	32 min (2.6km)
School - Secondary	Pobalscoil Iosolde	Kennelsfort Road	35 min (2.9km)
Shopping Centre	Liffey Valley	Coldcut Road	40 min (3.2km)

7.5.4 Cycling Distance

The time required to access the various services and amenities listed in Tables 8, 9, 10, 11 and 12 from the subject development is shown in Figures 16 and 17.

It will be seen from Figure 16 that most of the listed services and amenities including those on Ballyfermot Road are located within the 10-minute cycle time contour.

However, it will also be seen from Figure 17 that very few of these services and amenities are located within the 5-minute cycle time.

Overall, access by cycle is good to the local facilities but a travel distance of up to 10 minutes to the retail and other facilities on Ballyfermot Road.

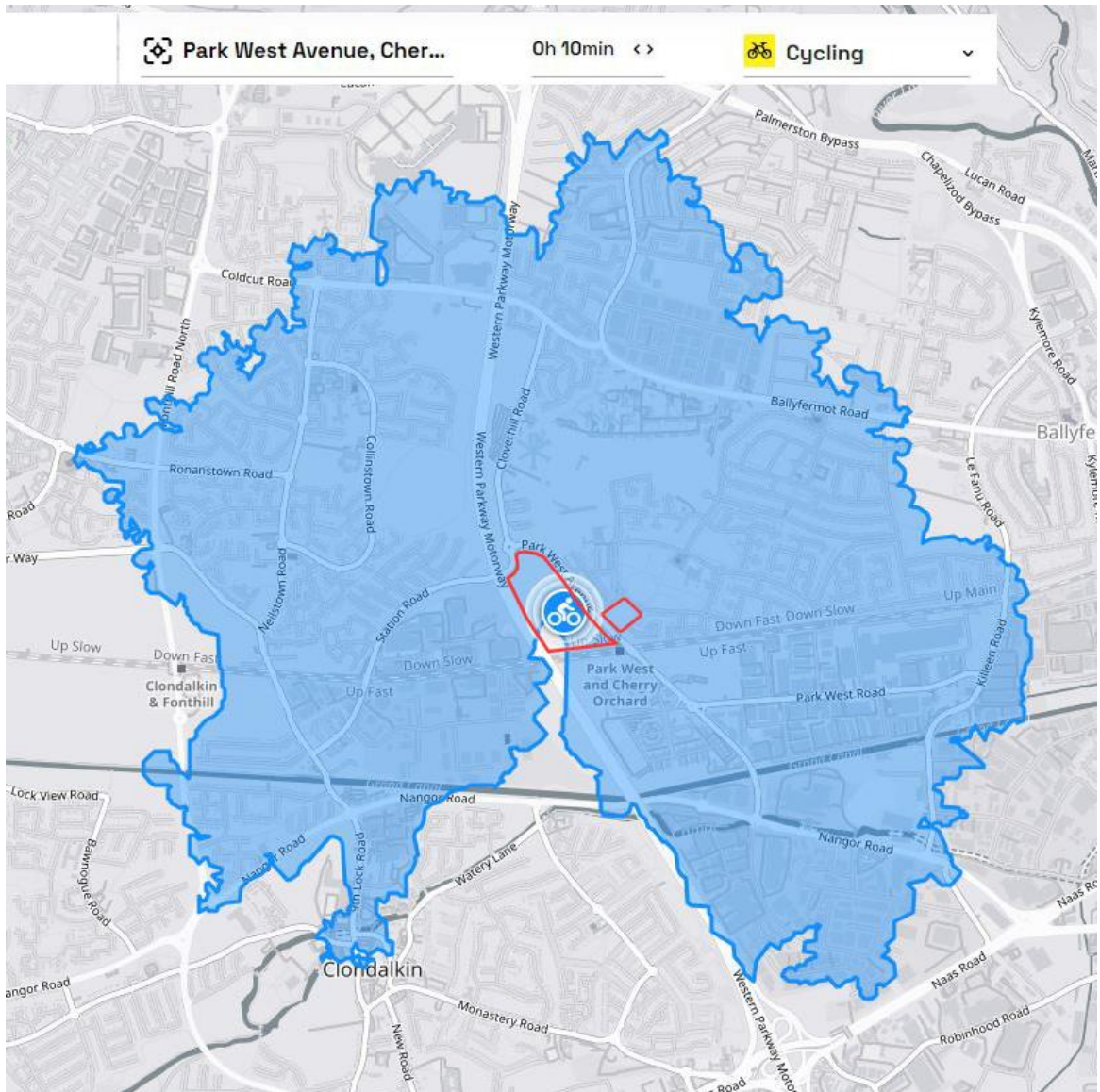


Figure 16: Cycle Time 0 - 10 Minutes

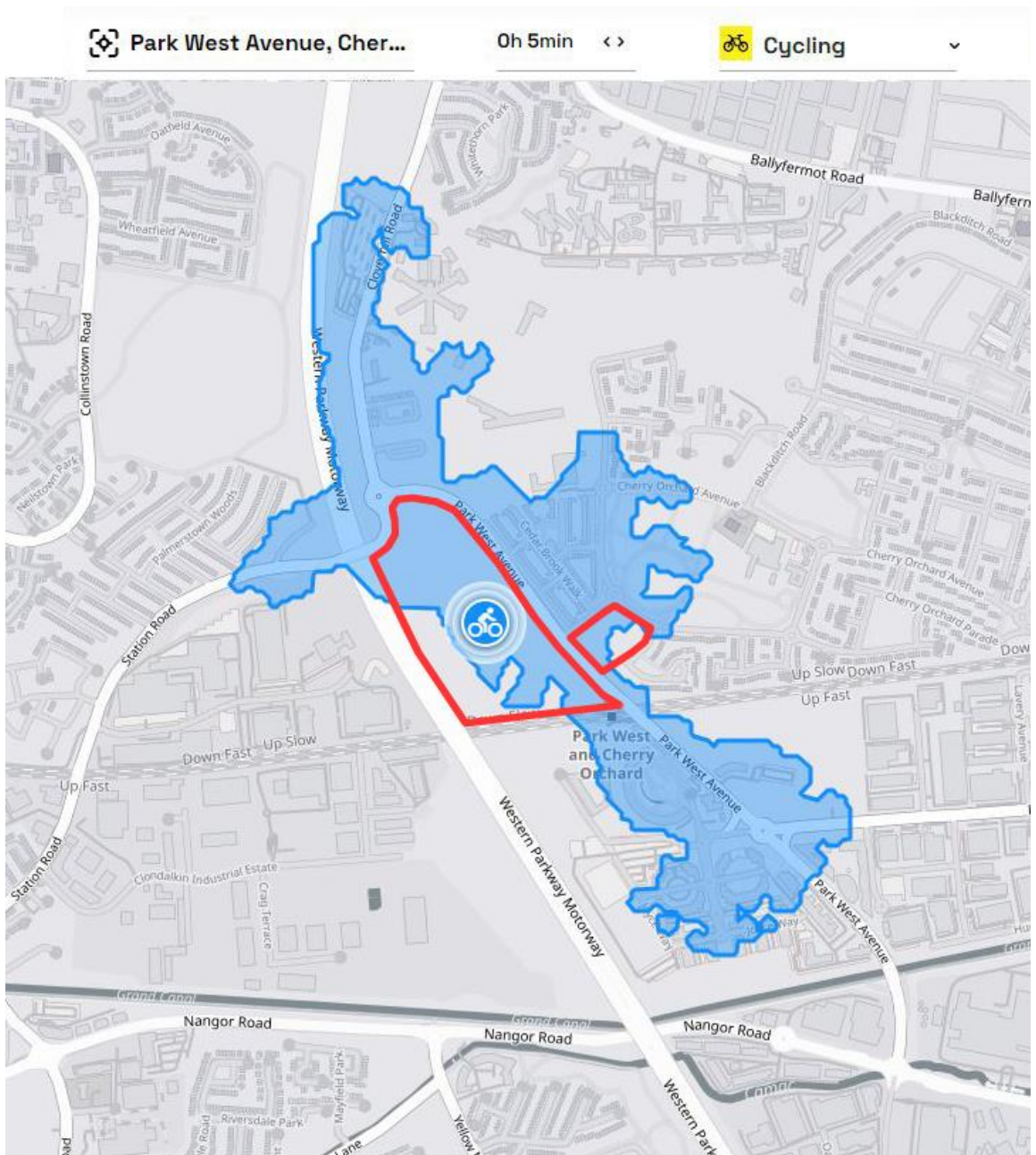


Figure 17: Cycle Time 0 - 5 Minutes

7.5.5 Access to Public Transport Corridors

There are two high-capacity transport links in the area of the subject site, the M50 Motorway to the west and the Kildare Commuter railway to the south.

The high capacity north – south M50 Motorway immediately to the west of the subject site is primarily car based with no public transport provision other than a small number of bus services which do not stop in the area of the subject site. Nor is there any direct access to the M50 from the Cherry Orchard area.

However, the subject site is located immediately to the north of the Kildare Commuter line which provides a transport corridor in an east -west direction between Dublin and Kildare.

Park West & Cherry Orchard Station has regular commuter and inter-city rail services including stopping services from Portlaoise and Newbridge to Heuston Station and from Hazelhatch & Celbridge to Grand Canal Dock.

The journey time to Heuston by rail is some 9 - 11 minutes and the journey time to Grand Canal Dock by rail is some 40 – 45 minutes. There are 5 existing services from Park West and Cherry Orchard to the City Centre during the AM Peak Hour 8 – 9.

There is no public transport corridor in a north – south direction either north to Blanchardstown / Castleknock or south to Walkinstown / Tallaght.

7.5.6 Access to Bus Services

Bus services in the area of the proposed are a combination of historic services operated by Dublin Bus and new services provided under the auspices of Bus Connects.

Dublin Bus Routes 79 and 79a which formerly served the Park West Avenue and the Park West & Cherry Orchard Station were replaced by Routes G1 and 60 in October 2022.

Bus stops are located on Park West Avenue, Barnville Walk and Cedar Brook Way within 3 - 5 minutes walking distance.

7.5.7 Access to Shared Mobility Provision

An existing car sharing base operated by GoCar Ireland is located at The Crescent Building in the Park West Business Park. This base is located in the Information Centre car park off Yeats Way at a walk time of 8 minutes (600 metres) from Junction 4.

No stations for shared cycles or e-scooters were recorded in the area of the subject site.

7.5.8 Summary of Access by Walking and Cycling

Overall, walking and cycling access to the various services and amenities in the area of the subject site is patchy, good for some facilities but not good for others.

Access is good to the rail based public transport serving an east -west corridor. Access is moderate to the bus based north-south corridor.

Access also is good to local amenities and community services.

However, access is not good to retail or other commercial services with the nearest retail provision located to the northeast in the Ballyfermot area at a walking distance of 20 – 40 minutes and a cycle distance of up to 10 minutes.

The proposed supermarket at Cherry Orchard Point will make good this deficit.

7.6 Car Parking in the Immediate Area

7.6.1 Off-Street Car Parking

There are no public off-street car parks in the area of the subject site. No car parking is provided at the railway station nor is there any designated on-street car parking.

7.6.2 Park West

Off-street car parking at Park West is commercial and private associated with the offices.

Short term public car parking for customers is provided at the Park Plaza at a walking distance of 10 minutes (800m).

Parking for patrons is also provided at the Aspect Hotel at a walking distance of 5 minutes (400m).

7.6.3 Recent Planning Approval

Planning permission for a residential development of 750 units and 552 car parking spaces on a 9.4 ha site at Park West, Dublin 12 was granted by An Bord Pleanála to Greenseed Ltd in June 2022 subject to 29 conditions (ABP Reg Ref 312290-21). The quantum of car parking provided and approved was a total of 552 spaces including 14 spaces for car sharing. The allocation of these spaces was a reduction on Development Plan standards and comprised: -

- 482 spaces for 750 apartments equivalent to 0.62 spaces per unit.
- 70 spaces for the Aspect Hotel (reduced from 112 spaces).

Some 314 spaces will be located in an undercroft beneath the six blocks (57%) and the 238 remaining spaces on-street (43%).

7.6.4 Benchmarked Residential Schemes

In a number of recent decisions, An Bord Pleanála has approved a much-reduced provision of car parking when compared with the maximum standards set out in the various Development Plans. A summary of the parking provision in similar residential developments approved under the SHD provision is set out in Table 13. Parking numbers include car sharing.

The nearest development to the subject site will be the development by Greenseed Ltd on Site 6 as described in Section 5.0 and 7.6.3 of this TTA. At this location, 482 spaces are proposed for 750 apartments giving a parking ratio of 0.62 spaces per unit. In addition, a further 15 spaces are proposed for car sharing.

Table 13: Residential Car Parking Provision - Similar Schemes

ABP Ref No	Scheme	Transport Corridor	Type	Units	Car Parking (Car Sharing)	Parking Ratio
300520-17	Blakes Stillorgan	Stillorgan QBC	Student Accommodation	179	143	0.51
			Apartments	103		
305319-19	Clongriffin	DART Clongriffin	BTR Apartments	265	261	0.52
			Apartments	235		
306167-19	Rathoath Rd Pellestown	Maynooth Line	Apartments	435	196	0.45
306506-20	Gort Muire Dundrum	LUAS Balally	BTR Apartments	730	296	0.41
306075-20	Gallagher Greenhills Rd	LUAS Belgard	Apartments	502	202	0.40
307011-20	Omni Park Santry	Swords QBC	Apartments	324	152	0.47
307092-20	Palmerstown Retail Park	Lucan QBC	BTR Apartments	250	125	0.50
312290-21	Park West	Kildare Line	Apartments	750	482 (15)	0.62

7.7 Mode Share

7.7.1 Census 2022

Census 2022 took place on Sunday, 3 April 2022. The publication dates issued by the Central Statistics Office for the results of the census are reproduced in Table 14.

Table 14: Census 2022 Publication Schedule

Release Name	Date
Summary Results	Tuesday, May 30th 2023
Profile 1 – Population Distribution and Movement	Thursday June 29 th 2023
Profile 2 – Housing in Ireland	Thursday July 27 th 2023
Profile 3 – Households, Families and Children	Thursday, August 31st 202
- Small Area Population Statistics	Thursday, September 21st 2023
Profile 4 – Disability, Health and Carers	Thursday September 28 th 2023
- Place of Work, School and College	Thursday October 19 th 2023
Profile 5 – Diversity, Migration, Ethnicity, Irish Travellers & Religion	Thursday October 26 th 2023
Profile 6 - Homelessness	Thursday November 16th 2023
Profile 7 – Employment, Occupations and Commuting	Thursday November 30th 2023
Profile 8 – The Irish Language and Education	Thursday December 19th 2023

7.7.2 Census 2016

Information on existing mode share is based on data from Census 2016.

Updated information based on Census 2022 will not be available from the CSO until late 2023.

7.7.3 Existing Mode Share

In the area of the subject site, the journey to work, school or college is dominated by the car (43.5%), followed by walk (21.0%) and public transport (20.5%).

Very few people travel by bicycle (3.8%) compared to other areas of the city (9.6%).

Section 2.9.1 of the Park West - Cherry Orchard Local Area Plan 2019 advised that

'In examining the Census data and the breakdown of sustainable modes of transport, rail represent a very low) 2%. This is despite its central location and despite 2,550 people having access to the station within a 15-minute walk.

Based on census returns, the existing mode share for the journey to work, school or college is at Park West & Cherry Orchard and in the wider city is presented in Table 15 below.

Table 15: Existing Mode Share

Existing Mode Share	Mode	Park West Cherry Orchard	City Development Plan
		LAP 2019	2022 - 2028
Private Vehicles	Car Driver	27.9%	29.0%
	Car Passenger	15.6%	
	Motorcycles	0.3%	
	Commercial	2.5%	
Public Transport	Bus	18.1%	54.0%
	Rail	2.4%	
Cycling		3.8%	6.0%
Walking		21.0%	11.0%
Not Stated		8.0%	-
Work from Home		0.4%	-
	Total	100.0%	100.0%

7.7.4 Target Mode Share

Based on the City Development Plan 2022 – 2028, the target modal split at Park West Cherry Orchard in 2028 for the journey to work, school or college is presented in Table 16.

Table 16: Target Mode Share 2028

Mode	Dublin City	Park West Cherry Orchard
	2028	2027
Walking	13%	16.0%
Cycling / Micro Mobility	13%	5.0%
Public Transport (Bus, Rail)	57%	44.0%
Private Vehicles (Car, taxi, goods, motorcycles)	17%	35.0%
Total	100.0%	100.0%

7.8 Car Ownership

Information on car ownership was based on data from Census 2016. Updated information based on Census 2022 will not be available from the CSO until late 2023.

The proposed development is located within the Census Electoral Division Wards of Cherry Orchard A and Cherry Orchard C. Car ownership in these two wards based on Census 2016 is presented in Table 17. For the purpose of Table 17, not stated were excluded from the figures for household cars.

For comparison, car ownership for the Dublin Couth Central Constituency, Dublin City and South County Dublin are also included.

On the basis of the foregoing, it has been assumed for the purpose of this TTA, that car ownership at Cherry Orchard Point will be 0.80 cars per household.

Table 17: Car Ownership at Cherry Orchard

Location	Cars per Household					Total (Ratio)
	0	1	2	3	4	
Cherry Orchard A						
Households	164 (24.8%)	396	88	12	1	661
Cars	-	396	176	36	4	612 (0.93)
Cherry Orchard C						
Households	418 (31.4%)	664	209	32	6	1,329
Cars	-	664	418	96	24	1,202 (0.90)
Dublin South Central						
Households	16,812 (37.9%)	19,600	6,724	1,010	237	44,383
Cars	-	19,600	13,448	3,030	948	37,026 (0.83)
Dublin City						
Households	71,325 (35.8%)	85,715	35,531	5,568	1,357	199,496
Cars	-	85,715	71,062	16,704	5,428	178,909 (0.90)

7.9 Proposed Car Parking

7.9.1 Proposed Car Parking – Phase 1

The proposed car parking for Phase 1 is a total of 444 spaces allocated as follows:-

- 159 number privately managed at surface spaces for residents (including 8 number spaces for disabled).
- 117 number spaces at lower ground / podium level (high density area) for residents (including 6 number spaces for disabled).
- 92 number spaces at lower ground level for retail (including 5 number spaces for the disabled).
- 34 number on street surface spaces for residents and general use on New Street (including 2 number spaces for disabled).
- 18 number on street surface spaces for residents and general use on Park West Avenue / New Street (including 1 number space for disabled).
- 7 number retail spaces on Park West Avenue (including a loading bay).
- 6 number spaces for the Creche.
- 11 number on street spaces for car sharing (GoCar).

The locations of the car parking spaces are shown on the architectural and engineering drawings included with the planning application.

7.9.2 Proposed Car Parking Provision - Residential

The proposed car parking ratio for the residential development is 0.46 space per apartment with 328 spaces for the 708 apartments on Site 4 Phase 1.

The locations of the proposed car parking are shown on the architectural and engineering drawings included with the planning application.

7.9.3 Proposed Car Parking Provision – Supermarket

The proposed car parking for the supermarket at Cherry Orchard Point is a provision of 92 spaces based on a floor area of 2,523 sqm equivalent to 1 space per 27 sqm GFA.

If the Development Plan standard of a maximum of 1 space per 100 sqm GFA for new developments in Zone 2 where Cherry Orchard Point is located, were to be applied to the car parking provision at the Cherry Orchard Point supermarket, the car parking provision would be restricted to some 25 spaces (2,523 sqm x 1 space per 100 sqm).

However, having regard to the location of Cherry Orchard Point on the boundary between parking Zone 2 and parking Zone 3, as shown in Figure 15, the application of the Zone 3 car parking standard of 1 space per 30 sqm GFA would increase the provision of car parking at the supermarket to 84 spaces.

As part of the planning application for Cherry Orchard Point, a relaxation of the maximum car parking standard for supermarkets in the current City Development Plan is being requested for the supermarket at Cherry Orchard Point on the basis that:-

- The subject site and surrounding area are not well served in retail terms.
See Section 7.5 of this TTA.
- The nearest retail to the subject site is located in Ballyfermot at a walking distance of 30 – 40 minutes and a cycle time of up to 10 minutes.
See Section 7.5 of this TTA.
- In addition to the on-site residents who will be able to walk to the supermarket at Cherry Orchard Point, there is a significant population in the immediate surrounding area who are located outside acceptable walking distance from a supermarket and would therefore require some parking at Cherry Orchard Point as part of their shopping activity.
- A car parking of 92 spaces as proposed will address the viability of the supermarket at Cherry Orchard Point going forward.
- Section 3.2 of the Park West – Cherry Orchard Local Area Plan 2019 provides for the creation of '*a new mixed use environment incorporating a supermarket and other commercial/ employment opportunities in the vicinity of the train station*'.
- A footnote to Table 2 Car Parking Standards in Appendix 5 of the Dublin City Development Plan 2022 – 2028 provides for car parking above the maximum standards as follows
"Car parking above maximum permitted standards may be acceptable in very limited circumstances at the discretion of Dublin City Council. Such circumstances could include proposals where overspill car parking may arise, where the need to protect the primacy of the City in the regional retail hierarchy is identified, or where the need to accommodate car parking as part of a larger scheme of civic importance is apparent. In all cases, the applicant must fully engage with Dublin City Council at pre-application stage regarding the acceptability of departure from maximum standards."
- An inadequate provision of customer car parking for the proposed supermarket could likely lead to overspill parking on the surrounding roads at busy periods.

Overall, it is proposed that the maximum provision of 25 spaces based on the standards in the City Development Plan be increased to 92 spaces to cater for residents in the immediate surrounding area and the ongoing viability of a supermarket at Cherry Orchard Point.

7.10 Car Parking Management

It is proposed that the 444 spaces in Phase 1 will be allocated and managed as shown in Table 18.

Permits for access by residents to the 276 private spaces will be issued by the Management Company on a first come first served basis with not more than one permit per unit. Operation of the 59 on-street spaces including Pay & Display and permits will be managed by Dublin City Council.

For residents who require occasional car use without the need to own a vehicle, 11 spaces will be permanently allocated for car sharing with vehicles supplied by GoCar or similar company.

Table 18: Allocation and Management of Car Parking

Land Use	Access	Spaces	Operation and Control
Residential	Private Surface	159	Reserved for residents.
	Restricted		Permit holders only
Residential	Lower Ground	117	Reserved for residents.
	Restricted		Permit holders only
Residential	New Street	34	Public On-Street
	Pay & Display and Permit		07h00 – 19h00 Mon - Fri
Residential	Park West Avenue	18	Public On-Street
	Pay & Display and Permit		07h00 – 19h00 Mon - Fri
Car Sharing	Lower Ground	11	Reserved for car sharing.
	Restricted		(Go-Car)
Supermarket	Lower Ground	92	Reserved for customers.
	Public		2-hour limit.
Retail Units	Public On-Street	6	Park West Avenue
	Pay & Display and Permit		07h00 – 19h00 Mon - Sat
Loading	Park West Avenue	1	Public On-Street
	Public		07h00 – 19h00 Mon - Sat
Creche	Surface	6	Reserved for Creche staff.
	Restricted		Permit holders only
Total		444 spaces	

7.11 Impact of Car Parking

7.11.1 Impact on Amenities

Car Ownership and Car Parking

The proposed development on Site 4 Phase 1 will comprise 708 residential units and 444 car parking spaces with 328 spaces for residents.

Car ownership based on Census 2016 is addressed in Section 7.8 of this TTA. On the basis of a projected car ownership rate of 0.80 cars per household within the proposed development, the number of cars owned by residents could be up to 566 vehicles (0.80 x 708 households).

This ownership, if achieved, would significantly exceed the on-site car parking provision of 328 spaces for the apartments. The implementation of the measures set out in the Mobility Management and Travel Plan are designed to avoid such a scenario.

Car Ownership and Car Usage

Based on a transport mode split of up to 35% for car drivers, the number of car owning residents driving to work or education each day could be up to 248 drivers (35% of 708 households).

The 248 cars being driven to work or education would be within the parking provision of 276 private spaces for residential units at Cherry Orchard Point. The remaining cars owned by residents be used for social and recreational purpose.

7.11.2 Impact on Traffic Safety

This issue is addressed in the Quality Audit (QA) accompanying this TTA.

7.11.3 Robustness of Mobility Management and Travel Plan

The targets set in the Mobility Management and Travel Plan for the subject development on Site 4 Phase 1 are believed to be realistic and achievable. Notwithstanding, it is possible that car ownership could exceed parking capacity leading to overspill parking.

Overspill parking may conflict with other road users including other motorists, emergency vehicles cyclists, pedestrians and members of various vulnerable groups including the blind, wheelchair users and people with small children. Vehicles parked sidewalks could cause damage and additional maintenance /repair costs.

The implementation of the measures set out in the Mobility Management and Travel Plan are designed to avoid high car ownership and overspill parking as a consequence.

8. Cycle Parking

8.1 Cycle Parking Standards

Standards for cycle parking are set out in Section 3.0 of Appendix 5 to the Dublin City Development Plan 2022 – 2028.

The cycle parking standards for Zone 2 reproduced from Table 1 of Appendix 5 are presented in Table 23 below.

Table 19: Cycle Parking Standards

Land Use	Long Term / Staff	Short Stay / Visitor
Residential Apartment	1 per bedroom	1 per 2 apartments
Residential Dwelling	1 per unit	1 per 5 dwellings
Supermarket	1 per 5 staff	1 per 100 sqm GFA
Commercial	1 per 5 staff	tbd by DCC
Retail Units	1 per 5 staff	1 per 100 sqm GFA
Creche	1 per 5 staff	1 per 10 children
Community Centre	1 per 5 staff	1 per 100 sqm GFA

8.2 Cycle Parking Required

Calculations for the quantum of cycle parking both long-term (residents / staff) and short stay (visitors) / customers) required for the proposed development on Site 4 Phase 1 are set out in Tables 20 - 23.

For the purpose of calculating the required cycle parking, the number of persons within each land use has been calculated as follows:

Supermarket	:	1 staff member per 50 sqm
Commercial	:	1 staff member per 15 - 20 sqm
Retail Units	:	1 staff member per 50 sqm
Creche	:	1 child per 6.4 sqm 1 staff member per 4.2 children
Community Centre	:	1 staff member per 100sqm

The number of bedrooms for the residential apartments used in the calculation of cycle parking requirements was taken from Table 4 in this TTA.

8.3 Cycle Parking Required – Long Term

The long-term cycle parking required in Phase 1 for residents and staff is calculated in Tables 20 and 21.

Table 20: Cycle Parking Required – Phase 1 Residential - Long Term (Residents)

Land Use	Size	Standard	Spaces
Residential Apartment (708 units)	1,174 bedrooms	1 per bedroom	1,174 spaces

Table 21: Cycle Parking Required – Phase 1 – Non-Residential - Long Term

Land Use	Size	Standard	Spaces
Supermarket (2,523 sqm)	50 staff	1 per 5 staff	10 spaces
Retail Units (373 sqm)	8 staff	1 per 5 staff	2 spaces
Creche (672 sqm)	25 staff	1 per 5 staff	5 spaces
Community Centre (1,222 sqm)	12 staff	1 per 5 staff	3 spaces
Total Phase 1 Non-Residential			20 spaces

8.4 Cycle Parking Required – Short Stay

The short stay cycle parking required in Phase 1 for visitors and customers is calculated in Tables 22 and 23.

Table 22: Cycle Parking Required – Residential - Short Stay (Visitors)

Land Use	No / Size	Standard	Spaces
Residential Apartment	708 units	1 per 2 apartments	354 spaces

Table 23: Cycle Parking Required - Non-Residential - Short Stay (Visitors and Customers)

Land Use	No / Size	Standard	Spaces
Supermarket	2,523 sqm	1 per 100 sqm GFA	25 spaces
Retail Units	373 sqm	1 per 100 sqm GFA	4 spaces
Creche (672 sqm)	104 children	1 per 10 children	11 spaces
Community Centre	1,222 sqm	1 per 100 sqm GFA	13 spaces
Total Phase 1 Non-Residential			53 spaces

8.5 Cycle Parking – Total

The cycle parking requirements and provision are summarised in Table 24.

A total of 1,601 spaces are required to meet the standards of the City Development Plan and a total of 1,618 spaces are provided.

The locations of the spaces are shown on the architectural and engineering drawings included in the planning application.

Table 24: Summary of Cycle Parking

Land Use	No / Size	Spaces Required	Spaces Provided
Residential	708 units	1,528 spaces	1,552 spaces
Non-Residential	4,790 sqm	73 spaces	66 spaces
Total Phase 1		1,601 spaces	1,618 spaces

8.6 Cycle Parking Provided – Residential

To meet the standards set out in the City Development Plan 2022 – 2028, a total of 1,528 cycle parking spaces (1,173 long term and 355 short stay) are required for residential uses as calculated in Tables 20 and 22.

A total of 1,552 cycle parking spaces are provided for residents and visitors at the residential units within the proposed development. The locations of these spaces are shown on the architectural and engineering drawings included in the planning application.

A total of 1,137 spaces are provide for residents and visitors at Blocks 5 – 10. The locations of these spaces are set out in Table 8 and summarised below.

- A total of 742 covered and secure cycle parking spaces are proposed on the ground floor of Blocks 5 - 10 for long term use by residents.
- A further 250 long term spaces for residents are provided external to Blocks 5 – 10.
- A total of 145 short stay spaces are provided external to Blocks 5 – 10 for visitors to the residential units.

The locations of the remaining 415 residential cycle parking spaces are shown on Drg No 2202-PA-011 *Site Parking Layout* prepared by van Dijk Architects and included in the planning application.

Shower / changing facilities for staff will be provided in accordance with Section 3.2 of Appendix 5 of the City Development Plan.

Table 25: Cycle Parking for Residential at Blocks 5 - 10

Block No	Internal		External		Total
	Long Term		Long Term	Short Stay	
5A	58		15	8	81
5B	40		15	14	69
6A	104		38	23	165
6B	34		22	-	56
7A	68		22	23	113
7B	30		24	22	76
8A	120		30	5	155
8B	64		22	5	91
9A	48		32	5	85
9B	80		4	-	84
10A	56		22	20	98
10B	40		4	20	64
Total	742		250	145	1,137

8.7 Cycle Parking Provided – Non-Residential

To meet the standards set out in the City Development Plan 2022 – 2028, a total of 73 cycle parking spaces (20 long term and 53 short stay) are required for non-residential uses as calculated in Tables 21 and 23.

A total of 66 cycle parking spaces are provided for non-residential uses as set out in Table 26. The locations of these spaces are shown on the architectural and engineering drawings included in the planning application.

Table 26: Cycle Parking Provided for Non-Residential

Land Use	Spaces Required			Spaces Provided
	Long Term	Short Stay	Total	
Supermarket	10	25	35	30
Retail Units	2	4	6	6
Creche (672 sqm)	5	11	16	14
Community Centre	3	13	16	16
Total Phase 1	20	53	73	66

8.8 Access to Cycle Parking

Access to the cycle parking provided is shown on the architectural and engineering drawings included in the planning application.

9. Servicing

9.1 Supermarket

Deliveries to and waste collection from the supermarket in Site 4 Phase 1 will take place at the dedicated service yard located at the supermarket. See Figure 18.

The details are shown on the architectural and engineering drawings included with the planning application.



Figure 18: Delivery Yard for Supermarket

9.2 Retail

Deliveries to the retail units in Site 4 Phase 1 will take place from the loading bays on Park West Avenue.

The operational hours proposed for the loading bays are 07h00 – 19h00 Monday – Saturday.

Outside of these hours, it is proposed that the loading bays would operate as public parking spaces.

9.3 Residents Deliveries, Drop-off and Collection

Details of the development access, road layout and traffic management are shown on the architectural and engineering drawings included in the planning application.

The layout at the subject site will provide the necessary infrastructure and facilities for a number of short stay transport related activities by residents at Cherry Orchard Point including: -

- Drop Off / Collection by car or taxi.
- Moving In / Moving Out including furniture delivery and removal.
- Courier / Parcel Collections and deliveries.
- Accessible spaces for disabled parking (22 spaces).

The locations of these areas are shown on the architectural and engineering drawings included with the planning application.

10. Construction Stage Traffic

10.1 Site Access

Site access for construction traffic is proposed from Park West Avenue and from Barnville Walk at the four locations shown on Figure 19.

Care will be taken to ensure that the pedestrian and cycling routes are suitably maintained or appropriately diverted as necessary during the construction period. It is likely that construction will have a slight effect on pedestrian and cycle infrastructure.

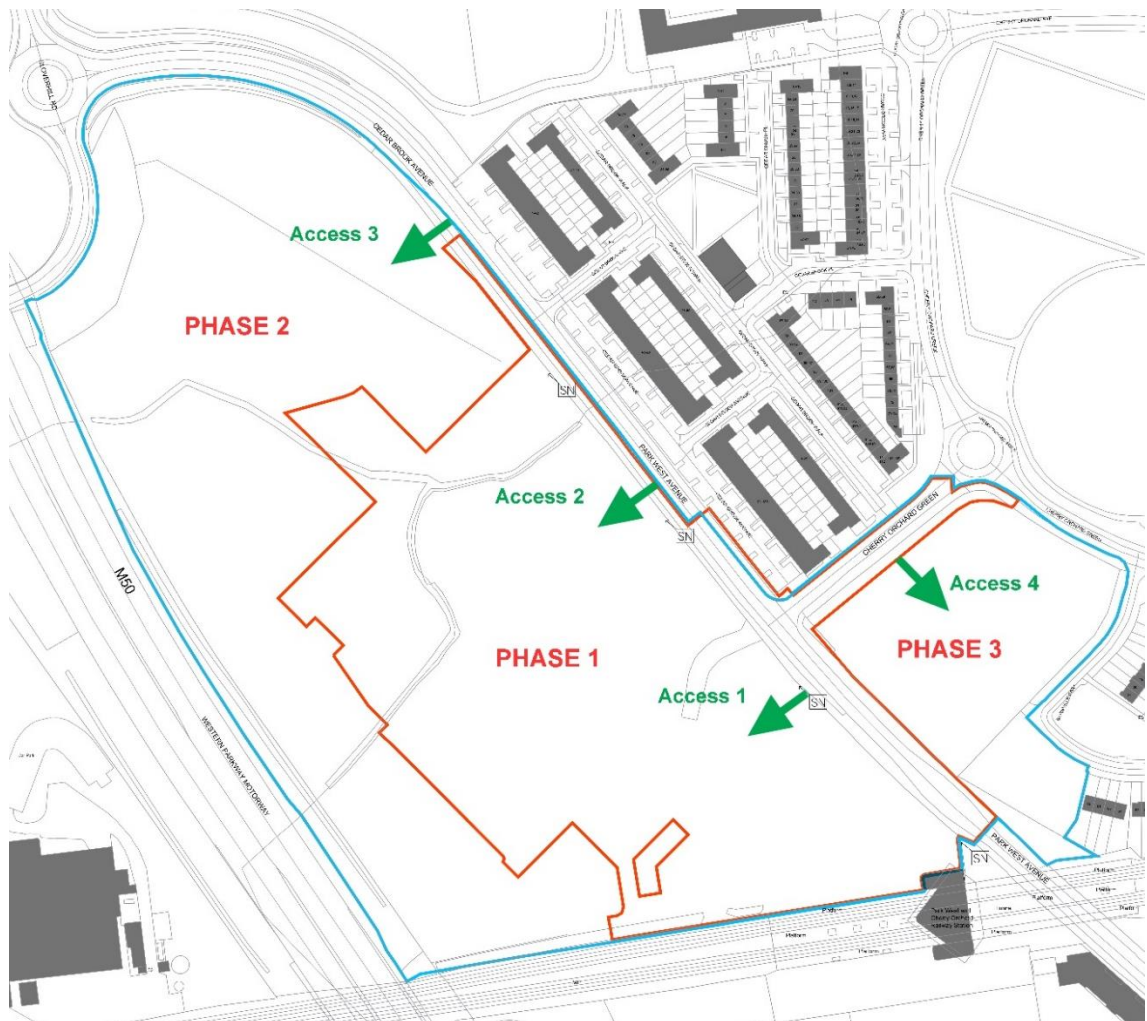


Figure 19: Locations of Construction Access

10.2 Traffic Volumes

During the construction phase of the proposed development, some construction traffic movements will be undertaken by heavy goods vehicles, though there will also be vehicle movements associated with the appointed contractors and their staff.

An estimate of the day-to-day traffic movements associated with the construction activities, based on experience of similar sites, considered that the number of construction related heavy goods vehicle movements to and from the application site will be no more than 3 arrivals/departures per hour, with the majority of the trips undertaken outside the network AM and PM peak hours.

During the earthworks phase of the development, up to 20,000 cum of material is expected to be removed off site in days over a 130 days during a twenty six week period.

The excavated material is expected to be removed in 32 tonne trucks with a self-weight of 12 tonnes and a carrying capacity of 20 tonnes. On the basis of a maximum soil weight of 1.3 - 1.7 tonnes per cubic metre, each truck would have a capacity of 12 – 15 cubic metres per truck.

Based on an average payload of 8 cubic metres per truck, this operation is predicted to generate an average of 24 arrivals and 24 departures per working day equivalent to 3 arrivals and 3 departures per hour.

(25,000 cum / 8 cum per truck / 130 days = 24 arrivals and 24 departures per day).

Allowing for other concurrent on-site activities during the same period particularly completion and fit-out to Phase 1, the construction related truck movements are expected to peak at 5 arrivals and 5 departures per hour during a 10 hour day between 08.00 and 18.00.

The general workforce is likely to be c. 100 in number, reaching up to 150 persons at peak times. It is estimated that c. 80% of the workforce will travel to/from the site by a vehicle and will carpool on average 2 workers per vehicle. As a result, the site is expected to attract/generate 40-60 number of cars / vans per day, with up to 50% the trips being undertaken outside the AM and PM peak hours.

Based on the above, it is estimated that the daily construction traffic movements during the AM Peak Hour 08.00 – 09.00 is predicted to be:

- Car / Van 20 arrivals and 3 departures per hour
- HGV: 5 arrivals and 5 departures per hour
- Total 33 movements per hour.

These movements represent some 3.0% of the existing traffic flow of 1,103 vehicles per hour on Park West Avenue during the AM Peak. See Section 2.4. This increase is less than the 10% threshold set out in the Traffic and Transport Assessment Guidelines published by TII in May 2014 and as a result, no further transport assessment is required.

The number of construction vehicle movements is low compared to the number of vehicular trips expected to be generated by the proposed development during the operational phase. It should be noted that most of such trips will occur outside of the traditional peak hours, and it is not considered that this level of construction traffic would result in any operational problems.

10.3 Construction Traffic Routes

Construction traffic routes to the proposed development are facilitated by the high standard of the existing road network in the surrounding area.

The primary construction access route is expected to be from the R134 Nangor Road via Park West Avenue. See Figure 20.

The secondary construction access would be from Ballyfermot Road / Coldcut Road via Cloverhill Road and Park West Avenue.

At the time of writing in September 2023, both of the proposed construction access routes are fully operational and open to traffic including road markings and traffic signals.

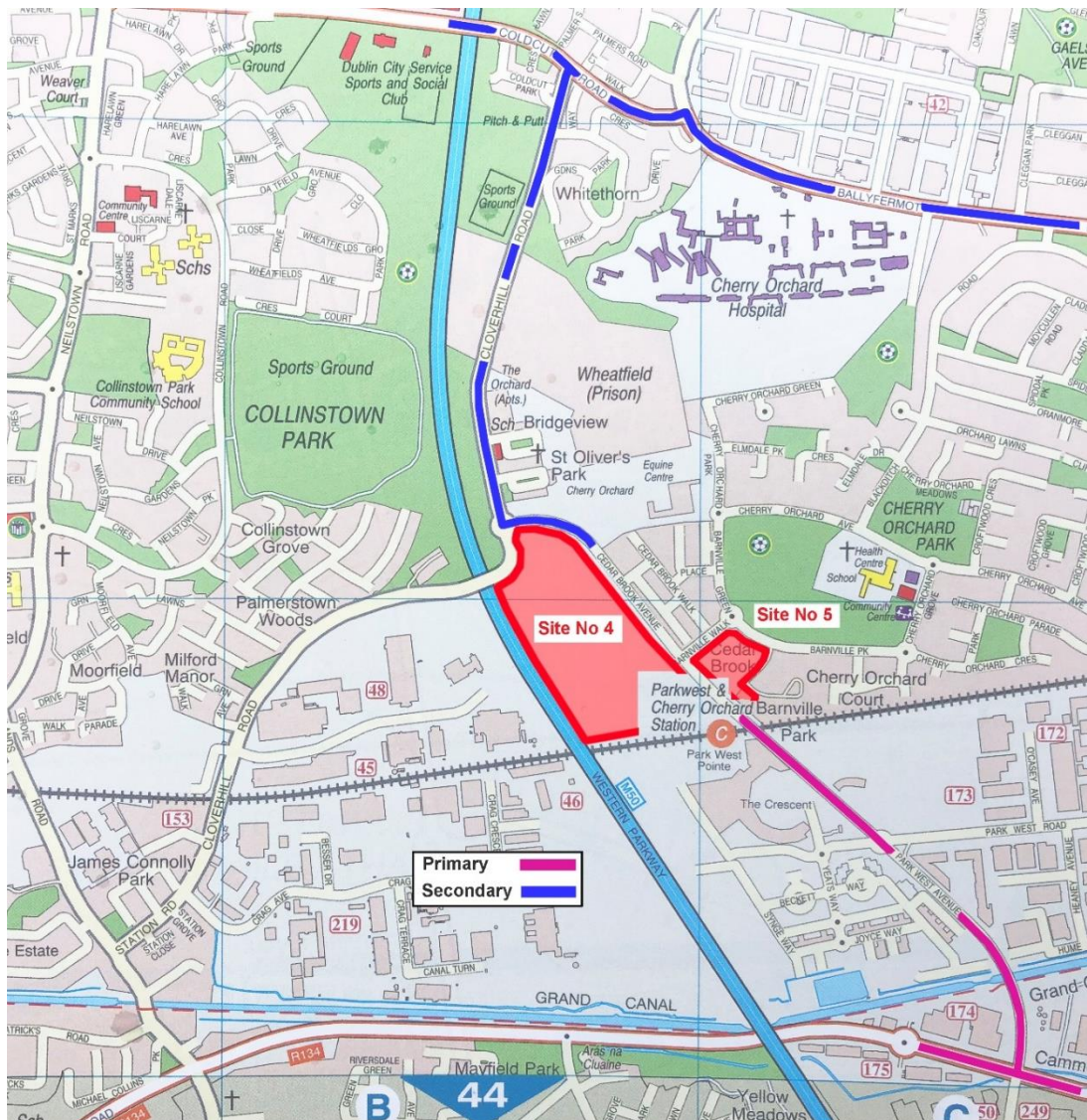


Figure 20: Construction Traffic Access Routes

10.4 Parking During Construction

Off-street parking for construction staff will be provided on the Phase 2 site where a construction carpark will be created at the start of works by the laying of a temporary surface for vehicles.

Parking will not be provided for construction staff on public roads.

Construction staff will be encouraged to reduce the use of the car for the journey to work by car sharing and / or travelling by public transport.

Workers will be encouraged to keep themselves informed about the public transport options and active mode facilities provided in the surrounding area.

11. Base Traffic Flows

11.1 Methodology

The methodology adopted for the determination of base flows for future years is described below.

Firstly, the AM and PM peak traffic hours were extracted from the traffic survey carried out by IDASO in November 2022.

Secondly and in line with the '*Transport Assessment Guidelines (May 2014)*', the years to be assessed were selected to be:

- 2022 Base Year:
- 2027 Opening Year:
- 2032 Design Year (Opening Year + 5)
- 2042 Future Year (Opening Year + 15)

11.2 Contiguous Development

Planning permission for a residential development of 750 units and 552 car parking spaces on a 9.4 ha site at Park West, Dublin 12 was recently granted by An Bord Pleanála to Greenseed Limited in June 2022 subject to 29 conditions (ABP Reg Ref 312290-21). The site included the Aspect Hotel.

For the purpose of this TTA, it has been assumed that the Park West development will be constructed and occupied by 2027.

Accordingly, the trip generation and distribution for the Park West development were extracted from the traffic documentation for that development and included in the base flows for this development.

11.3 Traffic Growth

Thirdly, the base traffic flows for the selected future years were obtained by factoring up the 2022 baseline traffic flows using factors from the TII Publication – Project Appraisal Guidelines for National Roads Unit 5.3 – Travel Demand Projections (May 2021).

The Central Growth Rate factors extracted from Table 6.1 of that publication are set out below.

- 2022 – 2027: 1.084
- 2022 – 2032: 1.149
- 2022 - 2042: 1.201

The base flows for the seven selected junctions for 2027, 2032 and 2042 including traffic forecast to be generated by the contiguous Park West development are shown on Figures.21, 22 and 23.

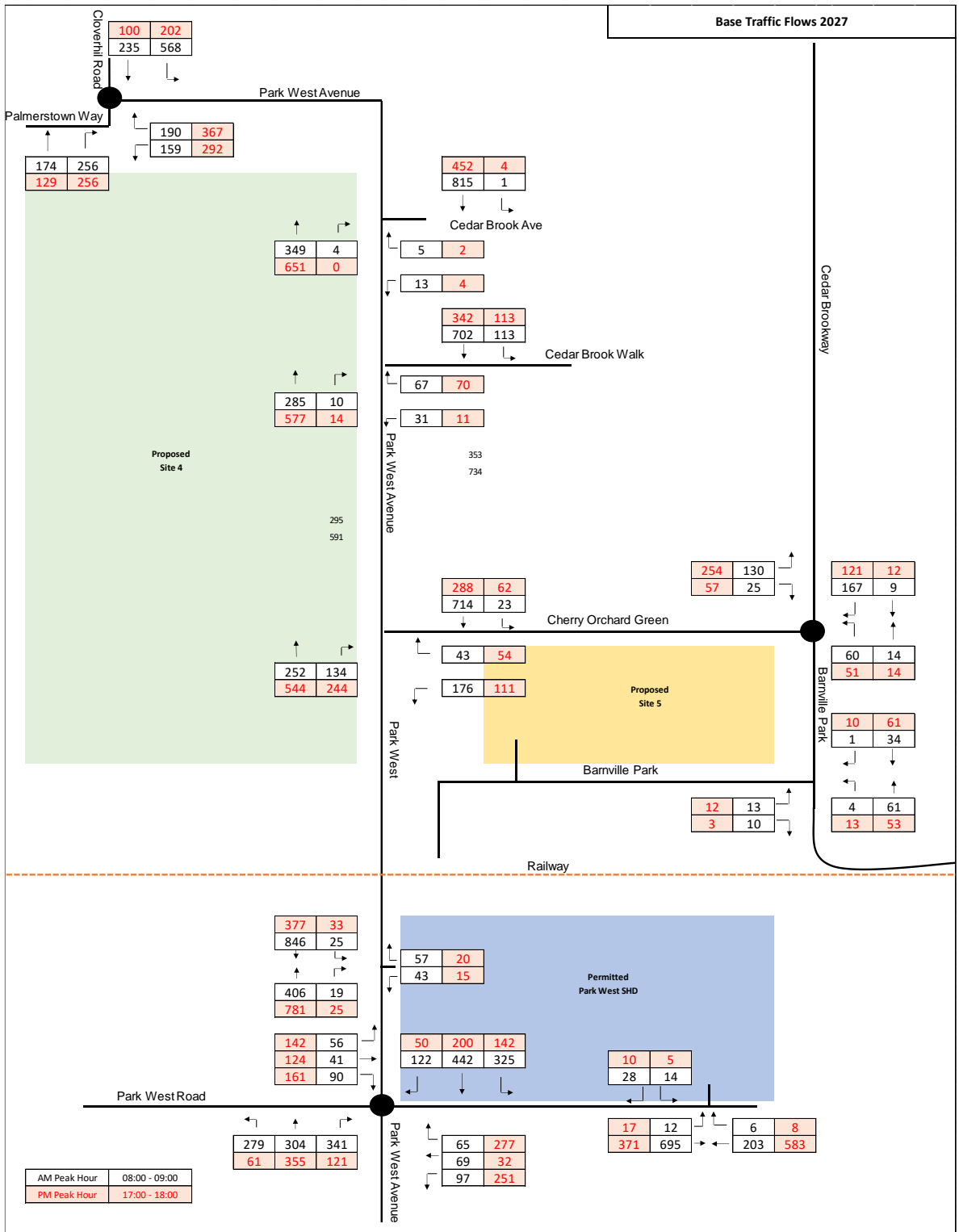


Figure 21: Base Traffic Flows 2027

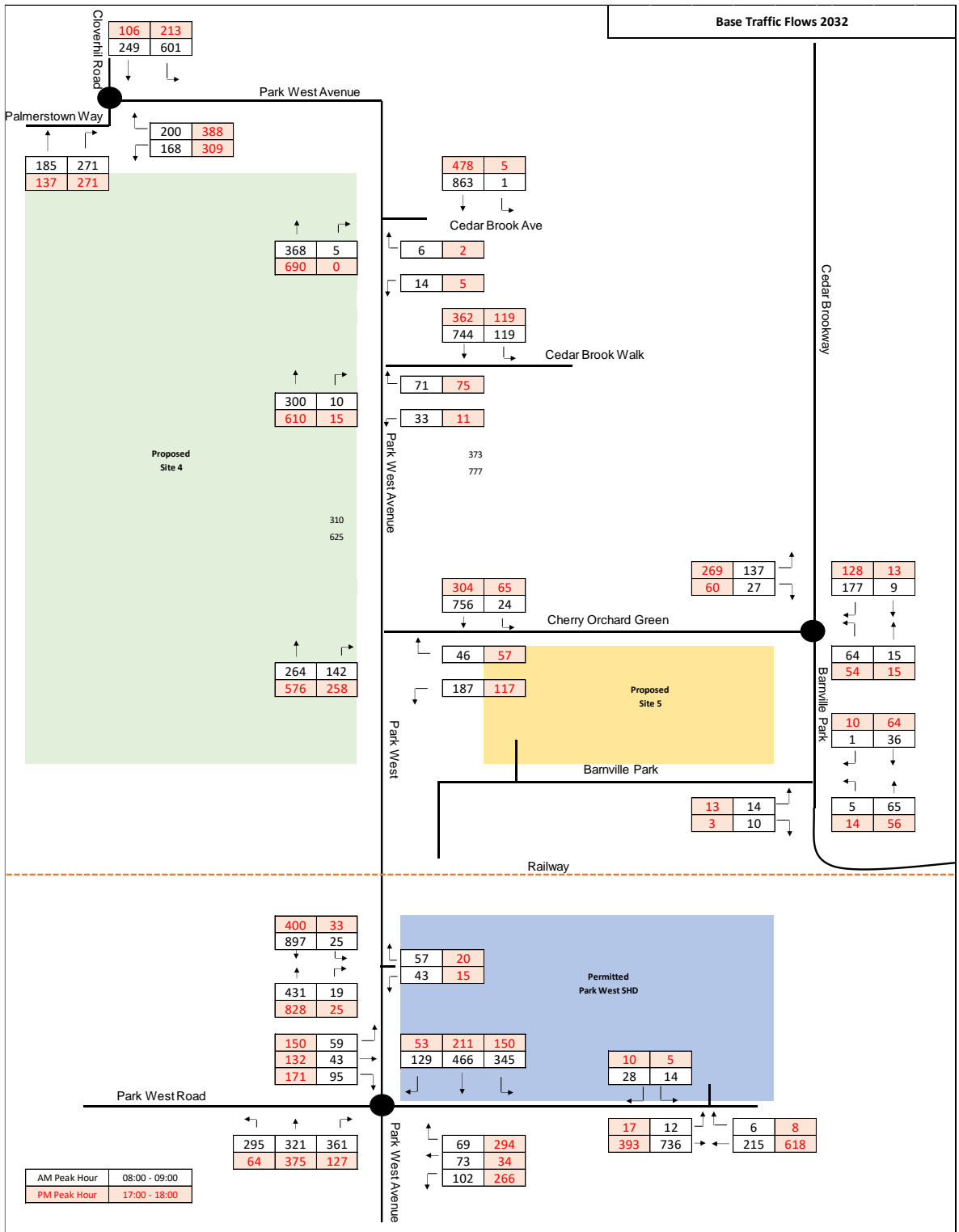


Figure 22: Base Traffic Flows 2032

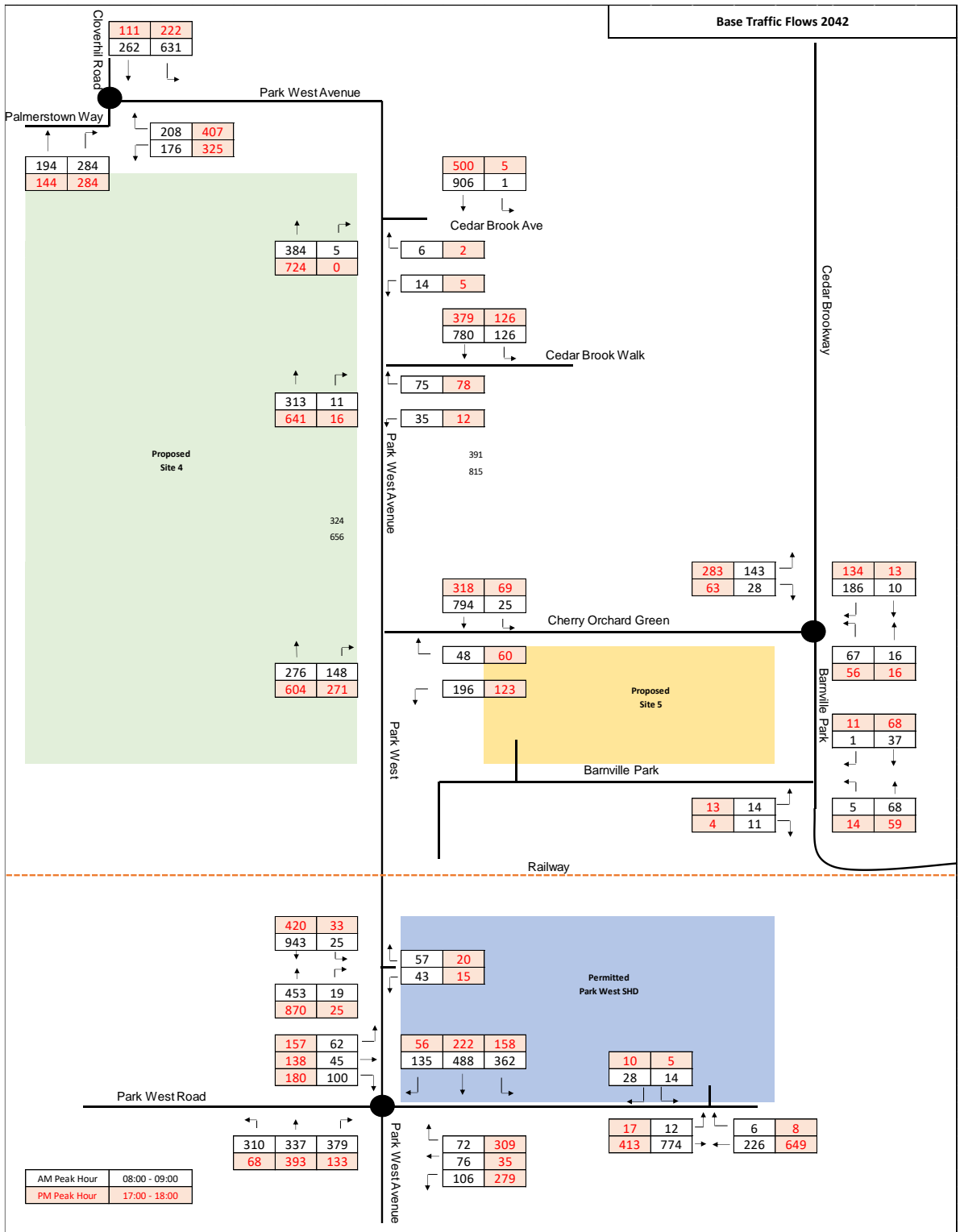


Figure 23: Base Traffic Flows 2042

12. Traffic Generation – Operational Stage

12.1 Background

For the purpose of this TTA, the future traffic used in the assessment of the surrounding road network has been based on the trips generated by the following developments not included in the 2022 traffic survey: -

- The proposed development of Phase 1 on Site 4 as described in Section 6.1 of this TTA.
- The future development of Phase 2 on Site 4 as described in Section 6.2 of this TTA.
- The future development Phase 3 on Site 5 as described in Section 6.3 of this TTA.
- The future development Phase 4 on Site 4 as described in Section 6.4 of this TTA.
- The contiguous development at Park West SHD as described in Section 6.6 of this TTA.

12.2 Trip Rates

Trip generation for Site 4 and Site 5 has been estimated based on TRICS trip rates obtained for each proposed land use category. For the purpose of this TTA, trip generation for the Commercial units has been calculated based on the 82 car parking spaces proposed to serve them.

Table 27: TRICS Trip Rates

Land Use	AM (IN)	AM (OUT)	PM (IN)	PM (OUT)
	08h00 – 09h00	17h00 – 18h00	08h00 – 09h00	17h00- 18h00
Apartments	0.036 Per unit	0.133 Per unit	0.099 Per unit	0.065 Per unit
Houses	0.149 Per unit	0.256 Per unit	0.187 Per unit	0.144 Per unit
Supermarket	1.957 Per 100sqm	1.886 Per 100sqm	3.214 Per 100sqm	3.557 Per 100 sqm
Retail	3.529 Per 100sqm	3.294 Per 100sqm	5.686 Per 100sqm	5.176 Per 100sqm
Creche	2.959 Per 100sqm	2.321 Per 100sqm	1.663 Per 100sqm	2.417 Per 100sqm
Community	1.365 Per 100sqm	1.195 Per 100sqm	0.370 Per 100 sqm	0.000 Per 100sqm
Commercial	70% of proposed parking spaces	10% or proposed parking spaces	10% of proposed parking spaces	70% of proposed parking spaces

12.3 Trip Generation – Phases 1, 2 and 4 on Site 4

The proposed site layout for Phases 1, 2 and 4 on Site 4 incorporates four access points onto Park West Avenue.

Based on a total of 861 residential units, 16,310 sqm Commercial and supporting development, the total number of peak hour trips is expected to be 413 in the AM and 459 in the PM Peak.

12.4 Trip Generation – Phase 3 on Site 5

The proposed site layout for Phase 3 on Site 5 incorporates one access point onto Barnville Park.

Based on a total of 254 residential units and supporting development, the total number of peak hour trips is expected to be 108 in the AM and 130 in the PM Peak.

12.5 Trip Distribution – Phases 1, 2 and 4 on Site 4

For the purpose of this TTA, it has been assumed that the future trip distribution for Phases 1, 2 and 4 on Site 4 will be the same for both the AM and PM trips.

The trip distribution assumed for Site 4 was based on the assumption that: -

- 35% would travel in a northerly direction travel north to/from the proposed development.
- 25% would travel in an easterly direction to/from the proposed development.
- 40% will travel in a southerly direction to/from the proposed development.

12.6 Trip Distribution – Phase 3 on Site 5

For the purpose of this TTA, it has been assumed that the future trip distribution for Phase 3 on Site 5 will be the same for both the AM and PM trips.

The trip distribution assumed for Site 5 was based on the assumption that: -

- 25% would travel in a northerly direction travel north to/from the proposed development.
- 240% would travel in an easterly direction to/from the proposed development.
- 35% will travel in a southerly direction to/from the proposed development.

12.7 Trip Assignment - Phases 1, 2 and 4 on Site 4

The predicted number of trips in the AM Peak Hour is 194 inbound and 219 outbound.

The predicted number of trips in the PM Peak Hour is 216 inbound and 243 outbound.

12.8 Trip Assignment – Phase 3 on Site 5

The predicted number of trips in the AM Peak Hour is 43 inbound and 65 outbound.

The predicted number of trips in the PM Peak Hour is 72 inbound and 58 outbound.

12.9 Development Generated Traffic

The development generated traffic movements from Phases 1, 2, 3 and 4 on Sites 4 and 5 based on the trip generation, distribution and assignment described above are presented in Figure 24.

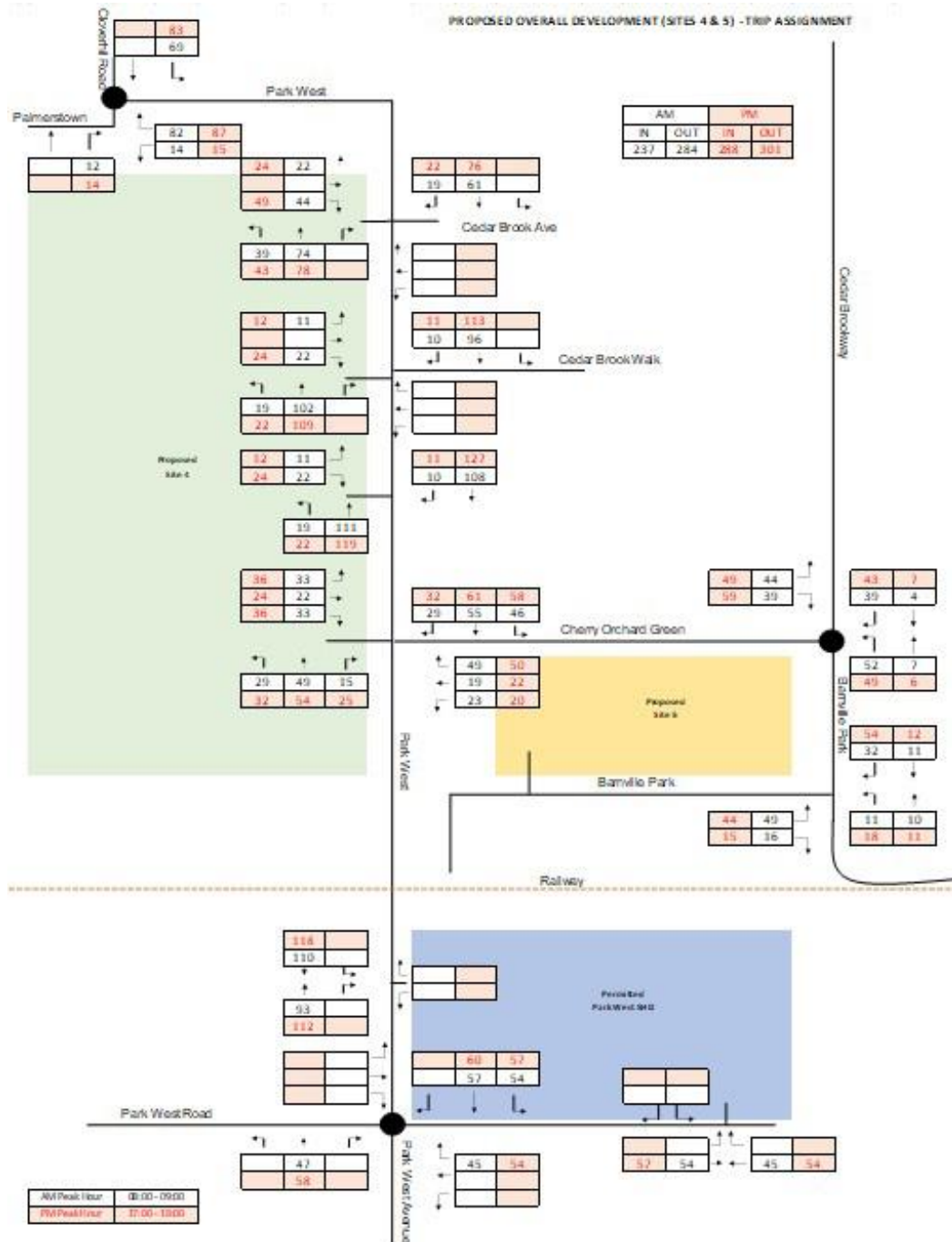


Figure 24: Development Generated Traffic

12.10 Post Development Traffic Flows

The post development traffic flows for 2027, 2032 and 2042 are presented in Figures 25, 26 and 27. These flows were obtained by adding the distributed trips generated by the proposed development from Figure 24 to the Base Flows from Figures 21, 22 and 23.

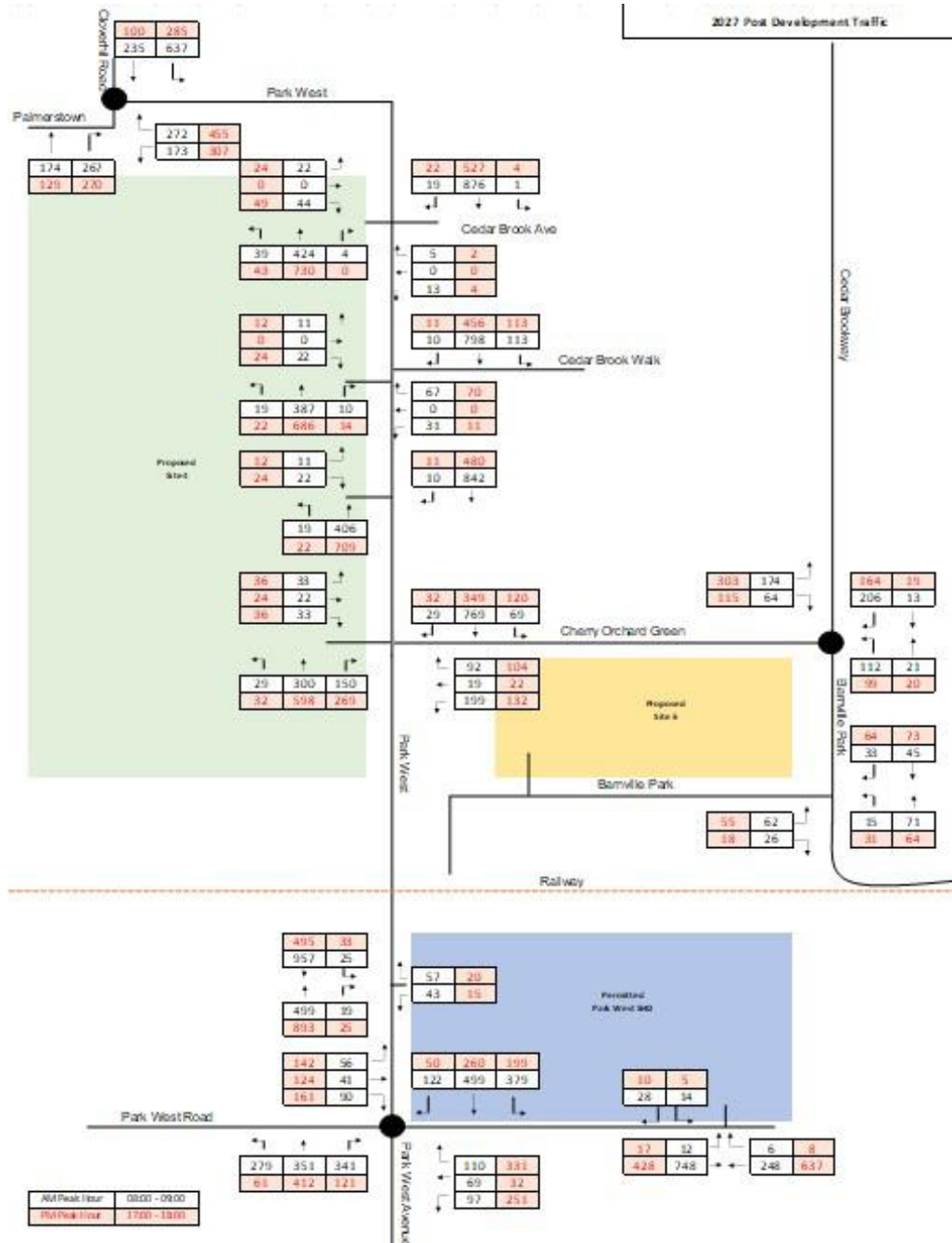


Figure 25: Post Development Traffic Movements 2027

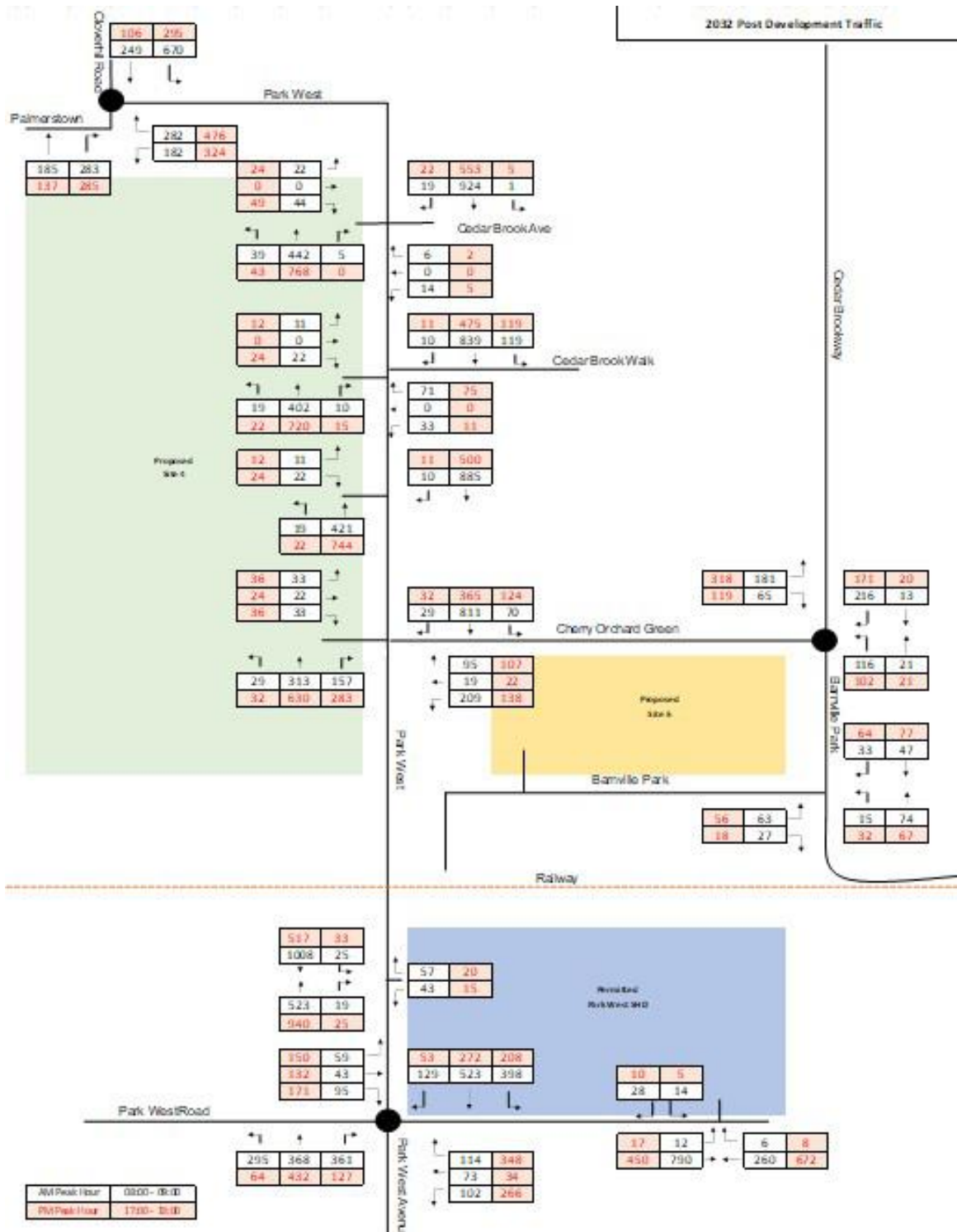


Figure 26: Post Development Traffic Movements 2032

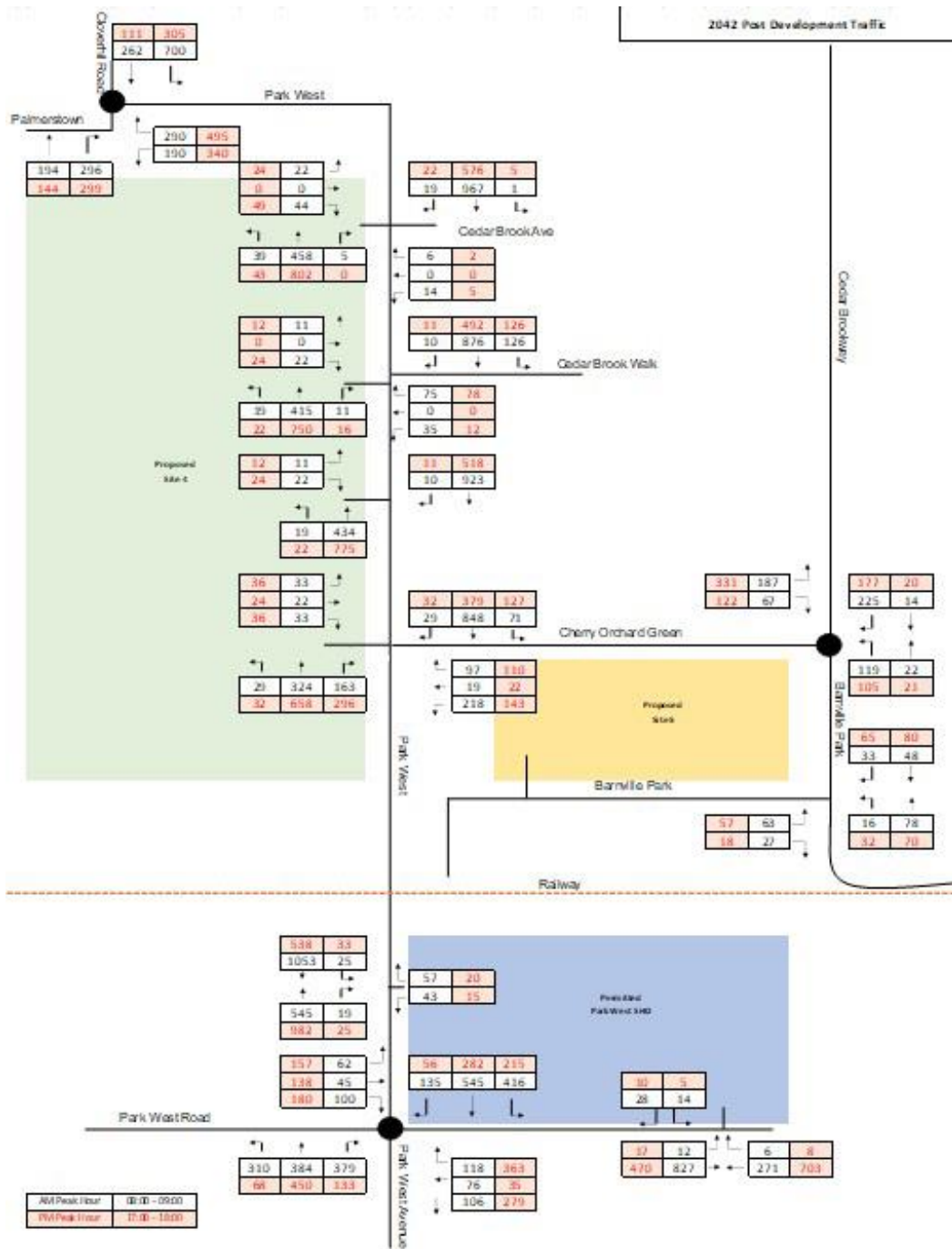


Figure 27: Post Development Traffic Movements 2042

13. Junction Assessment – Operational Stage

13.1 Junction Modelling Background

There are various modelling software packages available to assess every type of junction. Waterman Moylan uses ARCADY, TRANSYT and PICADY to analyse roundabouts, signalised and priority junctions, respectively.

ARCADY is a software for modelling roundabouts. This programme utilises roundabouts geometry and traffic flows input by the user to determine Ratio of Flow to Capacity (RFC) and queue length for each link on the roundabout.

TRANSYT (Traffic Network Study Tool) software is a widely accepted software for modelling signalised controlled junctions. This programme utilises the phases input by the user and optimises their timings over a cycle time. The outputs of a TRANSYT assessment include a Degree of Saturation percentage (DOS%) figure and queue length for each link on the road network.

PICADY is a software for modelling priority-controlled junctions. This programme utilises junction's geometry and traffic flows input by the user to determine Ratio of Flow to Capacity (RFC) and queue length for each link on the junction.

Typically, a junction is said to be working satisfactorily when the DOS% or RFC of each link does not exceed 90% / 0.9. Acceptable DOS% or RFC values are considered to be in the range of 80% / 0.8 to 100% / 1.0 with higher values indicating restrained movements.

13.2 Junctions Assessed

The following junctions were assessed during the preparation of this TTA: -

- Junction 1: Cloverhill Road / Park West Avenue / Station Road.
Junction 1 is an existing Three-arm Roundabout.
- Junction 2: Park West Avenue / Cedar Brook.
Junction 2 is an existing Priority T-junction proposed to be upgraded to a Signalised Crossroads.
- Junction 3: Park West Avenue / Cedar Brook Walk.
Junction 3 is an existing Priority T-junction proposed to be upgraded to a Priority Staggered Junction.
- Junction 4: Park West Avenue / Cedar Brook Way.
Junction 4 is an existing Signalised T-junction proposed to be upgraded to a Signalised Crossroads.
- Junction 5: Unnamed Road / Cedar Brook Way.
Junction 5 is an existing Three-arm Roundabout.

- Junction 6: Barnville Park / Unnamed Road.
Junction 6 is an existing Priority T-junction.
- Junction 7: Park West Avenue / Park West Road.
Junction 7 is an existing Four-arm Roundabout.
- Junction 8: Park West Avenue / Site Access.
Junction 8 is a proposed Priority T-junction.

The locations of the assessed junctions. are shown in Figure 28.

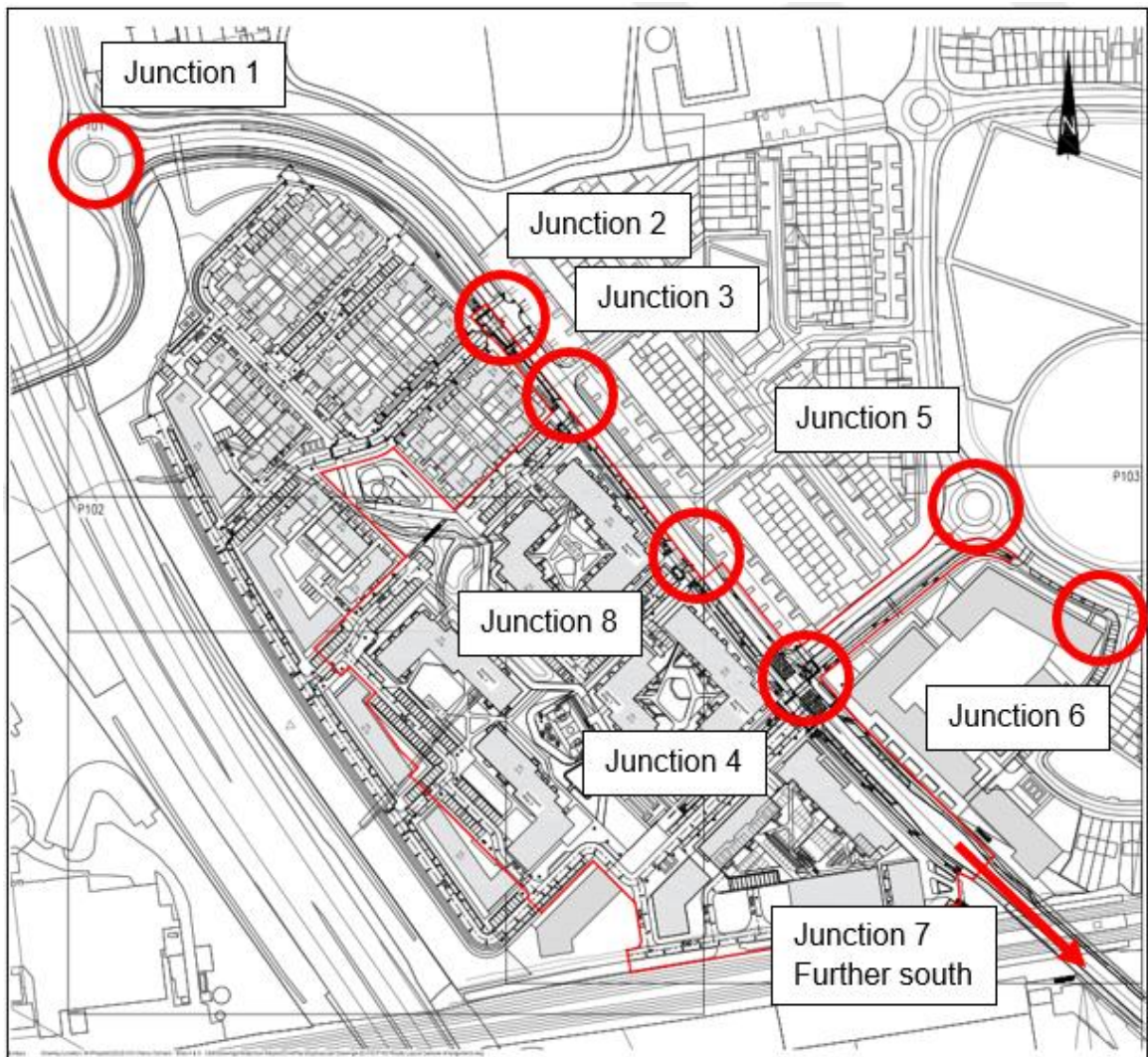


Figure 28: Locations of Junctions Assessed

(Based on Waterman Moylan Drg No COP-WMC-PH1-00-DR-C-P100)

13.3 Traffic Increase Generated by Development

The extent of the traffic impact from the proposed development was determined by initially checking where generated traffic would exceed 10% of the 2022 baseline traffic flow on the adjoining road or 5% on the road where congestion exists, or the location is sensitive. This is in line with the Traffic and Transport Assessment Guidelines published by TII in May 2014. As can be seen from Table 28, the predicted increase in traffic increase at all of the assessed junctions is greater than 10%. Therefore, further assessment is required.

The proposed / upgraded junctions have been modelled for the DO-SOMETHING scenarios, whilst the existing junctions were modelled for the BASELINE and DO-NOTHING scenarios.

Table 28 : Increase in Traffic Flows at Junctions.

Junction	AM Baseline	PM Baseline	Proposed Development AM	Proposed Development PM	% Increase AM	% Increase PM
Junction 1	1,404	1,204	177	200	13%	17%
Junction 2	1,040	991	260	291	25%	29%
Junction 3	1,059	1,003	260	291	25%	29%
Junction 4	1,164	1,153	401	452	34%	39%
Junction 5	355	457	184	212	52%	46%
Junction 6	109	137	129	153	118%	112%
Junction 7	1,964	1,707	203	229	10%	13%
Junction 8	893	834	280	314	31%	38%

13.4 Assessment Scenarios

The junctions in the area of the subject development were modelled and assessed on the basis of the following scenarios: -

- BASELINE 2022 – Baseline Traffic Flows.
- DO-NOTHING 2027 – Baseline Traffic Flows Factored Up + Park SHD.
- DO-NOTHING 2032 – Baseline Traffic Flows Factored Up + Park SHD.
- DO-NOTHING 2032 – Baseline Traffic Flows Factored Up + Park SHD.
- DO-SOMETHING 2027 – Baseline Traffic Flows Factored Up + Park SHD + Proposed Development.
- DO-SOMETHING 2032 – Baseline Traffic Flows Factored Up + Park SHD + Proposed Development.
- DO-SOMETHING 2042 – Baseline Traffic Flows Factored Up + Park SHD + Proposed Development.

13.5 Junction 1: Clover Hill Road / Park West Avenue / Station Road

Junction 1 is an existing Three-arm Roundabout with no proposals for upgrade. For all scenarios it has been modelled based on its existing layout. Within the ARCADY model, the arms of the junctions were labelled as follows:

- Arm 1: Park West Ave (E)
- Arm 2: Station Road (S)
- Arm 3: Clover Hill Road (N)

The analysis results as summarised in Table 29 indicate that Junction 1 is currently operating within capacity and will continue to do so for the DO-SOMETHING 2042 scenario with the inclusion of the traffic generated by committed Park West SHD and the proposed overall development.

Table 29: Junction 1 Existing Layout – ARCADY Analysis Results – All Scenarios.

Arm	AM Peak Hour			PM Peak Hour		
	Queue (pcu)	Delay (sec.)	RFC	Queue (pcu)	Delay (sec.)	RFC
BASELINE 2022						
1	0.3	2.92	0.19	0.7	3.61	0.38
2	0.5	4.24	0.33	0.5	4.62	0.32
3	1.5	6.75	0.59	0.3	3.51	0.21
DO-NOTHING 2027						
1	0.3	3.12	0.24	0.8	3.90	0.43
2	0.6	4.60	0.37	0.6	5.02	0.36
3	2.0	8.21	0.66	0.3	3.74	0.25
DO-SOMETHING 2027						
1	0.5	3.42	0.31	1.0	4.42	0.50
2	0.7	5.01	0.39	0.7	5.56	0.39
3	2.6	10.02	0.72	0.5	4.15	0.32
DO-NOTHING 2042						
1	0.4	3.28	0.27	1.0	4.30	0.48
2	0.7	5.00	0.41	0.7	5.56	0.41
3	3.0	11.04	0.74	0.4	3.94	0.28
DO-SOMETHING 2042						
1	0.5	3.61	0.34	1.3	4.93	0.55
2	0.8	5.49	0.44	0.8	6.26	0.45
3	4.2	14.57	0.80	0.6	4.41	0.35

13.6 Junction 2: Park West Avenue/Cedar Brook Avenue / Site Access

Junction 2 is an existing Priority T-Junction. For the DO-NOTHING scenarios, this junction has been modelled based on its existing layout. Within the PICADY model, the arms of the junction were labelled as follows:

- Arm A: Park West Avenue (N)
- Arm B: Cedar Brook Avenue (E)
- Arm C: Park West Avenue (S)

The results for the DO-NOTHING scenarios presented in Table 30 indicate that Junction 2 is currently operating well within capacity and would continue to do so for the DO-NOTHING 2042 scenario, should the proposed development not take place.

Table 30: Junction 2 Existing Layout – PICADY Analysis Results – DO-NOTHING.

Stream	AM Peak Hour			PM Peak Hour		
	Queue (pcu)	Delay (sec.)	RFC	Queue (pcu)	Delay (sec.)	RFC
BASELINE 2022						
B-AC	0.0	9.26	0.05	0.0	7.96	0.01
C-AB	0.0	7.86	0.01	0.0	0.00	0.00
DO-NOTHING 2027						
B-AC	0.1	9.83	0.05	0.0	8.33	0.02
C-AB	0.0	8.18	0.01	0.0	0.00	0.00
DO-NOTHING 2032						
B-AC	0.1	10.41	0.06	0.0	8.30	0.02
C-AB	0.0	8.40	0.01	0.0	0.00	0.00
DO-NOTHING 2042						
B-AC	0.1	10.78	0.06	0.0	8.47	0.02
C-AB	0.0	8.59	0.01	0.0	0.00	0.00

As part of the subject application and to support the delivery of the proposed development, it is proposed to upgrade Junction 2 to a signalised crossroads as shown in Figure 29. Therefore, for the DO-SOMETHING scenarios, it has been modelled based on the proposed layout.

The arms of the proposed signalised junction were labelled as follows within the TRANSYT model:

- Arm A: Cedar Brook Avenue (E)
- Arm B: Park West Avenue (S)
- Arm C: Site Access Road (W)
- Arm D: Park West Avenue (N)



Figure 29: Junction 2 – Proposed Layout

The results of the junction assessment for the upgraded Junction 2 are presented in Table 31.

These confirm that proposed signalised Junction 2 will operate within capacity for the future DO-SOMETHING 2042 scenario during both peak hours with the highest DOS at 88% and a corresponding queue of 26.21 pcu in the AM Peak Hour predicted on Park West Avenue (N).

Table 31: Junction 2 Proposed Layout – TRANSYT Analysis Results – DO-SOMETHING

Arm	AM Peak Hour			PM Peak Hour		
	Queue (pcu)	Delay (sec.)	DOS (%)	Queue (pcu)	Delay (sec.)	DOS (%)
DO-SOMETHING 2027						
A	0.50	50.57	20	0.16	47.03	7
B	6.77	10.91	42	15.92	18.18	72
C	2.69	95.36	73	2.33	64.07	58
D	20.27	20.81	80	9.02	13.29	51
DO-SOMETHING 2032						
A	0.56	51.33	22	0.19	47.28	8
B	7.19	11.13	44	17.34	19.52	75
C	2.69	95.36	73	2.33	64.07	58
D	22.96	23.73	85	9.65	13.73	54
DO-SOMETHING 2042						
A	0.56	51.33	22	0.19	47.28	8
B	7.43	11.33	45	18.99	20.96	78
C	2.69	95.36	73	2.33	64.07	58
D	26.21	27.59	88	10.40	14.13	56

13.7 Junction 3 Park West Avenue / Cedar Brook Walk

Junction 3 is an existing priority T-Junction. For the DO-NOTHING scenarios, this junction has been modelled based on its existing layout. Within the PICADY model, the arms of the junction were labelled as follows:

- Arm A: Park West Avenue (N)
- Arm B: Cedar Brook Walk (E)
- Arm C: Park West Avenue (S)

The results for the DO-NOTHING scenarios above indicate that Junction 3 is currently operating well within capacity and will continue to do so for the DO-NOTHING 2027, 2032 and 2042 scenarios, should the proposed development not take place.

Table 32 Junction 3 Existing Layout – PICADY Analysis Results – DO-NOTHING.

Stream	AM Peak Hour			PM Peak Hour		
	Queue (pcu)	Delay (sec.)	RFC	Queue (pcu)	Delay (sec.)	RFC
BASELINE 2022						
B-C	0.1	9.26	0.08	0.0	7.47	0.02
B-A	0.3	13.41	0.20	0.2	11.96	0.19
C-AB	0.0	7.77	0.02	0.0	6.57	0.03
DO-NOTHING 2027						
B-C	0.1	9.93	0.09	0.0	7.76	0.03
B-A	0.3	15.26	0.24	0.3	12.99	0.22
C-AB	0.0	8.09	0.02	0.0	6.72	0.03
DO-NOTHING 2032						
B-C	0.1	10.42	0.10	0.0	7.95	0.03
B-A	0.4	16.48	0.26	0.3	13.94	0.24
C-AB	0.0	8.29	0.03	0.0	6.77	0.03
DO-NOTHING 2042						
B-C	0.1	10.94	0.10	0.0	8.13	0.03
B-A	0.4	17.80	0.29	0.3	14.68	0.26
C-AB	0.0	8.49	0.03	0.0	6.83	0.03

As part of the subject application, Junction 3 is proposed to be upgraded to a priority staggered junction as shown in Figure 28. The model was modelled as shown in Figure 30 and the arms were labelled as follows with the PICADY model:

- Arm A: Park West Avenue (N)
- Arm B: Cedar Brook Walk (E)
- Arm C: Park West Avenue (S)
- Arm D: Site Access (W)

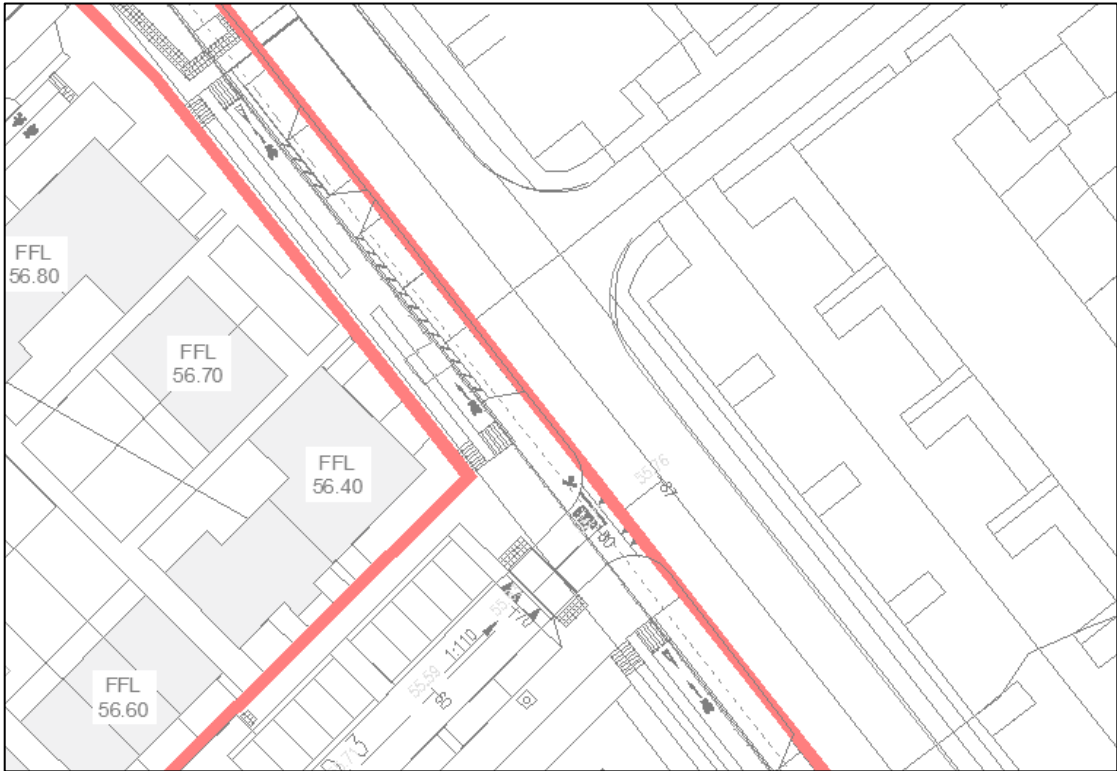


Figure 30: Junction 3 – Proposed Layout

The results of the assessment presented in Table 33 confirm that the proposed staggered Junction 3 would operate within capacity for the future DO-SOMETHING 2042 scenario during both peak hours with the highest RFC at 0.34 and a corresponding queue of <1.0 pcu in the AM Peak Hour predicted on Cedar Brook Walk (E).

Table 33: Junction 3 Proposed Layout – PICADY Analysis Results – DO-SOMETHING.

Stream	AM Peak Hour			PM Peak Hour		
	Queue (pcu)	Delay (sec.)	RFC	Queue (pcu)	Delay (sec.)	RFC
DO-SOMETHING 2027						
B-CD	0.1	10.83	0.09	0.0	8.40	0.03
B-A	0.4	18.54	0.28	0.3	15.86	0.25
AB-CD	0.0	6.54	0.02	0.0	7.64	0.03
D-ABC	0.1	10.62	0.10	0.1	11.72	0.11
CD-AB	0.0	8.51	0.03	0.0	7.04	0.03
DO-SOMETHING 2032						
B-CD	0.1	11.47	0.10	0.0	8.64	0.03
B-A	0.4	20.35	0.31	0.4	17.05	0.28
AB-CD	0.0	6.57	0.02	0.0	7.76	0.03
D-ABC	0.1	10.94	0.10	0.1	12.17	0.12
CD-AB	0.0	8.72	0.03	0.0	7.10	0.03
DO-SOMETHING 2042						
B-CD	0.1	12.20	0.12	0.0	8.88	0.03
B-A	0.5	22.44	0.34	0.4	18.15	0.30
AB-CD	0.0	6.60	0.02	0.0	7.88	0.03
D-ABC	0.1	11.26	0.10	0.1	12.61	0.12
CD-AB	0.0	8.93	0.03	0.0	7.16	0.04

13.8 Junction 4: Park West Avenue/Site Access

Junction 4 is an existing signalised T-Junction. For the DO-NOTHING scenarios this junction has been modelled based on its existing layout. Within the TRANSYT model, the arms of the junction were labelled as follows:

- Arm A: Park West Avenue (N)
- Arm B: Cedar Brook Way (E)
- Arm C: Park West Avenue (S)

The results of the assessment in Table 34 for the DO-NOTHING scenarios confirm that Junction 4 is currently operating within capacity and will continue to do so for the DO-NOTHING 2042 scenario, should the proposed development not take place.

Table 34: Junction 4 Existing Layout – TRANSYT Analysis Results – DO-NOTHING.

Arm	AM Peak Hour			PM Peak Hour		
	Queue (pcu)	Delay (sec.)	DOS (%)	Queue (pcu)	Delay (sec.)	DOS (%)
BASELINE 2022						
A	12.30	16.11	62	3.71	8.79	26
B	5.50	46.23	61	4.13	49.74	58
C	4.20	10.80	29	12.32	13.91	62
DO-NOTHING 2027						
A	14.91	18.04	69	4.44	9.21	31
B	6.34	49.58	68	4.91	53.89	65
C	5.68	11.67	36	15.01	15.76	69
DO-NOTHING 2032						
A	16.60	19.46	73	4.79	9.38	33
B	6.97	52.36	72	5.33	56.32	69
C	5.98	11.90	38	16.76	17.12	74
DO-NOTHING 2042						
A	18.34	21.04	77	5.14	9.54	34
B	7.47	55.09	75	5.75	59.26	73
C	6.37	12.12	40	18.54	18.60	77

As part of the subject application, it is proposed to upgrade Junction 4 to a signalised crossroads as shown in Figure 31.

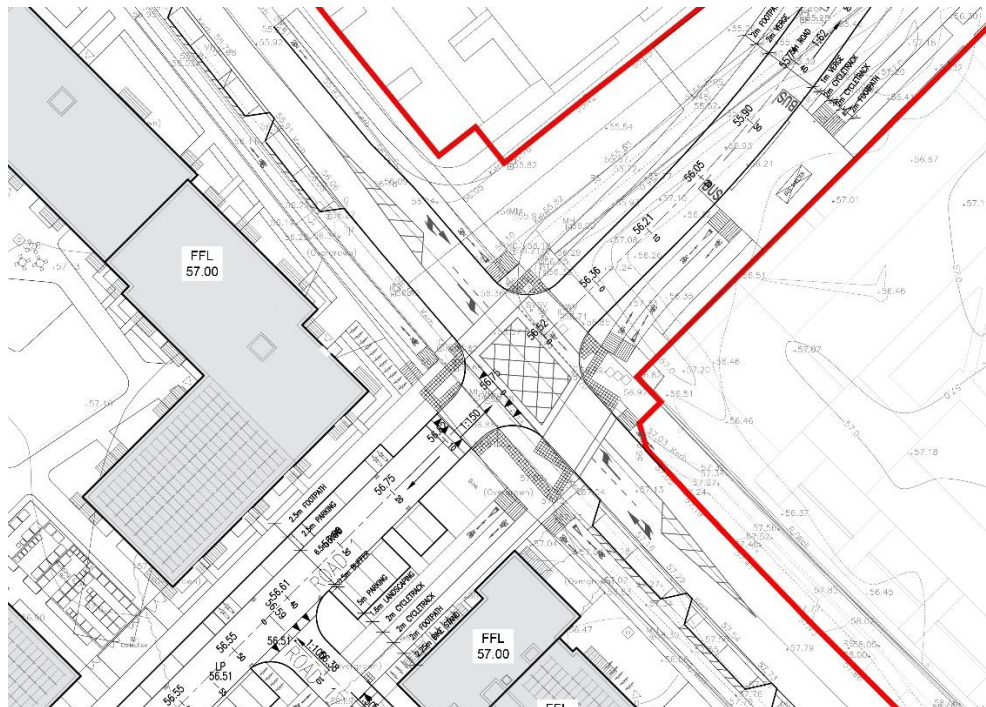


Figure 31 Junction 4 – Proposed Signalised Crossroads

For the DO-SOMETHING scenarios, Junction 4 has been modelled based on the proposed signalised crossroads. The arms of the junction were labelled as follows with the TRANSYT model:

- Arm A: Park West Avenue (S)
- Arm B: Site Access (W)
- Arm C: Park West Avenue (N)
- Arm D: Cedar Brook Way (E)

The results of the assessment summarised in Table 35 predicted that the proposed signalised crossroads at Junction 4 would operate above capacity on the northern and eastern arms in the AM Peak Hour for the future DO-SOMETHING 2027, 2032 and 2042 scenarios. The highest DOS for each year is predicted to occur in the AM Peak Hour on Cedar Brook Way

The results of the assessment also predicted that the proposed signalised crossroads at Junction 4 would operate above capacity on the eastern arm (Cedar Brook Way) for the future DO-SOMETHING 2027, 2032 and 2042 scenarios in the PM Peak Hour.

These results are discussed in more detail in Section 14.0 below.

Table 35: Junction 4 Proposed Layout – TRANSYT Analysis Results – DO-SOMETHING

Arm	AM Peak Hour			PM Peak Hour		
	Queue (pcu)	Delay (sec.)	DOS (%)	Queue (pcu)	Delay (sec.)	DOS (%)
DO-SOMETHING 2027						
A	8	33	55	20	100	96
B	5	123	84	6	158	91
C	66	207	110	12	29	59
D	26	238	109	17	167	101
DO-SOMETHING 2032						
A	8	35	58	15	121	1100
B	5	125	84	6	158	91
C	86	280	115	13	30	62
D	32	291	113	20	201	105
DO-SOMETHING 2042						
A	9	36	60	15	121	100
B	5	125	84	6	159	91
C	105	340	120	14	30	64
D	9	36	109	23	234	108

13.9 Junction 5: Unnamed Road / Cedar Brook Way

Junction 5 is an existing three-arm roundabout with no proposals for upgrade. For all scenarios it has been modelled based on its existing layout. Within the ARCADY model, the arms of the junctions were labelled as follows:

- Arm 1: Unnamed Road (S)
- Arm 2: Cedar Brook Way (W)
- Arm 3: Cedar Brook Way (N)

The results of the assessment in Table 36 confirms that Junction 5 is currently operating within capacity and will continue to do so for the DO-SOMETHING 2042 scenario with the inclusion of the traffic generated by committed Park West SHD and the proposed overall development.

Table 36: Junction 5 Existing Layout – ARCADY Analysis Results – All Scenarios.

Arm	AM Peak Hour			PM Peak Hour		
	Queue (pcu)	Delay (sec.)	RFC	Queue (pcu)	Delay (sec.)	RFC
BASELINE 2022						
1	0.1	3.19	0.06	0.1	3.09	0.05
2	0.1	2.02	0.07	0.2	2.21	0.15
3	0.1	2.67	0.11	0.1	2.63	0.08
DO-NOTHING 2027						
1	0.1	3.24	0.07	0.1	3.13	0.06
2	0.1	2.05	0.08	0.2	2.26	0.17
3	0.1	2.72	0.12	0.1	2.67	0.09
DO-SOMETHING 2027						
1	0.1	3.52	0.12	0.1	3.39	0.11
2	0.2	2.16	0.13	0.3	2.43	0.23
3	0.2	2.87	0.16	0.2	2.86	0.13
DO-NOTHING 2042						
1	0.1	3.31	0.07	0.1	3.17	0.06
2	0.1	2.07	0.09	0.2	2.31	0.19
3	0.2	2.77	0.14	0.1	2.70	0.10
DO-SOMETHING 2042						
1	0.2	3.59	0.13	0.1	3.44	0.11
2	0.2	2.18	0.14	0.3	2.50	0.25
3	0.2	2.93	0.17	0.2	2.91	0.14

13.10 Junction 6: Barnville Park / Unnamed Road

Junction 6 is an existing priority T-junction with no proposals for upgrade. For all scenarios, it has been modelled based on its existing layout. Within the PICADY model, the arms of the junctions were labelled as follows:

- Arm A: Barnville Park (E)
- Arm B: Barnville Park (S)
- Arm C: Unnamed Road (W)

The results of the assessment in Table 37 confirms that Junction 6 is currently operating within capacity and will continue to do so for the DO-SOMETHING 2042 scenario with the inclusion of the traffic generated by committed Park West SDH and the proposed overall development.

Table 37: Junction 6 Existing Layout – PICADY Analysis Results – All Scenarios.

Stream	AM Peak Hour			PM Peak Hour		
	Queue (pcu)	Delay (sec.)	RFC	Queue (pcu)	Delay (sec.)	RFC
BASELINE 2022						
B-C	0.0	5.84	0.02	0.0	5.65	0.02
B-A	0.0	7.81	0.02	0.0	9.02	0.01
C-AB	0.0	6.02	0.00	0.0	6.10	0.02
DO-NOTHING 2027						
B-C	0.0	5.88	0.02	0.0	5.67	0.02
B-A	0.0	7.84	0.02	0.0	9.17	0.01
C-AB	0.0	6.03	0.00	0.0	6.13	0.02
DO-SOMETHING 2027						
B-C	0.1	6.46	0.11	0.1	6.29	0.10
B-A	0.1	9.35	0.07	0.1	9.81	0.05
C-AB	0.1	6.44	0.06	0.1	6.83	0.12
DO-NOTHING 2042						
B-C	0.0	5.92	0.02	0.0	5.72	0.02
B-A	0.0	7.87	0.03	0.0	9.02	0.01
C-AB	0.0	6.05	0.00	0.0	6.15	0.02
DO-SOMETHING 2042						
B-C	0.1	6.50	0.11	0.1	6.33	0.10
B-A	0.1	9.39	0.07	0.1	9.93	0.05
C-AB	0.1	6.46	0.06	0.1	6.85	0.12

13.11 Junction 7: Park West Avenue / Park West Road

Junction 7 is an existing four-arm roundabout with no proposals for upgrade. For all scenarios it has been modelled based on its existing layout. Within the ARCADY model, the arms of the junctions were labelled as follows:

- Arm 1: Park West Road (E)
- Arm 2: Park West Avenue (S)
- Arm 3: Park West Road (W)
- Arm 4: Park West Avenue (N)

For the DO-NOTHING scenario, even without the inclusion of the proposed development trips, the results of the assessment in Table 38 predict that Junction 7 will continue to operate within capacity up to 2042 but not so in the PM Peak Hour. During the PM Peak Hour, Junction 7 is predicted to reach capacity in 2027 and exceed capacity in 2042 with a maximum RFC of 1.20 on Park West Road (W) during the PM Peak Hour departures.

For the DO-SOMETHING scenario and with the inclusion of the proposed development trips, the results of the assessment in Table 39 predict that Junction 7 will continue to operate within capacity up to and including 2042 during the AM Peak Hour. During the PM Peak Hour, RFC is predicted to exceed capacity with queues and delays on Park West Road (W) during the PM Peak Hour departures.

In summary, Junction 7 will require upgrading, most likely to a signalised crossroads, about 2027 with or without development at Cherry Orchard Point.

Table 38: Peak RFC for DO-NOTHING Scenarios

Year	AM		PM	
	Arm	RFC	Arm	RFC
2022	Park West Avenue (S)	0.64	Park West Road (W)	0.86
2027	Park West Avenue (S)	0.73	Park West Road (W)	1.01
2042	Park West Avenue (S)	0.82	Park West Road (W)	1.20

Table 39: Junction 7 Existing Layout – ARCADY Analysis Results – All Scenarios.

Arm	AM Peak Hour			PM Peak Hour		
	Queue (pcu)	Delay (sec.)	RFC	Queue (pcu)	Delay (sec.)	RFC
BASELINE 2022						
1	0.4	7.72	0.30	2.6	17.13	0.72
2	1.8	7.31	0.64	0.6	4.47	0.38
3	0.6	11.08	0.36	5.1	46.51	0.86
4	1.6	6.71	0.61	0.4	3.47	0.26
DO-NOTHING 2027						
1	0.7	9.47	0.39	4.2	25.53	0.81
2	2.7	9.72	0.73	0.8	5.08	0.44
3	0.7	13.14	0.43	16.6	128.15	1.01
4	2.5	9.23	0.71	0.4	3.72	0.30
DO-SOMETHING 2027						
1	1.0	11.73	0.49	8.7	49.69	0.92
2	3.6	12.35	0.78	1.1	5.86	0.50
3	0.8	15.00	0.46	30.7	224.02	1.11
4	3.9	13.15	0.80	0.7	4.21	0.39
DO-NOTHING 2042						
1	0.8	11.05	0.45	8.6	48.61	0.91
2	4.4	14.64	0.82	1.0	5.78	0.50
3	1.0	16.12	0.51	50.9	336.96	1.20
4	4.1	14.13	0.80	0.5	3.92	0.33
DO-SOMETHING 2042						
1	1.3	14.28	0.56	24.4	116.45	1.02
2	6.6	21.21	0.87	1.3	6.69	0.56
3	1.2	19.02	0.55	69.7	546.05	1.31
4	7.9	24.91	0.90	0.7	4.45	0.42

13.12 Junction 8: Park West Avenue / Site Access

Junction 8 is a new priority T-junction proposed as part of the subject application. Therefore, only the DO-SOMETHING scenarios have been assessed.

The proposed layout for Junction 8 is shown in Figure 32.

Within the PICADY model, the arms of the junction were labelled as follows:

- Arm A: Barnville Park (E)
- Arm B: Barnville Park (S)
- Arm C: Unnamed Road (W)

The results of the assessment summarised in Table 40 confirm that the proposed Junction 8 will operate within capacity for all DO-SOMETHING scenarios during both the AM and PM Peak Hours.

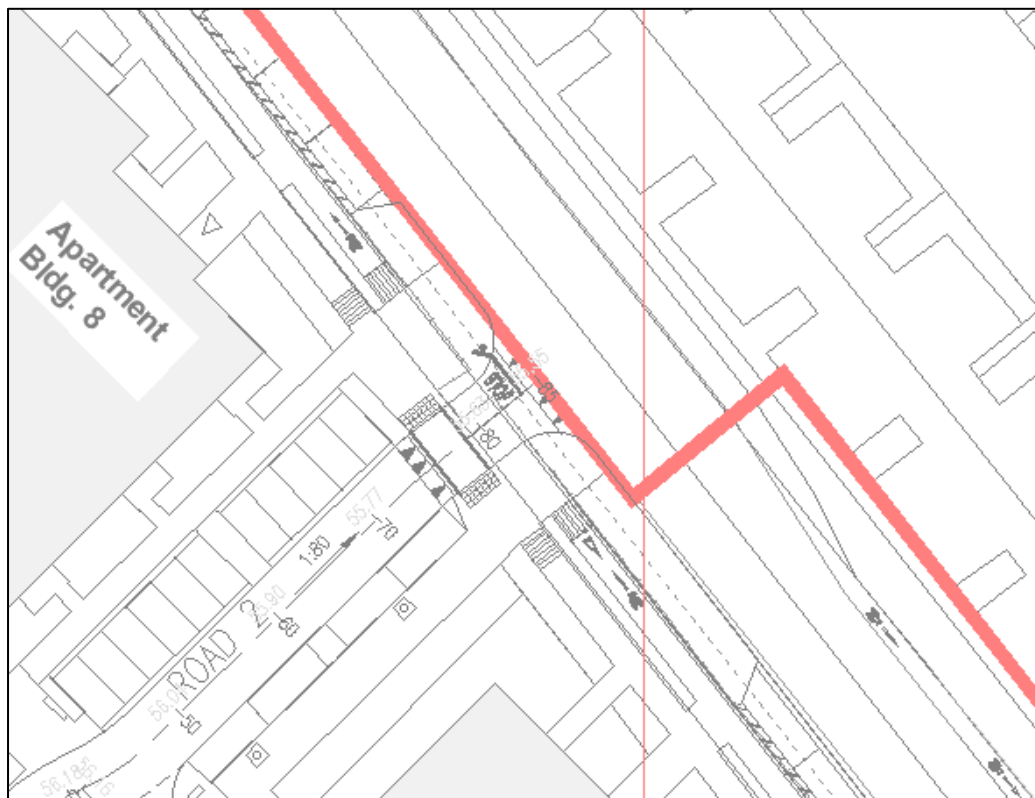


Figure 32: Junction 8 – Proposed Layout

Table 40: Junction 8 Proposed Layout – PICADY Analysis Results – DO-SOMETHING.

Stream	AM Peak Hour			PM Peak Hour		
	Queue (pcu)	Delay (sec.)	RFC	Queue (pcu)	Delay (sec.)	RFC
DO-SOMETHING 2027						
B-AC	0.1	12.03	0.11	0.1	13.40	0.13
C-AB	0.0	6.62	0.02	0.0	7.81	0.03
DO-SOMETHING 2032						
B-AC	0.1	12.43	0.11	0.2	14.00	0.13
C-AB	0.0	6.66	0.02	0.0	7.95	0.03
DO-SOMETHING 2042						
B-AC	0.1	12.82	0.11	0.2	14.58	0.14
C-AB	0.0	6.69	0.02	0.0	8.07	0.03

14. Transportation Impact

14.1 Cumulative Impact – Roads and Junctions

The traffic impact from the proposed development during the Construction Stage is predicted to be 3% of the existing traffic flow on Park West Avenue. This increase is less than the 10% threshold set out in the Traffic and Transport Assessment Guidelines published by TII in May 2014 and as a result no further transportation assessment is required.

The traffic impact from the proposed development during the Operational Stage is predicted to be 10% or greater at all junctions included in the traffic modelling undertaken for this project. However, the results of the assessment in Section 12.0 indicate that all assessed junctions, except Junctions 4 and 7, will operate within capacity with the proposed development in place in the Opening Year 2027 through the Design Year in 2032 to the Future Year 2042.

14.2 Modelling Background

The traffic modelling undertaken for this project and described in this TTA was prepared as a worst-case scenario based on the requirements of the *Traffic and Transport Assessment Guidelines* issued by TII, in May 2014.

In particular, the junction layout assessment prioritised cyclist and pedestrian over road traffic based on the following parameters: -

- Opening Year of 2027, Design Year of 2032 and Future Year of 2042.
- Completion and occupation of all phases of development on Sites 4 and 5 by 2027.
- Growth factors for background traffic for the years 2027, 2032 and 2042 based on factors from the TII Publication – *Project Appraisal Guidelines for National Roads Unit 5.3 – Travel Demand Projections* (May 2021).
- Parameters specified by Dublin City Council for signal cycle and pedestrian phasing.
- Reduced junction layout including full cycle and pedestrian facilities as required by DMURS.

Furthermore, the ongoing improvement in the modal share for public transport being promoted by Bus Connects and Irish Rail, is likely to reduce both background and generated traffic from the subject site resulting in traffic volumes within the capacity of the road network.

14.3 Junction 4: Park West Avenue/Site Access

Junction 4 is an existing signalised T-junction to be reordered as a signalised crossroads as shown in Figure 29.

For the DO-NOTHING scenario, Junction 4 is predicted to operate within capacity and will continue to do so for during 2027, 2032 and 2042, should the proposed development not take place.

For the DO-SOMETHING scenarios, Junction 4 is predicted to operate above capacity during 2027, 2032 and 2042 in both peak hours with the inclusion of the proposed development trips.

Junction 4 has been designed in compliance with current national and local policies which prioritise cycle and pedestrian movements over road traffic. The restricted capacity proposed at Junction 4 is largely due to the application of these policies when an alternative design for traffic movements albeit with longer crossing times for pedestrian and cyclists could bring the junction within capacity for 2027, 2032 and 2042.

14.4 Junction 7: Park West Avenue / Park West Road

Junction 7 is an existing four-arm roundabout located south of the railway bridge. There are no proposals to upgrade this junction.

For the DO-NOTHING scenario, even without the inclusion of the proposed development trips, the results of the assessment predicted that Junction 7 will continue to operate within capacity in the AM Peak Hour up to 2042 but not so in the PM Peak Hour. During the PM Peak Hour, Junction 7 is predicted to reach capacity in 2027 and exceed capacity in 2042 on Park West Road (W) during the PM Peak Hour departures.

For the DO-SOMETHING scenario and with the inclusion of the proposed development trips, Junction 7 will continue to operate within capacity up to and including 2042 during the AM Peak Hour. During the PM Peak Hour, the RFC is predicted to exceed capacity with queues and delays on Park West Road (W) during the PM Peak Hour departures.

In summary, Junction 7 is likely to require upgrading by Dublin City Council, most likely to a signalised crossroads, about 2027 with or without development at Cherry Orchard Point.

14.5 Public Transport - Rail

Passenger Demand

Based on a design population of 2,247 persons (Table 4) and a modal split of 20 – 30% (Table 16), and peak demand from the proposed development for travel by rail is expected to be 449 – 674 passengers during the AM Peak Hour.

(2,247 persons x 20 – 30% split = 449–674 passengers per hour)

Based on the location of Park West, it is expected that 75% of these passengers can be expected to travel eastbound towards the City Centre with 50% travelling during the AM Peak Hour giving a projected demand of 168 –253 passengers per hour eastbound during the AM Peak Hour

(449–674 passengers per hour x 50% AM Peak x 75% eastbound = 168–253 passengers per hour).

Train Capacity

There are five existing rail services departing Park West & Cherry Orchard during the AM Peak Hour 08.00 – 09.00 (Table 2). Commuter services in both directions at Park West & Cherry Orchard are provided by four / eight car 29000 class railcar sets each with capacity of 640 / 1,280 passengers per set or a 6-car High Capacity Inter City railcar set with a capacity of 406 passengers.

The use of the 29000 class railcar sets in lieu of the Inter City railcar sets on one or more of the five services to the City Centre between 08.00 and 09.00 would significantly increase the overall passenger capacity for commuters.

Demand v Capacity

The demand of 168 –253 passengers per hour during the AM Peak Hour is well below the minimum capacity of 2,030 persons per hour provided between 08.00 and 09.00 towards the City Centre by five 6-car High Capacity Inter City railcar sets each with a capacity of 406 passengers.

(449 - 674 per day x 50% AM Peak Hour x 75% eastbound = 168 – 253 passengers per hour).

The conclusion of this assessment is that the future capacity of the rail service at Park West and Cherry Orchard will be more than sufficient to cater for future passenger demand from Cherry Orchard Point even without the additional capacity that can readily be provided by the rostering of 29000 class railcar sets in lieu of the Inter City sets prior to commissioning of the high capacity DART+ South West services.

14.6 Public Transport – Bus

Passenger Demand

Based on a design population of 2,247 persons (Table 4) and a modal split of 20 – 30% (Table 16), the peak demand from the proposed development for travel by bus is expected to be 449 – 674 passengers during the AM Peak.

(2,247 persons x 20 – 30% split = 449–674 passengers per hour)

Based on the location of Park West, it is expected that 50% of these passengers can be expected to travel towards the City Centre with 50% travelling during the AM Peak Hour.

(449 – 674 per day x 50% AM Peak Hour x 50% northbound = 112 – 168 passengers per hour)

Bus Capacity

Based on a review of the fleet of double deck buses operated by Dublin Bus in the area of the proposed development, the average capacity of each bus including standing passengers was found to be 87 passengers per bus.

Current timetables for Routes G1 and 60 provide for 5 buses per hour in each direction with a total capacity of 435 passengers per hour in each direction (5 buses x 87 passengers per bus).

Demand v Capacity

The demand of 112 – 168 passengers per hour during the AM Peak Hour is well within the existing capacity of 435 passengers per hour provided by the current timetable (5 buses x 87 passengers per bus).

The capacity of the bus services used in this review is the existing startup schedule on the new Bus Connects routes. These schedules are expected to be increased by Dublin Bus through timetable changes as demand increases.

The capacity used in this TTA is for buses passing Park West & Cherry Orchard Station only and does not include contiguous services on Nangor Road or Ballyfermot Road a relatively short walk from the proposed development.

The conclusion of this assessment is that the future capacity of the bus service at Park West and Cherry Orchard will be more than sufficient to cater for future passenger demand from Cherry Orchard Point even without the benefit of the additional services which can be provided by increased frequency as passenger demand builds up.

14.7 Summary of Impacts

During the operational stage, the proposed residential parking capacity will be more than adequate to cater for the number of residents who will drive to work or education each day.

Post development, six of the eight road junctions assessed will continue to operate satisfactorily up to 2042. The existing roundabout at the junction of Park West Avenue and Park West Road is likely to reach capacity in 2027 with or without the proposed development. As a result, it is likely to be converted to a signalised crossroads by Dublin City Council about that time.

The proposed signalised crossroads at the junction of Park West Avenue and the Site Access is predicted to operate over capacity for short periods during the AM and PM Peaks from 2027 as a consequence of compliance with the design requirement of DMURS. If an alternative design with alternative design for traffic movements albeit with longer crossing times for pedestrian and cyclists were to be adopted, this junction could operate within capacity from 2027 through 2032 to 2042.

Post development, existing and future the public transport services, both rail and bus, will have more than adequate capacity to accommodate future passenger demand from Cherry Orchard Point.

Overall, the transportation impact of the proposed development at Cherry Orchard Point on the surrounding transportation network will not be significant.

15. Non-Technical Summary

Introduction

This Traffic and Transport Assessment (TTA) has been prepared by Waterman Moylan on behalf of the Land Development Agency (LDA) to accompany a planning application to Dublin County Council for a proposed new residential development on lands at Park West Avenue, Cherry Orchard, Dublin 10.

In common with established practice and other transportation studies and reports, this TTA assesses the impact of the proposed development on the transportation network during the AM Peak.

Phasing

It is proposed to construct the development in four phases with Phases 1, 2 and 4 on Site 4 and Phase 3 on Site 5.

Project Timescale

For the purpose of this TTA, the Base Year has been taken as 2022, the Opening Year as 2027 and the Design Year as 2032 (Opening Year + 5) and the future Year as 2042 (Opening Year + 15).

Location and Description of Site

The two sites for the proposed development (part of the overall the Park West – Cherry Orchard Local Area Plan), Site 4 (M50 / Cedarbrook Avenue) and Site 5 (Barnville), are located east and west of Park West Avenue, Dublin 10, immediately to the north of the Park West & Cherry Orchard Railway Station. The LAP extends to an area of 267.5 ha of which Sites 4 M50-Cedarbrook Avenue and Site 5 Barnville extend to a total of 13.0 ha.

At the time of writing in September 2023, the location for Cherry Orchard Point comprised undeveloped greenfield sites. Both sites were unoccupied with no traffic movements in or out.

Access by Walking and Cycling

Overall, walking and cycling access to the various services and amenities in the rear of the subject site is patchy, good for some facilities but not good for others.

Access is good to the rail based public transport serving an east -west corridor. Access is moderate to the bus based north-south corridor.

Access also is good to local amenities and community services.

However, access is not good to retail or other commercial services with the nearest retail provision located to the northeast in the Ballyfermot area at a walking distance of 20 – 40 minutes or a cycling distance of up to 10 minutes.

The proposed supermarket at Cherry Orchard Point is expected to make good this deficit.

Proposed Development – Phase 1

The proposed development on Site 4 Phase 1 will comprise 708 residential apartments, supermarket, retail units, creche and community facilities.

Car parking with a total of 444 number spaces comprising 328 number spaces at surface level for residents (including 17 number spaces for disabled), 92 number spaces at lower ground level for retail (including 4 number spaces for disabled), 7 number retail spaces on Park West Avenue (including one loading bay), 6 number surface spaces for the Creche and 11 number spaces for car sharing (GoCar). Access will be from Park West Avenue.

222 number spaces will be equipped with fully functional EV Charging Point(s) and the remaining 222 spaces designed to facilitate the relevant infrastructure to accommodate future EV charging.

A total of 22 spaces will be provided for motorcycle parking (5%).

A total of 1,618 number bicycle parking spaces with 1,552 number spaces for residents and visitors at the apartments and 66 number spaces for staff, customers and visitors at the supermarket, retail, creche and community.

The public realm around the site will incorporate an upgrade of the pedestrian and cycle environment.

The development includes all associated infrastructure to service the development including access junctions, footpaths and cycle paths together with a network of watermains, foul water drains and surface water drains.

The layout of the proposed development is illustrated on the drawings included with the planning application.

Future Development – Phase 2

Future Phase 2 development on Site 4 of Cherry Orchard Point is expected to comprise 53 residential houses and 100 residential apartments. A total of 105 number car parking spaces and a total of 210 number bicycle parking spaces will also be provided. The preliminary Phase 2 site layout can be seen on the drawings included with the planning application.

Future Development – Phase 3

Future Phase 3 development on Site 5 of Cherry Orchard Point is expected to comprise 275 residential apartments, retail and community facilities. A total of 132 number car parking spaces and a total of 544 number bicycle parking spaces will also be provided. The preliminary Phase 3 site layout can also be seen on the drawings included with the planning application.

Future Development – Phase 4

Future Phase 4 development on Site 3 of Cherry Orchard Point is expected to comprise 16,300 sqm Commercial. A total of 82 number car parking spaces and a total of 300 number bicycle parking spaces will also be provided. The preliminary Phase 4 site layout can also be seen on the drawings included with the planning application.

Car Parking - Phase 1

The proposed provision of car parking will be 444 spaces with 328 spaces for the 708 residential units, 11 spaces for car sharing and 105 spaces for the retail, creche and community facilities. The total of 444 spaces includes 22 accessible spaces (5%).

The provision of the 444 spaces for the residential units will include 222 spaces with charging facilities for electric vehicles (50%) and 222 spaces designed to facilitate the relevant infrastructure to accommodate future EV charging(50%).

The proposed car parking ratio for the residential development is 0.46 space per apartment.

Car parking for the supermarket has been increased from the maximum of 25 spaces based on the City Development Plan to 92 spaces to cater for residents in the immediate surrounding area and the ongoing viability of a supermarket at Cherry Orchard Point.

A total of 7 Pay and Display spaces will be provided on Park West Avenue.

Car Parking Management

Permits for access by residents to the 276 private spaces will be issued by the Management Company on a first come first served basis with not more than one permit per unit.

Operation of the 109 spaces for the supermarket (92 spaces), creche (6 spaces) and car sharing (11 spaces) will be controlled by the Management Company.

For residents who require occasional car use without the need to own a vehicle, 11 spaces will be permanently allocated for car sharing with vehicles supplied by GoCar or similar company.

Operation of the 59 on-street spaces including Pay & Display and permits will be managed by Dublin City Council.

Cycle Parking - Phase 1

A total of 1,618 number bicycle parking spaces with 1,552 number spaces for residents and visitors at the apartments and 66 number spaces for staff, customers and visitors at the supermarket, retail, creche and community.

Servicing

Deliveries to and waste collection from the supermarket in Site 4 will take place at the dedicated service yard located at the supermarket.

Deliveries to the retail units in Site 4 will take place from the loading bay on Park West Avenue. The operational hours proposed for the loading bays are 07h00 – 19h00 Monday – Saturday.

The following short stay transport related activities by residents will be facilitated off the internal road network:

- Drop Off / Collection by car or taxi.
- Moving In / Moving Out including furniture delivery and removal.
- Courier / Parcel Collections and deliveries.
- Accessible spaces for disabled parking (22 spaces).

Roads and Streets

The proposed development is located on either side of Park West Avenue between the R134 Nangor Road and Ballyfermot Road / Coldcut Road.

Park West Avenue is a wide single carriageway road with a north – south alignment and a posted speed limit of 50 kph. It is linked to Cloverhill Road via a roundabout junction at its northern end and to the R134 Nangor Road via signalised crossroads at its southern end. Park West Avenue has a 9.0 metre wide carriageway with footpaths and cycle tracks on both sides. Speed ramps are provided for traffic calming but there are no parking restrictions.

Traffic Conditions

The Park West - Cherry Orchard LAP 2019 noted that the road network serving Park West – Cherry Orchard experiences some traffic congestion during peak hours in areas such as Cloverhill Road, Park West Avenue and Le Fanu Road with the highest delays occurring where these roads connect to regional roads such as Ballyfermot Road and the New Nangor Road.

A traffic survey in November 2022 recorded a 24-hour traffic flow on Park West Avenue of some 11,004 vehicles per day and a 24-hour traffic flow on Barnville Walk of some 4,092 vehicles per day.

Bus Services

Bus services in the area of the proposed are a combination of historic services operated by Dublin Bus and new services are provided under the auspices of Bus Connects. Dublin Bus Routes 79 and 79a which formerly served the Park West Avenue, and the Park West / Cherry Orchard Station were replaced by Routes G1 and 60 in October 2022.

Bus stops for these services are located on Park West Avenue, Barnville Walk and Cedar Brook Way.

Rail Services

Park West & Cherry Orchard which opened in 2008, is an intermediate station on the Kildare Commuter Line with regular commuter and inter-city services including stopping services from Portlaoise and Newbridge to Heuston Station and from Hazelhatch & Celbridge to Grand Canal Dock.

The journey time to Heuston by rail is some 9 - 11 minutes and the journey time to Grand Canal Dock is some 40 – 45 minutes. There are 5 existing services from Park West and Cherry Orchard to the City Centre during the AM Peak Hour 8 – 9.

At other periods outside the AM Peak, rail services at Cherry Orchard & Park West are provided between Hazelhatch and Grand Canal Street at hourly intervals.

The Park West - Cherry Orchard LAP 2019 noted that rail users at Park West Cherry Orchard Station represent a very low modal split of 2%. This is despite its central location and despite 2,550 people having access to the station within a 15-minute walk.

The DART Expansion Project proposed by Irish rail will deliver new electrified rail services between the existing DART network in the City Centre City Centre and Hazelhatch. The service through Park West & Cherry Orchard will provide an increased service frequency and enhanced passenger capacity.

An application for a Railway Order for DART+ South West was lodged with An Bord Pleanála in March 2023.

Pedestrian and Cycle Facilities

Existing pedestrian facilities in the area of the subject site comprise footpaths on both sides of Park West Road, Barnville Walk, Barnville Place, Cedar Brook Walk and Cedar Brook Way.

There are no footpaths on Cedar Brook Avenue which is primarily a residential parking area.

Pedestrian crossing facilities are provided at the following locations:

- Junction 1: Uncontrolled Crossing (Cloverhill Road / Park West Avenue)
- Junction 4: Signalised Crossing (Park West Avenue / Barnville Walk).

The existing cycle facilities in the area of the subject site comprise cycle tracks on both sides of Park West Road, partly on-road and partly off-road.

This development provides for upgraded footpaths and cycle tracks on the Park West Avenue together with pedestrian and cycle phases in the signalised junction at Barnville Walk.

There are a number of new pedestrian or cycling facilities proposed in the area of the subject site including:-

- New / improved off road pedestrian and cycle facilities along Ballyfermot Road as part of the Bus Connects Liffey Valley to City Centre Core Bus Corridor works.
- New / improved pedestrian and cycle facilities within the adjacent City Edge development area immediately to the east and south of the subject site
- New cycle facilities as part of the Grand Canal Greenway.

Cumulative Impact

This TTA addresses all committed developments within the vicinity of the site including sites which have previously been granted planning permission but which are yet to become operational as well as any planning applications that have been submitted but have yet to be determined.

In addition to the trips that will be generated by the future development of Sites 4 and 5, the trips that would be generated by the approved Park West SHD development on Site 6 have been included in this TTA.

Contiguous Development on Site 6

Planning permission for a residential development of 750 units and 552 car parking spaces (including 14 car sharing spaces) on a 9.4 ha site at Park West, Dublin 12 was granted by An Bord Pleanála to Greenseed Ltd in June 2022 subject to 29 conditions (ABP Reg Ref 312290-21). The site included the Aspect Hotel.

Construction Traffic Access Routes

Construction traffic routes to the proposed development are facilitated by the high standard of the existing road network in the surrounding area.

The primary construction access route is expected to be from the R134 Nangor Road via Park West Avenue. The secondary construction access would be from Ballyfermot Road / Coldcut Road via Cloverhill Road and Park West Avenue.

At the time of writing in September 2023, both of the proposed construction access routes are fully operational and open to traffic including road markings and traffic signals.

Traffic Impact – Construction Stage

During the construction stage of the proposed development, some construction traffic movements will be undertaken by heavy goods vehicles, though there will also be vehicle movements associated with the appointed contractors and their staff.

The day-to-day traffic movements associated with the construction activities are predicted to be less than 3.0% of the existing traffic movements on Park West Avenue. As this increase is less than the benchmark of 10%, no further transportation assessment of the road network is required for the construction stage.

The number of construction vehicle movements is low compared to the number of vehicular trips expected to be generated by the proposed development during the operational phase. It should be noted that most of such trips will occur outside of the traditional peak hours, and it is not considered that this level of construction traffic would result in any operational problems.

Traffic Impact – Operational Stage

The traffic impact from the proposed development during the Operational Stage is predicted to be 10% or greater at all junctions included in the traffic modelling undertaken for this project.

However, the results of the assessments undertaken indicate that all assessed junctions, except Junctions 4 and 7, will operate within capacity with the proposed development in place in the Opening Year 2027 through the Design Year in 2032 to the Future Year 2042.

For the DO-NOTHING scenario 2027, Junction 7 is indicated to operate marginally above capacity in the PM Peak Hour even without the inclusion of the proposed development trips. It is likely Junction 7 will require upgrading, most likely to a signalised crossroads, about 2027 with or without development at Cherry Orchard Point.

For the DO-NOTHING scenario, Junction 4 is predicted to operate within capacity and will continue to do so for during 2027, 2032 and 2042, should the proposed development not take place.

For the DO-SOMETHING scenarios, Junction 4 is predicted to operate above capacity during 2027, 2032 and 2042 in both peak hours with the inclusion of the proposed development trips.

Overall, the impact of the proposed development at Cherry Point on the surrounding transportation network will not be significant.

Six of the eight road junctions assessed will continue to operate satisfactorily up to 2042 with the development in place. The existing roundabout at the junction of Park West Avenue and Park West Road is likely to reach capacity in 2027 with or without the proposed development. As a result, it is likely to be converted to a signalised crossroads about that time.

The proposed signalised crossroads at the junction of Park West Avenue and the Site Access is predicted to operate over capacity for short periods during the AM and PM Peaks from 2027 as a consequence of compliance with the design requirement of DMURS. The adoption of an alternative design for traffic movements albeit with longer crossing times for pedestrians and cyclists could bring the junction within capacity for 2027, 2032 and 2042.

Public Transport Impact

In common with established practice and other transportation studies and reports, this TTA assesses the impact of the proposed development on the rail service during the AM peak.

The projected demand from the proposed development is projected to be well within the existing and proposed capacity of the public transport services, both rail and bus serving the surrounding area.

Summary

This T & TA demonstrates that the proposed development will be consistent with the objectives for Transport and Mobility set out in the Dublin City Development Plan 2022 – 2028 and the Park West Cherry Orchard Local Area Plan 2019.

APPENDICES

A. Traffic Survey 2022

IDASO
Innovative Data Solutions



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Data Analysis Services
Traffic-Transportation- Commercial-Innovation

384 22578 - 22-010 Cherry Orchard Sites 4 & 5 Traffic Counts Pedestrian

with compliments

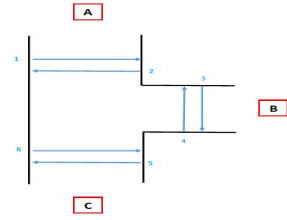


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20:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	1	1	0	5	5	0	0	0	0	0	0
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H/TOT	0	0	0	0	0	0	0	0	0	2	0	2	0	0	0	0	0	0
24 TOT	2	0	2	0	0	0	56	20	76	41	25	66	0	0	0	0	0	0



IDASO

Survey Name: 384 22578 - 22-010 Cherry Orchard Sites 4 & 5 Traffic Count:
Site: Site 2 Pedestrian
Location: Unnamed Rd/Cedar Brook Ave
Date: Tue 08-Nov-2022



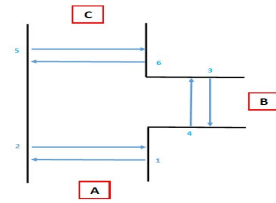
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14:45	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0
H/TOT	0	0	0	1	0	1	8	1	9	4	0	4	0	0	0	0	0	0
15:00	0	0	0	0	0	0	3	0	3	4	0	4	0	0	0	0	0	0
15:15	0	0	0	0	0	0	1	0	1	1	0	1	0	0	0	0	0	0

15:30	0	0	0	0	0	0	2	0	2	0	0	0	0	0	0	0	0
15:45	0	0	0	0	0	0	2	0	2	1	0	1	0	0	0	0	0
H/TOT	0	0	0	0	0	0	8	0	8	6	0	6	0	0	0	0	0
16:00	0	0	0	0	0	0	4	0	4	3	3	6	1	0	1	0	0
16:15	1	0	1	1	0	1	1	1	2	2	0	2	0	0	0	0	0
16:30	0	0	0	0	0	0	1	0	1	5	1	6	0	0	0	0	0
16:45	0	0	0	1	0	1	4	0	4	2	0	2	0	0	0	0	0
H/TOT	1	0	1	2	0	2	10	1	11	12	4	16	1	0	1	0	0
17:00	1	0	1	1	0	1	2	0	2	1	2	3	0	0	0	0	0
17:15	0	0	0	0	0	0	3	0	3	1	1	2	0	0	0	0	0
17:30	0	0	0	0	0	0	4	0	4	3	2	5	0	0	0	0	0
17:45	1	0	1	0	0	0	1	0	1	0	0	0	0	0	0	0	0
H/TOT	2	0	2	1	0	1	10	0	10	5	5	10	0	0	0	0	0
18:00	0	0	0	0	0	0	1	0	1	0	1	1	0	0	0	0	0
18:15	0	0	0	0	0	0	1	0	1	1	1	2	0	0	0	0	0
18:30	0	0	0	0	0	0	2	0	2	0	0	0	0	0	0	0	0
18:45	0	0	0	0	0	0	1	0	1	5	1	6	0	0	0	0	0
H/TOT	0	0	0	0	0	0	5	0	5	6	3	9	0	0	0	0	0
19:00	0	0	0	0	0	0	2	0	2	2	0	2	0	0	0	1	0
19:15	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0
19:30	0	0	0	0	0	0	1	2	3	0	0	0	0	0	0	0	0
19:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	3	2	5	2	1	3	0	0	0	1	0
20:00	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0
20:15	0	0	0	0	0	0	2	0	2	3	0	3	0	0	0	0	0
20:30	0	0	0	0	0	0	1	0	1	0	0	0	1	0	1	0	0
20:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	4	0	4	3	0	3	1	0	1	0	0
21:00	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
21:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
21:30	0	0	0	0	0	0	2	0	2	0	0	0	0	0	0	0	0
21:45	0	0	0	0	0	0	0	0	0	1	0	1	0	1	1	0	0
H/TOT	1	0	1	0	0	0	2	0	2	1	0	1	0	1	1	0	0
22:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
22:15	0	0	0	1	0	1	1	0	1	2	0	2	0	0	0	0	0
22:30	0	0	0	0	0	0	0	0	0	3	0	3	0	0	0	0	0
22:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
H/TOT	0	0	0	1	0	1	1	0	1	5	0	5	0	0	0	0	0
23:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
24 TOT	4	0	4	8	0	8	94	10	104	86	16	102	6	1	7	1	0



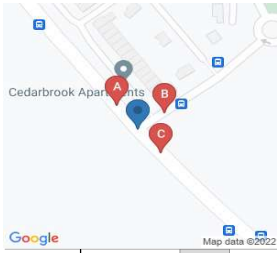
IDASO

Survey Name: 384 22578 - 22-010 Cherry Orchard Sites 4 & 5 Traffic Counts
Site: Site 3 Pedestrian
Location: Unnamed Rd/Cedar Brook Walk
Date: Tue 08-Nov-2022



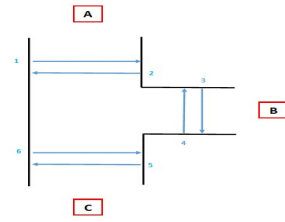
TIME	MVT1			MVT2			MVT3			MVT4			MVT5			MVT6		
	PEDS	PC	TOT	PEDS	PC	TOT	PEDS	PC	TOT	PEDS	PC	TOT	PEDS	PC	TOT	PEDS	PC	TOT
00:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
00:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
00:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
00:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1
01:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1
02:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:30	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0
04:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0
05:00	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0
05:15	0	0	0	0	0	0	0	2	2	0	0	0	0	0	0	1	0	1
05:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	2	2	1	0	1	0	0	1	1	0	1
06:00	0	0	0	0	0	0	1	0	1	1	1	2	0	1	1	0	0	0
06:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
06:30	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0
06:45	0	0	0	0	0	0	1	3	4	0	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	2	3	5	2	1	3	0	1	1	0	0	0
07:00	0	0	0	0	0	0	1	4	5	1	0	1	0	0	0	0	0	0
07:15	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0
07:30	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0
07:45	0	0	0	0	0	0	2	1	3	1	1	2	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	4	5	9	3	1	4	0	0	0	0	0	0
08:00	0	0	0	0	0	0	1	1	2	2	0	2	0	0	0	0	0	0
08:15	0	0	0	0	0	0	1	0	1	2	0	2	0	0	0	0	0	0
08:30	0	0	0	0	0	0	1	1	2	0	0	0	0	0	0	0	0	0
08:45	0	0	0	0	0	0	2	2	4	0	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	5	4	9	4	0	4	0	0	0	0	0	0
09:00	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0
09:15	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0
09:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
09:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	1	1	2	0	0	0	0	0	0	0	0	0
10:00	0	0	0	0	0	0	2	0	2	1	0	1	0	0	0	1	0	1
10:15	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0
10:30	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0
10:45	0	0	0	0	0	0	1	0	1	1	0	1	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	4	1	5	2	0	2	0	0	0	1	0	1
11:00	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0
11:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:45	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	1	1	0	1	1	0	0	0	0	0	0
12:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:15	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0
12:30	0	0	0	0	0	0	3	1	4	0	1	1	0	0	0	0	0	0
12:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	3	1	4	0	2	2	0	0	0	0	0	0
13:00	0	0	0	0	0	0	3	0	3	2	1	3	0	0	0	0	0	0
13:15	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0
13:30	0	0	0	0	0	0	1	1	2	0	0	0	0	0	0	0	0	0
13:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	4	1	5	2	2	4	0	0	0	0	0	0
14:00	0	0	0	0	0	0	1	1	2	1	0	1	0	0	0	0	0	0
14:15	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	0	1
14:30	0	0	0	0	0	0	2	0	2	0	0	0	1	0	1	0	0	0
14:45	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	3	2	5	1	0	1	1	1	2	1	0	1
15:00	0	0	0	0	0	0	0	1	1	2	0	2	1	0	1	0	0	0
15:15	0	0	0	0	0	0	1	0	1	1	0	1	0	0	0	0	0	0

15:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15:45	0	0	0	0	0	0	1	1	2	1	0	1	0	0	0	0	0
H/TOT	0	0	0	0	0	0	2	2	4	4	0	4	1	0	1	0	0
16:00	0	0	0	0	0	0	2	1	3	1	3	4	0	0	0	0	0
16:15	0	0	0	0	0	0	1	1	2	0	1	1	0	0	0	0	0
16:30	0	0	0	0	0	0	0	0	0	1	1	2	0	0	0	0	0
16:45	0	0	0	0	0	0	2	2	4	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	5	4	9	2	5	7	0	0	0	0	0
17:00	0	0	0	0	0	0	1	0	1	0	3	3	0	0	0	0	0
17:15	0	0	0	0	0	0	2	0	2	0	2	2	0	0	0	0	0
17:30	0	0	0	0	0	0	1	0	1	2	4	6	0	0	0	0	0
17:45	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0
H/TOT	0	0	0	0	0	0	4	0	4	2	10	12	0	0	0	0	0
18:00	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0
18:15	0	0	0	0	0	0	0	0	0	1	1	2	0	0	0	0	0
18:30	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0
18:45	0	0	0	0	0	0	1	0	1	1	1	2	0	0	0	0	0
H/TOT	0	0	0	0	0	0	1	0	1	2	3	5	0	1	1	0	0
19:00	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0
19:15	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0
19:30	0	0	0	0	0	0	0	1	1	0	1	1	0	0	0	0	0
19:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	1	1	2	1	3	0	0	0	0	0
20:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
20:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
20:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
20:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
21:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
21:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
21:30	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0
21:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1
H/TOT	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	1	1
22:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
22:15	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0
22:30	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0
22:45	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0	0	2	1	3	0	0	0	0	0
23:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
24 TOT	0	0	0	0	0	0	38	30	68	29	27	56	2	3	5	4	5



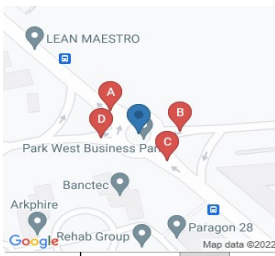
IDASO

Survey Name: 384 22578 - 22-010 Cherry Orchard Sites 4 & 5 Traffic Counts
Site: Site 4 Pedestrian
Location: Unnamed Rd
Date: Tue 08-Nov-2022



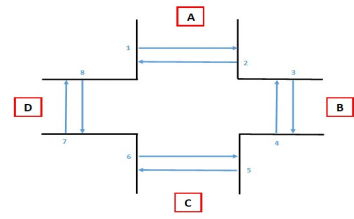
TIME	MVT1			MVT2			MVT3			MVT4			MVT5			MVT6		
	PEDS	PC	TOT	PEDS	PC	TOT	PEDS	PC	TOT	PEDS	PC	TOT	PEDS	PC	TOT	PEDS	PC	TOT
00:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
00:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
00:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
00:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:00	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0
01:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0
02:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:15	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	1	0	1
02:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	1	0	1
03:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:45	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0
04:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:30	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0
04:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0
05:00	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0
05:15	0	0	0	0	0	0	0	2	2	0	0	0	1	0	1	0	0	0
05:30	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0
05:45	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	2	2	4	1	0	1	1	0	1	0	0	0
06:00	0	0	0	0	0	0	1	0	1	2	1	3	0	0	0	0	0	0
06:15	0	0	0	0	0	0	2	0	2	0	0	0	2	0	2	0	0	0
06:30	0	0	0	0	0	0	1	0	1	1	0	1	3	0	3	0	0	0
06:45	0	0	0	0	0	0	1	2	3	0	0	0	2	0	2	0	0	0
H/TOT	0	0	0	0	0	0	5	2	7	3	1	4	7	0	7	0	0	0
07:00	0	0	0	0	0	0	1	4	5	0	1	1	0	0	0	0	0	0
07:15	0	0	0	2	0	2	1	3	4	0	0	0	3	0	3	0	0	0
07:30	0	0	0	0	0	0	3	0	3	1	0	1	5	0	5	1	0	1
07:45	0	0	0	0	0	0	7	1	8	1	0	1	3	0	3	1	0	1
H/TOT	0	0	0	2	0	2	12	8	20	2	1	3	11	0	11	2	0	2
08:00	0	0	0	1	0	1	5	1	6	3	0	3	2	0	2	1	0	1
08:15	0	0	0	0	0	0	3	1	4	1	0	1	2	0	2	0	0	0
08:30	3	0	3	2	0	2	3	1	4	0	0	0	1	0	1	8	1	9
08:45	0	0	0	1	0	1	2	1	3	0	0	0	3	0	3	0	1	1
H/TOT	3	0	3	4	0	4	13	4	17	4	0	4	8	0	8	9	2	11
09:00	2	0	2	0	0	0	0	0	1	1	0	0	3	0	3	1	0	1
09:15	0	0	0	2	0	2	0	0	0	0	0	0	1	0	1	1	0	1
09:30	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	2	0	2
09:45	0	0	0	1	0	1	0	0	0	2	0	2	0	0	0	2	1	3
H/TOT	2	0	2	3	0	3	0	1	1	2	0	2	5	0	5	6	1	7
10:00	0	0	0	1	0	1	1	0	1	1	0	1	2	0	2	0	0	0
10:15	0	0	0	0	0	0	3	0	3	0	0	0	1	0	1	1	0	1
10:30	0	0	0	0	0	0	1	1	2	0	0	0	1	0	1	0	0	0
10:45	0	0	0	0	0	0	1	0	1	1	0	1	0	0	0	0	0	0
H/TOT	0	0	0	1	0	1	6	1	7	2	0	2	4	0	4	1	0	1
11:00	0	0	0	0	0	0	1	0	1	0	1	1	0	0	0	0	0	0
11:15	0	0	0	0	0	0	1	0	1	1	0	1	1	0	1	0	0	0
11:30	0	0	0	0	0	0	2	0	2	1	0	1	2	0	2	0	0	0
11:45	0	0	0	0	1	1	0	1	1	0	1	1	2	0	2	0	0	0
H/TOT	0	0	0	0	1	1	4	1	5	2	2	4	5	0	5	0	0	0
12:00	1	0	1	0	0	0	0	0	0	0	0	0	1	0	1	1	0	1
12:15	0	0	0	1	0	1	0	0	0	1	0	1	1	0	1	0	0	0
12:30	0	0	0	0	0	0	3	0	3	0	1	1	0	0	0	1	1	2
12:45	1	0	1	0	0	0	0	0	0	3	0	3	1	0	1	0	0	0
H/TOT	2	0	2	1	0	1	3	0	3	4	1	5	3	0	3	2	1	3
13:00	0	0	0	0	0	0	2	0	2	0	0	0	2	0	2	0	0	0
13:15	0	0	0	0	0	0	1	1	2	0	1	1	0	0	0	2	0	2
13:30	0	0	0	0	0	0	1	1	2	0	0	0	6	0	6	0	0	0
13:45	0	0	0	1	1	2	1	1	2	0	0	0	1	0	1	0	0	0
H/TOT	0	0	0	1	1	2	5	3	8	0	1	1	9	0	9	2	0	2
14:00	1	1	2	0	0	0	2	1	3	1	0	1	0	0	0	0	0	0
14:15	0	0	0	0	0	0	1	0	1	1	0	1	0	0	0	0	0	0
14:30	0	0	0	2	0	2	1	0	1	2	0	2	11	1	12	2	0	2
14:45	1	0	1	1	0	1	0	1	1	0	0	0	0	0	0	0	0	0
H/TOT	2	1	3	3	0	3	4	2	6	4	0	4	11	1	12	2	0	2
15:00	1	0	1	0	0	0	0	1	1	5	0	5	1	0	1	1	0	1
15:15	0	0	0	0	0	0	1	0	1	0	1	1	1	0	1	1	0	1

15:30	0	0	0	0	0	0	0	0	0	4	0	4	4	0	4	1	0	1
15:45	0	0	0	0	0	0	1	0	1	2	0	2	0	0	0	3	0	3
H/TOT	1	0	1	0	0	2	1	3	11	1	12	6	0	6	6	0	6	
16:00	1	0	1	2	0	2	0	0	0	2	2	4	2	0	2	0	0	0
16:15	0	0	0	0	0	0	3	0	3	2	0	2	3	0	3	1	0	1
16:30	0	0	0	0	0	0	2	1	3	1	1	2	1	0	1	2	0	2
16:45	2	0	2	1	0	1	1	1	2	3	1	4	0	0	0	0	0	0
H/TOT	3	0	3	3	0	3	6	2	8	8	4	12	6	0	6	3	0	3
17:00	1	0	1	3	0	3	1	0	1	2	4	6	5	0	5	1	0	1
17:15	0	1	1	0	0	0	2	0	2	2	3	5	0	0	0	2	0	2
17:30	0	0	0	0	0	0	2	2	4	2	5	7	2	1	3	3	0	3
17:45	0	0	0	0	0	0	0	0	0	1	2	3	0	0	0	0	0	0
H/TOT	1	1	2	3	0	3	5	2	7	7	14	21	7	1	8	6	0	6
18:00	0	0	0	0	0	0	1	0	1	2	2	4	0	0	0	0	0	0
18:15	1	0	1	0	0	0	0	0	0	3	0	3	0	0	0	1	0	1
18:30	0	0	0	0	0	0	0	0	0	2	0	2	0	0	0	7	0	7
18:45	1	0	1	0	0	0	1	0	1	4	0	4	1	0	1	0	0	0
H/TOT	2	0	2	0	0	0	2	0	2	11	2	13	1	0	1	8	0	8
19:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
19:15	0	0	0	0	0	0	0	0	0	2	0	2	0	0	0	0	0	0
19:30	0	0	0	0	0	0	0	0	0	1	1	2	0	0	0	1	0	1
19:45	0	0	0	0	0	0	0	0	0	4	0	4	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0	0	7	1	8	0	0	0	1	0	1
20:00	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0
20:15	0	0	0	0	0	0	0	0	0	2	0	2	0	0	0	0	0	0
20:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
20:45	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0	0	4	0	4	0	0	0	0	0	0
21:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
21:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1
21:30	0	0	0	0	0	0	0	0	0	3	0	3	0	0	0	0	0	0
21:45	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0	0	4	0	4	0	0	0	1	0	1
22:00	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0
22:15	0	0	0	0	0	0	0	0	0	2	1	3	0	0	0	0	0	0
22:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
22:45	0	0	0	0	0	0	0	0	0	1	1	2	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0	0	4	2	6	0	0	0	0	0	0
23:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23:30	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0
23:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0
24 TOT	16	2	18	21	2	23	69	31	100	83	30	113	84	2	86	50	4	54



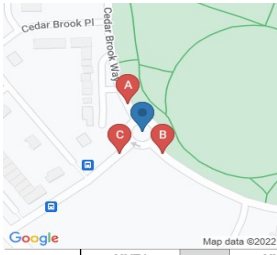
IDASO

Survey Name: 384 22578 - 22-010 Cherry Orchard Sites 4 & 5 Traffic Counts
Site: Site 5 Pedestrian
Location: Park W Ave/Park W Rd/Unnamed Rd
Date: Tue 08-Nov-2022



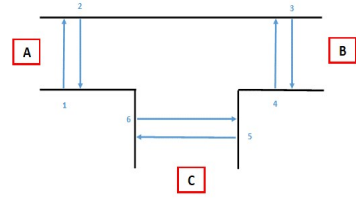
TIME	MVT1			MVT2			MVT3			MVT4			MVT5			MVT6			MVT7			MVT8		
	PEDS	PC	TOT	PEDS	PC	TOT	PEDS	PC	TOT	PEDS	PC	TOT	PEDS	PC	TOT	PEDS	PC	TOT	PEDS	PC	TOT	PEDS	PC	TOT
00:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
00:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
00:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
00:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:30	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2
H/TOT	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2
05:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1
05:15	0	0	0	0	0	0	2	1	3	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0
05:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	2
05:45	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	3	1	4	1	0	1	0	0	0	0	0	0	0	0	0	2	1	3
06:00	0	0	0	0	0	0	1	0	1	0	1	1	0	0	0	0	0	0	0	0	0	2	0	2
06:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
06:30	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	1	0	1	0	0	0	2	1	3
06:45	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	2	0	2
H/TOT	0	0	0	0	0	0	1	1	2	1	1	2	0	0	0	1	0	1	0	0	0	6	1	7
07:00	0	0	0	0	0	0	0	3	3	0	0	0	0	0	0	0	0	0	0	1	1	6	0	6
07:15	0	0	0	0	0	0	3	3	6	0	1	1	1	0	1	0	0	0	0	0	0	4	2	6
07:30	0	0	0	0	0	0	2	2	4	0	0	0	1	0	1	0	0	0	0	0	0	5	1	6
07:45	0	0	0	0	0	0	4	2	6	0	0	0	0	0	0	0	0	0	0	0	0	8	1	9
H/TOT	0	0	0	0	0	0	9	10	19	0	1	1	2	0	2	0	0	0	0	1	1	23	4	27
08:00	0	0	0	0	0	0	6	0	6	1	1	2	0	0	0	1	0	1	0	0	0	8	0	8
08:15	0	0	0	0	0	0	7	0	7	0	0	0	1	0	1	0	0	0	0	0	0	16	0	16
08:30	0	0	0	0	0	0	1	1	2	0	0	0	1	0	1	0	0	0	0	0	0	9	2	11
08:45	0	0	0	0	0	0	7	2	9	0	0	0	1	0	1	1	0	1	0	0	0	30	1	31
H/TOT	0	0	0	0	0	0	21	3	24	1	1	2	3	0	3	2	0	2	0	0	0	63	3	66
09:00	0	0	0	0	0	0	2	0	2	0	0	0	0	0	0	0	0	0	0	0	0	1	1	2
09:15	0	0	0	0	0	0	3	2	5	0	0	0	0	0	0	0	0	0	0	1	1	4	0	4
09:30	0	0	0	0	0	0	5	0	5	0	0	0	0	0	0	0	0	0	2	0	2	1	0	1
09:45	4	0	4	0	0	0	2	0	2	1	0	1	0	0	0	0	0	0	1	0	1	9	0	9
H/TOT	4	0	4	0	0	0	12	2	14	1	0	1	0	0	0	0	0	0	3	1	4	15	1	16
10:00	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	1	0	1	1	0	1
10:15	0	0	0	0	0	0	2	0	2	0	0	0	1	0	1	1	0	1	0	0	0	10	0	10
10:30	0	0	0	0	0	0	0	1	1	0	1	1	0	0	0	0	0	0	1	0	1	1	0	1
10:45	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1
H/TOT	0	0	0	0	0	0	3	1	4	0	2	2	1	0	1	1	0	1	2	0	2	13	0	13
11:00	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	2	1	0	1
11:15	1	0	1	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	2
11:30	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0
11:45	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1
H/TOT	2	0	2	2	0	2	0	1	1	0	0	0	0	0	0	0	0	0	2	1	3	4	0	4
12:00	0	0	0	0	0	0	1	0	1	1	0	1	0	0	0	0	0	0	1	0	1	1	0	1
12:15	2	0	2	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	2	1	3	3	0	3
12:30	1	0	1	0	0	0	0	0	0	1	1	1	0	1	1	0	1	3	0	3	1	1	2	2
12:45	1	0	1	0	0	0	2	0	2	0	0	0	2	0	2	1	0	1	1	0	1	3	0	3
H/TOT	4	0	4	0	0	0	3	0	3	1	1	2	3	0	3	3	0	3	7	1	8	8	1	9
13:00	0	0	0	1	0	1	3	0	3	0	1	1	0	0	0	2	0	2	3	0	3	2	0	2
13:15	0	0	0	1	0	1	0	0	0	0	0	0	2	0	2	2	0	2	3	0	3	3	0	3
13:30	0	0	0	0	0	0	0	1	1	0	0	0	2	0	2	2	0	2	0	0	0	0	0	0
13:45	0	1	1	0	0	0	3	0	3	2	0	2	2	0	2	0	0	0	0	1	1	1	0	1
H/TOT	0	1	1	2	0	2	6	1	7	2	1	3	6	0	6	6	0	6	6	1	7	6	0	6
14:00	1	0	1	0	0	0	0	3	3	0	0	0	2	0	2	0	0	0	2	0	2	1	0	1
14:15	0	0	0	0	0	0	1	0	1	3	0	3	1	0	1	0	0	0	6	0	6	0	0	0
14:30	0	0	0	0	0	0	2	0	2	0	0	0	0	0	0	0	0	0	1	1	2	0	0	0
14:45	2	0	2	0	0	0	0	1	1	1	0	1	0	0	0									

15:30	0	0	0	0	0	0	0	0	0	1	0	1	2	0	2	0	0	0	3	1	4	1	0	1
15:45	0	0	0	1	0	1	0	0	0	2	1	3	0	0	0	0	0	0	2	2	4	0	0	0
H/TOT	0	1	1	1	0	1	1	0	1	5	3	8	2	0	2	0	0	0	7	4	11	2	0	2
16:00	1	0	1	0	0	0	1	0	1	0	1	1	1	0	1	0	0	0	9	2	11	0	0	0
16:15	0	0	0	1	0	1	0	0	0	0	1	1	0	0	0	0	0	0	6	2	8	2	0	2
16:30	1	0	1	1	0	1	3	0	3	3	1	4	1	0	1	0	0	0	7	2	9	1	0	1
16:45	0	0	0	1	0	1	0	1	1	1	2	3	0	0	0	0	0	0	18	3	21	1	1	2
H/TOT	2	0	2	3	0	3	4	1	5	4	5	9	2	0	2	0	0	0	40	9	49	4	1	5
17:00	0	0	0	0	0	0	2	0	2	4	3	7	2	0	2	0	0	0	14	4	18	0	0	0
17:15	0	0	0	0	0	0	4	0	4	5	2	7	1	0	1	1	0	1	9	1	10	1	0	1
17:30	0	0	0	0	0	0	2	2	4	2	1	3	1	0	1	0	0	0	9	0	9	2	0	2
17:45	0	0	0	0	0	0	0	0	0	2	0	2	1	0	1	0	0	0	11	2	13	0	0	0
H/TOT	0	0	0	0	0	0	8	2	10	13	6	19	5	0	5	1	0	1	43	7	50	3	0	3
18:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	3	0	3
18:15	0	0	0	0	0	0	1	0	1	1	1	2	1	0	1	0	0	0	5	1	6	0	0	0
18:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	1	5	2	0	2
18:45	0	0	0	0	0	0	1	0	1	6	0	6	1	0	1	0	0	0	1	0	1	0	0	0
H/TOT	0	0	0	0	0	0	2	0	2	7	1	8	2	0	2	0	0	0	10	3	13	5	0	5
19:00	0	0	0	0	0	0	0	0	0	1	1	2	0	0	0	0	0	0	1	1	2	1	1	2
19:15	0	0	0	0	0	0	1	1	2	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0
19:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6	0	6	1	1	2
19:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	2	3	1	0	1
H/TOT	0	0	0	0	0	0	1	1	2	2	1	3	0	0	0	0	0	0	8	3	11	3	2	5
20:00	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0
20:15	0	0	0	0	0	0	0	1	1	0	0	0	1	0	1	0	0	0	1	0	1	0	0	0
20:30	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	1	1	0	0	0	1	0	1
20:45	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	2	2	4	0	0	0	1	0	1	0	1	1	2	0	2	1	0	1
21:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0
21:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0
21:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
21:45	0	0	0	0	0	0	0	0	0	2	0	2	0	0	0	0	0	0	1	0	1	0	0	0
H/TOT	0	0	0	0	0	0	0	0	0	2	0	2	0	0	0	0	0	0	2	1	3	0	0	0
22:00	0	0	0	0	0	0	0	0	0	2	0	2	0	0	0	0	0	0	0	0	0	1	0	1
22:15	0	0	0	0	0	0	0	0	0	2	2	4	0	0	0	0	0	0	0	0	0	0	0	0
22:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1
22:45	0	0	0	0	0	0	0	0	0	1	1	2	0	0	0	0	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0	0	5	3	8	0	0	0	0	0	0	0	0	0	2	0	2
23:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1	0	1
23:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	2
23:30	0	0	0	1	0	1	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
H/TOT	0	0	0	1	0	1	1	0	1	0	0	0	0	0	0	0	0	0	1	0	1	3	0	3
24 TOT	15	2	17	9	0	9	80	31	111	49	26	75	30	0	30	14	1	15	145	33	178	165	16	181



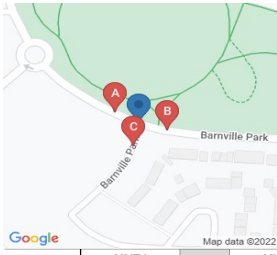
IDASO

Survey Name: 384 22578 - 22-010 Cherry Orchard Sites 4 & 5 Traffic Counts
Site: Site 6 Pedestrian
Location: Cedar Brook Way/Unnamed Rd
Date: Tue 08-Nov-2022



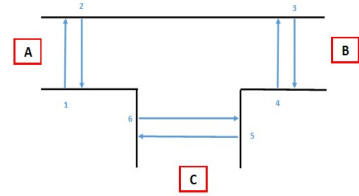
TIME	MVT1			MVT2			MVT3			MVT4			MVT5			MVT6		
	PEDS	PC	TOT	PEDS	PC	TOT	PEDS	PC	TOT	PEDS	PC	TOT	PEDS	PC	TOT	PEDS	PC	TOT
00:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
00:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
00:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
00:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
06:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
06:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
06:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
06:45	1	0	1	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0
H/TOT	1	0	1	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0
07:00	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0
07:15	0	0	0	0	0	0	1	1	2	0	0	0	0	0	0	0	0	0
07:30	0	0	0	0	0	0	0	0	0	1	0	1	1	0	1	0	0	0
07:45	0	0	0	1	0	1	1	0	1	0	0	2	0	2	2	0	2	2
H/TOT	0	0	0	2	0	2	2	1	3	1	0	1	3	0	3	2	0	2
08:00	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0
08:15	0	0	0	0	0	0	1	0	1	2	0	2	0	0	0	0	0	0
08:30	0	0	0	0	0	0	2	0	2	20	0	20	0	0	0	0	0	0
08:45	0	0	0	0	0	0	3	0	3	3	0	3	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	6	0	6	26	0	26	0	0	0	0	0	0
09:00	0	0	0	0	0	0	1	0	1	2	0	2	0	0	0	0	0	0
09:15	0	0	0	0	0	0	2	0	2	2	0	2	0	0	0	0	0	0
09:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
09:45	0	0	0	0	0	0	1	0	1	2	0	2	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	4	0	4	6	0	6	0	0	0	0	0	0
10:00	0	0	0	0	0	0	2	0	2	0	0	0	0	0	0	0	0	0
10:15	0	0	0	0	0	0	0	0	0	4	0	4	1	0	1	0	0	0
10:30	0	0	0	0	0	0	1	0	1	1	0	1	0	0	0	0	0	0
10:45	0	0	0	0	0	0	0	0	0	2	0	2	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	3	0	3	7	0	7	1	0	1	0	0	0
11:00	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0
11:15	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0
11:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:45	0	0	0	0	0	0	1	0	1	1	0	1	1	0	1	0	0	0
H/TOT	0	0	0	0	0	0	2	0	2	2	0	2	1	0	1	0	0	0
12:00	0	0	0	0	0	0	0	0	0	3	0	3	0	0	0	0	0	0
12:15	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0
12:30	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0
12:45	0	0	0	1	0	1	1	0	1	3	0	3	0	0	0	1	0	1
H/TOT	0	0	0	1	0	1	3	0	3	6	0	6	0	0	0	1	0	1
13:00	1	0	1	0	0	0	2	0	2	0	0	0	0	0	0	0	0	0
13:15	0	0	0	0	0	0	1	0	1	2	0	2	0	0	0	0	0	0
13:30	0	0	0	0	0	0	4	0	4	0	0	0	0	0	0	0	0	0
13:45	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0
H/TOT	1	0	1	0	0	0	7	0	7	3	0	3	0	0	0	0	0	0
14:00	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0
14:15	0	0	0	0	0	0	0	0	0	3	0	3	0	0	0	0	0	0
14:30	0	0	0	0	0	0	12	0	12	0	0	0	0	0	0	0	0	0
14:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	13	0	13	3	0	3	0	0	0	0	0	0
15:00	0	0	0	0	0	0	2	0	2	1	0	1	0	0	0	0	0	0
15:15	0	0	0	0	0	0	1	0	1	1	0	1	0	0	0	0	0	0

15:30	0	0	0	0	0	0	2	0	2	0	0	0	0	0	0	0	0
15:45	0	0	0	0	0	0	1	0	1	1	1	2	0	0	0	0	0
H/TOT	0	0	0	0	0	0	6	0	6	3	1	4	0	0	0	0	0
16:00	0	0	0	0	0	0	1	1	2	0	0	0	0	0	0	0	0
16:15	0	0	0	0	2	2	1	1	2	1	0	1	1	0	1	0	0
16:30	2	0	2	0	0	0	1	1	2	3	0	3	1	0	1	0	0
16:45	0	0	0	0	0	0	2	0	2	2	0	2	0	0	0	0	0
H/TOT	2	0	2	0	2	2	5	3	8	6	0	6	2	0	2	0	0
17:00	2	0	2	0	0	0	3	0	3	11	0	11	2	0	2	0	0
17:15	0	0	0	0	0	0	3	0	3	2	0	2	0	0	0	0	0
17:30	2	0	2	0	0	0	1	0	1	0	0	0	2	0	2	0	0
17:45	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0
H/TOT	4	0	4	0	0	0	8	0	8	13	0	13	4	0	4	0	0
18:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18:15	0	0	0	0	0	0	0	0	0	1	0	1	1	0	1	0	0
18:30	1	0	1	0	0	0	0	0	0	2	0	2	0	0	0	0	0
18:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
H/TOT	1	0	1	0	0	0	0	0	0	3	0	3	1	0	1	0	0
19:00	0	0	0	1	0	1	0	0	0	0	0	0	1	0	1	0	0
19:15	2	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0
19:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
19:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
H/TOT	2	0	2	1	0	1	0	0	0	0	0	0	1	0	1	0	0
20:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
20:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
20:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
20:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
21:00	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0
21:15	3	0	3	0	0	0	0	0	0	0	0	0	1	0	1	0	0
21:30	2	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0
21:45	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0
H/TOT	5	0	5	0	0	0	0	1	1	1	0	1	1	0	1	0	0
22:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
22:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
22:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
22:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23:45	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0
24 TOT	16	0	16	4	2	6	59	5	64	82	1	83	14	0	14	3	0



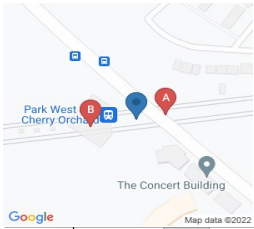
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Survey Name: 384 22578 - 22-010 Cherry Orchard Sites 4 & 5 Traffic Counts
Site: Site 7 Pedestrian
Location: Unnamed Rd/Barnville Park
Date: Tue 08-Nov-2022



TIME	MVT1			MVT2			MVT3			MVT4			MVT5			MVT6		
	PEDS	PC	TOT	PEDS	PC	TOT	PEDS	PC	TOT	PEDS	PC	TOT	PEDS	PC	TOT	PEDS	PC	TOT
00:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
00:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
00:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
00:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:15	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0
01:30	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0
01:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	2	0	2	0	0	0	0	0	0	0	0	0
02:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:00	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0
05:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0
06:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
06:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
06:30	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0
06:45	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0	0	0	2	0	2	0	0	0	0	0
07:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:15	0	0	0	0	0	0	0	0	0	1	1	0	1	0	0	0	0	0
07:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:45	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0	0	1	2	0	2	0	0	0	0	0
08:00	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0
08:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:30	0	0	0	0	0	0	0	0	4	0	4	0	0	0	0	0	0	0
08:45	0	0	0	0	0	0	1	0	1	5	0	5	1	0	1	0	0	0
H/TOT	0	0	0	0	0	0	1	0	1	9	0	9	2	0	2	0	0	0
09:00	0	0	0	0	0	0	2	0	2	0	0	0	0	0	0	0	0	0
09:15	0	0	0	0	0	0	0	0	2	0	2	0	0	0	0	0	0	0
09:30	0	0	0	0	0	0	1	0	1	3	0	3	1	0	1	2	0	2
09:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	3	0	3	5	0	5	1	0	1	2	0	2
10:00	0	0	0	0	0	0	0	0	0	2	0	2	1	0	1	0	0	0
10:15	0	0	0	0	0	0	0	0	0	0	0	0	2	0	2	2	0	2
10:30	0	0	0	0	0	0	4	0	4	0	1	1	0	0	0	0	0	0
10:45	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	4	0	4	3	1	4	3	0	3	2	0	2
11:00	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0
11:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:30	0	0	0	0	0	0	0	0	0	2	0	2	0	0	0	0	0	0
11:45	0	0	0	0	0	0	1	0	1	1	0	1	2	0	2	0	0	0
H/TOT	0	0	0	0	0	0	2	0	2	3	0	3	2	0	2	0	0	0
12:00	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0
12:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:30	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0
12:45	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	1	0	1
H/TOT	0	0	0	0	0	0	2	0	2	1	0	1	0	0	0	1	0	1
13:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13:15	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0
13:30	0	0	0	0	0	0	2	0	2	1	0	1	1	0	1	0	0	0
13:45	0	0	0	0	0	0	2	0	2	1	0	1	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	4	0	4	3	0	3	1	0	1	0	0	0
14:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1
14:15	0	0	0	0	0	0	0	0	0	2	0	2	0	0	0	0	0	0
14:30	0	0	0	0	0	0	5	0	5	2	0	2	2	0	2	4	0	4
14:45	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	2	0	2
H/TOT	0	0	0	0	0	0	6	0	6	4	0	4	2	0	2	7	0	7
15:00	0	0	0	0	0	0	0	0	0	1	0	1	2	0	2	4	2	6
15:15	0	0	0	0	0	0	2	0	2	2	0	2	2	0	2	0	0	0

15:30	0	0	0	0	0	0	0	0	6	0	6	0	0	0	0	0
15:45	0	0	0	0	0	0	5	0	5	0	0	0	0	0	4	4
H/TOT	0	0	0	0	0	0	7	0	7	9	0	9	4	0	4	10
16:00	0	0	0	0	0	0	0	0	0	1	0	1	0	0	3	3
16:15	0	0	0	0	0	0	2	0	2	1	0	1	0	0	2	3
16:30	0	0	0	0	0	0	1	0	1	3	0	3	1	0	1	3
16:45	0	0	0	0	0	0	5	0	5	0	0	0	1	0	1	2
H/TOT	0	0	0	0	0	0	8	0	8	5	0	5	2	0	2	11
17:00	0	0	0	0	0	0	1	0	1	3	0	3	3	0	3	2
17:15	0	0	0	0	0	0	1	0	1	2	0	2	1	0	1	1
17:30	0	0	0	0	0	0	2	0	2	0	0	0	0	0	1	1
17:45	0	0	0	0	0	0	5	0	5	4	0	4	0	0	0	0
H/TOT	0	0	0	0	0	0	9	0	9	9	0	9	4	0	4	4
18:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1
18:15	0	0	0	0	0	0	1	0	1	4	0	4	1	0	1	2
18:30	0	0	0	0	0	0	1	0	1	0	0	0	0	0	3	3
18:45	0	0	0	0	0	0	2	0	2	1	0	1	4	0	4	1
H/TOT	0	0	0	0	0	0	4	0	4	5	0	5	5	0	5	7
19:00	0	0	0	0	0	0	1	0	1	0	0	0	1	0	1	2
19:15	0	0	0	0	0	0	2	0	2	0	0	0	1	0	1	2
19:30	0	0	0	0	0	0	2	0	2	1	0	1	0	0	1	1
19:45	0	0	0	0	0	0	0	0	0	1	0	1	0	0	3	3
H/TOT	0	0	0	0	0	0	5	0	5	2	0	2	2	0	2	8
20:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
20:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
20:30	0	0	0	0	0	0	2	0	2	1	0	1	0	0	0	1
20:45	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	3	0	3	1	0	1	0	0	0	1
21:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1
21:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1
21:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
21:45	0	0	0	0	0	0	1	0	1	1	0	1	0	0	0	0
H/TOT	0	0	0	0	0	0	1	0	1	1	0	1	0	0	2	2
22:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1
22:15	0	0	0	0	0	0	3	0	3	4	0	4	0	0	1	1
22:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
22:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1
H/TOT	0	0	0	0	0	0	3	0	3	4	0	4	0	0	3	3
23:00	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0
23:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1
23:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	1
24 TOT	0	0	0	0	0	0	65	0	65	65	1	66	33	0	33	54



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Survey Name: 384 22578 - 22-010 Cherry Orchard Sites 4 & 5 Traffic Counts
Site: Site 8 Pedestrian
Location: Park West and Cherry Orchard
Date: Tue 08-Nov-2022



TIME	MVT1			MVT2		
	PEDS	PC	TOT	PEDS	PC	TOT
00:00	0	0	0	0	0	0
00:15	1	0	1	1	0	1
00:30	0	0	0	0	0	0
00:45	0	0	0	0	0	0
H/TOT	1	0	1	1	0	1
01:00	0	0	0	0	0	0
01:15	0	0	0	0	0	0
01:30	0	0	0	0	0	0
01:45	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0
02:00	0	0	0	0	0	0
02:15	0	0	0	0	0	0
02:30	0	0	0	0	0	0
02:45	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0
03:00	0	0	0	0	0	0
03:15	0	0	0	0	0	0
03:30	0	0	0	0	0	0
03:45	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0
04:00	1	0	1	1	0	1
04:15	0	0	0	0	0	0
04:30	0	0	0	0	0	0
04:45	0	0	0	0	0	0
H/TOT	1	0	1	1	0	1
05:00	0	0	0	0	0	0
05:15	0	0	0	0	0	0
05:30	0	0	0	0	0	0
05:45	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0
06:00	1	0	1	1	0	1
06:15	2	0	2	1	0	1
06:30	19	0	19	1	0	1
06:45	19	0	19	5	3	8
H/TOT	41	0	41	8	3	11
07:00	6	0	6	11	2	13
07:15	18	0	18	0	0	0
07:30	19	0	19	20	0	20
07:45	16	0	16	40	1	41
H/TOT	59	0	59	71	3	74
08:00	13	0	13	0	0	0
08:15	18	0	18	58	2	60
08:30	8	0	8	84	3	87
08:45	4	0	4	21	1	22
H/TOT	43	0	43	163	6	169
09:00	2	0	2	0	0	0
09:15	2	0	2	29	1	30
09:30	2	0	2	2	0	2
09:45	2	0	2	12	0	12
H/TOT	8	0	8	43	1	44
10:00	3	0	3	0	0	0
10:15	5	0	5	16	0	16
10:30	3	0	3	0	0	0
10:45	1	0	1	0	0	0
H/TOT	12	0	12	16	0	16
11:00	0	0	0	3	0	3
11:15	6	0	6	0	0	0
11:30	6	0	6	10	0	10
11:45	6	0	6	4	0	4
H/TOT	18	0	18	17	0	17
12:00	2	0	2	3	0	3
12:15	7	0	7	0	0	0
12:30	6	0	6	4	0	4
12:45	7	0	7	0	0	0
H/TOT	22	0	22	7	0	7
13:00	6	0	6	7	0	7
13:15	4	0	4	1	0	1
13:30	8	0	8	3	0	3
13:45	7	0	7	2	0	2
H/TOT	25	0	25	13	0	13
14:00	6	0	6	2	0	2
14:15	1	0	1	5	0	5
14:30	9	0	9	3	0	3
14:45	2	0	2	4	0	4
H/TOT	18	0	18	14	0	14
15:00	3	0	3	3	0	3
15:15	1	0	1	3	0	3
15:30	5	0	5	4	0	4
15:45	1	0	1	11	0	11
H/TOT	10	0	10	21	0	21
16:00	1	0	1	6	0	6
16:15	4	0	4	22	1	23
16:30	3	1	4	7	0	7
16:45	1	0	1	41	1	42
H/TOT	9	1	10	76	2	78
17:00	62	3	65	20	1	21

17:15	33	1	34	7	0	7
17:30	38	2	40	17	0	17
17:45	24	0	24	0	0	0
H/TOT	157	6	163	44	1	45
18:00	7	1	8	33	0	33
18:15	15	0	15	5	0	5
18:30	2	1	3	24	1	25
18:45	5	0	5	11	0	11
H/TOT	29	2	31	73	1	74
19:00	1	0	1	7	1	8
19:15	2	0	2	8	0	8
19:30	6	0	6	2	0	2
19:45	3	0	3	9	0	9
H/TOT	12	0	12	26	1	27
20:00	2	0	2	3	0	3
20:15	3	0	3	7	0	7
20:30	0	0	0	1	0	1
20:45	1	0	1	0	0	0
H/TOT	6	0	6	11	0	11
21:00	1	0	1	3	0	3
21:15	0	0	0	0	0	0
21:30	1	0	1	2	0	2
21:45	1	0	1	2	0	2
H/TOT	3	0	3	7	0	7
22:00	1	0	1	6	0	6
22:15	1	0	1	3	0	3
22:30	3	0	3	2	0	2
22:45	1	0	1	1	1	2
H/TOT	6	0	6	12	1	13
23:00	0	0	0	6	0	6
23:15	0	0	0	2	0	2
23:30	0	0	0	1	0	1
23:45	0	0	0	3	0	3
H/TOT	0	0	0	12	0	12
24 TOT	480	9	489	636	19	655

IDASO
Innovative Data Solutions



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Email: info@idaso.ie

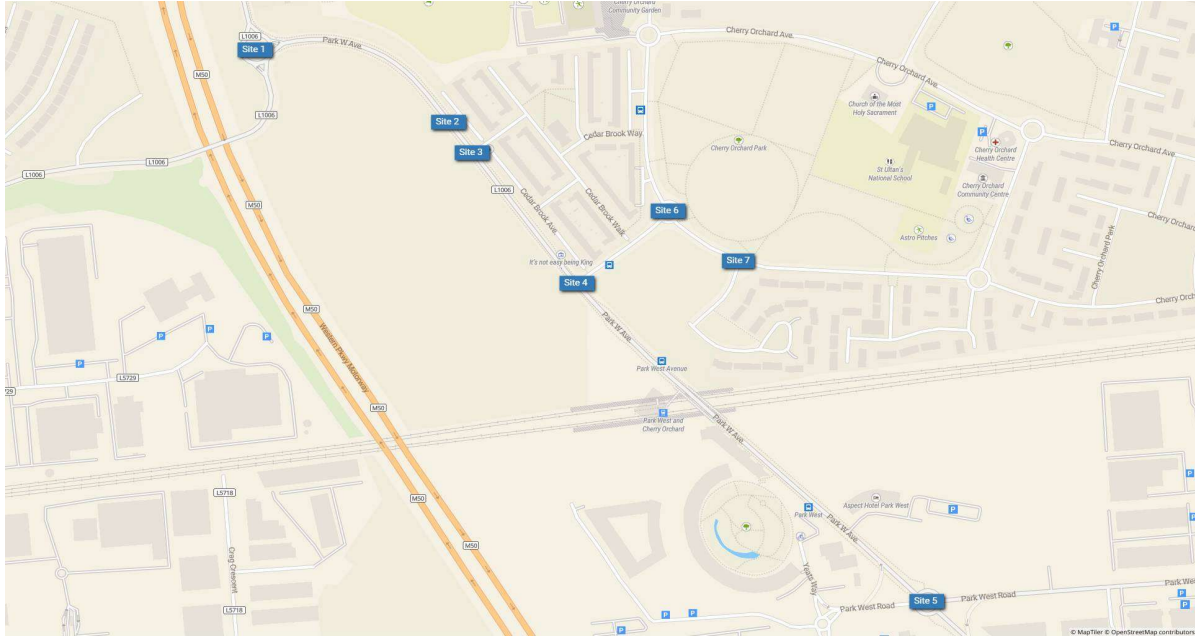


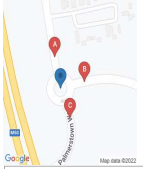
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Data Analysis Services
Traffic-Transportation- Commercial-Innovation

384 22578 - 22-010 Cherry Orchard Sites 4 & 5 Traffic Counts

with compliments



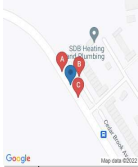


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Survey Name: 384 22578 - 22-010 Cherry Orchard Sites 4 & 5 Traffic Counts
Site: Site 1
Location: Cloverhill Rd/Unnamed Rd/Palmerston Way
Date: Tue 08-Nov-2022

Table with columns for traffic counts (P/C, M/C, CAR, LGV, OGV1, OGV2, PSV, TOT, PCU) and direction (A=>A, A=>B, A=>C, B=>A). The table contains multiple rows of data for each direction, showing counts for various vehicle types and total values.

B => B					B => C										C => A										C => B																															
LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C	CAR	LGV	OGV1	OGV2																		
0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	2	0	0	4	0	0	0	0	0	8	8	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0															
0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	3	0	0	4	0	0	0	0	0	4	4	0	0	0	3	1	0	0	0	0	4	4	0	0	0	0	0															
0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2	0	0	1	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0														
0	0	0	0	0	0	0	0	0	0	0	0	0	0	6	7	0	0	13	2	0	0	0	0	15	15	4	0	4	1	0	0	0	0	9	5.8	0	0	0	0	0	0	0														
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0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2	0	0	2	0	0	0	0	0	2	2	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0													
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	2	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0													
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0	0	0	0	0	4	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0												
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0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	6	1	0	0	0	0	7	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0												
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0											
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0	0	0	0	0	0	0	0	0	0	0	0	0	0	6	6	0	0	68	10	4	0	0	84	84.7	7	0	35	11	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0											
0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	29	7	0	1	0	38	38.5	0	0	11	3	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0										
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	30	3	1	1	0	36	37	1	0	25	14	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0										
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	34	5	3	0	0	42	43.5	2	1	37	9	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0									
0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2	0	0	62	7	2	1	0	75	75.1	3	0	41	0	2	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0									
0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	3	0	0	155	22	6	3	0	191	194.1	6	1	114	26	4	5	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0									
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	32	6	2	1	0	42	43.7	0	1	43	13	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0								
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0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	118	30	8	3	0	161	167.5	3	2	185	32	9	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0							
0	0	0	0	0	0	0	0	0	0	0	0	0	0	33	37.4	1	0	16	2	3	0	0	22	22.7	2	0	25	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0							
0	0	0	0	0	0	0	0	0	0	0	0	0	0	21	24.8	0	0	31	2	2	1	0	36	38.3	0	0	33	11	2	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0						
0	0	0	0	0	0	0	0	0	0	0	0	0	0	26	27.8	0	0	20	8	4	4	0	37	43.6	0	0	29	6	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0						
0	0	0	0	0	0	0	0	0	0	0	0	0	0	20	18.9	0	0	17	3	5	4	0	29	36.7	2	0	22	8	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0						
0	0	0	0	0	0	0	0	0	0	0	0	0	0	100	108.9	1	1	84	15	14	9	0	124	141.3	4	0	99	29	6	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
0	0	0	0	0	0	0	0	0	0	0	0	0	0	11	11.7	0	0	24	5	4	3	0	36	41.9	0	0	17	9	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0					
0	0	0	0	0	0	0	0	0	0	0	0	0	0	17	18.5	0	0	27	4	2	1	0	34	36.3	0	1	9	6	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
0	0	0	0	0	0	0	0	0	0	0	0	0	0	21	23.3	0	0	27	14	1	0	0	42	42.5	0	1	14	9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
0	0	0	0	0	0	0	0	0	0	0	0	0	0	19	21	0	0	24	6	0	3	0	42	46.9	0	0	0	9	2	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
0	0	0	0	0	0	0	0	0	0	0	0	0	0	68	74.5	0	0	109	29	7	0	0	154	167.6	0	2	46	26	8	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
0	0	0	0	0	0	0	0	0	0	0	0	0	0	18	20	1	0	30	8	0	2	0	41	42.8	0	0	15	4	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
0	0	0	0	0	0	0	0	0	0	0	0	0	0	20	24.1	0	0	18	6	1	1	0	26	27.8	0	0	17	11	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
0	0	0	0	0	0	0	0	0	0	0	0	0	0	22	25.3	0	0	19	7	1	1	0	28	29.8	0	0	12	8	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
0	0	0	0	0	0	0	0	0	0	0	0	0	0	20	19.7	0	0	25	7	2	1	0	35	37.3	1	0	19	4	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	80	89.1	1	0	92	28	4	5	0	130	137.7																																



IDASO

Survey Name: 384 22578 - 22-010 Cherry Orchard Sites 4 & 5 Traffic Counts
Site: Site 2
Location: Unnamed Rd/Cedar Brook Ave
Date: Tue 08-Nov-2022

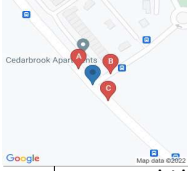
Table with columns for TIME, M/C, CAR, LGV, OGV1, OGV2, PSV, TOT, PCU, P/C, M/C, CAR, LGV, OGV1, OGV2, PSV, TOT, PCU, P/C, M/C, CAR, LGV, OGV1, OGV2, PSV, TOT, PCU, P/C, M/C, CAR, LGV, OGV1, OGV2, PSV, TOT, PCU, P/C, M/C, CAR, LGV, OGV1, OGV2, PSV, TOT, PCU, P/C, M/C, CAR. Rows represent time intervals from 00:00 to 24:00.



IDASO

Survey Name: 384 22578 - 22-010 Cherry Orchard Sites 4 & 5 Traffic Counts
Site: Site 3
Location: Unnamed Rd/Cedar Brook Walk
Date: Tue 08-Nov-2022

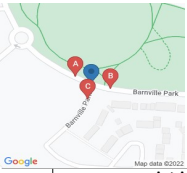
Table with columns for TIME, P/C, M/C, CAR, LGV, OGV1, OGV2, PSV, TOT, PCU, and sub-columns for directions A=>A, A=>B, A=>C, and B=>A. The table contains traffic count data for every 5 minutes from 00:00 to 24:00.



IDASO

Survey Name: 384 22578 - 22-010 Cherry Orchard Sites 4 & 5 Traffic Counts
Site: Site 4
Location: Unnamed Rd
Date: Tue 08-Nov-2022

Table with columns: TIME, P/C, M/C, CAR, LGV, OGV1, OGV2, PSV, TOT, PCU, A=>A, A=>B, A=>C, B=>A, TOT, PCU, P/C, M/C, CAR, LGV, OGV1, OGV2, PSV, TOT, PCU, P/C, M/C, CAR, LGV, OGV1, OGV2, PSV, TOT, PCU, P/C, M/C, CAR, LGV, OGV1, OGV2, PSV, TOT, PCU. Rows represent 5-minute intervals from 06:00 to 24:00.



IDASO

Survey Name: 384 22578 - 22-010 Cherry Orchard Sites 4 & 5 Traffic Counts
Site: Site 7
Location: Unnamed Rd/Barnville Park
Date: Tue 08-Nov-2022

Table with columns for TIME, P/C, M/C, CAR, LGV, OG1, OG2, PSV, TOT, PCU, and sub-sections for A=>A, A=>B, A=>C, B=>A. Rows represent 5-minute intervals from 00:00 to 24:00.

B. Bus Timetables

60**Sir John Rogerson's Quay to Red Cow**

Is iad seo na hamanna imeachta ón gcéad stad

These are the departure times from the first stop

Luan - Aoine Monday - Friday	Satharn Saturday	Domhnach & Saoire Baine Sunday & Bank Holidays
05:30 06:30 07:30 08:30 09:30	06:30 07:30 08:30 09:30	07:30 08:30 09:30 10:30
10:30 11:30 12:30 13:30 14:30	10:30 11:30 12:30 13:30	11:30 12:30 13:30 14:30
15:30 16:30 17:30 18:30 19:30	14:30 15:30 16:30 17:30	15:30 16:30 17:30 18:30
20:30 21:30 22:30 23:30	18:30 19:30 20:30 21:30	19:30 20:30 21:30 22:30
	22:30 23:30	23:30

Sir John Rogerson's Quay >> 8mins >> Wellington Quay >> 2mins >> Heuston Station >> 5mins >> Sarsfield Road >> 8mins >> Decies Road >> 6mins >> Ballyfermot (Kylemore Road) >> 7mins >> Cherry Orchard (Spiddal Park) >> 6mins >> Palmerstown Woods >> 10mins >> Clondalkin >> 4mins >> Red Cow Luas

Infheidhme amhail ag / Operative from 16/10/2022

60**Red Cow to Sir John Rogerson's Quay**

Is iad seo na hamanna imeachta ón gcéad stad

These are the departure times from the first stop

Luan - Aoine Monday - Friday	Satharn Saturday	Domhnach & Saoire Baine Sunday & Bank Holidays
05:00 06:00 07:00 08:00 09:00	06:00 07:00 08:00 09:00	08:00 09:00 10:00 11:00
10:00 11:00 12:00 13:00 14:00	10:00 11:00 12:00 13:00	12:00 13:00 14:00 15:00
15:00 16:00 17:00 18:00 19:00	14:00 15:00 16:00 17:00	16:00 17:00 18:00 19:00
20:00 21:00 22:00 23:00	18:00 19:00 20:00 21:00	20:00 21:00 22:00 23:00
	22:00 23:00	

Red Cow Luas >> 6mins >> Clondalkin >> 8mins >> Palmerstown Woods >> 9mins >> Cherry Orchard (Spiddal Park) >> 8mins >> Ballyfermot (Kylemore Road) >> 4mins >> Decies Road >> 8mins >> Memorial Gardens >> 6mins >> Heuston Station >> 6mins >> Ormond Quay >> 11mins >> Sir John Rogerson's Quay

Infheidhme amhail ag / Operative from 16/10/2022



Sráid an Dáma, An Carnán, Bóthar Dhroimeanaigh, An Pháirc Thiar, Baile an tSionnaigh

Monday – Friday				Saturday				Sunday			
06:40	07:05	07:25	07:45	07:20	07:40	08:00	08:20	08:40	09:10	09:40	10:10
08:05	08:20	08:35	08:55	08:40	09:00	09:20	09:40	10:40	11:10	11:40	12:10
09:15	09:35	09:55	10:15	10:00	10:20	10:40	11:00	12:40	13:10	13:40	14:10
10:35	10:50	11:10	11:30	11:20	11:40	12:00	12:20	14:40	15:10	15:40	16:10
11:50	12:10	12:30	12:50	12:40	13:00	13:20	13:40	16:40	17:10	17:40	18:10
13:10	13:30	13:50	14:10	14:00	14:20	14:40	15:00	18:40	19:10	19:40	20:10
14:30	14:50	15:10	15:30	15:20	15:40	16:00	16:20	20:40	21:10	21:40	22:10
15:55	16:15	16:35	16:55	16:40	17:00	17:20	17:40	22:40	23:10	23:30	
17:15	17:35	17:55	18:15	18:00	18:20	18:40	19:00				
18:35	18:50	19:10	19:40	19:20	19:40	20:10	20:40				
20:10	20:40	21:10	21:40	21:10	21:40	22:10	22:40				
22:10	22:40	23:10	23:30	23:10	23:30						

Dame St. » 15 mins » Dolphin's Barn » 15 mins » Drimnagh Rd. » 15 mins » Parkwest » 15 mins » Foxborough

All times are off peak estimates



Fare stages

22 78	Docklands (East Rd.)	35 65	Drimnagh Rd. (Halfway House)
23 77	Docklands Rail Station	36 64	Long Mile Rd. (Walkinstown Ave.)
24 76	Eden Quay	37 63	Long Mile Rd. (Robinhood Park)
25 75	Hawkins St.	38 62	New Nangor Rd. (Jct. Killeen Rd.)
26 74	Werburgh St.	39 61	New Nangor Rd. (Willow Rd.)
27 73	Kevin St. (Patrick St.)	40 60	New Nangor Rd. (Oak Rd.)
28 72	Cork St. (Ardee St.)	41 59	New Nangor Rd. (Woodford Walk)
29 71	Cork St. (Donore Ave.)	42 58	Nangor Rd. (Michael Collins Park)
30 70	Cork St. (Coombe Hospital)	43 57	Nangor Rd. (Fonthill Rd.)
31 69	Dolphin's Barn Cross	44 56	Nangor Rd. (Westbourne)
32 68	Crumlin Rd. (Loreto Convent)	45 55	Grange Castle Business Park
33 67	Crumlin Rd. (Bangor Drive)	46 54	Outer Ring Rd.
34 66	Crumlin Rd. (Cooley Rd.)	47 53	Foxborough



Cé Éidin, Ceantar na nDugaí (An Bóthar Thoir)

Monday – Friday				Saturday				Sunday			
06:40	06:55	07:10	07:30	07:00	07:20	07:40	08:10	08:05	08:35	09:05	09:35
07:50	08:00	08:25	08:50	08:30	08:50	09:10	09:30	10:05	10:40	11:10	11:40
09:05	09:20	09:35	09:55	09:50	10:10	10:30	10:50	12:10	12:40	13:10	13:45
10:10	10:30	10:50	11:10	11:10	11:35	11:55	12:15	14:10	14:35	15:00	15:30
11:30	11:50	12:10	12:30	12:35	13:00	13:20	13:40	16:00	16:30	17:00	17:30
12:50	13:10	13:30	13:50	14:00	14:20	14:35	14:55	18:00	18:30	19:00	19:30
14:10	14:30	14:50	15:10	15:20	15:35	15:55	16:15	19:50	20:10	20:40	21:00
15:30	15:50	16:10	16:30	16:35	16:50	17:10	17:30	21:30	22:00	22:30	23:00
16:50	17:10	17:30	18:00	17:50	18:10	18:30	18:50	23:30			
18:20	18:30	18:50	19:00	19:10	19:30	19:50	20:10				
19:20	19:40	20:10	20:40	20:40	21:10	21:40	22:00				
21:10	21:40	22:05	22:35	22:30	23:00	23:30					
23:00	23:30										

Eden Quay » 10 mins » Docklands (East Rd.)

All times are off peak estimates



Fare stages

47 53	Foxborough	34 66	Crumlin Rd. (Cooley Rd.)
46 54	Outer Ring Rd.	33 67	Crumlin Rd. (Bangor Drive)
45 55	Grange Castle Business Park	32 68	Crumlin Rd. (Loreto Convent)
44 56	Nangor Rd. (Westbourne)	31 69	Dolphin's Barn Cross
43 57	Nangor Rd. (Fonthill Rd.)	30 70	Cork St. (Coombe Hospital)
42 58	Nangor Rd. (Michael Collins Park)	29 71	Cork St. (Donore Ave.)
41 59	New Nangor Rd. (Woodford Walk)	28 72	Cork St. (Ardee St.)
40 60	New Nangor Rd. (Oak Rd.)	27 73	Kevin St. (Patrick St.)
39 61	New Nangor Rd. (Willow Rd.)	26 74	Upr. Ormond Quay
38 62	New Nangor Rd. (Jct. Killeen Rd.)	25 75	Eden Quay
37 63	Long Mile Rd. (Robinhood Park)	24 76	Custom House Quay
36 64	Long Mile Rd. (Walkinstown Ave.)	23 77	North Wall Quay
35 65	Drinnagh Rd. (Halfway House)	22 78	Docklands (East Rd.)

G1**New Wapping Street to Red Cow**

Is iad seo na hamanna imeachta ón gcéad stad

These are the departure times from the first stop

Luan - Aoine Monday - Friday	Satharn Saturday	Domhnach & Saoire Baine Sunday & Bank Holidays
04:58 05:28 05:58 06:13 06:28	05:23 05:58 06:28 06:58	05:23 06:23 07:23 07:58
06:41 06:53 07:05 07:17 07:29	07:18 07:38 07:58 08:18	08:28 08:58 09:28 09:57
07:37 07:49 08:01 08:13 08:25	08:38 08:58 09:13 09:28	10:17 10:37 10:57 11:17
08:37 08:52 09:07 09:22 09:41	09:42 09:57 10:12 10:27	11:37 11:57 12:17 12:37
09:56 10:11 10:26 10:41 10:56	10:42 10:57 11:12 11:27	12:57 13:17 13:37 13:57
11:11 11:26 11:41 11:56 12:11	11:42 11:57 12:12 12:27	14:17 14:37 14:57 15:17
12:26 12:41 12:56 13:11 13:26	12:42 12:57 13:12 13:27	15:37 15:57 16:17 16:37
13:41 13:56 14:11 14:26 14:41	13:42 13:57 14:12 14:27	16:57 17:17 17:37 17:57
14:56 15:11 15:26 15:41 15:53	14:42 14:57 15:12 15:27	18:17 18:38 18:58 19:28
16:05 16:17 16:29 16:38 16:50	15:42 15:57 16:12 16:27	19:58 20:28 20:58 21:28
17:02 17:14 17:26 17:38 17:50	16:42 16:57 17:12 17:27	21:58 22:28 22:58 23:28
18:02 18:14 18:26 18:42 18:57	17:42 17:57 18:12 18:27	00:23 01:23 02:23 03:23
19:12 19:27 19:42 19:57 20:12	18:43 18:58 19:18 19:38	04:23
20:27 20:43 20:58 21:13 21:28	19:58 20:18 20:38 20:58	
21:43 21:58 22:13 22:28 22:43	21:18 21:38 21:58 22:18	
22:58 23:28 00:23 01:23 02:23	22:38 22:58 23:28 00:23	
03:23 04:23	01:23 02:23 03:23 04:23	

New Wapping Street >> 8mins >> Wellington Quay >> 4mins >> Thomas Street >> 3mins >> St. James's Hospital >> 5mins >> Inchicore >> 10mins >> Ballyfermot >> 8mins >> Cherry Orchard >> 5mins >> Park West >> 7mins >> Woodford Walk >> 6mins >> Red Cow Luas

Infheidhme amhail ag / Operative from 16/10/2022

G1**Red Cow to New Wapping Street**

Is iad seo na hamanna imeachta ón gcéad stad

These are the departure times from the first stop

Luan - Aoine Monday - Friday	Satharn Saturday	Domhnach & Saoire Bainc Sunday & Bank Holidays
04:44 05:14 05:44 05:59 06:14	05:14 05:44 06:14 06:45	05:15 06:14 07:14 07:34
06:29 06:41 06:53 07:05 07:17	07:05 07:25 07:44 08:04	08:04 08:34 09:04 09:34
07:29 07:36 07:46 07:56 08:06	08:24 08:44 08:59 09:14	09:59 10:19 10:39 10:59
08:16 08:26 08:41 08:56 09:11	09:29 09:43 09:58 10:13	11:19 11:39 11:59 12:19
09:26 09:43 09:58 10:13 10:28	10:28 10:43 10:58 11:13	12:39 12:59 13:19 13:39
10:43 10:58 11:13 11:28 11:43	11:28 11:43 11:58 12:13	13:59 14:19 14:39 14:59
11:58 12:13 12:28 12:43 12:58	12:28 12:43 12:58 13:13	15:19 15:39 15:59 16:19
13:13 13:28 13:43 13:58 14:13	13:28 13:43 13:58 14:13	16:38 16:58 17:18 17:38
14:28 14:42 14:57 15:12 15:27	14:28 14:43 14:58 15:13	17:58 18:18 18:38 19:03
15:39 15:51 16:03 16:15 16:27	15:28 15:43 15:58 16:13	19:33 20:03 20:34 21:04
16:38 16:50 17:02 17:14 17:26	16:28 16:43 16:58 17:13	21:34 22:04 22:34 23:04
17:38 17:50 18:02 18:14 18:26	17:28 17:43 17:58 18:13	23:34 00:14 01:15 02:15
18:43 18:58 19:13 19:28 19:43	18:28 18:43 19:03 19:23	03:15 04:15
19:58 20:13 20:28 20:44 20:59	19:43 20:03 20:23 20:44	
21:14 21:29 21:44 21:59 22:14	21:04 21:24 21:44 22:04	
22:29 22:44 23:14 00:14 01:15	22:24 22:44 23:14 00:14	
02:15 03:15 04:15	01:15 02:15 03:15 04:15	

Red Cow Luas >> 4mins >> Woodford Walk >> 8mins >> Park West >> 5mins >> Cherry Orchard >> 7mins >> Ballyfermot >> 10mins >> Inchicore >> 5mins >> St. James's Hospital >> 4mins >> Thomas Street >> 4mins >> Ormond Quay >> 8mins >> New Wapping Street

Infheidhme amhail ag / Operative from 16/10/2022

New Wapping Street to Liffey Valley

Is iad seo na hamanna imeachta ón gcéad stad

These are the departure times from the first stop

Luan - Aoine Monday - Friday	Satharn Saturday	Domhnach & Saoire Baine Sunday & Bank Holidays
05:13 05:43 06:05 06:20 06:33	04:53 06:13 06:43 07:08	04:53 05:53 06:53 07:37
06:47 06:59 07:11 07:23 07:31	07:28 07:48 08:08 08:28	08:13 08:43 09:13 09:42
07:43 07:55 08:07 08:19 08:31	08:48 09:05 09:20 09:34	10:07 10:27 10:47 11:07
08:44 08:59 09:14 09:29 09:48	09:49 10:04 10:19 10:34	11:27 11:47 12:07 12:27
10:03 10:18 10:33 10:48 11:03	10:49 11:04 11:19 11:34	12:47 13:07 13:27 13:47
11:18 11:33 11:48 12:03 12:18	11:49 12:04 12:19 12:34	14:07 14:27 14:47 15:07
12:33 12:48 13:03 13:18 13:33	12:49 13:04 13:19 13:34	15:27 15:47 16:07 16:27
13:48 14:03 14:18 14:33 14:48	13:49 14:04 14:19 14:34	16:47 17:07 17:27 17:47
15:03 15:18 15:33 15:47 15:59	14:49 15:04 15:19 15:34	18:07 18:27 18:48 19:13
16:11 16:23 16:32 16:44 16:56	15:49 16:04 16:19 16:34	19:43 20:13 20:43 21:13
17:08 17:20 17:32 17:44 17:56	16:49 17:04 17:19 17:34	21:43 22:13 22:43 23:13
18:08 18:20 18:36 18:49 19:04	17:49 18:04 18:19 18:35	23:43 00:53 01:53 02:53
19:19 19:34 19:49 20:04 20:19	18:50 19:08 19:28 19:48	03:53
20:35 20:50 21:05 21:20 21:35	20:08 20:28 20:48 21:08	
21:50 22:05 22:20 22:35 22:50	21:28 21:48 22:08 22:28	
23:13 23:43 00:53 01:53 02:53	22:48 23:13 23:43 00:53	
03:53	01:53 02:53 03:53	

New Wapping Street >> 8mins >> Wellington Quay >> 4mins >> Thomas Street >> 3mins >> St. James's Hospital >> 5mins >> Inchicore >> 10mins >> Ballyfermot >> 8mins >> Coldcut Road >> 5mins >> Neilstown Road >> 7mins >> Fonthill Road >> 6mins >> Liffey Valley SC

Infheidhme amhail ag / Operative from 16/10/2022

Liffey Valley to New Wapping Street

Is iad seo na hamanna imeachta ón gcéad stad

These are the departure times from the first stop

Luan - Aoine Monday - Friday	Satharn Saturday	Domhnach & Saoire Bainc Sunday & Bank Holidays
05:02 05:32 05:54 06:09 06:24	04:47 06:02 06:31 06:56	04:47 05:47 06:47 07:52
06:36 06:48 07:00 07:12 07:24	07:16 07:36 07:56 08:16	08:22 08:51 09:21 09:50
07:33 07:43 07:53 08:03 08:13	08:35 08:52 09:07 09:22	10:10 10:30 10:50 11:10
08:23 08:33 08:48 09:03 09:18	09:35 09:50 10:05 10:20	11:27 11:47 12:07 12:27
09:35 09:50 10:05 10:20 10:35	10:35 10:50 11:05 11:20	12:47 13:07 13:27 13:47
10:50 11:05 11:20 11:33 11:48	11:32 11:47 12:02 12:17	14:07 14:27 14:45 15:05
12:03 12:18 12:33 12:48 13:03	12:32 12:47 13:02 13:17	15:25 15:45 16:05 16:25
13:18 13:33 13:48 14:03 14:18	13:32 13:47 14:02 14:17	16:45 17:05 17:25 17:48
14:31 14:46 15:01 15:16 15:28	14:29 14:44 14:59 15:14	18:08 18:28 18:49 19:19
15:40 15:52 16:04 16:16 16:28	15:29 15:43 15:58 16:13	19:49 20:19 20:51 21:21
16:39 16:51 17:03 17:15 17:27	16:28 16:44 16:59 17:14	21:51 22:21 22:51 23:21
17:40 17:52 18:04 18:16 18:29	17:29 17:47 18:02 18:17	23:51 00:47 01:47 02:47
18:50 19:05 19:20 19:35 19:50	18:36 18:54 19:14 19:34	03:47
20:05 20:20 20:38 20:53 21:08	19:54 20:14 20:36 20:56	
21:23 21:38 21:53 22:08 22:23	21:16 21:36 21:56 22:16	
22:38 23:01 23:31 00:47 01:47	22:36 23:01 23:31 00:47	
02:47 03:47	01:47 02:47 03:47	

Liffey Valley SC >> 4mins >> Fonthill Road >> 8mins >> Neilstown Road >> 5mins >> Coldcut Road >> 7mins >> Ballyfermot >> 10mins >> Inchicore >> 5mins >> St. James's Hospital >> 4mins >> Thomas Street >> 4mins >> Ormond Quay >> 8mins >> New Wapping Street

Infheidhme amhail ag / Operative from 16/10/2022

C. Junction Modelling Results

Junctions 9
ARCADY 9 - Roundabout Module
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
The users of this computer program for the solution of an engineering problem are in no way relieved of their responsibility for the correctness of the solution

Filename: Junction 1 - Existing Roundabout - AM-PM.j9
Path: M:\Projects\22\22-010 Cherry Orchard - Sites 4 & 5 - C&S\Design\Civil\Traffic\Modelling 2023\1. Modelled Junctions\Junction 1
Report generation date: 20/10/2023 10:14:57

- »Junction 1 - Priority Roundabout - Baseline 2022, AM
- »Junction 1 - Priority Roundabout - Baseline 2022, PM
- »Junction 1 - Priority Roundabout - DO NOTHING 2027, AM
- »Junction 1 - Priority Roundabout - DO NOTHING 2027, PM
- »Junction 1 - Priority Roundabout - DO NOTHING 2032, AM
- »Junction 1 - Priority Roundabout - DO NOTHING 2032, PM
- »Junction 1 - Priority Roundabout - DO NOTHING 2042, AM
- »Junction 1 - Priority Roundabout - DO NOTHING 2042, PM
- »Junction 1 - Priority Roundabout - DO SOMETHING 2027, AM
- »Junction 1 - Priority Roundabout - DO SOMETHING 2027, PM
- »Junction 1 - Priority Roundabout - DO SOMETHING 2032, AM
- »Junction 1 - Priority Roundabout - DO SOMETHING 2032, PM
- »Junction 1 - Priority Roundabout - DO SOMETHING 2042, AM
- »Junction 1 - Priority Roundabout - DO SOMETHING 2042, PM

Summary of junction performance

	AM			PM		
	Queue (PCU)	Delay (s)	RFC	Queue (PCU)	Delay (s)	RFC
Junction 1 - Priority Roundabout - Baseline 2022						
Arm 1	0.3	2.92	0.19	0.7	3.61	0.38
Arm 2	0.5	4.24	0.33	0.5	4.62	0.32
Arm 3	1.5	6.75	0.59	0.3	3.51	0.21
Junction 1 - Priority Roundabout - DO NOTHING 2027						
Arm 1	0.3	3.12	0.24	0.8	3.90	0.43
Arm 2	0.6	4.60	0.37	0.6	5.02	0.36
Arm 3	2.0	8.21	0.66	0.3	3.74	0.25
Junction 1 - Priority Roundabout - DO NOTHING 2032						
Arm 1	0.4	3.21	0.26	0.9	4.10	0.45
Arm 2	0.7	4.81	0.39	0.7	5.29	0.39
Arm 3	2.4	9.49	0.70	0.4	3.85	0.26
Junction 1 - Priority Roundabout - DO NOTHING 2042						
Arm 1	0.4	3.28	0.27	1.0	4.30	0.48
Arm 2	0.7	5.00	0.41	0.7	5.56	0.41
Arm 3	3.0	11.04	0.74	0.4	3.94	0.28
Junction 1 - Priority Roundabout - DO SOMETHING 2027						
Arm 1	0.5	3.42	0.31	1.0	4.42	0.50
Arm 2	0.7	5.01	0.39	0.7	5.56	0.39
Arm 3	2.6	10.02	0.72	0.5	4.15	0.32
Junction 1 - Priority Roundabout - DO SOMETHING 2032						
Arm 1	0.5	3.52	0.32	1.1	4.88	0.52
Arm 2	0.7	5.26	0.42	0.8	5.91	0.42

Arm 3	3.3	12.00	0.76	0.5	4.28	0.33
Junction 1 - Priority Roundabout - DO SOMETHING 2042						
Arm 1	0.5	3.61	0.34	1.3	4.93	0.55
Arm 2	0.8	5.49	0.44	0.8	6.26	0.45
Arm 3	4.2	14.57	0.80	0.6	4.41	0.35

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	
Location	
Site number	
Date	02/12/2022
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	DOMAIN\l.byrne
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

Vehicle length (m)	Calculate Queue Percentiles	Calculate detailed queueing delay	Calculate residual capacity	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)
5.75				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)	Run automatically
D1	Baseline 2022	AM	ONE HOUR	08:00	09:30	15	✓
D2	Baseline 2022	PM	ONE HOUR	17:00	18:30	15	✓
D3	DO NOTHING 2027	AM	ONE HOUR	08:00	09:30	15	✓
D4	DO NOTHING 2027	PM	ONE HOUR	17:00	18:30	15	✓
D5	DO NOTHING 2032	AM	ONE HOUR	08:00	09:30	15	✓
D6	DO NOTHING 2032	PM	ONE HOUR	17:00	18:30	15	✓
D7	DO NOTHING 2042	AM	ONE HOUR	08:00	09:30	15	✓
D8	DO NOTHING 2042	PM	ONE HOUR	17:00	18:30	15	✓
D9	DO SOMETHING 2027	AM	ONE HOUR	08:00	09:30	15	✓
D10	DO SOMETHING 2027	PM	ONE HOUR	17:00	18:30	15	✓
D11	DO SOMETHING 2032	AM	ONE HOUR	08:00	09:30	15	✓
D12	DO SOMETHING 2032	PM	ONE HOUR	17:00	18:30	15	✓
D13	DO SOMETHING 2042	AM	ONE HOUR	08:00	09:30	15	✓
D14	DO SOMETHING 2042	PM	ONE HOUR	17:00	18:30	15	✓

Analysis Set Details

ID	Name	Include in report	Network flow scaling factor (%)	Network capacity scaling factor (%)
A1	Junction 1 - Priority Roundabout	✓	100.000	100.000

Junction 1 - Priority Roundabout - Baseline 2022, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3	5.27	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description
1	untitled	
2	untitled	
3	untitled	

Roundabout Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	I' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Exit only
1	4.71	6.43	5.4	20.3	40.0	16.3	
2	3.54	5.49	5.2	34.7	40.0	18.7	
3	3.90	5.01	9.2	37.5	40.0	17.0	

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
1	0.670	1767
2	0.604	1421
3	0.627	1521

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

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	Baseline 2022	AM	ONE HOUR	08:00	09:30	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		ONE HOUR	✓	283	100.000
2		ONE HOUR	✓	394	100.000
3		ONE HOUR	✓	727	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		1	2	3
From	1	0	140	143
	2	233	0	161
	3	510	217	0

Vehicle Mix

Heavy Vehicle Percentages

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

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1	0.19	2.92	0.3	A	260	390
2	0.33	4.24	0.5	A	362	542
3	0.59	6.75	1.5	A	667	1001

Main Results for each time segment

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	213	53	163	1658	0.128	212	557	0.0	0.2	2.612	A
2	297	74	107	1356	0.219	295	268	0.0	0.3	3.560	A
3	547	137	175	1411	0.388	545	228	0.0	0.7	4.349	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	254	64	195	1637	0.155	254	667	0.2	0.2	2.734	A
2	354	89	128	1344	0.264	354	321	0.3	0.4	3.819	A
3	654	163	209	1390	0.470	653	273	0.7	0.9	5.121	A

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	312	78	238	1608	0.194	311	816	0.2	0.3	2.916	A

2	434	108	157	1326	0.327	433	392	0.4	0.5	4.230	A
3	800	200	256	1360	0.589	798	334	0.9	1.5	6.700	A

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	312	78	239	1607	0.194	312	818	0.3	0.3	2.917	A
2	434	108	157	1326	0.327	434	393	0.5	0.5	4.236	A
3	800	200	257	1360	0.589	800	335	1.5	1.5	6.755	A

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	254	64	196	1636	0.156	255	670	0.3	0.2	2.736	A
2	354	89	129	1343	0.264	355	322	0.5	0.4	3.824	A
3	654	163	210	1389	0.470	656	274	1.5	0.9	5.170	A

09:15 - 09:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	213	53	164	1658	0.129	213	560	0.2	0.2	2.618	A
2	297	74	108	1356	0.219	297	269	0.4	0.3	3.571	A
3	547	137	176	1411	0.388	548	229	0.9	0.7	4.390	A

Junction 1 - Priority Roundabout - Baseline 2022, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3	3.89	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)	Run automatically
D2	Baseline 2022	PM	ONE HOUR	17:00	18:30	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		ONE HOUR	✓	594	100.000
2		ONE HOUR	✓	351	100.000
3		ONE HOUR	✓	259	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		1	2	3
From	1	0	267	327
	2	232	0	119
	3	167	92	0

Vehicle Mix

Heavy Vehicle Percentages

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

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1	0.38	3.61	0.7	A	545	818
2	0.32	4.62	0.5	A	322	483
3	0.21	3.51	0.3	A	238	356

Main Results for each time segment

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	447	112	69	1721	0.260	446	299	0.0	0.4	2.962	A
2	264	66	245	1273	0.208	263	269	0.0	0.3	3.740	A
3	195	49	174	1412	0.138	194	335	0.0	0.2	3.103	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	534	133	83	1712	0.312	534	358	0.4	0.5	3.208	A
2	316	79	294	1244	0.254	315	322	0.3	0.4	4.070	A
3	233	58	208	1390	0.167	233	401	0.2	0.2	3.265	A

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	654	164	101	1699	0.385	653	439	0.5	0.7	3.612	A
2	386	97	360	1204	0.321	386	395	0.4	0.5	4.618	A
3	285	71	255	1361	0.210	285	490	0.2	0.3	3.513	A

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	654	164	101	1699	0.385	654	439	0.7	0.7	3.615	A
2	386	97	360	1204	0.321	386	395	0.5	0.5	4.625	A
3	285	71	255	1361	0.210	285	491	0.3	0.3	3.513	A

18:00 - 18:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	534	133	83	1712	0.312	535	359	0.7	0.5	3.212	A
2	316	79	294	1243	0.254	316	323	0.5	0.4	4.078	A
3	233	58	209	1390	0.168	233	402	0.3	0.2	3.267	A

18:15 - 18:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	447	112	69	1721	0.260	448	301	0.5	0.4	2.969	A
2	264	66	246	1272	0.208	265	271	0.4	0.3	3.751	A
3	195	49	175	1411	0.138	195	336	0.2	0.2	3.108	A

Junction 1 - Priority Roundabout - DO NOTHING 2027, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3	6.11	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)	Run automatically
D3	DO NOTHING 2027	AM	ONE HOUR	08:00	09:30	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		ONE HOUR	✓	349	100.000
2		ONE HOUR	✓	430	100.000
3		ONE HOUR	✓	803	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		1	2	3
From	1	0	159	190
	2	256	0	174
	3	568	235	0

Vehicle Mix

Heavy Vehicle Percentages

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

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1	0.24	3.12	0.3	A	320	480
2	0.37	4.60	0.6	A	395	592
3	0.66	8.21	2.0	A	737	1105

Main Results for each time segment

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	263	66	176	1649	0.159	262	617	0.0	0.2	2.723	A
2	324	81	143	1335	0.242	322	295	0.0	0.3	3.728	A
3	605	151	192	1400	0.432	601	273	0.0	0.8	4.716	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	314	78	211	1626	0.193	314	740	0.2	0.3	2.880	A
2	387	97	171	1318	0.293	386	354	0.3	0.4	4.054	A
3	722	180	230	1377	0.524	720	327	0.8	1.1	5.747	A

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	384	96	258	1594	0.241	384	905	0.3	0.3	3.122	A
2	473	118	209	1295	0.366	473	433	0.4	0.6	4.594	A
3	884	221	281	1344	0.658	881	400	1.1	2.0	8.097	A

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	384	96	259	1594	0.241	384	907	0.3	0.3	3.124	A
2	473	118	209	1295	0.366	473	434	0.6	0.6	4.601	A
3	884	221	282	1344	0.658	884	401	2.0	2.0	8.211	A

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	314	78	212	1625	0.193	314	743	0.3	0.3	2.883	A
2	387	97	171	1318	0.293	387	355	0.6	0.4	4.065	A
3	722	180	231	1376	0.525	725	328	2.0	1.2	5.836	A

09:15 - 09:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	263	66	177	1648	0.159	263	622	0.3	0.2	2.730	A
2	324	81	143	1335	0.243	324	297	0.4	0.3	3.743	A
3	605	151	193	1400	0.432	606	274	1.2	0.8	4.770	A

Junction 1 - Priority Roundabout - DO NOTHING 2027, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3	4.19	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)	Run automatically
D4	DO NOTHING 2027	PM	ONE HOUR	17:00	18:30	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		ONE HOUR	✓	659	100.000
2		ONE HOUR	✓	385	100.000
3		ONE HOUR	✓	302	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		1	2	3
From	1	0	292	367
	2	256	0	129
	3	202	100	0

Vehicle Mix

Heavy Vehicle Percentages

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

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1	0.43	3.90	0.8	A	605	907
2	0.36	5.02	0.6	A	353	530
3	0.25	3.74	0.3	A	277	416

Main Results for each time segment

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	496	124	75	1717	0.289	494	343	0.0	0.4	3.088	A
2	290	72	275	1255	0.231	289	294	0.0	0.3	3.907	A
3	227	57	192	1400	0.162	227	372	0.0	0.2	3.218	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	592	148	90	1707	0.347	592	411	0.4	0.6	3.387	A
2	346	87	330	1222	0.283	346	352	0.3	0.4	4.311	A
3	271	68	230	1377	0.197	271	445	0.2	0.3	3.419	A

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	726	181	110	1693	0.428	725	504	0.6	0.8	3.898	A
2	424	106	404	1177	0.360	423	431	0.4	0.6	5.008	A
3	333	83	281	1344	0.247	332	545	0.3	0.3	3.734	A

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	726	181	110	1693	0.428	726	504	0.8	0.8	3.905	A
2	424	106	404	1177	0.360	424	432	0.6	0.6	5.018	A
3	333	83	282	1344	0.247	333	546	0.3	0.3	3.735	A

18:00 - 18:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	592	148	90	1707	0.347	593	412	0.8	0.6	3.399	A
2	346	87	330	1222	0.283	347	353	0.6	0.4	4.326	A
3	271	68	231	1376	0.197	272	447	0.3	0.3	3.425	A

18:15 - 18:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	496	124	75	1717	0.289	497	345	0.6	0.4	3.101	A
2	290	72	277	1254	0.231	290	295	0.4	0.3	3.924	A
3	227	57	193	1400	0.162	228	374	0.3	0.2	3.224	A

Junction 1 - Priority Roundabout - DO NOTHING 2032, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3	6.83	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)	Run automatically
D5	DO NOTHING 2032	AM	ONE HOUR	08:00	09:30	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		ONE HOUR	✓	368	100.000
2		ONE HOUR	✓	456	100.000
3		ONE HOUR	✓	850	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		1	2	3
From	1	0	168	200
	2	271	0	185
	3	601	249	0

Vehicle Mix

Heavy Vehicle Percentages

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

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1	0.26	3.21	0.4	A	338	507
2	0.39	4.81	0.7	A	418	628
3	0.70	9.49	2.4	A	780	1170

Main Results for each time segment

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	277	69	186	1642	0.169	276	653	0.0	0.2	2.766	A
2	343	86	150	1330	0.258	342	313	0.0	0.4	3.819	A
3	640	160	203	1393	0.459	636	289	0.0	0.9	4.971	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	331	83	223	1618	0.205	331	782	0.2	0.3	2.937	A
2	410	102	180	1313	0.312	409	374	0.4	0.5	4.183	A
3	764	191	243	1368	0.558	762	346	0.9	1.3	6.222	A

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	405	101	273	1584	0.256	405	957	0.3	0.4	3.204	A
2	502	126	220	1288	0.390	501	458	0.5	0.7	4.798	A
3	936	234	298	1334	0.702	932	423	1.3	2.4	9.291	A

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	405	101	274	1584	0.256	405	960	0.4	0.4	3.207	A
2	502	126	220	1288	0.390	502	459	0.7	0.7	4.808	A
3	936	234	298	1334	0.702	936	424	2.4	2.4	9.487	A

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	331	83	225	1616	0.205	331	787	0.4	0.3	2.943	A
2	410	102	180	1312	0.312	411	376	0.7	0.5	4.196	A
3	764	191	244	1368	0.559	768	347	2.4	1.3	6.353	A

09:15 - 09:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	277	69	188	1641	0.169	277	658	0.3	0.2	2.771	A
2	343	86	151	1330	0.258	344	315	0.5	0.4	3.832	A
3	640	160	204	1393	0.459	642	290	1.3	0.9	5.047	A

Junction 1 - Priority Roundabout - DO NOTHING 2032, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3	4.39	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)	Run automatically
D6	DO NOTHING 2032	PM	ONE HOUR	17:00	18:30	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		ONE HOUR	✓	697	100.000
2		ONE HOUR	✓	408	100.000
3		ONE HOUR	✓	319	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		1	2	3
From	1	0	309	388
	2	271	0	137
	3	213	106	0

Vehicle Mix

Heavy Vehicle Percentages

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

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1	0.45	4.10	0.9	A	640	959
2	0.39	5.29	0.7	A	374	562
3	0.26	3.85	0.4	A	293	439

Main Results for each time segment

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	525	131	80	1714	0.306	523	363	0.0	0.5	3.170	A
2	307	77	291	1245	0.247	306	311	0.0	0.3	4.018	A
3	240	60	203	1393	0.172	239	394	0.0	0.2	3.274	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	627	157	95	1703	0.368	626	435	0.5	0.6	3.506	A
2	367	92	348	1211	0.303	366	373	0.3	0.5	4.475	A
3	287	72	243	1368	0.210	287	471	0.2	0.3	3.494	A

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	767	192	117	1689	0.454	766	532	0.6	0.9	4.092	A
2	449	112	427	1163	0.386	448	456	0.5	0.7	5.282	A
3	351	88	298	1334	0.263	351	577	0.3	0.4	3.842	A

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	767	192	117	1689	0.454	767	533	0.9	0.9	4.101	A
2	449	112	427	1163	0.386	449	457	0.7	0.7	5.294	A
3	351	88	298	1334	0.263	351	578	0.4	0.4	3.847	A

18:00 - 18:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	627	157	95	1703	0.368	628	436	0.9	0.6	3.516	A
2	367	92	349	1210	0.303	368	374	0.7	0.5	4.490	A
3	287	72	244	1368	0.210	287	473	0.4	0.3	3.501	A

18:15 - 18:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	525	131	80	1714	0.306	525	365	0.6	0.5	3.181	A
2	307	77	292	1244	0.247	308	313	0.5	0.3	4.036	A
3	240	60	204	1393	0.172	240	396	0.3	0.2	3.282	A

Junction 1 - Priority Roundabout - DO NOTHING 2042, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3	7.69	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)	Run automatically
D7	DO NOTHING 2042	AM	ONE HOUR	08:00	09:30	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		ONE HOUR	✓	384	100.000
2		ONE HOUR	✓	478	100.000
3		ONE HOUR	✓	893	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		1	2	3
From	1	0	176	208
	2	284	0	194
	3	631	262	0

Vehicle Mix

Heavy Vehicle Percentages

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

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1	0.27	3.28	0.4	A	352	529
2	0.41	5.00	0.7	A	439	658
3	0.74	11.04	3.0	B	819	1229

Main Results for each time segment

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	289	72	196	1636	0.177	288	685	0.0	0.2	2.804	A
2	360	90	156	1327	0.271	358	328	0.0	0.4	3.896	A
3	672	168	213	1387	0.485	668	302	0.0	1.0	5.230	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	345	86	235	1610	0.214	345	821	0.2	0.3	2.988	A
2	430	107	187	1308	0.328	429	393	0.4	0.5	4.298	A
3	803	201	255	1361	0.590	801	361	1.0	1.5	6.724	A

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	423	106	287	1575	0.268	422	1003	0.3	0.4	3.279	A
2	526	132	229	1283	0.410	525	480	0.5	0.7	4.985	A
3	983	246	312	1325	0.742	978	442	1.5	2.9	10.704	B

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	423	106	288	1574	0.269	423	1007	0.4	0.4	3.282	A
2	526	132	229	1283	0.410	526	482	0.7	0.7	4.996	A
3	983	246	313	1325	0.742	983	443	2.9	3.0	11.036	B

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	345	86	237	1608	0.215	346	827	0.4	0.3	2.993	A
2	430	107	187	1308	0.329	431	396	0.7	0.5	4.313	A
3	803	201	256	1360	0.590	808	362	3.0	1.5	6.915	A

09:15 - 09:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	289	72	198	1635	0.177	289	691	0.3	0.2	2.811	A
2	360	90	157	1326	0.271	360	330	0.5	0.4	3.914	A
3	672	168	214	1387	0.485	674	303	1.5	1.0	5.325	A

Junction 1 - Priority Roundabout - DO NOTHING 2042, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3	4.58	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)	Run automatically
D8	DO NOTHING 2042	PM	ONE HOUR	17:00	18:30	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		ONE HOUR	✓	732	100.000
2		ONE HOUR	✓	428	100.000
3		ONE HOUR	✓	333	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		1	2	3
From	1	0	325	407
	2	284	0	144
	3	222	111	0

Vehicle Mix

Heavy Vehicle Percentages

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

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1	0.48	4.30	1.0	A	672	1008
2	0.41	5.56	0.7	A	393	589
3	0.28	3.94	0.4	A	306	458

Main Results for each time segment

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	551	138	83	1711	0.322	549	379	0.0	0.5	3.246	A
2	322	81	305	1237	0.261	321	327	0.0	0.4	4.120	A
3	251	63	213	1387	0.181	250	413	0.0	0.2	3.319	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	658	165	100	1700	0.387	657	454	0.5	0.7	3.622	A
2	385	96	366	1200	0.321	384	392	0.4	0.5	4.629	A
3	299	75	255	1361	0.220	299	495	0.2	0.3	3.559	A

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	806	201	122	1685	0.478	805	556	0.7	1.0	4.287	A
2	471	118	447	1151	0.410	470	479	0.5	0.7	5.548	A
3	367	92	312	1325	0.277	366	606	0.3	0.4	3.940	A

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	806	201	122	1685	0.478	806	557	1.0	1.0	4.298	A
2	471	118	448	1150	0.410	471	480	0.7	0.7	5.565	A
3	367	92	313	1325	0.277	367	607	0.4	0.4	3.944	A

18:00 - 18:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	658	165	100	1700	0.387	659	456	1.0	0.7	3.637	A
2	385	96	367	1200	0.321	386	393	0.7	0.5	4.650	A
3	299	75	256	1360	0.220	300	496	0.4	0.3	3.564	A

18:15 - 18:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	551	138	84	1711	0.322	552	381	0.7	0.5	3.261	A
2	322	81	307	1236	0.261	323	329	0.5	0.4	4.143	A
3	251	63	214	1387	0.181	251	415	0.3	0.2	3.328	A

Junction 1 - Priority Roundabout - DO SOMETHING 2027, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3	7.09	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)	Run automatically
D9	DO SOMETHING 2027	AM	ONE HOUR	08:00	09:30	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		ONE HOUR	✓	445	100.000
2		ONE HOUR	✓	441	100.000
3		ONE HOUR	✓	872	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		1	2	3
From	1	0	173	272
	2	267	0	174
	3	637	235	0

Vehicle Mix

Heavy Vehicle Percentages

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

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1	0.31	3.42	0.5	A	408	613
2	0.39	5.01	0.7	A	405	607
3	0.72	10.02	2.6	B	800	1200

Main Results for each time segment

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	335	84	176	1649	0.203	334	677	0.0	0.3	2.870	A
2	332	83	204	1298	0.256	331	306	0.0	0.4	3.902	A
3	656	164	200	1395	0.471	653	335	0.0	0.9	5.065	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	400	100	211	1626	0.246	400	811	0.3	0.3	3.082	A
2	396	99	244	1274	0.311	396	366	0.4	0.5	4.306	A
3	784	196	240	1370	0.572	782	401	0.9	1.4	6.403	A

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	490	122	257	1595	0.307	489	991	0.3	0.5	3.418	A
2	486	121	299	1240	0.391	485	448	0.5	0.7	4.997	A
3	960	240	293	1337	0.718	955	490	1.4	2.6	9.785	A

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	490	122	259	1594	0.307	490	995	0.5	0.5	3.423	A
2	486	121	299	1240	0.392	486	449	0.7	0.7	5.008	A
3	960	240	294	1336	0.718	960	491	2.6	2.6	10.024	B

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	400	100	213	1625	0.246	401	817	0.5	0.3	3.090	A
2	396	99	245	1273	0.311	397	368	0.7	0.5	4.320	A
3	784	196	240	1370	0.572	789	402	2.6	1.4	6.557	A

09:15 - 09:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	335	84	177	1648	0.203	335	682	0.3	0.3	2.878	A
2	332	83	205	1297	0.256	332	308	0.5	0.4	3.920	A
3	656	164	201	1395	0.471	658	336	1.4	0.9	5.149	A

Junction 1 - Priority Roundabout - DO SOMETHING 2027, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3	4.65	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)	Run automatically
D10	DO SOMETHING 2027	PM	ONE HOUR	17:00	18:30	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		ONE HOUR	✓	762	100.000
2		ONE HOUR	✓	399	100.000
3		ONE HOUR	✓	385	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		1	2	3
From	1	0	307	455
	2	270	0	129
	3	285	100	0

Vehicle Mix

Heavy Vehicle Percentages

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

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1	0.50	4.42	1.0	A	699	1049
2	0.39	5.56	0.7	A	366	549
3	0.32	4.15	0.5	A	353	530

Main Results for each time segment

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	574	143	75	1717	0.334	572	416	0.0	0.5	3.295	A
2	300	75	341	1215	0.247	299	305	0.0	0.3	4.121	A
3	290	72	202	1394	0.208	289	438	0.0	0.3	3.417	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	685	171	90	1707	0.401	684	498	0.5	0.7	3.694	A
2	359	90	409	1174	0.305	358	366	0.3	0.5	4.630	A
3	346	87	242	1369	0.253	346	524	0.3	0.4	3.695	A

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	839	210	110	1694	0.495	838	610	0.7	1.0	4.411	A
2	439	110	500	1119	0.393	438	447	0.5	0.7	5.548	A
3	424	106	297	1335	0.318	423	642	0.4	0.5	4.146	A

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	839	210	110	1693	0.495	839	611	1.0	1.0	4.423	A
2	439	110	501	1118	0.393	439	448	0.7	0.7	5.565	A
3	424	106	297	1334	0.318	424	643	0.5	0.5	4.151	A

18:00 - 18:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	685	171	90	1707	0.401	686	500	1.0	0.7	3.707	A
2	359	90	410	1174	0.306	360	367	0.7	0.5	4.648	A
3	346	87	243	1368	0.253	347	526	0.5	0.4	3.700	A

18:15 - 18:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	574	143	75	1717	0.334	574	418	0.7	0.5	3.313	A
2	300	75	343	1214	0.247	301	307	0.5	0.3	4.141	A
3	290	72	204	1393	0.208	290	440	0.4	0.3	3.430	A

Junction 1 - Priority Roundabout - DO SOMETHING 2032, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3	8.17	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)	Run automatically
D11	DO SOMETHING 2032	AM	ONE HOUR	08:00	09:30	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		ONE HOUR	✓	464	100.000
2		ONE HOUR	✓	468	100.000
3		ONE HOUR	✓	919	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		1	2	3
From	1	0	182	282
	2	283	0	185
	3	670	249	0

Vehicle Mix

Heavy Vehicle Percentages

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

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1	0.32	3.52	0.5	A	426	639
2	0.42	5.26	0.7	A	429	644
3	0.76	12.00	3.3	B	843	1265

Main Results for each time segment

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	349	87	186	1642	0.213	348	714	0.0	0.3	2.918	A
2	352	88	212	1293	0.272	351	323	0.0	0.4	4.004	A
3	692	173	212	1388	0.499	688	350	0.0	1.0	5.369	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	417	104	223	1618	0.258	417	855	0.3	0.4	3.147	A
2	421	105	253	1268	0.332	420	387	0.4	0.5	4.455	A
3	826	207	254	1361	0.607	824	419	1.0	1.6	7.002	A

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	511	128	272	1585	0.322	510	1044	0.4	0.5	3.516	A
2	515	129	310	1234	0.418	514	473	0.5	0.7	5.248	A
3	1012	253	311	1326	0.763	1005	513	1.6	3.2	11.564	B

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	511	128	274	1584	0.323	511	1049	0.5	0.5	3.522	A
2	515	129	310	1234	0.418	515	474	0.7	0.7	5.262	A
3	1012	253	312	1325	0.763	1012	514	3.2	3.3	12.005	B

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	417	104	226	1616	0.258	418	862	0.5	0.4	3.154	A
2	421	105	254	1268	0.332	422	389	0.7	0.5	4.473	A
3	826	207	255	1361	0.607	833	420	3.3	1.7	7.241	A

09:15 - 09:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	349	87	188	1641	0.213	350	720	0.4	0.3	2.929	A
2	352	88	213	1293	0.273	353	325	0.5	0.4	4.025	A
3	692	173	213	1387	0.499	694	352	1.7	1.1	5.476	A

Junction 1 - Priority Roundabout - DO SOMETHING 2032, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3	4.90	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)	Run automatically
D12	DO SOMETHING 2032	PM	ONE HOUR	17:00	18:30	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		ONE HOUR	✓	800	100.000
2		ONE HOUR	✓	422	100.000
3		ONE HOUR	✓	401	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		1	2	3
From	1	0	324	476
	2	285	0	137
	3	295	106	0

Vehicle Mix

Heavy Vehicle Percentages

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

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1	0.52	4.68	1.1	A	734	1101
2	0.42	5.91	0.8	A	387	581
3	0.33	4.28	0.5	A	368	552

Main Results for each time segment

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	602	151	79	1714	0.351	600	435	0.0	0.6	3.386	A
2	318	79	357	1205	0.264	316	323	0.0	0.4	4.244	A
3	302	75	214	1387	0.218	301	460	0.0	0.3	3.477	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	719	180	95	1703	0.422	718	521	0.6	0.8	3.834	A
2	379	95	427	1163	0.326	379	386	0.4	0.5	4.818	A
3	360	90	256	1360	0.265	360	550	0.3	0.4	3.779	A

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	881	220	117	1689	0.521	879	637	0.8	1.1	4.659	A
2	465	116	523	1105	0.420	464	473	0.5	0.8	5.875	A
3	442	110	313	1324	0.333	441	674	0.4	0.5	4.275	A

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	881	220	117	1689	0.522	881	639	1.1	1.1	4.676	A
2	465	116	524	1104	0.421	465	473	0.8	0.8	5.907	A
3	442	110	314	1324	0.333	442	675	0.5	0.5	4.282	A

18:00 - 18:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	719	180	95	1703	0.422	721	522	1.1	0.8	3.852	A
2	379	95	429	1162	0.326	380	387	0.8	0.5	4.843	A
3	360	90	257	1360	0.265	361	552	0.5	0.4	3.786	A

18:15 - 18:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	602	151	80	1714	0.351	603	437	0.8	0.6	3.408	A
2	318	79	359	1204	0.264	318	324	0.5	0.4	4.268	A
3	302	75	215	1386	0.218	302	462	0.4	0.3	3.490	A

Junction 1 - Priority Roundabout - DO SOMETHING 2042, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3	9.54	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)	Run automatically
D13	DO SOMETHING 2042	AM	ONE HOUR	08:00	09:30	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		ONE HOUR	✓	480	100.000
2		ONE HOUR	✓	490	100.000
3		ONE HOUR	✓	962	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		1	2	3
From	1	0	190	290
	2	296	0	194
	3	700	262	0

Vehicle Mix

Heavy Vehicle Percentages

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

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1	0.34	3.61	0.5	A	440	661
2	0.44	5.49	0.8	A	450	674
3	0.80	14.57	4.2	B	883	1324

Main Results for each time segment

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	361	90	196	1636	0.221	360	746	0.0	0.3	2.960	A
2	369	92	218	1290	0.286	367	339	0.0	0.4	4.090	A
3	724	181	222	1382	0.524	720	363	0.0	1.1	5.672	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	432	108	235	1610	0.268	431	893	0.3	0.4	3.207	A
2	440	110	260	1264	0.349	440	405	0.4	0.6	4.585	A
3	865	216	266	1354	0.639	862	435	1.1	1.8	7.639	A

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	528	132	286	1576	0.335	528	1090	0.4	0.5	3.606	A
2	540	135	319	1228	0.439	538	495	0.6	0.8	5.471	A
3	1059	265	325	1317	0.804	1050	532	1.8	4.0	13.745	B

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	528	132	288	1574	0.336	528	1096	0.5	0.5	3.614	A
2	540	135	319	1228	0.439	539	498	0.8	0.8	5.487	A
3	1059	265	326	1316	0.805	1059	533	4.0	4.2	14.569	B

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	432	108	238	1608	0.268	432	903	0.5	0.4	3.218	A
2	440	110	261	1263	0.349	442	409	0.8	0.6	4.605	A
3	865	216	267	1354	0.639	874	436	4.2	1.9	8.021	A

09:15 - 09:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	361	90	198	1635	0.221	362	752	0.4	0.3	2.970	A
2	369	92	219	1289	0.286	369	341	0.6	0.4	4.112	A
3	724	181	223	1381	0.524	727	365	1.9	1.2	5.809	A

Junction 1 - Priority Roundabout - DO SOMETHING 2042, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3	5.15	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)	Run automatically
D14	DO SOMETHING 2042	PM	ONE HOUR	17:00	18:30	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		ONE HOUR	✓	835	100.000
2		ONE HOUR	✓	443	100.000
3		ONE HOUR	✓	416	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		1	2	3
From	1	0	340	495
	2	299	0	144
	3	305	111	0

Vehicle Mix

Heavy Vehicle Percentages

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

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1	0.55	4.93	1.3	A	766	1149
2	0.45	6.26	0.8	A	407	610
3	0.35	4.41	0.6	A	382	573

Main Results for each time segment

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	629	157	83	1711	0.367	626	453	0.0	0.6	3.476	A
2	334	83	371	1197	0.279	332	338	0.0	0.4	4.362	A
3	313	78	224	1380	0.227	312	479	0.0	0.3	3.535	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	751	188	100	1700	0.441	750	542	0.6	0.8	3.973	A
2	398	100	444	1153	0.346	398	405	0.4	0.5	4.999	A
3	374	93	268	1353	0.277	374	574	0.3	0.4	3.861	A

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	919	230	122	1685	0.545	918	664	0.8	1.2	4.912	A
2	488	122	544	1092	0.446	487	496	0.5	0.8	6.228	A
3	458	115	328	1315	0.348	457	702	0.4	0.6	4.405	A

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	919	230	122	1685	0.546	919	665	1.2	1.3	4.934	A
2	488	122	545	1092	0.447	488	497	0.8	0.8	6.256	A
3	458	115	329	1314	0.348	458	704	0.6	0.6	4.413	A

18:00 - 18:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	751	188	100	1700	0.442	752	544	1.3	0.8	3.994	A
2	398	100	446	1152	0.346	399	406	0.8	0.6	5.031	A
3	374	93	270	1352	0.277	375	576	0.6	0.4	3.870	A

18:15 - 18:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	629	157	84	1711	0.367	630	455	0.8	0.6	3.496	A
2	334	83	373	1196	0.279	334	340	0.6	0.4	4.391	A
3	313	78	226	1379	0.227	314	482	0.4	0.3	3.546	A

Junctions 9
PICADY 9 - Priority Intersection Module
Version: 9.5.1.7462 © Copyright TRL Limited, 2019
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Filename: Junction 2 - Existing T-junction - AM-PM.j9
 Path: M:\Projects\22\22-010 Cherry Orchard - Sites 4 & 5 - C&S\Design\Civil\Traffic\Modelling 2023\1. Modelled Junctions\Junction 2
 Report generation date: 20/10/2023 10:20:42

- »Junction 2 - Existing T-junction - Baseline 2022, AM
- »Junction 2 - Existing T-junction - Baseline 2022, PM
- »Junction 2 - Existing T-junction - DO NOTHING 2027, AM
- »Junction 2 - Existing T-junction - DO NOTHING 2027, PM
- »Junction 2 - Existing T-junction - DO NOTHING 2032, AM
- »Junction 2 - Existing T-junction - DO NOTHING 2032, PM
- »Junction 2 - Existing T-junction - DO NOTHING 2042, AM
- »Junction 2 - Existing T-junction - DO NOTHING 2042, PM

Summary of junction performance

	AM					PM				
	Set ID	Queue (PCU)	Delay (s)	RFC	LOS	Set ID	Queue (PCU)	Delay (s)	RFC	LOS
Junction 2 - Existing T-junction - Baseline 2022										
Stream B-AC	D1	0.0	9.26	0.05	A	D2	0.0	7.96	0.01	A
Stream C-AB		0.0	7.86	0.01	A		0.0	0.00	0.00	0.00
Junction 2 - Existing T-junction - DO NOTHING 2027										
Stream B-AC	D3	0.1	9.83	0.05	A	D4	0.0	8.33	0.02	A
Stream C-AB		0.0	8.18	0.01	A		0.0	0.00	0.00	0.00
Junction 2 - Existing T-junction - DO NOTHING 2032										
Stream B-AC	D5	0.1	10.41	0.06	B	D6	0.0	8.30	0.02	A
Stream C-AB		0.0	8.40	0.01	A		0.0	0.00	0.00	0.00
Junction 2 - Existing T-junction - DO NOTHING 2042										
Stream B-AC	D7	0.1	10.78	0.06	B	D8	0.0	8.47	0.02	A
Stream C-AB		0.0	8.59	0.01	A		0.0	0.00	0.00	0.00

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

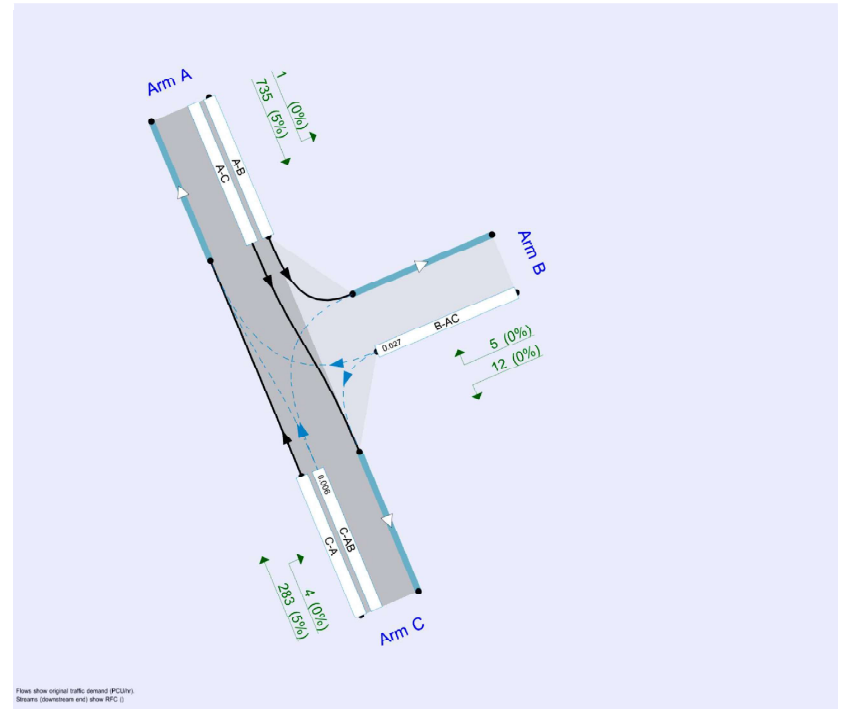
File summary

File Description

Title	
Location	
Site number	
Date	02/12/2022
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	DOMAINI.byrne
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



Files show original traffic demand (PCU/h). Streams (downstream end) show RFC (s).

The junction diagram reflects the last run of Junctions.

Analysis Options

Vehicle length (m)	Calculate Queue Percentiles	Calculate detailed queueing delay	Calculate residual capacity	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)
5.75				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)	Run automatically
D1	Baseline 2022	AM	ONE HOUR	08:00	09:30	15	✓
D2	Baseline 2022	PM	ONE HOUR	17:00	18:30	15	✓
D3	DO NOTHING 2027	AM	ONE HOUR	08:00	09:30	15	✓
D4	DO NOTHING 2027	PM	ONE HOUR	17:00	18:30	15	✓
D5	DO NOTHING 2032	AM	ONE HOUR	08:00	09:30	15	✓
D6	DO NOTHING 2032	PM	ONE HOUR	17:00	18:30	15	✓
D7	DO NOTHING 2042	AM	ONE HOUR	08:00	09:30	15	✓
D8	DO NOTHING 2042	PM	ONE HOUR	17:00	18:30	15	✓

Analysis Set Details

ID	Name	Include in report	Network flow scaling factor (%)	Network capacity scaling factor (%)
A1	Junction 2 - Existing T-junction	✓	100.000	100.000

Junction 2 - Existing T-junction - Baseline 2022, 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		0.18	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	9.00			100.0	✓	1.00

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	2.80	60	60

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	516	0.082	0.207	0.130	0.295
B-C	648	0.086	0.218	-	-
C-B	632	0.213	0.213	-	-

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)	Run automatically
D1	Baseline 2022	AM	ONE HOUR	08:00	09:30	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		ONE HOUR	✓	736	100.000

B	ONE HOUR	✓	17	100.000
C	ONE HOUR	✓	287	100.000

Origin-Destination Data

Demand (PCU/hr)

From	To		
	A	B	C
A	0	1	735
B	5	0	12
C	283	4	0

Vehicle Mix

Heavy Vehicle Percentages

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

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-AC	0.05	9.26	0.0	A	16	23
C-AB	0.01	7.86	0.0	A	4	6
C-A					260	390
A-B					0.92	1
A-C					674	1012

Main Results for each time segment

08:00 - 08:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	13	3	470	0.027	13	0.0	0.0	7.864	A
C-AB	3	0.75	515	0.006	3	0.0	0.0	7.029	A
C-A	213	53			213				
A-B	0.75	0.19			0.75				
A-C	553	138			553				

08:15 - 08:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	15	4	444	0.034	15	0.0	0.0	8.394	A
C-AB	4	0.90	493	0.007	4	0.0	0.0	7.358	A
C-A	254	64			254				
A-B	0.90	0.22			0.90				
A-C	661	165			661				

08:30 - 08:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	19	5	407	0.046	19	0.0	0.0	9.259	A
C-AB	4	1	462	0.010	4	0.0	0.0	7.863	A
C-A	312	78			312				
A-B	1	0.28			1				
A-C	809	202			809				

08:45 - 09:00

Stream	Total Demand	Junction	Capacity	RFC	Throughput	Start queue	End queue	Delay (s)	Unsignalised
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	(PCU/hr)	Arrivals (PCU)	(PCU/hr)		(PCU/hr)	(PCU)	(PCU)		level of service
B-AC	19	5	407	0.046	19	0.0	0.0	9,261	A
C-AB	4	1	462	0.010	4	0.0	0.0	7,863	A
C-A	312	78			312				
A-B	1	0.28			1				
A-C	809	202			809				

09:00 - 09:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	15	4	444	0.034	15	0.0	0.0	8,398	A
C-AB	4	0.90	493	0.007	4	0.0	0.0	7,358	A
C-A	254	64			254				
A-B	0.90	0.22			0.90				
A-C	661	165			661				

09:15 - 09:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	13	3	470	0.027	13	0.0	0.0	7,870	A
C-AB	3	0.75	515	0.006	3	0.0	0.0	7,029	A
C-A	213	53			213				
A-B	0.75	0.19			0.75				
A-C	553	138			553				

Junction 2 - Existing T-junction - Baseline 2022, 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		0.05	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)	Run automatically
D2	Baseline 2022	PM	ONE HOUR	17:00	18:30	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		ONE HOUR	✓	398	100.000
B		ONE HOUR	✓	6	100.000
C		ONE HOUR	✓	587	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A	B	C
From	A	0	4	394
	B	2	0	4
	C	587	0	0

Vehicle Mix

Heavy Vehicle Percentages

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

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-AC	0.01	7.96	0.0	A	6	8
C-AB	0.00	0.00	0.0	A	0	0
C-A					539	808

A-B					4	6
A-C					362	542

Main Results for each time segment

17:00 - 17:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	5	1	505	0.009	4	0.0	0.0	7.197	A
C-AB	0	0	1165	0.000	0	0.0	0.0	0.000	A
C-A	442	110			442				
A-B	3	0.75			3				
A-C	297	74			297				

17:15 - 17:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	5	1	486	0.011	5	0.0	0.0	7.494	A
C-AB	0	0	1139	0.000	0	0.0	0.0	0.000	A
C-A	528	132			528				
A-B	4	0.90			4				
A-C	354	89			354				

17:30 - 17:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	7	2	459	0.014	7	0.0	0.0	7.958	A
C-AB	0	0	1104	0.000	0	0.0	0.0	0.000	A
C-A	646	162			646				
A-B	4	1			4				
A-C	434	108			434				

17:45 - 18:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	7	2	459	0.014	7	0.0	0.0	7.958	A
C-AB	0	0	1104	0.000	0	0.0	0.0	0.000	A
C-A	646	162			646				
A-B	4	1			4				
A-C	434	108			434				

18:00 - 18:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	5	1	486	0.011	5	0.0	0.0	7.494	A
C-AB	0	0	1139	0.000	0	0.0	0.0	0.000	A
C-A	528	132			528				
A-B	4	0.90			4				
A-C	354	89			354				

18:15 - 18:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	5	1	505	0.009	5	0.0	0.0	7.198	A
C-AB	0	0	1165	0.000	0	0.0	0.0	0.000	A
C-A	442	110			442				
A-B	3	0.75			3				
A-C	297	74			297				

Junction 2 - Existing T-junction - DO NOTHING 2027, 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		0.18	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)	Run automatically
D3	DO NOTHING 2027	AM	ONE HOUR	08:00	09:30	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		ONE HOUR	✓	816	100.000
B		ONE HOUR	✓	18	100.000
C		ONE HOUR	✓	353	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A	B	C
From	A	0	1	815
	B	5	0	13
	C	349	4	0

Vehicle Mix

Heavy Vehicle Percentages

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

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-AC	0.05	9.83	0.1	A	17	25
C-AB	0.01	8.18	0.0	A	4	6

C-A					320	480
A-B					0.92	1
A-C					748	1122

Main Results for each time segment

08:00 - 08:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	14	3	457	0.030	13	0.0	0.0	8.114	A
C-AB	3	0.76	503	0.006	3	0.0	0.0	7.205	A
C-A	263	66			263				
A-B	0.75	0.19			0.75				
A-C	614	153			614				

08:15 - 08:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	16	4	428	0.038	16	0.0	0.0	8.751	A
C-AB	4	0.90	478	0.008	4	0.0	0.0	7.588	A
C-A	314	78			314				
A-B	0.90	0.22			0.90				
A-C	733	183			733				

08:30 - 08:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	20	5	386	0.051	20	0.0	0.1	9.828	A
C-AB	4	1	444	0.010	4	0.0	0.0	8.184	A
C-A	384	96			384				
A-B	1	0.28			1				
A-C	897	224			897				

08:45 - 09:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	20	5	386	0.051	20	0.1	0.1	9.830	A
C-AB	4	1	444	0.010	4	0.0	0.0	8.184	A
C-A	384	96			384				
A-B	1	0.28			1				
A-C	897	224			897				

09:00 - 09:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	16	4	428	0.038	16	0.1	0.0	8.756	A
C-AB	4	0.90	478	0.008	4	0.0	0.0	7.591	A
C-A	314	78			314				
A-B	0.90	0.22			0.90				
A-C	733	183			733				

09:15 - 09:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	14	3	457	0.030	14	0.0	0.0	8.118	A
C-AB	3	0.76	503	0.006	3	0.0	0.0	7.205	A
C-A	263	66			263				
A-B	0.75	0.19			0.75				
A-C	614	153			614				

Junction 2 - Existing T-junction - DO NOTHING 2027, 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		0.04	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)	Run automatically
D4	DO NOTHING 2027	PM	ONE HOUR	17:00	18:30	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		ONE HOUR	✓	456	100.000
B		ONE HOUR	✓	6	100.000
C		ONE HOUR	✓	651	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A	B	C
From	A	0	4	452
	B	2	0	4
	C	651	0	0

Vehicle Mix

Heavy Vehicle Percentages

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

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-AC	0.02	8.33	0.0	A	6	8
C-AB	0.00	0.00	0.0	A	0	0

C-A					597	896
A-B					4	6
A-C					415	622

Main Results for each time segment

17:00 - 17:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	5	1	492	0.009	4	0.0	0.0	7.390	A
C-AB	0	0	1146	0.000	0	0.0	0.0	0.000	A
C-A	490	123			490				
A-B	3	0.75			3				
A-C	340	85			340				

17:15 - 17:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	5	1	470	0.011	5	0.0	0.0	7.750	A
C-AB	0	0	1116	0.000	0	0.0	0.0	0.000	A
C-A	585	146			585				
A-B	4	0.90			4				
A-C	406	102			406				

17:30 - 17:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	7	2	439	0.015	7	0.0	0.0	8.326	A
C-AB	0	0	1076	0.000	0	0.0	0.0	0.000	A
C-A	717	179			717				
A-B	4	1			4				
A-C	498	124			498				

17:45 - 18:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	7	2	439	0.015	7	0.0	0.0	8.326	A
C-AB	0	0	1076	0.000	0	0.0	0.0	0.000	A
C-A	717	179			717				
A-B	4	1			4				
A-C	498	124			498				

18:00 - 18:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	5	1	470	0.011	5	0.0	0.0	7.752	A
C-AB	0	0	1116	0.000	0	0.0	0.0	0.000	A
C-A	585	146			585				
A-B	4	0.90			4				
A-C	406	102			406				

18:15 - 18:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	5	1	492	0.009	5	0.0	0.0	7.393	A
C-AB	0	0	1146	0.000	0	0.0	0.0	0.000	A
C-A	490	123			490				
A-B	3	0.75			3				
A-C	340	85			340				

Junction 2 - Existing T-junction - DO NOTHING 2032, 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		0.20	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)	Run automatically
D5	DO NOTHING 2032	AM	ONE HOUR	08:00	09:30	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		ONE HOUR	✓	864	100.000
B		ONE HOUR	✓	20	100.000
C		ONE HOUR	✓	373	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A	B	C
From	A	0	1	863
	B	6	0	14
	C	368	5	0

Vehicle Mix

Heavy Vehicle Percentages

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

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-AC	0.06	10.41	0.1	B	18	28
C-AB	0.01	8.40	0.0	A	5	7

C-A					338	506
A-B					0.92	1
A-C					792	1188

Main Results for each time segment

08:00 - 08:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	15	4	444	0.034	15	0.0	0.0	8.387	A
C-AB	4	0.95	496	0.008	4	0.0	0.0	7.321	A
C-A	277	69			277				
A-B	0.75	0.19			0.75				
A-C	650	162			650				

08:15 - 08:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	18	4	412	0.044	18	0.0	0.0	9.124	A
C-AB	5	1	470	0.010	5	0.0	0.0	7.740	A
C-A	331	83			331				
A-B	0.90	0.22			0.90				
A-C	776	194			776				

08:30 - 08:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	22	6	388	0.060	22	0.0	0.1	10.402	B
C-AB	6	1	435	0.013	6	0.0	0.0	8.396	A
C-A	405	101			405				
A-B	1	0.28			1				
A-C	950	238			950				

08:45 - 09:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	22	6	388	0.060	22	0.1	0.1	10.407	B
C-AB	6	1	435	0.013	6	0.0	0.0	8.397	A
C-A	405	101			405				
A-B	1	0.28			1				
A-C	950	238			950				

09:00 - 09:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	18	4	412	0.044	18	0.1	0.0	9.129	A
C-AB	5	1	470	0.010	5	0.0	0.0	7.741	A
C-A	331	83			331				
A-B	0.90	0.22			0.90				
A-C	776	194			776				

09:15 - 09:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	15	4	444	0.034	15	0.0	0.0	8.395	A
C-AB	4	0.95	496	0.008	4	0.0	0.0	7.324	A
C-A	277	69			277				
A-B	0.75	0.19			0.75				
A-C	650	162			650				

Junction 2 - Existing T-junction - DO NOTHING 2032, 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		0.05	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)	Run automatically
D6	DO NOTHING 2032	PM	ONE HOUR	17:00	18:30	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		ONE HOUR	✓	483	100.000
B		ONE HOUR	✓	7	100.000
C		ONE HOUR	✓	690	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A	B	C
From	A	0	5	478
	B	2	0	5
	C	690	0	0

Vehicle Mix

Heavy Vehicle Percentages

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

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-AC	0.02	8.30	0.0	A	6	10
C-AB	0.00	0.00	0.0	A	0	0

C-A					633	950
A-B					5	7
A-C					439	658

Main Results for each time segment

17:00 - 17:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	5	1	496	0.011	5	0.0	0.0	7.341	A
C-AB	0	0	1137	0.000	0	0.0	0.0	0.000	A
C-A	519	130			519				
A-B	4	0.94			4				
A-C	360	90			360				

17:15 - 17:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	6	2	473	0.013	6	0.0	0.0	7.711	A
C-AB	0	0	1106	0.000	0	0.0	0.0	0.000	A
C-A	620	155			620				
A-B	4	1			4				
A-C	430	107			430				

17:30 - 17:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	8	2	441	0.017	8	0.0	0.0	8.305	A
C-AB	0	0	1063	0.000	0	0.0	0.0	0.000	A
C-A	760	190			760				
A-B	6	1			6				
A-C	526	132			526				

17:45 - 18:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	8	2	441	0.017	8	0.0	0.0	8.305	A
C-AB	0	0	1063	0.000	0	0.0	0.0	0.000	A
C-A	760	190			760				
A-B	6	1			6				
A-C	526	132			526				

18:00 - 18:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	6	2	473	0.013	6	0.0	0.0	7.713	A
C-AB	0	0	1106	0.000	0	0.0	0.0	0.000	A
C-A	620	155			620				
A-B	4	1			4				
A-C	430	107			430				

18:15 - 18:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	5	1	496	0.011	5	0.0	0.0	7.342	A
C-AB	0	0	1137	0.000	0	0.0	0.0	0.000	A
C-A	519	130			519				
A-B	4	0.94			4				
A-C	360	90			360				

Junction 2 - Existing T-junction - DO NOTHING 2042, 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		0.20	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)	Run automatically
07	DO NOTHING 2042	AM	ONE HOUR	08:00	09:30	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		ONE HOUR	✓	907	100.000
B		ONE HOUR	✓	20	100.000
C		ONE HOUR	✓	389	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A	B	C
From	A	0	1	906
	B	6	0	14
	C	384	5	0

Vehicle Mix

Heavy Vehicle Percentages

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

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-AC	0.06	10.78	0.1	B	18	28
C-AB	0.01	8.59	0.0	A	5	7

C-A					352	528
A-B					0.92	1
A-C					831	1247

Main Results for each time segment

08:00 - 08:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	15	4	436	0.035	15	0.0	0.0	8.544	A
C-AB	4	0.95	489	0.008	4	0.0	0.0	7.423	A
C-A	289	72			289				
A-B	0.75	0.19			0.75				
A-C	682	171			682				

08:15 - 08:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	18	4	403	0.045	18	0.0	0.0	9.351	A
C-AB	5	1	462	0.010	5	0.0	0.0	7.877	A
C-A	345	86			345				
A-B	0.90	0.22			0.90				
A-C	814	204			814				

08:30 - 08:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	22	6	356	0.062	22	0.0	0.1	10.778	B
C-AB	6	1	425	0.013	6	0.0	0.0	8.591	A
C-A	423	106			423				
A-B	1	0.28			1				
A-C	998	249			998				

08:45 - 09:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	22	6	356	0.062	22	0.1	0.1	10.782	B
C-AB	6	1	425	0.013	6	0.0	0.0	8.593	A
C-A	423	106			423				
A-B	1	0.28			1				
A-C	998	249			998				

09:00 - 09:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	18	4	403	0.045	18	0.1	0.0	9.359	A
C-AB	5	1	462	0.010	5	0.0	0.0	7.877	A
C-A	345	86			345				
A-B	0.90	0.22			0.90				
A-C	814	204			814				

09:15 - 09:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	15	4	436	0.035	15	0.0	0.0	8.553	A
C-AB	4	0.95	489	0.008	4	0.0	0.0	7.426	A
C-A	289	72			289				
A-B	0.75	0.19			0.75				
A-C	682	171			682				

Junction 2 - Existing T-junction - DO NOTHING 2042, 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		0.05	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)	Run automatically
D8	DO NOTHING 2042	PM	ONE HOUR	17:00	18:30	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		ONE HOUR	✓	505	100.000
B		ONE HOUR	✓	7	100.000
C		ONE HOUR	✓	724	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A	B	C
From	A	0	5	500
	B	2	0	5
	C	724	0	0

Vehicle Mix

Heavy Vehicle Percentages

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

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-AC	0.02	8.47	0.0	A	6	10
C-AB	0.00	0.00	0.0	A	0	0

C-A				664	997
A-B				5	7
A-C				459	688

TRANSYT 16	
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Filename: Junction 2 - Proposed Signalised Crossroads - PM.116
 Path: M:\Projects\22\22-010 Cherry Orchard - Sites 4 & 5 - C&S\Design\Civil\Traffic\Modelling 2023\1. Modelled Junctions\Junction 2
 Report generation date: 20/10/2023 10:22:05

Main Results for each time segment

17:00 - 17:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	5	1	490	0.011	5	0.0	0.0	7.423	A
C-AB	0	0	1129	0.000	0	0.0	0.0	0.000	A
C-A	545	136			545				
A-B	4	0.94			4				
A-C	376	94			376				

17:15 - 17:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	6	2	467	0.013	6	0.0	0.0	7.821	A
C-AB	0	0	1097	0.000	0	0.0	0.0	0.000	A
C-A	651	163			651				
A-B	4	1			4				
A-C	449	112			449				

17:30 - 17:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	8	2	433	0.018	8	0.0	0.0	8.469	A
C-AB	0	0	1053	0.000	0	0.0	0.0	0.000	A
C-A	797	199			797				
A-B	6	1			6				
A-C	551	138			551				

17:45 - 18:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	8	2	433	0.018	8	0.0	0.0	8.469	A
C-AB	0	0	1053	0.000	0	0.0	0.0	0.000	A
C-A	797	199			797				
A-B	6	1			6				
A-C	551	138			551				

18:00 - 18:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	6	2	467	0.013	6	0.0	0.0	7.821	A
C-AB	0	0	1097	0.000	0	0.0	0.0	0.000	A
C-A	651	163			651				
A-B	4	1			4				
A-C	449	112			449				

18:15 - 18:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	5	1	490	0.011	5	0.0	0.0	7.423	A
C-AB	0	0	1129	0.000	0	0.0	0.0	0.000	A
C-A	545	136			545				
A-B	4	0.94			4				
A-C	376	94			376				

«A1 - Junction 2 - Proposed Layout : D3 - 2042 DO SOMETHING, PM :
 »Final Prediction Table

Summary of network performance

PM					
Set ID	PI	g per hr	Total delay (PCU/hr)	Highest DOS	Number oversaturated
Junction 2 - Proposed Layout - 2027 DO SOMETHING					
Network	D1	159.10	10.36	72% (TS B1)	0 (0%)
Junction 2 - Proposed Layout - 2032 DO SOMETHING					
Network	D2	169.71	11.04	75% (TS B1)	0 (0%)
Junction 2 - Proposed Layout - 2042 DO SOMETHING					
Network	D3	180.29	11.72	78% (TS B1)	0 (0%)

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

A1 - Junction 2 - Proposed Layout D3 - 2042 DO SOMETHING, PM

Final Prediction Table

Traffic Stream Results

Arm	Traffic Stream	Name	Traffic node	Controller stream	Phase	SIGNALS		PERFORMANCE				PER PCU				QUEUES		WEIGHTS		PENALTIES		P.I.
						Calculated flow entering (PCU/hr)	Calculated sat flow (PCU/hr)	Actual green (s per cycle)	Wasted time total (s per cycle)	Degree of saturation (X)	Practical reserve capacity (%)	JourneyTime (s)	Mean Delay per Veh (s)	Mean stops per Veh (%)	Mean max queue (PCU)	Delay weighting multiplier (%)	Stop weighting multiplier (%)	Cost of traffic penalties (£ per hr)	P.I.			
A	1	(untitled)	1	1	B	7	1800	4	4.00	8	1186	48.28	47.28	95.55	0.19	100	100	0.00	1.38			
Ax	1	(untitled)				5	Unrestricted	100	100.00	0	Unrestricted	1.00	0.00	0.00	0.00	100	100	0.00	0.00			
B	1	(untitled)	1	1	A	845 <	1800	59	0.00	78	28	24.56	20.96	78.02	18.99 +	100	100	0.00	78.14			
Bx	1	(untitled)				630	Unrestricted	100	26.00	0	Unrestricted	3.60	0.00	0.00	100	100	0.00	0.00				
C	1	(untitled)	1	1	C	73	1800	6	0.00	58	73	67.67	64.07	112.93	2.33	100	100	0.00	19.48			
Cx	1	(untitled)				65	Unrestricted	100	40.00	0	Unrestricted	3.60	0.00	0.00	100	100	0.00	0.00				
D	1	(untitled)	1	1	A	603	1800	59	0.00	56	79	26.13	14.13	59.66	10.40	100	100	0.00	38.12			
Dx	1	(untitled)				828	Unrestricted	100	19.00	0	Unrestricted	12.00	0.00	0.00	100	100	0.00	0.00				

Network Results

	Distance travelled (PCU-km/hr)	Time spent (PCU-hr/hr)	Mean journey speed (kph)	Uniform delay (PCU-hr/hr)	Random plus oversat delay (PCU-hr/hr)	Weighted cost of delay (£ per hr)	Weighted cost of stops (£ per hr)	Excess queue penalty (£ per hr)	Performance Index (£ per hr)
Normal traffic	191.99	15.07	12.72	6.56	2.12	123.24	13.89	0.00	137.13
Bus									
Tram									
Pedestrians	2.04	3.44	0.59	3.04	0.00	43.17	0.00	0.00	43.17
TOTAL	193.63	18.51	10.46	9.60	2.12	166.41	13.89	0.00	180.29

- < = adjusted flow warning (upstream link/traffic streams are over-saturated)
- * = Traffic Stream - Normal, Bus or Tram Stop or Delay weighting has been set to a value other than 100%
- + = Traffic Stream - Normal, Bus or Tram Stop or Delay Path weighting has been set to a value other than 100%
- = average link/traffic stream excess queue is greater than 0
- P.I. = PERFORMANCE INDEX

Junctions 9	
PICADY 9 - Priority Intersection Module	
Version: 9.5.1.7462 © Copyright TRL Limited, 2019	
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Filename: Junction 3 - Existing T-junction - AM-PM.j9
 Path: M:\Projects\22\22-010 Cherry Orchard - Sites 4 & 5 - C&S\Design\Civil\Traffic\Modelling 2023\1. Modelled Junctions\Junction 3
 Report generation date: 20/10/2023 10:24:22

- » Junction 3 - Priority T-Junction - Baseline 2022, AM
- » Junction 3 - Priority T-Junction - Baseline 2022, PM
- » Junction 3 - Priority T-Junction - DO NOTHING 2027, AM
- » Junction 3 - Priority T-Junction - DO NOTHING 2027, PM
- » Junction 3 - Priority T-Junction - DO NOTHING 2032, AM
- » Junction 3 - Priority T-Junction - DO NOTHING 2032, PM
- » Junction 3 - Priority T-Junction - DO NOTHING 2042, AM
- » Junction 3 - Priority T-Junction - DO NOTHING 2042, PM

Summary of junction performance

	AM			PM		
	Queue (PCU)	Delay (s)	RFC	Queue (PCU)	Delay (s)	RFC
Junction 3 - Priority T-Junction - Baseline 2022						
Stream B-C	0.1	9.26	0.08	0.0	7.47	0.02
Stream B-A	0.3	13.41	0.20	0.2	11.96	0.19
Stream C-AB	0.0	7.77	0.02	0.0	6.57	0.03
Junction 3 - Priority T-Junction - DO NOTHING 2027						
Stream B-C	0.1	9.93	0.09	0.0	7.76	0.03
Stream B-A	0.3	15.26	0.24	0.3	12.99	0.22
Stream C-AB	0.0	8.09	0.02	0.0	6.72	0.03
Junction 3 - Priority T-Junction - DO NOTHING 2032						
Stream B-C	0.1	10.42	0.10	0.0	7.95	0.03
Stream B-A	0.4	16.48	0.26	0.3	13.94	0.24
Stream C-AB	0.0	8.29	0.03	0.0	6.77	0.03
Junction 3 - Priority T-Junction - DO NOTHING 2042						
Stream B-C	0.1	10.94	0.10	0.0	8.13	0.03
Stream B-A	0.4	17.80	0.29	0.3	14.68	0.26
Stream C-AB	0.0	8.49	0.03	0.0	6.83	0.03

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

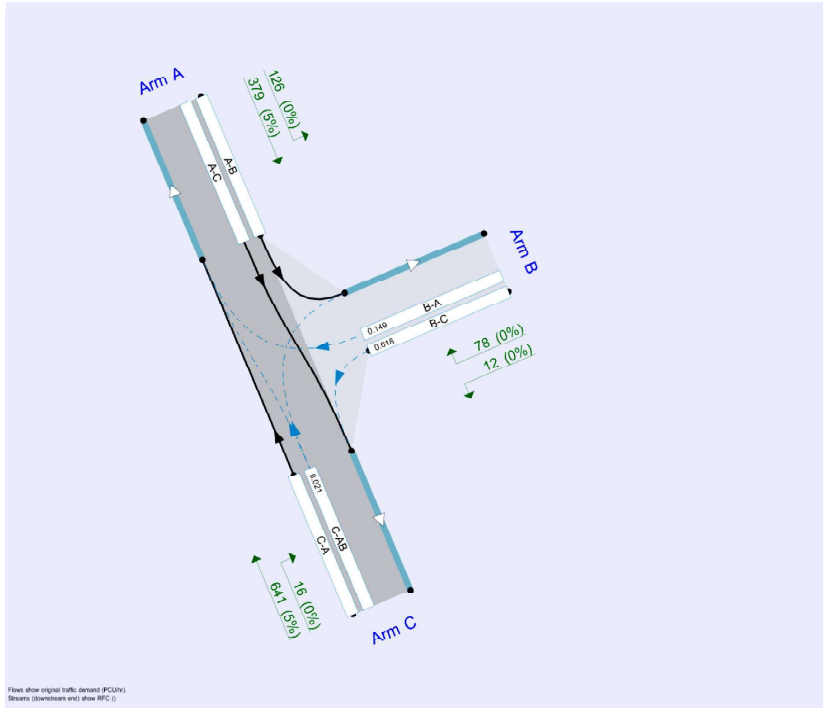
File summary

File Description

Title	
Location	
Site number	
Date	02/12/2022
Version	
Status	(new file)
Identifier	
Client	
Job number	
Enumerator	DOMAIN\byrne
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



From show original traffic demand (PCU/hr)
Streams (downstream end) show RFC (s)
The junction diagram reflects the last run of Junctions.

Analysis Options

Vehicle length (m)	Calculate Queue Percentiles	Calculate detailed queueing delay	Calculate residual capacity	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)
5.75				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)	Run automatically
D1	Baseline 2022	AM	ONE HOUR	08:00	09:30	15	✓
D2	Baseline 2022	PM	ONE HOUR	17:00	18:30	15	✓
D3	DO NOTHING 2027	AM	ONE HOUR	08:00	09:30	15	✓
D4	DO NOTHING 2027	PM	ONE HOUR	17:00	18:30	15	✓
D5	DO NOTHING 2032	AM	ONE HOUR	08:00	09:30	15	✓
D6	DO NOTHING 2032	PM	ONE HOUR	17:00	18:30	15	✓
D7	DO NOTHING 2042	AM	ONE HOUR	08:00	09:30	15	✓
D8	DO NOTHING 2042	PM	ONE HOUR	17:00	18:30	15	✓

Analysis Set Details

ID	Name	Include in report	Network flow scaling factor (%)	Network capacity scaling factor (%)
A1	Junction 3 - Priority T-Junction	✓	100.000	100.000

Junction 3 - Priority T-Junction - Baseline 2022, 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		1.11	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	9.00			120.0	✓	1.00

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	Width at give-way (m)	Width at 5m (m)	Width at 10m (m)	Width at 15m (m)	Width at 20m (m)	Estimate flare length	Flare length (PCU)	Visibility to left (m)	Visibility to right (m)
B	One lane plus flare	7.30	3.00	3.00	3.00	3.00		0.50	50	36

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	532	0.084	0.213	0.134	0.304
B-C	603	0.080	0.203	-	-
C-B	643	0.217	0.217	-	-

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)	Run automatically
D1	Baseline 2022	AM	ONE HOUR	08:00	09:30	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)

A		ONE HOUR	✓	735	100.000
B		ONE HOUR	✓	91	100.000
C		ONE HOUR	✓	233	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A	B	C
From	A	0	104	631
	B	62	0	29
	C	224	9	0

Vehicle Mix

Heavy Vehicle Percentages

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

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-C	0.08	9.26	0.1	A	27	40
B-A	0.20	13.41	0.3	B	57	85
C-AB	0.02	7.77	0.0	A	8	12
C-A					205	308
A-B					95	143
A-C					579	869

Main Results for each time segment

08:00 - 08:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalled level of service
B-C	22	5	483	0.045	22	0.0	0.0	7.796	A
B-A	47	12	399	0.117	46	0.0	0.1	10.191	B
C-AB	7	2	526	0.013	7	0.0	0.0	6.938	A
C-A	169	42			169				
A-B	78	20			78				
A-C	475	119			475				

08:15 - 08:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalled level of service
B-C	26	7	458	0.057	26	0.0	0.1	8.337	A
B-A	56	14	373	0.149	56	0.1	0.2	11.338	B
C-AB	8	2	503	0.016	8	0.0	0.0	7.269	A
C-A	201	50			201				
A-B	93	23			93				
A-C	567	142			567				

08:30 - 08:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalled level of service
B-C	32	8	421	0.076	32	0.1	0.1	9.249	A
B-A	68	17	337	0.203	68	0.2	0.2	13.380	B
C-AB	10	3	473	0.021	10	0.0	0.0	7.775	A
C-A	247	62			247				

A-B	115	29			115				
A-C	695	174			695				

08:45 - 09:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalled level of service
B-C	32	8	421	0.076	32	0.1	0.1	9.260	A
B-A	68	17	337	0.203	68	0.2	0.3	13.409	B
C-AB	10	3	473	0.021	10	0.0	0.0	7.775	A
C-A	247	62			247				
A-B	115	29			115				
A-C	695	174			695				

09:00 - 09:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalled level of service
B-C	26	7	457	0.057	26	0.1	0.1	8.353	A
B-A	56	14	373	0.149	56	0.3	0.2	11.370	B
C-AB	8	2	504	0.016	8	0.0	0.0	7.269	A
C-A	201	50			201				
A-B	93	23			93				
A-C	567	142			567				

09:15 - 09:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalled level of service
B-C	22	5	483	0.045	22	0.1	0.0	7.816	A
B-A	47	12	399	0.117	47	0.2	0.1	10.229	B
C-AB	7	2	526	0.013	7	0.0	0.0	6.941	A
C-A	169	42			169				
A-B	78	20			78				
A-C	475	119			475				

Junction 3 - Priority T-Junction - Baseline 2022, 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		0.94	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)	Run automatically
D2	Baseline 2022	PM	ONE HOUR	17:00	18:30	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		ONE HOUR	✓	397	100.000
B		ONE HOUR	✓	75	100.000
C		ONE HOUR	✓	531	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A	B	C
From	A	0	104	293
	B	65	0	10
	C	518	13	0

Vehicle Mix

Heavy Vehicle Percentages

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

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-C	0.02	7.47	0.0	A	9	14
B-A	0.19	11.96	0.2	B	60	89
C-AB	0.03	6.57	0.0	A	12	18

C-A				475	713
A-B				95	143
A-C				269	403

Main Results for each time segment

17:00 - 17:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	8	2	532	0.014	7	0.0	0.0	6.862	A
B-A	49	12	423	0.116	48	0.0	0.1	9.596	A
C-AB	10	2	585	0.017	10	0.0	0.0	6.259	A
C-A	390	97			390				
A-B	78	20			78				
A-C	221	55			221				

17:15 - 17:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	9	2	516	0.017	9	0.0	0.0	7.093	A
B-A	58	15	402	0.145	58	0.1	0.2	10.471	B
C-AB	12	3	576	0.021	12	0.0	0.0	6.389	A
C-A	465	116			465				
A-B	93	23			93				
A-C	263	66			263				

17:30 - 17:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	11	3	493	0.022	11	0.0	0.0	7.464	A
B-A	72	18	373	0.192	71	0.2	0.2	11.935	B
C-AB	15	4	563	0.026	15	0.0	0.0	6.566	A
C-A	570	142			570				
A-B	115	29			115				
A-C	323	81			323				

17:45 - 18:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	11	3	493	0.022	11	0.0	0.0	7.467	A
B-A	72	18	373	0.192	72	0.2	0.2	11.956	B
C-AB	15	4	564	0.026	15	0.0	0.0	6.568	A
C-A	570	142			570				
A-B	115	29			115				
A-C	323	81			323				

18:00 - 18:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	9	2	516	0.017	9	0.0	0.0	7.096	A
B-A	58	15	402	0.145	59	0.2	0.2	10.495	B
C-AB	12	3	576	0.021	12	0.0	0.0	6.389	A
C-A	465	116			465				
A-B	93	23			93				
A-C	263	66			263				

18:15 - 18:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	8	2	532	0.014	8	0.0	0.0	6.866	A
B-A	49	12	423	0.116	49	0.2	0.1	9.630	A
C-AB	10	2	585	0.017	10	0.0	0.0	6.262	A
C-A	390	97			390				
A-B	78	20			78				
A-C	221	55			221				

Junction 3 - Priority T-Junction - DO NOTHING 2027, 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		1.17	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)	Run automatically
D3	DO NOTHING 2027	AM	ONE HOUR	08:00	09:30	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		ONE HOUR	✓	815	100.000
B		ONE HOUR	✓	98	100.000
C		ONE HOUR	✓	295	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A	B	C
From	A	0	113	702
	B	67	0	31
	C	285	10	0

Vehicle Mix

Heavy Vehicle Percentages

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

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-C	0.09	9.93	0.1	A	28	43
B-A	0.24	15.26	0.3	C	61	92

C-AB	0.02	8.09	0.0	A	9	14
C-A					261	392
A-B					104	156
A-C					644	966

Main Results for each time segment

08:00 - 08:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	23	6	469	0.050	23	0.0	0.1	8.078	A
B-A	50	13	381	0.133	50	0.0	0.2	10.864	B
C-AB	8	2	514	0.015	8	0.0	0.0	7.115	A
C-A	215	54			215				
A-B	85	21			85				
A-C	529	132			529				

08:15 - 08:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	28	7	440	0.063	28	0.1	0.1	8.739	A
B-A	60	15	351	0.172	60	0.2	0.2	12.365	B
C-AB	9	2	489	0.019	9	0.0	0.0	7.497	A
C-A	256	64			256				
A-B	102	25			102				
A-C	631	158			631				

08:30 - 08:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	34	9	397	0.086	34	0.1	0.1	9.916	A
B-A	74	18	310	0.238	73	0.2	0.3	15.208	C
C-AB	11	3	457	0.025	11	0.0	0.0	8.088	A
C-A	314	78			314				
A-B	124	31			124				
A-C	773	193			773				

08:45 - 09:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	34	9	397	0.086	34	0.1	0.1	9.932	A
B-A	74	18	310	0.238	74	0.3	0.3	15.260	C
C-AB	11	3	457	0.025	11	0.0	0.0	8.088	A
C-A	314	78			314				
A-B	124	31			124				
A-C	773	193			773				

09:00 - 09:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	28	7	439	0.063	28	0.1	0.1	8.760	A
B-A	60	15	351	0.172	61	0.3	0.2	12.416	B
C-AB	9	2	489	0.019	9	0.0	0.0	7.501	A
C-A	256	64			256				
A-B	102	25			102				
A-C	631	158			631				

09:15 - 09:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	23	6	468	0.050	23	0.1	0.1	8.101	A
B-A	50	13	381	0.133	51	0.2	0.2	10.917	B
C-AB	8	2	514	0.015	8	0.0	0.0	7.115	A
C-A	215	54			215				
A-B	85	21			85				
A-C	529	132			529				

Junction 3 - Priority T-Junction - DO NOTHING 2027, 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		0.99	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)	Run automatically
D4	DO NOTHING 2027	PM	ONE HOUR	17:00	18:30	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		ONE HOUR	✓	455	100.000
B		ONE HOUR	✓	81	100.000
C		ONE HOUR	✓	571	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A	B	C
From	A	0	113	342
	B	70	0	11
	C	557	14	0

Vehicle Mix

Heavy Vehicle Percentages

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

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-C	0.03	7.76	0.0	A	10	15
B-A	0.22	12.99	0.3	B	64	96

C-AB	0.03	6.72	0.0	A	13	20
C-A					511	766
A-B					104	156
A-C					314	471

Main Results for each time segment

17:00 - 17:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	8	2	522	0.016	8	0.0	0.0	7.008	A
B-A	53	13	411	0.128	52	0.0	0.1	10.028	B
C-AB	11	3	577	0.019	11	0.0	0.0	6.360	A
C-A	419	105			419				
A-B	85	21			85				
A-C	257	64			257				

17:15 - 17:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	10	2	504	0.020	10	0.0	0.0	7.289	A
B-A	63	16	387	0.163	63	0.1	0.2	11.102	B
C-AB	13	3	566	0.023	13	0.0	0.0	6.511	A
C-A	500	125			500				
A-B	102	25			102				
A-C	307	77			307				

17:30 - 17:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	12	3	476	0.025	12	0.0	0.0	7.758	A
B-A	77	19	354	0.218	77	0.2	0.3	12.960	B
C-AB	16	4	552	0.029	16	0.0	0.0	6.718	A
C-A	613	153			613				
A-B	124	31			124				
A-C	377	94			377				

17:45 - 18:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	12	3	476	0.025	12	0.0	0.0	7.762	A
B-A	77	19	354	0.218	77	0.3	0.3	12.991	B
C-AB	16	4	553	0.029	16	0.0	0.0	6.718	A
C-A	613	153			613				
A-B	124	31			124				
A-C	377	94			377				

18:00 - 18:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	10	2	503	0.020	10	0.0	0.0	7.297	A
B-A	63	16	387	0.163	63	0.3	0.2	11.134	B
C-AB	13	3	566	0.023	13	0.0	0.0	6.515	A
C-A	500	125			500				
A-B	102	25			102				
A-C	307	77			307				

18:15 - 18:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	8	2	522	0.016	8	0.0	0.0	7.013	A
B-A	53	13	410	0.128	53	0.2	0.1	10.073	B
C-AB	11	3	577	0.019	11	0.0	0.0	6.363	A
C-A	419	105			419				
A-B	85	21			85				
A-C	257	64			257				

Junction 3 - Priority T-Junction - DO NOTHING 2032, 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		1.25	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)	Run automatically
D5	DO NOTHING 2032	AM	ONE HOUR	08:00	09:30	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		ONE HOUR	✓	863	100.000
B		ONE HOUR	✓	104	100.000
C		ONE HOUR	✓	310	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A	B	C
From	A	0	119	744
	B	71	0	33
	C	300	10	0

Vehicle Mix

Heavy Vehicle Percentages

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

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-C	0.10	10.42	0.1	B	30	45
B-A	0.26	16.48	0.4	C	65	98

C-AB	0.03	8.29	0.0	A	9	14
C-A					275	413
A-B					109	164
A-C					683	1024

Main Results for each time segment

08:00 - 08:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	25	6	460	0.054	25	0.0	0.1	8.256	A
B-A	53	13	372	0.144	53	0.0	0.2	11.262	B
C-AB	8	2	506	0.015	8	0.0	0.0	7.224	A
C-A	226	56			226				
A-B	90	22			90				
A-C	560	140			560				

08:15 - 08:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	30	7	429	0.069	30	0.1	0.1	9.009	A
B-A	64	16	340	0.188	64	0.2	0.2	12.992	B
C-AB	9	2	480	0.019	9	0.0	0.0	7.641	A
C-A	270	67			270				
A-B	107	27			107				
A-C	669	167			669				

08:30 - 08:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	36	9	382	0.095	36	0.1	0.1	10.396	B
B-A	78	20	297	0.264	78	0.2	0.3	16.410	C
C-AB	11	3	446	0.025	11	0.0	0.0	8.290	A
C-A	330	83			330				
A-B	131	33			131				
A-C	819	205			819				

08:45 - 09:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	36	9	382	0.095	36	0.1	0.1	10.420	B
B-A	78	20	297	0.264	78	0.3	0.4	16.482	C
C-AB	11	3	446	0.025	11	0.0	0.0	8.290	A
C-A	330	83			330				
A-B	131	33			131				
A-C	819	205			819				

09:00 - 09:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	30	7	428	0.069	30	0.1	0.1	9.034	A
B-A	64	16	340	0.188	64	0.4	0.2	13.062	B
C-AB	9	2	480	0.019	9	0.0	0.0	7.642	A
C-A	270	67			270				
A-B	107	27			107				
A-C	669	167			669				

09:15 - 09:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	25	6	460	0.054	25	0.1	0.1	8.285	A
B-A	53	13	372	0.144	54	0.2	0.2	11.327	B
C-AB	8	2	506	0.015	8	0.0	0.0	7.224	A
C-A	226	56			226				
A-B	90	22			90				
A-C	560	140			560				

Junction 3 - Priority T-Junction - DO NOTHING 2032, 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		1.04	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)	Run automatically
D6	DO NOTHING 2032	PM	ONE HOUR	17:00	18:30	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		ONE HOUR	✓	481	100.000
B		ONE HOUR	✓	86	100.000
C		ONE HOUR	✓	625	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A	B	C
From	A	0	119	362
	B	75	0	11
	C	610	15	0

Vehicle Mix

Heavy Vehicle Percentages

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

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-C	0.03	7.95	0.0	A	10	15
B-A	0.24	13.94	0.3	B	69	103

C-AB	0.03	6.77	0.0	A	14	21
C-A					559	839
A-B					109	164
A-C					332	498

Main Results for each time segment

17:00 - 17:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	8	2	516	0.016	8	0.0	0.0	7.086	A
B-A	56	14	401	0.141	56	0.0	0.2	10.400	B
C-AB	11	3	574	0.020	11	0.0	0.0	6.402	A
C-A	459	115			459				
A-B	90	22			90				
A-C	273	68			273				

17:15 - 17:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	10	2	496	0.020	10	0.0	0.0	7.402	A
B-A	67	17	376	0.179	67	0.2	0.2	11.652	B
C-AB	14	3	563	0.025	14	0.0	0.0	6.559	A
C-A	548	137			548				
A-B	107	27			107				
A-C	325	81			325				

17:30 - 17:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	12	3	465	0.026	12	0.0	0.0	7.947	A
B-A	83	21	341	0.242	82	0.2	0.3	13.903	B
C-AB	17	4	549	0.031	17	0.0	0.0	6.772	A
C-A	671	168			671				
A-B	131	33			131				
A-C	399	100			399				

17:45 - 18:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	12	3	465	0.026	12	0.0	0.0	7.952	A
B-A	83	21	341	0.242	83	0.3	0.3	13.944	B
C-AB	17	4	550	0.031	17	0.0	0.0	6.772	A
C-A	671	168			671				
A-B	131	33			131				
A-C	399	100			399				

18:00 - 18:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	10	2	496	0.020	10	0.0	0.0	7.408	A
B-A	67	17	376	0.179	68	0.3	0.2	11.700	B
C-AB	14	3	563	0.025	14	0.0	0.0	6.560	A
C-A	548	137			548				
A-B	107	27			107				
A-C	325	81			325				

18:15 - 18:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	8	2	516	0.016	8	0.0	0.0	7.093	A
B-A	56	14	401	0.141	57	0.2	0.2	10.452	B
C-AB	11	3	574	0.020	11	0.0	0.0	6.402	A
C-A	459	115			459				
A-B	90	22			90				
A-C	273	68			273				

Junction 3 - Priority T-Junction - DO NOTHING 2042, 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		1.35	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)	Run automatically
D7	DO NOTHING 2042	AM	ONE HOUR	08:00	09:30	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		ONE HOUR	✓	906	100.000
B		ONE HOUR	✓	110	100.000
C		ONE HOUR	✓	324	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A	B	C
From	A	0	126	780
	B	75	0	35
	C	313	11	0

Vehicle Mix

Heavy Vehicle Percentages

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

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-C	0.10	10.94	0.1	B	32	48
B-A	0.29	17.80	0.4	C	69	103

C-AB	0.03	8.49	0.0	A	10	15
C-A					287	431
A-B					116	173
A-C					716	1074

Main Results for each time segment

08:00 - 08:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	26	7	453	0.058	26	0.0	0.1	8.430	A
B-A	56	14	364	0.155	56	0.0	0.2	11.656	B
C-AB	8	2	500	0.017	8	0.0	0.0	7.330	A
C-A	236	59			236				
A-B	95	24			95				
A-C	587	147			587				

08:15 - 08:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	31	8	419	0.075	31	0.1	0.1	9.274	A
B-A	67	17	331	0.204	67	0.2	0.3	13.634	B
C-AB	10	3	473	0.021	10	0.0	0.0	7.782	A
C-A	281	70			281				
A-B	113	28			113				
A-C	701	175			701				

08:30 - 08:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	39	10	368	0.105	38	0.1	0.1	10.904	B
B-A	83	21	285	0.290	82	0.3	0.4	17.709	C
C-AB	12	3	437	0.028	12	0.0	0.0	8.487	A
C-A	344	86			344				
A-B	139	35			139				
A-C	859	215			859				

08:45 - 09:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	39	10	368	0.105	39	0.1	0.1	10.936	B
B-A	83	21	285	0.290	83	0.4	0.4	17.801	C
C-AB	12	3	437	0.028	12	0.0	0.0	8.488	A
C-A	344	86			344				
A-B	139	35			139				
A-C	859	215			859				

09:00 - 09:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	31	8	418	0.075	32	0.1	0.1	9.310	A
B-A	67	17	331	0.204	68	0.4	0.3	13.725	B
C-AB	10	3	473	0.021	10	0.0	0.0	7.784	A
C-A	281	70			281				
A-B	113	28			113				
A-C	701	175			701				

09:15 - 09:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	26	7	452	0.058	26	0.1	0.1	8.462	A
B-A	56	14	364	0.155	57	0.3	0.2	11.731	B
C-AB	8	2	500	0.017	8	0.0	0.0	7.334	A
C-A	236	59			236				
A-B	95	24			95				
A-C	587	147			587				

Junction 3 - Priority T-Junction - DO NOTHING 2042, 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		1.08	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)	Run automatically
D8	DO NOTHING 2042	PM	ONE HOUR	17:00	18:30	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		ONE HOUR	✓	505	100.000
B		ONE HOUR	✓	90	100.000
C		ONE HOUR	✓	657	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A	B	C
From	A	0	126	379
	B	78	0	12
	C	641	16	0

Vehicle Mix

Heavy Vehicle Percentages

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

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-C	0.03	8.13	0.0	A	11	17
B-A	0.26	14.68	0.3	B	72	107

C-AB	0.03	6.83	0.0	A	15	23
C-A					588	882
A-B					116	173
A-C					348	522

Main Results for each time segment

17:00 - 17:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	9	2	512	0.018	9	0.0	0.0	7.160	A
B-A	59	15	395	0.149	58	0.0	0.2	10.669	B
C-AB	12	3	571	0.021	12	0.0	0.0	6.443	A
C-A	482	121			482				
A-B	95	24			95				
A-C	285	71			285				

17:15 - 17:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	11	3	490	0.022	11	0.0	0.0	7.508	A
B-A	70	18	368	0.191	70	0.2	0.2	12.062	B
C-AB	15	4	560	0.026	15	0.0	0.0	6.607	A
C-A	576	144			576				
A-B	113	28			113				
A-C	341	85			341				

17:30 - 17:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	13	3	456	0.029	13	0.0	0.0	8.121	A
B-A	86	21	331	0.259	85	0.2	0.3	14.626	B
C-AB	18	5	547	0.034	18	0.0	0.0	6.827	A
C-A	705	176			705				
A-B	139	35			139				
A-C	417	104			417				

17:45 - 18:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	13	3	456	0.029	13	0.0	0.0	8.128	A
B-A	86	21	331	0.259	86	0.3	0.3	14.676	B
C-AB	18	5	547	0.034	18	0.0	0.0	6.830	A
C-A	705	176			705				
A-B	139	35			139				
A-C	417	104			417				

18:00 - 18:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	11	3	490	0.022	11	0.0	0.0	7.515	A
B-A	70	18	368	0.191	71	0.3	0.2	12.119	B
C-AB	15	4	560	0.026	15	0.0	0.0	6.611	A
C-A	576	144			576				
A-B	113	28			113				
A-C	341	85			341				

18:15 - 18:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	9	2	511	0.018	9	0.0	0.0	7.171	A
B-A	59	15	395	0.149	59	0.2	0.2	10.730	B
C-AB	12	3	572	0.021	12	0.0	0.0	6.443	A
C-A	482	121			482				
A-B	95	24			95				
A-C	285	71			285				

Junctions 9

PICADY 9 - Priority Intersection Module

Version: 9.5.1.7462
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Filename: Junction 3 - Proposed Staggered - AM-PM.j9
 Path: M:\Projects\22\22-010 Cherry Orchard - Sites 4 & 5 - C&S\Design\Civil\Traffic\Modelling 2023\1. Modelled Junctions\Junction 3
 Report generation date: 20/10/2023 10:23:07

- »Junction 3 - Proposed Layout - DO SOMETHING 2027, AM
- »Junction 3 - Proposed Layout - DO SOMETHING 2027, PM
- »Junction 3 - Proposed Layout - DO SOMETHING 2032, AM
- »Junction 3 - Proposed Layout - DO SOMETHING 2032, PM
- »Junction 3 - Proposed Layout - DO SOMETHING 2042, AM
- »Junction 3 - Proposed Layout - DO SOMETHING 2042, PM

Summary of junction performance

	AM				PM			
	Queue (PCU)	Delay (s)	RFC	LOS	Queue (PCU)	Delay (s)	RFC	LOS
Junction 3 - Proposed Layout - DO SOMETHING 2027								
Stream B-CD	0.1	10.83	0.09	B	0.0	8.40	0.03	A
Stream B-A	0.4	18.54	0.28	C	0.3	15.86	0.25	C
Stream AB-CD	0.0	6.54	0.02	A	0.0	7.64	0.03	A
Stream D-ABC	0.1	10.62	0.10	B	0.1	11.72	0.11	B
Stream CD-AB	0.0	8.51	0.03	A	0.0	7.04	0.03	A
Junction 3 - Proposed Layout - DO SOMETHING 2032								
Stream B-CD	0.1	11.47	0.10	B	0.0	8.64	0.03	A
Stream B-A	0.4	20.35	0.31	C	0.4	17.05	0.28	C
Stream AB-CD	0.0	6.57	0.02	A	0.0	7.76	0.03	A
Stream D-ABC	0.1	10.94	0.10	B	0.1	12.17	0.12	B
Stream CD-AB	0.0	8.72	0.03	A	0.0	7.10	0.03	A
Junction 3 - Proposed Layout - DO SOMETHING 2042								
Stream B-CD	0.1	12.20	0.12	B	0.0	8.88	0.03	A
Stream B-A	0.5	22.44	0.34	C	0.4	18.15	0.30	C
Stream AB-CD	0.0	6.60	0.02	A	0.0	7.88	0.03	A
Stream D-ABC	0.1	11.26	0.10	B	0.1	12.61	0.12	B
Stream CD-AB	0.0	8.93	0.03	A	0.0	7.16	0.04	A

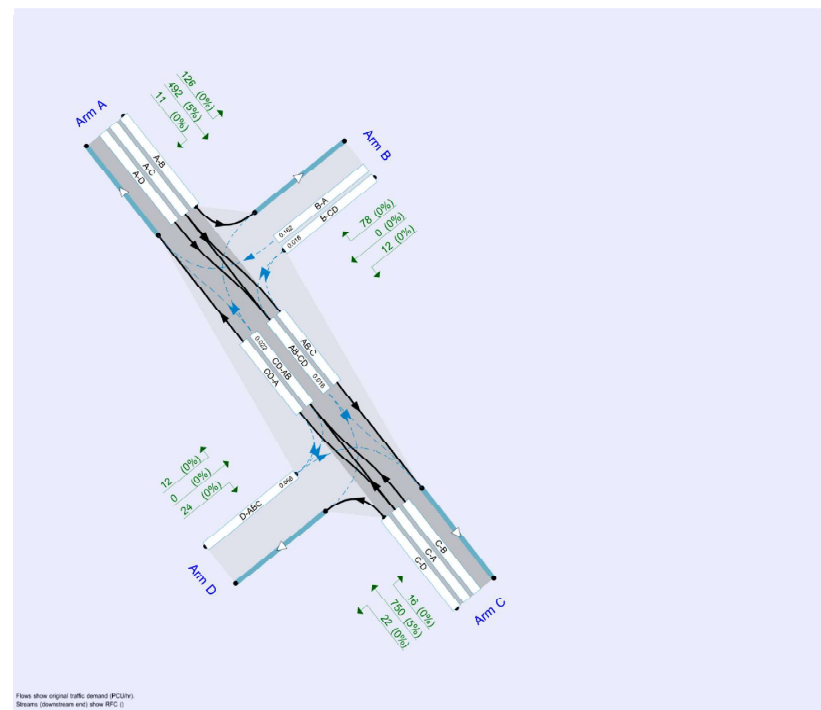
Values shown are the highest values encountered over all time segments. Delay is the maximum value of average delay per arriving vehicle.

File summary

File Description	
Title	
Location	
Site number	
Date	02/12/2022
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	DOMAIN\byrne
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



Flows show original traffic demand (PCU/h).
Streams (downstream end) show RFC (s).

The junction diagram reflects the last run of Junctions.

Analysis Options

Vehicle length (m)	Calculate Queue Percentiles	Calculate detailed queueing delay	Calculate residual capacity	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)
5.75				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)	Run automatically
D1	DO SOMETHING 2027	AM	ONE HOUR	08:00	09:30	15	✓
D2	DO SOMETHING 2027	PM	ONE HOUR	17:00	18:30	15	✓
D3	DO SOMETHING 2032	AM	ONE HOUR	08:00	09:30	15	✓
D4	DO SOMETHING 2032	PM	ONE HOUR	17:00	18:30	15	✓
D5	DO SOMETHING 2042	AM	ONE HOUR	08:00	09:30	15	✓
D6	DO SOMETHING 2042	PM	ONE HOUR	17:00	18:30	15	✓

Analysis Set Details

ID	Name	Include in report	Network flow scaling factor (%)	Network capacity scaling factor (%)
A1	Junction 3 - Proposed Layout	✓	100.000	100.000

Junction 3 - Proposed Layout - DO SOMETHING 2027, 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	Left-Right Stagger	Two-way		0.77	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
D	untitled		Minor

Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Has right turn bay	Visibility for right turn (m)	Blocks?	Blocking queue (PCU)
A	9.00			120.0	✓	1.00
C	9.00			120.0	✓	1.00

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)	Width at give-way (m)	Width at 5m (m)	Width at 10m (m)	Width at 15m (m)	Width at 20m (m)	Estimate flare length	Flare length (PCU)	Visibility to left (m)	Visibility to right (m)
B	One lane plus flare		7.30	3.00	3.00	3.00	3.00		0.50	50	36
D	One lane	3.50								49	49

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Stream	Intercept (PCU/hr)	Slope for A-B	Slope for A-C	Slope for A-D	Slope for B-C	Slope for B-D	Slope for C-A	Slope for C-B	Slope for C-D	Slope for D-A	Slope for D-B
AB-D	643	-	-	-	-	0.217	0.217	0.217	-	-	-
B-A	532	0.084	0.213	0.213	-	-	0.134	0.304	-	0.134	0.304
B-CD	602	0.080	0.203	0.203	-	-	-	-	-	-	-
CD-B	643	0.217	0.217	0.217	-	-	-	-	-	-	-
D-AB	688	-	-	-	-	0.232	0.232	0.092	-	-	-
D-C	544	-	0.137	0.311	0.137	0.311	0.218	0.218	0.086	-	-

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)	Run automatically

D1	DO SOMETHING 2027	AM	ONE HOUR	08:00	09:30	15	✓
----	-------------------	----	----------	-------	-------	----	---

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		ONE HOUR	✓	921	100.000
B		ONE HOUR	✓	98	100.000
C		ONE HOUR	✓	416	100.000
D		ONE HOUR	✓	33	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		A	B	C	D
From	A	0	113	798	10
	B	67	0	31	0
	C	387	10	0	19
	D	11	0	22	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		A	B	C	D
From	A	0	0	5	0
	B	0	0	0	0
	C	5	0	0	0
	D	0	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-CD	0.09	10.83	0.1	B	28	43
B-A	0.28	18.54	0.4	C	61	92
A-B					104	156
A-C					732	1098
A-D					9	14
AB-CD	0.02	6.54	0.0	A	9	14
AB-C					760	1141
D-ABC	0.10	10.62	0.1	B	30	45
C-D					17	26
C-A					355	533
C-B					9	14
CD-AB	0.03	8.51	0.0	A	9	14
CD-A					365	548

Main Results for each time segment

08:00 - 08:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-CD	23	6	451	0.052	23	0.0	0.1	8.405	A
B-A	50	13	352	0.143	50	0.0	0.2	11.881	B
A-B	85	21			85				
A-C	601	150			601				
A-D	8	2			8				
AB-CD	8	2	584	0.013	8	0.0	0.0	6.252	A

AB-C	624	156			624					
D-ABC	25	6	444	0.056	25	0.0	0.1	8.577	A	
C-D	14	4			14					
C-A	291	73			291					
C-B	8	2			8					
CD-AB	8	2	498	0.015	8	0.0	0.0	7.347	A	
CD-A	299	75			299					

08:15 - 08:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-CD	28	7	418	0.067	28	0.1	0.1	9.230	A
B-A	60	15	317	0.190	60	0.2	0.2	13.993	B
A-B	102	25			102				
A-C	717	179			717				
A-D	9	2			9				
AB-CD	9	2	574	0.016	9	0.0	0.0	6.375	A
AB-C	745	186			745				
D-ABC	30	7	416	0.071	30	0.1	0.1	9.326	A
C-D	17	4			17				
C-A	348	87			348				
C-B	9	2			9				
CD-AB	9	2	471	0.019	9	0.0	0.0	7.800	A
CD-A	358	89			358				

08:30 - 08:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-CD	34	9	367	0.093	34	0.1	0.1	10.809	B
B-A	74	18	268	0.275	73	0.2	0.4	18.436	C
A-B	124	31			124				
A-C	879	220			879				
A-D	11	3			11				
AB-CD	11	3	562	0.020	11	0.0	0.0	6.539	A
AB-C	912	228			912				
D-ABC	36	9	375	0.097	36	0.1	0.1	10.616	B
C-D	21	5			21				
C-A	426	107			426				
C-B	11	3			11				
CD-AB	11	3	435	0.026	11	0.0	0.0	8.506	A
CD-A	438	109			438				

08:45 - 09:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-CD	34	9	366	0.093	34	0.1	0.1	10.835	B
B-A	74	18	268	0.275	74	0.4	0.4	18.535	C
A-B	124	31			124				
A-C	879	220			879				
A-D	11	3			11				
AB-CD	11	3	563	0.020	11	0.0	0.0	6.539	A
AB-C	912	228			912				
D-ABC	36	9	375	0.097	36	0.1	0.1	10.623	B
C-D	21	5			21				
C-A	426	107			426				
C-B	11	3			11				
CD-AB	11	3	435	0.026	11	0.0	0.0	8.507	A
CD-A	438	109			438				

09:00 - 09:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-CD	28	7	417	0.067	28	0.1	0.1	9.256	A
B-A	60	15	317	0.190	61	0.4	0.2	14.081	B
A-B	102	25			102				
A-C	717	179			717				
A-D	9	2			9				
AB-CD	9	2	574	0.016	9	0.0	0.0	6.376	A
AB-C	745	186			745				
D-ABC	30	7	416	0.071	30	0.1	0.1	9.336	A
C-D	17	4			17				
C-A	348	87			348				

C-B	9	2			9					
CD-AB	9	2	471	0.019	9	0.0	0.0	7.801	A	
CD-A	358	89			358					

09:15 - 09:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-CD	23	6	450	0.052	23	0.1	0.1	8.434	A
B-A	50	13	352	0.143	51	0.2	0.2	11.951	B
A-B	85	21			85				
A-C	601	150			601				
A-D	8	2			8				
AB-CD	8	2	584	0.013	8	0.0	0.0	6.254	A
AB-C	624	156			624				
D-ABC	25	6	444	0.056	25	0.1	0.1	8.589	A
C-D	14	4			14				
C-A	291	73			291				
C-B	8	2			8				
CD-AB	8	2	498	0.015	8	0.0	0.0	7.350	A
CD-A	300	75			300				

Junction 3 - Proposed Layout - DO SOMETHING 2027, 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	Left-Right Stagger	Two-way		0.69	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)	Run automatically
D2	DO SOMETHING 2027	PM	ONE HOUR	17:00	18:30	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		ONE HOUR	✓	580	100.000
B		ONE HOUR	✓	81	100.000
C		ONE HOUR	✓	722	100.000
D		ONE HOUR	✓	36	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		A	B	C	D
From	A	0	113	456	11
	B	70	0	11	0
	C	686	14	0	22
	D	12	0	24	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		A	B	C	D
From	A	0	0	5	0
	B	0	0	0	0
	C	5	0	0	0
	D	0	0	0	0

Results

Results Summary for whole modelled period

				Average Demand	Total Junction

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	(PCU/hr)	Arrivals (PCU)
B-CD	0.03	8.40	0.0	A	10	15
B-A	0.25	15.86	0.3	C	64	96
A-B					104	156
A-C					418	628
A-D					10	15
AB-CD	0.03	7.64	0.0	A	10	15
AB-C					428	642
D-ABC	0.11	11.72	0.1	B	33	50
C-D					20	30
C-A					629	944
C-B					13	19
CD-AB	0.03	7.04	0.0	A	13	20
CD-A					640	960

Main Results for each time segment

17:00 - 17:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-CD	8	2	501	0.017	8	0.0	0.0	7.300	A
B-A	53	13	376	0.140	52	0.0	0.2	11.087	B
A-B	85	21			85				
A-C	343	86			343				
A-D	8	2			8				
AB-CD	8	2	531	0.016	8	0.0	0.0	6.888	A
AB-C	351	88			351				
D-ABC	27	7	424	0.064	27	0.0	0.1	9.066	A
C-D	17	4			17				
C-A	516	129			516				
C-B	11	3			11				
CD-AB	11	3	559	0.019	11	0.0	0.0	6.572	A
CD-A	525	131			525				

17:15 - 17:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-CD	10	2	478	0.021	10	0.0	0.0	7.690	A
B-A	63	16	346	0.182	63	0.2	0.2	12.699	B
A-B	102	25			102				
A-C	410	102			410				
A-D	10	2			10				
AB-CD	10	3	511	0.020	10	0.0	0.0	7.190	A
AB-C	420	105			420				
D-ABC	32	8	392	0.083	32	0.1	0.1	10.014	B
C-D	20	5			20				
C-A	617	154			617				
C-B	13	3			13				
CD-AB	13	3	545	0.024	13	0.0	0.0	6.769	A
CD-A	627	157			627				

17:30 - 17:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-CD	12	3	441	0.027	12	0.0	0.0	8.388	A
B-A	77	19	304	0.254	77	0.2	0.3	15.799	C
A-B	124	31			124				
A-C	502	126			502				
A-D	12	3			12				
AB-CD	12	3	484	0.026	12	0.0	0.0	7.637	A
AB-C	514	128			514				
D-ABC	40	10	347	0.114	39	0.1	0.1	11.704	B
C-D	24	6			24				
C-A	755	189			755				
C-B	15	4			15				
CD-AB	16	4	528	0.031	16	0.0	0.0	7.040	A
CD-A	768	192			768				

17:45 - 18:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-CD	12	3	441	0.027	12	0.0	0.0	8.395	A
B-A	77	19	304	0.254	77	0.3	0.3	15.861	C
A-B	124	31			124				
A-C	502	126			502				
A-D	12	3			12				
AB-CD	12	3	484	0.026	12	0.0	0.0	7.640	A
AB-C	514	128			514				
D-ABC	40	10	347	0.114	40	0.1	0.1	11.716	B
C-D	24	6			24				
C-A	755	189			755				
C-B	15	4			15				
CD-AB	16	4	528	0.031	16	0.0	0.0	7.043	A
CD-A	768	192			768				

18:00 - 18:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-CD	10	2	478	0.021	10	0.0	0.0	7.700	A
B-A	63	16	346	0.182	63	0.3	0.2	12.762	B
A-B	102	25			102				
A-C	410	102			410				
A-D	10	2			10				
AB-CD	10	3	511	0.020	10	0.0	0.0	7.194	A
AB-C	420	105			420				
D-ABC	32	8	392	0.083	32	0.1	0.1	10.029	B
C-D	20	5			20				
C-A	617	154			617				
C-B	13	3			13				
CD-AB	13	3	546	0.024	13	0.0	0.0	6.770	A
CD-A	627	157			627				

18:15 - 18:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-CD	8	2	501	0.017	8	0.0	0.0	7.308	A
B-A	53	13	376	0.140	53	0.2	0.2	11.146	B
A-B	85	21			85				
A-C	343	86			343				
A-D	8	2			8				
AB-CD	8	2	531	0.016	8	0.0	0.0	6.888	A
AB-C	352	88			352				
D-ABC	27	7	424	0.064	27	0.1	0.1	9.084	A
C-D	17	4			17				
C-A	516	129			516				
C-B	11	3			11				
CD-AB	11	3	559	0.019	11	0.0	0.0	6.575	A
CD-A	525	131			525				

Junction 3 - Proposed Layout - DO SOMETHING 2032, 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	Left-Right Stagger	Two-way		0.82	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)	Run automatically
D3	DO SOMETHING 2032	AM	ONE HOUR	08:00	09:30	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		ONE HOUR	✓	968	100.000
B		ONE HOUR	✓	104	100.000
C		ONE HOUR	✓	431	100.000
D		ONE HOUR	✓	33	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		A	B	C	D
From	A	0	119	839	10
	B	71	0	33	0
	C	402	10	0	19
	D	11	0	22	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		A	B	C	D
From	A	0	0	5	0
	B	0	0	0	0
	C	5	0	0	0
	D	0	0	0	0

Results

Results Summary for whole modelled period

				Average Demand	Total Junction

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	(PCU/hr)	Arrivals (PCU)
B-CD	0.10	11.47	0.1	B	30	45
B-A	0.31	20.35	0.4	C	65	98
A-B					109	164
A-C					770	1155
A-D					9	14
AB-CD	0.02	6.57	0.0	A	9	14
AB-C					800	1200
D-ABC	0.10	10.94	0.1	B	30	45
C-D					17	26
C-A					369	553
C-B					9	14
CD-AB	0.03	8.72	0.0	A	9	14
CD-A					379	568

Main Results for each time segment

08:00 - 08:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalled level of service
B-CD	25	6	443	0.056	25	0.0	0.1	8.601	A
B-A	53	13	344	0.156	53	0.0	0.2	12.347	B
A-B	90	22			90				
A-C	632	158			632				
A-D	8	2			8				
AB-CD	8	2	582	0.013	8	0.0	0.0	6.274	A
AB-C	656	164			656				
D-ABC	25	6	438	0.057	25	0.0	0.1	8.711	A
C-D	14	4			14				
C-A	303	76			303				
C-B	8	2			8				
CD-AB	8	2	490	0.016	8	0.0	0.0	7.460	A
CD-A	311	78			311				

08:15 - 08:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalled level of service
B-CD	30	7	407	0.073	30	0.1	0.1	9.535	A
B-A	64	16	307	0.208	64	0.2	0.3	14.789	B
A-B	107	27			107				
A-C	754	189			754				
A-D	9	2			9				
AB-CD	9	2	572	0.016	9	0.0	0.0	6.401	A
AB-C	784	196			784				
D-ABC	30	7	408	0.073	30	0.1	0.1	9.517	A
C-D	17	4			17				
C-A	361	90			361				
C-B	9	2			9				
CD-AB	9	2	462	0.020	9	0.0	0.0	7.952	A
CD-A	371	93			371				

08:30 - 08:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalled level of service
B-CD	36	9	351	0.104	36	0.1	0.1	11.431	B
B-A	78	20	255	0.307	77	0.3	0.4	20.196	C
A-B	131	33			131				
A-C	924	231			924				
A-D	11	3			11				
AB-CD	11	3	560	0.020	11	0.0	0.0	6.570	A
AB-C	960	240			960				
D-ABC	36	9	365	0.099	36	0.1	0.1	10.939	B
C-D	21	5			21				
C-A	443	111			443				
C-B	11	3			11				
CD-AB	11	3	424	0.027	11	0.0	0.0	8.723	A
CD-A	454	114			454				

08:45 - 09:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalled level of service
B-CD	36	9	350	0.104	36	0.1	0.1	11.474	B
B-A	78	20	255	0.307	78	0.4	0.4	20.346	C
A-B	131	33			131				
A-C	924	231			924				
A-D	11	3			11				
AB-CD	11	3	560	0.020	11	0.0	0.0	6.572	A
AB-C	960	240			960				
D-ABC	36	9	365	0.099	36	0.1	0.1	10.943	B
C-D	21	5			21				
C-A	443	111			443				
C-B	11	3			11				
CDAB	11	3	425	0.027	11	0.0	0.0	8.723	A
CD-A	454	114			454				

09:00 - 09:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalled level of service
B-CD	30	7	406	0.073	30	0.1	0.1	9.579	A
B-A	64	16	307	0.208	64	0.4	0.3	14.908	B
A-B	107	27			107				
A-C	754	189			754				
A-D	9	2			9				
AB-CD	9	2	572	0.016	9	0.0	0.0	6.401	A
AB-C	784	196			784				
D-ABC	30	7	408	0.073	30	0.1	0.1	9.529	A
C-D	17	4			17				
C-A	361	90			361				
C-B	9	2			9				
CD-AB	9	2	462	0.020	9	0.0	0.0	7.954	A
CD-A	371	93			371				

09:15 - 09:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalled level of service
B-CD	25	6	442	0.056	25	0.1	0.1	8.635	A
B-A	53	13	344	0.156	54	0.3	0.2	12.438	B
A-B	90	22			90				
A-C	632	158			632				
A-D	8	2			8				
AB-CD	8	2	582	0.013	8	0.0	0.0	6.276	A
AB-C	656	164			656				
D-ABC	25	6	438	0.057	25	0.1	0.1	8.725	A
C-D	14	4			14				
C-A	303	76			303				
C-B	8	2			8				
CD-AB	8	2	490	0.016	8	0.0	0.0	7.461	A
CD-A	311	78			311				

Junction 3 - Proposed Layout - DO SOMETHING 2032, 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	Left-Right Stagger	Two-way		0.74	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)	Run automatically
D4	DO SOMETHING 2032	PM	ONE HOUR	17:00	18:30	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		ONE HOUR	✓	605	100.000
B		ONE HOUR	✓	86	100.000
C		ONE HOUR	✓	757	100.000
D		ONE HOUR	✓	36	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		A	B	C	D
From	A	0	119	475	11
	B	75	0	11	0
	C	720	15	0	22
	D	12	0	24	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		A	B	C	D
From	A	0	0	5	0
	B	0	0	0	0
	C	5	0	0	0
	D	0	0	0	0

Results

Results Summary for whole modelled period

		Average Demand	Total Junction

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	(PCU/hr)	Arrivals (PCU)
B-CD	0.03	8.64	0.0	A	10	15
B-A	0.28	17.05	0.4	C	69	103
A-B					109	164
A-C					436	654
A-D					10	15
AB-CD	0.03	7.76	0.0	A	10	15
AB-C					446	669
D-ABC	0.12	12.17	0.1	B	33	50
C-D					20	30
C-A					661	991
C-B					14	21
CD-AB	0.03	7.10	0.0	A	14	21
CD-A					671	1007

Main Results for each time segment

17:00 - 17:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-CD	8	2	496	0.017	8	0.0	0.0	7.385	A
B-A	56	14	369	0.153	56	0.0	0.2	11.462	B
A-B	90	22			90				
A-C	358	89			358				
A-D	8	2			8				
AB-CD	8	2	526	0.016	8	0.0	0.0	6.961	A
AB-C	366	91			366				
D-ABC	27	7	416	0.065	27	0.0	0.1	9.243	A
C-D	17	4			17				
C-A	542	136			542				
C-B	11	3			11				
CD-AB	12	3	556	0.021	11	0.0	0.0	6.615	A
CD-A	551	138			551				

17:15 - 17:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-CD	10	2	470	0.021	10	0.0	0.0	7.819	A
B-A	67	17	337	0.200	67	0.2	0.2	13.304	B
A-B	107	27			107				
A-C	427	107			427				
A-D	10	2			10				
AB-CD	10	3	505	0.020	10	0.0	0.0	7.283	A
AB-C	437	109			437				
D-ABC	32	8	382	0.085	32	0.1	0.1	10.278	B
C-D	20	5			20				
C-A	647	162			647				
C-B	13	3			13				
CD-AB	14	3	542	0.026	14	0.0	0.0	6.820	A
CD-A	658	164			658				

17:30 - 17:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-CD	12	3	429	0.028	12	0.0	0.0	8.627	A
B-A	83	21	294	0.281	82	0.2	0.4	16.970	C
A-B	131	33			131				
A-C	523	131			523				
A-D	12	3			12				
AB-CD	12	3	477	0.026	12	0.0	0.0	7.763	A
AB-C	535	134			535				
D-ABC	40	10	335	0.118	39	0.1	0.1	12.158	B
C-D	24	6			24				
C-A	793	198			793				
C-B	17	4			17				
CD-AB	17	4	526	0.033	17	0.0	0.0	7.097	A
CD-A	805	201			805				

17:45 - 18:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-CD	12	3	429	0.028	12	0.0	0.0	8.638	A
B-A	83	21	294	0.281	83	0.4	0.4	17.055	C
A-B	131	33			131				
A-C	523	131			523				
A-D	12	3			12				
AB-CD	12	3	477	0.026	12	0.0	0.0	7.765	A
AB-C	535	134			535				
D-ABC	40	10	335	0.118	40	0.1	0.1	12.170	B
C-D	24	6			24				
C-A	793	198			793				
C-B	17	4			17				
CD-AB	17	4	526	0.033	17	0.0	0.0	7.098	A
CD-A	805	201			805				

18:00 - 18:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-CD	10	2	470	0.021	10	0.0	0.0	7.829	A
B-A	67	17	337	0.200	68	0.4	0.3	13.387	B
A-B	107	27			107				
A-C	427	107			427				
A-D	10	2			10				
AB-CD	10	3	505	0.020	10	0.0	0.0	7.287	A
AB-C	437	109			437				
D-ABC	32	8	382	0.085	33	0.1	0.1	10.291	B
C-D	20	5			20				
C-A	647	162			647				
C-B	13	3			13				
CD-AB	14	3	543	0.026	14	0.0	0.0	6.824	A
CD-A	658	164			658				

18:15 - 18:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-CD	8	2	495	0.017	8	0.0	0.0	7.397	A
B-A	56	14	369	0.153	57	0.3	0.2	11.534	B
A-B	90	22			90				
A-C	358	89			358				
A-D	8	2			8				
AB-CD	8	2	526	0.016	8	0.0	0.0	6.964	A
AB-C	366	91			366				
D-ABC	27	7	416	0.065	27	0.1	0.1	9.261	A
C-D	17	4			17				
C-A	542	136			542				
C-B	11	3			11				
CD-AB	12	3	556	0.021	12	0.0	0.0	6.618	A
CD-A	551	138			551				

Junction 3 - Proposed Layout - DO SOMETHING 2042, 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	Left-Right Stagger	Two-way		0.90	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)	Run automatically
D5	DO SOMETHING 2042	AM	ONE HOUR	08:00	09:30	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		ONE HOUR	✓	1012	100.000
B		ONE HOUR	✓	110	100.000
C		ONE HOUR	✓	445	100.000
D		ONE HOUR	✓	33	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		A	B	C	D
From	A	0	126	876	10
	B	75	0	35	0
	C	415	11	0	19
	D	11	0	22	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		A	B	C	D
From	A	0	0	5	0
	B	0	0	0	0
	C	5	0	0	0
	D	0	0	0	0

Results

Results Summary for whole modelled period

				Average Demand	Total Junction

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	(PCU/hr)	Arrivals (PCU)
B-CD	0.12	12.20	0.1	B	32	48
B-A	0.34	22.44	0.5	C	69	103
A-B					116	173
A-C					804	1206
A-D					9	14
AB-CD	0.02	6.60	0.0	A	9	14
AB-C					836	1253
D-ABC	0.10	11.26	0.1	B	30	45
C-D					17	26
C-A					381	571
C-B					10	15
CD-AB	0.03	8.93	0.0	A	10	15
CD-A					391	586

Main Results for each time segment

08:00 - 08:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalled level of service
B-CD	26	7	435	0.061	26	0.0	0.1	8.796	A
B-A	56	14	335	0.168	56	0.0	0.2	12.830	B
A-B	95	24			95				
A-C	659	165			659				
A-D	8	2			8				
AB-CD	8	2	580	0.013	8	0.0	0.0	6.294	A
AB-C	685	171			685				
D-ABC	25	6	432	0.058	25	0.0	0.1	8.835	A
C-D	14	4			14				
C-A	312	78			312				
C-B	8	2			8				
CD-AB	8	2	484	0.017	8	0.0	0.0	7.574	A
CD-A	321	80			321				

08:15 - 08:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalled level of service
B-CD	31	8	396	0.079	31	0.1	0.1	9.858	A
B-A	67	17	297	0.227	67	0.2	0.3	15.640	C
A-B	113	28			113				
A-C	788	197			788				
A-D	9	2			9				
AB-CD	9	2	570	0.016	9	0.0	0.0	6.425	A
AB-C	819	205			819				
D-ABC	30	7	400	0.074	30	0.1	0.1	9.704	A
C-D	17	4			17				
C-A	373	93			373				
C-B	10	2			10				
CD-AB	10	3	455	0.022	10	0.0	0.0	8.102	A
CD-A	383	96			383				

08:30 - 08:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalled level of service
B-CD	39	10	335	0.115	38	0.1	0.1	12.133	B
B-A	83	21	243	0.340	82	0.3	0.5	22.220	C
A-B	139	35			139				
A-C	964	241			964				
A-D	11	3			11				
AB-CD	11	3	558	0.021	11	0.0	0.0	6.599	A
AB-C	1002	251			1002				
D-ABC	36	9	356	0.102	36	0.1	0.1	11.247	B
C-D	21	5			21				
C-A	457	114			457				
C-B	12	3			12				
CD-AB	13	3	416	0.030	13	0.0	0.0	8.935	A
CD-A	469	117			469				

08:45 - 09:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalled level of service
B-CD	39	10	334	0.116	39	0.1	0.1	12.199	B
B-A	83	21	243	0.340	83	0.5	0.5	22.439	C
A-B	139	35			139				
A-C	964	241			964				
A-D	11	3			11				
AB-CD	11	3	558	0.020	11	0.0	0.0	6.601	A
AB-C	1003	251			1003				
D-ABC	36	9	356	0.102	36	0.1	0.1	11.256	B
C-D	21	5			21				
C-A	457	114			457				
C-B	12	3			12				
CD-AB	13	3	416	0.030	13	0.0	0.0	8.935	A
CD-A	469	117			469				

09:00 - 09:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalled level of service
B-CD	31	8	395	0.080	32	0.1	0.1	9.914	A
B-A	67	17	297	0.227	68	0.5	0.3	15.800	C
A-B	113	28			113				
A-C	788	197			788				
A-D	9	2			9				
AB-CD	9	2	570	0.016	9	0.0	0.0	6.428	A
AB-C	819	205			819				
D-ABC	30	7	400	0.074	30	0.1	0.1	9.715	A
C-D	17	4			17				
C-A	373	93			373				
C-B	10	2			10				
CD-AB	10	3	455	0.022	10	0.0	0.0	8.104	A
CD-A	383	96			383				

09:15 - 09:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalled level of service
B-CD	26	7	434	0.061	26	0.1	0.1	8.839	A
B-A	56	14	335	0.168	57	0.3	0.2	12.936	B
A-B	95	24			95				
A-C	659	165			659				
A-D	8	2			8				
AB-CD	8	2	580	0.013	8	0.0	0.0	6.297	A
AB-C	686	171			686				
D-ABC	25	6	432	0.058	25	0.1	0.1	8.851	A
C-D	14	4			14				
C-A	312	78			312				
C-B	8	2			8				
CD-AB	8	2	484	0.017	8	0.0	0.0	7.575	A
CD-A	321	80			321				

Junction 3 - Proposed Layout - DO SOMETHING 2042, 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	Left-Right Stagger	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)	Run automatically
D6	DO SOMETHING 2042	PM	ONE HOUR	17:00	18:30	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		ONE HOUR	✓	629	100.000
B		ONE HOUR	✓	90	100.000
C		ONE HOUR	✓	788	100.000
D		ONE HOUR	✓	36	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		A	B	C	D
From	A	0	126	492	11
	B	78	0	12	0
	C	750	16	0	22
	D	12	0	24	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		A	B	C	D
From	A	0	0	5	0
	B	0	0	0	0
	C	5	0	0	0
	D	0	0	0	0

Results

Results Summary for whole modelled period

	Average Demand	Total Junction

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	(PCU/hr)	Arrivals (PCU)
B-CD	0.03	8.88	0.0	A	11	17
B-A	0.30	18.15	0.4	C	72	107
A-B					116	173
A-C					451	677
A-D					10	15
AB-CD	0.03	7.88	0.0	A	10	15
AB-C					462	693
D-ABC	0.12	12.61	0.1	B	33	50
C-D					20	30
C-A					688	1032
C-B					15	22
CD-AB	0.04	7.16	0.0	A	15	23
CD-A					699	1048

Main Results for each time segment

17:00 - 17:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-CD	9	2	491	0.018	9	0.0	0.0	7.468	A
B-A	59	15	363	0.162	58	0.0	0.2	11.783	B
A-B	95	24			95				
A-C	370	93			370				
A-D	8	2			8				
AB-CD	8	2	521	0.016	8	0.0	0.0	7.026	A
AB-C	379	95			379				
D-ABC	27	7	409	0.066	27	0.0	0.1	9.409	A
C-D	17	4			17				
C-A	565	141			565				
C-B	12	3			12				
CD-AB	12	3	554	0.022	12	0.0	0.0	6.657	A
CD-A	573	143			573				

17:15 - 17:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-CD	11	3	464	0.023	11	0.0	0.0	7.944	A
B-A	70	18	330	0.213	70	0.2	0.3	13.832	B
A-B	113	28			113				
A-C	442	111			442				
A-D	10	2			10				
AB-CD	10	3	499	0.020	10	0.0	0.0	7.367	A
AB-C	453	113			453				
D-ABC	32	8	374	0.086	32	0.1	0.1	10.527	B
C-D	20	5			20				
C-A	674	169			674				
C-B	14	4			14				
CD-AB	15	4	540	0.028	15	0.0	0.0	6.869	A
CD-A	684	171			684				

17:30 - 17:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-CD	13	3	419	0.032	13	0.0	0.0	8.863	A
B-A	86	21	284	0.302	85	0.3	0.4	18.042	C
A-B	139	35			139				
A-C	542	135			542				
A-D	12	3			12				
AB-CD	13	3	470	0.027	12	0.0	0.0	7.877	A
AB-C	554	139			554				
D-ABC	40	10	325	0.122	39	0.1	0.1	12.597	B
C-D	24	6			24				
C-A	826	206			826				
C-B	18	4			18				
CD-AB	19	5	523	0.036	19	0.0	0.0	7.152	A
CD-A	838	209			838				

17:45 - 18:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-CD	13	3	419	0.032	13	0.0	0.0	8.877	A
B-A	86	21	284	0.302	86	0.4	0.4	18.152	C
A-B	139	35			139				
A-C	542	135			542				
A-D	12	3			12				
AB-CD	13	3	470	0.027	13	0.0	0.0	7.879	A
AB-C	555	139			555				
DABC	40	10	325	0.122	40	0.1	0.1	12.612	B
C-D	24	6			24				
C-A	826	206			826				
C-B	18	4			18				
CDAB	19	5	523	0.036	19	0.0	0.0	7.155	A
CD-A	838	209			838				

18:00 - 18:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-CD	11	3	463	0.023	11	0.0	0.0	7.959	A
B-A	70	18	330	0.213	71	0.4	0.3	13.931	B
A-B	113	28			113				
A-C	442	111			442				
A-D	10	2			10				
AB-CD	10	3	499	0.020	10	0.0	0.0	7.371	A
AB-C	453	113			453				
DABC	32	8	374	0.087	33	0.1	0.1	10.544	B
C-D	20	5			20				
C-A	674	169			674				
C-B	14	4			14				
CDAB	15	4	540	0.028	15	0.0	0.0	6.872	A
CD-A	685	171			685				

18:15 - 18:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-CD	9	2	490	0.018	9	0.0	0.0	7.482	A
B-A	59	15	363	0.162	59	0.3	0.2	11.868	B
A-B	95	24			95				
A-C	370	93			370				
A-D	8	2			8				
AB-CD	8	2	521	0.016	8	0.0	0.0	7.029	A
AB-C	379	95			379				
DABC	27	7	409	0.066	27	0.1	0.1	9.430	A
C-D	17	4			17				
C-A	565	141			565				
C-B	12	3			12				
CDAB	12	3	554	0.022	12	0.0	0.0	6.658	A
CD-A	573	143			573				

TRANSYT 16

Version: 16.0.1.8473
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Filename: Junction 4 - Crossroads - AM.t16

Path: M:\Projects\22\22-010 Cherry Orchard - Sites 4 & 5 - C&S\Design\Civil\Traffic\Modelling 2023\1. Modelled Junctions\Junction 4\Final Model\120 seconds cycle

Report generation date: 23/08/2023 09:20:20

- »A1 - Proposed Junction 4 : D1 - DO SOMETHING 2027, :
- »A1 - Proposed Junction 4 : D2 - DO SOMETHING 2032, :
- »A1 - Proposed Junction 4 : D3 - DO SOMETHING 2042, :

Summary of network performance

	Set ID	PI (£ per hr)	Total delay (PCU-hr/hr)	Highest DOS	Number oversaturated
Proposed Junction 4 - DO SOMETHING 2027					
Network	D1	16679.74	82.26	110% (TS A/1)	2 (10%)
Proposed Junction 4 - DO SOMETHING 2032					
Network	D2	22306.85	108.10	115% (TS A/1)	2 (10%)
Proposed Junction 4 - DO SOMETHING 2042					
Network	D3	27869.61	131.62	120% (TS A/1)	2 (10%)

File summary

File description

File title	(untitled)
Location	
Site number	
UTCRegion	
Driving side	Left
Date	08/12/2011
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	DOMAIN1.byrne
Description	

Model and Results

Enable controller offsets	Enable fuel consumption	Enable quick flares	Display journey time results	Display OD matrix distances	Display level of service results	Display blocking and starvation results	Display end of red and green queue results	Display excess queue results	Display separate uniform and random results	Display unweighted results	Display TRANSYT 12 style timings	Display effective greens in results	Display Red-With-Amber	Display End-Of-Green Amber	
			✓			✓	✓	✓	✓	✓	✓	✓			

Units

Cost units	Speed units	Distance units	Fuel economy units	Fuel rate units	Mass units	Traffic units input	Traffic units results	Flow units	Average delay units	Total delay units	Rate of delay units
£	kph	m	mpg	l/h	kg	PCU	PCU	perHour	s	-Hour	perHour

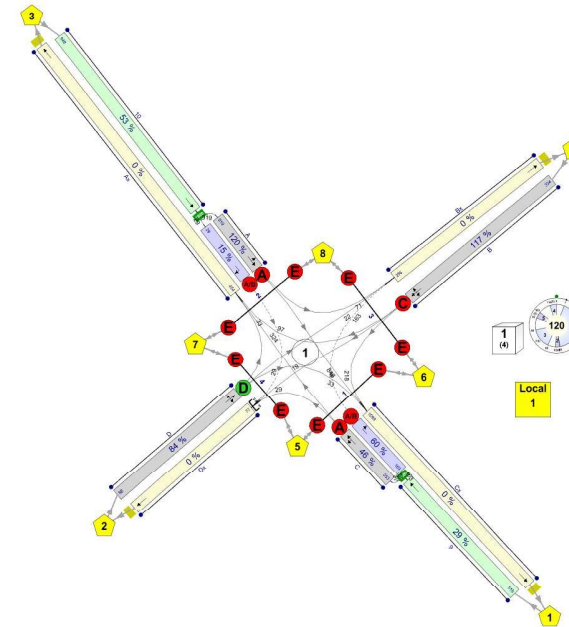
Sorting

Show names instead of IDs	Sorting direction	Sorting type	Ignore prefixes when sorting	Analysis/demand set sorting	Link grouping	Source grouping	Colour Analysis/Demand Sets
	Ascending	Numerical		ID	Normal	Normal	✓

Simulation options

Criteria type	Stop criteria (%)	Stop criteria time (s)	Stop criteria number of trials	Random seed	Results refresh speed (s)	Average animation capture interval (s)	Use quick response	Do flow sampling	Uniform vehicle generation	Last run random seed	Last run number of trials	Last run time taken (s)
Delay	3.00	999	200	-1	3	60	✓			0	0	0.00

Network Diagrams



(untitled)
 Cyclists: 0 / 120
 TransHops: 110 / 150
 3
 Diagram produced using TRANSYT 16.0.1.8473

A1 - Proposed Junction 4 D1 - DO SOMETHING 2027,

Summary

Data Errors and Warnings

No errors or warnings

Run Summary

Analysis set used	Run start time	Run finish time	Run duration (s)	Modelling start time (HH:mm)	Network Cycle Time (s)	Performance Index (£ per hr)	Total network delay (PCU-hr/hr)	Highest DOS (%)	Item with highest DOS	Number of oversaturated items	Percentage of oversaturated items (%)	Item with worst signalised PRC	Item with worst unsignal PRC
1	23/08/2023 09:20:05	23/08/2023 09:20:05	0.98	08:00	120	16679.74	82.26	109.54	A/1	2	10	A/1	10/1

Analysis Set Details

Name	Use Simulation	Description	Use specific Demand Set(s)	Specific Demand Set(s)	Optimise specific Demand Set(s)	Demand Set(s) to optimise	Include in report	Locked
Proposed Junction 4			✓	D1,D2,D3	✓	D3	✓	

Demand Set Details

Scenario name	Time Period name	Description	Composite	Demand sets	Start time (HH:mm)	Locked	Run automatically
DO SOMETHING 2027					08:00		✓

Arms and Traffic Streams

Arms

Arm	Name	Description	Traffic node
A	(untitled)		1
Ax	(untitled)		
B	(untitled)		1
Bx	(untitled)		
C	(untitled)		1
Cx	(untitled)		
D	(untitled)		1
Dx	(untitled)		
9			1
10			1

Traffic Streams

Arm	Traffic Stream	Name	Description	Auto length	Length (m)	Has Saturation Flow	Saturation flow source	Saturation flow (PCU/hr)	Is signal controlled	Is give way	Traffic type	Allow Nearside Turn On Red
A	1	(untitled)			10.00	✓	Sum of lanes	1800	✓		Normal	
	2	(untitled)			10.00	✓	Sum of lanes	1800	✓	✓	Normal	
Ax	1	(untitled)			100.00						Normal	
B	1	(untitled)			100.00	✓	Sum of lanes	1800	✓		Normal	
Bx	1	(untitled)			100.00						Normal	
C	1	(untitled)			15.00	✓	Sum of lanes	1800	✓		Normal	
	2	(untitled)			15.00	✓	Sum of lanes	1800	✓	✓	Normal	
Cx	1	(untitled)			100.00						Normal	
D	1	(untitled)			50.00	✓	Sum of lanes	1800	✓		Normal	
Dx	1	(untitled)			50.00						Normal	
9	1			✓	40.92	✓	Sum of lanes	1800			Normal	
10	1			✓	58.01	✓	Sum of lanes	1800			Normal	

Lanes

Arm	Traffic Stream	Lane	Name	Description	Use RR67	Saturation flow (PCU/hr)
A	1	1	(untitled)			1800
	2	1	(untitled)			1800
Ax	1	1	(untitled)			
B	1	1	(untitled)			1800
Bx	1	1	(untitled)			
C	1	1	(untitled)			1800
	2	1	(untitled)			1800
Cx	1	1	(untitled)			
D	1	1	(untitled)			1800
Dx	1	1	(untitled)			
9	1	1	(untitled)			1800
10	1	1	(untitled)			1800

Modelling

Arm	Traffic Stream	Traffic model	Stop weighting multiplier (%)	Delay weighting multiplier (%)	Assignment Cost Weighting (%)	Exclude from results calculation	Max queue storage (PCU)	Has queue limit	Queue limit (PCU)	Excess queue penalty (£)	Has degree of saturation limit
A	1	NetworkDefault	100	100	100		0.00				
	2	Flare	100	100	100		0.00	✓	2.00	99999.00	
Ax	1	NetworkDefault	100	100	100		0.00				
B	1	NetworkDefault	100	100	100		0.00				
Bx	1	NetworkDefault	100	100	100		0.00				
C	1	NetworkDefault	100	100	100		0.00				
	2	Flare	100	100	100		0.00	✓	2.00	99999.00	
Cx	1	NetworkDefault	100	100	100		0.00				
D	1	NetworkDefault	100	100	100		0.00				
Dx	1	NetworkDefault	100	100	100		0.00				
9	1	NetworkDefault	100	100	100		0.00				
10	1	NetworkDefault	100	100	100		0.00				

Modelling - Advanced

Arm	Traffic Stream	Initial queue (PCU)	Type of Vehicle-in-Service	Vehicle-in-Service	Type of random parameter	Random parameter	Auto cycle time	Cycle time
(ALL)	(ALL)	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120

Normal traffic - Modelling

Arm	Traffic Stream	Stop weighting (%)	Delay weighting (%)
(ALL)	(ALL)	100	100

Normal traffic - Advanced

Am	Traffic Stream	Dispersion type for Normal Traffic
(ALL)	(ALL)	NetworkDefault

Flows

Am	Traffic Stream	Total Flow (PCU/hr)	Normal Flow (PCU/hr)
A	1	838	838
	2	29	29
Ax	1	425	425
B	1	310	310
Bx	1	241	241
C	1	329	329
	2	150	150
Cx	1	1001	1001
D	1	88	88
Dx	1	77	77
9	1	479	479
10	1	867	867

Signals

Am	Traffic Stream	Controller stream	Phase	Second phase enabled	Second phase
A	1	1	A		
	2	1	A	✓	B
B	1	1	C		
C	1	1	A		
	2	1	A	✓	B
D	1	1	D		

Entry Sources

Am	Traffic Stream	Cruise time for Normal Traffic (s)	Cruise speed for Normal Traffic (kph)
B	1	12.00	30.00
D	1	6.00	30.00
9	1	4.91	30.00
10	1	6.96	30.00

Sources

Am	Traffic Stream	Source	Source traffic stream	Destination traffic stream	Cruise time for Normal Traffic (s)	Cruise speed for Normal Traffic (kph)	Auto turning radius	Traffic turn style	Turning radius (m)
A	1	1	10/1	A/1	1.20	30.00	✓	Straight	Straight Movement
	2	1	10/1	A/2	1.20	30.00	✓	Straight	Straight Movement
Ax	1	1	B/1	Ax/1	12.00	30.00	✓	Offside	29.40
Bx	1	1	A/1	Bx/1	12.00	30.00	✓	Nearside	23.82
C	1	1	9/1	C/1	1.80	30.00	✓	Straight	Straight Movement
	2	1	9/1	C/2	1.80	30.00	✓	Straight	Straight Movement
Cx	1	1	D/1	Cx/1	12.00	30.00	✓	Offside	22.75
Dx	1	1	C/1	Dx/1	6.00	30.00	✓	Nearside	14.43
Ax	1	2	C/1	Ax/1	12.00	30.00	✓	Straight	Straight Movement
Bx	1	2	D/1	Bx/1	12.00	30.00	✓	Straight	Straight Movement
Cx	1	2	A/1	Cx/1	12.00	30.00	✓	Straight	Straight Movement
Dx	1	2	B/1	Dx/1	6.00	30.00	✓	Straight	Straight Movement
Ax	1	3	D/1	Ax/1	12.00	30.00	✓	Nearside	16.65
Bx	1	3	C/2	Bx/1	12.00	30.00	✓	Offside	21.08
Cx	1	3	B/1	Cx/1	12.00	30.00	✓	Nearside	14.22
Dx	1	3	A/2	Dx/1	6.00	30.00	✓	Offside	21.03

Pedestrian Crossings

Pedestrian Crossings

Crossing	Name	Description	Traffic node	Allow walk on red	Crossing type	Length (m)	Cruise time (seconds)	Cruise speed (kph)
1	(untitled)		1		Farside	3.00	2.00	5.40
2	(untitled)		1		Farside	3.00	2.00	5.40
3	(untitled)		1		Farside	3.00	2.00	5.40
4	(untitled)				Farside	3.00	2.00	5.40

Pedestrian Crossings - Signals

Crossing	Controller stream	Phase	Second phase enabled
(ALL)	1	E	

Pedestrian Crossings - Sides

Crossing	Side	Saturation flow (Ped/hr)
(ALL)	(ALL)	11000

Pedestrian Crossings - Modelling

Crossing	Side	Delay weighting (%)	Assignment Cost Weighting (%)	Exclude from results calculation	Max queue storage (Ped)	Has queue limit	Has degree of saturation limit
(ALL)	(ALL)	100	100		0.00		

Local OD Matrix - Local Matrix: 1

Local Matrix Options

OD Matrix	Name	Use for point to point table	Auto calculate	Allocation mode	Allow paths past exit locations	Allow looped paths on arms	Allow looped paths on traffic nodes	Copy flows	Matrix to copy flows from	Limit paths by length	Path length limit multiplier	Limit paths by number	Path number limit	Limit paths by flow	Low path flow threshold
1	(untitled)	✓	✓	Lane Balancing			✓			✓	1.25				

Normal Input Flows (PCU/hr)

From	To							
	1	2	3	4	5	6	7	8
1	0	29	300	150	0	0	0	0
2	33	0	33	22	0	0	0	0
3	769	29	0	69	0	0	0	0
4	199	19	92	0	0	0	0	0
5	0	0	0	0	0	0	0	0
6	0	0	0	0	0	0	0	0
7	0	0	0	0	0	0	0	0
8	0	0	0	0	0	0	0	0

Bus Input Flows not shown as they are blank.

Tram Input Flows not shown as they are blank.

Pedestrian Input Flows (PCU/hr)

From	To							
	1	2	3	4	5	6	7	8
1	0	0	0	0	0	0	0	0
2	0	0	0	0	0	0	0	0
3	0	0	0	0	0	0	0	0
4	0	0	0	0	0	0	0	0
5	0	0	0	0	0	50	50	0
6	0	0	0	0	50	0	0	50
7	0	0	0	0	50	0	0	50
8	0	0	0	0	0	50	50	0

Locations

OD Matrix	Location	Name	Entries	Exits	Colour
1	1	(untitled)	9/1	Cx/1	#0000FF
	2	(untitled)	D/1	Dx/1	#FF0000
	3	(untitled)	10/1	Ax/1	#00FF00
	4	(untitled)	B/1	Bx/1	#FFFFFF00
	5	(untitled)	1:1E, 4:2E	1:1X, 4:2X	#00FFFF
	6	(untitled)	1:2E, 3:1E	1:2X, 3:1X	#FF00FF
	7	(untitled)	4:1E, 2:1E	4:1X, 2:1X	#008000
	8	(untitled)	3:2E, 2:2E	3:2X, 2:2X	#FFA500

Normal Paths and Flows

OD Matrix	Path	Description	From location	To location	Path items	Allocation type	Normal Calculated Flow (PCU/hr)
1	4		2	1	D/1, Cx/1	Normal	33
	9		4	2	B/1, Dx/1	Normal	19
	10		4	3	B/1, Ax/1	Normal	92
	12		2	4	D/1, Bx/1	Normal	22
	18		1	2	9/1, C/1, Dx/1	Normal	29
	19		3	1	10/1, A/1, Cx/1	Normal	769
	20		4	1	B/1, Cx/1	Normal	199
	23		2	3	D/1, Ax/1	Normal	33
	31		1	3	9/1, C/1, Ax/1	Normal	300
	32		1	4	9/1, C/2, Bx/1	Normal	150
	34		3	4	10/1, A/1, Bx/1	Normal	69
	35		3	2	10/1, A/2, Dx/1	Normal	29

Pedestrian Paths and Flows

OD Matrix	Path	Description	From location	To location	Path items	Allocation type	Pedestrian calculated flow (Ped/hr)
1	13		5	6	1:1E, 1:2X	Normal	50
	14		6	5	1:2E, 1:1X	Normal	50
	15		5	7	4:2E, 4:1X	Normal	50
	16		7	5	4:1E, 4:2X	Normal	50
	21		8	6	3:2E, 3:1X	Normal	50
	28		6	8	3:1E, 3:2X	Normal	50
	29		7	8	2:1E, 2:2X	Normal	50
	30		8	7	2:2E, 2:1X	Normal	50

Signal Timings

Network Default: 120s cycle time; 120 steps

Controller Stream 1

Controller Stream	Name	Description	Use sequence	Cycle time source	Cycle time (s)	Minimum possible cycle time (s)
1	(untitled)		2	NetworkDefault	120	120

Controller Stream 1 - Properties

Controller Stream	Manufacturer name	Type	Model number	(Telephone) Line Number	Site number	Grid reference	Gaining delay type
1	Unspecified						Absolute

Controller Stream 1 - Optimisation

Controller Stream	Allow offset optimisation	Allow green split optimisation	Optimisation level	Auto redistribute	Enable stage constraint
1	✓	✓	Offsets And Green Splits	✓	

Phases

Controller Stream	Phase	Name	Street minimum green (s)	Maximum green (s)	Relative start displacement (s)	Relative end displacement (s)	Type	Blackout Time (s)
1	A	(untitled)	50	50	0	0	Unknown	
	B	(untitled)	4	4	0	0	Unknown	
	C	(untitled)	18	18	0	0	Unknown	
	D	(untitled)	6	6	0	0	Unknown	
	E	(untitled)	6	6	0	0	Pedestrian	0

Library Stages

Controller Stream	Library Stage	Phases in stage	User stage minimum (s)	Run every N cycles	Probability of running (%)
1	1	A	1	1	100
	2	B	1	1	100
	3	C	1	1	100
	4	D	1	1	100
	5	E	1	1	100

Stage Sequences

Controller Stream	Sequence	Name	Multiple cycling	Stage IDs	Stage ends	Minimum possible cycle time (s)	Exclude from analysis
1	1	(untitled)	Single	1, 2, 3, 4, 5	21, 47, 73, 99, 0	112	
	2	(untitled)	Single	1, 2, 3, 5, 4	57, 61, 86, 103, 0	120	
	3	(untitled)	Single	1, 2, 4, 3, 5	21, 47, 77, 99, 0	111	
	4	(untitled)	Single	1, 2, 4, 5, 3	20, 45, 74, 94, 113	111	
	5	(untitled)	Single	1, 2, 5, 3, 4	22, 49, 71, 93, 119	111	
	6	(untitled)	Single	1, 2, 5, 4, 3	22, 49, 70, 91, 113	115	
	7	(untitled)	Single	1, 3, 2, 4, 5	20, 46, 73, 101, 0	117	
	8	(untitled)	Single	1, 3, 2, 5, 4	22, 49, 77, 98, 119	123	
	9	(untitled)	Single	1, 3, 4, 2, 5	22, 50, 77, 99, 0	116	
	10	(untitled)	Single	1, 3, 4, 5, 2	21, 48, 74, 94, 114	111	

Intergreen Matrix for Controller Stream 1

		To				
		A	B	C	D	E
From	A			6	7	9
	B			7	6	8
	C	7	7		7	11
	D	7	6	5		9
	E	5	5	5	11	

Banned Stage transitions for Controller Stream 1

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

Interstage Matrix for Controller Stream 1

		To				
		1	2	3	4	5
From	1	0	0	6	7	9
	2	0	0	7	6	8
	3	7	7	0	7	11
	4	7	6	5	0	9
	5	5	5	5	11	0

Resultant Stages

Controller Stream	Resultant Stage	Is base stage	Library Stage ID	Phases in this stage	Stage start (s)	Stage end (s)	Stage duration (s)	User stage minimum (s)	Stage minimum (s)
1	1	✓	1	A	7	57	50	1	50
	2	✓	2	B	57	61	4	1	4
	3	✓	3	C	68	86	18	1	18
	4	✓	5	E	97	103	6	1	6
	5	✓	4	D	114	0	6	1	6

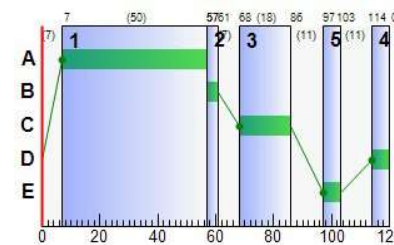
Resultant Phase Green Periods

Controller Stream	Phase	Green period	Is base green period	Start time (s)	End time (s)	Duration (s)
1	A	1	✓	7	57	50
	B	1	✓	57	61	4
	C	1	✓	68	86	18
	D	1	✓	114	0	6
	E	1	✓	97	103	6

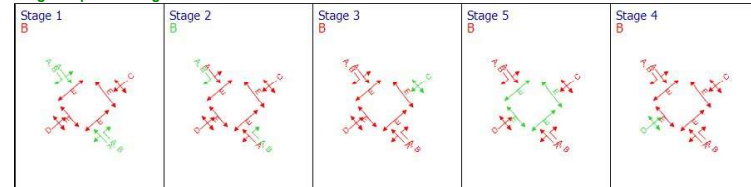
Traffic Stream Green Times

Arm	Traffic Stream	Traffic Node	Controller Stream	Phase	Green Period 1		
					Start	End	Duration
A	1	1	1	A	7	57	50
A	2	1	1	A	7	57	50
B	1	1	1	C	68	86	18
C	1	1	1	A	7	57	50
C	2	1	1	A	7	57	50
D	1	1	1	D	114	0	6

Phase Timings Diagram for Controller Stream 1



Stage Sequence Diagram for Controller Stream 1



Traffic Stream Results

Traffic Stream Results: Vehicle summary

Time Segment	Arm	Traffic Stream	Degree of saturation (%)	Practical reserve capacity (%)	Calculated flow entering (PCU/hr)	Calculated sat flow (PCU/hr)	Actual green (s per cycle)	Mean Delay per Veh (s)	Mean max queue (PCU)	Utilised storage (%)	Weighted cost of delay (£ per hr)	Weighted cost of stops (£ per hr)	Performance Index (£ per hr)
08:00-09:00	A	1	110	-9	838	1800	50	207.84	66.34	3814.34	687.00	20.53	707.53
		2	15	547	29	409	54	21.24	0.54	26.89	2.43	0.22	2.65
	Ax	1	0	Unrestricted	418	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
	B	1	109	-8	310	1800	18	238.74	25.98	149.39	291.93	7.86	299.79
	Bx	1	0	Unrestricted	235	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
	C	1	43	133	329	1800	50	26.05	7.84	300.48	33.81	2.90	36.70
		2	55	82	150	595	54	33.12	3.04	101.35	19.60	1.54	15498.18
	Cx	1	0	Unrestricted	918	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
	D	1	84	19	88	1800	6	124.53	4.56	52.45	43.23	1.62	44.85
	Dx	1	0	Unrestricted	75	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
	9	1	27	276	479	1800	120	0.36	0.05	0.68	0.68	0.00	0.68
	10	1	48	108	867	1800	120	0.93	0.22	2.21	3.17	0.00	3.17

Traffic Stream Results: Flows and signals

Time Segment	Arm	Traffic Stream	Calculated flow entering (PCU/hr)	Calculated flow out (PCU/hr)	Flow discrepancy (PCU/hr)	Adjusted flow warning	Calculated sat flow (PCU/hr)	Calculated capacity (PCU/hr)	Degree of saturation (%)	DOS Threshold exceeded	Practical reserve capacity (%)	Mean modulus of error	Actual green (s per cycle)	Effective green (pe cycl)
08:00-09:00	A	1	838	765	0		1800	765	110	✓	-9	0.00	50	51
		2	29	29	0		409	188	15		547	0.00	54	55
	Ax	1	418	418	7	✓	Unrestricted	Unrestricted	0		Unrestricted	0.72	120	12
	B	1	310	285	0		1800	285	109	✓	-8	0.00	18	19
	Bx	1	235	235	6	✓	Unrestricted	Unrestricted	0		Unrestricted	0.89	120	12
		1	329	329	0		1800	765	43		133	0.00	50	51
	C	1	150	150	0		595	273	55		82	0.00	54	55
		2	150	150	0		595	273	55		82	0.00	54	55
	Cx	1	918	918	83	✓	Unrestricted	Unrestricted	0		Unrestricted	0.65	120	12
	D	1	88	88	0		1800	105	84		19	0.00	6	7
	Dx	1	75	75	2	✓	Unrestricted	Unrestricted	0		Unrestricted	0.87	120	12
	9	1	479	479	0		1800	1800	27		276	0.00	120	12
	10	1	867	867	0		1800	1800	48		108	0.00	120	12

Traffic Stream Results: Stops and delays

Time Segment	Arm	Traffic Stream	Mean Cruise Time per Veh (s)	Mean Delay per Veh (s)	Uniform delay (PCU-hr/hr)	Random plus oversat delay (PCU-hr/hr)	Unweighted cost of delay (£ per hr)	Weighted cost of delay (£ per hr)	Mean stops per Veh (%)	Uniform stops (Stops per hr)	Random stops (Stops per hr)	Unweighted cost of stops (£ per hr)	Weighted cost of stops (£ per hr)
08:00-09:00	A	1	1.20	207.84	7.33	41.05	687.00	687.00	214.01	765.00	872.16	20.53	20.53
		2	1.20	21.24	0.16	0.01	2.43	2.43	59.64	16.87	0.42	0.22	0.22
	Ax	1	12.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	B	1	12.00	238.74	4.00	16.56	291.93	291.93	219.92	285.00	341.78	7.86	7.86
	Bx	1	12.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	C	1	1.80	26.05	2.22	0.16	33.81	33.81	70.21	226.15	4.84	2.90	2.90
		2	1.80	33.12	1.05	0.33	19.60	19.60	81.87	113.00	9.80	1.54	1.54
	Cx	1	12.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	D	1	6.00	124.53	1.37	1.68	43.23	43.23	147.06	85.67	43.75	1.62	1.62
	Dx	1	6.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	9	1	4.91	0.36	0.00	0.05	0.68	0.68	0.00	0.00	0.00	0.00	0.00
	10	1	6.96	0.93	0.00	0.22	3.17	3.17	0.00	0.00	0.00	0.00	0.00

Traffic Stream Results: Queues and blocking

Time Segment	Arm	Traffic Stream	Initial queue (PCU)	Mean max queue (PCU)	Max queue storage (PCU)	Utilised storage (%)	Average storage excess queue (PCU)	Average limit excess queue (PCU)	Excess queue penalty (£ per hr)	Mean end of green queue (PCU)	Mean end of red queue (PCU)	Wasted time starvation (s per cycle)	Wasted time blocking back (s per cycle)	Wasted time total (s per cycle)	Estimated blocking
08:00-09:00	A	1	0.00	66.34	1.74	3814.34	51.95	0.00	0.00	41.05	55.71	0.00	0.00	0.00	
		2	0.00	0.54	2.00	26.89	0.00	0.00	0.00	0.00	0.01	0.54	48.00	0.00	48.00
	Ax	1	0.00	0.00	17.39	0.00	0.00	0.00	0.00	0.00		23.00	0.00	23.00	
	B	1	0.00	25.98	17.39	149.39	3.92	0.00	0.00	16.56	24.56	0.00	0.00	0.00	
	Bx	1	0.00	0.00	17.39	0.00	0.00	0.00	0.00			49.00	0.00	49.00	
	C	1	0.00	7.84	2.61	300.48	1.27	0.00	0.00	0.16	6.47	0.00	0.00	0.00	
		2	0.00	3.04	3.00	101.35	0.00	0.15	15477.05	0.33	3.04	0.00	0.00	0.00	
	Cx	1	0.00	0.00	17.39	0.00	0.00	0.00	0.00			16.00	0.00	16.00	
	D	1	0.00	4.56	8.70	52.45	0.00	0.00	0.00	1.68	4.44	0.00	0.00	0.00	
	Dx	1	0.00	0.00	8.70	0.00	0.00	0.00	0.00			77.00	0.00	77.00	
	9	1	0.00	0.05	7.12	0.68	0.00	0.00	0.00			0.00	58.00	58.00	
	10	1	0.00	0.22	10.09	2.21	0.00	0.00	0.00			0.00	120.00	120.00	

Pedestrian Crossing Results

Pedestrian Crossings: Pedestrian summary

Time Segment	Crossing	Side	Degree of saturation (%)	Calculated Flow Entering (Ped/hr)	Calculated sat flow (Ped/hr)	Actual green (s per cycle)	Mean Delay Per Ped (s)	Mean max queue (Ped)	Weighted cost of delay (£ per hr)	Performance Index (£ per hr)
08:00-09:00	(ALL)	(ALL)	9	50	11000	6	54.63	1.58	10.77	10.77

Pedestrian Crossings: Flows and signals

Time Segment	Crossing	Side	Calculated flow entering (Ped/hr)	Calculated flow out (Ped/hr)	Flow discrepancy (Ped/hr)	Adjusted flow warning	Calculated sat flow (Ped/hr)	Calculated capacity (Ped/hr)	Degree of saturation (%)	DOS Threshold exceeded	Practical reserve capacity (%)	Mean modulus of error	Actual green (s per cycle)	Effective green (pe cycl)
08:00-09:00	(ALL)	(ALL)	50	50	0		11000	550	9		1000	0.00	6	6

Pedestrian Crossings: Stops and delays

Time Segment	Crossing	Side	Mean Cruise Time per Ped (s)	Mean Delay per Ped (s)	Uniform delay (Ped-hr/hr)	Random plus oversat delay (Ped-hr/hr)	Unweighted cost of delay (£ per hr)	Weighted cost of delay (£ per hr)
08:00-09:00	(ALL)	(ALL)	3.00	54.63	0.76	0.00	10.77	10.77

Pedestrian Crossings: Queues and blocking

Time Segment	Crossing	Side	Mean max queue (Ped)	Max queue storage (Ped)	Utilised storage (%)	Average storage excess queue (Ped)	Average limit excess queue (Ped)	Excess queue penalty (£ per hr)
08:00-09:00	(ALL)	(ALL)	1.58	10.00	15.83	0.00	0.00	0.00

Network Results

Run Summary

Analysis set used	Run start time	Run finish time	Run duration (s)	Modelling start time (HH:mm)	Network Cycle Time (s)	Performance Index (£ per hr)	Total network delay (PCU-hr/hr)	Highest DOS (%)	Item with highest DOS	Number of oversaturated items	Percentage of oversaturated items (%)	Item with worst signalised PRC	Item with worst unsignal PRC
1	23/08/2023 09:20:05	23/08/2023 09:20:05	0.98	08:00	120	16679.74	82.26	109.54	A/1	2	10	A/1	10/1

Network Results: Vehicle summary

Time Segment	Degree of saturation (%)	Practical reserve capacity (%)	Calculated flow entering (PCU/hr)	Actual green (s per cycle)	Mean Delay per Veh (s)	Weighted cost of delay (£ per hr)	Weighted cost of stops (£ per hr)	Performance Index (£ per hr)
08:00-09:00	110	-9	4736	952	57.91	1081.85	34.66	16593.56

Network Results: Pedestrian summary

Time Segment	Degree of saturation (%)	Calculated Flow Entering (Ped/hr)	Actual green (s per cycle)	Mean Delay Per Ped (s)	Weighted cost of delay (£ per hr)	Performance Index (£ per hr)
08:00-09:00	9	400	48	54.63	86.19	86.19

Network Results: Flows and signals

Time Segment	Calculated flow entering (PCU/hr)	Calculated flow out (PCU/hr)	Flow discrepancy (PCU/hr)	Adjusted flow warning	Degree of saturation (%)	DOS Threshold exceeded	Practical reserve capacity (%)	Actual green (s per cycle)	Effective green (s per cycle)
08:00-09:00	5136	5038	98	✓	110	✓	-9	1000	1006

Network Results: Stops and delays

Time Segment	Mean Cruise Time per Veh (s)	Mean Delay per Veh (s)	Uniform delay (PCU-hr/hr)	Random plus oversat delay (PCU-hr/hr)	Unweighted cost of delay (£ per hr)	Weighted cost of delay (£ per hr)	Mean stops per Veh (%)	Uniform stops (Stops per hr)	Random stops (Stops per hr)	Unweighted cost of stops (£ per hr)	Weighted cost of stops (£ per hr)
08:00-09:00	6.82	57.66	22.19	60.07	1168.03	1168.03	57.94	1491.69	1272.75	34.66	34.66

Network Results: Queues and blocking

Time Segment	Utilised storage (%)	Excess queue penalty (£ per hr)	Wasted time starvation (s per cycle)	Wasted time blocking back (s per cycle)	Wasted time total (s per cycle)
08:00-09:00	3814.34	15477.05	213.00	178.00	391.00

A1 - Proposed Junction 4 D2 - DO SOMETHING 2032,

Summary

Data Errors and Warnings

No errors or warnings

Run Summary

Analysis set used	Run start time	Run finish time	Run duration (s)	Modelling start time (HH:mm)	Network Cycle Time (s)	Performance Index (£ per hr)	Total network delay (PCU-hr/hr)	Highest DOS (%)	Item with highest DOS	Number of oversaturated items	Percentage of oversaturated items (%)	Item with worst signalised PRC	Item with worst unsignal PRC
1	23/08/2023 09:20:06	23/08/2023 09:20:06	0.40	08:00	120	22306.85	108.10	115.16	A/1	2	10	A/1	10/1

Analysis Set Details

Name	Use Simulation	Description	Use specific Demand Set(s)	Specific Demand Set(s)	Optimise specific Demand Set(s)	Demand Set(s) to optimise	Include in report	Locked
Proposed Junction 4			✓	D1,D2,D3	✓	D3	✓	

Demand Set Details

Scenario name	Time Period name	Description	Composite	Demand sets	Start time (HH:mm)	Locked	Run automatically
DO SOMETHING 2032					08:00		✓

Arms and Traffic Streams

Arms

Arm	Name	Description	Traffic node
A	(untitled)		1
Ax	(untitled)		
B	(untitled)		1
Bx	(untitled)		
C	(untitled)		1
Cx	(untitled)		
D	(untitled)		1
Dx	(untitled)		
9			1
10			1

Traffic Streams

Arm	Traffic Stream	Name	Description	Auto length	Length (m)	Has Saturation Flow	Saturation flow source	Saturation flow (PCU/hr)	Is signal controlled	Is give way	Traffic type	Allow Nearside Turn On Red
A	1	(untitled)			10.00	✓	Sum of lanes	1800	✓		Normal	
	2				10.00	✓	Sum of lanes	1800	✓	✓	Normal	
Ax	1	(untitled)			100.00						Normal	
B	1	(untitled)			100.00	✓	Sum of lanes	1800	✓		Normal	
Bx	1	(untitled)			100.00						Normal	
C	1	(untitled)			15.00	✓	Sum of lanes	1800	✓		Normal	
	2				15.00	✓	Sum of lanes	1800	✓	✓	Normal	
Cx	1	(untitled)			100.00						Normal	
D	1	(untitled)			50.00	✓	Sum of lanes	1800	✓		Normal	
Dx	1	(untitled)			50.00						Normal	
9	1			✓	40.92	✓	Sum of lanes	1800			Normal	
10	1			✓	58.01	✓	Sum of lanes	1800			Normal	

Lanes

Arm	Traffic Stream	Lane	Name	Description	Use RR67	Saturation flow (PCU/hr)
A	1	1	(untitled)			1800
	2	1	(untitled)			1800
Ax	1	1	(untitled)			
B	1	1	(untitled)			1800
Bx	1	1	(untitled)			
C	1	1	(untitled)			1800
	2	1	(untitled)			1800
Cx	1	1	(untitled)			
D	1	1	(untitled)			1800
Dx	1	1	(untitled)			
9	1	1	(untitled)			1800
10	1	1	(untitled)			1800

Modelling

Arm	Traffic Stream	Traffic model	Stop weighting multiplier (%)	Delay weighting multiplier (%)	Assignment Cost Weighting (%)	Exclude from results calculation	Max queue storage (PCU)	Has queue limit	Queue limit (PCU)	Excess queue penalty (£)	Has degree of saturation limit
A	1	NetworkDefault	100	100	100		0.00				
	2	Flare	100	100	100		0.00	✓	2.00	99999.00	
Ax	1	NetworkDefault	100	100	100		0.00				
B	1	NetworkDefault	100	100	100		0.00				
Bx	1	NetworkDefault	100	100	100		0.00				
C	1	NetworkDefault	100	100	100		0.00				
	2	Flare	100	100	100		0.00	✓	2.00	99999.00	
Cx	1	NetworkDefault	100	100	100		0.00				
D	1	NetworkDefault	100	100	100		0.00				
Dx	1	NetworkDefault	100	100	100		0.00				
9	1	NetworkDefault	100	100	100		0.00				
10	1	NetworkDefault	100	100	100		0.00				

Modelling - Advanced

Arm	Traffic Stream	Initial queue (PCU)	Type of Vehicle-in-Service	Vehicle-in-Service	Type of random parameter	Random parameter	Auto cycle time	Cycle time
(ALL)	(ALL)	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120

Normal traffic - Modelling

Arm	Traffic Stream	Stop weighting (%)	Delay weighting (%)
(ALL)	(ALL)	100	100

Normal traffic - Advanced

Arm	Traffic Stream	Dispersion type for Normal Traffic
(ALL)	(ALL)	NetworkDefault

Flows

Arm	Traffic Stream	Total Flow (PCU/hr)	Normal Flow (PCU/hr)
A	1	881	881
	2	29	29
Ax	1	441	441
B	1	323	323
Bx	1	249	249
C	1	342	342
	2	157	157
Cx	1	1053	1053
D	1	88	88
Dx	1	77	77
9	1	499	499
10	1	910	910

Signals

Arm	Traffic Stream	Controller stream	Phase	Second phase enabled	Second phase
A	1	1	A		
	2	1	A	✓	B
B	1	1	C		
C	1	1	A		
	2	1	A	✓	B
D	1	1	D		

Entry Sources

Arm	Traffic Stream	Cruise time for Normal Traffic (s)	Cruise speed for Normal Traffic (kph)
B	1	12.00	30.00
D	1	6.00	30.00
9	1	4.91	30.00
10	1	6.96	30.00

Sources

Arm	Traffic Stream	Source	Source traffic stream	Destination traffic stream	Cruise time for Normal Traffic (s)	Cruise speed for Normal Traffic (kph)	Auto turning radius	Traffic turn style	Turning radius (m)
A	1	1	10/1	A/1	1.20	30.00	✓	Straight	Straight Movement
	2	1	10/1	A/2	1.20	30.00	✓	Straight	Straight Movement
Ax	1	1	B/1	Ax/1	12.00	30.00	✓	Offside	29.40
Bx	1	1	A/1	Bx/1	12.00	30.00	✓	Nearside	23.82
C	1	1	9/1	C/1	1.80	30.00	✓	Straight	Straight Movement
	2	1	9/1	C/2	1.80	30.00	✓	Straight	Straight Movement
Cx	1	1	D/1	Cx/1	12.00	30.00	✓	Offside	22.75
Dx	1	1	C/1	Dx/1	6.00	30.00	✓	Nearside	14.43
Ax	1	2	C/1	Ax/1	12.00	30.00	✓	Straight	Straight Movement
Bx	1	2	D/1	Bx/1	12.00	30.00	✓	Straight	Straight Movement
Cx	1	2	A/1	Cx/1	12.00	30.00	✓	Straight	Straight Movement
Dx	1	2	B/1	Dx/1	6.00	30.00	✓	Straight	Straight Movement
Ax	1	3	D/1	Ax/1	12.00	30.00	✓	Nearside	16.65
Bx	1	3	C/2	Bx/1	12.00	30.00	✓	Offside	21.08
Cx	1	3	B/1	Cx/1	12.00	30.00	✓	Nearside	14.22
Dx	1	3	A/2	Dx/1	6.00	30.00	✓	Offside	21.03

Pedestrian Crossings

Pedestrian Crossings

Crossing	Name	Description	Traffic node	Allow walk on red	Crossing type	Length (m)	Cruise time (seconds)	Cruise speed (kph)
1	(untitled)		1		Farside	3.00	2.00	5.40
2	(untitled)		1		Farside	3.00	2.00	5.40
3	(untitled)		1		Farside	3.00	2.00	5.40
4	(untitled)				Farside	3.00	2.00	5.40

Pedestrian Crossings - Signals

Crossing	Controller stream	Phase	Second phase enabled
(ALL)	1	E	

Pedestrian Crossings - Sides

Crossing	Side	Saturation flow (Ped/hr)
(ALL)	(ALL)	11000

Pedestrian Crossings - Modelling

Crossing	Side	Delay weighting (%)	Assignment Cost Weighting (%)	Exclude from results calculation	Max queue storage (Ped)	Has queue limit	Has degree of saturation limit
(ALL)	(ALL)	100	100		0.00		

Local OD Matrix - Local Matrix: 1

Local Matrix Options

OD Matrix	Name	Use for point to point table	Auto calculate	Allocation mode	Allow paths past exit locations	Allow looped paths on arms	Allow looped paths on traffic nodes	Copy flows	Matrix to copy flows from	Limit paths by length	Path length limit multiplier	Limit paths by number	Path number limit	Limit paths by flow	Low path flow threshold
1	(untitled)	✓	✓	Lane Balancing			✓			✓	1.25				

Normal Input Flows (PCU/hr)

		To							
		1	2	3	4	5	6	7	8
From	1	0	29	313	157	0	0	0	0
	2	33	0	33	22	0	0	0	0
	3	811	29	0	70	0	0	0	0
	4	209	19	95	0	0	0	0	0
	5	0	0	0	0	0	0	0	0
	6	0	0	0	0	0	0	0	0
	7	0	0	0	0	0	0	0	0
	8	0	0	0	0	0	0	0	0

Bus Input Flows not shown as they are blank.

Tram Input Flows not shown as they are blank.

Pedestrian Input Flows (PCU/hr)

		To							
		1	2	3	4	5	6	7	8
From	1	0	0	0	0	0	0	0	0
	2	0	0	0	0	0	0	0	0
	3	0	0	0	0	0	0	0	0
	4	0	0	0	0	0	0	0	0
	5	0	0	0	0	0	50	50	0
	6	0	0	0	0	50	0	0	50
	7	0	0	0	0	50	0	0	50
	8	0	0	0	0	0	50	50	0

Locations

OD Matrix	Location	Name	Entries	Exits	Colour
1	1	(untitled)	9/1	Cx/1	#0000FF
	2	(untitled)	D/1	Dx/1	#FF0000
	3	(untitled)	10/1	Ax/1	#00FF00
	4	(untitled)	B/1	Bx/1	#FFFF00
	5	(untitled)	1:1E, 4:2E	1:1X, 4:2X	#00FFFF
	6	(untitled)	1:2E, 3:1E	1:2X, 3:1X	#FF00FF
	7	(untitled)	4:1E, 2:1E	4:1X, 2:1X	#008000
	8	(untitled)	3:2E, 2:2E	3:2X, 2:2X	#FFA500

Normal Paths and Flows

OD Matrix	Path	Description	From location	To location	Path items	Allocation type	Normal Calculated Flow (PCU/hr)
1	4		2	1	D/1, Cx/1	Normal	33
	9		4	2	B/1, Dx/1	Normal	19
	10		4	3	B/1, Ax/1	Normal	95
	12		2	4	D/1, Bx/1	Normal	22
	18		1	2	9/1, C/1, Dx/1	Normal	29
	19		3	1	10/1, A/1, Cx/1	Normal	811
	20		4	1	B/1, Cx/1	Normal	209
	23		2	3	D/1, Ax/1	Normal	33
	31		1	3	9/1, C/1, Ax/1	Normal	313
	32		1	4	9/1, C/2, Bx/1	Normal	157
	34		3	4	10/1, A/1, Bx/1	Normal	70
	35		3	2	10/1, A/2, Dx/1	Normal	29

Pedestrian Paths and Flows

OD Matrix	Path	Description	From location	To location	Path items	Allocation type	Pedestrian calculated flow (Ped/hr)
1	13		5	6	1:1E, 1:2X	Normal	50
	14		6	5	1:2E, 1:1X	Normal	50
	15		5	7	4:2E, 4:1X	Normal	50
	16		7	5	4:1E, 4:2X	Normal	50
	21		8	6	3:2E, 3:1X	Normal	50
	28		6	8	3:1E, 3:2X	Normal	50
	29		7	8	2:1E, 2:2X	Normal	50
	30		8	7	2:2E, 2:1X	Normal	50

Signal Timings

Network Default: 120s cycle time; 120 steps

Controller Stream 1

Controller Stream	Name	Description	Use sequence	Cycle time source	Cycle time (s)	Minimum possible cycle time (s)
1	(untitled)		2	NetworkDefault	120	120

Controller Stream 1 - Properties

Controller Stream	Manufacturer name	Type	Model number	(Telephone) Line Number	Site number	Grid reference	Gaining delay type
1	Unspecified						Absolute

Controller Stream 1 - Optimisation

Controller Stream	Allow offset optimisation	Allow green split optimisation	Optimisation level	Auto redistribute	Enable stage constraint
1	✓	✓	Offsets And Green Splits	✓	

Phases

Controller Stream	Phase	Name	Street minimum green (s)	Maximum green (s)	Relative start displacement (s)	Relative end displacement (s)	Type	Blackout Time (s)
1	A	(untitled)	50	50	0	0	Unknown	
	B	(untitled)	4	4	0	0	Unknown	
	C	(untitled)	18	18	0	0	Unknown	
	D	(untitled)	6	6	0	0	Unknown	
	E	(untitled)	6	6	0	0	Pedestrian	0

Library Stages

Controller Stream	Library Stage	Phases in stage	User stage minimum (s)	Run every N cycles	Probability of running (%)
1	1	A	1	1	100
	2	B	1	1	100
	3	C	1	1	100
	4	D	1	1	100
	5	E	1	1	100

Stage Sequences

Controller Stream	Sequence	Name	Multiple cycling	Stage IDs	Stage ends	Minimum possible cycle time (s)	Exclude from analysis
1	1	(untitled)	Single	1, 2, 3, 4, 5	21, 47, 73, 99, 0	112	
	2	(untitled)	Single	1, 2, 3, 5, 4	57, 61, 86, 103, 0	120	
	3	(untitled)	Single	1, 2, 4, 3, 5	21, 47, 77, 99, 0	111	
	4	(untitled)	Single	1, 2, 4, 5, 3	20, 45, 74, 94, 113	111	
	5	(untitled)	Single	1, 2, 5, 3, 4	22, 49, 71, 93, 119	111	
	6	(untitled)	Single	1, 2, 5, 4, 3	22, 49, 70, 91, 113	115	
	7	(untitled)	Single	1, 3, 2, 4, 5	20, 46, 73, 101, 0	117	
	8	(untitled)	Single	1, 3, 2, 5, 4	22, 49, 77, 98, 119	123	
	9	(untitled)	Single	1, 3, 4, 2, 5	22, 50, 77, 99, 0	116	
	10	(untitled)	Single	1, 3, 4, 5, 2	21, 48, 74, 94, 114	111	

Intergreen Matrix for Controller Stream 1

From	To				
	A	B	C	D	E
A			6	7	9
B			7	6	8
C	7	7		7	11
D	7	6	5		9
E	5	5	5	11	

Banned Stage transitions for Controller Stream 1

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

Interstage Matrix for Controller Stream 1

From	To				
	1	2	3	4	5
1	0	0	6	7	9
2	0	0	7	6	8
3	7	7	0	7	11
4	7	6	5	0	9
5	5	5	5	11	0

Resultant Stages

Controller Stream	Resultant Stage	Is base stage	Library Stage ID	Phases in this stage	Stage start (s)	Stage end (s)	Stage duration (s)	User stage minimum (s)	Stage minimum (s)
1	1	✓	1	A	7	57	50	1	50
	2	✓	2	B	57	61	4	1	4
	3	✓	3	C	68	86	18	1	18
	4	✓	5	E	97	103	6	1	6
	5	✓	4	D	114	0	6	1	6

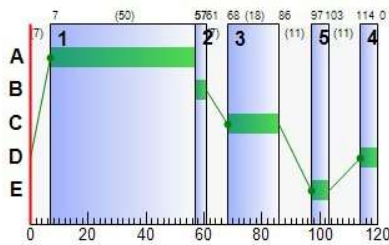
Resultant Phase Green Periods

Controller Stream	Phase	Green period	Is base green period	Start time (s)	End time (s)	Duration (s)
1	A	1	✓	7	57	50
	B	1	✓	57	61	4
	C	1	✓	68	86	18
	D	1	✓	114	0	6
	E	1	✓	97	103	6

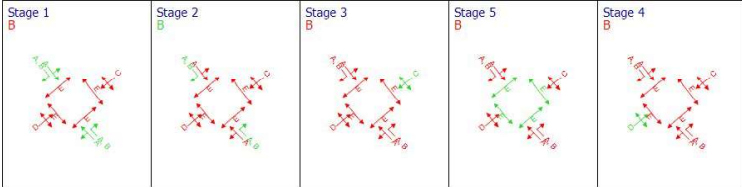
Traffic Stream Green Times

Arm	Traffic Stream	Traffic Node	Controller Stream	Phase	Green Period 1		
					Start	End	Duration
A	1	1	1	A	7	57	50
A	2	1	1	A	7	57	50
B	1	1	1	C	68	86	18
C	1	1	1	A	7	57	50
C	2	1	1	A	7	57	50
D	1	1	1	D	114	0	6

Phase Timings Diagram for Controller Stream 1



Stage Sequence Diagram for Controller Stream 1



Traffic Stream Results

Traffic Stream Results: Vehicle summary

Time Segment	Arm	Traffic Stream	Degree of saturation (%)	Practical reserve capacity (%)	Calculated flow entering (PCU/hr)	Calculated sat flow (PCU/hr)	Actual green (s per cycle)	Mean Delay per Veh (s)	Mean max queue (PCU)	Utilised storage (%)	Weighted cost of delay (£ per hr)	Weighted cost of stops (£ per hr)	Performance Index (£ per hr)
08:00-09:00	A	1	115	-13	881	1800	50	279.55	86.37	4966.18	971.45	23.88	995.33
		2	15	547	29	409	54	21.24	0.54	26.89	2.43	0.22	2.65
	Ax	1	0	Unrestricted	430	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
		1	113	-12	323	1800	18	290.74	31.51	181.17	370.41	8.77	379.18
	Bx	1	0	Unrestricted	240	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
		1	45	124	342	1800	50	26.39	8.26	316.45	35.60	3.04	38.64
	C	1	58	74	157	595	54	34.50	3.22	107.33	21.36	1.66	20755.59
		1	0	Unrestricted	922	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
	Dx	1	84	19	88	1800	6	124.53	4.56	52.45	43.23	1.62	44.85
		1	0	Unrestricted	75	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
9	1	28	261	499	1800	120	0.38	0.05	0.75	0.75	0.00	0.75	
10	1	51	98	910	1800	120	1.02	0.26	2.56	3.66	0.00	3.66	

Traffic Stream Results: Flows and signals

Time Segment	Arm	Traffic Stream	Calculated flow entering (PCU/hr)	Calculated flow out (PCU/hr)	Flow discrepancy (PCU/hr)	Adjusted flow warning	Calculated sat flow (PCU/hr)	Calculated capacity (PCU/hr)	Degree of saturation (%)	DOS Threshold exceeded	Practical reserve capacity (%)	Mean modulus of error	Actual green (s per cycle)	Effective green (per cycle)
08:00-09:00	A	1	881	765	0		1800	765	115	✓	-13	0.00	50	51
		2	29	29	0		409	188	15		547	0.00	54	55
	Ax	1	430	430	11	✓	Unrestricted	Unrestricted	0		Unrestricted	0.72	120	12
		1	323	285	0		1800	285	113	✓	-12	0.00	18	19
	Bx	1	240	240	9	✓	Unrestricted	Unrestricted	0		Unrestricted	0.89	120	12
		1	342	342	0		1800	765	45		124	0.00	50	51
	C	1	157	157	0		595	273	58		74	0.00	54	55
		1	922	922	131	✓	Unrestricted	Unrestricted	0		Unrestricted	0.65	120	12
	Dx	1	88	88	0		1800	105	84		19	0.00	6	7
		1	75	75	2	✓	Unrestricted	Unrestricted	0		Unrestricted	0.86	120	12
9	1	499	499	0		1800	1800	28		261	0.00	120	12	
10	1	910	910	0		1800	1800	51		98	0.00	120	12	

Traffic Stream Results: Stops and delays

Time Segment	Arm	Traffic Stream	Mean Cruise Time per Veh (s)	Mean Delay per Veh (s)	Uniform delay (PCU-hr/hr)	Random plus oversat delay (PCU-hr/hr)	Unweighted cost of delay (£ per hr)	Weighted cost of delay (£ per hr)	Mean stops per Veh (%)	Uniform stops (Stops per hr)	Random stops (Stops per hr)	Unweighted cost of stops (£ per hr)	Weighted cost of stops (£ per hr)
08:00-09:00	A	1	1.20	279.55	7.33	61.08	971.45	971.45	248.91	765.00	1139.19	23.88	23.88
		2	1.20	21.24	0.16	0.01	2.43	2.43	59.64	16.87	0.42	0.22	0.22
	Ax	1	12.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		1	12.00	290.74	4.00	22.09	370.41	370.41	245.40	285.00	414.39	8.77	8.77
	Bx	1	12.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		1	1.80	26.39	2.33	0.18	35.60	35.60	70.89	237.06	5.38	3.04	3.04
	C	1	1.80	34.50	1.12	0.39	21.36	21.36	84.14	120.75	11.35	1.66	1.66
		1	12.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Dx	1	6.00	124.53	1.37	1.68	43.23	43.23	147.06	85.67	43.75	1.62	1.62
		1	6.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
9	1	4.91	0.38	0.00	0.05	0.75	0.75	0.00	0.00	0.00	0.00	0.00	
10	1	6.96	1.02	0.00	0.26	3.66	3.66	0.00	0.00	0.00	0.00	0.00	

Traffic Stream Results: Queues and blocking

Time Segment	Arm	Traffic Stream	Initial queue (PCU)	Mean max queue (PCU)	Max queue storage (PCU)	Utilised storage (%)	Average storage excess queue (PCU)	Average limit excess queue (PCU)	Excess queue penalty (£ per hr)	Mean end of green queue (PCU)	Mean end of red queue (PCU)	Wasted time starvation (s per cycle)	Wasted time blocking back (s per cycle)	Wasted time total (s per cycle)	Estimated blocking	
08:00-09:00	A	1	0.00	86.37	1.74	4966.18	71.99	0.00	0.00	61.08	75.74	0.00	0.00	0.00		
		2	0.00	0.54	2.00	26.89	0.00	0.00	0.00	0.01	0.54	48.00	0.00	48.00		
	Ak	1	0.00	0.00	17.39	0.00	0.00	0.00	0.00	0.00			23.00	0.00	23.00	
		B	1	0.00	31.51	17.39	181.17	9.41	0.00	0.00	22.09	30.08	0.00	0.00	0.00	
	Bx	1	0.00	0.00	17.39	0.00	0.00	0.00	0.00	0.00			49.00	0.00	49.00	
		C	1	0.00	8.26	2.61	316.45	1.42	0.00	0.00	0.18	6.74	0.00	0.00	0.00	
	C	2	0.00	3.22	3.00	107.33	0.01	0.21	20732.58	0.39	3.22	0.00	0.00	0.00	0.00	
		Cx	1	0.00	0.00	17.39	0.00	0.00	0.00	0.00			16.00	0.00	16.00	
	D	1	0.00	4.56	8.70	52.45	0.00	0.00	0.00	0.00	1.68	4.44	0.00	0.00	0.00	
	Dx	1	0.00	0.00	8.70	0.00	0.00	0.00	0.00	0.00			76.00	0.00	76.00	
9	1	0.00	0.05	7.12	0.75	0.00	0.00	0.00	0.00			0.00	60.00	60.00		
10	1	0.00	0.26	10.09	2.56	0.00	0.00	0.00	0.00			0.00	120.00	120.00		

Pedestrian Crossing Results

Pedestrian Crossings: Pedestrian summary

Time Segment	Crossing	Side	Degree of saturation (%)	Calculated Flow Entering (Ped/hr)	Calculated sat flow (Ped/hr)	Actual green (s per cycle)	Mean Delay Per Ped (s)	Mean max queue (Ped)	Weighted cost of delay (£ per hr)	Performance Index (£ per hr)
08:00-09:00	(ALL)	(ALL)	9	50	11000	6	54.63	1.58	10.77	10.77

Pedestrian Crossings: Flows and signals

Time Segment	Crossing	Side	Calculated flow entering (Ped/hr)	Calculated flow out (Ped/hr)	Flow discrepancy (Ped/hr)	Adjusted flow warning	Calculated sat flow (Ped/hr)	Calculated capacity (Ped/hr)	Degree of saturation (%)	DOS Threshold exceeded	Practical reserve capacity (%)	Mean modulus of error	Actual green (s per cycle)	Effective green (s per cycle)
08:00-09:00	(ALL)	(ALL)	50	50	0		11000	550	9		1000	0.00	6	6

Pedestrian Crossings: Stops and delays

Time Segment	Crossing	Side	Mean Cruise Time per Ped (s)	Mean Delay per Ped (s)	Uniform delay (Ped-hr/hr)	Random plus oversat delay (Ped-hr/hr)	Unweighted cost of delay (£ per hr)	Weighted cost of delay (£ per hr)
08:00-09:00	(ALL)	(ALL)	3.00	54.63	0.76	0.00	10.77	10.77

Pedestrian Crossings: Queues and blocking

Time Segment	Crossing	Side	Mean max queue (Ped)	Max queue storage (Ped)	Utilised storage (%)	Average storage excess queue (Ped)	Average limit excess queue (Ped)	Excess queue penalty (£ per hr)
08:00-09:00	(ALL)	(ALL)	1.58	10.00	15.83	0.00	0.00	0.00

Network Results

Run Summary

Analysis set used	Run start time	Run finish time	Run duration (s)	Modelling start time (HH:mm)	Network Cycle Time (s)	Performance Index (£ per hr)	Total network delay (PCU-hr/hr)	Highest DOS (%)	Item with highest DOS	Number of oversaturated items	Percentage of oversaturated items (%)	Item with worst signalised PRC	Item with worst unsignal PRC
1	23/08/2023 09:20:06	23/08/2023 09:20:06	0.40	08:00	120	22306.85	108.10	115.16	A/1	2	10	A/1	10/1

Network Results: Vehicle summary

Time Segment	Degree of saturation (%)	Practical reserve capacity (%)	Calculated flow entering (PCU/hr)	Actual green (s per cycle)	Mean Delay per Veh (s)	Weighted cost of delay (£ per hr)	Weighted cost of stops (£ per hr)	Performance Index (£ per hr)
08:00-09:00	115	-13	4895	952	75.04	1448.90	39.18	22220.66

Network Results: Pedestrian summary

Time Segment	Degree of saturation (%)	Calculated Flow Entering (Ped/hr)	Actual green (s per cycle)	Mean Delay Per Ped (s)	Weighted cost of delay (£ per hr)	Performance Index (£ per hr)
08:00-09:00	9	400	48	54.63	86.19	86.19

Network Results: Flows and signals

Time Segment	Calculated flow entering (PCU/hr)	Calculated flow out (PCU/hr)	Flow discrepancy (PCU/hr)	Adjusted flow warning	Degree of saturation (%)	DOS Threshold exceeded	Practical reserve capacity (%)	Actual green (s per cycle)	Effective green (s per cycle)
08:00-09:00	5295	5141	154	✓	115	✓	-13	1000	1006

Network Results: Stops and delays

Time Segment	Mean Cruise Time per Veh (s)	Mean Delay per Veh (s)	Uniform delay (PCU-hr/hr)	Random plus oversat delay (PCU-hr/hr)	Unweighted cost of delay (£ per hr)	Weighted cost of delay (£ per hr)	Mean stops per Veh (%)	Uniform stops (Stops per hr)	Random stops (Stops per hr)	Unweighted cost of stops (£ per hr)	Weighted cost of stops (£ per hr)
08:00-09:00	6.78	73.50	22.37	85.74	1535.09	1535.09	66.23	1510.35	1614.48	39.18	39.18

Network Results: Queues and blocking

Time Segment	Utilised storage (%)	Excess queue penalty (£ per hr)	Wasted time starvation (s per cycle)	Wasted time blocking back (s per cycle)	Wasted time total (s per cycle)
08:00-09:00	4966.18	20732.58	212.00	180.00	392.00

A1 - Proposed Junction 4 D3 - DO SOMETHING 2042,

Summary

Data Errors and Warnings

No errors or warnings

Run Summary

Analysis set used	Run start time	Run finish time	Run duration (s)	Modelling start time (HH:mm)	Network Cycle Time (s)	Performance Index (£ per hr)	Total network delay (PCU-hr/hr)	Highest DOS (%)	Item with highest DOS	Number of oversaturated items	Percentage of oversaturated items (%)	Item with worst signalised PRC	Item with worst unsignal PRC
1	23/08/2023 09:20:04	23/08/2023 09:20:05	1.53	08:00	120	27869.61	131.62	120.13	A/1	2	10	A/1	10/1

Analysis Set Details

Name	Use Simulation	Description	Use specific Demand Set(s)	Specific Demand Set(s)	Optimise specific Demand Set(s)	Demand Set(s) to optimise	Include in report	Locked
Proposed Junction 4			✓	D1,D2,D3	✓	D3	✓	

Demand Set Details

Scenario name	Time Period name	Description	Composite	Demand sets	Start time (HH:mm)	Locked	Run automatically
DO SOMETHING 2042					08:00		✓

Arms and Traffic Streams

Arms

Arm	Name	Description	Traffic node
A	(untitled)		1
Ax	(untitled)		
B	(untitled)		1
Bx	(untitled)		
C	(untitled)		1
Cx	(untitled)		
D	(untitled)		1
Dx	(untitled)		
9			1
10			1

Traffic Streams

Arm	Traffic Stream	Name	Description	Auto length	Length (m)	Has Saturation Flow	Saturation flow source	Saturation flow (PCU/hr)	Is signal controlled	Is give way	Traffic type	Allow Nearside Turn On Red
A	1	(untitled)			10.00	✓	Sum of lanes	1800	✓		Normal	
	2	(untitled)			10.00	✓	Sum of lanes	1800	✓	✓	Normal	
Ax	1	(untitled)			100.00						Normal	
B	1	(untitled)			100.00	✓	Sum of lanes	1800	✓		Normal	
Bx	1	(untitled)			100.00						Normal	
C	1	(untitled)			15.00	✓	Sum of lanes	1800	✓		Normal	
	2	(untitled)			15.00	✓	Sum of lanes	1800	✓	✓	Normal	
Cx	1	(untitled)			100.00						Normal	
D	1	(untitled)			50.00	✓	Sum of lanes	1800	✓		Normal	
Dx	1	(untitled)			50.00						Normal	
9	1			✓	40.92	✓	Sum of lanes	1800			Normal	
10	1			✓	58.01	✓	Sum of lanes	1800			Normal	

Lanes

Arm	Traffic Stream	Lane	Name	Description	Use RR67	Saturation flow (PCU/hr)
A	1	1	(untitled)			1800
	2	1	(untitled)			1800
Ax	1	1	(untitled)			
B	1	1	(untitled)			1800
Bx	1	1	(untitled)			
C	1	1	(untitled)			1800
	2	1	(untitled)			1800
Cx	1	1	(untitled)			
D	1	1	(untitled)			1800
Dx	1	1	(untitled)			
9	1	1	(untitled)			1800
10	1	1	(untitled)			1800

Modelling

Arm	Traffic Stream	Traffic model	Stop weighting multiplier (%)	Delay weighting multiplier (%)	Assignment Cost Weighting (%)	Exclude from results calculation	Max queue storage (PCU)	Has queue limit	Queue limit (PCU)	Excess queue penalty (£)	Has degree of saturation limit
A	1	NetworkDefault	100	100	100		0.00				
	2	Flare	100	100	100		0.00	✓	2.00	99999.00	
Ax	1	NetworkDefault	100	100	100		0.00				
B	1	NetworkDefault	100	100	100		0.00				
Bx	1	NetworkDefault	100	100	100		0.00				
C	1	NetworkDefault	100	100	100		0.00				
	2	Flare	100	100	100		0.00	✓	2.00	99999.00	
Cx	1	NetworkDefault	100	100	100		0.00				
D	1	NetworkDefault	100	100	100		0.00				
Dx	1	NetworkDefault	100	100	100		0.00				
9	1	NetworkDefault	100	100	100		0.00				
10	1	NetworkDefault	100	100	100		0.00				

Modelling - Advanced

Arm	Traffic Stream	Initial queue (PCU)	Type of Vehicle-in-Service	Vehicle-in-Service	Type of random parameter	Random parameter	Auto cycle time	Cycle time
(ALL)	(ALL)	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120

Normal traffic - Modelling

Arm	Traffic Stream	Stop weighting (%)	Delay weighting (%)
(ALL)	(ALL)	100	100

Normal traffic - Advanced

Am	Traffic Stream	Dispersion type for Normal Traffic
(ALL)	(ALL)	NetworkDefault

Flows

Am	Traffic Stream	Total Flow (PCU/hr)	Normal Flow (PCU/hr)
A	1	919	919
	2	29	29
Ax	1	454	454
B	1	334	334
Bx	1	256	256
C	1	353	353
	2	163	163
Cx	1	1099	1099
D	1	88	88
Dx	1	77	77
9	1	516	516
10	1	948	948

Signals

Am	Traffic Stream	Controller stream	Phase	Second phase enabled	Second phase
A	1	1	A		
	2	1	A	✓	B
B	1	1	C		
C	1	1	A		
	2	1	A	✓	B
D	1	1	D		

Entry Sources

Am	Traffic Stream	Cruise time for Normal Traffic (s)	Cruise speed for Normal Traffic (kph)
B	1	12.00	30.00
D	1	6.00	30.00
9	1	4.91	30.00
10	1	6.96	30.00

Sources

Am	Traffic Stream	Source	Source traffic stream	Destination traffic stream	Cruise time for Normal Traffic (s)	Cruise speed for Normal Traffic (kph)	Auto turning radius	Traffic turn style	Turning radius (m)
A	1	1	10/1	A/1	1.20	30.00	✓	Straight	Straight Movement
	2	1	10/1	A/2	1.20	30.00	✓	Straight	Straight Movement
Ax	1	1	B/1	Ax/1	12.00	30.00	✓	Offside	29.40
Bx	1	1	A/1	Bx/1	12.00	30.00	✓	Nearside	23.82
C	1	1	9/1	C/1	1.80	30.00	✓	Straight	Straight Movement
	2	1	9/1	C/2	1.80	30.00	✓	Straight	Straight Movement
Cx	1	1	D/1	Cx/1	12.00	30.00	✓	Offside	22.75
Dx	1	1	C/1	Dx/1	6.00	30.00	✓	Nearside	14.43
Ax	1	2	C/1	Ax/1	12.00	30.00	✓	Straight	Straight Movement
Bx	1	2	D/1	Bx/1	12.00	30.00	✓	Straight	Straight Movement
Cx	1	2	A/1	Cx/1	12.00	30.00	✓	Straight	Straight Movement
Dx	1	2	B/1	Dx/1	6.00	30.00	✓	Straight	Straight Movement
Ax	1	3	D/1	Ax/1	12.00	30.00	✓	Nearside	16.65
Bx	1	3	C/2	Bx/1	12.00	30.00	✓	Offside	21.08
Cx	1	3	B/1	Cx/1	12.00	30.00	✓	Nearside	14.22
Dx	1	3	A/2	Dx/1	6.00	30.00	✓	Offside	21.03

Pedestrian Crossings

Pedestrian Crossings

Crossing	Name	Description	Traffic node	Allow walk on red	Crossing type	Length (m)	Cruise time (seconds)	Cruise speed (kph)
1	(untitled)		1		Farside	3.00	2.00	5.40
2	(untitled)		1		Farside	3.00	2.00	5.40
3	(untitled)		1		Farside	3.00	2.00	5.40
4	(untitled)				Farside	3.00	2.00	5.40

Pedestrian Crossings - Signals

Crossing	Controller stream	Phase	Second phase enabled
(ALL)	1	E	

Pedestrian Crossings - Sides

Crossing	Side	Saturation flow (Ped/hr)
(ALL)	(ALL)	11000

Pedestrian Crossings - Modelling

Crossing	Side	Delay weighting (%)	Assignment Cost Weighting (%)	Exclude from results calculation	Max queue storage (Ped)	Has queue limit	Has degree of saturation limit
(ALL)	(ALL)	100	100		0.00		

Local OD Matrix - Local Matrix: 1

Local Matrix Options

OD Matrix	Name	Use for point to point table	Auto calculate	Allocation mode	Allow paths past exit locations	Allow looped paths on arms	Allow looped paths on traffic nodes	Copy flows	Matrix to copy flows from	Limit paths by length	Path length limit multiplier	Limit paths by number	Path number limit	Limit paths by flow	Low path flow threshold
1	(untitled)	✓	✓	Lane Balancing			✓			✓	1.25				

Normal Input Flows (PCU/hr)

From	To							
	1	2	3	4	5	6	7	8
1	0	29	324	163	0	0	0	0
2	33	0	33	22	0	0	0	0
3	848	29	0	71	0	0	0	0
4	218	19	97	0	0	0	0	0
5	0	0	0	0	0	0	0	0
6	0	0	0	0	0	0	0	0
7	0	0	0	0	0	0	0	0
8	0	0	0	0	0	0	0	0

Bus Input Flows not shown as they are blank.

Tram Input Flows not shown as they are blank.

Pedestrian Input Flows (PCU/hr)

From	To							
	1	2	3	4	5	6	7	8
1	0	0	0	0	0	0	0	0
2	0	0	0	0	0	0	0	0
3	0	0	0	0	0	0	0	0
4	0	0	0	0	0	0	0	0
5	0	0	0	0	0	50	50	0
6	0	0	0	0	50	0	0	50
7	0	0	0	0	50	0	0	50
8	0	0	0	0	0	50	50	0

Locations

OD Matrix	Location	Name	Entries	Exits	Colour
1	1	(untitled)	9/1	Cx/1	#0000FF
	2	(untitled)	D/1	Dx/1	#FF0000
	3	(untitled)	10/1	Ax/1	#00FF00
	4	(untitled)	B/1	Bx/1	#FFFF00
	5	(untitled)	1:1E, 4:2E	1:1X, 4:2X	#00FFFF
	6	(untitled)	1:2E, 3:1E	1:2X, 3:1X	#FF00FF
	7	(untitled)	4:1E, 2:1E	4:1X, 2:1X	#008000
	8	(untitled)	3:2E, 2:2E	3:2X, 2:2X	#FFA500

Normal Paths and Flows

OD Matrix	Path	Description	From location	To location	Path items	Allocation type	Normal Calculated Flow (PCU/hr)
1	4		2	1	D/1, Cx/1	Normal	33
	9		4	2	B/1, Dx/1	Normal	19
	10		4	3	B/1, Ax/1	Normal	97
	12		2	4	D/1, Bx/1	Normal	22
	18		1	2	9/1, C/1, Dx/1	Normal	29
	19		3	1	10/1, A/1, Cx/1	Normal	848
	20		4	1	B/1, Cx/1	Normal	218
	23		2	3	D/1, Ax/1	Normal	33
	31		1	3	9/1, C/1, Ax/1	Normal	324
	32		1	4	9/1, C/2, Bx/1	Normal	163
	34		3	4	10/1, A/1, Bx/1	Normal	71
	35		3	2	10/1, A/2, Dx/1	Normal	29

Pedestrian Paths and Flows

OD Matrix	Path	Description	From location	To location	Path items	Allocation type	Pedestrian calculated flow (Ped/hr)
1	13		5	6	1:1E, 1:2X	Normal	50
	14		6	5	1:2E, 1:1X	Normal	50
	15		5	7	4:2E, 4:1X	Normal	50
	16		7	5	4:1E, 4:2X	Normal	50
	21		8	6	3:2E, 3:1X	Normal	50
	28		6	8	3:1E, 3:2X	Normal	50
	29		7	8	2:1E, 2:2X	Normal	50
	30		8	7	2:2E, 2:1X	Normal	50

Signal Timings

Network Default: 120s cycle time; 120 steps

Controller Stream 1

Controller Stream	Name	Description	Use sequence	Cycle time source	Cycle time (s)	Minimum possible cycle time (s)
1	(untitled)		2	NetworkDefault	120	120

Controller Stream 1 - Properties

Controller Stream	Manufacturer name	Type	Model number	(Telephone) Line Number	Site number	Grid reference	Gaining delay type
1	Unspecified						Absolute

Controller Stream 1 - Optimisation

Controller Stream	Allow offset optimisation	Allow green split optimisation	Optimisation level	Auto redistribute	Enable stage constraint
1	✓	✓	Offsets And Green Splits	✓	

Phases

Controller Stream	Phase	Name	Street minimum green (s)	Maximum green (s)	Relative start displacement (s)	Relative end displacement (s)	Type	Blackout Time (s)
1	A	(untitled)	50	50	0	0	Unknown	
	B	(untitled)	4	4	0	0	Unknown	
	C	(untitled)	18	18	0	0	Unknown	
	D	(untitled)	6	6	0	0	Unknown	
	E	(untitled)	6	6	0	0	Pedestrian	0

Library Stages

Controller Stream	Library Stage	Phases in stage	User stage minimum (s)	Run every N cycles	Probability of running (%)
1	1	A	1	1	100
	2	B	1	1	100
	3	C	1	1	100
	4	D	1	1	100
	5	E	1	1	100

Stage Sequences

Controller Stream	Sequence	Name	Multiple cycling	Stage IDs	Stage ends	Minimum possible cycle time (s)	Exclude from analysis
1	1	(untitled)	Single	1, 2, 3, 4, 5	21, 47, 73, 99, 0	112	
	2	(untitled)	Single	1, 2, 3, 5, 4	57, 61, 86, 103, 0	120	
	3	(untitled)	Single	1, 2, 4, 3, 5	21, 47, 77, 99, 0	111	
	4	(untitled)	Single	1, 2, 4, 5, 3	20, 45, 74, 94, 113	111	
	5	(untitled)	Single	1, 2, 5, 3, 4	22, 49, 71, 93, 119	111	
	6	(untitled)	Single	1, 2, 5, 4, 3	22, 49, 70, 91, 113	115	
	7	(untitled)	Single	1, 3, 2, 4, 5	20, 46, 73, 101, 0	117	
	8	(untitled)	Single	1, 3, 2, 5, 4	22, 49, 77, 98, 119	123	
	9	(untitled)	Single	1, 3, 4, 2, 5	22, 50, 77, 99, 0	116	
	10	(untitled)	Single	1, 3, 4, 5, 2	21, 48, 74, 94, 114	111	

Intergreen Matrix for Controller Stream 1

		To				
		A	B	C	D	E
From	A			6	7	9
	B			7	6	8
	C	7	7		7	11
	D	7	6	5		9
	E	5	5	5	11	

Banned Stage transitions for Controller Stream 1

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

Interstage Matrix for Controller Stream 1

		To				
		1	2	3	4	5
From	1	0	0	6	7	9
	2	0	0	7	6	8
	3	7	7	0	7	11
	4	7	6	5	0	9
	5	5	5	5	11	0

Resultant Stages

Controller Stream	Resultant Stage	Is base stage	Library Stage ID	Phases in this stage	Stage start (s)	Stage end (s)	Stage duration (s)	User stage minimum (s)	Stage minimum (s)
1	1	✓	1	A	7	57	50	1	50
	2	✓	2	B	57	61	4	1	4
	3	✓	3	C	68	86	18	1	18
	4	✓	5	E	97	103	6	1	6
	5	✓	4	D	114	0	6	1	6

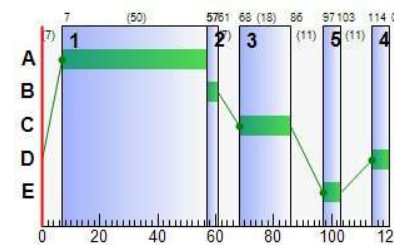
Resultant Phase Green Periods

Controller Stream	Phase	Green period	Is base green period	Start time (s)	End time (s)	Duration (s)
1	A	1	✓	7	57	50
	B	1	✓	57	61	4
	C	1	✓	68	86	18
	D	1	✓	114	0	6
	E	1	✓	97	103	6

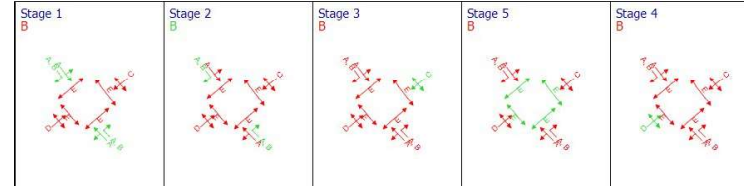
Traffic Stream Green Times

Arm	Traffic Stream	Traffic Node	Controller Stream	Phase	Green Period 1		
					Start	End	Duration
A	1	1	1	A	7	57	50
A	2	1	1	A	7	57	50
B	1	1	1	C	68	86	18
C	1	1	1	A	7	57	50
C	2	1	1	A	7	57	50
D	1	1	1	D	114	0	6

Phase Timings Diagram for Controller Stream 1



Stage Sequence Diagram for Controller Stream 1



Traffic Stream Results

Traffic Stream Results: Vehicle summary

Time Segment	Arm	Traffic Stream	Degree of saturation (%)	Practical reserve capacity (%)	Calculated flow entering (PCU/hr)	Calculated sat flow (PCU/hr)	Actual green (s per cycle)	Mean Delay per Veh (s)	Mean max queue (PCU)	Utilised storage (%)	Weighted cost of delay (£ per hr)	Weighted cost of stops (£ per hr)	Performance Index (£ per hr)
08:00-09:00	A	1	120	-17	919	1800	50	339.67	104.67	6018.35	1231.29	26.33	1257.62
		2	15	547	29	409	54	21.24	0.54	26.89	2.43	0.22	2.65
	Ax	1	0	Unrestricted	440	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
	B	1	117	-15	334	1800	18	334.56	36.46	209.66	440.76	9.46	450.22
	Bx	1	0	Unrestricted	244	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
	C	1	46	117	353	1800	50	26.68	8.53	327.05	37.14	3.16	40.30
		2	60	67	163	595	54	35.76	3.38	112.67	22.99	1.76	25982.69
	Cx	1	0	Unrestricted	925	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
	D	1	84	19	88	1800	6	124.53	4.56	52.45	43.23	1.62	44.85
	Dx	1	0	Unrestricted	74	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
	9	1	29	244	516	1800	120	0.43	0.35	4.87	0.87	0.06	0.93
	10	1	53	90	948	1800	120	1.11	0.29	2.90	4.15	0.00	4.15

Traffic Stream Results: Flows and signals

Time Segment	Arm	Traffic Stream	Calculated flow entering (PCU/hr)	Calculated flow out (PCU/hr)	Flow discrepancy (PCU/hr)	Adjusted flow warning	Calculated sat flow (PCU/hr)	Calculated capacity (PCU/hr)	Degree of saturation (%)	DOS Threshold exceeded	Practical reserve capacity (%)	Mean modulus of error	Actual green (s per cycle)	Effective green (pe cycl)
08:00-09:00	A	1	919	765	0		1800	765	120	✓	-17	0.00	50	51
		2	29	29	0		409	188	15		547	0.00	54	55
	Ax	1	440	440	14	✓	Unrestricted	Unrestricted	0		Unrestricted	0.72	120	12
	B	1	334	285	0		1800	285	117	✓	-15	0.00	18	19
	Bx	1	244	244	12	✓	Unrestricted	Unrestricted	0		Unrestricted	0.89	120	12
	C	1	353	353	0		1800	765	46		117	0.01	50	51
		2	163	163	0		595	273	60		67	0.01	54	55
	Cx	1	925	925	174	✓	Unrestricted	Unrestricted	0		Unrestricted	0.65	120	12
	D	1	88	88	0		1800	105	84		19	0.00	6	7
	Dx	1	74	74	3	✓	Unrestricted	Unrestricted	0		Unrestricted	0.86	120	12
	9	1	516	516	0		1800	1773	29		244	0.00	120	12
	10	1	948	948	0		1800	1800	53		90	0.00	120	12

Traffic Stream Results: Stops and delays

Time Segment	Arm	Traffic Stream	Mean Cruise Time per Veh (s)	Mean Delay per Veh (s)	Uniform delay (PCU-hr/hr)	Random plus oversat delay (PCU-hr/hr)	Unweighted cost of delay (£ per hr)	Weighted cost of delay (£ per hr)	Mean stops per Veh (s)	Uniform stops (Stops per hr)	Random stops (Stops per hr)	Unweighted cost of stops (£ per hr)	Weighted cost of stops (£ per hr)
08:00-09:00	A	1	1.20	339.67	7.33	79.38	1231.29	1231.29	274.50	765.00	1334.90	26.33	26.33
		2	1.20	21.24	0.16	0.01	2.43	2.43	59.64	16.87	0.42	0.22	0.22
	Ax	1	12.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	B	1	12.00	334.56	4.00	27.04	440.76	440.76	264.80	285.00	469.69	9.46	9.46
	Bx	1	12.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	C	1	1.80	26.68	2.42	0.20	37.14	37.14	71.37	246.06	5.89	3.16	3.16
		2	1.80	35.76	1.18	0.44	22.99	22.99	86.25	127.73	12.85	1.76	1.76
	Cx	1	12.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	D	1	6.00	124.53	1.37	1.68	43.23	43.23	147.06	85.67	43.75	1.62	1.62
	Dx	1	6.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	9	1	4.91	0.43	0.00	0.06	0.87	0.87	0.95	3.11	1.79	0.06	0.06
	10	1	6.96	1.11	0.00	0.29	4.15	4.15	0.00	0.00	0.00	0.00	0.00

Traffic Stream Results: Queues and blocking

Time Segment	Arm	Traffic Stream	Initial queue (PCU)	Mean max queue (PCU)	Max queue storage (PCU)	Utilised storage (%)	Average storage excess queue (PCU)	Average limit excess queue (PCU)	Excess queue penalty (£ per hr)	Mean end of green queue (PCU)	Mean end of red queue (PCU)	Wasted time starvation (s per cycle)	Wasted time blocking back (s per cycle)	Wasted time total (s per cycle)	Estimated blocking	
08:00-09:00	A	1	0.00	104.67	1.74	6018.35	90.28	0.00	0.00	79.38	94.04	0.00	0.00	0.00		
		2	0.00	0.54	2.00	26.89	0.00	0.00	0.00	0.00	0.01	0.54	48.00	0.00	48.00	
	Ax	1	0.00	0.00	17.39	0.00	0.00	0.00	0.00	0.00			23.00	0.00	23.00	
	B	1	0.00	36.46	17.39	209.66	14.36	0.00	0.00	27.04	35.04	0.00	0.00	0.00		
	Bx	1	0.00	0.00	17.39	0.00	0.00	0.00	0.00				49.00	0.00	49.00	
	C	1	0.00	8.53	2.61	327.05	1.51	0.00	0.00	0.20	6.96	0.00	0.00	0.00	0.00	
		2	0.00	3.38	3.00	112.67	0.02	0.26	25957.93	0.44	3.38	0.00	0.00	0.00	0.00	
	Cx	1	0.00	0.00	17.39	0.00	0.00	0.00	0.00				16.00	0.00	16.00	
	D	1	0.00	4.56	8.70	52.45	0.00	0.00	0.00	1.68	4.44	0.00	0.00	0.00	0.00	
	Dx	1	0.00	0.00	8.70	0.00	0.00	0.00	0.00				76.00	0.00	76.00	
	9	1	0.00	0.35	7.12	4.87	0.00	0.00	0.00				0.00	61.00	61.00	
	10	1	0.00	0.29	10.09	2.90	0.00	0.00	0.00				0.00	120.00	120.00	

Pedestrian Crossing Results

Pedestrian Crossings: Pedestrian summary

Time Segment	Crossing	Side	Degree of saturation (%)	Calculated Flow Entering (Ped/hr)	Calculated sat flow (Ped/hr)	Actual green (s per cycle)	Mean Delay Per Ped (s)	Mean max queue (Ped)	Weighted cost of delay (£ per hr)	Performance Index (£ per hr)
08:00-09:00	(ALL)	(ALL)	9	50	11000	6	54.63	1.58	10.77	10.77

Pedestrian Crossings: Flows and signals

Time Segment	Crossing	Side	Calculated flow entering (Ped/hr)	Calculated flow out (Ped/hr)	Flow discrepancy (Ped/hr)	Adjusted flow warning	Calculated sat flow (Ped/hr)	Calculated capacity (Ped/hr)	Degree of saturation (%)	DOS Threshold exceeded	Practical reserve capacity (%)	Mean modulus of error	Actual green (s per cycle)	Effective green (pe cycl)
08:00-09:00	(ALL)	(ALL)	50	50	0		11000	550	9		1000	0.00	6	6

Pedestrian Crossings: Stops and delays

Time Segment	Crossing	Side	Mean Cruise Time per Ped (s)	Mean Delay per Ped (s)	Uniform delay (Ped-hr/hr)	Random plus oversat delay (Ped-hr/hr)	Unweighted cost of delay (£ per hr)	Weighted cost of delay (£ per hr)
08:00-09:00	(ALL)	(ALL)	3.00	54.63	0.76	0.00	10.77	10.77

Pedestrian Crossings: Queues and blocking

Time Segment	Crossing	Side	Mean max queue (Ped)	Max queue storage (Ped)	Utilised storage (%)	Average storage excess queue (Ped)	Average limit excess queue (Ped)	Excess queue penalty (£ per hr)
08:00-09:00	(ALL)	(ALL)	1.58	10.00	15.83	0.00	0.00	0.00

Network Results

Run Summary

Analysis set used	Run start time	Run finish time	Run duration (s)	Modelling start time (HH:mm)	Network Cycle Time (s)	Performance Index (£ per hr)	Total network delay (PCU-hr/hr)	Highest DOS (%)	Item with highest DOS	Number of oversaturated items	Percentage of oversaturated items (%)	Item with worst signalised PRC	Item with worst unsignal PRC
1	23/08/2023 09:20:04	23/08/2023 09:20:05	1.53	08:00	120	27869.61	131.62	120.13	A/1	2	10	A/1	10/1

Network Results: Vehicle summary

Time Segment	Degree of saturation (%)	Practical reserve capacity (%)	Calculated flow entering (PCU/hr)	Actual green (s per cycle)	Mean Delay per Veh (s)	Weighted cost of delay (£ per hr)	Weighted cost of stops (£ per hr)	Performance Index (£ per hr)
08:00-09:00	120	-17	5033	952	89.81	1782.87	42.62	27783.42

Network Results: Pedestrian summary

Time Segment	Degree of saturation (%)	Calculated Flow Entering (Ped/hr)	Actual green (s per cycle)	Mean Delay Per Ped (s)	Weighted cost of delay (£ per hr)	Performance Index (£ per hr)
08:00-09:00	9	400	48	54.63	86.19	86.19

Network Results: Flows and signals

Time Segment	Calculated flow entering (PCU/hr)	Calculated flow out (PCU/hr)	Flow discrepancy (PCU/hr)	Adjusted flow warning	Degree of saturation (%)	DOS Threshold exceeded	Practical reserve capacity (%)	Actual green (s per cycle)	Effective green (s per cycle)
08:00-09:00	5433	5230	203	✓	120	✓	-17	1000	1006

Network Results: Stops and delays

Time Segment	Mean Cruise Time per Veh (s)	Mean Delay per Veh (s)	Uniform delay (PCU-hr/hr)	Random plus oversat delay (PCU-hr/hr)	Unweighted cost of delay (£ per hr)	Weighted cost of delay (£ per hr)	Mean stops per Veh (%)	Uniform stops (Stops per hr)	Random stops (Stops per hr)	Unweighted cost of stops (£ per hr)	Weighted cost of stops (£ per hr)
08:00-09:00	6.75	87.22	22.53	109.10	1869.06	1869.06	72.73	1529.44	1869.28	42.62	42.62

Network Results: Queues and blocking

Time Segment	Utilised storage (%)	Excess queue penalty (£ per hr)	Wasted time starvation (s per cycle)	Wasted time blocking back (s per cycle)	Wasted time total (s per cycle)
08:00-09:00	6018.35	25957.93	212.00	181.00	393.00



TRANSYT 16
Version: 16.0.1.8473 © Copyright TRL Limited, 2019
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Filename: Junction 4 - Crossroads - PM.t16

Path: M:\Projects\22\22-010 Cherry Orchard - Sites 4 & 5 - C&S\Design\Civil\Traffic\Modelling 2023\1. Modelled Junctions\Junction 4\Final Model\120 seconds cycle

Report generation date: 23/08/2023 09:21:54

- »A1 - Proposed Junction 4 : D1 - DO SOMETHING 2027, PM :
- »A1 - Proposed Junction 4 : D2 - DO SOMETHING 2032, PM :
- »A1 - Proposed Junction 4 : D3 - DO SOMETHING 2042, PM :

Summary of network performance

PM					
	Set ID	PI (£ per hr)	Total delay (PCU-hr/hr)	Highest DOS	Number oversaturated
Proposed Junction 4 - DO SOMETHING 2027					
Network	D1	545290.61	41.21	101% (TS B/1)	1 (5%)
Proposed Junction 4 - DO SOMETHING 2032					
Network	D2	741962.83	67.70	105% (TS B/1)	3 (15%)
Proposed Junction 4 - DO SOMETHING 2042					
Network	D3	741936.71	86.35	108% (TS B/1)	3 (15%)

File summary

File description

File title	(untitled)
Location	
Site number	
UTCRegion	
Driving side	Left
Date	08/12/2011
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	DOMAIN1.byrne
Description	

Model and Results

Enable controller offsets	Enable fuel consumption	Enable quick flares	Display journey time results	Display OD matrix distances	Display level of service results	Display blocking and starvation results	Display end of red and green queue results	Display excess queue results	Display separate uniform and random results	Display unweighted results	Display TRANSYT 12 style timings	Display effective greens in results	Display Red-With-Amber	Display End-Of-Green Amber	
			✓			✓	✓	✓	✓	✓	✓	✓			

Units

Cost units	Speed units	Distance units	Fuel economy units	Fuel rate units	Mass units	Traffic units input	Traffic units results	Flow units	Average delay units	Total delay units	Rate of delay units
£	kph	m	mpg	l/h	kg	PCU	PCU	perHour	s	-Hour	perHour

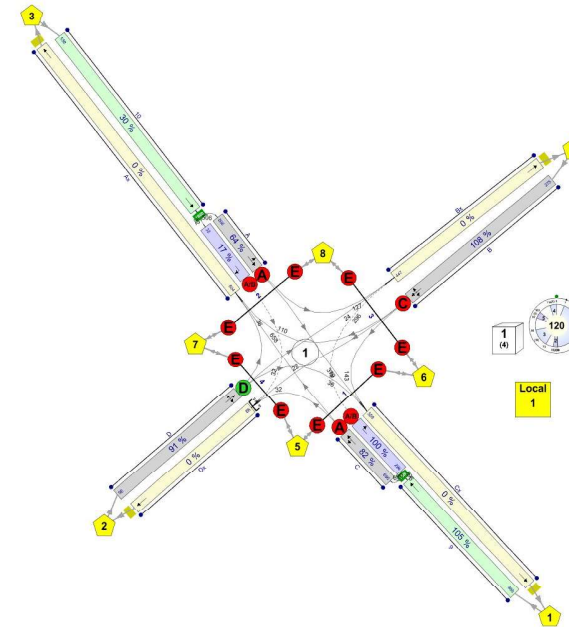
Sorting

Show names instead of IDs	Sorting direction	Sorting type	Ignore prefixes when sorting	Analysis/demand set sorting	Link grouping	Source grouping	Colour Analysis/Demand Sets
	Ascending	Numerical		ID	Normal	Normal	✓

Simulation options

Criteria type	Stop criteria (%)	Stop criteria time (s)	Stop criteria number of trials	Random seed	Results refresh speed (s)	Average animation capture interval (s)	Use quick response	Do flow sampling	Uniform vehicle generation	Last run random seed	Last run number of trials	Last run time taken (s)
Delay	3.00	999	200	-1	3	60	✓			0	0	0.00

Network Diagrams



(untitled)
 Cyclists: 0 / 120
 TransHops: 110 / 150
 3
 Diagram produced using TRANSYT 16.0.1.8473

A1 - Proposed Junction 4 D1 - DO SOMETHING 2027, PM

Summary

Data Errors and Warnings

No errors or warnings

Run Summary

Analysis set used	Run start time	Run finish time	Run duration (s)	Modelling start time (HH:mm)	Network Cycle Time (s)	Performance Index (£ per hr)	Total network delay (PCU-hr/hr)	Highest DOS (%)	Item with highest DOS	Number of oversaturated items	Percentage of oversaturated items (%)	Item with worst signalised PRC	Item with worst unsignal PRC
1	23/08/2023 09:21:39	23/08/2023 09:21:40	1.26	17:00	120	545290.61	41.21	101.18	B/1	1	5	B/1	9/1

Analysis Set Details

Name	Use Simulation	Description	Use specific Demand Set(s)	Specific Demand Set(s)	Optimise specific Demand Set(s)	Demand Set(s) to optimise	Include in report	Locked
Proposed Junction 4			✓	D1,D2,D3	✓	D3	✓	

Demand Set Details

Scenario name	Time Period name	Description	Composite	Demand sets	Start time (HH:mm)	Locked	Run automatically
DO SOMETHING 2027	PM				17:00		✓

Arms and Traffic Streams

Arms

Arm	Name	Description	Traffic node
A	(untitled)		1
Ax	(untitled)		
B	(untitled)		1
Bx	(untitled)		
C	(untitled)		1
Cx	(untitled)		
D	(untitled)		1
Dx	(untitled)		
9			1
10			1

Traffic Streams

Arm	Traffic Stream	Name	Description	Auto length	Length (m)	Has Saturation Flow	Saturation flow source	Saturation flow (PCU/hr)	Is signal controlled	Is give way	Traffic type	Allow Nearside Turn On Red
A	1	(untitled)			10.00	✓	Sum of lanes	1800	✓		Normal	
	2	(untitled)			10.00	✓	Sum of lanes	1800	✓	✓	Normal	
Ax	1	(untitled)			100.00						Normal	
B	1	(untitled)			100.00	✓	Sum of lanes	1800	✓		Normal	
Bx	1	(untitled)			100.00						Normal	
C	1	(untitled)			15.00	✓	Sum of lanes	1800	✓		Normal	
	2	(untitled)			15.00	✓	Sum of lanes	1800	✓	✓	Normal	
Cx	1	(untitled)			100.00						Normal	
D	1	(untitled)			50.00	✓	Sum of lanes	1800	✓		Normal	
Dx	1	(untitled)			50.00						Normal	
9	1			✓	40.92	✓	Sum of lanes	1800			Normal	
10	1			✓	58.01	✓	Sum of lanes	1800			Normal	

Lanes

Arm	Traffic Stream	Lane	Name	Description	Use RR67	Saturation flow (PCU/hr)
A	1	1	(untitled)			1800
	2	1	(untitled)			1800
Ax	1	1	(untitled)			
B	1	1	(untitled)			1800
Bx	1	1	(untitled)			
C	1	1	(untitled)			1800
	2	1	(untitled)			1800
Cx	1	1	(untitled)			
D	1	1	(untitled)			1800
Dx	1	1	(untitled)			
9	1	1	(untitled)			1800
10	1	1	(untitled)			1800

Modelling

Arm	Traffic Stream	Traffic model	Stop weighting multiplier (%)	Delay weighting multiplier (%)	Assignment Cost Weighting (%)	Exclude from results calculation	Max queue storage (PCU)	Has queue limit	Queue limit (PCU)	Excess queue penalty (£)	Has degree of saturation limit
A	1	NetworkDefault	100	100	100		0.00				
	2	Flare	100	100	100		0.00	✓	2.00	99999.00	
Ax	1	NetworkDefault	100	100	100		0.00				
B	1	NetworkDefault	100	100	100		0.00				
Bx	1	NetworkDefault	100	100	100		0.00				
C	1	NetworkDefault	100	100	100		0.00				
	2	Flare	100	100	100		0.00	✓	2.00	99999.00	
Cx	1	NetworkDefault	100	100	100		0.00				
D	1	NetworkDefault	100	100	100		0.00				
Dx	1	NetworkDefault	100	100	100		0.00				
9	1	NetworkDefault	100	100	100		0.00				
10	1	NetworkDefault	100	100	100		0.00				

Modelling - Advanced

Arm	Traffic Stream	Initial queue (PCU)	Type of Vehicle-in-Service	Vehicle-in-Service	Type of random parameter	Random parameter	Auto cycle time	Cycle time
(ALL)	(ALL)	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120

Normal traffic - Modelling

Arm	Traffic Stream	Stop weighting (%)	Delay weighting (%)
(ALL)	(ALL)	100	100

Normal traffic - Advanced

Am	Traffic Stream	Dispersion type for Normal Traffic
(ALL)	(ALL)	NetworkDefault

Flows

Am	Traffic Stream	Total Flow (PCU/hr)	Normal Flow (PCU/hr)
A	1	469	469
	2	32	32
Ax	1	738	738
B	1	258	258
Bx	1	413	413
C	1	630	630
	2	269	269
Cx	1	517	517
D	1	96	96
Dx	1	86	86
9	1	899	899
10	1	501	501

Signals

Am	Traffic Stream	Controller stream	Phase	Second phase enabled	Second phase
A	1	1	A		
	2	1	A	✓	B
B	1	1	C		
C	1	1	A		
	2	1	A	✓	B
D	1	1	D		

Entry Sources

Am	Traffic Stream	Cruise time for Normal Traffic (s)	Cruise speed for Normal Traffic (kph)
B	1	12.00	30.00
D	1	6.00	30.00
9	1	4.91	30.00
10	1	6.96	30.00

Sources

Am	Traffic Stream	Source	Source traffic stream	Destination traffic stream	Cruise time for Normal Traffic (s)	Cruise speed for Normal Traffic (kph)	Auto turning radius	Traffic turn style	Turning radius (m)
A	1	1	10/1	A/1	1.20	30.00	✓	Straight	Straight Movement
	2	1	10/1	A/2	1.20	30.00	✓	Straight	Straight Movement
Ax	1	1	B/1	Ax/1	12.00	30.00	✓	Offside	29.40
Bx	1	1	A/1	Bx/1	12.00	30.00	✓	Nearside	23.82
C	1	1	9/1	C/1	1.80	30.00	✓	Straight	Straight Movement
	2	1	9/1	C/2	1.80	30.00	✓	Straight	Straight Movement
Cx	1	1	D/1	Cx/1	12.00	30.00	✓	Offside	22.75
Dx	1	1	C/1	Dx/1	6.00	30.00	✓	Nearside	14.43
Ax	1	2	C/1	Ax/1	12.00	30.00	✓	Straight	Straight Movement
Bx	1	2	D/1	Bx/1	12.00	30.00	✓	Straight	Straight Movement
Cx	1	2	A/1	Cx/1	12.00	30.00	✓	Straight	Straight Movement
Dx	1	2	B/1	Dx/1	6.00	30.00	✓	Straight	Straight Movement
Ax	1	3	D/1	Ax/1	12.00	30.00	✓	Nearside	16.65
Bx	1	3	C/2	Bx/1	12.00	30.00	✓	Offside	21.08
Cx	1	3	B/1	Cx/1	12.00	30.00	✓	Nearside	14.22
Dx	1	3	A/2	Dx/1	6.00	30.00	✓	Offside	21.03

Pedestrian Crossings

Pedestrian Crossings

Crossing	Name	Description	Traffic node	Allow walk on red	Crossing type	Length (m)	Cruise time (seconds)	Cruise speed (kph)
1	(untitled)		1		Farside	3.00	2.00	5.40
2	(untitled)		1		Farside	3.00	2.00	5.40
3	(untitled)		1		Farside	3.00	2.00	5.40
4	(untitled)				Farside	3.00	2.00	5.40

Pedestrian Crossings - Signals

Crossing	Controller stream	Phase	Second phase enabled
(ALL)	1	E	

Pedestrian Crossings - Sides

Crossing	Side	Saturation flow (Ped/hr)
(ALL)	(ALL)	11000

Pedestrian Crossings - Modelling

Crossing	Side	Delay weighting (%)	Assignment Cost Weighting (%)	Exclude from results calculation	Max queue storage (Ped)	Has queue limit	Has degree of saturation limit
(ALL)	(ALL)	100	100		0.00		

Local OD Matrix - Local Matrix: 1

Local Matrix Options

OD Matrix	Name	Use for point to point table	Auto calculate	Allocation mode	Allow paths past exit locations	Allow looped paths on arms	Allow looped paths on traffic nodes	Copy flows	Matrix to copy flows from	Limit paths by length	Path length limit multiplier	Limit paths by number	Path number limit	Limit paths by flow	Low path flow threshold
1	(untitled)	✓	✓	Lane Balancing			✓			✓	1.25				

Normal Input Flows (PCU/hr)

From	To							
	1	2	3	4	5	6	7	8
1	0	32	598	269	0	0	0	0
2	36	0	36	24	0	0	0	0
3	349	32	0	120	0	0	0	0
4	132	22	104	0	0	0	0	0
5	0	0	0	0	0	0	0	0
6	0	0	0	0	0	0	0	0
7	0	0	0	0	0	0	0	0
8	0	0	0	0	0	0	0	0

Bus Input Flows not shown as they are blank.

Tram Input Flows not shown as they are blank.

Pedestrian Input Flows (PCU/hr)

From	To							
	1	2	3	4	5	6	7	8
1	0	0	0	0	0	0	0	0
2	0	0	0	0	0	0	0	0
3	0	0	0	0	0	0	0	0
4	0	0	0	0	0	0	0	0
5	0	0	0	0	0	50	50	0
6	0	0	0	0	50	0	0	50
7	0	0	0	0	50	0	0	50
8	0	0	0	0	0	50	50	0

Locations

OD Matrix	Location	Name	Entries	Exits	Colour
1	1	(untitled)	9/1	Cx/1	#0000FF
	2	(untitled)	D/1	Dx/1	#FF0000
	3	(untitled)	10/1	Ax/1	#00FF00
	4	(untitled)	B/1	Bx/1	#FFFFFF00
	5	(untitled)	1:1E, 4:2E	1:1X, 4:2X	#00FFFF
	6	(untitled)	1:2E, 3:1E	1:2X, 3:1X	#FF00FF
	7	(untitled)	4:1E, 2:1E	4:1X, 2:1X	#008000
	8	(untitled)	3:2E, 2:2E	3:2X, 2:2X	#FFA500

Normal Paths and Flows

OD Matrix	Path	Description	From location	To location	Path items	Allocation type	Normal Calculated Flow (PCU/hr)
1	4		2	1	D/1, Cx/1	Normal	36
	9		4	2	B/1, Dx/1	Normal	22
	10		4	3	B/1, Ax/1	Normal	104
	12		2	4	D/1, Bx/1	Normal	24
	18		1	2	9/1, C/1, Dx/1	Normal	32
	19		3	1	10/1, A/1, Cx/1	Normal	349
	20		4	1	B/1, Cx/1	Normal	132
	23		2	3	D/1, Ax/1	Normal	36
	31		1	3	9/1, C/1, Ax/1	Normal	598
	32		1	4	9/1, C/2, Bx/1	Normal	269
	34		3	4	10/1, A/1, Bx/1	Normal	120
	35		3	2	10/1, A/2, Dx/1	Normal	32

Pedestrian Paths and Flows

OD Matrix	Path	Description	From location	To location	Path items	Allocation type	Pedestrian calculated flow (Ped/hr)
1	13		5	6	1:1E, 1:2X	Normal	50
	14		6	5	1:2E, 1:1X	Normal	50
	15		5	7	4:2E, 4:1X	Normal	50
	16		7	5	4:1E, 4:2X	Normal	50
	21		8	6	3:2E, 3:1X	Normal	50
	28		6	8	3:1E, 3:2X	Normal	50
	29		7	8	2:1E, 2:2X	Normal	50
	30		8	7	2:2E, 2:1X	Normal	50

Signal Timings

Network Default: 120s cycle time; 120 steps

Controller Stream 1

Controller Stream	Name	Description	Use sequence	Cycle time source	Cycle time (s)	Minimum possible cycle time (s)
1	(untitled)		2	NetworkDefault	120	120

Controller Stream 1 - Properties

Controller Stream	Manufacturer name	Type	Model number	(Telephone) Line Number	Site number	Grid reference	Gaining delay type
1	Unspecified						Absolute

Controller Stream 1 - Optimisation

Controller Stream	Allow offset optimisation	Allow green split optimisation	Optimisation level	Auto redistribute	Enable stage constraint
1	✓	✓	Offsets And Green Splits	✓	

Phases

Controller Stream	Phase	Name	Street minimum green (s)	Maximum green (s)	Relative start displacement (s)	Relative end displacement (s)	Type	Blackout Time (s)
1	A	(untitled)	52	52	0	0	Unknown	
	B	(untitled)	4	4	0	0	Unknown	
	C	(untitled)	16	16	0	0	Unknown	
	D	(untitled)	6	6	0	0	Unknown	
	E	(untitled)	6	6	0	0	Pedestrian	0

Library Stages

Controller Stream	Library Stage	Phases in stage	User stage minimum (s)	Run every N cycles	Probability of running (%)
1	1	A	1	1	100
	2	B	1	1	100
	3	C	1	1	100
	4	D	1	1	100
	5	E	1	1	100

Stage Sequences

Controller Stream	Sequence	Name	Multiple cycling	Stage IDs	Stage ends	Minimum possible cycle time (s)	Exclude from analysis
1	1	(untitled)	Single	1, 2, 3, 4, 5	21, 47, 73, 99, 0	112	
	2	(untitled)	Single	1, 2, 3, 5, 4	59, 63, 86, 103, 0	120	
	3	(untitled)	Single	1, 2, 4, 3, 5	21, 47, 77, 99, 0	111	
	4	(untitled)	Single	1, 2, 4, 5, 3	20, 45, 74, 94, 113	111	
	5	(untitled)	Single	1, 2, 5, 3, 4	22, 49, 71, 93, 119	111	
	6	(untitled)	Single	1, 2, 5, 4, 3	22, 49, 70, 91, 113	115	
	7	(untitled)	Single	1, 3, 2, 4, 5	20, 46, 73, 101, 0	117	
	8	(untitled)	Single	1, 3, 2, 5, 4	22, 49, 77, 98, 119	123	
	9	(untitled)	Single	1, 3, 4, 2, 5	22, 50, 77, 99, 0	116	
	10	(untitled)	Single	1, 3, 4, 5, 2	21, 48, 74, 94, 114	111	

Intergreen Matrix for Controller Stream 1

		To				
		A	B	C	D	E
From	A			6	7	9
	B			7	6	8
	C	7	7		7	11
	D	7	6	5		9
	E	5	5	5	11	

Banned Stage transitions for Controller Stream 1

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

Interstage Matrix for Controller Stream 1

		To				
		1	2	3	4	5
From	1	0	0	6	7	9
	2	0	0	7	6	8
	3	7	7	0	7	11
	4	7	6	5	0	9
	5	5	5	5	11	0

Resultant Stages

Controller Stream	Resultant Stage	Is base stage	Library Stage ID	Phases in this stage	Stage start (s)	Stage end (s)	Stage duration (s)	User stage minimum (s)	Stage minimum (s)
1	1	✓	1	A	7	59	52	1	52
	2	✓	2	B	59	63	4	1	4
	3	✓	3	C	70	86	16	1	16
	4	✓	5	E	97	103	6	1	6
	5	✓	4	D	114	0	6	1	6

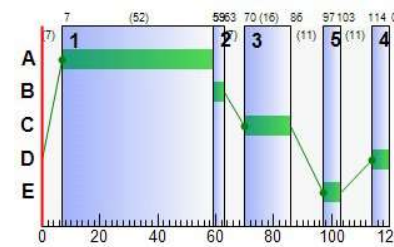
Resultant Phase Green Periods

Controller Stream	Phase	Green period	Is base green period	Start time (s)	End time (s)	Duration (s)
1	A	1	✓	7	59	52
	B	1	✓	59	63	4
	C	1	✓	70	86	16
	D	1	✓	114	0	6
	E	1	✓	97	103	6

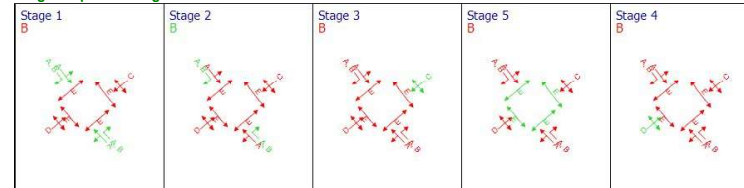
Traffic Stream Green Times

Arm	Traffic Stream	Traffic Node	Controller Stream	Phase	Green Period 1		
					Start	End	Duration
A	1	1	1	A	7	59	52
A	2	1	1	A	7	59	52
B	1	1	1	C	70	86	16
C	1	1	1	A	7	59	52
C	2	1	1	A	7	59	52
D	1	1	1	D	114	0	6

Phase Timings Diagram for Controller Stream 1



Stage Sequence Diagram for Controller Stream 1



Traffic Stream Results

Traffic Stream Results: Vehicle summary

Time Segment	Arm	Traffic Stream	Degree of saturation (%)	Practical reserve capacity (%)	Calculated flow entering (PCU/hr)	Calculated sat flow (PCU/hr)	Actual green (s per cycle)	Mean Delay per Veh (s)	Mean max queue (PCU)	Utilised storage (%)	Weighted cost of delay (£ per hr)	Weighted cost of stops (£ per hr)	Performance Index (£ per hr)
17:00-18:00	A	1	59	70	469	1800	52	28.53	12.15	698.44	52.79	4.49	57.28
		2	17	502	32	405	56	20.38	0.58	28.83	2.57	0.24	2.81
	Ax	1	0	Unrestricted	737	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
	B	1	101	-1	258	1800	16	167.31	16.77	96.44	170.27	5.66	175.93
	Bx	1	0	Unrestricted	413	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
	C	1	79	26	630	1800	52	31.39	19.50	747.38	78.01	7.05	85.05
		2	96	4	269	591	56	99.66	8.30	276.65	105.74	5.01	544786.71
	Cx	1	0	Unrestricted	515	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
	D	1	91	9	96	1800	6	157.83	5.88	67.65	59.76	2.01	61.78
	Dx	1	0	Unrestricted	86	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
	9	1	65	54	899	1800	120	8.20	14.33	201.43	29.08	5.04	34.12
	10	1	28	259	501	1800	120	0.39	0.05	0.53	0.76	0.00	0.76

Traffic Stream Results: Flows and signals

Time Segment	Arm	Traffic Stream	Calculated flow entering (PCU/hr)	Calculated flow out (PCU/hr)	Flow discrepancy (PCU/hr)	Adjusted flow warning	Calculated sat flow (PCU/hr)	Calculated capacity (PCU/hr)	Degree of saturation (%)	DOS Threshold exceeded	Practical reserve capacity (%)	Mean modulus of error	Actual green (s per cycle)	Effective green (pe cycl)
17:00-18:00	A	1	469	469	0		1800	795	59		70	0.00	52	53
		2	32	32	0		405	193	17		502	0.00	56	57
	Ax	1	737	737	1	✓	Unrestricted	Unrestricted	0		Unrestricted	0.73	120	12
	B	1	258	255	0		1800	255	101	✓	-1	0.00	16	17
	Bx	1	413	413	0		Unrestricted	Unrestricted	0		Unrestricted	0.83	120	12
	C	1	630	630	0		1800	795	79		26	0.41	52	53
		2	269	269	0		591	281	96		4	0.41	56	57
	Cx	1	515	515	2	✓	Unrestricted	Unrestricted	0		Unrestricted	0.70	120	12
	D	1	96	96	0		1800	105	91		9	0.00	6	7
	Dx	1	86	86	0		Unrestricted	Unrestricted	0		Unrestricted	0.80	120	12
	9	1	899	899	0		1800	1384	65		54	0.00	120	12
	10	1	501	501	0		1800	1800	28		259	0.00	120	12

Traffic Stream Results: Stops and delays

Time Segment	Arm	Traffic Stream	Mean Cruise Time per Veh (s)	Mean Delay per Veh (s)	Uniform delay (PCU-hr/hr)	Random plus oversat delay (PCU-hr/hr)	Unweighted cost of delay (£ per hr)	Weighted cost of delay (£ per hr)	Mean stops per Veh (%)	Uniform stops (Stops per hr)	Random stops (Stops per hr)	Unweighted cost of stops (£ per hr)	Weighted cost of stops (£ per hr)
17:00-18:00	A	1	1.20	28.53	3.30	0.42	52.79	52.79	76.33	345.41	12.57	4.49	4.49
		2	1.20	20.38	0.16	0.02	2.57	2.57	58.81	18.32	0.49	0.24	0.24
	Ax	1	12.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	B	1	12.00	167.31	3.65	8.34	170.27	170.27	176.91	252.81	198.32	5.66	5.66
	Bx	1	12.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	C	1	1.80	31.39	4.02	1.47	78.01	78.01	89.20	518.53	43.41	7.05	7.05
		2	1.80	99.66	2.15	5.30	105.74	105.74	148.67	262.29	137.65	5.01	5.01
	Cx	1	12.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	D	1	6.00	157.83	1.50	2.71	59.76	59.76	167.19	94.23	66.27	2.01	2.01
	Dx	1	6.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	9	1	4.91	8.20	1.45	0.60	29.08	29.08	44.70	383.95	17.90	5.04	5.04
	10	1	6.96	0.39	0.00	0.05	0.76	0.76	0.00	0.00	0.00	0.00	0.00

Traffic Stream Results: Queues and blocking

Time Segment	Arm	Traffic Stream	Initial queue (PCU)	Mean max queue (PCU)	Max queue storage (PCU)	Utilised storage (%)	Average storage excess queue (PCU)	Average limit excess queue (PCU)	Excess queue penalty (£ per hr)	Mean end of green queue (PCU)	Mean end of red queue (PCU)	Wasted time starvation (s per cycle)	Wasted time blocking back (s per cycle)	Wasted time total (s per cycle)	Estimated blocking	
17:00-18:00	A	1	0.00	12.15	1.74	698.44	3.51	0.00	0.00	0.42	9.15	0.00	0.00	0.00		
		2	0.00	0.58	2.00	28.83	0.00	0.00	0.00	0.00	0.02	0.58	49.00	0.00	49.00	
	Ax	1	0.00	0.00	17.39	0.00	0.00	0.00	0.00	0.00			20.00	0.00	20.00	
	B	1	0.00	16.77	17.39	96.44	0.00	0.00	0.00	8.34	15.64	0.00	0.00	0.00		
	Bx	1	0.00	0.00	17.39	0.00	0.00	0.00	0.00	0.00			39.00	0.00	39.00	
	C	1	0.00	19.50	2.61	747.38	5.85	0.00	0.00	1.47	9.20	0.00	0.00	0.00		
		2	0.00	8.30	3.00	276.65	4.45	5.45	544675.95	5.30	8.30	0.00	0.00	0.00		
	Cx	1	0.00	0.00	17.39	0.00	0.00	0.00	0.00	0.00			21.00	0.00	21.00	
	D	1	0.00	5.88	8.70	67.65	0.00	0.00	0.00	2.71	5.72	0.00	0.00	0.00		
	Dx	1	0.00	0.00	8.70	0.00	0.00	0.00	0.00	0.00			49.00	0.00	49.00	
	9	1	0.00	14.33	7.12	201.43	0.90	0.00	0.00	0.00			0.00	120.00	120.00	
	10	1	0.00	0.05	10.09	0.53	0.00	0.00	0.00	0.00			80.00	80.00		

Pedestrian Crossing Results

Pedestrian Crossings: Pedestrian summary

Time Segment	Crossing	Side	Degree of saturation (%)	Calculated Flow Entering (Ped/hr)	Calculated sat flow (Ped/hr)	Actual green (s per cycle)	Mean Delay Per Ped (s)	Mean max queue (Ped)	Weighted cost of delay (£ per hr)	Performance Index (£ per hr)
17:00-18:00	(ALL)	(ALL)	9	50	11000	6	54.63	1.58	10.77	10.77

Pedestrian Crossings: Flows and signals

Time Segment	Crossing	Side	Calculated flow entering (Ped/hr)	Calculated flow out (Ped/hr)	Flow discrepancy (Ped/hr)	Adjusted flow warning	Calculated sat flow (Ped/hr)	Calculated capacity (Ped/hr)	Degree of saturation (%)	DOS Threshold exceeded	Practical reserve capacity (%)	Mean modulus of error	Actual green (s per cycle)	Effective green (pe cycl)
17:00-18:00	(ALL)	(ALL)	50	50	0		11000	550	9		1000	0.00	6	6

Pedestrian Crossings: Stops and delays

Time Segment	Crossing	Side	Mean Cruise Time per Ped (s)	Mean Delay per Ped (s)	Uniform delay (Ped-hr/hr)	Random plus oversat delay (Ped-hr/hr)	Unweighted cost of delay (£ per hr)	Weighted cost of delay (£ per hr)
17:00-18:00	(ALL)	(ALL)	3.00	54.63	0.76	0.00	10.77	10.77

Pedestrian Crossings: Queues and blocking

Time Segment	Crossing	Side	Mean max queue (Ped)	Max queue storage (Ped)	Utilised storage (%)	Average storage excess queue (Ped)	Average limit excess queue (Ped)	Excess queue penalty (£ per hr)
17:00-18:00	(ALL)	(ALL)	1.58	10.00	15.83	0.00	0.00	0.00

Network Results

Run Summary

Analysis set used	Run start time	Run finish time	Run duration (s)	Modelling start time (HH:mm)	Network Cycle Time (s)	Performance Index (£ per hr)	Total network delay (PCU-hr/hr)	Highest DOS (%)	Item with highest DOS	Number of oversaturated items	Percentage of oversaturated items (%)	Item with worst signalised PRC	Item with worst unsignal PRC
1	23/08/2023 09:21:39	23/08/2023 09:21:40	1.26	17:00	120	545290.61	41.21	101.18	B/1	1	5	B/1	9/1

Network Results: Vehicle summary

Time Segment	Degree of saturation (%)	Practical reserve capacity (%)	Calculated flow entering (PCU/hr)	Actual green (s per cycle)	Mean Delay per Veh (s)	Weighted cost of delay (£ per hr)	Weighted cost of stops (£ per hr)	Performance Index (£ per hr)
17:00-18:00	101	-1	4905	958	25.79	498.99	29.49	545204.43

Network Results: Pedestrian summary

Time Segment	Degree of saturation (%)	Calculated Flow Entering (Ped/hr)	Actual green (s per cycle)	Mean Delay Per Ped (s)	Weighted cost of delay (£ per hr)	Performance Index (£ per hr)
17:00-18:00	9	400	48	54.63	86.19	86.19

Network Results: Flows and signals

Time Segment	Calculated flow entering (PCU/hr)	Calculated flow out (PCU/hr)	Flow discrepancy (PCU/hr)	Adjusted flow warning	Degree of saturation (%)	DOS Threshold exceeded	Practical reserve capacity (%)	Actual green (s per cycle)	Effective green (s per cycle)
17:00-18:00	5305	5302	3	✓	101	✓	-1	1006	1012

Network Results: Stops and delays

Time Segment	Mean Cruise Time per Veh (s)	Mean Delay per Veh (s)	Uniform delay (PCU-hr/hr)	Random plus oversat delay (PCU-hr/hr)	Unweighted cost of delay (£ per hr)	Weighted cost of delay (£ per hr)	Mean stops per Veh (%)	Uniform stops (Stops per hr)	Random stops (Stops per hr)	Unweighted cost of stops (£ per hr)	Weighted cost of stops (£ per hr)
17:00-18:00	6.69	27.96	22.29	18.92	585.17	585.17	44.44	1875.55	476.60	29.49	29.49

Network Results: Queues and blocking

Time Segment	Utilised storage (%)	Excess queue penalty (£ per hr)	Wasted time starvation (s per cycle)	Wasted time blocking back (s per cycle)	Wasted time total (s per cycle)
17:00-18:00	747.38	544675.95	178.00	200.00	378.00

A1 - Proposed Junction 4 D2 - DO SOMETHING 2032, PM

Summary

Data Errors and Warnings

No errors or warnings

Run Summary

Analysis set used	Run start time	Run finish time	Run duration (s)	Modelling start time (HH:mm)	Network Cycle Time (s)	Performance Index (£ per hr)	Total network delay (PCU-hr/hr)	Highest DOS (%)	Item with highest DOS	Number of oversaturated items	Percentage of oversaturated items (%)	Item with worst signalised PRC	Item with worst unsignal PRC
1	23/08/2023 09:21:40	23/08/2023 09:21:40	0.68	17:00	120	741962.83	67.70	104.71	B/1	3	15	B/1	9/1

Analysis Set Details

Name	Use Simulation	Description	Use specific Demand Set(s)	Specific Demand Set(s)	Optimise specific Demand Set(s)	Demand Set(s) to optimise	Include in report	Locked
Proposed Junction 4			✓	D1,D2,D3	✓	D3	✓	

Demand Set Details

Scenario name	Time Period name	Description	Composite	Demand sets	Start time (HH:mm)	Locked	Run automatically
DO SOMETHING 2032	PM				17:00		✓

Arms and Traffic Streams

Arms

Arm	Name	Description	Traffic node
A	(untitled)		1
Ax	(untitled)		
B	(untitled)		1
Bx	(untitled)		
C	(untitled)		1
Cx	(untitled)		
D	(untitled)		1
Dx	(untitled)		
9			1
10			1

Traffic Streams

Arm	Traffic Stream	Name	Description	Auto length	Length (m)	Has Saturation Flow	Saturation flow source	Saturation flow (PCU/hr)	Is signal controlled	Is give way	Traffic type	Allow Nearside Turn On Red
A	1	(untitled)			10.00	✓	Sum of lanes	1800	✓		Normal	
	2				10.00	✓	Sum of lanes	1800	✓	✓	Normal	
Ax	1	(untitled)			100.00						Normal	
B	1	(untitled)			100.00	✓	Sum of lanes	1800	✓		Normal	
Bx	1	(untitled)			100.00						Normal	
C	1	(untitled)			15.00	✓	Sum of lanes	1800	✓		Normal	
	2				15.00	✓	Sum of lanes	1800	✓	✓	Normal	
Cx	1	(untitled)			100.00						Normal	
D	1	(untitled)			50.00	✓	Sum of lanes	1800	✓		Normal	
Dx	1	(untitled)			50.00						Normal	
9	1			✓	40.92	✓	Sum of lanes	1800			Normal	
10	1			✓	58.01	✓	Sum of lanes	1800			Normal	

Lanes

Arm	Traffic Stream	Lane	Name	Description	Use RR67	Saturation flow (PCU/hr)
A	1	1	(untitled)			1800
	2	1	(untitled)			1800
Ax	1	1	(untitled)			
B	1	1	(untitled)			1800
Bx	1	1	(untitled)			
C	1	1	(untitled)			1800
	2	1	(untitled)			1800
Cx	1	1	(untitled)			
D	1	1	(untitled)			1800
Dx	1	1	(untitled)			
9	1	1	(untitled)			1800
10	1	1	(untitled)			1800

Modelling

Arm	Traffic Stream	Traffic model	Stop weighting multiplier (%)	Delay weighting multiplier (%)	Assignment Cost Weighting (%)	Exclude from results calculation	Max queue storage (PCU)	Has queue limit	Queue limit (PCU)	Excess queue penalty (£)	Has degree of saturation limit
A	1	NetworkDefault	100	100	100		0.00				
	2	Flare	100	100	100		0.00	✓	2.00	99999.00	
Ax	1	NetworkDefault	100	100	100		0.00				
B	1	NetworkDefault	100	100	100		0.00				
Bx	1	NetworkDefault	100	100	100		0.00				
C	1	NetworkDefault	100	100	100		0.00				
	2	Flare	100	100	100		0.00	✓	2.00	99999.00	
Cx	1	NetworkDefault	100	100	100		0.00				
D	1	NetworkDefault	100	100	100		0.00				
Dx	1	NetworkDefault	100	100	100		0.00				
9	1	NetworkDefault	100	100	100		0.00				
10	1	NetworkDefault	100	100	100		0.00				

Modelling - Advanced

Arm	Traffic Stream	Initial queue (PCU)	Type of Vehicle-in-Service	Vehicle-in-Service	Type of random parameter	Random parameter	Auto cycle time	Cycle time
(ALL)	(ALL)	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120

Normal traffic - Modelling

Arm	Traffic Stream	Stop weighting (%)	Delay weighting (%)
(ALL)	(ALL)	100	100

Normal traffic - Advanced

Arm	Traffic Stream	Dispersion type for Normal Traffic
(ALL)	(ALL)	NetworkDefault

Flows

Arm	Traffic Stream	Total Flow (PCU/hr)	Normal Flow (PCU/hr)
A	1	489	489
	2	32	32
Ax	1	773	773
B	1	267	267
Bx	1	431	431
C	1	662	662
	2	283	283
Cx	1	539	539
D	1	96	96
Dx	1	86	86
9	1	945	945
10	1	521	521

Signals

Arm	Traffic Stream	Controller stream	Phase	Second phase enabled	Second phase
A	1	1	A		
	2	1	A	✓	B
B	1	1	C		
C	1	1	A		
	2	1	A	✓	B
D	1	1	D		

Entry Sources

Arm	Traffic Stream	Cruise time for Normal Traffic (s)	Cruise speed for Normal Traffic (kph)
B	1	12.00	30.00
D	1	6.00	30.00
9	1	4.91	30.00
10	1	6.96	30.00

Sources

Arm	Traffic Stream	Source	Source traffic stream	Destination traffic stream	Cruise time for Normal Traffic (s)	Cruise speed for Normal Traffic (kph)	Auto turning radius	Traffic turn style	Turning radius (m)
A	1	1	10/1	A/1	1.20	30.00	✓	Straight	Straight Movement
	2	1	10/1	A/2	1.20	30.00	✓	Straight	Straight Movement
Ax	1	1	B/1	Ax/1	12.00	30.00	✓	Offside	29.40
Bx	1	1	A/1	Bx/1	12.00	30.00	✓	Nearside	23.82
C	1	1	9/1	C/1	1.80	30.00	✓	Straight	Straight Movement
	2	1	9/1	C/2	1.80	30.00	✓	Straight	Straight Movement
Cx	1	1	D/1	Cx/1	12.00	30.00	✓	Offside	22.75
Dx	1	1	C/1	Dx/1	6.00	30.00	✓	Nearside	14.43
Ax	1	2	C/1	Ax/1	12.00	30.00	✓	Straight	Straight Movement
Bx	1	2	D/1	Bx/1	12.00	30.00	✓	Straight	Straight Movement
Cx	1	2	A/1	Cx/1	12.00	30.00	✓	Straight	Straight Movement
Dx	1	2	B/1	Dx/1	6.00	30.00	✓	Straight	Straight Movement
Ax	1	3	D/1	Ax/1	12.00	30.00	✓	Nearside	16.65
Bx	1	3	C/2	Bx/1	12.00	30.00	✓	Offside	21.08
Cx	1	3	B/1	Cx/1	12.00	30.00	✓	Nearside	14.22
Dx	1	3	A/2	Dx/1	6.00	30.00	✓	Offside	21.03

Pedestrian Crossings

Pedestrian Crossings

Crossing	Name	Description	Traffic node	Allow walk on red	Crossing type	Length (m)	Cruise time (seconds)	Cruise speed (kph)
1	(untitled)		1		Farside	3.00	2.00	5.40
2	(untitled)		1		Farside	3.00	2.00	5.40
3	(untitled)		1		Farside	3.00	2.00	5.40
4	(untitled)				Farside	3.00	2.00	5.40

Pedestrian Crossings - Signals

Crossing	Controller stream	Phase	Second phase enabled
(ALL)	1	E	

Pedestrian Crossings - Sides

Crossing	Side	Saturation flow (Ped/hr)
(ALL)	(ALL)	11000

Pedestrian Crossings - Modelling

Crossing	Side	Delay weighting (%)	Assignment Cost Weighting (%)	Exclude from results calculation	Max queue storage (Ped)	Has queue limit	Has degree of saturation limit
(ALL)	(ALL)	100	100		0.00		

Local OD Matrix - Local Matrix: 1

Local Matrix Options

OD Matrix	Name	Use for point to point table	Auto calculate	Allocation mode	Allow paths past exit locations	Allow looped paths on arms	Allow looped paths on traffic nodes	Copy flows	Matrix to copy flows from	Limit paths by length	Path length limit multiplier	Limit paths by number	Path number limit	Limit paths by flow	Low path flow threshold
1	(untitled)	✓	✓	Lane Balancing			✓			✓	1.25				

Normal Input Flows (PCU/hr)

	To								
	1	2	3	4	5	6	7	8	
From	1	0	32	630	283	0	0	0	0
	2	36	0	36	24	0	0	0	0
	3	365	32	0	124	0	0	0	0
	4	138	22	107	0	0	0	0	0
	5	0	0	0	0	0	0	0	0
	6	0	0	0	0	0	0	0	0
	7	0	0	0	0	0	0	0	0
	8	0	0	0	0	0	0	0	0

Bus Input Flows not shown as they are blank.

Tram Input Flows not shown as they are blank.

Pedestrian Input Flows (PCU/hr)

	To							
	1	2	3	4	5	6	7	8
From	1	0	0	0	0	0	0	0
	2	0	0	0	0	0	0	0
	3	0	0	0	0	0	0	0
	4	0	0	0	0	0	0	0
	5	0	0	0	0	0	50	50
	6	0	0	0	0	50	0	50
	7	0	0	0	0	50	0	50
	8	0	0	0	0	0	50	50

Locations

OD Matrix	Location	Name	Entries	Exits	Colour
1	1	(untitled)	9/1	Cx/1	#0000FF
	2	(untitled)	D/1	Dx/1	#FF0000
	3	(untitled)	10/1	Ax/1	#00FF00
	4	(untitled)	B/1	Bx/1	#FFFF00
	5	(untitled)	1:1E, 4:2E	1:1X, 4:2X	#00FFFF
	6	(untitled)	1:2E, 3:1E	1:2X, 3:1X	#FF00FF
	7	(untitled)	4:1E, 2:1E	4:1X, 2:1X	#008000
	8	(untitled)	3:2E, 2:2E	3:2X, 2:2X	#FFA500

Normal Paths and Flows

OD Matrix	Path	Description	From location	To location	Path items	Allocation type	Normal Calculated Flow (PCU/hr)
1	4		2	1	D/1, Cx/1	Normal	36
	9		4	2	B/1, Dx/1	Normal	22
	10		4	3	B/1, Ax/1	Normal	107
	12		2	4	D/1, Bx/1	Normal	24
	18		1	2	9/1, C/1, Dx/1	Normal	32
	19		3	1	10/1, A/1, Cx/1	Normal	365
	20		4	1	B/1, Cx/1	Normal	138
	23		2	3	D/1, Ax/1	Normal	36
	31		1	3	9/1, C/1, Ax/1	Normal	630
	32		1	4	9/1, C/2, Bx/1	Normal	283
	34		3	4	10/1, A/1, Bx/1	Normal	124
	35		3	2	10/1, A/2, Dx/1	Normal	32

Pedestrian Paths and Flows

OD Matrix	Path	Description	From location	To location	Path items	Allocation type	Pedestrian calculated flow (Ped/hr)
1	13		5	6	1:1E, 1:2X	Normal	50
	14		6	5	1:2E, 1:1X	Normal	50
	15		5	7	4:2E, 4:1X	Normal	50
	16		7	5	4:1E, 4:2X	Normal	50
	21		8	6	3:2E, 3:1X	Normal	50
	28		6	8	3:1E, 3:2X	Normal	50
	29		7	8	2:1E, 2:2X	Normal	50
	30		8	7	2:2E, 2:1X	Normal	50

Signal Timings

Network Default: 120s cycle time; 120 steps

Controller Stream 1

Controller Stream	Name	Description	Use sequence	Cycle time source	Cycle time (s)	Minimum possible cycle time (s)
1	(untitled)		2	NetworkDefault	120	120

Controller Stream 1 - Properties

Controller Stream	Manufacturer name	Type	Model number	(Telephone) Line Number	Site number	Grid reference	Gaining delay type
1	Unspecified						Absolute

Controller Stream 1 - Optimisation

Controller Stream	Allow offset optimisation	Allow green split optimisation	Optimisation level	Auto redistribute	Enable stage constraint
1	✓	✓	Offsets And Green Splits	✓	

Phases

Controller Stream	Phase	Name	Street minimum green (s)	Maximum green (s)	Relative start displacement (s)	Relative end displacement (s)	Type	Blackout Time (s)
1	A	(untitled)	52	52	0	0	Unknown	
	B	(untitled)	4	4	0	0	Unknown	
	C	(untitled)	16	16	0	0	Unknown	
	D	(untitled)	6	6	0	0	Unknown	
	E	(untitled)	6	6	0	0	Pedestrian	0

Library Stages

Controller Stream	Library Stage	Phases in stage	User stage minimum (s)	Run every N cycles	Probability of running (%)
1	1	A	1	1	100
	2	B	1	1	100
	3	C	1	1	100
	4	D	1	1	100
	5	E	1	1	100

Stage Sequences

Controller Stream	Sequence	Name	Multiple cycling	Stage IDs	Stage ends	Minimum possible cycle time (s)	Exclude from analysis
1	1	(untitled)	Single	1, 2, 3, 4, 5	21, 47, 73, 99, 0	112	
	2	(untitled)	Single	1, 2, 3, 5, 4	59, 63, 86, 103, 0	120	
	3	(untitled)	Single	1, 2, 4, 3, 5	21, 47, 77, 99, 0	111	
	4	(untitled)	Single	1, 2, 4, 5, 3	20, 45, 74, 94, 113	111	
	5	(untitled)	Single	1, 2, 5, 3, 4	22, 49, 71, 93, 119	111	
	6	(untitled)	Single	1, 2, 5, 4, 3	22, 49, 70, 91, 113	115	
	7	(untitled)	Single	1, 3, 2, 4, 5	20, 46, 73, 101, 0	117	
	8	(untitled)	Single	1, 3, 2, 5, 4	22, 49, 77, 98, 119	123	
	9	(untitled)	Single	1, 3, 4, 2, 5	22, 50, 77, 99, 0	116	
	10	(untitled)	Single	1, 3, 4, 5, 2	21, 48, 74, 94, 114	111	

Intergreen Matrix for Controller Stream 1

From	To				
	A	B	C	D	E
A			6	7	9
B			7	6	8
C	7	7		7	11
D	7	6	5		9
E	5	5	5	11	

Banned Stage transitions for Controller Stream 1

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

Interstage Matrix for Controller Stream 1

From	To				
	1	2	3	4	5
1	0	0	6	7	9
2	0	0	7	6	8
3	7	7	0	7	11
4	7	6	5	0	9
5	5	5	5	11	0

Resultant Stages

Controller Stream	Resultant Stage	Is base stage	Library Stage ID	Phases in this stage	Stage start (s)	Stage end (s)	Stage duration (s)	User stage minimum (s)	Stage minimum (s)
1	1	✓	1	A	7	59	52	1	52
	2	✓	2	B	59	63	4	1	4
	3	✓	3	C	70	86	16	1	16
	4	✓	5	E	97	103	6	1	6
	5	✓	4	D	114	0	6	1	6

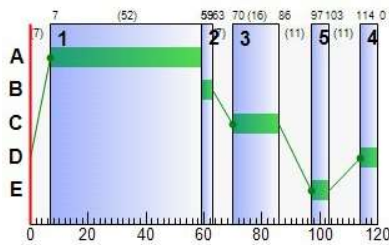
Resultant Phase Green Periods

Controller Stream	Phase	Green period	Is base green period	Start time (s)	End time (s)	Duration (s)
1	A	1	✓	7	59	52
	B	1	✓	59	63	4
	C	1	✓	70	86	16
	D	1	✓	114	0	6
	E	1	✓	97	103	6

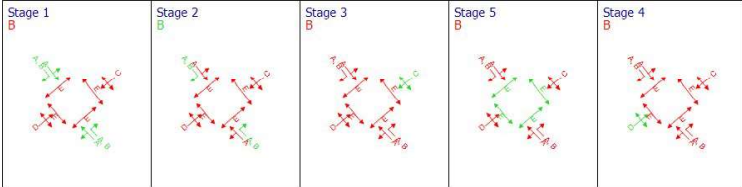
Traffic Stream Green Times

Arm	Traffic Stream	Traffic Node	Controller Stream	Phase	Green Period 1		
					Start	End	Duration
A	1	1	1	A	7	59	52
A	2	1	1	A	7	59	52
B	1	1	1	C	70	86	16
C	1	1	1	A	7	59	52
C	2	1	1	A	7	59	52
D	1	1	1	D	114	0	6

Phase Timings Diagram for Controller Stream 1



Stage Sequence Diagram for Controller Stream 1



Traffic Stream Results

Traffic Stream Results: Vehicle summary

Time Segment	Arm	Traffic Stream	Degree of saturation (%)	Practical reserve capacity (%)	Calculated flow entering (PCU/hr)	Calculated sat flow (PCU/hr)	Actual green (s per cycle)	Mean Delay per Veh (s)	Mean max queue (PCU)	Utilised storage (%)	Weighted cost of delay (£ per hr)	Weighted cost of stops (£ per hr)	Performance Index (£ per hr)
17:00-18:00	A	1	62	63	489	1800	52	29.27	12.85	738.81	56.46	4.76	61.22
		2	17	502	32	405	56	20.38	0.58	28.83	2.57	0.24	2.81
	Ax	1	0	Unrestricted	763	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
	B	1	105	-4	267	1800	16	200.52	19.65	113.01	211.18	6.33	217.51
	Bx	1	0	Unrestricted	429	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
	C	1	83	21	657	1800	52	28.06	15.02	575.67	72.70	5.14	77.84
		2	100	0	281	591	56	120.62	9.68	322.76	133.62	5.81	741099.59
	Cx	1	0	Unrestricted	533	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
	D	1	91	9	96	1800	6	157.83	5.88	67.65	59.76	2.01	61.78
	Dx	1	0	Unrestricted	85	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
	9	1	101	-1	945	1800	120	90.69	47.80	671.63	338.04	17.03	355.07
	10	1	29	245	521	1800	120	0.41	0.06	0.58	0.84	0.00	0.84

Traffic Stream Results: Flows and signals

Time Segment	Arm	Traffic Stream	Calculated flow entering (PCU/hr)	Calculated flow out (PCU/hr)	Flow discrepancy (PCU/hr)	Adjusted flow warning	Calculated sat flow (PCU/hr)	Calculated capacity (PCU/hr)	Degree of saturation (%)	DOS Threshold exceeded	Practical reserve capacity (%)	Mean modulus of error	Actual green (s per cycle)	Effective green (per cycle)
17:00-18:00	A	1	489	489	0		1800	795	62		63	0.00	52	53
		2	32	32	0		405	193	17		502	0.00	56	57
	Ax	1	763	763	10	✓	Unrestricted	Unrestricted	0		Unrestricted	0.69	120	12
	B	1	267	255	0		1800	255	105	✓	-4	0.00	16	17
	Bx	1	429	429	2	✓	Unrestricted	Unrestricted	0		Unrestricted	0.82	120	12
		1	657	657	5	✓	1800	795	83		21	0.87	52	53
	C	2	281	281	2	✓	591	281	100	✓	0	0.87	56	57
		Cx	1	533	533	6	✓	Unrestricted	Unrestricted	0		Unrestricted	0.70	120
	D	1	96	96	0		1800	105	91		9	0.00	6	7
	Dx	1	85	85	1	✓	Unrestricted	Unrestricted	0		Unrestricted	0.74	120	12
	9	1	945	938	0		1800	938	101	✓	-1	0.00	120	12
	10	1	521	521	0		1800	1800	29		245	0.00	120	12

Traffic Stream Results: Stops and delays

Time Segment	Arm	Traffic Stream	Mean Cruise Time per Veh (s)	Mean Delay per Veh (s)	Uniform delay (PCU-hr/hr)	Random plus oversat delay (PCU-hr/hr)	Unweighted cost of delay (£ per hr)	Weighted cost of delay (£ per hr)	Mean stops per Veh (%)	Uniform stops (Stops per hr)	Random stops (Stops per hr)	Unweighted cost of stops (£ per hr)	Weighted cost of stops (£ per hr)
17:00-18:00	A	1	1.20	29.27	3.49	0.49	56.46	56.46	77.58	364.83	14.53	4.76	4.76
		2	1.20	20.38	0.16	0.02	2.57	2.57	58.81	18.32	0.49	0.24	0.24
	Ax	1	12.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	B	1	12.00	200.52	3.65	11.22	211.18	211.18	197.85	254.76	249.75	6.33	6.33
	Bx	1	12.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	C	1	1.80	28.06	3.23	1.89	72.70	72.70	62.36	354.13	55.54	5.14	5.14
		2	1.80	120.62	1.50	7.91	133.62	133.62	165.06	270.03	193.51	5.81	5.81
	Cx	1	12.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	D	1	6.00	157.83	1.50	2.71	59.76	59.76	167.19	94.23	66.27	2.01	2.01
	Dx	1	6.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	9	1	4.91	90.69	7.01	16.80	338.04	338.04	144.80	915.59	442.31	17.03	17.03
	10	1	6.96	0.41	0.00	0.06	0.84	0.84	0.00	0.00	0.00	0.00	0.00

Traffic Stream Results: Queues and blocking

Time Segment	Arm	Traffic Stream	Initial queue (PCU)	Mean max queue (PCU)	Max queue storage (PCU)	Utilised storage (%)	Average storage excess queue (PCU)	Average limit excess queue (PCU)	Excess queue penalty (£ per hr)	Mean end of green queue (PCU)	Mean end of red queue (PCU)	Wasted time starvation (s per cycle)	Wasted time blocking back (s per cycle)	Wasted time total (s per cycle)	Estimated blocking
17:00-18:00	A	1	0.00	12.85	1.74	738.81	3.83	0.00	0.00	0.49	9.59	0.00	0.00	0.00	
		2	0.00	0.58	2.00	28.83	0.00	0.00	0.00	0.02	0.58	49.00	0.00	49.00	
	Ak	1	0.00	0.00	17.39	0.00	0.00	0.00	0.00			18.00	0.00	18.00	
		B	1	0.00	19.65	17.39	113.01	0.31	0.00	0.00	11.22	18.52	0.00	0.00	0.00
	Bx	1	0.00	0.00	17.39	0.00	0.00	0.00	0.00			38.00	0.00	38.00	
		1	0.00	15.02	2.61	575.67	4.14	0.00	0.00	1.89	7.38	0.00	0.00	0.00	
	C	2	0.00	9.68	3.00	322.76	6.41	7.41	740960.16	7.91	9.68	0.00	0.00	0.00	
		Cx	1	0.00	0.00	17.39	0.00	0.00	0.00			21.00	0.00	21.00	
	D	1	0.00	5.88	8.70	67.65	0.00	0.00	0.00	2.71	5.72	0.00	0.00	0.00	
		Dx	1	0.00	0.00	8.70	0.00	0.00	0.00			49.00	0.00	49.00	
9	1	0.00	47.80	7.12	671.63	25.18	0.00	0.00			0.00	120.00	120.00		
10	1	0.00	0.06	10.09	0.58	0.00	0.00	0.00			0.00	82.00	82.00		

Pedestrian Crossing Results

Pedestrian Crossings: Pedestrian summary

Time Segment	Crossing	Side	Degree of saturation (%)	Calculated Flow Entering (Ped/hr)	Calculated sat flow (Ped/hr)	Actual green (s per cycle)	Mean Delay Per Ped (s)	Mean max queue (Ped)	Weighted cost of delay (£ per hr)	Performance Index (£ per hr)
17:00-18:00	(ALL)	(ALL)	9	50	11000	6	54.63	1.58	10.77	10.77

Pedestrian Crossings: Flows and signals

Time Segment	Crossing	Side	Calculated flow entering (Ped/hr)	Calculated flow out (Ped/hr)	Flow discrepancy (Ped/hr)	Adjusted flow warning	Calculated sat flow (Ped/hr)	Calculated capacity (Ped/hr)	Degree of saturation (%)	DOS Threshold exceeded	Practical reserve capacity (%)	Mean modulus of error	Actual green (s per cycle)	Effective green (s per cycle)
17:00-18:00	(ALL)	(ALL)	50	50	0		11000	550	9		1000	0.00	6	6

Pedestrian Crossings: Stops and delays

Time Segment	Crossing	Side	Mean Cruise Time per Ped (s)	Mean Delay per Ped (s)	Uniform delay (Ped-hr/hr)	Random plus oversat delay (Ped-hr/hr)	Unweighted cost of delay (£ per hr)	Weighted cost of delay (£ per hr)
17:00-18:00	(ALL)	(ALL)	3.00	54.63	0.76	0.00	10.77	10.77

Pedestrian Crossings: Queues and blocking

Time Segment	Crossing	Side	Mean max queue (Ped)	Max queue storage (Ped)	Utilised storage (%)	Average storage excess queue (Ped)	Average limit excess queue (Ped)	Excess queue penalty (£ per hr)
17:00-18:00	(ALL)	(ALL)	1.58	10.00	15.83	0.00	0.00	0.00

Network Results

Run Summary

Analysis set used	Run start time	Run finish time	Run duration (s)	Modelling start time (HH:mm)	Network Cycle Time (s)	Performance Index (£ per hr)	Total network delay (PCU-hr/hr)	Highest DOS (%)	Item with highest DOS	Number of oversaturated items	Percentage of oversaturated items (%)	Item with worst signalised PRC	Item with worst unsignal PRC
1	23/08/2023 09:21:40	23/08/2023 09:21:40	0.68	17:00	120	741962.83	67.70	104.71	B/1	3	15	B/1	9/1

Network Results: Vehicle summary

Time Segment	Degree of saturation (%)	Practical reserve capacity (%)	Calculated flow entering (PCU/hr)	Actual green (s per cycle)	Mean Delay per Veh (s)	Weighted cost of delay (£ per hr)	Weighted cost of stops (£ per hr)	Performance Index (£ per hr)
17:00-18:00	105	-4	5098	958	43.53	875.18	41.31	741876.64

Network Results: Pedestrian summary

Time Segment	Degree of saturation (%)	Calculated Flow Entering (Ped/hr)	Actual green (s per cycle)	Mean Delay Per Ped (s)	Weighted cost of delay (£ per hr)	Performance Index (£ per hr)
17:00-18:00	9	400	48	54.63	86.19	86.19

Network Results: Flows and signals

Time Segment	Calculated flow entering (PCU/hr)	Calculated flow out (PCU/hr)	Flow discrepancy (PCU/hr)	Adjusted flow warning	Degree of saturation (%)	DOS Threshold exceeded	Practical reserve capacity (%)	Actual green (s per cycle)	Effective green (s per cycle)
17:00-18:00	5498	5478	26	✓	105	✓	-4	1006	1012

Network Results: Stops and delays

Time Segment	Mean Cruise Time per Veh (s)	Mean Delay per Veh (s)	Uniform delay (PCU-hr/hr)	Random plus oversat delay (PCU-hr/hr)	Unweighted cost of delay (£ per hr)	Weighted cost of delay (£ per hr)	Mean stops per Veh (%)	Uniform stops (Stops per hr)	Random stops (Stops per hr)	Unweighted cost of stops (£ per hr)	Weighted cost of stops (£ per hr)
17:00-18:00	6.69	44.33	26.61	41.09	961.37	961.37	60.55	2271.90	1022.41	41.31	41.31

Network Results: Queues and blocking

Time Segment	Utilised storage (%)	Excess queue penalty (£ per hr)	Wasted time starvation (s per cycle)	Wasted time blocking back (s per cycle)	Wasted time total (s per cycle)
17:00-18:00	738.81	740960.16	175.00	202.00	377.00

A1 - Proposed Junction 4 D3 - DO SOMETHING 2042, PM

Summary

Data Errors and Warnings

No errors or warnings

Run Summary

Analysis set used	Run start time	Run finish time	Run duration (s)	Modelling start time (HH:mm)	Network Cycle Time (s)	Performance Index (£ per hr)	Total network delay (PCU-hr/hr)	Highest DOS (%)	Item with highest DOS	Number of oversaturated items	Percentage of oversaturated items (%)	Item with worst signalised PRC	Item with worst unsignal PRC
1	23/08/2023 09:21:39	23/08/2023 09:21:39	0.84	17:00	120	741936.71	86.35	107.84	B/1	3	15	B/1	9/1

Analysis Set Details

Name	Use Simulation	Description	Use specific Demand Set(s)	Specific Demand Set(s)	Optimise specific Demand Set(s)	Demand Set(s) to optimise	Include in report	Locked
Proposed Junction 4			✓	D1,D2,D3	✓	D3	✓	

Demand Set Details

Scenario name	Time Period name	Description	Composite	Demand sets	Start time (HH:mm)	Locked	Run automatically
DO SOMETHING 2042	PM				17:00		✓

Arms and Traffic Streams

Arms

Arm	Name	Description	Traffic node
A	(untitled)		1
Ax	(untitled)		
B	(untitled)		1
Bx	(untitled)		
C	(untitled)		1
Cx	(untitled)		
D	(untitled)		1
Dx	(untitled)		
9			1
10			1

Traffic Streams

Arm	Traffic Stream	Name	Description	Auto length	Length (m)	Has Saturation Flow	Saturation flow source	Saturation flow (PCU/hr)	Is signal controlled	Is give way	Traffic type	Allow Nearside Turn On Red
A	1	(untitled)			10.00	✓	Sum of lanes	1800	✓		Normal	
	2	(untitled)			10.00	✓	Sum of lanes	1800	✓	✓	Normal	
Ax	1	(untitled)			100.00						Normal	
B	1	(untitled)			100.00	✓	Sum of lanes	1800	✓		Normal	
Bx	1	(untitled)			100.00						Normal	
C	1	(untitled)			15.00	✓	Sum of lanes	1800	✓		Normal	
	2	(untitled)			15.00	✓	Sum of lanes	1800	✓	✓	Normal	
Cx	1	(untitled)			100.00						Normal	
D	1	(untitled)			50.00	✓	Sum of lanes	1800	✓		Normal	
Dx	1	(untitled)			50.00						Normal	
9	1			✓	40.92	✓	Sum of lanes	1800			Normal	
10	1			✓	58.01	✓	Sum of lanes	1800			Normal	

Lanes

Arm	Traffic Stream	Lane	Name	Description	Use RR67	Saturation flow (PCU/hr)
A	1	1	(untitled)			1800
	2	1	(untitled)			1800
Ax	1	1	(untitled)			
B	1	1	(untitled)			1800
Bx	1	1	(untitled)			
C	1	1	(untitled)			1800
	2	1	(untitled)			1800
Cx	1	1	(untitled)			
D	1	1	(untitled)			1800
Dx	1	1	(untitled)			
9	1	1	(untitled)			1800
10	1	1	(untitled)			1800

Modelling

Arm	Traffic Stream	Traffic model	Stop weighting multiplier (%)	Delay weighting multiplier (%)	Assignment Cost Weighting (%)	Exclude from results calculation	Max queue storage (PCU)	Has queue limit	Queue limit (PCU)	Excess queue penalty (£)	Has degree of saturation limit
A	1	NetworkDefault	100	100	100		0.00				
	2	Flare	100	100	100		0.00	✓	2.00	99999.00	
Ax	1	NetworkDefault	100	100	100		0.00				
B	1	NetworkDefault	100	100	100		0.00				
Bx	1	NetworkDefault	100	100	100		0.00				
C	1	NetworkDefault	100	100	100		0.00				
	2	Flare	100	100	100		0.00	✓	2.00	99999.00	
Cx	1	NetworkDefault	100	100	100		0.00				
D	1	NetworkDefault	100	100	100		0.00				
Dx	1	NetworkDefault	100	100	100		0.00				
9	1	NetworkDefault	100	100	100		0.00				
10	1	NetworkDefault	100	100	100		0.00				

Modelling - Advanced

Arm	Traffic Stream	Initial queue (PCU)	Type of Vehicle-in-Service	Vehicle-in-Service	Type of random parameter	Random parameter	Auto cycle time	Cycle time
(ALL)	(ALL)	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120

Normal traffic - Modelling

Arm	Traffic Stream	Stop weighting (%)	Delay weighting (%)
(ALL)	(ALL)	100	100

Normal traffic - Advanced

Am	Traffic Stream	Dispersion type for Normal Traffic
(ALL)	(ALL)	NetworkDefault

Flows

Am	Traffic Stream	Total Flow (PCU/hr)	Normal Flow (PCU/hr)
A	1	506	506
	2	32	32
Ax	1	804	804
B	1	275	275
Bx	1	447	447
C	1	690	690
	2	296	296
Cx	1	558	558
D	1	96	96
Dx	1	86	86
9	1	986	986
10	1	538	538

Signals

Am	Traffic Stream	Controller stream	Phase	Second phase enabled	Second phase
A	1	1	A		
	2	1	A	✓	B
B	1	1	C		
C	1	1	A		
	2	1	A	✓	B
D	1	1	D		

Entry Sources

Am	Traffic Stream	Cruise time for Normal Traffic (s)	Cruise speed for Normal Traffic (kph)
B	1	12.00	30.00
D	1	6.00	30.00
9	1	4.91	30.00
10	1	6.96	30.00

Sources

Am	Traffic Stream	Source	Source traffic stream	Destination traffic stream	Cruise time for Normal Traffic (s)	Cruise speed for Normal Traffic (kph)	Auto turning radius	Traffic turn style	Turning radius (m)
A	1	1	10/1	A/1	1.20	30.00	✓	Straight	Straight Movement
	2	1	10/1	A/2	1.20	30.00	✓	Straight	Straight Movement
Ax	1	1	B/1	Ax/1	12.00	30.00	✓	Offside	29.40
Bx	1	1	A/1	Bx/1	12.00	30.00	✓	Nearside	23.82
C	1	1	9/1	C/1	1.80	30.00	✓	Straight	Straight Movement
	2	1	9/1	C/2	1.80	30.00	✓	Straight	Straight Movement
Cx	1	1	D/1	Cx/1	12.00	30.00	✓	Offside	22.75
Dx	1	1	C/1	Dx/1	6.00	30.00	✓	Nearside	14.43
Ax	1	2	C/1	Ax/1	12.00	30.00	✓	Straight	Straight Movement
Bx	1	2	D/1	Bx/1	12.00	30.00	✓	Straight	Straight Movement
Cx	1	2	A/1	Cx/1	12.00	30.00	✓	Straight	Straight Movement
Dx	1	2	B/1	Dx/1	6.00	30.00	✓	Straight	Straight Movement
Ax	1	3	D/1	Ax/1	12.00	30.00	✓	Nearside	16.65
Bx	1	3	C/2	Bx/1	12.00	30.00	✓	Offside	21.08
Cx	1	3	B/1	Cx/1	12.00	30.00	✓	Nearside	14.22
Dx	1	3	A/2	Dx/1	6.00	30.00	✓	Offside	21.03

Pedestrian Crossings

Pedestrian Crossings

Crossing	Name	Description	Traffic node	Allow walk on red	Crossing type	Length (m)	Cruise time (seconds)	Cruise speed (kph)
1	(untitled)		1		Farside	3.00	2.00	5.40
2	(untitled)		1		Farside	3.00	2.00	5.40
3	(untitled)		1		Farside	3.00	2.00	5.40
4	(untitled)				Farside	3.00	2.00	5.40

Pedestrian Crossings - Signals

Crossing	Controller stream	Phase	Second phase enabled
(ALL)	1	E	

Pedestrian Crossings - Sides

Crossing	Side	Saturation flow (Ped/hr)
(ALL)	(ALL)	11000

Pedestrian Crossings - Modelling

Crossing	Side	Delay weighting (%)	Assignment Cost Weighting (%)	Exclude from results calculation	Max queue storage (Ped)	Has queue limit	Has degree of saturation limit
(ALL)	(ALL)	100	100		0.00		

Local OD Matrix - Local Matrix: 1

Local Matrix Options

OD Matrix	Name	Use for point to point table	Auto calculate	Allocation mode	Allow paths past exit locations	Allow looped paths on arms	Allow looped paths on traffic nodes	Copy flows	Matrix to copy flows from	Limit paths by length	Path length limit multiplier	Limit paths by number	Path number limit	Limit paths by flow	Low path flow threshold
1	(untitled)	✓	✓	Lane Balancing			✓			✓	1.25				

Normal Input Flows (PCU/hr)

	To								
	1	2	3	4	5	6	7	8	
From	1	0	32	658	296	0	0	0	0
	2	36	0	36	24	0	0	0	0
	3	379	32	0	127	0	0	0	0
	4	143	22	110	0	0	0	0	0
	5	0	0	0	0	0	0	0	0
	6	0	0	0	0	0	0	0	0
	7	0	0	0	0	0	0	0	0
	8	0	0	0	0	0	0	0	0

Bus Input Flows not shown as they are blank.

Tram Input Flows not shown as they are blank.

Pedestrian Input Flows (PCU/hr)

	To								
	1	2	3	4	5	6	7	8	
From	1	0	0	0	0	0	0	0	0
	2	0	0	0	0	0	0	0	0
	3	0	0	0	0	0	0	0	0
	4	0	0	0	0	0	0	0	0
	5	0	0	0	0	0	50	50	0
	6	0	0	0	0	50	0	0	50
	7	0	0	0	0	50	0	0	50
	8	0	0	0	0	0	50	50	0

Locations

OD Matrix	Location	Name	Entries	Exits	Colour
1	1	(untitled)	9/1	Cx/1	#0000FF
	2	(untitled)	D/1	Dx/1	#FF0000
	3	(untitled)	10/1	Ax/1	#00FF00
	4	(untitled)	B/1	Bx/1	#FFFFFF00
	5	(untitled)	1:1E, 4:2E	1:1X, 4:2X	#00FFFF
	6	(untitled)	1:2E, 3:1E	1:2X, 3:1X	#FF00FF
	7	(untitled)	4:1E, 2:1E	4:1X, 2:1X	#008000
	8	(untitled)	3:2E, 2:2E	3:2X, 2:2X	#FFA500

Normal Paths and Flows

OD Matrix	Path	Description	From location	To location	Path items	Allocation type	Normal Calculated Flow (PCU/hr)
1	4		2	1	D/1, Cx/1	Normal	36
	9		4	2	B/1, Dx/1	Normal	22
	10		4	3	B/1, Ax/1	Normal	110
	12		2	4	D/1, Bx/1	Normal	24
	18		1	2	9/1, C/1, Dx/1	Normal	32
	19		3	1	10/1, A/1, Cx/1	Normal	379
	20		4	1	B/1, Cx/1	Normal	143
	23		2	3	D/1, Ax/1	Normal	36
	31		1	3	9/1, C/1, Ax/1	Normal	658
	32		1	4	9/1, C/2, Bx/1	Normal	296
	34		3	4	10/1, A/1, Bx/1	Normal	127
	35		3	2	10/1, A/2, Dx/1	Normal	32

Pedestrian Paths and Flows

OD Matrix	Path	Description	From location	To location	Path items	Allocation type	Pedestrian calculated flow (Ped/hr)
1	13		5	6	1:1E, 1:2X	Normal	50
	14		6	5	1:2E, 1:1X	Normal	50
	15		5	7	4:2E, 4:1X	Normal	50
	16		7	5	4:1E, 4:2X	Normal	50
	21		8	6	3:2E, 3:1X	Normal	50
	28		6	8	3:1E, 3:2X	Normal	50
	29		7	8	2:1E, 2:2X	Normal	50
	30		8	7	2:2E, 2:1X	Normal	50

Signal Timings

Network Default: 120s cycle time; 120 steps

Controller Stream 1

Controller Stream	Name	Description	Use sequence	Cycle time source	Cycle time (s)	Minimum possible cycle time (s)
1	(untitled)		2	NetworkDefault	120	120

Controller Stream 1 - Properties

Controller Stream	Manufacturer name	Type	Model number	(Telephone) Line Number	Site number	Grid reference	Gaining delay type
1	Unspecified						Absolute

Controller Stream 1 - Optimisation

Controller Stream	Allow offset optimisation	Allow green split optimisation	Optimisation level	Auto redistribute	Enable stage constraint
1	✓	✓	Offsets And Green Splits	✓	

Phases

Controller Stream	Phase	Name	Street minimum green (s)	Maximum green (s)	Relative start displacement (s)	Relative end displacement (s)	Type	Blackout Time (s)
1	A	(untitled)	52	52	0	0	Unknown	
	B	(untitled)	4	4	0	0	Unknown	
	C	(untitled)	16	16	0	0	Unknown	
	D	(untitled)	6	6	0	0	Unknown	
	E	(untitled)	6	6	0	0	Pedestrian	0

Library Stages

Controller Stream	Library Stage	Phases in stage	User stage minimum (s)	Run every N cycles	Probability of running (%)
1	1	A	1	1	100
	2	B	1	1	100
	3	C	1	1	100
	4	D	1	1	100
	5	E	1	1	100

Stage Sequences

Controller Stream	Sequence	Name	Multiple cycling	Stage IDs	Stage ends	Minimum possible cycle time (s)	Exclude from analysis
1	1	(untitled)	Single	1, 2, 3, 4, 5	21, 47, 73, 99, 0	112	
	2	(untitled)	Single	1, 2, 3, 5, 4	59, 63, 86, 103, 0	120	
	3	(untitled)	Single	1, 2, 4, 3, 5	21, 47, 77, 99, 0	111	
	4	(untitled)	Single	1, 2, 4, 5, 3	20, 45, 74, 94, 113	111	
	5	(untitled)	Single	1, 2, 5, 3, 4	22, 49, 71, 93, 119	111	
	6	(untitled)	Single	1, 2, 5, 4, 3	22, 49, 70, 91, 113	115	
	7	(untitled)	Single	1, 3, 2, 4, 5	20, 46, 73, 101, 0	117	
	8	(untitled)	Single	1, 3, 2, 5, 4	22, 49, 77, 98, 119	123	
	9	(untitled)	Single	1, 3, 4, 2, 5	22, 50, 77, 99, 0	116	
	10	(untitled)	Single	1, 3, 4, 5, 2	21, 48, 74, 94, 114	111	

Intergreen Matrix for Controller Stream 1

From	To				
	A	B	C	D	E
A			6	7	9
B			7	6	8
C	7	7		7	11
D	7	6	5		9
E	5	5	5	11	

Banned Stage transitions for Controller Stream 1

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

Interstage Matrix for Controller Stream 1

From	To				
	1	2	3	4	5
1	0	0	6	7	9
2	0	0	7	6	8
3	7	7	0	7	11
4	7	6	5	0	9
5	5	5	5	11	0

Resultant Stages

Controller Stream	Resultant Stage	Is base stage	Library Stage ID	Phases in this stage	Stage start (s)	Stage end (s)	Stage duration (s)	User stage minimum (s)	Stage minimum (s)
1	1	✓	1	A	7	59	52	1	52
	2	✓	2	B	59	63	4	1	4
	3	✓	3	C	70	86	16	1	16
	4	✓	5	E	97	103	6	1	6
	5	✓	4	D	114	0	6	1	6

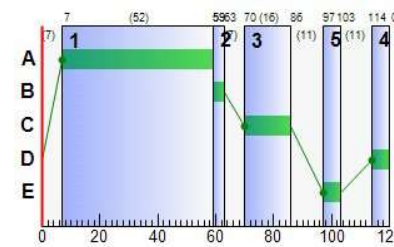
Resultant Phase Green Periods

Controller Stream	Phase	Green period	Is base green period	Start time (s)	End time (s)	Duration (s)
1	A	1	✓	7	59	52
	B	1	✓	59	63	4
	C	1	✓	70	86	16
	D	1	✓	114	0	6
	E	1	✓	97	103	6

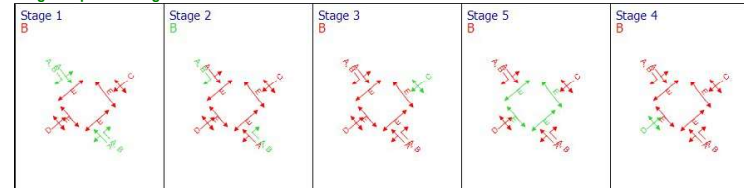
Traffic Stream Green Times

Arm	Traffic Stream	Traffic Node	Controller Stream	Phase	Green Period 1		
					Start	End	Duration
A	1	1	1	A	7	59	52
	2	1	1	A	7	59	52
B	1	1	1	C	70	86	16
C	1	1	1	A	7	59	52
	2	1	1	A	7	59	52
D	1	1	1	D	114	0	6

Phase Timings Diagram for Controller Stream 1



Stage Sequence Diagram for Controller Stream 1



Traffic Stream Results

Traffic Stream Results: Vehicle summary

Time Segment	Arm	Traffic Stream	Degree of saturation (%)	Practical reserve capacity (%)	Calculated flow entering (PCU/hr)	Calculated sat flow (PCU/hr)	Actual green (s per cycle)	Mean Delay per Veh (s)	Mean max queue (PCU)	Utilised storage (%)	Weighted cost of delay (£ per hr)	Weighted cost of stops (£ per hr)	Performance Index (£ per hr)
17:00-18:00	A	1	64	57	506	1800	52	29.95	13.62	783.40	59.78	5.01	64.79
		2	17	502	405	56	20.38	0.58	28.83	2.57	0.24	2.81	
	Ax	1	0	Unrestricted	762	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
	B	1	108	-7	275	1800	16	233.63	22.63	130.11	253.43	6.91	260.34
	Bx	1	0	Unrestricted	432	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
	C	1	82	21	655	1800	52	27.82	14.93	572.31	71.83	5.08	76.90
		2	100	0	281	591	56	120.58	9.68	322.57	133.58	5.81	740803.66
	Cx	1	0	Unrestricted	548	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
	D	1	91	9	96	1800	6	157.83	5.88	67.65	59.76	2.01	61.78
	Dx	1	0	Unrestricted	83	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
	9	1	105	-5	986	1800	120	143.49	63.21	888.26	558.08	21.26	579.34
	10	1	30	235	538	1800	120	0.43	0.06	0.63	0.90	0.00	0.90

Traffic Stream Results: Flows and signals

Time Segment	Arm	Traffic Stream	Calculated flow entering (PCU/hr)	Calculated flow out (PCU/hr)	Flow discrepancy (PCU/hr)	Adjusted flow warning	Calculated sat flow (PCU/hr)	Calculated capacity (PCU/hr)	Degree of saturation (%)	DOS Threshold exceeded	Practical reserve capacity (%)	Mean modulus of error	Actual green (s per cycle)	Effective green (pe cycl)
17:00-18:00	A	1	506	506	0		1800	795	64		57	0.00	52	53
		2	32	32	0		405	193	17		502	0.69	56	57
	Ax	1	762	762	42	✓	Unrestricted	Unrestricted	0		Unrestricted	0.69	120	12
	B	1	275	255	0		1800	255	108	✓	-7	0.00	16	17
	Bx	1	432	432	15	✓	Unrestricted	Unrestricted	0		Unrestricted	0.82	120	12
		1	655	655	35	✓	1800	795	82		21	0.87	52	53
	C	1	281	281	15	✓	591	281	100	✓	0	0.87	56	57
		2	281	281	15	✓	591	281	100	✓	0	0.87	56	57
	Cx	1	548	548	10	✓	Unrestricted	Unrestricted	0		Unrestricted	0.69	120	12
	D	1	96	96	0		1800	105	91		9	0.00	6	7
	Dx	1	83	83	3	✓	Unrestricted	Unrestricted	0		Unrestricted	0.74	120	12
	9	1	986	935	0		1800	935	105	✓	-5	0.00	120	12
	10	1	538	538	0		1800	1800	30		235	0.00	120	12

Traffic Stream Results: Stops and delays

Time Segment	Arm	Traffic Stream	Mean Cruise Time per Veh (s)	Mean Delay per Veh (s)	Uniform delay (PCU-hr/hr)	Random plus oversat delay (PCU-hr/hr)	Unweighted cost of delay (£ per hr)	Weighted cost of delay (£ per hr)	Mean stops per Veh (%)	Uniform stops (Stops per hr)	Random stops (Stops per hr)	Unweighted cost of stops (£ per hr)	Weighted cost of stops (£ per hr)
17:00-18:00	A	1	1.20	29.95	3.66	0.55	59.78	59.78	78.96	383.12	16.44	5.01	5.01
		2	1.20	20.38	0.16	0.02	2.57	2.57	58.81	18.32	0.49	0.24	0.24
	Ax	1	12.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	B	1	12.00	233.63	3.65	14.20	253.43	253.43	216.27	255.00	296.48	6.91	6.91
	Bx	1	12.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	C	1	1.80	27.82	3.21	1.85	71.83	71.83	61.85	350.55	54.34	5.08	5.08
		2	1.80	120.58	1.50	7.91	133.58	165.04	270.01	193.49	5.81	5.81	
	Cx	1	12.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	D	1	6.00	157.83	1.50	2.71	59.76	59.76	167.19	94.23	66.27	2.01	2.01
	Dx	1	6.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	9	1	4.91	143.49	7.01	32.29	558.08	558.08	181.27	930.39	765.34	21.26	21.26
	10	1	6.96	0.43	0.00	0.06	0.90	0.90	0.00	0.00	0.00	0.00	0.00

Traffic Stream Results: Queues and blocking

Time Segment	Arm	Traffic Stream	Initial queue (PCU)	Mean max queue (PCU)	Max queue storage (PCU)	Utilised storage (%)	Average storage excess queue (PCU)	Average limit excess queue (PCU)	Excess queue penalty (£ per hr)	Mean end of green queue (PCU)	Mean end of red queue (PCU)	Wasted time starvation (s per cycle)	Wasted time blocking (s per cycle)	Wasted time total (s per cycle)	Estimated blocking
17:00-18:00	A	1	0.00	13.62	1.74	783.40	4.24	0.00	0.00	0.55	9.97	0.00	0.00	0.00	
		2	0.00	0.58	2.00	28.83	0.00	0.00	0.00	0.00	0.02	0.58	49.00	0.00	49.00
	Ax	1	0.00	0.00	17.39	0.00	0.00	0.00	0.00	0.00			18.00	0.00	18.00
	B	1	0.00	22.63	17.39	130.11	1.64	0.00	0.00	14.20	21.49	0.00	0.00	0.00	
	Bx	1	0.00	0.00	17.39	0.00	0.00	0.00	0.00	0.00			38.00	0.00	38.00
	C	1	0.00	14.93	2.61	572.31	4.09	0.00	0.00	1.85	7.31	0.00	0.00	0.00	
		2	0.00	9.68	3.00	322.57	6.41	7.41	740664.27	7.91	9.68	0.00	0.00	0.00	
	Cx	1	0.00	0.00	17.39	0.00	0.00	0.00	0.00	0.00			20.00	0.00	20.00
	D	1	0.00	5.88	8.70	67.65	0.00	0.00	0.00	2.71	5.72	0.00	0.00	0.00	
	Dx	1	0.00	0.00	8.70	0.00	0.00	0.00	0.00	0.00			49.00	0.00	49.00
	9	1	0.00	63.21	7.12	888.26	40.63	0.00	0.00	0.00			0.00	120.00	120.00
	10	1	0.00	0.06	10.09	0.63	0.00	0.00	0.00	0.00			0.00	85.00	85.00

Pedestrian Crossing Results

Pedestrian Crossings: Pedestrian summary

Time Segment	Crossing	Side	Degree of saturation (%)	Calculated Flow Entering (Ped/hr)	Calculated sat flow (Ped/hr)	Actual green (s per cycle)	Mean Delay Per Ped (s)	Mean max queue (Ped)	Weighted cost of delay (£ per hr)	Performance Index (£ per hr)
17:00-18:00	(ALL)	(ALL)	9	50	11000	6	54.63	1.58	10.77	10.77

Pedestrian Crossings: Flows and signals

Time Segment	Crossing	Side	Calculated flow entering (Ped/hr)	Calculated flow out (Ped/hr)	Flow discrepancy (Ped/hr)	Adjusted flow warning	Calculated sat flow (Ped/hr)	Calculated capacity (Ped/hr)	Degree of saturation (%)	DOS Threshold exceeded	Practical reserve capacity (%)	Mean modulus of error	Actual green (s per cycle)	Effective green (pe cycl)
17:00-18:00	(ALL)	(ALL)	50	50	0		11000	550	9		1000	0.00	6	6

Pedestrian Crossings: Stops and delays

Time Segment	Crossing	Side	Mean Cruise Time per Ped (s)	Mean Delay per Ped (s)	Uniform delay (Ped-hr/hr)	Random plus oversat delay (Ped-hr/hr)	Unweighted cost of delay (£ per hr)	Weighted cost of delay (£ per hr)
17:00-18:00	(ALL)	(ALL)	3.00	54.63	0.76	0.00	10.77	10.77

Pedestrian Crossings: Queues and blocking

Time Segment	Crossing	Side	Mean max queue (Ped)	Max queue storage (Ped)	Utilised storage (%)	Average storage excess queue (Ped)	Average limit excess queue (Ped)	Excess queue penalty (£ per hr)
17:00-18:00	(ALL)	(ALL)	1.58	10.00	15.83	0.00	0.00	0.00

Network Results

Run Summary

Analysis set used	Run start time	Run finish time	Run duration (s)	Modelling start time (HH:mm)	Network Cycle Time (s)	Performance Index (£ per hr)	Total network delay (PCU-hr/hr)	Highest DOS (%)	Item with highest DOS	Number of oversaturated items	Percentage of oversaturated items (%)	Item with worst signalised PRC	Item with worst signal PRC
1	23/08/2023 09:21:39	23/08/2023 09:21:39	0.84	17:00	120	741936.71	86.35	107.84	B/1	3	15	B/1	9/1

Network Results: Vehicle summary

Time Segment	Degree of saturation (%)	Practical reserve capacity (%)	Calculated flow entering (PCU/hr)	Actual green (s per cycle)	Mean Delay per Veh (s)	Weighted cost of delay (£ per hr)	Weighted cost of stops (£ per hr)	Performance Index (£ per hr)
17:00-18:00	108	-7	5193	958	55.65	1139.93	46.32	741850.52

Network Results: Pedestrian summary

Time Segment	Degree of saturation (%)	Calculated Flow Entering (Ped/hr)	Actual green (s per cycle)	Mean Delay Per Ped (s)	Weighted cost of delay (£ per hr)	Performance Index (£ per hr)
17:00-18:00	9	400	48	54.63	86.19	86.19

Network Results: Flows and signals

Time Segment	Calculated flow entering (PCU/hr)	Calculated flow out (PCU/hr)	Flow discrepancy (PCU/hr)	Adjusted flow warning	Degree of saturation (%)	DOS Threshold exceeded	Practical reserve capacity (%)	Actual green (s per cycle)	Effective green (s per cycle)
17:00-18:00	5593	5522	121	✓	108	✓	-7	1006	1012

Network Results: Stops and delays

Time Segment	Mean Cruise Time per Veh (s)	Mean Delay per Veh (s)	Uniform delay (PCU-hr/hr)	Random plus oversat delay (PCU-hr/hr)	Unweighted cost of delay (£ per hr)	Weighted cost of delay (£ per hr)	Mean stops per Veh (%)	Uniform stops (Stops per hr)	Random stops (Stops per hr)	Unweighted cost of stops (£ per hr)	Weighted cost of stops (£ per hr)
17:00-18:00	6.69	55.58	26.76	59.59	1226.11	1226.11	68.47	2301.62	1392.86	46.32	46.32

Network Results: Queues and blocking

Time Segment	Utilised storage (%)	Excess queue penalty (£ per hr)	Wasted time starvation (s per cycle)	Wasted time blocking back (s per cycle)	Wasted time total (s per cycle)
17:00-18:00	888.26	740664.27	174.00	205.00	379.00



Junctions 9

ARCADY 9 - Roundabout Module

Version: 9.5.1.7462
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Filename: Junction 5 - Existing Roundabout - AM-PM.j9
Path: M:\Projects\22\22-010 Cherry Orchard - Sites 4 & 5 - C&S\Design\Civil\Traffic\Modelling 2023\1. Modelled Junctions\Junction 5
Report generation date: 20/10/2023 11:50:16

- »Junction 6 - Priority Roundabout - Baseline 2022, AM
- »Junction 6 - Priority Roundabout - Baseline 2022, PM
- »Junction 6 - Priority Roundabout - DO NOTHING 2027, AM
- »Junction 6 - Priority Roundabout - DO NOTHING 2027, PM
- »Junction 6 - Priority Roundabout - DO NOTHING 2032, AM
- »Junction 6 - Priority Roundabout - DO NOTHING 2032, PM
- »Junction 6 - Priority Roundabout - DO NOTHING 2042, AM
- »Junction 6 - Priority Roundabout - DO NOTHING 2042, PM
- »Junction 6 - Priority Roundabout - DO SOMETHING 2027, AM
- »Junction 6 - Priority Roundabout - DO SOMETHING 2027, PM
- »Junction 6 - Priority Roundabout - DO SOMETHING 2032, AM
- »Junction 6 - Priority Roundabout - DO SOMETHING 2032, PM
- »Junction 6 - Priority Roundabout - DO SOMETHING 2042, AM
- »Junction 6 - Priority Roundabout - DO SOMETHING 2042, PM

Summary of junction performance

		AM					PM				
	Set ID	Queue (PCU)	Delay (s)	RFC	LOS	Set ID	Queue (PCU)	Delay (s)	RFC	LOS	
Junction 6 - Priority Roundabout - Baseline 2022											
Arm 1	D1	0.1	3.19	0.06	A	D2	0.1	3.09	0.05	A	
Arm 2		0.1	2.02	0.07	A		0.2	2.21	0.15	A	
Arm 3		0.1	2.67	0.11	A		0.1	2.63	0.08	A	
Junction 6 - Priority Roundabout - DO NOTHING 2027											
Arm 1	D3	0.1	3.24	0.07	A	D4	0.1	3.13	0.06	A	
Arm 2		0.1	2.05	0.08	A		0.2	2.26	0.17	A	
Arm 3		0.1	2.72	0.12	A		0.1	2.67	0.09	A	
Junction 6 - Priority Roundabout - DO NOTHING 2032											
Arm 1	D5	0.1	3.28	0.07	A	D6	0.1	3.16	0.06	A	
Arm 2		0.1	2.06	0.09	A		0.2	2.28	0.18	A	
Arm 3		0.2	2.74	0.13	A		0.1	2.69	0.10	A	
Junction 6 - Priority Roundabout - DO NOTHING 2042											
Arm 1	D7	0.1	3.31	0.07	A	D8	0.1	3.17	0.06	A	
Arm 2		0.1	2.07	0.09	A		0.2	2.31	0.19	A	
Arm 3		0.2	2.77	0.14	A		0.1	2.70	0.10	A	
Junction 6 - Priority Roundabout - DO SOMETHING 2027											
Arm 1	D9	0.1	3.52	0.12	A	D10	0.1	3.39	0.11	A	
Arm 2		0.2	2.16	0.13	A		0.3	2.43	0.23	A	
Arm 3		0.2	2.87	0.16	A		0.2	2.86	0.13	A	
Junction 6 - Priority Roundabout - DO SOMETHING 2032											
Arm 1	D11	0.1	3.56	0.13	A	D12	0.1	3.41	0.11	A	
Arm 2		0.2	2.17	0.13	A		0.3	2.47	0.24	A	
Arm 3		0.2	2.90	0.16	A		0.2	2.89	0.14	A	
Junction 6 - Priority Roundabout - DO SOMETHING 2042											
Arm 1	D13	0.2	3.59	0.13	A	D14	0.1	3.44	0.11	A	
Arm 2		0.2	2.18	0.14	A		0.3	2.50	0.25	A	
Arm 3		0.2	2.93	0.17	A		0.2	2.91	0.14	A	

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

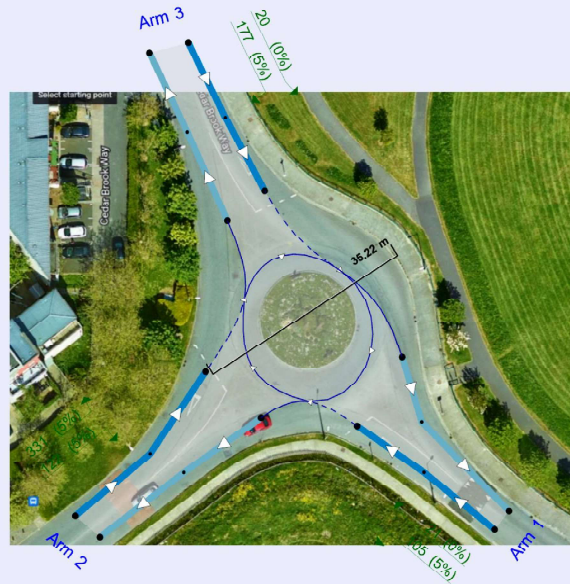
File summary

File Description

Title	
Location	
Site number	
Date	02/12/2022
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	DOMAINI.byrne
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



Flows show original traffic demand (PCU/hr).
The junction diagram reflects the last run of Junctions.

Analysis Options

Vehicle length (m)	Calculate Queue Percentiles	Calculate detailed queueing delay	Calculate residual capacity	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)
5.75				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)	Run automatically
D1	Baseline 2022	AM	ONE HOUR	08:00	09:30	15	✓
D2	Baseline 2022	PM	ONE HOUR	17:00	18:30	15	✓
D3	DO NOTHING 2027	AM	ONE HOUR	08:00	09:30	15	✓

D4	DO NOTHING 2027	PM	ONE HOUR	17:00	18:30	15	✓
D5	DO NOTHING 2032	AM	ONE HOUR	08:00	09:30	15	✓
D6	DO NOTHING 2032	PM	ONE HOUR	17:00	18:30	15	✓
D7	DO NOTHING 2042	AM	ONE HOUR	08:00	09:30	15	✓
D8	DO NOTHING 2042	PM	ONE HOUR	17:00	18:30	15	✓
D9	DO SOMETHING 2027	AM	ONE HOUR	08:00	09:30	15	✓
D10	DO SOMETHING 2027	PM	ONE HOUR	17:00	18:30	15	✓
D11	DO SOMETHING 2032	AM	ONE HOUR	08:00	09:30	15	✓
D12	DO SOMETHING 2032	PM	ONE HOUR	17:00	18:30	15	✓
D13	DO SOMETHING 2042	AM	ONE HOUR	08:00	09:30	15	✓
D14	DO SOMETHING 2042	PM	ONE HOUR	17:00	18:30	15	✓

Analysis Set Details

ID	Name	Include in report	Network flow scaling factor (%)	Network capacity scaling factor (%)
A1	Junction 6 - Priority Roundabout	✓	100.000	100.000

Junction 6 - Priority Roundabout - Baseline 2022, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3	2.53	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description
1	untitled	
2	untitled	
3	untitled	

Roundabout Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	I' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Exit only
1	3.77	5.11	3.7	17.0	35.0	24.6	
2	4.80	7.92	10.6	50.4	35.0	25.5	
3	3.60	6.48	8.6	42.5	35.0	21.1	

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
1	0.582	1343
2	0.732	2029
3	0.648	1598

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

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	Baseline 2022	AM	ONE HOUR	08:00	09:30	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		ONE HOUR	✓	67	100.000
2		ONE HOUR	✓	130	100.000
3		ONE HOUR	✓	158	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		1	2	3
From	1	0	54	13
	2	20	0	110
	3	8	150	0

Vehicle Mix

Heavy Vehicle Percentages

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

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1	0.06	3.19	0.1	A	61	92
2	0.07	2.02	0.1	A	119	179
3	0.11	2.67	0.1	A	145	217

Main Results for each time segment

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	50	13	113	1277	0.040	50	21	0.0	0.0	3.051	A
2	98	24	10	2021	0.048	98	153	0.0	0.1	1.964	A
3	119	30	15	1588	0.075	119	92	0.0	0.1	2.565	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	60	15	135	1264	0.048	60	25	0.0	0.1	3.108	A
2	117	29	12	2020	0.058	117	183	0.1	0.1	1.985	A
3	142	36	18	1586	0.090	142	111	0.1	0.1	2.610	A

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	74	18	165	1247	0.059	74	31	0.1	0.1	3.191	A
2	143	36	14	2018	0.071	143	224	0.1	0.1	2.015	A
3	174	43	22	1584	0.110	174	135	0.1	0.1	2.674	A

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	74	18	165	1246	0.059	74	31	0.1	0.1	3.191	A
2	143	36	14	2018	0.071	143	225	0.1	0.1	2.015	A
3	174	43	22	1584	0.110	174	135	0.1	0.1	2.674	A

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	60	15	135	1264	0.048	60	25	0.1	0.1	3.111	A
2	117	29	12	2020	0.058	117	184	0.1	0.1	1.986	A
3	142	36	18	1586	0.090	142	111	0.1	0.1	2.610	A

09:15 - 09:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	50	13	113	1277	0.040	50	21	0.1	0.0	3.054	A
2	98	24	10	2021	0.048	98	154	0.1	0.1	1.964	A
3	119	30	15	1588	0.075	119	93	0.1	0.1	2.566	A

Junction 6 - Priority Roundabout - Baseline 2022, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3	2.43	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)	Run automatically
D2	Baseline 2022	PM	ONE HOUR	17:00	18:30	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		ONE HOUR	✓	58	100.000
2		ONE HOUR	✓	282	100.000
3		ONE HOUR	✓	117	100.000

Origin-Destination Data

Demand (PCU/hr)

	To		
	1	2	3
From	1	0	45
	2	51	0
	3	11	106

Vehicle Mix

Heavy Vehicle Percentages

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

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1	0.05	3.09	0.1	A	53	80
2	0.15	2.21	0.2	A	259	388
3	0.08	2.63	0.1	A	107	161

Main Results for each time segment

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	44	11	80	1296	0.034	44	47	0.0	0.0	2.983	A
2	212	53	10	2021	0.105	212	113	0.0	0.1	2.089	A
3	88	22	38	1573	0.056	88	183	0.0	0.1	2.533	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	52	13	95	1287	0.041	52	56	0.0	0.0	3.026	A
2	254	63	12	2020	0.126	253	136	0.1	0.2	2.139	A
3	105	26	46	1568	0.067	105	219	0.1	0.1	2.571	A

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	64	16	117	1275	0.050	64	68	0.0	0.1	3.086	A
2	310	78	14	2018	0.154	310	166	0.2	0.2	2.213	A
3	129	32	56	1561	0.083	129	269	0.1	0.1	2.625	A

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	64	16	117	1275	0.050	64	68	0.1	0.1	3.086	A
2	310	78	14	2018	0.154	310	166	0.2	0.2	2.213	A
3	129	32	56	1561	0.083	129	269	0.1	0.1	2.625	A

18:00 - 18:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	52	13	95	1287	0.041	52	56	0.1	0.0	3.028	A
2	254	63	12	2020	0.126	254	136	0.2	0.2	2.139	A
3	105	26	46	1568	0.067	105	219	0.1	0.1	2.573	A

18:15 - 18:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	44	11	80	1296	0.034	44	47	0.0	0.0	2.984	A
2	212	53	10	2021	0.105	212	114	0.2	0.1	2.091	A
3	88	22	38	1573	0.056	88	184	0.1	0.1	2.535	A

Junction 6 - Priority Roundabout - DO NOTHING 2027, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3	2.56	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)	Run automatically
D3	DO NOTHING 2027	AM	ONE HOUR	08:00	09:30	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		ONE HOUR	✓	74	100.000
2		ONE HOUR	✓	155	100.000
3		ONE HOUR	✓	176	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		1	2	3
From	1	0	60	14
	2	25	0	130
	3	9	167	0

Vehicle Mix

Heavy Vehicle Percentages

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

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1	0.07	3.24	0.1	A	68	102
2	0.08	2.05	0.1	A	142	213

3	0.12	2.72	0.1	A	162	242
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Main Results for each time segment

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	56	14	125	1270	0.044	56	26	0.0	0.0	3.083	A
2	117	29	11	2021	0.058	116	170	0.0	0.1	1.984	A
3	133	33	19	1586	0.084	132	108	0.0	0.1	2.594	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	67	17	150	1255	0.053	66	31	0.0	0.1	3.149	A
2	139	35	13	2019	0.069	139	204	0.1	0.1	2.010	A
3	158	40	22	1583	0.100	158	129	0.1	0.1	2.645	A

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	81	20	184	1236	0.066	81	37	0.1	0.1	3.243	A
2	171	43	15	2017	0.085	171	250	0.1	0.1	2.046	A
3	194	48	28	1580	0.123	194	158	0.1	0.1	2.719	A

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	81	20	184	1236	0.066	81	37	0.1	0.1	3.243	A
2	171	43	15	2017	0.085	171	250	0.1	0.1	2.046	A
3	194	48	28	1580	0.123	194	159	0.1	0.1	2.719	A

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	67	17	150	1255	0.053	67	31	0.1	0.1	3.152	A
2	139	35	13	2019	0.069	139	204	0.1	0.1	2.010	A
3	158	40	22	1583	0.100	158	130	0.1	0.1	2.647	A

09:15 - 09:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	56	14	126	1269	0.044	56	26	0.1	0.0	3.087	A
2	117	29	11	2021	0.058	117	171	0.1	0.1	1.986	A
3	133	33	19	1586	0.084	133	108	0.1	0.1	2.594	A

Junction 6 - Priority Roundabout - DO NOTHING 2027, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3	2.48	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)	Run automatically
D4	DO NOTHING 2027	PM	ONE HOUR	17:00	18:30	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		ONE HOUR	✓	65	100.000
2		ONE HOUR	✓	311	100.000
3		ONE HOUR	✓	133	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		1	2	3
From	1	0	51	14
	2	57	0	254
	3	12	121	0

Vehicle Mix

Heavy Vehicle Percentages

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

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1	0.06	3.13	0.1	A	60	89
2	0.17	2.26	0.2	A	285	428

3	0.09	2.67	0.1	A	122	183
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Main Results for each time segment

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	49	12	91	1290	0.038	49	52	0.0	0.0	3.013	A
2	234	59	11	2021	0.116	234	129	0.0	0.1	2.115	A
3	100	25	43	1570	0.064	100	201	0.0	0.1	2.559	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	58	15	109	1279	0.046	58	62	0.0	0.0	3.062	A
2	280	70	13	2019	0.138	279	155	0.1	0.2	2.172	A
3	120	30	51	1565	0.076	120	241	0.1	0.1	2.603	A

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	72	18	133	1265	0.057	72	76	0.0	0.1	3.132	A
2	342	86	15	2017	0.170	342	189	0.2	0.2	2.256	A
3	146	37	63	1557	0.094	146	295	0.1	0.1	2.666	A

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	72	18	133	1265	0.057	72	76	0.1	0.1	3.132	A
2	342	86	15	2017	0.170	342	189	0.2	0.2	2.256	A
3	146	37	63	1557	0.094	146	295	0.1	0.1	2.666	A

18:00 - 18:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	58	15	109	1279	0.046	58	62	0.1	0.0	3.065	A
2	280	70	13	2019	0.138	280	155	0.2	0.2	2.172	A
3	120	30	51	1565	0.076	120	241	0.1	0.1	2.605	A

18:15 - 18:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	49	12	91	1290	0.038	49	52	0.0	0.0	3.016	A
2	234	59	11	2021	0.116	234	130	0.2	0.1	2.117	A
3	100	25	43	1570	0.064	100	202	0.1	0.1	2.559	A

Junction 6 - Priority Roundabout - DO NOTHING 2032, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3	2.58	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)	Run automatically
D5	DO NOTHING 2032	AM	ONE HOUR	08:00	09:30	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		ONE HOUR	✓	79	100.000
2		ONE HOUR	✓	164	100.000
3		ONE HOUR	✓	186	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		1	2	3
From	1	0	64	15
	2	27	0	137
	3	9	177	0

Vehicle Mix

Heavy Vehicle Percentages

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

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1	0.07	3.28	0.1	A	72	109
2	0.09	2.06	0.1	A	150	226

3	0.13	2.74	0.2	A	171	256
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Main Results for each time segment

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	59	15	133	1265	0.047	59	27	0.0	0.1	3.104	A
2	123	31	11	2020	0.061	123	181	0.0	0.1	1.992	A
3	140	35	20	1585	0.088	140	114	0.0	0.1	2.609	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	71	18	159	1250	0.057	71	32	0.1	0.1	3.175	A
2	147	37	13	2019	0.073	147	217	0.1	0.1	2.019	A
3	167	42	24	1582	0.106	167	137	0.1	0.1	2.664	A

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	87	22	195	1229	0.071	87	40	0.1	0.1	3.277	A
2	181	45	17	2016	0.090	180	265	0.1	0.1	2.058	A
3	205	51	30	1579	0.130	205	167	0.1	0.2	2.744	A

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	87	22	195	1229	0.071	87	40	0.1	0.1	3.277	A
2	181	45	17	2016	0.090	181	265	0.1	0.1	2.058	A
3	205	51	30	1579	0.130	205	167	0.2	0.2	2.744	A

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	71	18	159	1250	0.057	71	32	0.1	0.1	3.178	A
2	147	37	13	2019	0.073	148	217	0.1	0.1	2.021	A
3	167	42	24	1582	0.106	167	137	0.2	0.1	2.667	A

09:15 - 09:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	59	15	133	1265	0.047	60	27	0.1	0.1	3.108	A
2	123	31	11	2020	0.061	124	182	0.1	0.1	1.994	A
3	140	35	20	1585	0.088	140	114	0.1	0.1	2.612	A

Junction 6 - Priority Roundabout - DO NOTHING 2032, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3	2.50	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)	Run automatically
D6	DO NOTHING 2032	PM	ONE HOUR	17:00	18:30	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		ONE HOUR	✓	69	100.000
2		ONE HOUR	✓	329	100.000
3		ONE HOUR	✓	141	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		1	2	3
From	1	0	54	15
	2	60	0	269
	3	13	128	0

Vehicle Mix

Heavy Vehicle Percentages

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

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1	0.06	3.16	0.1	A	63	95
2	0.18	2.28	0.2	A	302	453

3	0.10	2.69	0.1	A	129	194
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Main Results for each time segment

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	52	13	96	1287	0.040	52	55	0.0	0.0	3.027	A
2	248	62	11	2020	0.123	247	137	0.0	0.1	2.132	A
3	106	27	45	1569	0.068	106	213	0.0	0.1	2.572	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	62	16	115	1276	0.049	62	66	0.0	0.1	3.080	A
2	296	74	13	2019	0.147	296	164	0.1	0.2	2.193	A
3	127	32	54	1563	0.081	127	255	0.1	0.1	2.619	A

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	76	19	141	1261	0.060	76	80	0.1	0.1	3.155	A
2	362	91	17	2016	0.180	362	200	0.2	0.2	2.284	A
3	155	39	66	1555	0.100	155	313	0.1	0.1	2.687	A

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	76	19	141	1261	0.060	76	80	0.1	0.1	3.155	A
2	362	91	17	2016	0.180	362	200	0.2	0.2	2.284	A
3	155	39	66	1555	0.100	155	313	0.1	0.1	2.687	A

18:00 - 18:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	62	16	115	1276	0.049	62	66	0.1	0.1	3.080	A
2	296	74	13	2019	0.147	296	164	0.2	0.2	2.194	A
3	127	32	54	1563	0.081	127	255	0.1	0.1	2.619	A

18:15 - 18:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	52	13	96	1287	0.040	52	55	0.1	0.0	3.030	A
2	248	62	11	2020	0.123	248	137	0.2	0.1	2.134	A
3	106	27	45	1569	0.068	106	214	0.1	0.1	2.574	A

Junction 6 - Priority Roundabout - DO NOTHING 2042, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3	2.60	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)	Run automatically
07	DO NOTHING 2042	AM	ONE HOUR	08:00	09:30	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		ONE HOUR	✓	83	100.000
2		ONE HOUR	✓	171	100.000
3		ONE HOUR	✓	196	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		1	2	3
From	1	0	67	16
	2	28	0	143
	3	10	186	0

Vehicle Mix

Heavy Vehicle Percentages

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

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1	0.07	3.31	0.1	A	76	114
2	0.09	2.07	0.1	A	157	235

3	0.14	2.77	0.2	A	180	270
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Main Results for each time segment

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	62	16	140	1261	0.050	62	29	0.0	0.1	3.122	A
2	129	32	12	2020	0.064	128	190	0.0	0.1	1.998	A
3	148	37	21	1584	0.093	147	119	0.0	0.1	2.623	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	75	19	167	1245	0.060	75	34	0.1	0.1	3.197	A
2	154	38	14	2018	0.076	154	227	0.1	0.1	2.027	A
3	176	44	25	1582	0.111	176	143	0.1	0.1	2.682	A

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	91	23	205	1223	0.075	91	42	0.1	0.1	3.306	A
2	188	47	18	2016	0.093	188	278	0.1	0.1	2.068	A
3	216	54	31	1578	0.137	216	175	0.1	0.2	2.767	A

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	91	23	205	1223	0.075	91	42	0.1	0.1	3.306	A
2	188	47	18	2016	0.093	188	279	0.1	0.1	2.068	A
3	216	54	31	1578	0.137	216	175	0.2	0.2	2.767	A

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	75	19	167	1245	0.060	75	34	0.1	0.1	3.197	A
2	154	38	14	2018	0.076	154	228	0.1	0.1	2.029	A
3	176	44	25	1582	0.111	176	143	0.2	0.1	2.682	A

09:15 - 09:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	62	16	140	1261	0.050	63	29	0.1	0.1	3.123	A
2	129	32	12	2020	0.064	129	191	0.1	0.1	2.000	A
3	148	37	21	1584	0.093	148	120	0.1	0.1	2.626	A

Junction 6 - Priority Roundabout - DO NOTHING 2042, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3	2.52	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)	Run automatically
D8	DO NOTHING 2042	PM	ONE HOUR	17:00	18:30	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		ONE HOUR	✓	72	100.000
2		ONE HOUR	✓	346	100.000
3		ONE HOUR	✓	147	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		1	2	3
From	1	0	56	16
	2	63	0	283
	3	13	134	0

Vehicle Mix

Heavy Vehicle Percentages

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

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1	0.06	3.17	0.1	A	66	99
2	0.19	2.31	0.2	A	317	476

3	0.10	2.70	0.1	A	135	202
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Main Results for each time segment

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	54	14	101	1284	0.042	54	57	0.0	0.0	3.039	A
2	260	65	12	2020	0.129	260	143	0.0	0.2	2.148	A
3	111	28	47	1567	0.071	110	225	0.0	0.1	2.583	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	65	16	120	1273	0.051	65	68	0.0	0.1	3.094	A
2	311	78	14	2018	0.154	311	171	0.2	0.2	2.214	A
3	132	33	57	1561	0.085	132	269	0.1	0.1	2.633	A

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	79	20	147	1257	0.063	79	84	0.1	0.1	3.174	A
2	381	95	18	2016	0.189	381	209	0.2	0.2	2.311	A
3	162	40	69	1553	0.104	162	329	0.1	0.1	2.704	A

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	79	20	148	1257	0.063	79	84	0.1	0.1	3.174	A
2	381	95	18	2016	0.189	381	209	0.2	0.2	2.311	A
3	162	40	69	1553	0.104	162	329	0.1	0.1	2.704	A

18:00 - 18:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	65	16	121	1272	0.051	65	68	0.1	0.1	3.095	A
2	311	78	14	2018	0.154	311	171	0.2	0.2	2.214	A
3	132	33	57	1561	0.085	132	269	0.1	0.1	2.633	A

18:15 - 18:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	54	14	101	1284	0.042	54	57	0.1	0.0	3.039	A
2	260	65	12	2020	0.129	261	143	0.2	0.2	2.150	A
3	111	28	47	1567	0.071	111	225	0.1	0.1	2.585	A

Junction 6 - Priority Roundabout - DO SOMETHING 2027, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3	2.73	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)	Run automatically
D9	DO SOMETHING 2027	AM	ONE HOUR	08:00	09:30	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		ONE HOUR	✓	133	100.000
2		ONE HOUR	✓	238	100.000
3		ONE HOUR	✓	219	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		1	2	3
From	1	0	112	21
	2	64	0	174
	3	13	206	0

Vehicle Mix

Heavy Vehicle Percentages

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

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1	0.12	3.52	0.1	A	122	183
2	0.13	2.16	0.2	A	218	328

3	0.16	2.87	0.2	A	201	301
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Main Results for each time segment

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	100	25	155	1253	0.080	100	58	0.0	0.1	3.253	A
2	179	45	16	2017	0.089	179	239	0.0	0.1	2.056	A
3	165	41	48	1567	0.105	164	146	0.0	0.1	2.688	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	120	30	185	1235	0.097	119	69	0.1	0.1	3.361	A
2	214	53	19	2015	0.106	214	286	0.1	0.1	2.098	A
3	197	49	58	1561	0.126	197	175	0.1	0.2	2.763	A

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	146	37	227	1211	0.121	146	85	0.1	0.1	3.523	A
2	262	66	23	2012	0.130	262	350	0.1	0.2	2.160	A
3	241	60	70	1552	0.155	241	215	0.2	0.2	2.874	A

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	146	37	227	1211	0.121	146	85	0.1	0.1	3.523	A
2	262	66	23	2012	0.130	262	350	0.2	0.2	2.160	A
3	241	60	70	1552	0.155	241	215	0.2	0.2	2.874	A

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	120	30	185	1235	0.097	120	69	0.1	0.1	3.365	A
2	214	53	19	2015	0.106	214	286	0.2	0.1	2.100	A
3	197	49	58	1561	0.126	197	175	0.2	0.2	2.763	A

09:15 - 09:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	100	25	155	1252	0.080	100	58	0.1	0.1	3.257	A
2	179	45	16	2017	0.089	179	240	0.1	0.1	2.058	A
3	165	41	48	1567	0.105	165	147	0.2	0.1	2.688	A

Junction 6 - Priority Roundabout - DO SOMETHING 2027, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3	2.70	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)	Run automatically
D10	DO SOMETHING 2027	PM	ONE HOUR	17:00	18:30	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		ONE HOUR	✓	119	100.000
2		ONE HOUR	✓	418	100.000
3		ONE HOUR	✓	183	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		1	2	3
From	1	0	99	20
	2	115	0	303
	3	19	164	0

Vehicle Mix

Heavy Vehicle Percentages

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

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1	0.11	3.39	0.1	A	109	164
2	0.23	2.43	0.3	A	384	575

3	0.13	2.86	0.2	A	168	252
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Main Results for each time segment

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	90	22	123	1271	0.070	89	101	0.0	0.1	3.172	A
2	315	79	15	2018	0.156	314	197	0.0	0.2	2.217	A
3	138	34	86	1542	0.089	137	243	0.0	0.1	2.677	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	107	27	147	1257	0.085	107	120	0.1	0.1	3.259	A
2	376	94	18	2015	0.186	376	236	0.2	0.2	2.305	A
3	165	41	103	1531	0.107	164	290	0.1	0.1	2.751	A

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	131	33	180	1238	0.106	131	147	0.1	0.1	3.386	A
2	460	115	22	2012	0.229	460	289	0.2	0.3	2.434	A
3	201	50	127	1516	0.133	201	355	0.1	0.2	2.860	A

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	131	33	181	1238	0.106	131	148	0.1	0.1	3.386	A
2	460	115	22	2012	0.229	460	290	0.3	0.3	2.434	A
3	201	50	127	1516	0.133	201	356	0.2	0.2	2.860	A

18:00 - 18:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	107	27	148	1257	0.085	107	121	0.1	0.1	3.260	A
2	376	94	18	2015	0.186	376	237	0.3	0.2	2.307	A
3	165	41	103	1531	0.107	165	291	0.2	0.1	2.752	A

18:15 - 18:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	90	22	124	1271	0.071	90	101	0.1	0.1	3.173	A
2	315	79	15	2018	0.156	315	198	0.2	0.2	2.221	A
3	138	34	87	1542	0.089	138	243	0.1	0.1	2.678	A

Junction 6 - Priority Roundabout - DO SOMETHING 2032, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3	2.75	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)	Run automatically
D11	DO SOMETHING 2032	AM	ONE HOUR	08:00	09:30	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		ONE HOUR	✓	137	100.000
2		ONE HOUR	✓	246	100.000
3		ONE HOUR	✓	229	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		1	2	3
From	1	0	116	21
	2	65	0	181
	3	13	216	0

Vehicle Mix

Heavy Vehicle Percentages

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

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1	0.13	3.56	0.1	A	126	189
2	0.13	2.17	0.2	A	226	339

3	0.16	2.90	0.2	A	210	315
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Main Results for each time segment

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	103	26	162	1248	0.083	103	59	0.0	0.1	3.275	A
2	185	46	16	2017	0.092	185	249	0.0	0.1	2.063	A
3	172	43	49	1566	0.110	172	152	0.0	0.1	2.703	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	123	31	194	1230	0.100	123	70	0.1	0.1	3.389	A
2	221	55	19	2015	0.110	221	298	0.1	0.1	2.107	A
3	206	51	58	1560	0.132	206	182	0.1	0.2	2.783	A

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	151	38	238	1204	0.125	151	86	0.1	0.1	3.560	A
2	271	68	23	2012	0.135	271	365	0.1	0.2	2.171	A
3	252	63	72	1551	0.163	252	222	0.2	0.2	2.900	A

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	151	38	238	1204	0.125	151	86	0.1	0.1	3.560	A
2	271	68	23	2012	0.135	271	366	0.2	0.2	2.171	A
3	252	63	72	1551	0.163	252	222	0.2	0.2	2.900	A

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	123	31	194	1229	0.100	123	70	0.1	0.1	3.390	A
2	221	55	19	2015	0.110	221	299	0.2	0.1	2.109	A
3	206	51	58	1560	0.132	206	182	0.2	0.2	2.785	A

09:15 - 09:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	103	26	163	1248	0.083	103	59	0.1	0.1	3.276	A
2	185	46	16	2017	0.092	185	250	0.1	0.1	2.063	A
3	172	43	49	1566	0.110	173	152	0.2	0.1	2.704	A

Junction 6 - Priority Roundabout - DO SOMETHING 2032, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3	2.73	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)	Run automatically
D12	DO SOMETHING 2032	PM	ONE HOUR	17:00	18:30	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		ONE HOUR	✓	123	100.000
2		ONE HOUR	✓	437	100.000
3		ONE HOUR	✓	191	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		1	2	3
From	1	0	102	21
	2	119	0	318
	3	20	171	0

Vehicle Mix

Heavy Vehicle Percentages

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

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1	0.11	3.41	0.1	A	113	169
2	0.24	2.47	0.3	A	401	601

3	0.14	2.89	0.2	A	175	263
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Main Results for each time segment

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	93	23	128	1268	0.073	92	104	0.0	0.1	3.188	A
2	329	82	16	2017	0.163	328	205	0.0	0.2	2.237	A
3	144	36	89	1540	0.093	143	255	0.0	0.1	2.692	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	111	28	154	1253	0.088	110	125	0.1	0.1	3.279	A
2	393	98	19	2015	0.195	393	245	0.2	0.3	2.330	A
3	172	43	107	1529	0.112	172	305	0.1	0.1	2.770	A

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	135	34	188	1233	0.110	135	153	0.1	0.1	3.413	A
2	481	120	23	2012	0.239	481	300	0.3	0.3	2.469	A
3	210	53	131	1513	0.139	210	373	0.1	0.2	2.886	A

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	135	34	188	1233	0.110	135	153	0.1	0.1	3.413	A
2	481	120	23	2012	0.239	481	301	0.3	0.3	2.469	A
3	210	53	131	1513	0.139	210	373	0.2	0.2	2.886	A

18:00 - 18:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	111	28	154	1253	0.088	111	125	0.1	0.1	3.282	A
2	393	98	19	2015	0.195	393	246	0.3	0.3	2.331	A
3	172	43	107	1528	0.112	172	305	0.2	0.1	2.771	A

18:15 - 18:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	93	23	129	1268	0.073	93	105	0.1	0.1	3.189	A
2	329	82	16	2017	0.163	329	206	0.3	0.2	2.239	A
3	144	36	90	1540	0.093	144	255	0.1	0.1	2.695	A

Junction 6 - Priority Roundabout - DO SOMETHING 2042, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3	2.78	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)	Run automatically
D13	DO SOMETHING 2042	AM	ONE HOUR	08:00	09:30	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		ONE HOUR	✓	141	100.000
2		ONE HOUR	✓	254	100.000
3		ONE HOUR	✓	239	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		1	2	3
From	1	0	119	22
	2	67	0	187
	3	14	225	0

Vehicle Mix

Heavy Vehicle Percentages

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

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1	0.13	3.59	0.2	A	129	194
2	0.14	2.18	0.2	A	233	350

3	0.17	2.93	0.2	A	219	329
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Main Results for each time segment

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	106	27	169	1244	0.085	106	61	0.0	0.1	3.294	A
2	191	48	17	2016	0.095	191	258	0.0	0.1	2.070	A
3	180	45	50	1565	0.115	179	157	0.0	0.1	2.720	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	127	32	202	1225	0.103	127	73	0.1	0.1	3.414	A
2	228	57	20	2014	0.113	228	309	0.1	0.1	2.116	A
3	215	54	60	1559	0.138	215	188	0.1	0.2	2.803	A

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	155	39	248	1199	0.130	155	89	0.1	0.2	3.594	A
2	280	70	24	2011	0.139	280	378	0.1	0.2	2.183	A
3	263	66	74	1550	0.170	263	230	0.2	0.2	2.928	A

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	155	39	248	1198	0.130	155	89	0.2	0.2	3.594	A
2	280	70	24	2011	0.139	280	379	0.2	0.2	2.183	A
3	263	66	74	1550	0.170	263	230	0.2	0.2	2.928	A

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	127	32	202	1225	0.103	127	73	0.2	0.1	3.415	A
2	228	57	20	2014	0.113	228	310	0.2	0.1	2.118	A
3	215	54	60	1559	0.138	215	188	0.2	0.2	2.806	A

09:15 - 09:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	106	27	170	1244	0.085	106	61	0.1	0.1	3.296	A
2	191	48	17	2016	0.095	191	259	0.1	0.1	2.070	A
3	180	45	50	1565	0.115	180	157	0.2	0.1	2.720	A

Junction 6 - Priority Roundabout - DO SOMETHING 2042, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3	2.75	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)	Run automatically
D14	DO SOMETHING 2042	PM	ONE HOUR	17:00	18:30	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		ONE HOUR	✓	126	100.000
2		ONE HOUR	✓	453	100.000
3		ONE HOUR	✓	197	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		1	2	3
From	1	0	105	21
	2	122	0	331
	3	20	177	0

Vehicle Mix

Heavy Vehicle Percentages

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

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1	0.11	3.44	0.1	A	116	173
2	0.25	2.50	0.3	A	416	624

3	0.14	2.91	0.2	A	181	271
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Main Results for each time segment

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	95	24	133	1265	0.075	95	107	0.0	0.1	3.202	A
2	341	85	16	2017	0.169	340	212	0.0	0.2	2.253	A
3	148	37	92	1538	0.096	148	264	0.0	0.1	2.704	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	113	28	159	1250	0.091	113	128	0.1	0.1	3.296	A
2	407	102	19	2015	0.202	407	253	0.2	0.3	2.351	A
3	177	44	110	1527	0.116	177	316	0.1	0.1	2.785	A

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	139	35	195	1229	0.113	139	156	0.1	0.1	3.436	A
2	499	125	23	2012	0.248	498	310	0.3	0.3	2.498	A
3	217	54	134	1511	0.144	217	387	0.1	0.2	2.905	A

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	139	35	195	1229	0.113	139	156	0.1	0.1	3.436	A
2	499	125	23	2012	0.248	499	310	0.3	0.3	2.498	A
3	217	54	134	1511	0.144	217	388	0.2	0.2	2.906	A

18:00 - 18:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	113	28	159	1250	0.091	113	128	0.1	0.1	3.300	A
2	407	102	19	2015	0.202	408	254	0.3	0.3	2.353	A
3	177	44	110	1527	0.116	177	317	0.2	0.1	2.788	A

18:15 - 18:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	95	24	133	1265	0.075	95	107	0.1	0.1	3.203	A
2	341	85	16	2017	0.169	341	212	0.3	0.2	2.257	A
3	148	37	92	1538	0.096	148	265	0.1	0.1	2.705	A

Junctions 9		
ARCADY 9 - Roundabout Module		
Version: 9.5.1.7462 © Copyright TRL Limited, 2019		
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Filename: Junction 5 - Existing Roundabout - AM-PM.j9
 Path: M:\Projects\22\22-010 Cherry Orchard - Sites 4 & 5 - C&S\Design\Civil\Traffic\Modelling 2023\1. Modelled Junctions\Junction 5
 Report generation date: 20/10/2023 10:25:23

- »Junction 6 - Priority Roundabout - Baseline 2022, AM
- »Junction 6 - Priority Roundabout - Baseline 2022, PM
- »Junction 6 - Priority Roundabout - DO NOTHING 2027, AM
- »Junction 6 - Priority Roundabout - DO NOTHING 2027, PM
- »Junction 6 - Priority Roundabout - DO NOTHING 2032, AM
- »Junction 6 - Priority Roundabout - DO NOTHING 2032, PM
- »Junction 6 - Priority Roundabout - DO NOTHING 2042, AM
- »Junction 6 - Priority Roundabout - DO NOTHING 2042, PM
- »Junction 6 - Priority Roundabout - DO SOMETHING 2027, AM
- »Junction 6 - Priority Roundabout - DO SOMETHING 2027, PM
- »Junction 6 - Priority Roundabout - DO SOMETHING 2032, AM
- »Junction 6 - Priority Roundabout - DO SOMETHING 2032, PM
- »Junction 6 - Priority Roundabout - DO SOMETHING 2042, AM
- »Junction 6 - Priority Roundabout - DO SOMETHING 2042, PM

Summary of junction performance

		AM					PM				
	Set ID	Queue (PCU)	Delay (s)	RFC	LOS	Set ID	Queue (PCU)	Delay (s)	RFC	LOS	
Junction 6 - Priority Roundabout - Baseline 2022											
Arm 1	D1	0.1	3.19	0.06	A	D2	0.1	3.09	0.05	A	
Arm 2		0.1	2.02	0.07	A		0.2	2.21	0.15	A	
Arm 3		0.1	2.67	0.11	A		0.1	2.63	0.08	A	
Junction 6 - Priority Roundabout - DO NOTHING 2027											
Arm 1	D3	0.1	3.24	0.07	A	D4	0.1	3.13	0.06	A	
Arm 2		0.1	2.05	0.08	A		0.2	2.26	0.17	A	
Arm 3		0.1	2.72	0.12	A		0.1	2.67	0.09	A	
Junction 6 - Priority Roundabout - DO NOTHING 2032											
Arm 1	D5	0.1	3.28	0.07	A	D6	0.1	3.16	0.06	A	
Arm 2		0.1	2.06	0.09	A		0.2	2.28	0.18	A	
Arm 3		0.2	2.74	0.13	A		0.1	2.69	0.10	A	
Junction 6 - Priority Roundabout - DO NOTHING 2042											
Arm 1	D7	0.1	3.31	0.07	A	D8	0.1	3.17	0.06	A	
Arm 2		0.1	2.07	0.09	A		0.2	2.31	0.19	A	
Arm 3		0.2	2.77	0.14	A		0.1	2.70	0.10	A	
Junction 6 - Priority Roundabout - DO SOMETHING 2027											
Arm 1	D9	0.1	3.52	0.12	A	D10	0.1	3.39	0.11	A	
Arm 2		0.2	2.16	0.13	A		0.3	2.43	0.23	A	
Arm 3		0.2	2.87	0.16	A		0.2	2.86	0.13	A	
Junction 6 - Priority Roundabout - DO SOMETHING 2032											
Arm 1	D11	0.1	3.56	0.13	A	D12	0.1	3.41	0.11	A	
Arm 2		0.2	2.17	0.13	A		0.3	2.47	0.24	A	
Arm 3		0.2	2.90	0.16	A		0.2	2.89	0.14	A	
Junction 6 - Priority Roundabout - DO SOMETHING 2042											
Arm 1	D13	0.2	3.59	0.13	A	D14	0.1	3.44	0.11	A	
Arm 2		0.2	2.18	0.14	A		0.3	2.50	0.25	A	
Arm 3		0.2	2.93	0.17	A		0.2	2.91	0.14	A	

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

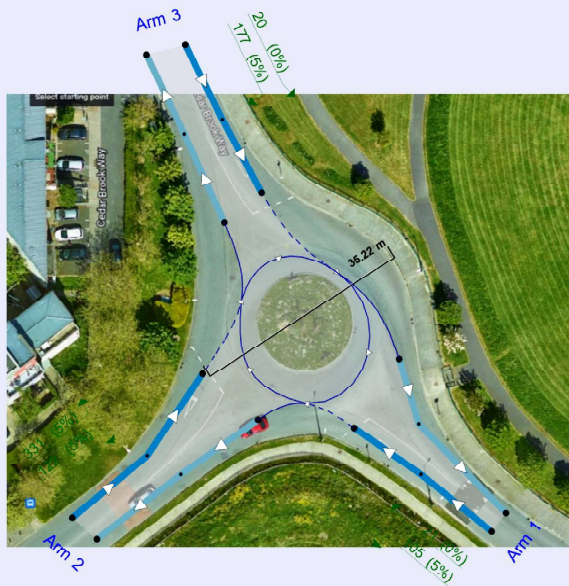
File summary

File Description

Title	
Location	
Site number	
Date	02/12/2022
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	DOMAINI.byrne
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



Flows show original traffic demand (PCU/hr).
The junction diagram reflects the last run of Junctions.

Analysis Options

Vehicle length (m)	Calculate Queue Percentiles	Calculate detailed queueing delay	Calculate residual capacity	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)
5.75				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)	Run automatically
D1	Baseline 2022	AM	ONE HOUR	08:00	09:30	15	✓
D2	Baseline 2022	PM	ONE HOUR	17:00	18:30	15	✓
D3	DO NOTHING 2027	AM	ONE HOUR	08:00	09:30	15	✓

D4	DO NOTHING 2027	PM	ONE HOUR	17:00	18:30	15	✓
D5	DO NOTHING 2032	AM	ONE HOUR	08:00	09:30	15	✓
D6	DO NOTHING 2032	PM	ONE HOUR	17:00	18:30	15	✓
D7	DO NOTHING 2042	AM	ONE HOUR	08:00	09:30	15	✓
D8	DO NOTHING 2042	PM	ONE HOUR	17:00	18:30	15	✓
D9	DO SOMETHING 2027	AM	ONE HOUR	08:00	09:30	15	✓
D10	DO SOMETHING 2027	PM	ONE HOUR	17:00	18:30	15	✓
D11	DO SOMETHING 2032	AM	ONE HOUR	08:00	09:30	15	✓
D12	DO SOMETHING 2032	PM	ONE HOUR	17:00	18:30	15	✓
D13	DO SOMETHING 2042	AM	ONE HOUR	08:00	09:30	15	✓
D14	DO SOMETHING 2042	PM	ONE HOUR	17:00	18:30	15	✓

Analysis Set Details

ID	Name	Include in report	Network flow scaling factor (%)	Network capacity scaling factor (%)
A1	Junction 6 - Priority Roundabout	✓	100.000	100.000

Junction 6 - Priority Roundabout - Baseline 2022, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3	2.53	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description
1	untitled	
2	untitled	
3	untitled	

Roundabout Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	I' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Exit only
1	3.77	5.11	3.7	17.0	35.0	24.6	
2	4.80	7.92	10.6	50.4	35.0	25.5	
3	3.60	6.48	8.6	42.5	35.0	21.1	

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
1	0.582	1343
2	0.732	2029
3	0.648	1598

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

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	Baseline 2022	AM	ONE HOUR	08:00	09:30	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		ONE HOUR	✓	67	100.000
2		ONE HOUR	✓	130	100.000
3		ONE HOUR	✓	158	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		1	2	3
From	1	0	54	13
	2	20	0	110
	3	8	150	0

Vehicle Mix

Heavy Vehicle Percentages

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

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1	0.06	3.19	0.1	A	61	92
2	0.07	2.02	0.1	A	119	179
3	0.11	2.67	0.1	A	145	217

Main Results for each time segment

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	50	13	113	1277	0.040	50	21	0.0	0.0	3.051	A
2	98	24	10	2021	0.048	98	153	0.0	0.1	1.964	A
3	119	30	15	1588	0.075	119	92	0.0	0.1	2.565	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	60	15	135	1264	0.048	60	25	0.0	0.1	3.108	A
2	117	29	12	2020	0.058	117	183	0.1	0.1	1.985	A
3	142	36	18	1586	0.090	142	111	0.1	0.1	2.610	A

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	74	18	165	1247	0.059	74	31	0.1	0.1	3.191	A
2	143	36	14	2018	0.071	143	224	0.1	0.1	2.015	A
3	174	43	22	1584	0.110	174	135	0.1	0.1	2.674	A

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	74	18	165	1246	0.059	74	31	0.1	0.1	3.191	A
2	143	36	14	2018	0.071	143	225	0.1	0.1	2.015	A
3	174	43	22	1584	0.110	174	135	0.1	0.1	2.674	A

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	60	15	135	1264	0.048	60	25	0.1	0.1	3.111	A
2	117	29	12	2020	0.058	117	184	0.1	0.1	1.986	A
3	142	36	18	1586	0.090	142	111	0.1	0.1	2.610	A

09:15 - 09:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	50	13	113	1277	0.040	50	21	0.1	0.0	3.054	A
2	98	24	10	2021	0.048	98	154	0.1	0.1	1.964	A
3	119	30	15	1588	0.075	119	93	0.1	0.1	2.566	A

Junction 6 - Priority Roundabout - Baseline 2022, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3	2.43	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)	Run automatically
D2	Baseline 2022	PM	ONE HOUR	17:00	18:30	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		ONE HOUR	✓	58	100.000
2		ONE HOUR	✓	282	100.000
3		ONE HOUR	✓	117	100.000

Origin-Destination Data

Demand (PCU/hr)

	To			
	1	2	3	
From	1	0	45	13
	2	51	0	231
	3	11	106	0

Vehicle Mix

Heavy Vehicle Percentages

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

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1	0.05	3.09	0.1	A	53	80
2	0.15	2.21	0.2	A	259	388
3	0.08	2.63	0.1	A	107	161

Main Results for each time segment

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	44	11	80	1296	0.034	44	47	0.0	0.0	2.983	A
2	212	53	10	2021	0.105	212	113	0.0	0.1	2.089	A
3	88	22	38	1573	0.056	88	183	0.0	0.1	2.533	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	52	13	95	1287	0.041	52	56	0.0	0.0	3.026	A
2	254	63	12	2020	0.126	253	136	0.1	0.2	2.139	A
3	105	26	46	1568	0.067	105	219	0.1	0.1	2.571	A

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	64	16	117	1275	0.050	64	68	0.0	0.1	3.086	A
2	310	78	14	2018	0.154	310	166	0.2	0.2	2.213	A
3	129	32	56	1561	0.083	129	269	0.1	0.1	2.625	A

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	64	16	117	1275	0.050	64	68	0.1	0.1	3.086	A
2	310	78	14	2018	0.154	310	166	0.2	0.2	2.213	A
3	129	32	56	1561	0.083	129	269	0.1	0.1	2.625	A

18:00 - 18:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	52	13	95	1287	0.041	52	56	0.1	0.0	3.028	A
2	254	63	12	2020	0.126	254	136	0.2	0.2	2.139	A
3	105	26	46	1568	0.067	105	219	0.1	0.1	2.573	A

18:15 - 18:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	44	11	80	1296	0.034	44	47	0.0	0.0	2.984	A
2	212	53	10	2021	0.105	212	114	0.2	0.1	2.091	A
3	88	22	38	1573	0.056	88	184	0.1	0.1	2.535	A

Junction 6 - Priority Roundabout - DO NOTHING 2027, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3	2.56	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)	Run automatically
D3	DO NOTHING 2027	AM	ONE HOUR	08:00	09:30	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		ONE HOUR	✓	74	100.000
2		ONE HOUR	✓	155	100.000
3		ONE HOUR	✓	176	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		1	2	3
From	1	0	60	14
	2	25	0	130
	3	9	167	0

Vehicle Mix

Heavy Vehicle Percentages

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

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1	0.07	3.24	0.1	A	68	102
2	0.08	2.05	0.1	A	142	213

3	0.12	2.72	0.1	A	162	242
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Main Results for each time segment

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	56	14	125	1270	0.044	56	26	0.0	0.0	3.083	A
2	117	29	11	2021	0.058	116	170	0.0	0.1	1.984	A
3	133	33	19	1586	0.084	132	108	0.0	0.1	2.594	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	67	17	150	1255	0.053	66	31	0.0	0.1	3.149	A
2	139	35	13	2019	0.069	139	204	0.1	0.1	2.010	A
3	158	40	22	1583	0.100	158	129	0.1	0.1	2.645	A

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	81	20	184	1236	0.066	81	37	0.1	0.1	3.243	A
2	171	43	15	2017	0.085	171	250	0.1	0.1	2.046	A
3	194	48	28	1580	0.123	194	158	0.1	0.1	2.719	A

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	81	20	184	1236	0.066	81	37	0.1	0.1	3.243	A
2	171	43	15	2017	0.085	171	250	0.1	0.1	2.046	A
3	194	48	28	1580	0.123	194	159	0.1	0.1	2.719	A

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	67	17	150	1255	0.053	67	31	0.1	0.1	3.152	A
2	139	35	13	2019	0.069	139	204	0.1	0.1	2.010	A
3	158	40	22	1583	0.100	158	130	0.1	0.1	2.647	A

09:15 - 09:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	56	14	126	1269	0.044	56	26	0.1	0.0	3.087	A
2	117	29	11	2021	0.058	117	171	0.1	0.1	1.986	A
3	133	33	19	1586	0.084	133	108	0.1	0.1	2.594	A

Junction 6 - Priority Roundabout - DO NOTHING 2027, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3	2.48	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)	Run automatically
D4	DO NOTHING 2027	PM	ONE HOUR	17:00	18:30	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		ONE HOUR	✓	65	100.000
2		ONE HOUR	✓	311	100.000
3		ONE HOUR	✓	133	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		1	2	3
From	1	0	51	14
	2	57	0	254
	3	12	121	0

Vehicle Mix

Heavy Vehicle Percentages

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

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1	0.06	3.13	0.1	A	60	89
2	0.17	2.26	0.2	A	285	428

3	0.09	2.67	0.1	A	122	183
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Main Results for each time segment

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	49	12	91	1290	0.038	49	52	0.0	0.0	3.013	A
2	234	59	11	2021	0.116	234	129	0.0	0.1	2.115	A
3	100	25	43	1570	0.064	100	201	0.0	0.1	2.559	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	58	15	109	1279	0.046	58	62	0.0	0.0	3.062	A
2	280	70	13	2019	0.138	279	155	0.1	0.2	2.172	A
3	120	30	51	1565	0.076	120	241	0.1	0.1	2.603	A

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	72	18	133	1265	0.057	72	76	0.0	0.1	3.132	A
2	342	86	15	2017	0.170	342	189	0.2	0.2	2.256	A
3	146	37	63	1557	0.094	146	295	0.1	0.1	2.666	A

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	72	18	133	1265	0.057	72	76	0.1	0.1	3.132	A
2	342	86	15	2017	0.170	342	189	0.2	0.2	2.256	A
3	146	37	63	1557	0.094	146	295	0.1	0.1	2.666	A

18:00 - 18:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	58	15	109	1279	0.046	58	62	0.1	0.0	3.065	A
2	280	70	13	2019	0.138	280	155	0.2	0.2	2.172	A
3	120	30	51	1565	0.076	120	241	0.1	0.1	2.605	A

18:15 - 18:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	49	12	91	1290	0.038	49	52	0.0	0.0	3.016	A
2	234	59	11	2021	0.116	234	130	0.2	0.1	2.117	A
3	100	25	43	1570	0.064	100	202	0.1	0.1	2.559	A

Junction 6 - Priority Roundabout - DO NOTHING 2032, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3	2.58	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)	Run automatically
D5	DO NOTHING 2032	AM	ONE HOUR	08:00	09:30	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		ONE HOUR	✓	79	100.000
2		ONE HOUR	✓	164	100.000
3		ONE HOUR	✓	186	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		1	2	3
From	1	0	64	15
	2	27	0	137
	3	9	177	0

Vehicle Mix

Heavy Vehicle Percentages

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

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1	0.07	3.28	0.1	A	72	109
2	0.09	2.06	0.1	A	150	226

3	0.13	2.74	0.2	A	171	256
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Main Results for each time segment

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalled level of service
1	59	15	133	1265	0.047	59	27	0.0	0.1	3.104	A
2	123	31	11	2020	0.061	123	181	0.0	0.1	1.992	A
3	140	35	20	1585	0.088	140	114	0.0	0.1	2.609	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalled level of service
1	71	18	159	1250	0.057	71	32	0.1	0.1	3.175	A
2	147	37	13	2019	0.073	147	217	0.1	0.1	2.019	A
3	167	42	24	1582	0.106	167	137	0.1	0.1	2.664	A

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalled level of service
1	87	22	195	1229	0.071	87	40	0.1	0.1	3.277	A
2	181	45	17	2016	0.090	180	265	0.1	0.1	2.058	A
3	205	51	30	1579	0.130	205	167	0.1	0.2	2.744	A

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalled level of service
1	87	22	195	1229	0.071	87	40	0.1	0.1	3.277	A
2	181	45	17	2016	0.090	181	265	0.1	0.1	2.058	A
3	205	51	30	1579	0.130	205	167	0.2	0.2	2.744	A

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalled level of service
1	71	18	159	1250	0.057	71	32	0.1	0.1	3.178	A
2	147	37	13	2019	0.073	148	217	0.1	0.1	2.021	A
3	167	42	24	1582	0.106	167	137	0.2	0.1	2.667	A

09:15 - 09:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalled level of service
1	59	15	133	1265	0.047	60	27	0.1	0.1	3.108	A
2	123	31	11	2020	0.061	124	182	0.1	0.1	1.994	A
3	140	35	20	1585	0.088	140	114	0.1	0.1	2.612	A

Junction 6 - Priority Roundabout - DO NOTHING 2032, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3	2.50	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)	Run automatically
D6	DO NOTHING 2032	PM	ONE HOUR	17:00	18:30	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		ONE HOUR	✓	69	100.000
2		ONE HOUR	✓	329	100.000
3		ONE HOUR	✓	141	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		1	2	3
From	1	0	54	15
	2	60	0	269
	3	13	128	0

Vehicle Mix

Heavy Vehicle Percentages

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

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1	0.06	3.16	0.1	A	63	95
2	0.18	2.28	0.2	A	302	453

3	0.10	2.69	0.1	A	129	194
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Main Results for each time segment

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	52	13	96	1287	0.040	52	55	0.0	0.0	3.027	A
2	248	62	11	2020	0.123	247	137	0.0	0.1	2.132	A
3	106	27	45	1569	0.068	106	213	0.0	0.1	2.572	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	62	16	115	1276	0.049	62	66	0.0	0.1	3.080	A
2	296	74	13	2019	0.147	296	164	0.1	0.2	2.193	A
3	127	32	54	1563	0.081	127	255	0.1	0.1	2.619	A

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	76	19	141	1261	0.060	76	80	0.1	0.1	3.155	A
2	362	91	17	2016	0.180	362	200	0.2	0.2	2.284	A
3	155	39	66	1555	0.100	155	313	0.1	0.1	2.687	A

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	76	19	141	1261	0.060	76	80	0.1	0.1	3.155	A
2	362	91	17	2016	0.180	362	200	0.2	0.2	2.284	A
3	155	39	66	1555	0.100	155	313	0.1	0.1	2.687	A

18:00 - 18:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	62	16	115	1276	0.049	62	66	0.1	0.1	3.080	A
2	296	74	13	2019	0.147	296	164	0.2	0.2	2.194	A
3	127	32	54	1563	0.081	127	255	0.1	0.1	2.619	A

18:15 - 18:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	52	13	96	1287	0.040	52	55	0.1	0.0	3.030	A
2	248	62	11	2020	0.123	248	137	0.2	0.1	2.134	A
3	106	27	45	1569	0.068	106	214	0.1	0.1	2.574	A

Junction 6 - Priority Roundabout - DO NOTHING 2042, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3	2.60	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)	Run automatically
07	DO NOTHING 2042	AM	ONE HOUR	08:00	09:30	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		ONE HOUR	✓	83	100.000
2		ONE HOUR	✓	171	100.000
3		ONE HOUR	✓	196	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		1	2	3
From	1	0	67	16
	2	28	0	143
	3	10	186	0

Vehicle Mix

Heavy Vehicle Percentages

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

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1	0.07	3.31	0.1	A	76	114
2	0.09	2.07	0.1	A	157	235

3	0.14	2.77	0.2	A	180	270
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Main Results for each time segment

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	62	16	140	1261	0.050	62	29	0.0	0.1	3.122	A
2	129	32	12	2020	0.064	128	190	0.0	0.1	1.998	A
3	148	37	21	1584	0.093	147	119	0.0	0.1	2.623	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	75	19	167	1245	0.060	75	34	0.1	0.1	3.197	A
2	154	38	14	2018	0.076	154	227	0.1	0.1	2.027	A
3	176	44	25	1582	0.111	176	143	0.1	0.1	2.682	A

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	91	23	205	1223	0.075	91	42	0.1	0.1	3.306	A
2	188	47	18	2016	0.093	188	278	0.1	0.1	2.068	A
3	216	54	31	1578	0.137	216	175	0.1	0.2	2.767	A

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	91	23	205	1223	0.075	91	42	0.1	0.1	3.306	A
2	188	47	18	2016	0.093	188	279	0.1	0.1	2.068	A
3	216	54	31	1578	0.137	216	175	0.2	0.2	2.767	A

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	75	19	167	1245	0.060	75	34	0.1	0.1	3.197	A
2	154	38	14	2018	0.076	154	228	0.1	0.1	2.029	A
3	176	44	25	1582	0.111	176	143	0.2	0.1	2.682	A

09:15 - 09:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	62	16	140	1261	0.050	63	29	0.1	0.1	3.123	A
2	129	32	12	2020	0.064	129	191	0.1	0.1	2.000	A
3	148	37	21	1584	0.093	148	120	0.1	0.1	2.626	A

Junction 6 - Priority Roundabout - DO NOTHING 2042, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3	2.52	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)	Run automatically
D8	DO NOTHING 2042	PM	ONE HOUR	17:00	18:30	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		ONE HOUR	✓	72	100.000
2		ONE HOUR	✓	346	100.000
3		ONE HOUR	✓	147	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		1	2	3
From	1	0	56	16
	2	63	0	283
	3	13	134	0

Vehicle Mix

Heavy Vehicle Percentages

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

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1	0.06	3.17	0.1	A	66	99
2	0.19	2.31	0.2	A	317	476

3	0.10	2.70	0.1	A	135	202
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Main Results for each time segment

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	54	14	101	1284	0.042	54	57	0.0	0.0	3.039	A
2	260	65	12	2020	0.129	260	143	0.0	0.2	2.148	A
3	111	28	47	1567	0.071	110	225	0.0	0.1	2.583	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	65	16	120	1273	0.051	65	68	0.0	0.1	3.094	A
2	311	78	14	2018	0.154	311	171	0.2	0.2	2.214	A
3	132	33	57	1561	0.085	132	269	0.1	0.1	2.633	A

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	79	20	147	1257	0.063	79	84	0.1	0.1	3.174	A
2	381	95	18	2016	0.189	381	209	0.2	0.2	2.311	A
3	162	40	69	1553	0.104	162	329	0.1	0.1	2.704	A

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	79	20	148	1257	0.063	79	84	0.1	0.1	3.174	A
2	381	95	18	2016	0.189	381	209	0.2	0.2	2.311	A
3	162	40	69	1553	0.104	162	329	0.1	0.1	2.704	A

18:00 - 18:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	65	16	121	1272	0.051	65	68	0.1	0.1	3.095	A
2	311	78	14	2018	0.154	311	171	0.2	0.2	2.214	A
3	132	33	57	1561	0.085	132	269	0.1	0.1	2.633	A

18:15 - 18:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	54	14	101	1284	0.042	54	57	0.1	0.0	3.039	A
2	260	65	12	2020	0.129	261	143	0.2	0.2	2.150	A
3	111	28	47	1567	0.071	111	225	0.1	0.1	2.585	A

Junction 6 - Priority Roundabout - DO SOMETHING 2027, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3	2.73	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)	Run automatically
D9	DO SOMETHING 2027	AM	ONE HOUR	08:00	09:30	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		ONE HOUR	✓	133	100.000
2		ONE HOUR	✓	238	100.000
3		ONE HOUR	✓	219	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		1	2	3
From	1	0	112	21
	2	64	0	174
	3	13	206	0

Vehicle Mix

Heavy Vehicle Percentages

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

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1	0.12	3.52	0.1	A	122	183
2	0.13	2.16	0.2	A	218	328

3	0.16	2.87	0.2	A	201	301
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Main Results for each time segment

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	100	25	155	1253	0.080	100	58	0.0	0.1	3.253	A
2	179	45	16	2017	0.089	179	239	0.0	0.1	2.056	A
3	165	41	48	1567	0.105	164	146	0.0	0.1	2.688	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	120	30	185	1235	0.097	119	69	0.1	0.1	3.361	A
2	214	53	19	2015	0.106	214	286	0.1	0.1	2.098	A
3	197	49	58	1561	0.126	197	175	0.1	0.2	2.763	A

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	146	37	227	1211	0.121	146	85	0.1	0.1	3.523	A
2	262	66	23	2012	0.130	262	350	0.1	0.2	2.160	A
3	241	60	70	1552	0.155	241	215	0.2	0.2	2.874	A

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	146	37	227	1211	0.121	146	85	0.1	0.1	3.523	A
2	262	66	23	2012	0.130	262	350	0.2	0.2	2.160	A
3	241	60	70	1552	0.155	241	215	0.2	0.2	2.874	A

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	120	30	185	1235	0.097	120	69	0.1	0.1	3.365	A
2	214	53	19	2015	0.106	214	286	0.2	0.1	2.100	A
3	197	49	58	1561	0.126	197	175	0.2	0.2	2.763	A

09:15 - 09:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	100	25	155	1252	0.080	100	58	0.1	0.1	3.257	A
2	179	45	16	2017	0.089	179	240	0.1	0.1	2.058	A
3	165	41	48	1567	0.105	165	147	0.2	0.1	2.688	A

Junction 6 - Priority Roundabout - DO SOMETHING 2027, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3	2.70	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)	Run automatically
D10	DO SOMETHING 2027	PM	ONE HOUR	17:00	18:30	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		ONE HOUR	✓	119	100.000
2		ONE HOUR	✓	418	100.000
3		ONE HOUR	✓	183	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		1	2	3
From	1	0	99	20
	2	115	0	303
	3	19	164	0

Vehicle Mix

Heavy Vehicle Percentages

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

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1	0.11	3.39	0.1	A	109	164
2	0.23	2.43	0.3	A	384	575

3	0.13	2.86	0.2	A	168	252
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Main Results for each time segment

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	90	22	123	1271	0.070	89	101	0.0	0.1	3.172	A
2	315	79	15	2018	0.156	314	197	0.0	0.2	2.217	A
3	138	34	86	1542	0.089	137	243	0.0	0.1	2.677	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	107	27	147	1257	0.085	107	120	0.1	0.1	3.259	A
2	376	94	18	2015	0.186	376	236	0.2	0.2	2.305	A
3	165	41	103	1531	0.107	164	290	0.1	0.1	2.751	A

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	131	33	180	1238	0.106	131	147	0.1	0.1	3.386	A
2	460	115	22	2012	0.229	460	289	0.2	0.3	2.434	A
3	201	50	127	1516	0.133	201	355	0.1	0.2	2.860	A

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	131	33	181	1238	0.106	131	148	0.1	0.1	3.386	A
2	460	115	22	2012	0.229	460	290	0.3	0.3	2.434	A
3	201	50	127	1516	0.133	201	356	0.2	0.2	2.860	A

18:00 - 18:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	107	27	148	1257	0.085	107	121	0.1	0.1	3.260	A
2	376	94	18	2015	0.186	376	237	0.3	0.2	2.307	A
3	165	41	103	1531	0.107	165	291	0.2	0.1	2.752	A

18:15 - 18:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	90	22	124	1271	0.071	90	101	0.1	0.1	3.173	A
2	315	79	15	2018	0.156	315	198	0.2	0.2	2.221	A
3	138	34	87	1542	0.089	138	243	0.1	0.1	2.678	A

Junction 6 - Priority Roundabout - DO SOMETHING 2032, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3	2.75	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)	Run automatically
D11	DO SOMETHING 2032	AM	ONE HOUR	08:00	09:30	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		ONE HOUR	✓	137	100.000
2		ONE HOUR	✓	246	100.000
3		ONE HOUR	✓	229	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		1	2	3
From	1	0	116	21
	2	65	0	181
	3	13	216	0

Vehicle Mix

Heavy Vehicle Percentages

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

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1	0.13	3.56	0.1	A	126	189
2	0.13	2.17	0.2	A	226	339

3	0.16	2.90	0.2	A	210	315
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Main Results for each time segment

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	103	26	162	1248	0.083	103	59	0.0	0.1	3.275	A
2	185	46	16	2017	0.092	185	249	0.0	0.1	2.063	A
3	172	43	49	1566	0.110	172	152	0.0	0.1	2.703	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	123	31	194	1230	0.100	123	70	0.1	0.1	3.389	A
2	221	55	19	2015	0.110	221	298	0.1	0.1	2.107	A
3	206	51	58	1560	0.132	206	182	0.1	0.2	2.783	A

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	151	38	238	1204	0.125	151	86	0.1	0.1	3.560	A
2	271	68	23	2012	0.135	271	365	0.1	0.2	2.171	A
3	252	63	72	1551	0.163	252	222	0.2	0.2	2.900	A

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	151	38	238	1204	0.125	151	86	0.1	0.1	3.560	A
2	271	68	23	2012	0.135	271	366	0.2	0.2	2.171	A
3	252	63	72	1551	0.163	252	222	0.2	0.2	2.900	A

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	123	31	194	1229	0.100	123	70	0.1	0.1	3.390	A
2	221	55	19	2015	0.110	221	299	0.2	0.1	2.109	A
3	206	51	58	1560	0.132	206	182	0.2	0.2	2.785	A

09:15 - 09:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	103	26	163	1248	0.083	103	59	0.1	0.1	3.276	A
2	185	46	16	2017	0.092	185	250	0.1	0.1	2.063	A
3	172	43	49	1566	0.110	173	152	0.2	0.1	2.704	A

Junction 6 - Priority Roundabout - DO SOMETHING 2032, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3	2.73	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)	Run automatically
D12	DO SOMETHING 2032	PM	ONE HOUR	17:00	18:30	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		ONE HOUR	✓	123	100.000
2		ONE HOUR	✓	437	100.000
3		ONE HOUR	✓	191	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		1	2	3
From	1	0	102	21
	2	119	0	318
	3	20	171	0

Vehicle Mix

Heavy Vehicle Percentages

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

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1	0.11	3.41	0.1	A	113	169
2	0.24	2.47	0.3	A	401	601

3	0.14	2.89	0.2	A	175	263
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Main Results for each time segment

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	93	23	128	1268	0.073	92	104	0.0	0.1	3.188	A
2	329	82	16	2017	0.163	328	205	0.0	0.2	2.237	A
3	144	36	89	1540	0.093	143	255	0.0	0.1	2.692	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	111	28	154	1253	0.088	110	125	0.1	0.1	3.279	A
2	393	98	19	2015	0.195	393	245	0.2	0.3	2.330	A
3	172	43	107	1529	0.112	172	305	0.1	0.1	2.770	A

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	135	34	188	1233	0.110	135	153	0.1	0.1	3.413	A
2	481	120	23	2012	0.239	481	300	0.3	0.3	2.469	A
3	210	53	131	1513	0.139	210	373	0.1	0.2	2.886	A

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	135	34	188	1233	0.110	135	153	0.1	0.1	3.413	A
2	481	120	23	2012	0.239	481	301	0.3	0.3	2.469	A
3	210	53	131	1513	0.139	210	373	0.2	0.2	2.886	A

18:00 - 18:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	111	28	154	1253	0.088	111	125	0.1	0.1	3.282	A
2	393	98	19	2015	0.195	393	246	0.3	0.3	2.331	A
3	172	43	107	1528	0.112	172	305	0.2	0.1	2.771	A

18:15 - 18:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	93	23	129	1268	0.073	93	105	0.1	0.1	3.189	A
2	329	82	16	2017	0.163	329	206	0.3	0.2	2.239	A
3	144	36	90	1540	0.093	144	255	0.1	0.1	2.695	A

Junction 6 - Priority Roundabout - DO SOMETHING 2042, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3	2.78	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)	Run automatically
D13	DO SOMETHING 2042	AM	ONE HOUR	08:00	09:30	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		ONE HOUR	✓	141	100.000
2		ONE HOUR	✓	254	100.000
3		ONE HOUR	✓	239	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		1	2	3
From	1	0	119	22
	2	67	0	187
	3	14	225	0

Vehicle Mix

Heavy Vehicle Percentages

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

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1	0.13	3.59	0.2	A	129	194
2	0.14	2.18	0.2	A	233	350

3	0.17	2.93	0.2	A	219	329
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Main Results for each time segment

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	106	27	169	1244	0.085	106	61	0.0	0.1	3.294	A
2	191	48	17	2016	0.095	191	258	0.0	0.1	2.070	A
3	180	45	50	1565	0.115	179	157	0.0	0.1	2.720	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	127	32	202	1225	0.103	127	73	0.1	0.1	3.414	A
2	228	57	20	2014	0.113	228	309	0.1	0.1	2.116	A
3	215	54	60	1559	0.138	215	188	0.1	0.2	2.803	A

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	155	39	248	1199	0.130	155	89	0.1	0.2	3.594	A
2	280	70	24	2011	0.139	280	378	0.1	0.2	2.183	A
3	263	66	74	1550	0.170	263	230	0.2	0.2	2.928	A

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	155	39	248	1198	0.130	155	89	0.2	0.2	3.594	A
2	280	70	24	2011	0.139	280	379	0.2	0.2	2.183	A
3	263	66	74	1550	0.170	263	230	0.2	0.2	2.928	A

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	127	32	202	1225	0.103	127	73	0.2	0.1	3.415	A
2	228	57	20	2014	0.113	228	310	0.2	0.1	2.118	A
3	215	54	60	1559	0.138	215	188	0.2	0.2	2.806	A

09:15 - 09:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	106	27	170	1244	0.085	106	61	0.1	0.1	3.296	A
2	191	48	17	2016	0.095	191	259	0.1	0.1	2.070	A
3	180	45	50	1565	0.115	180	157	0.2	0.1	2.720	A

Junction 6 - Priority Roundabout - DO SOMETHING 2042, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3	2.75	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)	Run automatically
D14	DO SOMETHING 2042	PM	ONE HOUR	17:00	18:30	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		ONE HOUR	✓	126	100.000
2		ONE HOUR	✓	453	100.000
3		ONE HOUR	✓	197	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		1	2	3
From	1	0	105	21
	2	122	0	331
	3	20	177	0

Vehicle Mix

Heavy Vehicle Percentages

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

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1	0.11	3.44	0.1	A	116	173
2	0.25	2.50	0.3	A	416	624

3	0.14	2.91	0.2	A	181	271
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Main Results for each time segment

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	95	24	133	1265	0.075	95	107	0.0	0.1	3.202	A
2	341	85	16	2017	0.169	340	212	0.0	0.2	2.253	A
3	148	37	92	1538	0.096	148	264	0.0	0.1	2.704	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	113	28	159	1250	0.091	113	128	0.1	0.1	3.296	A
2	407	102	19	2015	0.202	407	253	0.2	0.3	2.351	A
3	177	44	110	1527	0.116	177	316	0.1	0.1	2.785	A

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	139	35	195	1229	0.113	139	156	0.1	0.1	3.436	A
2	499	125	23	2012	0.248	498	310	0.3	0.3	2.498	A
3	217	54	134	1511	0.144	217	387	0.1	0.2	2.905	A

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	139	35	195	1229	0.113	139	156	0.1	0.1	3.436	A
2	499	125	23	2012	0.248	499	310	0.3	0.3	2.498	A
3	217	54	134	1511	0.144	217	388	0.2	0.2	2.906	A

18:00 - 18:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	113	28	159	1250	0.091	113	128	0.1	0.1	3.300	A
2	407	102	19	2015	0.202	408	254	0.3	0.3	2.353	A
3	177	44	110	1527	0.116	177	317	0.2	0.1	2.788	A

18:15 - 18:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	95	24	133	1265	0.075	95	107	0.1	0.1	3.203	A
2	341	85	16	2017	0.169	341	212	0.3	0.2	2.257	A
3	148	37	92	1538	0.096	148	265	0.1	0.1	2.705	A

Junctions 9

ARCADY 9 - Roundabout Module

Version: 9.5.1.7462
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Filename: Junction 7 - Existing Roundabout - AM-PM.j9
Path: M:\Projects\22\22-010 Cherry Orchard - Sites 4 & 5 - C-&S\Design\Civil\Traffic\Modelling 2023\1. Modelled Junctions\Junction 7
Report generation date: 20/10/2023 10:28:20

- »Junction 7 - Existing Layout - 2022 BASELINE, AM
- »Junction 7 - Existing Layout - 2022 BASELINE, PM
- »Junction 7 - Existing Layout - 2027 DO NOTHING, AM
- »Junction 7 - Existing Layout - 2027 DO NOTHING, PM
- »Junction 7 - Existing Layout - 2027 DO SOMETHING, AM
- »Junction 7 - Existing Layout - 2027 DO SOMETHING, PM
- »Junction 7 - Existing Layout - 2032 DO NOTHING, AM
- »Junction 7 - Existing Layout - 2032 DO NOTHING, PM
- »Junction 7 - Existing Layout - 2032 DO SOMETHING, AM
- »Junction 7 - Existing Layout - 2032 DO SOMETHING, PM
- »Junction 7 - Existing Layout - 2042 DO NOTHING, AM
- »Junction 7 - Existing Layout - 2042 DO NOTHING, PM
- »Junction 7 - Existing Layout - 2042 DO SOMETHING, AM
- »Junction 7 - Existing Layout - 2042 DO SOMETHING, PM

Summary of junction performance

		AM					PM				
Set ID	Queue (PCU)	Delay (s)	RFC	LOS	Set ID	Queue (PCU)	Delay (s)	RFC	LOS		
Junction 7 - Existing Layout - 2022 BASELINE											
Arm 1	0.4	7.72	0.30	A	D1	2.6	17.13	0.72	C		
Arm 2	1.8	7.31	0.64	A		0.6	4.47	0.38	A		
Arm 3	0.6	11.08	0.36	B		5.1	46.51	0.86	E		
Arm 4	1.6	6.71	0.61	A		0.4	3.47	0.26	A		
Junction 7 - Existing Layout - 2027 DO NOTHING											
Arm 1	0.7	9.47	0.39	A	D3	4.2	25.53	0.81	D		
Arm 2	2.7	9.72	0.73	A		0.8	5.08	0.44	A		
Arm 3	0.7	13.14	0.43	B		16.6	128.15	1.01	F		
Arm 4	2.5	9.23	0.71	A		0.4	3.72	0.30	A		
Junction 7 - Existing Layout - 2027 DO SOMETHING											
Arm 1	1.0	11.73	0.49	B	D5	8.7	49.69	0.92	E		
Arm 2	3.6	12.35	0.78	B		1.1	5.86	0.50	A		
Arm 3	0.8	15.00	0.46	C		30.7	224.02	1.11	F		
Arm 4	3.9	13.15	0.80	B		0.7	4.21	0.39	A		
Junction 7 - Existing Layout - 2032 DO NOTHING											
Arm 1	0.8	10.27	0.43	B	D7	6.0	34.90	0.87	D		
Arm 2	3.4	11.82	0.77	B		0.9	5.42	0.47	A		
Arm 3	0.9	14.52	0.47	B		33.0	226.17	1.11	F		
Arm 4	3.2	11.31	0.76	B		0.5	3.82	0.32	A		
Junction 7 - Existing Layout - 2032 DO SOMETHING											
Arm 1	1.1	12.97	0.53	B	D8	14.8	78.13	0.97	F		
Arm 2	4.8	15.86	0.83	C		1.2	6.28	0.53	A		

Arm 3	D9	1.0	16.83	0.50	C	D10	50.8	357.39	1.22	F
Arm 4		5.4	17.57	0.85	C		0.7	4.34	0.40	A
Junction 7 - Existing Layout - 2042 DO NOTHING										
Arm 1	D11	0.8	11.05	0.45	B	D12	8.6	48.61	0.91	E
Arm 2		4.4	14.64	0.82	B		1.0	5.78	0.50	A
Arm 3		1.0	16.12	0.51	C		50.9	336.96	1.20	F
Arm 4		4.1	14.13	0.80	B		0.5	3.92	0.33	A
Junction 7 - Existing Layout - 2042 DO SOMETHING										
Arm 1	D13	1.3	14.28	0.56	B	D14	24.4	116.45	1.02	F
Arm 2		6.6	21.21	0.87	C		1.3	6.69	0.56	A
Arm 3		1.2	19.02	0.55	C		69.7	546.05	1.31	F
Arm 4		7.9	24.91	0.90	C		0.7	4.45	0.42	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	
Location	
Site number	
Date	30/05/2023
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	DOMAINI.f.silva
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	2022 BASELINE	AM	ONE HOUR	08:00	09:30	15
D2	2022 BASELINE	PM	ONE HOUR	17:00	18:30	15
D3	2027 DO NOTHING	AM	ONE HOUR	08:00	09:30	15
D4	2027 DO NOTHING	PM	ONE HOUR	17:00	18:30	15
D5	2027 DO SOMETHING	AM	ONE HOUR	08:00	09:30	15
D6	2027 DO SOMETHING	PM	ONE HOUR	17:00	18:30	15
D7	2032 DO NOTHING	AM	ONE HOUR	08:00	09:30	15
D8	2032 DO NOTHING	PM	ONE HOUR	17:00	18:30	15
D9	2032 DO SOMETHING	AM	ONE HOUR	08:00	09:30	15
D10	2032 DO SOMETHING	PM	ONE HOUR	17:00	18:30	15
D11	2042 DO NOTHING	AM	ONE HOUR	08:00	09:30	15
D12	2042 DO NOTHING	PM	ONE HOUR	17:00	18:30	15
D13	2042 DO SOMETHING	AM	ONE HOUR	08:00	09:30	15
D14	2042 DO SOMETHING	PM	ONE HOUR	17:00	18:30	15

Analysis Set Details

ID	Name	Network flow scaling factor (%)
A1	Junction 7 - Existing Layout	100.000

Junction 7 - Existing Layout - 2022 BASELINE, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4	7.43	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description
1	untitled	
2	untitled	
3	untitled	
4	untitled	

Roundabout Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	I' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Exit only
1	4.20	4.20	0.0	4.5	41.0	56.0	
2	4.40	6.40	5.0	39.5	41.0	42.0	
3	3.90	3.90	0.0	3.0	41.0	57.0	
4	4.50	6.60	7.5	38.5	41.0	33.0	

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
1	0.411	943
2	0.609	1571
3	0.338	744
4	0.648	1721

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

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D1	2022 BASELINE	AM	ONE HOUR	08:00	09:30	15

Vehicle mix source	PCU Factor for a HV (PCU)

HV Percentages	2.00
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Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		✓	187	100.000
2		✓	829	100.000
3		✓	167	100.000
4		✓	781	100.000

Origin-Destination Data

Demand (PCU/hr)

From	To			
	1	2	3	4
1	0	70	57	60
2	306	0	257	266
3	35	83	0	49
4	300	375	106	0

Vehicle Mix

Heavy Vehicle Percentages

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

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1	0.30	7.72	0.4	A
2	0.64	7.31	1.8	A
3	0.36	11.08	0.6	B
4	0.61	6.71	1.6	A

Main Results for each time segment

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	141	422	770	0.183	140	0.2	5.902	A
2	624	167	1469	0.425	621	0.8	4.372	A
3	126	473	584	0.215	125	0.3	7.824	A
4	588	317	1516	0.388	585	0.7	4.024	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	168	506	735	0.229	168	0.3	6.557	A
2	745	200	1449	0.514	744	1.1	5.268	A
3	150	567	552	0.272	150	0.4	8.937	A

4	702	380	1475	0.476	701	0.9	4.844	A
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08:30 - 08:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	206	619	689	0.299	205	0.4	7.690	A
2	913	245	1422	0.642	910	1.8	7.225	A
3	184	694	509	0.361	183	0.6	11.007	B
4	860	465	1420	0.606	857	1.6	6.641	A

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	206	621	688	0.299	206	0.4	7.719	A
2	913	246	1422	0.642	913	1.8	7.311	A
3	184	696	509	0.361	184	0.6	11.079	B
4	860	467	1419	0.606	860	1.6	6.711	A

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	168	509	734	0.229	169	0.3	6.590	A
2	745	201	1449	0.514	748	1.1	5.337	A
3	150	570	551	0.272	151	0.4	9.011	A
4	702	383	1473	0.477	705	1.0	4.900	A

09:15 - 09:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	141	426	769	0.183	141	0.2	5.938	A
2	624	168	1469	0.425	625	0.8	4.423	A
3	126	477	583	0.216	126	0.3	7.893	A
4	588	320	1514	0.388	589	0.7	4.065	A

4	5	5	0	0
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Junction 7 - Existing Layout - 2022 BASELINE, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4	17.56	C

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	2022 BASELINE	PM	ONE HOUR	17:00	18:30	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		✓	508	100.000
2		✓	464	100.000
3		✓	387	100.000
4		✓	348	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1	2	3	4
From	1	0	225	27	256
	2	100	0	56	308
	3	111	149	0	127
	4	131	173	44	0

Vehicle Mix

Heavy Vehicle Percentages

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

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1	0.72	17.13	2.6	C
2	0.38	4.47	0.6	A
3	0.86	46.51	5.1	E
4	0.26	3.47	0.4	A

Main Results for each time segment

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	382	273	831	0.460	379	0.9	8.277	A
2	349	244	1422	0.246	348	0.3	3.492	A
3	291	497	576	0.506	287	1.0	12.309	B
4	262	268	1548	0.169	261	0.2	2.918	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	457	328	809	0.565	455	1.3	10.600	B
2	417	293	1393	0.300	417	0.4	3.847	A
3	348	596	543	0.641	345	1.7	17.973	C
4	313	322	1513	0.207	313	0.3	3.129	A

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	559	398	780	0.717	555	2.5	16.402	C
2	511	357	1354	0.377	510	0.6	4.451	A
3	426	728	498	0.856	415	4.6	38.721	E
4	383	388	1470	0.261	383	0.4	3.456	A

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	559	402	778	0.719	559	2.6	17.132	C
2	511	360	1352	0.378	511	0.6	4.466	A
3	426	731	497	0.858	424	5.1	46.514	E
4	383	395	1466	0.261	383	0.4	3.469	A

18:00 - 18:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	457	334	806	0.567	461	1.4	11.085	B
2	417	297	1390	0.300	418	0.4	3.865	A
3	348	600	541	0.643	361	1.9	21.228	C
4	313	332	1506	0.208	313	0.3	3.149	A

18:15 - 18:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service

1	382	277	830	0.461	384	0.9	8.506	A
2	349	247	1421	0.246	350	0.3	3.512	A
3	291	501	574	0.507	295	1.1	13.025	B
4	262	273	1544	0.170	262	0.2	2.932	A

Junction 7 - Existing Layout - 2027 DO NOTHING, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4	9.79	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	2027 DO NOTHING	AM	ONE HOUR	08:00	09:30	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		✓	231	100.000
2		✓	924	100.000
3		✓	187	100.000
4		✓	889	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1	2	3	4
From	1	0	97	69	65
	2	341	0	279	304
	3	41	90	0	56
	4	325	442	122	0

Vehicle Mix

Heavy Vehicle Percentages

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

	3	0	0	0	0
	4	5	5	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1	0.39	9.47	0.7	A
2	0.73	9.72	2.7	A
3	0.43	13.14	0.7	B
4	0.71	9.23	2.5	A

	(PCU/hr)	flow (PCU/hr)	(PCU/hr)		(PCU/hr)	(PCU)		level of service
1	174	494	740	0.235	174	0.3	6.586	A
2	696	193	1453	0.479	698	1.0	4.941	A
3	141	536	563	0.250	141	0.3	8.556	A
4	669	356	1490	0.449	671	0.9	4.591	A

Main Results for each time segment

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	174	490	742	0.234	173	0.3	6.524	A
2	696	192	1454	0.478	692	0.9	4.860	A
3	141	532	564	0.250	139	0.3	8.451	A
4	669	353	1493	0.448	666	0.8	4.523	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	208	587	702	0.296	207	0.4	7.516	A
2	831	230	1431	0.580	829	1.4	6.160	A
3	168	637	529	0.318	168	0.5	9.956	A
4	799	423	1447	0.552	797	1.3	5.763	A

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	254	717	649	0.392	253	0.7	9.397	A
2	1017	281	1400	0.727	1012	2.6	9.481	A
3	206	778	481	0.428	205	0.7	12.984	B
4	979	517	1386	0.706	974	2.4	9.006	A

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	254	720	648	0.393	254	0.7	9.470	A
2	1017	282	1400	0.727	1017	2.7	9.724	A
3	206	782	480	0.429	206	0.7	13.139	B
4	979	520	1385	0.707	979	2.5	9.231	A

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	208	591	700	0.297	209	0.4	7.588	A
2	831	231	1430	0.581	836	1.5	6.315	A
3	168	642	527	0.319	169	0.5	10.093	B
4	799	427	1445	0.553	804	1.3	5.899	A

09:15 - 09:30

Arm	Total Demand	Circulating	Capacity	RFC	Throughput	End queue	Delay (s)	Unsignalised

Junction 7 - Existing Layout - 2027 DO NOTHING, PM

	3	0	0	0	0
	4	5	5	0	0

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4	38.21	E

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	2027 DO NOTHING	PM	ONE HOUR	17:00	18:30	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		✓	560	100.000
2		✓	537	100.000
3		✓	427	100.000
4		✓	392	100.000

Origin-Destination Data

Demand (PCU/hr)

		To				
		1	2	3	4	
From	1	0	251	32	277	
	2	121	0	61	355	
	3	124	161	0	142	
	4	142	200	50	0	

Vehicle Mix

Heavy Vehicle Percentages

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

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1	0.81	25.53	4.2	D
2	0.44	5.08	0.8	A
3	1.01	128.15	16.6	F
4	0.30	3.72	0.4	A

Main Results for each time segment

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	422	307	817	0.516	417	1.1	9.323	A
2	404	268	1408	0.287	403	0.4	3.731	A
3	321	563	553	0.581	316	1.3	14.861	B
4	295	302	1526	0.193	294	0.2	3.046	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	503	367	792	0.635	501	1.8	12.801	B
2	483	321	1376	0.351	482	0.6	4.204	A
3	384	675	516	0.744	379	2.6	25.322	D
4	352	361	1487	0.237	352	0.3	3.308	A

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	617	439	763	0.808	608	3.9	23.103	C
2	591	390	1333	0.443	590	0.8	5.050	A
3	470	824	465	1.010	435	11.4	77.545	F
4	432	423	1447	0.298	431	0.4	3.694	A

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	617	445	761	0.811	616	4.2	25.531	D
2	591	395	1331	0.444	591	0.8	5.081	A
3	470	829	464	1.013	449	16.6	128.148	F
4	432	433	1441	0.300	432	0.4	3.720	A

18:00 - 18:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	503	390	783	0.643	512	2.0	14.330	B
2	483	328	1372	0.352	484	0.6	4.239	A
3	384	682	513	0.748	437	3.4	61.495	F
4	352	400	1462	0.241	353	0.3	3.386	A

18:15 - 18:30

Arm	Total Demand	Circulating	Capacity	RFC	Throughput	End queue	Delay (s)	Unsignalised

	(PCU/hr)	flow (PCU/hr)	(PCU/hr)		(PCU/hr)	(PCU)		level of service
1	422	313	815	0.517	425	1.1	9.742	A
2	404	272	1405	0.288	405	0.4	3.760	A
3	321	569	551	0.583	329	1.5	16.741	C
4	295	311	1520	0.194	295	0.3	3.070	A

Junction 7 - Existing Layout - 2027 DO SOMETHING, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4	12.81	B

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 DO SOMETHING	AM	ONE HOUR	08:00	09:30	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		✓	276	100.000
2		✓	971	100.000
3		✓	187	100.000
4		✓	1000	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1	2	3	4
From	1	0	97	69	110
	2	341	0	279	351
	3	41	90	0	56
	4	379	499	122	0

Vehicle Mix

Heavy Vehicle Percentages

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

	3	0	0	0	0
	4	5	5	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1	0.49	11.73	1.0	B
2	0.78	12.35	3.6	B
3	0.46	15.00	0.8	C
4	0.80	13.15	3.9	B

	(PCU/hr)	flow (PCU/hr)	(PCU/hr)		(PCU/hr)	(PCU)		level of service
1	208	537	723	0.288	209	0.4	7.274	A
2	731	227	1433	0.510	734	1.1	5.351	A
3	141	606	539	0.261	141	0.4	9.068	A
4	753	357	1490	0.505	756	1.1	5.133	A

Main Results for each time segment

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	208	532	725	0.287	206	0.4	7.175	A
2	731	225	1434	0.510	727	1.1	5.237	A
3	141	600	541	0.260	139	0.3	8.934	A
4	753	353	1493	0.504	749	1.0	5.021	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	248	637	681	0.364	247	0.6	8.587	A
2	873	270	1407	0.620	871	1.7	6.918	A
3	168	719	501	0.336	168	0.5	10.779	B
4	899	423	1447	0.621	896	1.7	6.789	A

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	304	777	624	0.487	302	1.0	11.550	B
2	1069	329	1371	0.780	1062	3.5	11.798	B
3	206	877	447	0.460	205	0.8	14.738	B
4	1101	516	1387	0.794	1093	3.8	12.420	B

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	304	782	622	0.489	304	1.0	11.735	B
2	1069	331	1369	0.781	1069	3.6	12.348	B
3	206	883	446	0.462	206	0.8	15.003	C
4	1101	519	1385	0.795	1100	3.9	13.146	B

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	248	645	678	0.366	250	0.6	8.740	A
2	873	273	1405	0.621	880	1.7	7.198	A
3	168	727	498	0.337	169	0.5	10.990	B
4	899	428	1444	0.622	908	1.8	7.108	A

09:15 - 09:30

Arm	Total Demand	Circulating	Capacity	RFC	Throughput	End queue	Delay (s)	Unsignalised

Junction 7 - Existing Layout - 2027 DO SOMETHING, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4	61.47	F

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 DO SOMETHING	PM	ONE HOUR	17:00	18:30	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		✓	614	100.000
2		✓	594	100.000
3		✓	427	100.000
4		✓	509	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1	2	3	4
From	1	0	251	32	331
	2	121	0	61	412
	3	124	161	0	142
	4	199	260	50	0

Vehicle Mix

Heavy Vehicle Percentages

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

3	0	0	0	0
4	5	5	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1	0.92	49.69	8.7	E
2	0.50	5.86	1.1	A
3	1.11	224.02	30.7	F
4	0.39	4.21	0.7	A

Main Results for each time segment

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	462	351	799	0.579	457	1.4	10.846	B
2	447	307	1384	0.323	445	0.5	3.998	A
3	321	646	526	0.612	315	1.5	16.692	C
4	383	301	1526	0.251	382	0.3	3.282	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	552	420	771	0.716	548	2.5	16.572	C
2	534	369	1347	0.397	533	0.7	4.619	A
3	384	774	482	0.796	377	3.3	31.925	D
4	458	360	1488	0.307	457	0.5	3.645	A

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	676	496	740	0.914	656	7.4	38.356	E
2	654	443	1301	0.503	653	1.0	5.783	A
3	470	939	427	1.102	411	18.1	115.649	F
4	560	407	1457	0.385	560	0.6	4.186	A

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	676	499	738	0.916	671	8.7	49.689	E
2	654	452	1296	0.505	654	1.1	5.856	A
3	470	948	423	1.110	419	30.7	224.020	F
4	560	413	1454	0.385	560	0.7	4.210	A

18:00 - 18:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	552	453	757	0.729	575	3.0	22.775	C
2	534	385	1337	0.399	535	0.7	4.702	A
3	384	790	477	0.805	462	11.3	171.148	F
4	458	417	1451	0.315	458	0.5	3.790	A

18:15 - 18:30

Arm	Total Demand	Circulating	Capacity	RFC	Throughput	End queue	Delay (s)	Unsignalised

	(PCU/hr)	flow (PCU/hr)	(PCU/hr)		(PCU/hr)	(PCU)		level of service
1	462	369	792	0.584	468	1.5	11.867	B
2	447	315	1380	0.324	448	0.5	4.039	A
3	321	654	523	0.615	360	1.7	26.806	D
4	383	331	1507	0.254	384	0.4	3.352	A

Junction 7 - Existing Layout - 2032 DO NOTHING, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4	11.68	B

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	2032 DO NOTHING	AM	ONE HOUR	08:00	09:30	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		✓	244	100.000
2		✓	977	100.000
3		✓	197	100.000
4		✓	940	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1	2	3	4
From	1	0	102	73	69
	2	361	0	295	321
	3	43	95	0	59
	4	345	466	129	0

Vehicle Mix

Heavy Vehicle Percentages

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

3	0	0	0	0
4	5	5	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1	0.43	10.27	0.8	B
2	0.77	11.82	3.4	B
3	0.47	14.52	0.9	B
4	0.76	11.31	3.2	B

	(PCU/hr)	flow (PCU/hr)	(PCU/hr)		(PCU/hr)	(PCU)		level of service
1	184	521	729	0.252	184	0.4	6.840	A
2	736	205	1446	0.509	738	1.1	5.276	A
3	148	567	552	0.269	149	0.4	8.946	A
4	708	377	1477	0.479	710	1.0	4.909	A

Main Results for each time segment

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	184	516	731	0.251	182	0.3	6.769	A
2	736	203	1448	0.508	731	1.1	5.169	A
3	148	562	554	0.268	147	0.4	8.816	A
4	708	373	1480	0.478	704	0.9	4.816	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	219	619	689	0.318	219	0.5	7.910	A
2	878	243	1423	0.617	876	1.6	6.778	A
3	177	673	516	0.343	176	0.5	10.576	B
4	845	447	1432	0.590	843	1.5	6.354	A

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	269	755	633	0.424	268	0.7	10.158	B
2	1076	297	1390	0.774	1069	3.4	11.341	B
3	217	822	466	0.465	216	0.8	14.287	B
4	1035	546	1368	0.757	1028	3.1	10.861	B

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	269	759	631	0.426	269	0.8	10.269	B
2	1076	298	1389	0.774	1075	3.4	11.815	B
3	217	827	465	0.467	217	0.9	14.523	B
4	1035	549	1366	0.758	1035	3.2	11.310	B

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	219	625	686	0.320	220	0.5	8.010	A
2	878	245	1422	0.618	885	1.7	7.029	A
3	177	680	514	0.345	178	0.5	10.772	B
4	845	452	1429	0.592	852	1.5	6.578	A

09:15 - 09:30

Arm	Total Demand	Circulating	Capacity	RFC	Throughput	End queue	Delay (s)	Unsignalised

Junction 7 - Existing Layout - 2032 DO NOTHING, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4	63.07	F

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	2032 DO NOTHING	PM	ONE HOUR	17:00	18:30	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		✓	594	100.000
2		✓	566	100.000
3		✓	453	100.000
4		✓	414	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1	2	3	4
From	1	0	266	34	294
	2	127	0	64	375
	3	132	171	0	150
	4	150	211	53	0

Vehicle Mix

Heavy Vehicle Percentages

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

3	0	0	0	0
4	5	5	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1	0.87	34.90	6.0	D
2	0.47	5.42	0.9	A
3	1.11	226.17	33.0	F
4	0.32	3.82	0.5	A

Main Results for each time segment

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	447	324	810	0.552	442	1.3	10.111	B
2	426	284	1398	0.305	424	0.5	3.852	A
3	341	595	543	0.628	335	1.6	16.829	C
4	312	319	1515	0.206	311	0.3	3.116	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	534	388	784	0.681	530	2.1	14.659	B
2	509	341	1364	0.373	508	0.6	4.390	A
3	407	713	503	0.810	399	3.6	32.445	D
4	372	381	1475	0.252	372	0.4	3.406	A

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	654	455	756	0.865	641	5.4	29.689	D
2	623	412	1320	0.472	622	0.9	5.373	A
3	499	869	450	1.108	436	19.4	116.299	F
4	456	431	1442	0.316	455	0.5	3.803	A

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	654	458	755	0.866	652	6.0	34.899	D
2	623	418	1316	0.473	623	0.9	5.420	A
3	499	875	448	1.113	444	33.0	226.172	F
4	456	437	1438	0.317	456	0.5	3.821	A

18:00 - 18:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	534	421	771	0.693	548	2.5	17.851	C
2	509	350	1358	0.375	510	0.6	4.440	A
3	407	724	499	0.816	485	13.6	179.438	F
4	372	439	1437	0.259	373	0.4	3.528	A

18:15 - 18:30

Arm	Total Demand	Circulating	Capacity	RFC	Throughput	End queue	Delay (s)	Unsignalised

	(PCU/hr)	flow (PCU/hr)	(PCU/hr)		(PCU/hr)	(PCU)		level of service
1	447	346	801	0.558	452	1.4	10.914	B
2	426	289	1395	0.305	427	0.5	3.885	A
3	341	602	540	0.631	388	1.8	30.340	D
4	312	355	1491	0.209	312	0.3	3.185	A

Junction 7 - Existing Layout - 2032 DO SOMETHING, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4	16.31	C

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	2032 DO SOMETHING	AM	ONE HOUR	08:00	09:30	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		✓	289	100.000
2		✓	1024	100.000
3		✓	197	100.000
4		✓	1050	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1	2	3	4
From	1	0	102	73	114
	2	361	0	295	368
	3	43	95	0	59
	4	398	523	129	0

Vehicle Mix

Heavy Vehicle Percentages

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

	3	0	0	0	0
	4	5	5	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1	0.53	12.97	1.1	B
2	0.83	15.86	4.8	C
3	0.50	16.83	1.0	C
4	0.85	17.57	5.4	C

	(PCU/hr)	flow (PCU/hr)	(PCU/hr)		(PCU/hr)	(PCU)		level of service
1	218	565	711	0.306	218	0.5	7.590	A
2	771	239	1426	0.541	774	1.2	5.747	A
3	148	637	528	0.281	149	0.4	9.510	A
4	790	377	1477	0.535	794	1.2	5.528	A

Main Results for each time segment

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	218	559	714	0.305	216	0.4	7.468	A
2	771	236	1427	0.540	766	1.2	5.596	A
3	148	631	531	0.279	147	0.4	9.333	A
4	790	373	1480	0.534	786	1.2	5.377	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	260	669	668	0.389	259	0.6	9.100	A
2	921	283	1399	0.658	918	1.9	7.697	A
3	177	755	489	0.362	176	0.6	11.504	B
4	944	447	1432	0.659	941	2.0	7.601	A

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	318	814	609	0.523	316	1.1	12.682	B
2	1127	345	1361	0.828	1117	4.6	14.670	B
3	217	920	433	0.501	215	1.0	16.402	C
4	1156	545	1369	0.845	1144	5.1	15.870	C

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	318	822	606	0.525	318	1.1	12.970	B
2	1127	348	1359	0.829	1127	4.8	15.856	C
3	217	928	431	0.504	217	1.0	16.827	C
4	1156	549	1366	0.846	1155	5.4	17.570	C

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	260	681	664	0.391	262	0.7	9.324	A
2	921	287	1396	0.659	931	2.1	8.195	A
3	177	766	485	0.365	179	0.6	11.818	B
4	944	454	1428	0.661	957	2.1	8.203	A

09:15 - 09:30

Arm	Total Demand	Circulating	Capacity	RFC	Throughput	End queue	Delay (s)	Unsignalised

Junction 7 - Existing Layout - 2032 DO SOMETHING, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4	96.92	F

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	2032 DO SOMETHING	PM	ONE HOUR	17:00	18:30	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		✓	648	100.000
2		✓	623	100.000
3		✓	453	100.000
4		✓	533	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1	2	3	4
From	1	0	266	34	348
	2	127	0	64	432
	3	132	171	0	150
	4	208	272	53	0

Vehicle Mix

Heavy Vehicle Percentages

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

	3	0	0	0	0
	4	5	5	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1	0.97	78.13	14.8	F
2	0.53	6.28	1.2	A
3	1.22	357.39	50.8	F
4	0.40	4.34	0.7	A

Main Results for each time segment

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	488	370	791	0.616	481	1.6	11.924	B
2	469	324	1374	0.341	467	0.5	4.132	A
3	341	677	515	0.662	334	1.8	19.170	C
4	401	318	1515	0.265	400	0.4	3.368	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	583	441	762	0.764	577	3.1	19.683	C
2	560	387	1335	0.419	559	0.7	4.841	A
3	407	811	470	0.867	395	4.8	42.706	E
4	479	378	1476	0.325	479	0.5	3.768	A

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	713	510	734	0.973	681	11.3	52.315	F
2	686	460	1291	0.531	684	1.2	6.177	A
3	499	980	413	1.208	406	28.1	168.065	F
4	587	411	1455	0.403	586	0.7	4.324	A

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	713	512	733	0.973	699	14.8	78.135	F
2	686	471	1285	0.534	686	1.2	6.281	A
3	499	991	409	1.219	408	50.8	354.648	F
4	587	413	1454	0.404	587	0.7	4.336	A

18:00 - 18:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	583	463	753	0.773	626	4.0	36.191	E
2	560	417	1317	0.425	562	0.8	4.988	A
3	407	840	460	0.885	451	39.8	357.388	F
4	479	416	1452	0.330	480	0.5	3.872	A

18:15 - 18:30

Arm	Total Demand	Circulating	Capacity	RFC	Throughput	End queue	Delay (s)	Unsignalised
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	(PCU/hr)	flow (PCU/hr)	(PCU/hr)		(PCU/hr)	(PCU)		level of service
1	488	430	767	0.636	496	1.9	14.331	B
2	469	332	1369	0.343	470	0.5	4.188	A
3	341	688	511	0.667	489	2.7	157.832	F
4	401	423	1447	0.277	402	0.4	3.598	A

Junction 7 - Existing Layout - 2042 DO NOTHING, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4	14.19	B

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	2042 DO NOTHING	AM	ONE HOUR	08:00	09:30	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		✓	254	100.000
2		✓	1026	100.000
3		✓	207	100.000
4		✓	985	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1	2	3	4
From	1	0	106	76	72
	2	379	0	310	337
	3	45	100	0	62
	4	362	488	135	0

Vehicle Mix

Heavy Vehicle Percentages

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

	3	0	0	0	0
	4	5	5	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1	0.45	11.05	0.8	B
2	0.82	14.64	4.4	B
3	0.51	16.12	1.0	C
4	0.80	14.13	4.1	B

	(PCU/hr)	flow (PCU/hr)	(PCU/hr)		(PCU/hr)	(PCU)		level of service
1	191	546	719	0.266	192	0.4	7.078	A
2	772	214	1441	0.536	776	1.2	5.621	A
3	156	596	543	0.287	157	0.4	9.348	A
4	742	396	1465	0.506	744	1.1	5.231	A

Main Results for each time segment

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	191	541	721	0.265	190	0.4	6.989	A
2	772	212	1442	0.536	768	1.2	5.482	A
3	156	590	545	0.286	154	0.4	9.188	A
4	742	392	1468	0.505	737	1.1	5.111	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	228	648	677	0.337	228	0.5	8.277	A
2	922	254	1417	0.651	920	1.9	7.447	A
3	186	706	505	0.368	185	0.6	11.230	B
4	885	470	1417	0.625	883	1.7	6.990	A

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	280	790	619	0.452	278	0.8	10.896	B
2	1130	310	1383	0.817	1120	4.3	13.705	B
3	228	861	453	0.503	226	1.0	15.757	C
4	1085	572	1351	0.803	1075	4.0	13.223	B

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	280	796	616	0.454	280	0.8	11.054	B
2	1130	311	1381	0.818	1129	4.4	14.641	B
3	228	867	451	0.505	228	1.0	16.122	C
4	1085	577	1348	0.805	1084	4.1	14.130	B

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	228	657	674	0.339	230	0.5	8.413	A
2	922	256	1415	0.652	932	2.0	7.865	A
3	186	716	502	0.371	188	0.6	11.512	B
4	885	476	1413	0.627	895	1.8	7.370	A

09:15 - 09:30

Arm	Total Demand	Circulating	Capacity	RFC	Throughput	End queue	Delay (s)	Unsignalised

Junction 7 - Existing Layout - 2042 DO NOTHING, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4	91.86	F

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	2042 DO NOTHING	PM	ONE HOUR	17:00	18:30	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		✓	623	100.000
2		✓	594	100.000
3		✓	475	100.000
4		✓	436	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1	2	3	4
From	1	0	279	35	309
	2	133	0	68	393
	3	138	180	0	157
	4	158	222	56	0

Vehicle Mix

Heavy Vehicle Percentages

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

3	0	0	0	0
4	5	5	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1	0.91	48.61	8.6	E
2	0.50	5.78	1.0	A
3	1.20	336.96	50.9	F
4	0.33	3.92	0.5	A

Main Results for each time segment

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	469	341	803	0.584	463	1.4	10.917	B
2	447	298	1390	0.322	445	0.5	3.971	A
3	358	624	533	0.671	350	1.9	18.969	C
4	328	334	1505	0.218	327	0.3	3.185	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	560	407	776	0.722	556	2.6	16.739	C
2	534	357	1354	0.394	533	0.7	4.577	A
3	427	748	491	0.869	415	4.9	41.690	E
4	392	397	1464	0.268	392	0.4	3.502	A

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	686	468	751	0.913	666	7.4	37.911	E
2	654	430	1310	0.499	653	1.0	5.707	A
3	523	908	437	1.197	429	28.4	160.877	F
4	480	434	1441	0.333	479	0.5	3.907	A

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	686	470	750	0.914	681	8.6	48.610	E
2	654	438	1305	0.501	654	1.0	5.776	A
3	523	917	434	1.205	433	50.9	336.963	F
4	480	436	1439	0.334	480	0.5	3.916	A

18:00 - 18:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	560	431	766	0.731	582	3.1	22.540	C
2	534	372	1345	0.397	535	0.7	4.653	A
3	427	763	486	0.879	477	38.5	335.379	F
4	392	439	1437	0.273	392	0.4	3.599	A

18:15 - 18:30

Arm	Total Demand	Circulating	Capacity	RFC	Throughput	End queue	Delay (s)	Unsignalised

	(PCU/hr)	flow (PCU/hr)	(PCU/hr)	(PCU/hr)	(PCU)		level of service	
1	469	399	779	0.602	475	1.6	12.593	B
2	447	304	1386	0.323	448	0.5	4.012	A
3	358	632	530	0.674	501	2.7	143.100	F
4	328	436	1439	0.228	329	0.3	3.382	A

Junction 7 - Existing Layout - 2042 DO SOMETHING, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4	21.78	C

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	2042 DO SOMETHING	AM	ONE HOUR	08:00	09:30	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		✓	300	100.000
2		✓	1073	100.000
3		✓	207	100.000
4		✓	1096	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1	2	3	4
From	1	0	106	76	118
	2	379	0	310	384
	3	45	100	0	62
	4	416	545	135	0

Vehicle Mix

Heavy Vehicle Percentages

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

	3	0	0	0	0
	4	5	5	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1	0.56	14.28	1.3	B
2	0.87	21.21	6.6	C
3	0.55	19.02	1.2	C
4	0.90	24.91	7.9	C

	(PCU/hr)	flow (PCU/hr)	(PCU/hr)		(PCU/hr)	(PCU)		level of service
1	226	590	701	0.322	227	0.5	7.893	A
2	808	249	1420	0.569	812	1.4	6.173	A
3	156	667	519	0.301	157	0.4	9.976	A
4	825	397	1464	0.563	830	1.4	5.960	A

Main Results for each time segment

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	226	583	704	0.321	224	0.5	7.749	A
2	808	246	1421	0.568	802	1.3	5.969	A
3	156	659	521	0.299	154	0.4	9.766	A
4	825	391	1468	0.562	820	1.3	5.753	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	270	698	656	0.411	269	0.7	9.607	A
2	965	295	1392	0.693	961	2.3	8.574	A
3	186	789	477	0.390	185	0.6	12.293	B
4	985	469	1417	0.695	981	2.3	8.536	A

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	330	846	596	0.554	328	1.2	13.836	B
2	1181	358	1353	0.873	1166	6.1	18.555	C
3	228	958	420	0.542	226	1.1	18.333	C
4	1207	570	1352	0.892	1187	7.1	20.758	C

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	330	857	591	0.559	330	1.3	14.279	B
2	1181	362	1351	0.875	1180	6.6	21.206	C
3	228	969	417	0.547	228	1.2	19.020	C
4	1207	576	1348	0.895	1204	7.9	24.909	C

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	270	716	649	0.415	272	0.7	9.945	A
2	965	300	1389	0.695	981	2.4	9.503	A
3	186	805	472	0.394	188	0.7	12.772	B
4	985	478	1411	0.698	1007	2.5	9.745	A

09:15 - 09:30

Arm	Total Demand	Circulating	Capacity	RFC	Throughput	End queue	Delay (s)	Unsignalised

Junction 7 - Existing Layout - 2042 DO SOMETHING, PM

	3	0	0	0	0
	4	5	5	0	0

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4	146.45	F

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	2042 DO SOMETHING	PM	ONE HOUR	17:00	18:30	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		✓	677	100.000
2		✓	651	100.000
3		✓	475	100.000
4		✓	553	100.000

Origin-Destination Data

Demand (PCU/hr)

		To				
		1	2	3	4	
From	1	0	279	35	363	
	2	133	0	68	450	
	3	138	180	0	157	
	4	215	282	56	0	

Vehicle Mix

Heavy Vehicle Percentages

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

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1	1.02	116.45	24.4	F
2	0.56	6.69	1.3	A
3	1.31	546.05	69.7	F
4	0.42	4.45	0.7	A

Main Results for each time segment

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	510	386	785	0.649	502	1.9	13.020	B
2	490	337	1366	0.359	488	0.6	4.272	A
3	358	706	505	0.708	349	2.2	21.922	C
4	416	333	1506	0.277	415	0.4	3.443	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	609	458	755	0.806	601	3.9	23.236	C
2	585	403	1326	0.442	584	0.8	5.067	A
3	427	845	458	0.932	408	7.0	56.860	F
4	497	392	1467	0.339	497	0.5	3.873	A

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	745	522	729	1.023	695	16.4	68.538	F
2	717	470	1285	0.558	715	1.3	6.574	A
3	523	1013	402	1.302	398	38.3	226.100	F
4	609	412	1454	0.419	608	0.7	4.440	A

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	745	523	729	1.023	713	24.4	116.448	F
2	717	481	1278	0.561	717	1.3	6.693	A
3	523	1024	398	1.315	397	69.7	487.259	F
4	609	412	1454	0.419	609	0.7	4.448	A

18:00 - 18:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	609	470	750	0.811	684	5.5	69.597	F
2	585	453	1296	0.452	587	0.9	5.320	A
3	427	893	442	0.965	436	67.4	546.055	F
4	497	412	1455	0.342	498	0.5	3.935	A

18:15 - 18:30

Arm	Total Demand	Circulating	Capacity	RFC	Throughput	End queue	Delay (s)	Unsignalised
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	(PCU/hr)	flow (PCU/hr)	(PCU/hr)		(PCU/hr)	(PCU)		level of service
1	510	442	762	0.669	523	2.2	16.548	C
2	490	350	1358	0.361	491	0.6	4.343	A
3	358	720	500	0.715	493	33.5	372.517	F
4	416	431	1443	0.289	417	0.4	3.670	A

Junctions 9	
PICADY 9 - Priority Intersection Module	
Version: 9.5.1.7462 © Copyright TRL Limited, 2019	
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Filename: Junction 8 - Proposed T-junction - AM-PM.j9

Path: M:\Projects\22\22-010 Cherry Orchard - Sites 4 & 5 - C&S\Design\Civil\Traffic\Modelling 2023\1. Modelled Junctions\Junction 8

Report generation date: 20/10/2023 10:29:16

»Junction 8 - Proposed Layout - DO SOMETHING 2027, AM
 »Junction 8 - Proposed Layout - DO SOMETHING 2027, PM
 »Junction 8 - Proposed Layout - DO SOMETHING 2032, AM
 »Junction 8 - Proposed Layout - DO SOMETHING 2032, PM
 »Junction 8 - Proposed Layout - DO SOMETHING 2042, AM
 »Junction 8 - Proposed Layout - DO SOMETHING 2042, PM

Summary of junction performance

	AM				PM			
	Queue (PCU)	Delay (s)	RFC	LOS	Queue (PCU)	Delay (s)	RFC	LOS
Junction 8 - Proposed Layout - DO SOMETHING 2027								
Stream B-AC	0.1	12.03	0.11	B	0.1	13.40	0.13	B
Stream C-AB	0.0	6.62	0.02	A	0.0	7.81	0.03	A
Junction 8 - Proposed Layout - DO SOMETHING 2032								
Stream B-AC	0.1	12.43	0.11	B	0.2	14.00	0.13	B
Stream C-AB	0.0	6.66	0.02	A	0.0	7.95	0.03	A
Junction 8 - Proposed Layout - DO SOMETHING 2042								
Stream B-AC	0.1	12.82	0.11	B	0.2	14.58	0.14	B
Stream C-AB	0.0	6.69	0.02	A	0.0	8.07	0.03	A

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

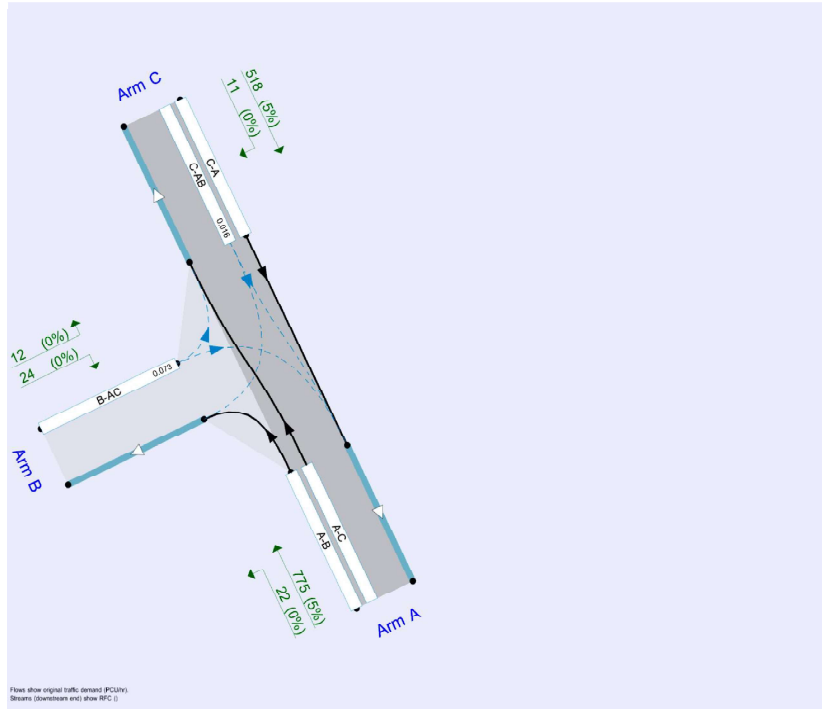
File summary

File Description

Title	
Location	
Site number	
Date	02/12/2022
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	DOMAINI.byrne
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



Flows show original traffic demand (PCU/hr).
Streams (downstream end) show RFC (t).
The junction diagram reflects the last run of Junctions.

Analysis Options

Vehicle length (m)	Calculate Queue Percentiles	Calculate detailed queueing delay	Calculate residual capacity	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)
5.75				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)	Run automatically
D1	DO SOMETHING 2027	AM	ONE HOUR	08:00	09:30	15	✓
D2	DO SOMETHING 2027	PM	ONE HOUR	17:00	18:30	15	✓
D3	DO SOMETHING 2032	AM	ONE HOUR	08:00	09:30	15	✓
D4	DO SOMETHING 2032	PM	ONE HOUR	17:00	18:30	15	✓
D5	DO SOMETHING 2042	AM	ONE HOUR	08:00	09:30	15	✓
D6	DO SOMETHING 2042	PM	ONE HOUR	17:00	18:30	15	✓

Analysis Set Details

ID	Name	Include in report	Network flow scaling factor (%)	Network capacity scaling factor (%)
A1	Junction 8 - Proposed Layout	✓	100.000	100.000

Junction 8 - Proposed Layout - DO SOMETHING 2027, 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		0.35	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

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	8.00			120.0	✓	1.00

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	2.80	49	49

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	507	0.084	0.213	0.134	0.305
B-C	642	0.090	0.227	-	-
C-B	643	0.228	0.228	-	-

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)	Run automatically
D1	DO SOMETHING 2027	AM	ONE HOUR	08:00	09:30	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		ONE HOUR	✓	425	100.000

B	ONE HOUR	✓	33	100.000
C	ONE HOUR	✓	852	100.000

Origin-Destination Data

Demand (PCU/hr)

	To			
	A	B	C	
From	A	0	19	406
	B	22	0	11
	C	842	10	0

Vehicle Mix

Heavy Vehicle Percentages

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

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-AC	0.11	12.03	0.1	B	30	45
C-AB	0.02	6.62	0.0	A	9	14
C-A					772	1159
A-B					17	26
A-C					373	559

Main Results for each time segment

08:00 - 08:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	25	6	405	0.061	25	0.0	0.1	9.458	A
C-AB	8	2	579	0.013	8	0.0	0.0	6.304	A
C-A	634	158			634				
A-B	14	4			14				
A-C	306	76			306				

08:15 - 08:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	30	7	376	0.079	30	0.1	0.1	10.380	B
C-AB	9	2	569	0.016	9	0.0	0.0	6.439	A
C-A	757	189			757				
A-B	17	4			17				
A-C	365	91			365				

08:30 - 08:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	36	9	336	0.108	36	0.1	0.1	12.016	B
C-AB	11	3	556	0.021	11	0.0	0.0	6.620	A
C-A	927	232			927				
A-B	21	5			21				
A-C	447	112			447				

08:45 - 09:00

Stream	Total Demand	Junction	Capacity	RFC	Throughput	Start queue	End queue	Delay (s)	Unsignalised
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	(PCU/hr)	Arrivals (PCU)	(PCU/hr)		(PCU/hr)	(PCU)	(PCU)		level of service
B-AC	36	9	336	0.108	36	0.1	0.1	12.026	B
C-AB	11	3	556	0.021	11	0.0	0.0	6.620	A
C-A	927	232			927				
A-B	21	5			21				
A-C	447	112			447				

09:00 - 09:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	30	7	376	0.079	30	0.1	0.1	10.395	B
C-AB	9	2	569	0.016	9	0.0	0.0	6.442	A
C-A	757	189			757				
A-B	17	4			17				
A-C	365	91			365				

09:15 - 09:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	25	6	405	0.061	25	0.1	0.1	9.475	A
C-AB	8	2	579	0.013	8	0.0	0.0	6.307	A
C-A	634	158			634				
A-B	14	4			14				
A-C	306	76			306				

Junction 8 - Proposed Layout - DO SOMETHING 2027, 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		0.45	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)	Run automatically
D2	DO SOMETHING 2027	PM	ONE HOUR	17:00	18:30	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		ONE HOUR	✓	731	100.000
B		ONE HOUR	✓	36	100.000
C		ONE HOUR	✓	491	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A	B	C
From	A	0	22	709
	B	24	0	12
	C	480	11	0

Vehicle Mix

Heavy Vehicle Percentages

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

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-AC	0.13	13.40	0.1	B	33	50
C-AB	0.03	7.81	0.0	A	10	15

C-A					440	660
A-B					20	30
A-C					651	976

Main Results for each time segment

17:00 - 17:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	27	7	385	0.070	27	0.0	0.1	10.039	B
C-AB	8	2	524	0.016	8	0.0	0.0	6.985	A
C-A	361	90			361				
A-B	17	4			17				
A-C	534	133			534				

17:15 - 17:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	32	8	353	0.092	32	0.1	0.1	11.216	B
C-AB	10	3	502	0.020	10	0.0	0.0	7.315	A
C-A	431	108			431				
A-B	20	5			20				
A-C	637	159			637				

17:30 - 17:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	40	10	308	0.129	39	0.1	0.1	13.383	B
C-AB	12	3	474	0.026	12	0.0	0.0	7.808	A
C-A	528	132			528				
A-B	24	6			24				
A-C	781	195			781				

17:45 - 18:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	40	10	308	0.129	40	0.1	0.1	13.402	B
C-AB	12	3	474	0.026	12	0.0	0.0	7.808	A
C-A	528	132			528				
A-B	24	6			24				
A-C	781	195			781				

18:00 - 18:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	32	8	353	0.092	33	0.1	0.1	11.237	B
C-AB	10	3	503	0.020	10	0.0	0.0	7.319	A
C-A	431	108			431				
A-B	20	5			20				
A-C	637	159			637				

18:15 - 18:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	27	7	385	0.070	27	0.1	0.1	10.061	B
C-AB	8	2	524	0.016	8	0.0	0.0	6.988	A
C-A	361	90			361				
A-B	17	4			17				
A-C	534	133			534				

Junction 8 - Proposed Layout - DO SOMETHING 2032, 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		0.35	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)	Run automatically
D3	DO SOMETHING 2032	AM	ONE HOUR	08:00	09:30	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		ONE HOUR	✓	440	100.000
B		ONE HOUR	✓	33	100.000
C		ONE HOUR	✓	895	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A	B	C
From	A	0	19	421
	B	22	0	11
	C	885	10	0

Vehicle Mix

Heavy Vehicle Percentages

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

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-AC	0.11	12.43	0.1	B	30	45
C-AB	0.02	6.66	0.0	A	9	14

C-A					812	1218
A-B					17	26
A-C					386	579

Main Results for each time segment

08:00 - 08:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	25	6	399	0.062	25	0.0	0.1	9.617	A
C-AB	8	2	577	0.013	8	0.0	0.0	6.328	A
C-A	666	167			666				
A-B	14	4			14				
A-C	317	79			317				

08:15 - 08:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	30	7	369	0.080	30	0.1	0.1	10.617	B
C-AB	9	2	566	0.016	9	0.0	0.0	6.467	A
C-A	795	199			795				
A-B	17	4			17				
A-C	378	95			378				

08:30 - 08:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	36	9	326	0.112	36	0.1	0.1	12.421	B
C-AB	11	3	553	0.021	11	0.0	0.0	6.654	A
C-A	974	243			974				
A-B	21	5			21				
A-C	464	116			464				

08:45 - 09:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	36	9	326	0.112	36	0.1	0.1	12.434	B
C-AB	11	3	553	0.021	11	0.0	0.0	6.656	A
C-A	974	243			974				
A-B	21	5			21				
A-C	464	116			464				

09:00 - 09:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	30	7	369	0.080	30	0.1	0.1	10.633	B
C-AB	9	2	567	0.016	9	0.0	0.0	6.470	A
C-A	795	199			795				
A-B	17	4			17				
A-C	378	95			378				

09:15 - 09:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	25	6	399	0.062	25	0.1	0.1	9.637	A
C-AB	8	2	577	0.013	8	0.0	0.0	6.328	A
C-A	666	167			666				
A-B	14	4			14				
A-C	317	79			317				

Junction 8 - Proposed Layout - DO SOMETHING 2032, 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		0.45	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)	Run automatically
D4	DO SOMETHING 2032	PM	ONE HOUR	17:00	18:30	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		ONE HOUR	✓	766	100.000
B		ONE HOUR	✓	36	100.000
C		ONE HOUR	✓	511	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A	B	C
From	A	0	22	744
	B	24	0	12
	C	500	11	0

Vehicle Mix

Heavy Vehicle Percentages

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

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-AC	0.13	14.00	0.2	B	33	50
C-AB	0.03	7.95	0.0	A	10	15

C-A				459	688
A-B				20	30
A-C				683	1024

Main Results for each time segment

17:00 - 17:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	27	7	378	0.072	27	0.0	0.1	10.257	B
C-AB	8	2	518	0.016	8	0.0	0.0	7.063	A
C-A	376	94			376				
A-B	17	4			17				
A-C	560	140			560				

17:15 - 17:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	32	8	344	0.094	32	0.1	0.1	11.546	B
C-AB	10	3	496	0.020	10	0.0	0.0	7.416	A
C-A	449	112			449				
A-B	20	5			20				
A-C	669	167			669				

17:30 - 17:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	40	10	297	0.134	39	0.1	0.2	13.990	B
C-AB	13	3	466	0.027	12	0.0	0.0	7.945	A
C-A	550	138			550				
A-B	24	6			24				
A-C	819	205			819				

17:45 - 18:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	40	10	297	0.134	40	0.2	0.2	14.000	B
C-AB	13	3	466	0.027	13	0.0	0.0	7.945	A
C-A	550	138			550				
A-B	24	6			24				
A-C	819	205			819				

18:00 - 18:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	32	8	344	0.094	33	0.2	0.1	11.567	B
C-AB	10	3	496	0.020	10	0.0	0.0	7.420	A
C-A	449	112			449				
A-B	20	5			20				
A-C	669	167			669				

18:15 - 18:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	27	7	377	0.072	27	0.1	0.1	10.280	B
C-AB	8	2	518	0.016	8	0.0	0.0	7.063	A
C-A	376	94			376				
A-B	17	4			17				
A-C	560	140			560				

Junction 8 - Proposed Layout - DO SOMETHING 2042, 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		0.35	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)	Run automatically
D5	DO SOMETHING 2042	AM	ONE HOUR	08:00	09:30	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		ONE HOUR	✓	453	100.000
B		ONE HOUR	✓	33	100.000
C		ONE HOUR	✓	933	100.000

Origin-Destination Data

Demand (PCU/hr)

From	To		
	A	B	C
A	0	19	434
B	22	0	11
C	923	10	0

Vehicle Mix

Heavy Vehicle Percentages

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

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-AC	0.11	12.82	0.1	B	30	45
C-AB	0.02	6.69	0.0	A	9	14

C-A					847	1270
A-B					17	26
A-C					398	597

Main Results for each time segment

08:00 - 08:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	25	6	393	0.063	25	0.0	0.1	9.763	A
C-AB	8	2	575	0.013	8	0.0	0.0	6.348	A
C-A	695	174			695				
A-B	14	4			14				
A-C	327	62			327				

08:15 - 08:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	30	7	362	0.082	30	0.1	0.1	10.836	B
C-AB	9	2	564	0.016	9	0.0	0.0	6.492	A
C-A	830	207			830				
A-B	17	4			17				
A-C	390	98			390				

08:30 - 08:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	36	9	317	0.115	36	0.1	0.1	12.806	B
C-AB	11	3	551	0.021	11	0.0	0.0	6.683	A
C-A	1016	254			1016				
A-B	21	5			21				
A-C	478	119			478				

08:45 - 09:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	36	9	317	0.115	36	0.1	0.1	12.818	B
C-AB	11	3	551	0.021	11	0.0	0.0	6.685	A
C-A	1016	254			1016				
A-B	21	5			21				
A-C	478	119			478				

09:00 - 09:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	30	7	362	0.082	30	0.1	0.1	10.853	B
C-AB	9	2	565	0.016	9	0.0	0.0	6.492	A
C-A	830	207			830				
A-B	17	4			17				
A-C	390	98			390				

09:15 - 09:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	25	6	393	0.063	25	0.1	0.1	9.781	A
C-AB	8	2	575	0.013	8	0.0	0.0	6.351	A
C-A	695	174			695				
A-B	14	4			14				
A-C	327	62			327				

Junction 8 - Proposed Layout - DO SOMETHING 2042, 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		0.45	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)	Run automatically
D6	DO SOMETHING 2042	PM	ONE HOUR	17:00	18:30	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		ONE HOUR	✓	797	100.000
B		ONE HOUR	✓	36	100.000
C		ONE HOUR	✓	529	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A	B	C
From	A	0	22	775
	B	24	0	12
	C	518	11	0

Vehicle Mix

Heavy Vehicle Percentages

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

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-AC	0.14	14.58	0.2	B	33	50
C-AB	0.03	8.07	0.0	A	10	16

C-A					475	713
A-B					20	30
A-C					711	1067

Main Results for each time segment

17:00 - 17:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	27	7	371	0.073	27	0.0	0.1	10.457	B
C-AB	8	2	513	0.016	8	0.0	0.0	7.133	A
C-A	390	97			390				
A-B	17	4			17				
A-C	583	146			583				

17:15 - 17:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	32	8	336	0.096	32	0.1	0.1	11.857	B
C-AB	10	3	490	0.021	10	0.0	0.0	7.508	A
C-A	465	116			465				
A-B	20	5			20				
A-C	697	174			697				

17:30 - 17:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	40	10	287	0.138	39	0.1	0.2	14.557	B
C-AB	13	3	459	0.027	13	0.0	0.0	8.070	A
C-A	570	142			570				
A-B	24	6			24				
A-C	853	213			853				

17:45 - 18:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	40	10	287	0.138	40	0.2	0.2	14.580	B
C-AB	13	3	459	0.027	13	0.0	0.0	8.071	A
C-A	570	142			570				
A-B	24	6			24				
A-C	853	213			853				

18:00 - 18:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	32	8	336	0.096	33	0.2	0.1	11.883	B
C-AB	10	3	490	0.021	10	0.0	0.0	7.508	A
C-A	465	116			465				
A-B	20	5			20				
A-C	697	174			697				

18:15 - 18:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	27	7	371	0.073	27	0.1	0.1	10.483	B
C-AB	8	2	513	0.016	8	0.0	0.0	7.134	A
C-A	390	97			390				
A-B	17	4			17				
A-C	583	146			583				

UK and Ireland Office Locations

