

Issue and Revision Record

Revision	Date	Originator	Checker	Approver	Description
A	12/08/2021	T J Blaney	R J Collins	J T Pearson	First Issue

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1 Introduction

This report describes a Stage 1 Road Safety Audit carried out on the proposed access arrangements for a new 280,000m² employment development on land adjacent to the M40 J10. Two access points (eastern and western) will be provided either side of the A43 / B4100 Baynards Green roundabout junction. This audit report considers the eastern access.

The audit was carried out at the request of David Tucker Associates.

The audit took place at the Bristol office of Mott MacDonald and consisted of a detailed examination of the submitted documentation and drawings listed in **Appendix A**.

It is confirmed that this is a Stage 1 Road Safety Audit and that the audit was undertaken upon completion of the preliminary design work.

The Road Safety Audit Team, as approved by the David Tucker Associates' Project Sponsor, Simon Parfitt, consisted of:

Tim Blaney BSc (Hons), CMILT, MCIHT, MSoRSA
(Certificate of Competency in Road Safety Audit, July 2012)
Audit Team Leader, Mott MacDonald

Rachael Collins BA (Hons), MSc, MCIHT
(Certificate of Competency in Road Safety Audit, July 2016)
Audit Team Member, Mott MacDonald

A visit to the site was completed on Wednesday 4th August at 1100 hrs. During this visit the weather was overcast, with sunny spells and the road surface was dry. Traffic conditions were moderate and free flowing. No pedestrian or cycle activity was observed.

This Road Safety Audit was carried out in accordance with Highways England's Departmental Standard GG119 and the Road Safety Audit Brief (*Doc. Ref: 17213-05*). The Road Safety Audit Team has examined and reported only on the road safety implications of the scheme as presented and has not examined or verified the compliance of the designs to any other criteria.

The comments and suggestions for road safety improvements made in this report seek to address matters that might have an adverse effect on road safety in the context of the chosen design. No attempt has been made to comment on the justification of the scheme. Consequently, the auditors accept no responsibility for the design or construction of the scheme.

All the issues raised in this report are considered to be required for action. The comments contained in the report are based on safety related concerns and as such the design engineer will need to consider carefully how to respond to each of the issues. The Audit Response Report should be completed by the Design Team and kept on file for future reference.

A Key Plan indicating the location of any identified safety related issues is provided in **Appendix B**.

Scheme Description

Taken from the Audit Brief:

The eastern site access will serve up to 100,000m² GFA B8 use. A four-arm roundabout junction is proposed in line with the requirements of DMRB CD116. Access to plots will be taken from separate arms. A bus loop will be provided on the easternmost development access road.

A pedestrian and cycle route will be provided between the B4100 accesses and will provide a safe route to and from the roadside services. The route has yet to be determined as this is likely to be incorporated into a wider HE improvement scheme at the Baynards Green roundabout. This is not therefore within the scope of this RSA.

A further pedestrian and cycle route is proposed between the eastern roundabout and the NW Bicester development. The route has yet to be determined and is not within the scope of this RSA.

It is understood that the A43 / B4100 is currently subject to option testing for a Growth Fund Scheme. As such, two designs for the eastern access have been developed, one tying into the existing highway arrangement, and another tying into the (current) Growth Fund proposal.

This audit considers the proposed provision of a new roundabout junction on the B4100 east of the A43 tying into the pre-Growth Fund (existing) highway arrangement.

2 Items Raised at this Stage 1 Audit

This section describes road safety related issues identified by the Audit Team during the Stage 1 Road Safety Audit.

2.1 Problem 1.01

Location: Throughout Scheme.

Summary: Unclear impact of additional traffic on surrounding highway network.

The proposed development and its eastern access are in close proximity to the A43 Baynards Green roundabout. At present, no junction appraisals have been undertaken therefore it is not possible to consider the impact that this development will have on the local highway network and particularly the A43 junction. Should the junction fail to accommodate the increase in traffic, and particularly HGVs, there is an increased risk of rear end shunt or side impact type collisions associated with inappropriate turning manoeuvres resulting from driver frustration / impatience.

Recommendation

It is recommended that traffic modelling is undertaken to assess the impact that the proposed development will have on the surrounding highway network, and particularly the A43 Baynards Green roundabout.

2.2 Problem 1.02

Location: B4100 Roundabout junction.

Summary: Unclear lighting provision may lead to loss of control collisions.

The proposed roundabout junction is in close proximity to the existing A43 Baynards Green junction where street lighting is present. It is not clear from the information submitted if it is intended to light the proposed roundabout. The existing street lighting extends to the tie-in between the new and existing highway. Failure to light the new roundabout will result in south-eastbound motorists transitioning from lit to unlit on the immediate approach to the junction. This may result in motorists misjudging the position or geometry of the roundabout during the hours of darkness, increasing the risk of loss of control type collisions.

Figure 1: Existing lighting on northbound B4100 approach to Baynards Green roundabout.



Source: Mott MacDonald

Recommendation

It is recommended that the proposed roundabout is lit and that the lighting appropriately ties-in with the existing street lighting.

3 Audit Team Statement

We certify that this audit has been carried out in accordance with Highways England's Departmental Standard GG119.

Road Safety Audit Team Leader

T J Blaney BSc (Hons), CMILT, MCIHT, MSoRSA
(Certificate of Competency in Road Safety Audit, July 2012)

Signed:



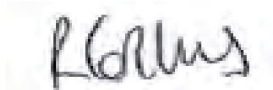
Date: 12th August 2021

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Signed:



Date: 12th August 2021

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Appendices

A.	List of Drawings & Documents Examined	7
B.	Location Plan – Eastern Access (pre-Growth Fund)	8

A. List of Drawings & Documents Examined

Table 3.1: Drawings

Drawing Number	Revision	Drawing Title
20005-SK-029	B	Proposed Masterplan Option 8
17213-16-GA	-	Easter Access Pre-Growth Fund
17213-16-TRACK	-	Easter Access Pre-Growth Fund – Vehicle Tracking

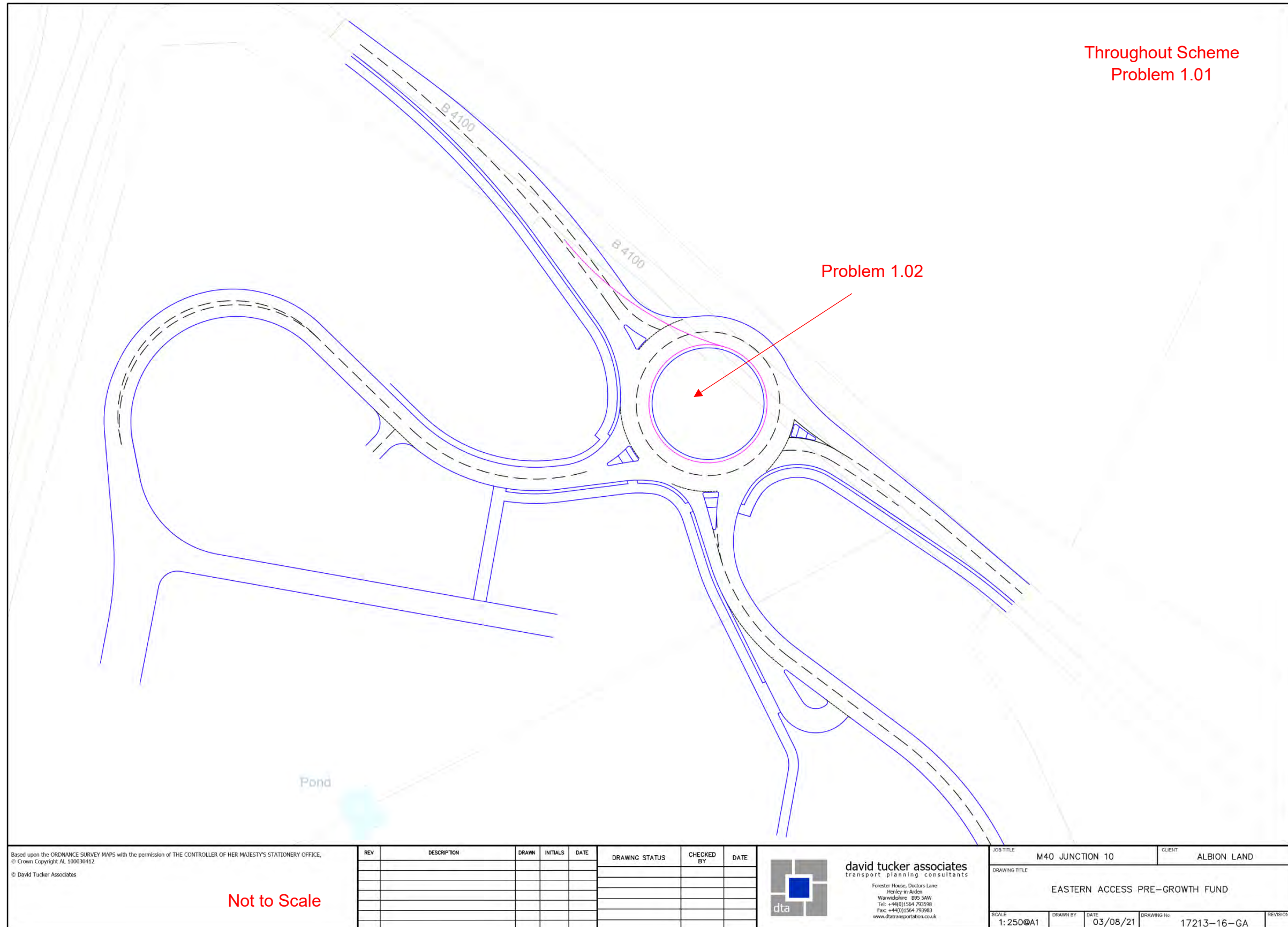
Source: David Tucker Associates

Table 3.2: Documents

Document Number	Revision	Document Title
17213-05	-	Road Safety Audit Brief
17213-02b	-	TA Scoping Report

Source: David Tucker Associates

B. Location Plan – Eastern Access (pre-Growth Fund)



Appendix N
Junction Modelling Reports

Junctions 10

ARCADY 10 - Roundabout Module

Version: 10.0.1.1519

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Filename: Western Site Roundabout RevB.j10

Path: P:\17000's\17213\Junction Assessments

Report generation date: 07/09/2021 11:32:31

- »2019 Baseline, AM
- »2019 Baseline, PM
- »2019 Baseline + Committed, AM
- »2019 Baseline + Committed, PM
- »2019 Baseline + Committed + Western Development, AM
- »2019 Baseline + Committed + Western Development, PM
- »2019 Baseline + Committed + Both Developments, AM
- »2019 Baseline + Committed + Both Developments, PM
- »2025 Baseline , AM
- »2025 Baseline, PM
- »2025 Baseline + Committed, AM
- »2025 Baseline + Committed, PM
- »2025 Baseline + Committed + Western Development, AM
- »2025 Baseline + Committed + Western Development, PM
- »2025 Baseline + Committed + Both Developments, AM
- »2025 Baseline + Committed + Both Developments, PM
- »2031 Baseline, AM
- »2031 Baseline, PM
- »2031 Baseline + Committed, AM
- »2031 Baseline + Committed, PM
- »2031 Baseline + Committed + Western Development, AM
- »2031 Baseline + Committed + Western Development, PM
- »2031 Baseline + Committed + Both Developments, AM
- »2031 Baseline + Committed + Both Developments, PM

Summary of junction performance

	AM				PM			
	Q (PCU)	Delay (s)	RFC	Res Cap	Q (PCU)	Delay (s)	RFC	Res Cap
2019 Baseline								
1 - B4100 (W)	0.4	4.11	0.29	225 %	0.3	3.66	0.21	204 %
2 - B4100 (E)	0.3	3.69	0.21		0.4	4.12	0.31	
3 - Site Arm 3	0.0	0.00	0.00	[1 - B4100 (W)]	0.0	0.00	0.00	[2 - B4100 (E)]
2019 Baseline + Committed								
1 - B4100 (W)	0.4	4.11	0.29	225 %	0.3	3.66	0.21	204 %
2 - B4100 (E)	0.3	3.69	0.21		0.4	4.12	0.31	
3 - Site Arm 3	0.0	0.00	0.00	[1 - B4100 (W)]	0.0	0.00	0.00	[2 - B4100 (E)]
2019 Baseline + Committed + Western Development								
1 - B4100 (W)	0.5	4.39	0.31	180 %	0.3	4.00	0.23	163 %
2 - B4100 (E)	0.5	4.45	0.31		0.6	4.56	0.35	
3 - Site Arm 3	0.1	4.37	0.08	[1 - B4100 (W)]	0.2	4.28	0.14	[2 - B4100 (E)]
2019 Baseline + Committed + Both Developments								
1 - B4100 (W)	0.5	4.42	0.31	176 %	0.3	4.01	0.23	159 %
2 - B4100 (E)	0.5	4.49	0.32		0.6	4.60	0.36	
3 - Site Arm 3	0.1	4.38	0.08	[1 - B4100 (W)]	0.2	4.30	0.14	[2 - B4100 (E)]
2025 Baseline								
1 - B4100 (W)	0.5	4.23	0.31	204 %	0.3	3.74	0.23	182 %
2 - B4100 (E)	0.3	3.76	0.23		0.5	4.26	0.33	
3 - Site Arm 3	0.0	0.00	0.00	[1 - B4100 (W)]	0.0	0.00	0.00	[2 - B4100 (E)]
2025 Baseline + Committed								
1 - B4100 (W)	0.5	4.23	0.31	204 %	0.3	3.74	0.23	182 %
2 - B4100 (E)	0.3	3.76	0.23		0.5	4.26	0.33	
3 - Site Arm 3	0.0	0.00	0.00	[1 - B4100 (W)]	0.0	0.00	0.00	[2 - B4100 (E)]
2025 Baseline + Committed + Western Development								
1 - B4100 (W)	0.5	4.52	0.33	164 %	0.3	4.09	0.25	146 %
2 - B4100 (E)	0.5	4.56	0.33		0.6	4.72	0.38	
3 - Site Arm 3	0.1	4.41	0.08	[1 - B4100 (W)]	0.2	4.36	0.14	[2 - B4100 (E)]
2025 Baseline + Committed + Both Developments								
1 - B4100 (W)	0.5	4.56	0.33	161 %	0.3	4.10	0.25	144 %
2 - B4100 (E)	0.5	4.58	0.33		0.6	4.75	0.38	
3 - Site Arm 3	0.1	4.42	0.08	[1 - B4100 (W)]	0.2	4.38	0.14	[2 - B4100 (E)]
2031 Baseline								
1 - B4100 (W)	0.5	4.31	0.32	192 %	0.3	3.79	0.24	172 %
2 - B4100 (E)	0.3	3.80	0.23		0.5	4.34	0.34	
3 - Site Arm 3	0.0	0.00	0.00	[1 - B4100 (W)]	0.0	0.00	0.00	[2 - B4100 (E)]
2031 Baseline + Committed								
1 - B4100 (W)	0.5	4.31	0.32	192 %	0.3	3.79	0.24	172 %
2 - B4100 (E)	0.3	3.80	0.23		0.5	4.34	0.34	
3 - Site Arm 3	0.0	0.00	0.00	[1 - B4100 (W)]	0.0	0.00	0.00	[2 - B4100 (E)]
2031 Baseline + Committed + Western Development								
1 - B4100 (W)	0.5	4.61	0.34	155 %	0.4	4.15	0.26	138 %
2 - B4100 (E)	0.5	4.62	0.34		0.7	4.82	0.39	
3 - Site Arm 3	0.1	4.44	0.08	[1 - B4100 (W)]	0.2	4.41	0.15	[2 - B4100 (E)]
2031 Baseline + Committed + Both Developments								
1 - B4100 (W)	0.5	4.64	0.34	152 %	0.4	4.15	0.26	135 %
2 - B4100 (E)	0.6	4.63	0.34		0.7	4.86	0.39	
3 - Site Arm 3	0.1	4.45	0.08	[1 - B4100 (W)]	0.2	4.43	0.15	[2 - B4100 (E)]

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

File summary

File Description

Title	
Location	
Site number	
Date	22/07/2021
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	DTA\arcady
Description	

Units

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

Analysis Options

Calculate Q Percentiles	Calculate residual capacity	Residual capacity criteria type	RFC Threshold	Av. Delay threshold (s)	Q threshold (PCU)
	✓	Delay	0.85	36.00	20.00

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D1	2019 Baseline	AM	ONE HOUR	07:45	09:15	15
D2	2019 Baseline	PM	ONE HOUR	16:45	18:15	15
D3	2019 Baseline + Committed	AM	ONE HOUR	07:45	09:15	15
D4	2019 Baseline + Committed	PM	ONE HOUR	16:45	18:15	15
D5	2019 Baseline + Committed + Western Development	AM	ONE HOUR	07:45	09:15	15
D6	2019 Baseline + Committed + Western Development	PM	ONE HOUR	16:45	18:15	15
D7	2019 Baseline + Committed + Both Developments	AM	ONE HOUR	07:45	09:15	15
D8	2019 Baseline + Committed + Both Developments	PM	ONE HOUR	16:45	18:15	15
D9	2025 Baseline	AM	ONE HOUR	07:45	09:15	15
D10	2025 Baseline	PM	ONE HOUR	16:45	18:15	15
D11	2025 Baseline + Committed	AM	ONE HOUR	07:45	09:15	15
D12	2025 Baseline + Committed	PM	ONE HOUR	16:45	18:15	15
D13	2025 Baseline + Committed + Western Development	AM	ONE HOUR	07:45	09:15	15
D14	2025 Baseline + Committed + Western Development	PM	ONE HOUR	16:45	18:15	15
D15	2025 Baseline + Committed + Both Developments	AM	ONE HOUR	07:45	09:15	15
D16	2025 Baseline + Committed + Both Developments	PM	ONE HOUR	16:45	18:15	15
D17	2031 Baseline	AM	ONE HOUR	07:45	09:15	15
D18	2031 Baseline	PM	ONE HOUR	16:45	18:15	15
D19	2031 Baseline + Committed	AM	ONE HOUR	07:45	09:15	15
D20	2031 Baseline + Committed	PM	ONE HOUR	16:45	18:15	15
D21	2031 Baseline + Committed + Western Development	AM	ONE HOUR	07:45	09:15	15
D22	2031 Baseline + Committed + Western Development	PM	ONE HOUR	16:45	18:15	15
D23	2031 Baseline + Committed + Both Developments	AM	ONE HOUR	07:45	09:15	15
D24	2031 Baseline + Committed + Both Developments	PM	ONE HOUR	16:45	18:15	15

Analysis Set Details

ID	Network flow scaling factor (%)
A1	100.000

2019 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	Eastern Site Roundabout	Standard Roundabout		1, 2, 3	3.93	A

Junction Network

Driving side	Lighting	Res Cap (%)	First arm reaching threshold	Network delay (s)	Network LOS
Left	Normal/unknown	225	1 - B4100 (W)	3.93	A

Arms

Arms

Arm	Name	Description	No give-way line
1	B4100 (W)		
2	B4100 (E)		
3	Site Arm 3		

Roundabout Geometry

Arm	V (m)	E (m)	I' (m)	R (m)	D (m)	PHI (deg)	Entry only	Exit only
1 - B4100 (W)	3.60	4.50	9.7	20.2	40.0	36.0		
2 - B4100 (E)	3.65	4.50	6.0	20.0	40.0	32.0		
3 - Site Arm 3	3.65	4.50	6.3	25.8	40.0	23.0		

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
1 - B4100 (W)	0.551	1275
2 - B4100 (E)	0.555	1274
3 - Site Arm 3	0.579	1331

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	2019 Baseline	AM	ONE HOUR	07:45	09:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Av. Demand (PCU/hr)	Scaling Factor (%)
1 - B4100 (W)		✓	331	100.000
2 - B4100 (E)		✓	244	100.000
3 - Site Arm 3		✓	0	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		1 - B4100 (W)	2 - B4100 (E)	3 - Site Arm 3
From	1 - B4100 (W)	0	331	0
	2 - B4100 (E)	244	0	0
	3 - Site Arm 3	0	0	0

Vehicle Mix

HV %s

		To		
		1 - B4100 (W)	2 - B4100 (E)	3 - Site Arm 3
From	1 - B4100 (W)	0	4	0
	2 - B4100 (E)	3	0	0
	3 - Site Arm 3	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Q (PCU)	Max LOS
1 - B4100 (W)	0.29	4.11	0.4	A
2 - B4100 (E)	0.21	3.69	0.3	A
3 - Site Arm 3	0.00	0.00	0.0	A

Main Results for each time segment

07:45 - 08:00

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 - B4100 (W)	249	0	1275	0.196	248	0.3	3.644	A
2 - B4100 (E)	184	0	1274	0.144	183	0.2	3.396	A
3 - Site Arm 3	0	183	1225	0.000	0	0.0	0.000	A

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 - B4100 (W)	298	0	1275	0.233	297	0.3	3.830	A
2 - B4100 (E)	219	0	1274	0.172	219	0.2	3.514	A
3 - Site Arm 3	0	219	1204	0.000	0	0.0	0.000	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 - B4100 (W)	364	0	1275	0.286	364	0.4	4.109	A
2 - B4100 (E)	269	0	1274	0.211	268	0.3	3.686	A
3 - Site Arm 3	0	268	1176	0.000	0	0.0	0.000	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 - B4100 (W)	364	0	1275	0.286	364	0.4	4.113	A
2 - B4100 (E)	269	0	1274	0.211	269	0.3	3.686	A
3 - Site Arm 3	0	269	1176	0.000	0	0.0	0.000	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 - B4100 (W)	298	0	1275	0.233	298	0.3	3.837	A
2 - B4100 (E)	219	0	1274	0.172	220	0.2	3.515	A
3 - Site Arm 3	0	220	1204	0.000	0	0.0	0.000	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 - B4100 (W)	249	0	1275	0.196	249	0.3	3.652	A
2 - B4100 (E)	184	0	1274	0.144	184	0.2	3.402	A
3 - Site Arm 3	0	184	1225	0.000	0	0.0	0.000	A

2019 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	Eastern Site Roundabout	Standard Roundabout		1, 2, 3	3.93	A

Junction Network

Driving side	Lighting	Res Cap (%)	First arm reaching threshold	Network delay (s)	Network LOS
Left	Normal/unknown	204	2 - B4100 (E)	3.93	A

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	2019 Baseline	PM	ONE HOUR	16:45	18:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Av. Demand (PCU/hr)	Scaling Factor (%)
1 - B4100 (W)		✓	248	100.000
2 - B4100 (E)		✓	355	100.000
3 - Site Arm 3		✓	0	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		1 - B4100 (W)	2 - B4100 (E)	3 - Site Arm 3
From	1 - B4100 (W)	0	248	0
	2 - B4100 (E)	355	0	0
	3 - Site Arm 3	0	0	0

Vehicle Mix

HV %s

		To		
		1 - B4100 (W)	2 - B4100 (E)	3 - Site Arm 3
From	1 - B4100 (W)	0	2	0
	2 - B4100 (E)	1	0	0
	3 - Site Arm 3	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Q (PCU)	Max LOS
1 - B4100 (W)	0.21	3.66	0.3	A
2 - B4100 (E)	0.31	4.12	0.4	A
3 - Site Arm 3	0.00	0.00	0.0	A

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - B4100 (W)	187	0	1275	0.146	186	0.2	3.371	A
2 - B4100 (E)	267	0	1274	0.210	266	0.3	3.604	A
3 - Site Arm 3	0	266	1177	0.000	0	0.0	0.000	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - B4100 (W)	223	0	1275	0.175	223	0.2	3.490	A
2 - B4100 (E)	319	0	1274	0.250	319	0.3	3.805	A
3 - Site Arm 3	0	319	1147	0.000	0	0.0	0.000	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 - B4100 (W)	273	0	1275	0.214	273	0.3	3.665	A
2 - B4100 (E)	391	0	1274	0.307	390	0.4	4.112	A
3 - Site Arm 3	0	390	1105	0.000	0	0.0	0.000	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 - B4100 (W)	273	0	1275	0.214	273	0.3	3.665	A
2 - B4100 (E)	391	0	1274	0.307	391	0.4	4.115	A
3 - Site Arm 3	0	391	1105	0.000	0	0.0	0.000	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 - B4100 (W)	223	0	1275	0.175	223	0.2	3.492	A
2 - B4100 (E)	319	0	1274	0.250	320	0.3	3.809	A
3 - Site Arm 3	0	320	1146	0.000	0	0.0	0.000	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 - B4100 (W)	187	0	1275	0.146	187	0.2	3.375	A
2 - B4100 (E)	267	0	1274	0.210	268	0.3	3.611	A
3 - Site Arm 3	0	268	1176	0.000	0	0.0	0.000	A

2019 Baseline + Committed, 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	Eastern Site Roundabout	Standard Roundabout		1, 2, 3	3.93	A

Junction Network

Driving side	Lighting	Res Cap (%)	First arm reaching threshold	Network delay (s)	Network LOS
Left	Normal/unknown	225	1 - B4100 (W)	3.93	A

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	2019 Baseline + Committed	AM	ONE HOUR	07:45	09:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Av. Demand (PCU/hr)	Scaling Factor (%)
1 - B4100 (W)		✓	331	100.000
2 - B4100 (E)		✓	244	100.000
3 - Site Arm 3		✓	0	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		1 - B4100 (W)	2 - B4100 (E)	3 - Site Arm 3
From	1 - B4100 (W)	0	331	0
	2 - B4100 (E)	244	0	0
	3 - Site Arm 3	0	0	0

Vehicle Mix

HV %s

		To		
		1 - B4100 (W)	2 - B4100 (E)	3 - Site Arm 3
From	1 - B4100 (W)	0	4	0
	2 - B4100 (E)	3	0	0
	3 - Site Arm 3	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Q (PCU)	Max LOS
1 - B4100 (W)	0.29	4.11	0.4	A
2 - B4100 (E)	0.21	3.69	0.3	A
3 - Site Arm 3	0.00	0.00	0.0	A

Main Results for each time segment

07:45 - 08:00

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 - B4100 (W)	249	0	1275	0.196	248	0.3	3.644	A
2 - B4100 (E)	184	0	1274	0.144	183	0.2	3.396	A
3 - Site Arm 3	0	183	1225	0.000	0	0.0	0.000	A

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 - B4100 (W)	298	0	1275	0.233	297	0.3	3.830	A
2 - B4100 (E)	219	0	1274	0.172	219	0.2	3.514	A
3 - Site Arm 3	0	219	1204	0.000	0	0.0	0.000	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 - B4100 (W)	364	0	1275	0.286	364	0.4	4.109	A
2 - B4100 (E)	269	0	1274	0.211	268	0.3	3.686	A
3 - Site Arm 3	0	268	1176	0.000	0	0.0	0.000	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 - B4100 (W)	364	0	1275	0.286	364	0.4	4.113	A
2 - B4100 (E)	269	0	1274	0.211	269	0.3	3.686	A
3 - Site Arm 3	0	269	1176	0.000	0	0.0	0.000	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 - B4100 (W)	298	0	1275	0.233	298	0.3	3.837	A
2 - B4100 (E)	219	0	1274	0.172	220	0.2	3.515	A
3 - Site Arm 3	0	220	1204	0.000	0	0.0	0.000	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 - B4100 (W)	249	0	1275	0.196	249	0.3	3.652	A
2 - B4100 (E)	184	0	1274	0.144	184	0.2	3.402	A
3 - Site Arm 3	0	184	1225	0.000	0	0.0	0.000	A

2019 Baseline + Committed, 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	Eastern Site Roundabout	Standard Roundabout		1, 2, 3	3.93	A

Junction Network

Driving side	Lighting	Res Cap (%)	First arm reaching threshold	Network delay (s)	Network LOS
Left	Normal/unknown	204	2 - B4100 (E)	3.93	A

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	2019 Baseline + Committed	PM	ONE HOUR	16:45	18:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Av. Demand (PCU/hr)	Scaling Factor (%)
1 - B4100 (W)		✓	248	100.000
2 - B4100 (E)		✓	355	100.000
3 - Site Arm 3		✓	0	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		1 - B4100 (W)	2 - B4100 (E)	3 - Site Arm 3
From	1 - B4100 (W)	0	248	0
	2 - B4100 (E)	355	0	0
	3 - Site Arm 3	0	0	0

Vehicle Mix

HV %s

		To		
		1 - B4100 (W)	2 - B4100 (E)	3 - Site Arm 3
From	1 - B4100 (W)	0	2	0
	2 - B4100 (E)	1	0	0
	3 - Site Arm 3	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Q (PCU)	Max LOS
1 - B4100 (W)	0.21	3.66	0.3	A
2 - B4100 (E)	0.31	4.12	0.4	A
3 - Site Arm 3	0.00	0.00	0.0	A

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - B4100 (W)	187	0	1275	0.146	186	0.2	3.371	A
2 - B4100 (E)	267	0	1274	0.210	266	0.3	3.604	A
3 - Site Arm 3	0	266	1177	0.000	0	0.0	0.000	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - B4100 (W)	223	0	1275	0.175	223	0.2	3.490	A
2 - B4100 (E)	319	0	1274	0.250	319	0.3	3.805	A
3 - Site Arm 3	0	319	1147	0.000	0	0.0	0.000	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 - B4100 (W)	273	0	1275	0.214	273	0.3	3.665	A
2 - B4100 (E)	391	0	1274	0.307	390	0.4	4.112	A
3 - Site Arm 3	0	390	1105	0.000	0	0.0	0.000	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 - B4100 (W)	273	0	1275	0.214	273	0.3	3.665	A
2 - B4100 (E)	391	0	1274	0.307	391	0.4	4.115	A
3 - Site Arm 3	0	391	1105	0.000	0	0.0	0.000	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 - B4100 (W)	223	0	1275	0.175	223	0.2	3.492	A
2 - B4100 (E)	319	0	1274	0.250	320	0.3	3.809	A
3 - Site Arm 3	0	320	1146	0.000	0	0.0	0.000	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 - B4100 (W)	187	0	1275	0.146	187	0.2	3.375	A
2 - B4100 (E)	267	0	1274	0.210	268	0.3	3.611	A
3 - Site Arm 3	0	268	1176	0.000	0	0.0	0.000	A

2019 Baseline + Committed + Western Development, 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	Eastern Site Roundabout	Standard Roundabout		1, 2, 3	4.42	A

Junction Network

Driving side	Lighting	Res Cap (%)	First arm reaching threshold	Network delay (s)	Network LOS
Left	Normal/unknown	180	1 - B4100 (W)	4.42	A

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	2019 Baseline + Committed + Western Development	AM	ONE HOUR	07:45	09:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Av. Demand (PCU/hr)	Scaling Factor (%)
1 - B4100 (W)		✓	340	100.000
2 - B4100 (E)		✓	360	100.000
3 - Site Arm 3		✓	85	100.000

Origin-Destination Data

Demand (PCU/hr)

From	To		
	1 - B4100 (W)	2 - B4100 (E)	3 - Site Arm 3
1 - B4100 (W)	0	331	9
2 - B4100 (E)	244	0	116
3 - Site Arm 3	5	80	0

Vehicle Mix

HV %s

From	To		
	1 - B4100 (W)	2 - B4100 (E)	3 - Site Arm 3
1 - B4100 (W)	0	4	0
2 - B4100 (E)	3	0	20
3 - Site Arm 3	0	34	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Q (PCU)	Max LOS
1 - B4100 (W)	0.31	4.39	0.5	A
2 - B4100 (E)	0.31	4.45	0.5	A
3 - Site Arm 3	0.08	4.37	0.1	A

Main Results for each time segment

07:45 - 08:00

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 - B4100 (W)	256	60	1242	0.206	255	0.3	3.787	A
2 - B4100 (E)	271	7	1271	0.213	270	0.3	3.879	A
3 - Site Arm 3	64	183	1225	0.052	64	0.1	4.070	A

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 - B4100 (W)	306	72	1235	0.247	305	0.3	4.022	A
2 - B4100 (E)	324	8	1270	0.255	323	0.4	4.104	A
3 - Site Arm 3	76	219	1204	0.063	76	0.1	4.192	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 - B4100 (W)	374	88	1226	0.305	374	0.5	4.386	A
2 - B4100 (E)	396	10	1269	0.312	396	0.5	4.449	A
3 - Site Arm 3	94	268	1176	0.080	93	0.1	4.369	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 - B4100 (W)	374	88	1226	0.305	374	0.5	4.390	A
2 - B4100 (E)	396	10	1269	0.312	396	0.5	4.453	A
3 - Site Arm 3	94	269	1176	0.080	94	0.1	4.370	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 - B4100 (W)	306	72	1235	0.248	306	0.3	4.028	A
2 - B4100 (E)	324	8	1270	0.255	324	0.4	4.110	A
3 - Site Arm 3	76	220	1204	0.063	77	0.1	4.196	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 - B4100 (W)	256	60	1241	0.206	256	0.3	3.799	A
2 - B4100 (E)	271	7	1270	0.213	271	0.3	3.891	A
3 - Site Arm 3	64	184	1225	0.052	64	0.1	4.076	A

2019 Baseline + Committed + Western Development, 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	Eastern Site Roundabout	Standard Roundabout		1, 2, 3	4.34	A

Junction Network

Driving side	Lighting	Res Cap (%)	First arm reaching threshold	Network delay (s)	Network LOS
Left	Normal/unknown	163	2 - B4100 (E)	4.34	A

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	2019 Baseline + Committed + Western Development	PM	ONE HOUR	16:45	18:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Av. Demand (PCU/hr)	Scaling Factor (%)
1 - B4100 (W)		✓	251	100.000
2 - B4100 (E)		✓	408	100.000
3 - Site Arm 3		✓	142	100.000

Origin-Destination Data

Demand (PCU/hr)

From	To		
	1 - B4100 (W)	2 - B4100 (E)	3 - Site Arm 3
1 - B4100 (W)	0	248	3
2 - B4100 (E)	355	0	53
3 - Site Arm 3	10	132	0

Vehicle Mix

HV %s

From	To		
	1 - B4100 (W)	2 - B4100 (E)	3 - Site Arm 3
1 - B4100 (W)	0	2	0
2 - B4100 (E)	1	0	34
3 - Site Arm 3	0	14	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Q (PCU)	Max LOS
1 - B4100 (W)	0.23	4.00	0.3	A
2 - B4100 (E)	0.35	4.56	0.6	A
3 - Site Arm 3	0.14	4.28	0.2	A

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - B4100 (W)	189	99	1220	0.155	188	0.2	3.556	A
2 - B4100 (E)	307	2	1273	0.241	306	0.3	3.879	A
3 - Site Arm 3	107	266	1177	0.091	106	0.1	3.793	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - B4100 (W)	226	119	1209	0.187	225	0.2	3.731	A
2 - B4100 (E)	367	3	1273	0.288	366	0.4	4.142	A
3 - Site Arm 3	128	319	1147	0.111	128	0.1	3.988	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 - B4100 (W)	276	145	1195	0.231	276	0.3	3.995	A
2 - B4100 (E)	449	3	1272	0.353	449	0.6	4.557	A
3 - Site Arm 3	156	390	1105	0.141	156	0.2	4.282	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 - B4100 (W)	276	145	1195	0.231	276	0.3	3.997	A
2 - B4100 (E)	449	3	1272	0.353	449	0.6	4.562	A
3 - Site Arm 3	156	391	1105	0.142	156	0.2	4.283	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 - B4100 (W)	226	119	1209	0.187	226	0.2	3.733	A
2 - B4100 (E)	367	3	1273	0.288	367	0.4	4.150	A
3 - Site Arm 3	128	320	1146	0.111	128	0.1	3.991	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 - B4100 (W)	189	99	1220	0.155	189	0.2	3.564	A
2 - B4100 (E)	307	2	1273	0.241	308	0.3	3.893	A
3 - Site Arm 3	107	268	1176	0.091	107	0.1	3.800	A

2019 Baseline + Committed + Both Developments, 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	Eastern Site Roundabout	Standard Roundabout		1, 2, 3	4.45	A

Junction Network

Driving side	Lighting	Res Cap (%)	First arm reaching threshold	Network delay (s)	Network LOS
Left	Normal/unknown	176	1 - B4100 (W)	4.45	A

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	2019 Baseline + Committed + Both Developments	AM	ONE HOUR	07:45	09:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Av. Demand (PCU/hr)	Scaling Factor (%)
1 - B4100 (W)		✓	345	100.000
2 - B4100 (E)		✓	366	100.000
3 - Site Arm 3		✓	85	100.000

Origin-Destination Data

Demand (PCU/hr)

From	To		
	1 - B4100 (W)	2 - B4100 (E)	3 - Site Arm 3
1 - B4100 (W)	0	336	9
2 - B4100 (E)	247	0	119
3 - Site Arm 3	5	80	0

Vehicle Mix

HV %s

From	To		
	1 - B4100 (W)	2 - B4100 (E)	3 - Site Arm 3
1 - B4100 (W)	0	4	0
2 - B4100 (E)	3	0	20
3 - Site Arm 3	0	34	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Q (PCU)	Max LOS
1 - B4100 (W)	0.31	4.42	0.5	A
2 - B4100 (E)	0.32	4.49	0.5	A
3 - Site Arm 3	0.08	4.38	0.1	A

Main Results for each time segment

07:45 - 08:00

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 - B4100 (W)	260	60	1242	0.209	259	0.3	3.802	A
2 - B4100 (E)	276	7	1271	0.217	274	0.3	3.897	A
3 - Site Arm 3	64	185	1224	0.052	64	0.1	4.075	A

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 - B4100 (W)	310	72	1235	0.251	310	0.3	4.041	A
2 - B4100 (E)	329	8	1270	0.259	329	0.4	4.129	A
3 - Site Arm 3	76	222	1203	0.064	76	0.1	4.198	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 - B4100 (W)	380	88	1226	0.310	379	0.5	4.415	A
2 - B4100 (E)	403	10	1269	0.318	402	0.5	4.485	A
3 - Site Arm 3	94	272	1174	0.080	93	0.1	4.377	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 - B4100 (W)	380	88	1226	0.310	380	0.5	4.419	A
2 - B4100 (E)	403	10	1269	0.318	403	0.5	4.489	A
3 - Site Arm 3	94	272	1174	0.080	94	0.1	4.378	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 - B4100 (W)	310	72	1235	0.251	311	0.4	4.049	A
2 - B4100 (E)	329	8	1270	0.259	330	0.4	4.135	A
3 - Site Arm 3	76	222	1202	0.064	77	0.1	4.200	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 - B4100 (W)	260	60	1241	0.209	260	0.3	3.811	A
2 - B4100 (E)	276	7	1270	0.217	276	0.3	3.910	A
3 - Site Arm 3	64	186	1223	0.052	64	0.1	4.079	A

2019 Baseline + Committed + Both Developments, 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	Eastern Site Roundabout	Standard Roundabout		1, 2, 3	4.36	A

Junction Network

Driving side	Lighting	Res Cap (%)	First arm reaching threshold	Network delay (s)	Network LOS
Left	Normal/unknown	159	2 - B4100 (E)	4.36	A

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	2019 Baseline + Committed + Both Developments	PM	ONE HOUR	16:45	18:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Av. Demand (PCU/hr)	Scaling Factor (%)
1 - B4100 (W)		✓	253	100.000
2 - B4100 (E)		✓	414	100.000
3 - Site Arm 3		✓	142	100.000

Origin-Destination Data

Demand (PCU/hr)

From	To		
	1 - B4100 (W)	2 - B4100 (E)	3 - Site Arm 3
1 - B4100 (W)	0	250	3
2 - B4100 (E)	361	0	53
3 - Site Arm 3	10	132	0

Vehicle Mix

HV %s

From	To		
	1 - B4100 (W)	2 - B4100 (E)	3 - Site Arm 3
1 - B4100 (W)	0	2	0
2 - B4100 (E)	1	0	34
3 - Site Arm 3	0	14	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Q (PCU)	Max LOS
1 - B4100 (W)	0.23	4.01	0.3	A
2 - B4100 (E)	0.36	4.60	0.6	A
3 - Site Arm 3	0.14	4.30	0.2	A

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - B4100 (W)	190	99	1220	0.156	190	0.2	3.561	A
2 - B4100 (E)	312	2	1273	0.245	310	0.3	3.894	A
3 - Site Arm 3	107	271	1175	0.091	106	0.1	3.802	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - B4100 (W)	227	119	1209	0.188	227	0.2	3.737	A
2 - B4100 (E)	372	3	1273	0.292	372	0.4	4.165	A
3 - Site Arm 3	128	324	1144	0.112	128	0.1	4.000	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 - B4100 (W)	279	145	1195	0.233	278	0.3	4.005	A
2 - B4100 (E)	456	3	1272	0.358	455	0.6	4.591	A
3 - Site Arm 3	156	397	1101	0.142	156	0.2	4.299	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 - B4100 (W)	279	145	1195	0.233	279	0.3	4.007	A
2 - B4100 (E)	456	3	1272	0.358	456	0.6	4.597	A
3 - Site Arm 3	156	397	1101	0.142	156	0.2	4.301	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 - B4100 (W)	227	119	1209	0.188	228	0.2	3.743	A
2 - B4100 (E)	372	3	1273	0.292	373	0.4	4.175	A
3 - Site Arm 3	128	325	1143	0.112	128	0.1	4.005	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 - B4100 (W)	190	99	1220	0.156	191	0.2	3.569	A
2 - B4100 (E)	312	2	1273	0.245	312	0.3	3.908	A
3 - Site Arm 3	107	272	1174	0.091	107	0.1	3.812	A

2025 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	Eastern Site Roundabout	Standard Roundabout		1, 2, 3	4.03	A

Junction Network

Driving side	Lighting	Res Cap (%)	First arm reaching threshold	Network delay (s)	Network LOS
Left	Normal/unknown	204	1 - B4100 (W)	4.03	A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D9	2025 Baseline	AM	ONE HOUR	07:45	09:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Av. Demand (PCU/hr)	Scaling Factor (%)
1 - B4100 (W)		✓	354	100.000
2 - B4100 (E)		✓	261	100.000
3 - Site Arm 3		✓	0	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		1 - B4100 (W)	2 - B4100 (E)	3 - Site Arm 3
From	1 - B4100 (W)	0	354	0
	2 - B4100 (E)	261	0	0
	3 - Site Arm 3	0	0	0

Vehicle Mix

HV %s

		To		
		1 - B4100 (W)	2 - B4100 (E)	3 - Site Arm 3
From	1 - B4100 (W)	0	4	0
	2 - B4100 (E)	3	0	0
	3 - Site Arm 3	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Q (PCU)	Max LOS
1 - B4100 (W)	0.31	4.23	0.5	A
2 - B4100 (E)	0.23	3.76	0.3	A
3 - Site Arm 3	0.00	0.00	0.0	A

Main Results for each time segment

07:45 - 08:00

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 - B4100 (W)	267	0	1275	0.209	265	0.3	3.707	A
2 - B4100 (E)	196	0	1274	0.154	196	0.2	3.436	A
3 - Site Arm 3	0	196	1218	0.000	0	0.0	0.000	A

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 - B4100 (W)	318	0	1275	0.250	318	0.3	3.913	A
2 - B4100 (E)	235	0	1274	0.184	234	0.2	3.565	A
3 - Site Arm 3	0	234	1195	0.000	0	0.0	0.000	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 - B4100 (W)	390	0	1275	0.306	389	0.5	4.227	A
2 - B4100 (E)	287	0	1274	0.226	287	0.3	3.756	A
3 - Site Arm 3	0	287	1165	0.000	0	0.0	0.000	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 - B4100 (W)	390	0	1275	0.306	390	0.5	4.230	A
2 - B4100 (E)	287	0	1274	0.226	287	0.3	3.756	A
3 - Site Arm 3	0	287	1165	0.000	0	0.0	0.000	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 - B4100 (W)	318	0	1275	0.250	319	0.3	3.918	A
2 - B4100 (E)	235	0	1274	0.184	235	0.2	3.570	A
3 - Site Arm 3	0	235	1195	0.000	0	0.0	0.000	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 - B4100 (W)	267	0	1275	0.209	267	0.3	3.715	A
2 - B4100 (E)	196	0	1274	0.154	197	0.2	3.440	A
3 - Site Arm 3	0	197	1217	0.000	0	0.0	0.000	A

2025 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	Eastern Site Roundabout	Standard Roundabout		1, 2, 3	4.05	A

Junction Network

Driving side	Lighting	Res Cap (%)	First arm reaching threshold	Network delay (s)	Network LOS
Left	Normal/unknown	182	2 - B4100 (E)	4.05	A

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	2025 Baseline	PM	ONE HOUR	16:45	18:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Av. Demand (PCU/hr)	Scaling Factor (%)
1 - B4100 (W)		✓	267	100.000
2 - B4100 (E)		✓	382	100.000
3 - Site Arm 3		✓	0	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		1 - B4100 (W)	2 - B4100 (E)	3 - Site Arm 3
From	1 - B4100 (W)	0	267	0
	2 - B4100 (E)	382	0	0
	3 - Site Arm 3	0	0	0

Vehicle Mix

HV %s

		To		
		1 - B4100 (W)	2 - B4100 (E)	3 - Site Arm 3
From	1 - B4100 (W)	0	2	0
	2 - B4100 (E)	1	0	0
	3 - Site Arm 3	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Q (PCU)	Max LOS
1 - B4100 (W)	0.23	3.74	0.3	A
2 - B4100 (E)	0.33	4.26	0.5	A
3 - Site Arm 3	0.00	0.00	0.0	A

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - B4100 (W)	201	0	1275	0.158	200	0.2	3.416	A
2 - B4100 (E)	288	0	1274	0.226	286	0.3	3.675	A
3 - Site Arm 3	0	286	1165	0.000	0	0.0	0.000	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - B4100 (W)	240	0	1275	0.188	240	0.2	3.548	A
2 - B4100 (E)	343	0	1274	0.270	343	0.4	3.904	A
3 - Site Arm 3	0	343	1133	0.000	0	0.0	0.000	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 - B4100 (W)	294	0	1275	0.231	294	0.3	3.743	A
2 - B4100 (E)	421	0	1274	0.330	420	0.5	4.253	A
3 - Site Arm 3	0	420	1088	0.000	0	0.0	0.000	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 - B4100 (W)	294	0	1275	0.231	294	0.3	3.743	A
2 - B4100 (E)	421	0	1274	0.330	421	0.5	4.258	A
3 - Site Arm 3	0	421	1088	0.000	0	0.0	0.000	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 - B4100 (W)	240	0	1275	0.188	240	0.2	3.550	A
2 - B4100 (E)	343	0	1274	0.270	344	0.4	3.909	A
3 - Site Arm 3	0	344	1132	0.000	0	0.0	0.000	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 - B4100 (W)	201	0	1275	0.158	201	0.2	3.423	A
2 - B4100 (E)	288	0	1274	0.226	288	0.3	3.686	A
3 - Site Arm 3	0	288	1165	0.000	0	0.0	0.000	A

2025 Baseline + Committed, 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	Eastern Site Roundabout	Standard Roundabout		1, 2, 3	4.03	A

Junction Network

Driving side	Lighting	Res Cap (%)	First arm reaching threshold	Network delay (s)	Network LOS
Left	Normal/unknown	204	1 - B4100 (W)	4.03	A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D11	2025 Baseline + Committed	AM	ONE HOUR	07:45	09:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Av. Demand (PCU/hr)	Scaling Factor (%)
1 - B4100 (W)		✓	354	100.000
2 - B4100 (E)		✓	261	100.000
3 - Site Arm 3		✓	0	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		1 - B4100 (W)	2 - B4100 (E)	3 - Site Arm 3
From	1 - B4100 (W)	0	354	0
	2 - B4100 (E)	261	0	0
	3 - Site Arm 3	0	0	0

Vehicle Mix

HV %s

		To		
		1 - B4100 (W)	2 - B4100 (E)	3 - Site Arm 3
From	1 - B4100 (W)	0	4	0
	2 - B4100 (E)	3	0	0
	3 - Site Arm 3	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Q (PCU)	Max LOS
1 - B4100 (W)	0.31	4.23	0.5	A
2 - B4100 (E)	0.23	3.76	0.3	A
3 - Site Arm 3	0.00	0.00	0.0	A

Main Results for each time segment

07:45 - 08:00

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 - B4100 (W)	267	0	1275	0.209	265	0.3	3.707	A
2 - B4100 (E)	196	0	1274	0.154	196	0.2	3.436	A
3 - Site Arm 3	0	196	1218	0.000	0	0.0	0.000	A

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 - B4100 (W)	318	0	1275	0.250	318	0.3	3.913	A
2 - B4100 (E)	235	0	1274	0.184	234	0.2	3.565	A
3 - Site Arm 3	0	234	1195	0.000	0	0.0	0.000	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 - B4100 (W)	390	0	1275	0.306	389	0.5	4.227	A
2 - B4100 (E)	287	0	1274	0.226	287	0.3	3.756	A
3 - Site Arm 3	0	287	1165	0.000	0	0.0	0.000	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 - B4100 (W)	390	0	1275	0.306	390	0.5	4.230	A
2 - B4100 (E)	287	0	1274	0.226	287	0.3	3.756	A
3 - Site Arm 3	0	287	1165	0.000	0	0.0	0.000	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 - B4100 (W)	318	0	1275	0.250	319	0.3	3.918	A
2 - B4100 (E)	235	0	1274	0.184	235	0.2	3.570	A
3 - Site Arm 3	0	235	1195	0.000	0	0.0	0.000	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 - B4100 (W)	267	0	1275	0.209	267	0.3	3.715	A
2 - B4100 (E)	196	0	1274	0.154	197	0.2	3.440	A
3 - Site Arm 3	0	197	1217	0.000	0	0.0	0.000	A

2025 Baseline + Committed, 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	Eastern Site Roundabout	Standard Roundabout		1, 2, 3	4.05	A

Junction Network

Driving side	Lighting	Res Cap (%)	First arm reaching threshold	Network delay (s)	Network LOS
Left	Normal/unknown	182	2 - B4100 (E)	4.05	A

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	2025 Baseline + Committed	PM	ONE HOUR	16:45	18:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Av. Demand (PCU/hr)	Scaling Factor (%)
1 - B4100 (W)		✓	267	100.000
2 - B4100 (E)		✓	382	100.000
3 - Site Arm 3		✓	0	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		1 - B4100 (W)	2 - B4100 (E)	3 - Site Arm 3
From	1 - B4100 (W)	0	267	0
	2 - B4100 (E)	382	0	0
	3 - Site Arm 3	0	0	0

Vehicle Mix

HV %s

		To		
		1 - B4100 (W)	2 - B4100 (E)	3 - Site Arm 3
From	1 - B4100 (W)	0	2	0
	2 - B4100 (E)	1	0	0
	3 - Site Arm 3	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Q (PCU)	Max LOS
1 - B4100 (W)	0.23	3.74	0.3	A
2 - B4100 (E)	0.33	4.26	0.5	A
3 - Site Arm 3	0.00	0.00	0.0	A

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - B4100 (W)	201	0	1275	0.158	200	0.2	3.416	A
2 - B4100 (E)	288	0	1274	0.226	286	0.3	3.675	A
3 - Site Arm 3	0	286	1165	0.000	0	0.0	0.000	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - B4100 (W)	240	0	1275	0.188	240	0.2	3.548	A
2 - B4100 (E)	343	0	1274	0.270	343	0.4	3.904	A
3 - Site Arm 3	0	343	1133	0.000	0	0.0	0.000	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 - B4100 (W)	294	0	1275	0.231	294	0.3	3.743	A
2 - B4100 (E)	421	0	1274	0.330	420	0.5	4.253	A
3 - Site Arm 3	0	420	1088	0.000	0	0.0	0.000	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 - B4100 (W)	294	0	1275	0.231	294	0.3	3.743	A
2 - B4100 (E)	421	0	1274	0.330	421	0.5	4.258	A
3 - Site Arm 3	0	421	1088	0.000	0	0.0	0.000	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 - B4100 (W)	240	0	1275	0.188	240	0.2	3.550	A
2 - B4100 (E)	343	0	1274	0.270	344	0.4	3.909	A
3 - Site Arm 3	0	344	1132	0.000	0	0.0	0.000	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 - B4100 (W)	201	0	1275	0.158	201	0.2	3.423	A
2 - B4100 (E)	288	0	1274	0.226	288	0.3	3.686	A
3 - Site Arm 3	0	288	1165	0.000	0	0.0	0.000	A

2025 Baseline + Committed + Western Development, 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	Eastern Site Roundabout	Standard Roundabout		1, 2, 3	4.53	A

Junction Network

Driving side	Lighting	Res Cap (%)	First arm reaching threshold	Network delay (s)	Network LOS
Left	Normal/unknown	164	1 - B4100 (W)	4.53	A

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	2025 Baseline + Committed + Western Development	AM	ONE HOUR	07:45	09:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Av. Demand (PCU/hr)	Scaling Factor (%)
1 - B4100 (W)		✓	363	100.000
2 - B4100 (E)		✓	380	100.000
3 - Site Arm 3		✓	85	100.000

Origin-Destination Data

Demand (PCU/hr)

From	To		
	1 - B4100 (W)	2 - B4100 (E)	3 - Site Arm 3
1 - B4100 (W)	0	354	9
2 - B4100 (E)	261	0	119
3 - Site Arm 3	5	80	0

Vehicle Mix

HV %s

From	To		
	1 - B4100 (W)	2 - B4100 (E)	3 - Site Arm 3
1 - B4100 (W)	0	4	0
2 - B4100 (E)	3	0	20
3 - Site Arm 3	0	34	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Q (PCU)	Max LOS
1 - B4100 (W)	0.33	4.52	0.5	A
2 - B4100 (E)	0.33	4.56	0.5	A
3 - Site Arm 3	0.08	4.41	0.1	A

Main Results for each time segment

07:45 - 08:00

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 - B4100 (W)	273	60	1242	0.220	272	0.3	3.853	A
2 - B4100 (E)	286	7	1271	0.225	285	0.3	3.932	A
3 - Site Arm 3	64	196	1218	0.053	64	0.1	4.096	A

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 - B4100 (W)	326	72	1235	0.264	326	0.4	4.114	A
2 - B4100 (E)	342	8	1270	0.269	341	0.4	4.178	A
3 - Site Arm 3	76	234	1195	0.064	76	0.1	4.225	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 - B4100 (W)	400	88	1226	0.326	399	0.5	4.519	A
2 - B4100 (E)	418	10	1269	0.330	418	0.5	4.557	A
3 - Site Arm 3	94	287	1165	0.080	93	0.1	4.413	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 - B4100 (W)	400	88	1226	0.326	400	0.5	4.525	A
2 - B4100 (E)	418	10	1269	0.330	418	0.5	4.562	A
3 - Site Arm 3	94	287	1165	0.080	94	0.1	4.414	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 - B4100 (W)	326	72	1235	0.264	327	0.4	4.122	A
2 - B4100 (E)	342	8	1270	0.269	342	0.4	4.184	A
3 - Site Arm 3	76	235	1195	0.064	77	0.1	4.229	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 - B4100 (W)	273	60	1241	0.220	274	0.3	3.867	A
2 - B4100 (E)	286	7	1270	0.225	286	0.3	3.944	A
3 - Site Arm 3	64	197	1217	0.053	64	0.1	4.102	A

2025 Baseline + Committed + Western Development, 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	Eastern Site Roundabout	Standard Roundabout		1, 2, 3	4.46	A

Junction Network

Driving side	Lighting	Res Cap (%)	First arm reaching threshold	Network delay (s)	Network LOS
Left	Normal/unknown	146	2 - B4100 (E)	4.46	A

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	2025 Baseline + Committed + Western Development	PM	ONE HOUR	16:45	18:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Av. Demand (PCU/hr)	Scaling Factor (%)
1 - B4100 (W)		✓	270	100.000
2 - B4100 (E)		✓	435	100.000
3 - Site Arm 3		✓	142	100.000

Origin-Destination Data

Demand (PCU/hr)

From	To		
	1 - B4100 (W)	2 - B4100 (E)	3 - Site Arm 3
1 - B4100 (W)	0	267	3
2 - B4100 (E)	382	0	53
3 - Site Arm 3	10	132	0

Vehicle Mix

HV %s

From	To		
	1 - B4100 (W)	2 - B4100 (E)	3 - Site Arm 3
1 - B4100 (W)	0	2	0
2 - B4100 (E)	1	0	34
3 - Site Arm 3	0	14	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Q (PCU)	Max LOS
1 - B4100 (W)	0.25	4.09	0.3	A
2 - B4100 (E)	0.38	4.72	0.6	A
3 - Site Arm 3	0.14	4.36	0.2	A

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - B4100 (W)	203	99	1220	0.167	202	0.2	3.603	A
2 - B4100 (E)	327	2	1273	0.257	326	0.4	3.953	A
3 - Site Arm 3	107	286	1165	0.092	106	0.1	3.835	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - B4100 (W)	243	119	1209	0.201	243	0.3	3.797	A
2 - B4100 (E)	391	3	1273	0.307	391	0.5	4.247	A
3 - Site Arm 3	128	343	1133	0.113	128	0.1	4.043	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 - B4100 (W)	297	145	1195	0.249	297	0.3	4.089	A
2 - B4100 (E)	479	3	1272	0.376	478	0.6	4.716	A
3 - Site Arm 3	156	420	1088	0.144	156	0.2	4.359	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 - B4100 (W)	297	145	1195	0.249	297	0.3	4.091	A
2 - B4100 (E)	479	3	1272	0.376	479	0.6	4.723	A
3 - Site Arm 3	156	421	1088	0.144	156	0.2	4.363	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 - B4100 (W)	243	119	1209	0.201	243	0.3	3.800	A
2 - B4100 (E)	391	3	1273	0.307	392	0.5	4.257	A
3 - Site Arm 3	128	344	1132	0.113	128	0.1	4.048	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 - B4100 (W)	203	99	1220	0.167	203	0.2	3.612	A
2 - B4100 (E)	327	2	1273	0.257	328	0.4	3.967	A
3 - Site Arm 3	107	288	1164	0.092	107	0.1	3.844	A

2025 Baseline + Committed + Both Developments, 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	Eastern Site Roundabout	Standard Roundabout		1, 2, 3	4.55	A

Junction Network

Driving side	Lighting	Res Cap (%)	First arm reaching threshold	Network delay (s)	Network LOS
Left	Normal/unknown	161	1 - B4100 (W)	4.55	A

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)
D15	2025 Baseline + Committed + Both Developments	AM	ONE HOUR	07:45	09:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Av. Demand (PCU/hr)	Scaling Factor (%)
1 - B4100 (W)		✓	368	100.000
2 - B4100 (E)		✓	383	100.000
3 - Site Arm 3		✓	85	100.000

Origin-Destination Data

Demand (PCU/hr)

From	To		
	1 - B4100 (W)	2 - B4100 (E)	3 - Site Arm 3
1 - B4100 (W)	0	359	9
2 - B4100 (E)	264	0	119
3 - Site Arm 3	5	80	0

Vehicle Mix

HV %s

From	To		
	1 - B4100 (W)	2 - B4100 (E)	3 - Site Arm 3
1 - B4100 (W)	0	4	0
2 - B4100 (E)	3	0	20
3 - Site Arm 3	0	34	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Q (PCU)	Max LOS
1 - B4100 (W)	0.33	4.56	0.5	A
2 - B4100 (E)	0.33	4.58	0.5	A
3 - Site Arm 3	0.08	4.42	0.1	A

Main Results for each time segment

07:45 - 08:00

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 - B4100 (W)	277	60	1242	0.223	276	0.3	3.868	A
2 - B4100 (E)	288	7	1271	0.227	287	0.3	3.939	A
3 - Site Arm 3	64	198	1217	0.053	64	0.1	4.101	A

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 - B4100 (W)	331	72	1235	0.268	331	0.4	4.134	A
2 - B4100 (E)	344	8	1270	0.271	344	0.4	4.189	A
3 - Site Arm 3	76	237	1194	0.064	76	0.1	4.231	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 - B4100 (W)	405	88	1226	0.330	405	0.5	4.550	A
2 - B4100 (E)	422	10	1269	0.332	421	0.5	4.573	A
3 - Site Arm 3	94	290	1163	0.080	93	0.1	4.421	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 - B4100 (W)	405	88	1226	0.330	405	0.5	4.555	A
2 - B4100 (E)	422	10	1269	0.332	422	0.5	4.578	A
3 - Site Arm 3	94	291	1163	0.080	94	0.1	4.422	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 - B4100 (W)	331	72	1235	0.268	331	0.4	4.143	A
2 - B4100 (E)	344	8	1270	0.271	345	0.4	4.197	A
3 - Site Arm 3	76	238	1194	0.064	77	0.1	4.235	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 - B4100 (W)	277	60	1241	0.223	277	0.3	3.882	A
2 - B4100 (E)	288	7	1270	0.227	289	0.3	3.953	A
3 - Site Arm 3	64	199	1216	0.053	64	0.1	4.105	A

2025 Baseline + Committed + Both Developments, 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	Eastern Site Roundabout	Standard Roundabout		1, 2, 3	4.48	A

Junction Network

Driving side	Lighting	Res Cap (%)	First arm reaching threshold	Network delay (s)	Network LOS
Left	Normal/unknown	144	2 - B4100 (E)	4.48	A

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)
D16	2025 Baseline + Committed + Both Developments	PM	ONE HOUR	16:45	18:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Av. Demand (PCU/hr)	Scaling Factor (%)
1 - B4100 (W)		✓	271	100.000
2 - B4100 (E)		✓	440	100.000
3 - Site Arm 3		✓	142	100.000

Origin-Destination Data

Demand (PCU/hr)

From	To		
	1 - B4100 (W)	2 - B4100 (E)	3 - Site Arm 3
1 - B4100 (W)	0	268	3
2 - B4100 (E)	387	0	53
3 - Site Arm 3	10	132	0

Vehicle Mix

HV %s

From	To		
	1 - B4100 (W)	2 - B4100 (E)	3 - Site Arm 3
1 - B4100 (W)	0	2	0
2 - B4100 (E)	1	0	34
3 - Site Arm 3	0	14	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Q (PCU)	Max LOS
1 - B4100 (W)	0.25	4.10	0.3	A
2 - B4100 (E)	0.38	4.75	0.6	A
3 - Site Arm 3	0.14	4.38	0.2	A

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - B4100 (W)	204	99	1220	0.167	203	0.2	3.606	A
2 - B4100 (E)	331	2	1273	0.260	330	0.4	3.967	A
3 - Site Arm 3	107	290	1163	0.092	106	0.1	3.843	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - B4100 (W)	244	119	1209	0.201	243	0.3	3.800	A
2 - B4100 (E)	396	3	1273	0.311	395	0.5	4.267	A
3 - Site Arm 3	128	348	1130	0.113	128	0.1	4.054	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 - B4100 (W)	298	145	1195	0.250	298	0.3	4.094	A
2 - B4100 (E)	484	3	1272	0.381	484	0.6	4.747	A
3 - Site Arm 3	156	426	1085	0.144	156	0.2	4.374	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 - B4100 (W)	298	145	1195	0.250	298	0.3	4.096	A
2 - B4100 (E)	484	3	1272	0.381	484	0.6	4.754	A
3 - Site Arm 3	156	426	1085	0.144	156	0.2	4.378	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 - B4100 (W)	244	119	1209	0.201	244	0.3	3.806	A
2 - B4100 (E)	396	3	1273	0.311	396	0.5	4.277	A
3 - Site Arm 3	128	348	1129	0.113	128	0.1	4.059	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 - B4100 (W)	204	99	1220	0.167	204	0.2	3.614	A
2 - B4100 (E)	331	2	1273	0.260	332	0.4	3.982	A
3 - Site Arm 3	107	292	1162	0.092	107	0.1	3.851	A

2031 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	Eastern Site Roundabout	Standard Roundabout		1, 2, 3	4.09	A

Junction Network

Driving side	Lighting	Res Cap (%)	First arm reaching threshold	Network delay (s)	Network LOS
Left	Normal/unknown	192	1 - B4100 (W)	4.09	A

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)
D17	2031 Baseline	AM	ONE HOUR	07:45	09:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Av. Demand (PCU/hr)	Scaling Factor (%)
1 - B4100 (W)		✓	368	100.000
2 - B4100 (E)		✓	271	100.000
3 - Site Arm 3		✓	0	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		1 - B4100 (W)	2 - B4100 (E)	3 - Site Arm 3
From	1 - B4100 (W)	0	368	0
	2 - B4100 (E)	271	0	0
	3 - Site Arm 3	0	0	0

Vehicle Mix

HV %s

		To		
		1 - B4100 (W)	2 - B4100 (E)	3 - Site Arm 3
From	1 - B4100 (W)	0	4	0
	2 - B4100 (E)	3	0	0
	3 - Site Arm 3	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Q (PCU)	Max LOS
1 - B4100 (W)	0.32	4.31	0.5	A
2 - B4100 (E)	0.23	3.80	0.3	A
3 - Site Arm 3	0.00	0.00	0.0	A

Main Results for each time segment

07:45 - 08:00

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 - B4100 (W)	277	0	1275	0.217	276	0.3	3.746	A
2 - B4100 (E)	204	0	1274	0.160	203	0.2	3.461	A
3 - Site Arm 3	0	203	1214	0.000	0	0.0	0.000	A

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 - B4100 (W)	331	0	1275	0.260	331	0.4	3.965	A
2 - B4100 (E)	244	0	1274	0.191	243	0.2	3.596	A
3 - Site Arm 3	0	243	1190	0.000	0	0.0	0.000	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 - B4100 (W)	405	0	1275	0.318	405	0.5	4.302	A
2 - B4100 (E)	298	0	1274	0.234	298	0.3	3.798	A
3 - Site Arm 3	0	298	1159	0.000	0	0.0	0.000	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 - B4100 (W)	405	0	1275	0.318	405	0.5	4.305	A
2 - B4100 (E)	298	0	1274	0.234	298	0.3	3.798	A
3 - Site Arm 3	0	298	1158	0.000	0	0.0	0.000	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 - B4100 (W)	331	0	1275	0.260	331	0.4	3.970	A
2 - B4100 (E)	244	0	1274	0.191	244	0.2	3.598	A
3 - Site Arm 3	0	244	1190	0.000	0	0.0	0.000	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 - B4100 (W)	277	0	1275	0.217	277	0.3	3.754	A
2 - B4100 (E)	204	0	1274	0.160	204	0.2	3.465	A
3 - Site Arm 3	0	204	1213	0.000	0	0.0	0.000	A

2031 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	Eastern Site Roundabout	Standard Roundabout		1, 2, 3	4.11	A

Junction Network

Driving side	Lighting	Res Cap (%)	First arm reaching threshold	Network delay (s)	Network LOS
Left	Normal/unknown	172	2 - B4100 (E)	4.11	A

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)
D18	2031 Baseline	PM	ONE HOUR	16:45	18:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Av. Demand (PCU/hr)	Scaling Factor (%)
1 - B4100 (W)		✓	278	100.000
2 - B4100 (E)		✓	397	100.000
3 - Site Arm 3		✓	0	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		1 - B4100 (W)	2 - B4100 (E)	3 - Site Arm 3
From	1 - B4100 (W)	0	278	0
	2 - B4100 (E)	397	0	0
	3 - Site Arm 3	0	0	0

Vehicle Mix

HV %s

		To		
		1 - B4100 (W)	2 - B4100 (E)	3 - Site Arm 3
From	1 - B4100 (W)	0	2	0
	2 - B4100 (E)	1	0	0
	3 - Site Arm 3	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Q (PCU)	Max LOS
1 - B4100 (W)	0.24	3.79	0.3	A
2 - B4100 (E)	0.34	4.34	0.5	A
3 - Site Arm 3	0.00	0.00	0.0	A

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - B4100 (W)	209	0	1275	0.164	208	0.2	3.443	A
2 - B4100 (E)	299	0	1274	0.235	298	0.3	3.718	A
3 - Site Arm 3	0	298	1159	0.000	0	0.0	0.000	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - B4100 (W)	250	0	1275	0.196	250	0.2	3.582	A
2 - B4100 (E)	357	0	1274	0.280	357	0.4	3.961	A
3 - Site Arm 3	0	357	1125	0.000	0	0.0	0.000	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 - B4100 (W)	306	0	1275	0.240	306	0.3	3.790	A
2 - B4100 (E)	437	0	1274	0.343	437	0.5	4.337	A
3 - Site Arm 3	0	437	1078	0.000	0	0.0	0.000	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 - B4100 (W)	306	0	1275	0.240	306	0.3	3.790	A
2 - B4100 (E)	437	0	1274	0.343	437	0.5	4.342	A
3 - Site Arm 3	0	437	1078	0.000	0	0.0	0.000	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 - B4100 (W)	250	0	1275	0.196	250	0.2	3.584	A
2 - B4100 (E)	357	0	1274	0.280	357	0.4	3.967	A
3 - Site Arm 3	0	357	1124	0.000	0	0.0	0.000	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 - B4100 (W)	209	0	1275	0.164	209	0.2	3.449	A
2 - B4100 (E)	299	0	1274	0.235	299	0.3	3.729	A
3 - Site Arm 3	0	299	1158	0.000	0	0.0	0.000	A

2031 Baseline + Committed, 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	Eastern Site Roundabout	Standard Roundabout		1, 2, 3	4.09	A

Junction Network

Driving side	Lighting	Res Cap (%)	First arm reaching threshold	Network delay (s)	Network LOS
Left	Normal/unknown	192	1 - B4100 (W)	4.09	A

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)
D19	2031 Baseline + Committed	AM	ONE HOUR	07:45	09:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Av. Demand (PCU/hr)	Scaling Factor (%)
1 - B4100 (W)		✓	368	100.000
2 - B4100 (E)		✓	271	100.000
3 - Site Arm 3		✓	0	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		1 - B4100 (W)	2 - B4100 (E)	3 - Site Arm 3
From	1 - B4100 (W)	0	368	0
	2 - B4100 (E)	271	0	0
	3 - Site Arm 3	0	0	0

Vehicle Mix

HV %s

		To		
		1 - B4100 (W)	2 - B4100 (E)	3 - Site Arm 3
From	1 - B4100 (W)	0	4	0
	2 - B4100 (E)	3	0	0
	3 - Site Arm 3	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Q (PCU)	Max LOS
1 - B4100 (W)	0.32	4.31	0.5	A
2 - B4100 (E)	0.23	3.80	0.3	A
3 - Site Arm 3	0.00	0.00	0.0	A

Main Results for each time segment

07:45 - 08:00

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 - B4100 (W)	277	0	1275	0.217	276	0.3	3.746	A
2 - B4100 (E)	204	0	1274	0.160	203	0.2	3.461	A
3 - Site Arm 3	0	203	1214	0.000	0	0.0	0.000	A

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 - B4100 (W)	331	0	1275	0.260	331	0.4	3.965	A
2 - B4100 (E)	244	0	1274	0.191	243	0.2	3.596	A
3 - Site Arm 3	0	243	1190	0.000	0	0.0	0.000	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 - B4100 (W)	405	0	1275	0.318	405	0.5	4.302	A
2 - B4100 (E)	298	0	1274	0.234	298	0.3	3.798	A
3 - Site Arm 3	0	298	1159	0.000	0	0.0	0.000	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 - B4100 (W)	405	0	1275	0.318	405	0.5	4.305	A
2 - B4100 (E)	298	0	1274	0.234	298	0.3	3.798	A
3 - Site Arm 3	0	298	1158	0.000	0	0.0	0.000	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 - B4100 (W)	331	0	1275	0.260	331	0.4	3.970	A
2 - B4100 (E)	244	0	1274	0.191	244	0.2	3.598	A
3 - Site Arm 3	0	244	1190	0.000	0	0.0	0.000	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 - B4100 (W)	277	0	1275	0.217	277	0.3	3.754	A
2 - B4100 (E)	204	0	1274	0.160	204	0.2	3.465	A
3 - Site Arm 3	0	204	1213	0.000	0	0.0	0.000	A

2031 Baseline + Committed, 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	Eastern Site Roundabout	Standard Roundabout		1, 2, 3	4.11	A

Junction Network

Driving side	Lighting	Res Cap (%)	First arm reaching threshold	Network delay (s)	Network LOS
Left	Normal/unknown	172	2 - B4100 (E)	4.11	A

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)
D20	2031 Baseline + Committed	PM	ONE HOUR	16:45	18:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Av. Demand (PCU/hr)	Scaling Factor (%)
1 - B4100 (W)		✓	278	100.000
2 - B4100 (E)		✓	397	100.000
3 - Site Arm 3		✓	0	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		1 - B4100 (W)	2 - B4100 (E)	3 - Site Arm 3
From	1 - B4100 (W)	0	278	0
	2 - B4100 (E)	397	0	0
	3 - Site Arm 3	0	0	0

Vehicle Mix

HV %s

		To		
		1 - B4100 (W)	2 - B4100 (E)	3 - Site Arm 3
From	1 - B4100 (W)	0	2	0
	2 - B4100 (E)	1	0	0
	3 - Site Arm 3	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Q (PCU)	Max LOS
1 - B4100 (W)	0.24	3.79	0.3	A
2 - B4100 (E)	0.34	4.34	0.5	A
3 - Site Arm 3	0.00	0.00	0.0	A

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - B4100 (W)	209	0	1275	0.164	208	0.2	3.443	A
2 - B4100 (E)	299	0	1274	0.235	298	0.3	3.718	A
3 - Site Arm 3	0	298	1159	0.000	0	0.0	0.000	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - B4100 (W)	250	0	1275	0.196	250	0.2	3.582	A
2 - B4100 (E)	357	0	1274	0.280	357	0.4	3.961	A
3 - Site Arm 3	0	357	1125	0.000	0	0.0	0.000	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 - B4100 (W)	306	0	1275	0.240	306	0.3	3.790	A
2 - B4100 (E)	437	0	1274	0.343	437	0.5	4.337	A
3 - Site Arm 3	0	437	1078	0.000	0	0.0	0.000	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 - B4100 (W)	306	0	1275	0.240	306	0.3	3.790	A
2 - B4100 (E)	437	0	1274	0.343	437	0.5	4.342	A
3 - Site Arm 3	0	437	1078	0.000	0	0.0	0.000	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 - B4100 (W)	250	0	1275	0.196	250	0.2	3.584	A
2 - B4100 (E)	357	0	1274	0.280	357	0.4	3.967	A
3 - Site Arm 3	0	357	1124	0.000	0	0.0	0.000	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 - B4100 (W)	209	0	1275	0.164	209	0.2	3.449	A
2 - B4100 (E)	299	0	1274	0.235	299	0.3	3.729	A
3 - Site Arm 3	0	299	1158	0.000	0	0.0	0.000	A

2031 Baseline + Committed + Western Development, 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	Eastern Site Roundabout	Standard Roundabout		1, 2, 3	4.60	A

Junction Network

Driving side	Lighting	Res Cap (%)	First arm reaching threshold	Network delay (s)	Network LOS
Left	Normal/unknown	155	1 - B4100 (W)	4.60	A

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)
D21	2031 Baseline + Committed + Western Development	AM	ONE HOUR	07:45	09:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Av. Demand (PCU/hr)	Scaling Factor (%)
1 - B4100 (W)		✓	377	100.000
2 - B4100 (E)		✓	390	100.000
3 - Site Arm 3		✓	85	100.000

Origin-Destination Data

Demand (PCU/hr)

From	To		
	1 - B4100 (W)	2 - B4100 (E)	3 - Site Arm 3
1 - B4100 (W)	0	368	9
2 - B4100 (E)	271	0	119
3 - Site Arm 3	5	80	0

Vehicle Mix

HV %s

From	To		
	1 - B4100 (W)	2 - B4100 (E)	3 - Site Arm 3
1 - B4100 (W)	0	4	0
2 - B4100 (E)	3	0	20
3 - Site Arm 3	0	34	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Q (PCU)	Max LOS
1 - B4100 (W)	0.34	4.61	0.5	A
2 - B4100 (E)	0.34	4.62	0.5	A
3 - Site Arm 3	0.08	4.44	0.1	A

Main Results for each time segment

07:45 - 08:00

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 - B4100 (W)	284	60	1242	0.229	283	0.3	3.895	A
2 - B4100 (E)	294	7	1271	0.231	292	0.3	3.957	A
3 - Site Arm 3	64	203	1214	0.053	64	0.1	4.112	A

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 - B4100 (W)	339	72	1235	0.274	339	0.4	4.172	A
2 - B4100 (E)	351	8	1270	0.276	350	0.4	4.214	A
3 - Site Arm 3	76	243	1190	0.064	76	0.1	4.245	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 - B4100 (W)	415	88	1226	0.339	415	0.5	4.605	A
2 - B4100 (E)	429	10	1269	0.338	429	0.5	4.611	A
3 - Site Arm 3	94	298	1159	0.081	93	0.1	4.439	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 - B4100 (W)	415	88	1226	0.339	415	0.5	4.611	A
2 - B4100 (E)	429	10	1269	0.338	429	0.5	4.616	A
3 - Site Arm 3	94	298	1158	0.081	94	0.1	4.440	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 - B4100 (W)	339	72	1235	0.274	339	0.4	4.179	A
2 - B4100 (E)	351	8	1270	0.276	351	0.4	4.222	A
3 - Site Arm 3	76	244	1190	0.064	77	0.1	4.247	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 - B4100 (W)	284	60	1241	0.229	284	0.3	3.910	A
2 - B4100 (E)	294	7	1270	0.231	294	0.3	3.969	A
3 - Site Arm 3	64	204	1213	0.053	64	0.1	4.116	A

2031 Baseline + Committed + Western Development, 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	Eastern Site Roundabout	Standard Roundabout		1, 2, 3	4.54	A

Junction Network

Driving side	Lighting	Res Cap (%)	First arm reaching threshold	Network delay (s)	Network LOS
Left	Normal/unknown	138	2 - B4100 (E)	4.54	A

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)
D22	2031 Baseline + Committed + Western Development	PM	ONE HOUR	16:45	18:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Av. Demand (PCU/hr)	Scaling Factor (%)
1 - B4100 (W)		✓	281	100.000
2 - B4100 (E)		✓	450	100.000
3 - Site Arm 3		✓	142	100.000

Origin-Destination Data

Demand (PCU/hr)

From	To		
	1 - B4100 (W)	2 - B4100 (E)	3 - Site Arm 3
1 - B4100 (W)	0	278	3
2 - B4100 (E)	397	0	53
3 - Site Arm 3	10	132	0

Vehicle Mix

HV %s

From	To		
	1 - B4100 (W)	2 - B4100 (E)	3 - Site Arm 3
1 - B4100 (W)	0	2	0
2 - B4100 (E)	1	0	34
3 - Site Arm 3	0	14	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Q (PCU)	Max LOS
1 - B4100 (W)	0.26	4.15	0.4	A
2 - B4100 (E)	0.39	4.82	0.7	A
3 - Site Arm 3	0.15	4.41	0.2	A

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - B4100 (W)	212	99	1220	0.173	211	0.2	3.633	A
2 - B4100 (E)	339	2	1273	0.266	337	0.4	3.995	A
3 - Site Arm 3	107	298	1159	0.092	106	0.1	3.859	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - B4100 (W)	253	119	1209	0.209	252	0.3	3.836	A
2 - B4100 (E)	405	3	1273	0.318	404	0.5	4.309	A
3 - Site Arm 3	128	357	1125	0.113	128	0.1	4.075	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 - B4100 (W)	309	145	1195	0.259	309	0.4	4.142	A
2 - B4100 (E)	495	3	1272	0.389	495	0.7	4.811	A
3 - Site Arm 3	156	436	1079	0.145	156	0.2	4.404	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 - B4100 (W)	309	145	1195	0.259	309	0.4	4.147	A
2 - B4100 (E)	495	3	1272	0.389	495	0.7	4.819	A
3 - Site Arm 3	156	437	1078	0.145	156	0.2	4.408	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 - B4100 (W)	253	119	1209	0.209	253	0.3	3.841	A
2 - B4100 (E)	405	3	1273	0.318	405	0.5	4.321	A
3 - Site Arm 3	128	358	1124	0.114	128	0.1	4.079	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 - B4100 (W)	212	99	1220	0.173	212	0.2	3.641	A
2 - B4100 (E)	339	2	1273	0.266	339	0.4	4.011	A
3 - Site Arm 3	107	299	1158	0.092	107	0.1	3.868	A

2031 Baseline + Committed + Both Developments, 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	Eastern Site Roundabout	Standard Roundabout		1, 2, 3	4.62	A

Junction Network

Driving side	Lighting	Res Cap (%)	First arm reaching threshold	Network delay (s)	Network LOS
Left	Normal/unknown	152	1 - B4100 (W)	4.62	A

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)
D23	2031 Baseline + Committed + Both Developments	AM	ONE HOUR	07:45	09:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Av. Demand (PCU/hr)	Scaling Factor (%)
1 - B4100 (W)		✓	382	100.000
2 - B4100 (E)		✓	393	100.000
3 - Site Arm 3		✓	85	100.000

Origin-Destination Data

Demand (PCU/hr)

From	To		
	1 - B4100 (W)	2 - B4100 (E)	3 - Site Arm 3
1 - B4100 (W)	0	373	9
2 - B4100 (E)	274	0	119
3 - Site Arm 3	5	80	0

Vehicle Mix

HV %s

From	To		
	1 - B4100 (W)	2 - B4100 (E)	3 - Site Arm 3
1 - B4100 (W)	0	4	0
2 - B4100 (E)	3	0	20
3 - Site Arm 3	0	34	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Q (PCU)	Max LOS
1 - B4100 (W)	0.34	4.64	0.5	A
2 - B4100 (E)	0.34	4.63	0.6	A
3 - Site Arm 3	0.08	4.45	0.1	A

Main Results for each time segment

07:45 - 08:00

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 - B4100 (W)	288	60	1242	0.232	286	0.3	3.911	A
2 - B4100 (E)	296	7	1271	0.233	295	0.3	3.965	A
3 - Site Arm 3	64	205	1212	0.053	64	0.1	4.116	A

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 - B4100 (W)	343	72	1235	0.278	343	0.4	4.190	A
2 - B4100 (E)	353	8	1270	0.278	353	0.4	4.226	A
3 - Site Arm 3	76	246	1189	0.064	76	0.1	4.251	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 - B4100 (W)	421	88	1226	0.343	420	0.5	4.637	A
2 - B4100 (E)	433	10	1269	0.341	432	0.6	4.627	A
3 - Site Arm 3	94	301	1157	0.081	93	0.1	4.447	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 - B4100 (W)	421	88	1226	0.343	421	0.5	4.643	A
2 - B4100 (E)	433	10	1269	0.341	433	0.6	4.633	A
3 - Site Arm 3	94	302	1157	0.081	94	0.1	4.448	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 - B4100 (W)	343	72	1235	0.278	344	0.4	4.202	A
2 - B4100 (E)	353	8	1270	0.278	354	0.4	4.233	A
3 - Site Arm 3	76	247	1188	0.064	77	0.1	4.255	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 - B4100 (W)	288	60	1241	0.232	288	0.3	3.924	A
2 - B4100 (E)	296	7	1270	0.233	296	0.3	3.977	A
3 - Site Arm 3	64	207	1212	0.053	64	0.1	4.122	A

2031 Baseline + Committed + Both Developments, 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	Eastern Site Roundabout	Standard Roundabout		1, 2, 3	4.56	A

Junction Network

Driving side	Lighting	Res Cap (%)	First arm reaching threshold	Network delay (s)	Network LOS
Left	Normal/unknown	135	2 - B4100 (E)	4.56	A

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)
D24	2031 Baseline + Committed + Both Developments	PM	ONE HOUR	16:45	18:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Av. Demand (PCU/hr)	Scaling Factor (%)
1 - B4100 (W)		✓	282	100.000
2 - B4100 (E)		✓	456	100.000
3 - Site Arm 3		✓	142	100.000

Origin-Destination Data

Demand (PCU/hr)

From	To		
	1 - B4100 (W)	2 - B4100 (E)	3 - Site Arm 3
1 - B4100 (W)	0	279	3
2 - B4100 (E)	403	0	53
3 - Site Arm 3	10	132	0

Vehicle Mix

HV %s

From	To		
	1 - B4100 (W)	2 - B4100 (E)	3 - Site Arm 3
1 - B4100 (W)	0	2	0
2 - B4100 (E)	1	0	34
3 - Site Arm 3	0	14	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Q (PCU)	Max LOS
1 - B4100 (W)	0.26	4.15	0.4	A
2 - B4100 (E)	0.39	4.86	0.7	A
3 - Site Arm 3	0.15	4.43	0.2	A

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - B4100 (W)	212	99	1220	0.174	211	0.2	3.636	A
2 - B4100 (E)	343	2	1273	0.270	342	0.4	4.013	A
3 - Site Arm 3	107	302	1156	0.092	106	0.1	3.869	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - B4100 (W)	254	119	1209	0.210	253	0.3	3.839	A
2 - B4100 (E)	410	3	1273	0.322	409	0.5	4.334	A
3 - Site Arm 3	128	362	1122	0.114	128	0.1	4.088	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 - B4100 (W)	310	145	1195	0.260	310	0.4	4.147	A
2 - B4100 (E)	502	3	1272	0.395	501	0.7	4.850	A
3 - Site Arm 3	156	443	1075	0.145	156	0.2	4.423	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 - B4100 (W)	310	145	1195	0.260	310	0.4	4.152	A
2 - B4100 (E)	502	3	1272	0.395	502	0.7	4.858	A
3 - Site Arm 3	156	444	1074	0.146	156	0.2	4.426	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 - B4100 (W)	254	119	1209	0.210	254	0.3	3.845	A
2 - B4100 (E)	410	3	1273	0.322	411	0.5	4.346	A
3 - Site Arm 3	128	363	1121	0.114	128	0.1	4.091	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 - B4100 (W)	212	99	1220	0.174	213	0.2	3.647	A
2 - B4100 (E)	343	2	1273	0.270	344	0.4	4.029	A
3 - Site Arm 3	107	304	1155	0.093	107	0.1	3.876	A

Junctions 10
ARCADY 10 - Roundabout Module
Version: 10.0.1.1519 © Copyright TRL Software Limited, 2021
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Filename: Eastern Site Roundabout RevA.j10
Path: P:\17000's\17213\Junction Assessments
Report generation date: 07/09/2021 11:29:29

- »2019 Baseline, AM
- »2019 Baseline, PM
- »2019 Baseline + Committed, AM
- »2019 Baseline + Committed, PM
- »2019 Baseline + Committed + Eastern Development, AM
- »2019 Baseline + Committed + Eastern Development, PM
- »2019 Baseline + Committed + Both Developments , AM
- »2019 Baseline + Committed + Both Developments, PM
- »2025 Baseline, AM
- »2025 Baseline, PM
- »2025 Baseline + Committed, AM
- »2025 Baseline + Committed, PM
- »2025 Baseline + Committed + Eastern Development, AM
- »2025 Baseline + Committed + Eastern Development, PM
- »2025 Baseline + Committed + Both Developments, AM
- »2025 Baseline + Committed + Both Developments, PM
- »2031 Baseline, AM
- »2031 Baseline, PM
- »2031 Baseline + Committed, AM
- »2031 Baseline + Committed, PM
- »2031 Baseline + Committed + Eastern Development, AM
- »2031 Baseline + Committed + Eastern Development, PM
- »2031 Baseline + Committed + Both Developments, AM
- »2031 Baseline + Committed + Both Developments, PM

Summary of junction performance

	AM				PM			
	Q (PCU)	Delay (s)	RFC	Res Cap	Q (PCU)	Delay (s)	RFC	Res Cap
2019 Baseline								
1 - B4100 (W)	0.5	2.44	0.33	193 % [1 - B4100 (W)]	0.3	2.10	0.23	172 % [2 - B4100 (E)]
2 - B4100 (E)	0.3	2.38	0.23		0.6	2.76	0.36	
3 - Site Arm 3	0.0	0.00	0.00		0.0	0.00	0.00	
4 - Site Arm 4	0.0	0.00	0.00		0.0	0.00	0.00	
2019 Baseline + Committed								
1 - B4100 (W)	0.6	2.60	0.37	160 % [1 - B4100 (W)]	0.3	2.10	0.23	172 % [2 - B4100 (E)]
2 - B4100 (E)	0.4	2.47	0.26		0.6	2.76	0.36	
3 - Site Arm 3	0.0	0.00	0.00		0.0	0.00	0.00	
4 - Site Arm 4	0.0	0.00	0.00		0.0	0.00	0.00	

2019 Baseline + Committed + Eastern Development								
1 - B4100 (W)	0.6	2.67	0.38	149 % [1 - B4100 (W)]	0.3	2.16	0.24	155 % [2 - B4100 (E)]
2 - B4100 (E)	0.4	2.64	0.29		0.8	3.72	0.37	
3 - Site Arm 3	0.0	4.56	0.02		0.0	4.35	0.03	
4 - Site Arm 4	0.0	4.15	0.03		0.1	4.06	0.05	
2019 Baseline + Committed + Both Developments								
1 - B4100 (W)	0.7	2.74	0.40	139 % [1 - B4100 (W)]	0.4	2.37	0.30	119 % [2 - B4100 (E)]
2 - B4100 (E)	0.5	2.75	0.32		1.0	4.12	0.43	
3 - Site Arm 3	0.0	4.71	0.02		0.0	4.67	0.03	
4 - Site Arm 4	0.0	4.28	0.03		0.1	4.35	0.06	
2025 Baseline								
1 - B4100 (W)	0.6	2.53	0.35	174 % [1 - B4100 (W)]	0.3	2.14	0.25	153 % [2 - B4100 (E)]
2 - B4100 (E)	0.3	2.43	0.25		0.6	2.88	0.38	
3 - Site Arm 3	0.0	0.00	0.00		0.0	0.00	0.00	
4 - Site Arm 4	0.0	0.00	0.00		0.0	0.00	0.00	
2025 Baseline + Committed								
1 - B4100 (W)	0.7	2.70	0.40	145 % [1 - B4100 (W)]	0.3	2.14	0.25	153 % [2 - B4100 (E)]
2 - B4100 (E)	0.4	2.52	0.27		0.6	2.88	0.38	
3 - Site Arm 3	0.0	0.00	0.00		0.0	0.00	0.00	
4 - Site Arm 4	0.0	0.00	0.00		0.0	0.00	0.00	
2025 Baseline + Committed + Eastern Development								
1 - B4100 (W)	0.7	2.78	0.40	135 % [1 - B4100 (W)]	0.3	2.24	0.25	142 % [2 - B4100 (E)]
2 - B4100 (E)	0.5	2.70	0.31		0.7	3.06	0.40	
3 - Site Arm 3	0.0	4.64	0.02		0.0	5.20	0.03	
4 - Site Arm 4	0.0	4.22	0.03		0.1	4.84	0.06	
2025 Baseline + Committed + Both Developments								
1 - B4100 (W)	0.7	2.85	0.42	126 % [1 - B4100 (W)]	0.5	2.46	0.32	110 % [2 - B4100 (E)]
2 - B4100 (E)	0.5	2.82	0.34		0.9	3.40	0.46	
3 - Site Arm 3	0.0	4.80	0.02		0.0	5.60	0.03	
4 - Site Arm 4	0.0	4.35	0.03		0.1	5.21	0.06	
2031 Baseline								
1 - B4100 (W)	0.6	2.58	0.37	163 % [1 - B4100 (W)]	0.4	2.17	0.26	143 % [2 - B4100 (E)]
2 - B4100 (E)	0.4	2.47	0.26		0.7	2.95	0.40	
3 - Site Arm 3	0.0	0.00	0.00		0.0	0.00	0.00	
4 - Site Arm 4	0.0	0.00	0.00		0.0	0.00	0.00	
2031 Baseline + Committed								
1 - B4100 (W)	0.7	2.76	0.41	137 % [1 - B4100 (W)]	0.4	2.17	0.26	143 % [2 - B4100 (E)]
2 - B4100 (E)	0.4	2.56	0.28		0.7	2.95	0.40	
3 - Site Arm 3	0.0	0.00	0.00		0.0	0.00	0.00	
4 - Site Arm 4	0.0	0.00	0.00		0.0	0.00	0.00	
2031 Baseline + Committed + Eastern Development								
1 - B4100 (W)	0.7	2.84	0.42	127 % [1 - B4100 (W)]	0.4	2.25	0.26	133 % [2 - B4100 (E)]
2 - B4100 (E)	0.5	2.76	0.32		0.7	3.06	0.41	
3 - Site Arm 3	0.0	4.24	0.02		0.0	4.57	0.03	
4 - Site Arm 4	0.0	3.85	0.03		0.1	4.26	0.06	
2031 Baseline + Committed + Both Developments								
1 - B4100 (W)	0.8	2.92	0.43	119 % [1 - B4100 (W)]	0.5	2.47	0.33	103 % [2 - B4100 (E)]
2 - B4100 (E)	0.6	2.89	0.35		0.9	3.41	0.47	
3 - Site Arm 3	0.0	4.38	0.02		0.0	4.93	0.03	
4 - Site Arm 4	0.0	3.97	0.03		0.1	4.58	0.06	

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

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

File summary

File Description

Title	
Location	
Site number	
Date	22/07/2021
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	DTA\arcady
Description	

Units

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

Analysis Options

Calculate Q Percentiles	Calculate residual capacity	Residual capacity criteria type	RFC Threshold	Av. Delay threshold (s)	Q threshold (PCU)
	✓	Delay	0.85	36.00	20.00

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D1	2019 Baseline	AM	ONE HOUR	07:45	09:15	15
D2	2019 Baseline	PM	ONE HOUR	16:45	18:15	15
D3	2019 Baseline + Committed	AM	ONE HOUR	07:45	09:15	15
D4	2019 Baseline + Committed	PM	ONE HOUR	16:45	18:15	15
D5	2019 Baseline + Committed + Eastern Development	AM	ONE HOUR	07:45	09:15	15
D6	2019 Baseline + Committed + Eastern Development	PM	ONE HOUR	16:45	18:15	15
D7	2019 Baseline + Committed + Both Developments	AM	ONE HOUR	07:45	09:15	15
D8	2019 Baseline + Committed + Both Developments	PM	ONE HOUR	16:45	18:15	15
D9	2025 Baseline	AM	ONE HOUR	07:45	09:15	15
D10	2025 Baseline	PM	ONE HOUR	16:45	18:15	15
D11	2025 Baseline + Committed	AM	ONE HOUR	07:45	09:15	15
D12	2025 Baseline + Committed	PM	ONE HOUR	16:45	18:15	15
D13	2025 Baseline + Committed + Eastern Development	AM	ONE HOUR	07:45	09:15	15
D14	2025 Baseline + Committed + Eastern Development	PM	ONE HOUR	16:45	18:15	15
D15	2025 Baseline + Committed + Both Developments	AM	ONE HOUR	07:45	09:15	15
D16	2025 Baseline + Committed + Both Developments	PM	ONE HOUR	16:45	18:15	15
D17	2031 Baseline	AM	ONE HOUR	07:45	09:15	15
D18	2031 Baseline	PM	ONE HOUR	16:45	18:15	15
D19	2031 Baseline + Committed	AM	ONE HOUR	07:45	09:15	15
D20	2031 Baseline + Committed	PM	ONE HOUR	16:45	18:15	15
D21	2031 Baseline + Committed + Eastern Development	AM	ONE HOUR	07:45	09:15	15
D22	2031 Baseline + Committed + Eastern Development	PM	ONE HOUR	16:45	18:15	15
D23	2031 Baseline + Committed + Both Developments	AM	ONE HOUR	07:45	09:15	15
D24	2031 Baseline + Committed + Both Developments	PM	ONE HOUR	16:45	18:15	15

Analysis Set Details

ID	Network flow scaling factor (%)
A1	100.000

2019 Baseline, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	2 - B4100 (E) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Eastern Site Roundabout	Standard Roundabout		1, 2, 3, 4	2.42	A

Junction Network

Driving side	Lighting	Res Cap (%)	First arm reaching threshold	Network delay (s)	Network LOS
Left	Normal/unknown	193	1 - B4100 (W)	2.42	A

Arms

Arms

Arm	Name	Description	No give-way line
1	B4100 (W)		
2	B4100 (E)		
3	Site Arm 3		
4	Site Arm 4		

Roundabout Geometry

Arm	V (m)	E (m)	I' (m)	R (m)	D (m)	PHI (deg)	Entry only	Exit only
1 - B4100 (W)	7.30	8.30	4.6	21.0	55.0	45.0		
2 - B4100 (E)	3.65	8.10	51.0	17.5	55.0	41.0		
3 - Site Arm 3	3.65	6.50	4.0	20.0	55.0	33.0		
4 - Site Arm 4	3.60	7.20	7.1	21.0	55.0	39.0		

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
1 - B4100 (W)	0.675	2272
2 - B4100 (E)	0.638	2062
3 - Site Arm 3	0.519	1355
4 - Site Arm 4	0.533	1463

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	2019 Baseline	AM	ONE HOUR	07:45	09:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Av. Demand (PCU/hr)	Scaling Factor (%)
1 - B4100 (W)		✓	683	100.000
2 - B4100 (E)		✓	432	100.000
3 - Site Arm 3		✓	0	100.000
4 - Site Arm 4		✓	0	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1 - B4100 (W)	2 - B4100 (E)	3 - Site Arm 3	4 - Site Arm 4
From	1 - B4100 (W)	0	683	0	0
	2 - B4100 (E)	432	0	0	0
	3 - Site Arm 3	0	0	0	0
	4 - Site Arm 4	0	0	0	0

Vehicle Mix

HV %s

		To			
		1 - B4100 (W)	2 - B4100 (E)	3 - Site Arm 3	4 - Site Arm 4
From	1 - B4100 (W)	0	3	0	0
	2 - B4100 (E)	5	0	0	0
	3 - Site Arm 3	0	0	0	0
	4 - Site Arm 4	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Q (PCU)	Max LOS
1 - B4100 (W)	0.33	2.44	0.5	A
2 - B4100 (E)	0.23	2.38	0.3	A
3 - Site Arm 3	0.00	0.00	0.0	A
4 - Site Arm 4	0.00	0.00	0.0	A

Main Results for each time segment

07:45 - 08:00

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 - B4100 (W)	514	0	2272	0.226	513	0.3	2.107	A
2 - B4100 (E)	325	0	2062	0.158	324	0.2	2.173	A
3 - Site Arm 3	0	324	1187	0.000	0	0.0	0.000	A
4 - Site Arm 4	0	324	1290	0.000	0	0.0	0.000	A

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 - B4100 (W)	614	0	2272	0.270	614	0.4	2.236	A
2 - B4100 (E)	388	0	2062	0.188	388	0.2	2.257	A
3 - Site Arm 3	0	388	1154	0.000	0	0.0	0.000	A
4 - Site Arm 4	0	388	1256	0.000	0	0.0	0.000	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 - B4100 (W)	752	0	2272	0.331	751	0.5	2.439	A
2 - B4100 (E)	476	0	2062	0.231	475	0.3	2.381	A
3 - Site Arm 3	0	475	1108	0.000	0	0.0	0.000	A
4 - Site Arm 4	0	475	1210	0.000	0	0.0	0.000	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 - B4100 (W)	752	0	2272	0.331	752	0.5	2.439	A
2 - B4100 (E)	476	0	2062	0.231	476	0.3	2.381	A
3 - Site Arm 3	0	476	1108	0.000	0	0.0	0.000	A
4 - Site Arm 4	0	476	1210	0.000	0	0.0	0.000	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 - B4100 (W)	614	0	2272	0.270	615	0.4	2.239	A
2 - B4100 (E)	388	0	2062	0.188	389	0.2	2.260	A
3 - Site Arm 3	0	389	1153	0.000	0	0.0	0.000	A
4 - Site Arm 4	0	389	1256	0.000	0	0.0	0.000	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 - B4100 (W)	514	0	2272	0.226	515	0.3	2.110	A
2 - B4100 (E)	325	0	2062	0.158	325	0.2	2.177	A
3 - Site Arm 3	0	325	1186	0.000	0	0.0	0.000	A
4 - Site Arm 4	0	325	1290	0.000	0	0.0	0.000	A

2019 Baseline, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	2 - B4100 (E) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Eastern Site Roundabout	Standard Roundabout		1, 2, 3, 4	2.48	A

Junction Network

Driving side	Lighting	Res Cap (%)	First arm reaching threshold	Network delay (s)	Network LOS
Left	Normal/unknown	172	2 - B4100 (E)	2.48	A

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	2019 Baseline	PM	ONE HOUR	16:45	18:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Av. Demand (PCU/hr)	Scaling Factor (%)
1 - B4100 (W)		✓	472	100.000
2 - B4100 (E)		✓	665	100.000
3 - Site Arm 3		✓	0	100.000
4 - Site Arm 4		✓	0	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1 - B4100 (W)	2 - B4100 (E)	3 - Site Arm 3	4 - Site Arm 4
From	1 - B4100 (W)	0	472	0	0
	2 - B4100 (E)	665	0	0	0
	3 - Site Arm 3	0	0	0	0
	4 - Site Arm 4	0	0	0	0

Vehicle Mix

HV %s

		To			
		1 - B4100 (W)	2 - B4100 (E)	3 - Site Arm 3	4 - Site Arm 4
From	1 - B4100 (W)	0	2	0	0
	2 - B4100 (E)	2	0	0	0
	3 - Site Arm 3	0	0	0	0
	4 - Site Arm 4	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Q (PCU)	Max LOS
1 - B4100 (W)	0.23	2.10	0.3	A
2 - B4100 (E)	0.36	2.76	0.6	A
3 - Site Arm 3	0.00	0.00	0.0	A
4 - Site Arm 4	0.00	0.00	0.0	A

Main Results for each time segment
16:45 - 17:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - B4100 (W)	355	0	2272	0.156	355	0.2	1.915	A
2 - B4100 (E)	501	0	2062	0.243	499	0.3	2.347	A
3 - Site Arm 3	0	499	1096	0.000	0	0.0	0.000	A
4 - Site Arm 4	0	499	1197	0.000	0	0.0	0.000	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - B4100 (W)	424	0	2272	0.187	424	0.2	1.987	A
2 - B4100 (E)	598	0	2062	0.290	597	0.4	2.506	A
3 - Site Arm 3	0	597	1045	0.000	0	0.0	0.000	A
4 - Site Arm 4	0	597	1145	0.000	0	0.0	0.000	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 - B4100 (W)	520	0	2272	0.229	519	0.3	2.095	A
2 - B4100 (E)	732	0	2062	0.355	732	0.6	2.757	A
3 - Site Arm 3	0	732	975	0.000	0	0.0	0.000	A
4 - Site Arm 4	0	732	1073	0.000	0	0.0	0.000	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 - B4100 (W)	520	0	2272	0.229	520	0.3	2.095	A
2 - B4100 (E)	732	0	2062	0.355	732	0.6	2.759	A
3 - Site Arm 3	0	732	975	0.000	0	0.0	0.000	A
4 - Site Arm 4	0	732	1073	0.000	0	0.0	0.000	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 - B4100 (W)	424	0	2272	0.187	425	0.2	1.987	A
2 - B4100 (E)	598	0	2062	0.290	598	0.4	2.508	A
3 - Site Arm 3	0	598	1045	0.000	0	0.0	0.000	A
4 - Site Arm 4	0	598	1144	0.000	0	0.0	0.000	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 - B4100 (W)	355	0	2272	0.156	356	0.2	1.915	A
2 - B4100 (E)	501	0	2062	0.243	501	0.3	2.351	A
3 - Site Arm 3	0	501	1095	0.000	0	0.0	0.000	A
4 - Site Arm 4	0	501	1196	0.000	0	0.0	0.000	A

2019 Baseline + Committed, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	2 - B4100 (E) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Eastern Site Roundabout	Standard Roundabout		1, 2, 3, 4	2.55	A

Junction Network

Driving side	Lighting	Res Cap (%)	First arm reaching threshold	Network delay (s)	Network LOS
Left	Normal/unknown	160	1 - B4100 (W)	2.55	A

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	2019 Baseline + Committed	AM	ONE HOUR	07:45	09:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Av. Demand (PCU/hr)	Scaling Factor (%)
1 - B4100 (W)		✓	768	100.000
2 - B4100 (E)		✓	483	100.000
3 - Site Arm 3		✓	0	100.000
4 - Site Arm 4		✓	0	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1 - B4100 (W)	2 - B4100 (E)	3 - Site Arm 3	4 - Site Arm 4
From	1 - B4100 (W)	0	768	0	0
	2 - B4100 (E)	483	0	0	0
	3 - Site Arm 3	0	0	0	0
	4 - Site Arm 4	0	0	0	0

Vehicle Mix

HV %s

		To			
		1 - B4100 (W)	2 - B4100 (E)	3 - Site Arm 3	4 - Site Arm 4
From	1 - B4100 (W)	0	3	0	0
	2 - B4100 (E)	5	0	0	0
	3 - Site Arm 3	0	0	0	0
	4 - Site Arm 4	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Q (PCU)	Max LOS
1 - B4100 (W)	0.37	2.60	0.6	A
2 - B4100 (E)	0.26	2.47	0.4	A
3 - Site Arm 3	0.00	0.00	0.0	A
4 - Site Arm 4	0.00	0.00	0.0	A

Main Results for each time segment
07:45 - 08:00

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 - B4100 (W)	578	0	2272	0.255	577	0.4	2.185	A
2 - B4100 (E)	364	0	2062	0.176	363	0.2	2.222	A
3 - Site Arm 3	0	363	1167	0.000	0	0.0	0.000	A
4 - Site Arm 4	0	363	1270	0.000	0	0.0	0.000	A

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 - B4100 (W)	690	0	2272	0.304	690	0.4	2.344	A
2 - B4100 (E)	434	0	2062	0.211	434	0.3	2.321	A
3 - Site Arm 3	0	434	1130	0.000	0	0.0	0.000	A
4 - Site Arm 4	0	434	1232	0.000	0	0.0	0.000	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 - B4100 (W)	846	0	2272	0.372	845	0.6	2.597	A
2 - B4100 (E)	532	0	2062	0.258	531	0.4	2.469	A
3 - Site Arm 3	0	531	1079	0.000	0	0.0	0.000	A
4 - Site Arm 4	0	531	1180	0.000	0	0.0	0.000	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 - B4100 (W)	846	0	2272	0.372	846	0.6	2.599	A
2 - B4100 (E)	532	0	2062	0.258	532	0.4	2.469	A
3 - Site Arm 3	0	532	1079	0.000	0	0.0	0.000	A
4 - Site Arm 4	0	532	1180	0.000	0	0.0	0.000	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 - B4100 (W)	690	0	2272	0.304	691	0.5	2.346	A
2 - B4100 (E)	434	0	2062	0.211	435	0.3	2.323	A
3 - Site Arm 3	0	435	1130	0.000	0	0.0	0.000	A
4 - Site Arm 4	0	435	1231	0.000	0	0.0	0.000	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 - B4100 (W)	578	0	2272	0.255	579	0.4	2.191	A
2 - B4100 (E)	364	0	2062	0.176	364	0.2	2.227	A
3 - Site Arm 3	0	364	1166	0.000	0	0.0	0.000	A
4 - Site Arm 4	0	364	1269	0.000	0	0.0	0.000	A

2019 Baseline + Committed, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	2 - B4100 (E) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Eastern Site Roundabout	Standard Roundabout		1, 2, 3, 4	2.48	A

Junction Network

Driving side	Lighting	Res Cap (%)	First arm reaching threshold	Network delay (s)	Network LOS
Left	Normal/unknown	172	2 - B4100 (E)	2.48	A

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	2019 Baseline + Committed	PM	ONE HOUR	16:45	18:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Av. Demand (PCU/hr)	Scaling Factor (%)
1 - B4100 (W)		✓	472	100.000
2 - B4100 (E)		✓	665	100.000
3 - Site Arm 3		✓	0	100.000
4 - Site Arm 4		✓	0	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1 - B4100 (W)	2 - B4100 (E)	3 - Site Arm 3	4 - Site Arm 4
From	1 - B4100 (W)	0	472	0	0
	2 - B4100 (E)	665	0	0	0
	3 - Site Arm 3	0	0	0	0
	4 - Site Arm 4	0	0	0	0

Vehicle Mix

HV %s

		To			
		1 - B4100 (W)	2 - B4100 (E)	3 - Site Arm 3	4 - Site Arm 4
From	1 - B4100 (W)	0	2	0	0
	2 - B4100 (E)	2	0	0	0
	3 - Site Arm 3	0	0	0	0
	4 - Site Arm 4	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Q (PCU)	Max LOS
1 - B4100 (W)	0.23	2.10	0.3	A
2 - B4100 (E)	0.36	2.76	0.6	A
3 - Site Arm 3	0.00	0.00	0.0	A
4 - Site Arm 4	0.00	0.00	0.0	A

Main Results for each time segment
16:45 - 17:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - B4100 (W)	355	0	2272	0.156	355	0.2	1.915	A
2 - B4100 (E)	501	0	2062	0.243	499	0.3	2.347	A
3 - Site Arm 3	0	499	1096	0.000	0	0.0	0.000	A
4 - Site Arm 4	0	499	1197	0.000	0	0.0	0.000	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - B4100 (W)	424	0	2272	0.187	424	0.2	1.987	A
2 - B4100 (E)	598	0	2062	0.290	597	0.4	2.506	A
3 - Site Arm 3	0	597	1045	0.000	0	0.0	0.000	A
4 - Site Arm 4	0	597	1145	0.000	0	0.0	0.000	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 - B4100 (W)	520	0	2272	0.229	519	0.3	2.095	A
2 - B4100 (E)	732	0	2062	0.355	732	0.6	2.757	A
3 - Site Arm 3	0	732	975	0.000	0	0.0	0.000	A
4 - Site Arm 4	0	732	1073	0.000	0	0.0	0.000	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 - B4100 (W)	520	0	2272	0.229	520	0.3	2.095	A
2 - B4100 (E)	732	0	2062	0.355	732	0.6	2.759	A
3 - Site Arm 3	0	732	975	0.000	0	0.0	0.000	A
4 - Site Arm 4	0	732	1073	0.000	0	0.0	0.000	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 - B4100 (W)	424	0	2272	0.187	425	0.2	1.987	A
2 - B4100 (E)	598	0	2062	0.290	598	0.4	2.508	A
3 - Site Arm 3	0	598	1045	0.000	0	0.0	0.000	A
4 - Site Arm 4	0	598	1144	0.000	0	0.0	0.000	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 - B4100 (W)	355	0	2272	0.156	356	0.2	1.915	A
2 - B4100 (E)	501	0	2062	0.243	501	0.3	2.351	A
3 - Site Arm 3	0	501	1095	0.000	0	0.0	0.000	A
4 - Site Arm 4	0	501	1196	0.000	0	0.0	0.000	A

2019 Baseline + Committed + Eastern Development, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	2 - B4100 (E) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Eastern Site Roundabout	Standard Roundabout		1, 2, 3, 4	2.71	A

Junction Network

Driving side	Lighting	Res Cap (%)	First arm reaching threshold	Network delay (s)	Network LOS
Left	Normal/unknown	149	1 - B4100 (W)	2.71	A

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	2019 Baseline + Committed + Eastern Development	AM	ONE HOUR	07:45	09:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Av. Demand (PCU/hr)	Scaling Factor (%)
1 - B4100 (W)		✓	773	100.000
2 - B4100 (E)		✓	549	100.000
3 - Site Arm 3		✓	16	100.000
4 - Site Arm 4		✓	31	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1 - B4100 (W)	2 - B4100 (E)	3 - Site Arm 3	4 - Site Arm 4
From	1 - B4100 (W)	0	768	2	3
	2 - B4100 (E)	483	0	22	44
	3 - Site Arm 3	1	15	0	0
	4 - Site Arm 4	2	29	0	0

Vehicle Mix

HV %s

		To			
		1 - B4100 (W)	2 - B4100 (E)	3 - Site Arm 3	4 - Site Arm 4
From	1 - B4100 (W)	0	3	0	0
	2 - B4100 (E)	5	0	20	20
	3 - Site Arm 3	0	34	0	0
	4 - Site Arm 4	0	34	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Q (PCU)	Max LOS
1 - B4100 (W)	0.38	2.67	0.6	A
2 - B4100 (E)	0.29	2.64	0.4	A
3 - Site Arm 3	0.02	4.56	0.0	A
4 - Site Arm 4	0.03	4.15	0.0	A

Main Results for each time segment
07:45 - 08:00

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 - B4100 (W)	582	33	2249	0.259	581	0.4	2.219	A
2 - B4100 (E)	413	4	2060	0.201	412	0.3	2.328	A
3 - Site Arm 3	12	398	1149	0.010	12	0.0	4.156	A
4 - Site Arm 4	23	375	1263	0.018	23	0.0	3.805	A

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 - B4100 (W)	695	40	2245	0.310	695	0.5	2.391	A
2 - B4100 (E)	494	4	2060	0.240	493	0.3	2.450	A
3 - Site Arm 3	14	476	1108	0.013	14	0.0	4.319	A
4 - Site Arm 4	28	448	1224	0.023	28	0.0	3.945	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 - B4100 (W)	851	48	2239	0.380	850	0.6	2.668	A
2 - B4100 (E)	604	6	2059	0.294	604	0.4	2.637	A
3 - Site Arm 3	18	583	1052	0.017	18	0.0	4.564	A
4 - Site Arm 4	34	549	1170	0.029	34	0.0	4.154	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 - B4100 (W)	851	48	2239	0.380	851	0.6	2.670	A
2 - B4100 (E)	604	6	2059	0.294	604	0.4	2.637	A
3 - Site Arm 3	18	584	1052	0.017	18	0.0	4.565	A
4 - Site Arm 4	34	549	1170	0.029	34	0.0	4.154	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 - B4100 (W)	695	40	2245	0.310	696	0.5	2.393	A
2 - B4100 (E)	494	4	2060	0.240	494	0.3	2.453	A
3 - Site Arm 3	14	477	1108	0.013	14	0.0	4.320	A
4 - Site Arm 4	28	449	1224	0.023	28	0.0	3.948	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 - B4100 (W)	582	33	2249	0.259	582	0.4	2.225	A
2 - B4100 (E)	413	4	2060	0.201	414	0.3	2.330	A
3 - Site Arm 3	12	399	1148	0.010	12	0.0	4.160	A
4 - Site Arm 4	23	376	1263	0.018	23	0.0	3.810	A

2019 Baseline + Committed + Eastern Development, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	2 - B4100 (E) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Eastern Site Roundabout	Standard Roundabout		1, 2, 3, 4	3.16	A

Junction Network

Driving side	Lighting	Res Cap (%)	First arm reaching threshold	Network delay (s)	Network LOS
Left	Normal/unknown	155	2 - B4100 (E)	3.16	A

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	2019 Baseline + Committed + Eastern Development	PM	ONE HOUR	16:45	18:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Av. Demand (PCU/hr)	Scaling Factor (%)
1 - B4100 (W)		✓	474	100.000
2 - B4100 (E)		✓	694	100.000
3 - Site Arm 3		✓	27	100.000
4 - Site Arm 4		✓	52	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1 - B4100 (W)	2 - B4100 (E)	3 - Site Arm 3	4 - Site Arm 4
From	1 - B4100 (W)	0	472	1	1
	2 - B4100 (E)	665	0	10	19
	3 - Site Arm 3	2	25	0	0
	4 - Site Arm 4	4	48	0	0

Vehicle Mix

HV %s

		To			
		1 - B4100 (W)	2 - B4100 (E)	3 - Site Arm 3	4 - Site Arm 4
From	1 - B4100 (W)	0	2	0	0
	2 - B4100 (E)	34	0	34	34
	3 - Site Arm 3	0	14	0	0
	4 - Site Arm 4	0	14	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Q (PCU)	Max LOS
1 - B4100 (W)	0.24	2.16	0.3	A
2 - B4100 (E)	0.37	3.72	0.8	A
3 - Site Arm 3	0.03	4.35	0.0	A
4 - Site Arm 4	0.05	4.06	0.1	A

Main Results for each time segment
16:45 - 17:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - B4100 (W)	357	55	2235	0.160	356	0.2	1.953	A
2 - B4100 (E)	522	2	2061	0.253	521	0.5	3.128	A
3 - Site Arm 3	20	514	1088	0.019	20	0.0	3.802	A
4 - Site Arm 4	39	519	1186	0.033	39	0.0	3.538	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - B4100 (W)	426	66	2227	0.191	426	0.2	2.037	A
2 - B4100 (E)	624	2	2061	0.303	623	0.6	3.355	A
3 - Site Arm 3	24	615	1036	0.023	24	0.0	4.015	A
4 - Site Arm 4	47	622	1132	0.041	47	0.0	3.741	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 - B4100 (W)	522	80	2218	0.235	522	0.3	2.164	A
2 - B4100 (E)	764	2	2061	0.371	763	0.8	3.715	A
3 - Site Arm 3	30	753	964	0.031	30	0.0	4.346	A
4 - Site Arm 4	57	761	1057	0.054	57	0.1	4.059	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 - B4100 (W)	522	80	2218	0.235	522	0.3	2.165	A
2 - B4100 (E)	764	2	2061	0.371	764	0.8	3.718	A
3 - Site Arm 3	30	754	964	0.031	30	0.0	4.348	A
4 - Site Arm 4	57	762	1057	0.054	57	0.1	4.061	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 - B4100 (W)	426	66	2227	0.191	426	0.2	2.040	A
2 - B4100 (E)	624	2	2061	0.303	625	0.6	3.361	A
3 - Site Arm 3	24	617	1035	0.023	24	0.0	4.018	A
4 - Site Arm 4	47	623	1131	0.041	47	0.0	3.744	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 - B4100 (W)	357	55	2235	0.160	357	0.2	1.955	A
2 - B4100 (E)	522	2	2061	0.253	523	0.5	3.138	A
3 - Site Arm 3	20	516	1087	0.019	20	0.0	3.806	A
4 - Site Arm 4	39	521	1185	0.033	39	0.0	3.545	A

2019 Baseline + Committed + Both Developments , AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	2 - B4100 (E) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Eastern Site Roundabout	Standard Roundabout		1, 2, 3, 4	2.80	A

Junction Network

Driving side	Lighting	Res Cap (%)	First arm reaching threshold	Network delay (s)	Network LOS
Left	Normal/unknown	139	1 - B4100 (W)	2.80	A

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	2019 Baseline + Committed + Both Developments	AM	ONE HOUR	07:45	09:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Av. Demand (PCU/hr)	Scaling Factor (%)
1 - B4100 (W)		✓	805	100.000
2 - B4100 (E)		✓	606	100.000
3 - Site Arm 3		✓	16	100.000
4 - Site Arm 4		✓	31	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1 - B4100 (W)	2 - B4100 (E)	3 - Site Arm 3	4 - Site Arm 4
From	1 - B4100 (W)	0	800	2	3
	2 - B4100 (E)	540	0	22	44
	3 - Site Arm 3	1	15	0	0
	4 - Site Arm 4	2	29	0	0

Vehicle Mix

HV %s

		To			
		1 - B4100 (W)	2 - B4100 (E)	3 - Site Arm 3	4 - Site Arm 4
From	1 - B4100 (W)	0	3	0	0
	2 - B4100 (E)	5	0	20	20
	3 - Site Arm 3	0	34	0	0
	4 - Site Arm 4	0	34	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Q (PCU)	Max LOS
1 - B4100 (W)	0.40	2.74	0.7	A
2 - B4100 (E)	0.32	2.75	0.5	A
3 - Site Arm 3	0.02	4.71	0.0	A
4 - Site Arm 4	0.03	4.28	0.0	A

Main Results for each time segment
07:45 - 08:00

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 - B4100 (W)	606	33	2249	0.269	605	0.4	2.251	A
2 - B4100 (E)	456	4	2060	0.221	455	0.3	2.387	A
3 - Site Arm 3	12	441	1126	0.011	12	0.0	4.238	A
4 - Site Arm 4	23	417	1241	0.019	23	0.0	3.877	A

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 - B4100 (W)	724	40	2245	0.322	723	0.5	2.436	A
2 - B4100 (E)	545	4	2060	0.265	544	0.4	2.529	A
3 - Site Arm 3	14	527	1081	0.013	14	0.0	4.426	A
4 - Site Arm 4	28	500	1197	0.023	28	0.0	4.038	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 - B4100 (W)	886	48	2239	0.396	886	0.7	2.737	A
2 - B4100 (E)	667	6	2059	0.324	667	0.5	2.752	A
3 - Site Arm 3	18	646	1020	0.017	18	0.0	4.712	A
4 - Site Arm 4	34	612	1137	0.030	34	0.0	4.280	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 - B4100 (W)	886	48	2239	0.396	886	0.7	2.740	A
2 - B4100 (E)	667	6	2059	0.324	667	0.5	2.752	A
3 - Site Arm 3	18	646	1020	0.017	18	0.0	4.713	A
4 - Site Arm 4	34	612	1137	0.030	34	0.0	4.281	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 - B4100 (W)	724	40	2245	0.322	724	0.5	2.440	A
2 - B4100 (E)	545	4	2060	0.265	545	0.4	2.532	A
3 - Site Arm 3	14	528	1081	0.013	14	0.0	4.430	A
4 - Site Arm 4	28	500	1196	0.023	28	0.0	4.039	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 - B4100 (W)	606	33	2249	0.269	606	0.4	2.256	A
2 - B4100 (E)	456	4	2060	0.221	457	0.3	2.389	A
3 - Site Arm 3	12	442	1126	0.011	12	0.0	4.241	A
4 - Site Arm 4	23	419	1240	0.019	23	0.0	3.881	A

2019 Baseline + Committed + Both Developments, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	2 - B4100 (E) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Eastern Site Roundabout	Standard Roundabout		1, 2, 3, 4	3.43	A

Junction Network

Driving side	Lighting	Res Cap (%)	First arm reaching threshold	Network delay (s)	Network LOS
Left	Normal/unknown	119	2 - B4100 (E)	3.43	A

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	2019 Baseline + Committed + Both Developments	PM	ONE HOUR	16:45	18:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Av. Demand (PCU/hr)	Scaling Factor (%)
1 - B4100 (W)		✓	609	100.000
2 - B4100 (E)		✓	808	100.000
3 - Site Arm 3		✓	27	100.000
4 - Site Arm 4		✓	52	100.000

Origin-Destination Data

Demand (PCU/hr)

From		To			
		1 - B4100 (W)	2 - B4100 (E)	3 - Site Arm 3	4 - Site Arm 4
From	1 - B4100 (W)	0	607	1	1
	2 - B4100 (E)	779	0	10	19
	3 - Site Arm 3	2	25	0	0
	4 - Site Arm 4	4	48	0	0

Vehicle Mix

HV %s

		To			
		1 - B4100 (W)	2 - B4100 (E)	3 - Site Arm 3	4 - Site Arm 4
From	1 - B4100 (W)	0	2	0	0
	2 - B4100 (E)	34	0	34	34
	3 - Site Arm 3	0	14	0	0
	4 - Site Arm 4	0	14	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Q (PCU)	Max LOS
1 - B4100 (W)	0.30	2.37	0.4	A
2 - B4100 (E)	0.43	4.12	1.0	A
3 - Site Arm 3	0.03	4.67	0.0	A
4 - Site Arm 4	0.06	4.35	0.1	A

Main Results for each time segment
16:45 - 17:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - B4100 (W)	458	55	2235	0.205	457	0.3	2.065	A
2 - B4100 (E)	608	2	2062	0.295	606	0.6	3.311	A
3 - Site Arm 3	20	599	1044	0.019	20	0.0	3.967	A
4 - Site Arm 4	39	605	1141	0.034	39	0.0	3.684	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - B4100 (W)	547	66	2228	0.246	547	0.3	2.185	A
2 - B4100 (E)	726	2	2061	0.352	726	0.7	3.609	A
3 - Site Arm 3	24	718	983	0.025	24	0.0	4.237	A
4 - Site Arm 4	47	724	1077	0.043	47	0.1	3.940	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 - B4100 (W)	671	80	2218	0.302	670	0.4	2.372	A
2 - B4100 (E)	890	2	2061	0.432	888	1.0	4.109	A
3 - Site Arm 3	30	879	899	0.033	30	0.0	4.671	A
4 - Site Arm 4	57	886	990	0.058	57	0.1	4.350	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 - B4100 (W)	671	80	2218	0.302	671	0.4	2.373	A
2 - B4100 (E)	890	2	2061	0.432	890	1.0	4.117	A
3 - Site Arm 3	30	880	899	0.033	30	0.0	4.674	A
4 - Site Arm 4	57	887	990	0.058	57	0.1	4.353	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 - B4100 (W)	547	66	2227	0.246	548	0.3	2.188	A
2 - B4100 (E)	726	2	2061	0.352	727	0.7	3.621	A
3 - Site Arm 3	24	719	982	0.025	24	0.0	4.243	A
4 - Site Arm 4	47	726	1076	0.043	47	0.1	3.946	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 - B4100 (W)	458	55	2235	0.205	459	0.3	2.067	A
2 - B4100 (E)	608	2	2061	0.295	609	0.6	3.324	A
3 - Site Arm 3	20	602	1043	0.020	20	0.0	3.973	A
4 - Site Arm 4	39	607	1139	0.034	39	0.0	3.690	A

2025 Baseline, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	2 - B4100 (E) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Eastern Site Roundabout	Standard Roundabout		1, 2, 3, 4	2.49	A

Junction Network

Driving side	Lighting	Res Cap (%)	First arm reaching threshold	Network delay (s)	Network LOS
Left	Normal/unknown	174	1 - B4100 (W)	2.49	A

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	2025 Baseline	AM	ONE HOUR	07:45	09:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Av. Demand (PCU/hr)	Scaling Factor (%)
1 - B4100 (W)		✓	731	100.000
2 - B4100 (E)		✓	463	100.000
3 - Site Arm 3		✓	0	100.000
4 - Site Arm 4		✓	0	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1 - B4100 (W)	2 - B4100 (E)	3 - Site Arm 3	4 - Site Arm 4
From	1 - B4100 (W)	0	731	0	0
	2 - B4100 (E)	463	0	0	0
	3 - Site Arm 3	0	0	0	0
	4 - Site Arm 4	0	0	0	0

Vehicle Mix

HV %s

		To			
		1 - B4100 (W)	2 - B4100 (E)	3 - Site Arm 3	4 - Site Arm 4
From	1 - B4100 (W)	0	3	0	0
	2 - B4100 (E)	5	0	0	0
	3 - Site Arm 3	0	0	0	0
	4 - Site Arm 4	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Q (PCU)	Max LOS
1 - B4100 (W)	0.35	2.53	0.6	A
2 - B4100 (E)	0.25	2.43	0.3	A
3 - Site Arm 3	0.00	0.00	0.0	A
4 - Site Arm 4	0.00	0.00	0.0	A

Main Results for each time segment
07:45 - 08:00

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 - B4100 (W)	550	0	2272	0.242	549	0.3	2.152	A
2 - B4100 (E)	349	0	2062	0.169	348	0.2	2.203	A
3 - Site Arm 3	0	348	1175	0.000	0	0.0	0.000	A
4 - Site Arm 4	0	348	1278	0.000	0	0.0	0.000	A

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 - B4100 (W)	657	0	2272	0.289	657	0.4	2.296	A
2 - B4100 (E)	416	0	2062	0.202	416	0.3	2.295	A
3 - Site Arm 3	0	416	1139	0.000	0	0.0	0.000	A
4 - Site Arm 4	0	416	1241	0.000	0	0.0	0.000	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 - B4100 (W)	805	0	2272	0.354	804	0.6	2.525	A
2 - B4100 (E)	510	0	2062	0.247	509	0.3	2.434	A
3 - Site Arm 3	0	509	1091	0.000	0	0.0	0.000	A
4 - Site Arm 4	0	509	1191	0.000	0	0.0	0.000	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 - B4100 (W)	805	0	2272	0.354	805	0.6	2.527	A
2 - B4100 (E)	510	0	2062	0.247	510	0.3	2.434	A
3 - Site Arm 3	0	510	1091	0.000	0	0.0	0.000	A
4 - Site Arm 4	0	510	1191	0.000	0	0.0	0.000	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 - B4100 (W)	657	0	2272	0.289	658	0.4	2.297	A
2 - B4100 (E)	416	0	2062	0.202	417	0.3	2.298	A
3 - Site Arm 3	0	417	1139	0.000	0	0.0	0.000	A
4 - Site Arm 4	0	417	1241	0.000	0	0.0	0.000	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 - B4100 (W)	550	0	2272	0.242	551	0.3	2.154	A
2 - B4100 (E)	349	0	2062	0.169	349	0.2	2.207	A
3 - Site Arm 3	0	349	1174	0.000	0	0.0	0.000	A
4 - Site Arm 4	0	349	1277	0.000	0	0.0	0.000	A

2025 Baseline, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	2 - B4100 (E) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Eastern Site Roundabout	Standard Roundabout		1, 2, 3, 4	2.57	A

Junction Network

Driving side	Lighting	Res Cap (%)	First arm reaching threshold	Network delay (s)	Network LOS
Left	Normal/unknown	153	2 - B4100 (E)	2.57	A

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	2025 Baseline	PM	ONE HOUR	16:45	18:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Av. Demand (PCU/hr)	Scaling Factor (%)
1 - B4100 (W)		✓	508	100.000
2 - B4100 (E)		✓	715	100.000
3 - Site Arm 3		✓	0	100.000
4 - Site Arm 4		✓	0	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1 - B4100 (W)	2 - B4100 (E)	3 - Site Arm 3	4 - Site Arm 4
From	1 - B4100 (W)	0	508	0	0
	2 - B4100 (E)	715	0	0	0
	3 - Site Arm 3	0	0	0	0
	4 - Site Arm 4	0	0	0	0

Vehicle Mix

HV %s

		To			
		1 - B4100 (W)	2 - B4100 (E)	3 - Site Arm 3	4 - Site Arm 4
From	1 - B4100 (W)	0	2	0	0
	2 - B4100 (E)	2	0	0	0
	3 - Site Arm 3	0	0	0	0
	4 - Site Arm 4	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Q (PCU)	Max LOS
1 - B4100 (W)	0.25	2.14	0.3	A
2 - B4100 (E)	0.38	2.88	0.6	A
3 - Site Arm 3	0.00	0.00	0.0	A
4 - Site Arm 4	0.00	0.00	0.0	A

Main Results for each time segment
16:45 - 17:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - B4100 (W)	382	0	2272	0.168	382	0.2	1.941	A
2 - B4100 (E)	538	0	2062	0.261	537	0.4	2.404	A
3 - Site Arm 3	0	537	1076	0.000	0	0.0	0.000	A
4 - Site Arm 4	0	537	1177	0.000	0	0.0	0.000	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - B4100 (W)	457	0	2272	0.201	456	0.3	2.022	A
2 - B4100 (E)	643	0	2062	0.312	642	0.5	2.585	A
3 - Site Arm 3	0	642	1022	0.000	0	0.0	0.000	A
4 - Site Arm 4	0	642	1121	0.000	0	0.0	0.000	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 - B4100 (W)	559	0	2272	0.246	559	0.3	2.144	A
2 - B4100 (E)	787	0	2062	0.382	787	0.6	2.876	A
3 - Site Arm 3	0	787	947	0.000	0	0.0	0.000	A
4 - Site Arm 4	0	787	1044	0.000	0	0.0	0.000	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 - B4100 (W)	559	0	2272	0.246	559	0.3	2.144	A
2 - B4100 (E)	787	0	2062	0.382	787	0.6	2.878	A
3 - Site Arm 3	0	787	947	0.000	0	0.0	0.000	A
4 - Site Arm 4	0	787	1043	0.000	0	0.0	0.000	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 - B4100 (W)	457	0	2272	0.201	457	0.3	2.023	A
2 - B4100 (E)	643	0	2062	0.312	643	0.5	2.588	A
3 - Site Arm 3	0	643	1021	0.000	0	0.0	0.000	A
4 - Site Arm 4	0	643	1120	0.000	0	0.0	0.000	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 - B4100 (W)	382	0	2272	0.168	383	0.2	1.945	A
2 - B4100 (E)	538	0	2062	0.261	539	0.4	2.411	A
3 - Site Arm 3	0	539	1076	0.000	0	0.0	0.000	A
4 - Site Arm 4	0	539	1176	0.000	0	0.0	0.000	A

2025 Baseline + Committed, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	2 - B4100 (E) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Eastern Site Roundabout	Standard Roundabout		1, 2, 3, 4	2.63	A

Junction Network

Driving side	Lighting	Res Cap (%)	First arm reaching threshold	Network delay (s)	Network LOS
Left	Normal/unknown	145	1 - B4100 (W)	2.63	A

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	2025 Baseline + Committed	AM	ONE HOUR	07:45	09:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Av. Demand (PCU/hr)	Scaling Factor (%)
1 - B4100 (W)		✓	816	100.000
2 - B4100 (E)		✓	514	100.000
3 - Site Arm 3		✓	0	100.000
4 - Site Arm 4		✓	0	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1 - B4100 (W)	2 - B4100 (E)	3 - Site Arm 3	4 - Site Arm 4
From	1 - B4100 (W)	0	816	0	0
	2 - B4100 (E)	514	0	0	0
	3 - Site Arm 3	0	0	0	0
	4 - Site Arm 4	0	0	0	0

Vehicle Mix

HV %s

		To			
		1 - B4100 (W)	2 - B4100 (E)	3 - Site Arm 3	4 - Site Arm 4
From	1 - B4100 (W)	0	3	0	0
	2 - B4100 (E)	5	0	0	0
	3 - Site Arm 3	0	0	0	0
	4 - Site Arm 4	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Q (PCU)	Max LOS
1 - B4100 (W)	0.40	2.70	0.7	A
2 - B4100 (E)	0.27	2.52	0.4	A
3 - Site Arm 3	0.00	0.00	0.0	A
4 - Site Arm 4	0.00	0.00	0.0	A

Main Results for each time segment
07:45 - 08:00

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 - B4100 (W)	614	0	2272	0.270	613	0.4	2.233	A
2 - B4100 (E)	387	0	2062	0.188	386	0.2	2.253	A
3 - Site Arm 3	0	386	1155	0.000	0	0.0	0.000	A
4 - Site Arm 4	0	386	1257	0.000	0	0.0	0.000	A

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 - B4100 (W)	734	0	2272	0.323	733	0.5	2.410	A
2 - B4100 (E)	462	0	2062	0.224	462	0.3	2.361	A
3 - Site Arm 3	0	462	1115	0.000	0	0.0	0.000	A
4 - Site Arm 4	0	462	1217	0.000	0	0.0	0.000	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 - B4100 (W)	898	0	2272	0.395	898	0.7	2.697	A
2 - B4100 (E)	566	0	2062	0.274	566	0.4	2.525	A
3 - Site Arm 3	0	566	1062	0.000	0	0.0	0.000	A
4 - Site Arm 4	0	566	1162	0.000	0	0.0	0.000	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 - B4100 (W)	898	0	2272	0.395	898	0.7	2.699	A
2 - B4100 (E)	566	0	2062	0.274	566	0.4	2.525	A
3 - Site Arm 3	0	566	1061	0.000	0	0.0	0.000	A
4 - Site Arm 4	0	566	1161	0.000	0	0.0	0.000	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 - B4100 (W)	734	0	2272	0.323	734	0.5	2.414	A
2 - B4100 (E)	462	0	2062	0.224	462	0.3	2.364	A
3 - Site Arm 3	0	462	1115	0.000	0	0.0	0.000	A
4 - Site Arm 4	0	462	1217	0.000	0	0.0	0.000	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 - B4100 (W)	614	0	2272	0.270	615	0.4	2.238	A
2 - B4100 (E)	387	0	2062	0.188	387	0.2	2.258	A
3 - Site Arm 3	0	387	1154	0.000	0	0.0	0.000	A
4 - Site Arm 4	0	387	1257	0.000	0	0.0	0.000	A

2025 Baseline + Committed, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	2 - B4100 (E) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Eastern Site Roundabout	Standard Roundabout		1, 2, 3, 4	2.57	A

Junction Network

Driving side	Lighting	Res Cap (%)	First arm reaching threshold	Network delay (s)	Network LOS
Left	Normal/unknown	153	2 - B4100 (E)	2.57	A

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	2025 Baseline + Committed	PM	ONE HOUR	16:45	18:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Av. Demand (PCU/hr)	Scaling Factor (%)
1 - B4100 (W)		✓	508	100.000
2 - B4100 (E)		✓	715	100.000
3 - Site Arm 3		✓	0	100.000
4 - Site Arm 4		✓	0	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1 - B4100 (W)	2 - B4100 (E)	3 - Site Arm 3	4 - Site Arm 4
From	1 - B4100 (W)	0	508	0	0
	2 - B4100 (E)	715	0	0	0
	3 - Site Arm 3	0	0	0	0
	4 - Site Arm 4	0	0	0	0

Vehicle Mix

HV %s

		To			
		1 - B4100 (W)	2 - B4100 (E)	3 - Site Arm 3	4 - Site Arm 4
From	1 - B4100 (W)	0	2	0	0
	2 - B4100 (E)	2	0	0	0
	3 - Site Arm 3	0	0	0	0
	4 - Site Arm 4	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Q (PCU)	Max LOS
1 - B4100 (W)	0.25	2.14	0.3	A
2 - B4100 (E)	0.38	2.88	0.6	A
3 - Site Arm 3	0.00	0.00	0.0	A
4 - Site Arm 4	0.00	0.00	0.0	A

Main Results for each time segment
16:45 - 17:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - B4100 (W)	382	0	2272	0.168	382	0.2	1.941	A
2 - B4100 (E)	538	0	2062	0.261	537	0.4	2.404	A
3 - Site Arm 3	0	537	1076	0.000	0	0.0	0.000	A
4 - Site Arm 4	0	537	1177	0.000	0	0.0	0.000	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - B4100 (W)	457	0	2272	0.201	456	0.3	2.022	A
2 - B4100 (E)	643	0	2062	0.312	642	0.5	2.585	A
3 - Site Arm 3	0	642	1022	0.000	0	0.0	0.000	A
4 - Site Arm 4	0	642	1121	0.000	0	0.0	0.000	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 - B4100 (W)	559	0	2272	0.246	559	0.3	2.144	A
2 - B4100 (E)	787	0	2062	0.382	787	0.6	2.876	A
3 - Site Arm 3	0	787	947	0.000	0	0.0	0.000	A
4 - Site Arm 4	0	787	1044	0.000	0	0.0	0.000	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 - B4100 (W)	559	0	2272	0.246	559	0.3	2.144	A
2 - B4100 (E)	787	0	2062	0.382	787	0.6	2.878	A
3 - Site Arm 3	0	787	947	0.000	0	0.0	0.000	A
4 - Site Arm 4	0	787	1043	0.000	0	0.0	0.000	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 - B4100 (W)	457	0	2272	0.201	457	0.3	2.023	A
2 - B4100 (E)	643	0	2062	0.312	643	0.5	2.588	A
3 - Site Arm 3	0	643	1021	0.000	0	0.0	0.000	A
4 - Site Arm 4	0	643	1120	0.000	0	0.0	0.000	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 - B4100 (W)	382	0	2272	0.168	383	0.2	1.945	A
2 - B4100 (E)	538	0	2062	0.261	539	0.4	2.411	A
3 - Site Arm 3	0	539	1076	0.000	0	0.0	0.000	A
4 - Site Arm 4	0	539	1176	0.000	0	0.0	0.000	A

2025 Baseline + Committed + Eastern Development, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	2 - B4100 (E) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Eastern Site Roundabout	Standard Roundabout		1, 2, 3, 4	2.80	A

Junction Network

Driving side	Lighting	Res Cap (%)	First arm reaching threshold	Network delay (s)	Network LOS
Left	Normal/unknown	135	1 - B4100 (W)	2.80	A

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	2025 Baseline + Committed + Eastern Development	AM	ONE HOUR	07:45	09:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Av. Demand (PCU/hr)	Scaling Factor (%)
1 - B4100 (W)		✓	821	100.000
2 - B4100 (E)		✓	580	100.000
3 - Site Arm 3		✓	16	100.000
4 - Site Arm 4		✓	31	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1 - B4100 (W)	2 - B4100 (E)	3 - Site Arm 3	4 - Site Arm 4
From	1 - B4100 (W)	0	816	2	3
	2 - B4100 (E)	514	0	22	44
	3 - Site Arm 3	1	15	0	0
	4 - Site Arm 4	2	29	0	0

Vehicle Mix

HV %s

		To			
		1 - B4100 (W)	2 - B4100 (E)	3 - Site Arm 3	4 - Site Arm 4
From	1 - B4100 (W)	0	3	0	0
	2 - B4100 (E)	5	0	20	20
	3 - Site Arm 3	0	34	0	0
	4 - Site Arm 4	0	34	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Q (PCU)	Max LOS
1 - B4100 (W)	0.40	2.78	0.7	A
2 - B4100 (E)	0.31	2.70	0.5	A
3 - Site Arm 3	0.02	4.64	0.0	A
4 - Site Arm 4	0.03	4.22	0.0	A

Main Results for each time segment
07:45 - 08:00

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 - B4100 (W)	618	33	2249	0.275	617	0.4	2.268	A
2 - B4100 (E)	437	4	2060	0.212	436	0.3	2.359	A
3 - Site Arm 3	12	421	1136	0.011	12	0.0	4.200	A
4 - Site Arm 4	23	398	1251	0.019	23	0.0	3.844	A

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 - B4100 (W)	738	40	2245	0.329	738	0.5	2.459	A
2 - B4100 (E)	521	4	2060	0.253	521	0.4	2.492	A
3 - Site Arm 3	14	504	1093	0.013	14	0.0	4.376	A
4 - Site Arm 4	28	476	1209	0.023	28	0.0	3.995	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 - B4100 (W)	904	48	2239	0.404	903	0.7	2.773	A
2 - B4100 (E)	639	6	2059	0.310	638	0.5	2.699	A
3 - Site Arm 3	18	617	1035	0.017	18	0.0	4.643	A
4 - Site Arm 4	34	583	1152	0.030	34	0.0	4.221	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 - B4100 (W)	904	48	2239	0.404	904	0.7	2.776	A
2 - B4100 (E)	639	6	2059	0.310	639	0.5	2.699	A
3 - Site Arm 3	18	618	1035	0.017	18	0.0	4.644	A
4 - Site Arm 4	34	584	1152	0.030	34	0.0	4.222	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 - B4100 (W)	738	40	2245	0.329	739	0.5	2.464	A
2 - B4100 (E)	521	4	2060	0.253	522	0.4	2.493	A
3 - Site Arm 3	14	505	1093	0.013	14	0.0	4.378	A
4 - Site Arm 4	28	477	1209	0.023	28	0.0	3.997	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 - B4100 (W)	618	33	2249	0.275	619	0.4	2.273	A
2 - B4100 (E)	437	4	2060	0.212	437	0.3	2.364	A
3 - Site Arm 3	12	423	1136	0.011	12	0.0	4.203	A
4 - Site Arm 4	23	399	1250	0.019	23	0.0	3.847	A

2025 Baseline + Committed + Eastern Development, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	2 - B4100 (E) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Eastern Site Roundabout	Standard Roundabout		1, 2, 3, 4	2.86	A

Junction Network

Driving side	Lighting	Res Cap (%)	First arm reaching threshold	Network delay (s)	Network LOS
Left	Normal/unknown	142	2 - B4100 (E)	2.86	A

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	2025 Baseline + Committed + Eastern Development	PM	ONE HOUR	16:45	18:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Av. Demand (PCU/hr)	Scaling Factor (%)
1 - B4100 (W)		✓	510	100.000
2 - B4100 (E)		✓	744	100.000
3 - Site Arm 3		✓	27	100.000
4 - Site Arm 4		✓	52	100.000

Origin-Destination Data

Demand (PCU/hr)

From	To			
	1 - B4100 (W)	2 - B4100 (E)	3 - Site Arm 3	4 - Site Arm 4
1 - B4100 (W)	0	508	1	1
2 - B4100 (E)	715	0	10	19
3 - Site Arm 3	2	25	0	0
4 - Site Arm 4	4	48	0	0

Vehicle Mix

HV %s

From	To			
	1 - B4100 (W)	2 - B4100 (E)	3 - Site Arm 3	4 - Site Arm 4
1 - B4100 (W)	0	3	0	0
2 - B4100 (E)	5	0	20	20
3 - Site Arm 3	0	34	0	0
4 - Site Arm 4	0	34	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Q (PCU)	Max LOS
1 - B4100 (W)	0.25	2.24	0.3	A
2 - B4100 (E)	0.40	3.06	0.7	A
3 - Site Arm 3	0.03	5.20	0.0	A
4 - Site Arm 4	0.06	4.84	0.1	A

Main Results for each time segment
16:45 - 17:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - B4100 (W)	384	55	2235	0.172	383	0.2	2.001	A
2 - B4100 (E)	560	2	2062	0.272	559	0.4	2.525	A
3 - Site Arm 3	20	552	1069	0.019	20	0.0	4.487	A
4 - Site Arm 4	39	557	1166	0.034	39	0.0	4.171	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - B4100 (W)	458	66	2228	0.206	458	0.3	2.095	A
2 - B4100 (E)	669	2	2061	0.324	668	0.5	2.727	A
3 - Site Arm 3	24	660	1012	0.024	24	0.0	4.761	A
4 - Site Arm 4	47	667	1108	0.042	47	0.1	4.430	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 - B4100 (W)	562	80	2218	0.253	561	0.3	2.238	A
2 - B4100 (E)	819	2	2061	0.397	818	0.7	3.055	A
3 - Site Arm 3	30	809	936	0.032	30	0.0	5.194	A
4 - Site Arm 4	57	816	1028	0.056	57	0.1	4.842	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 - B4100 (W)	562	80	2218	0.253	562	0.3	2.238	A
2 - B4100 (E)	819	2	2061	0.397	819	0.7	3.057	A
3 - Site Arm 3	30	809	935	0.032	30	0.0	5.196	A
4 - Site Arm 4	57	817	1027	0.056	57	0.1	4.844	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 - B4100 (W)	458	66	2227	0.206	459	0.3	2.098	A
2 - B4100 (E)	669	2	2061	0.324	670	0.5	2.730	A
3 - Site Arm 3	24	661	1012	0.024	24	0.0	4.764	A
4 - Site Arm 4	47	668	1107	0.042	47	0.1	4.434	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 - B4100 (W)	384	55	2235	0.172	384	0.2	2.005	A
2 - B4100 (E)	560	2	2061	0.272	561	0.4	2.533	A
3 - Site Arm 3	20	554	1068	0.019	20	0.0	4.494	A
4 - Site Arm 4	39	559	1165	0.034	39	0.0	4.175	A

2025 Baseline + Committed + Both Developments, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	2 - B4100 (E) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Eastern Site Roundabout	Standard Roundabout		1, 2, 3, 4	2.89	A

Junction Network

Driving side	Lighting	Res Cap (%)	First arm reaching threshold	Network delay (s)	Network LOS
Left	Normal/unknown	126	1 - B4100 (W)	2.89	A

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)
D15	2025 Baseline + Committed + Both Developments	AM	ONE HOUR	07:45	09:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Av. Demand (PCU/hr)	Scaling Factor (%)
1 - B4100 (W)		✓	854	100.000
2 - B4100 (E)		✓	637	100.000
3 - Site Arm 3		✓	16	100.000
4 - Site Arm 4		✓	31	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1 - B4100 (W)	2 - B4100 (E)	3 - Site Arm 3	4 - Site Arm 4
From	1 - B4100 (W)	0	849	2	3
	2 - B4100 (E)	571	0	22	44
	3 - Site Arm 3	1	15	0	0
	4 - Site Arm 4	2	29	0	0

Vehicle Mix

HV %s

		To			
		1 - B4100 (W)	2 - B4100 (E)	3 - Site Arm 3	4 - Site Arm 4
From	1 - B4100 (W)	0	3	0	0
	2 - B4100 (E)	5	0	20	20
	3 - Site Arm 3	0	34	0	0
	4 - Site Arm 4	0	34	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Q (PCU)	Max LOS
1 - B4100 (W)	0.42	2.85	0.7	A
2 - B4100 (E)	0.34	2.82	0.5	A
3 - Site Arm 3	0.02	4.80	0.0	A
4 - Site Arm 4	0.03	4.35	0.0	A

Main Results for each time segment
07:45 - 08:00

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 - B4100 (W)	643	33	2249	0.286	641	0.4	2.303	A
2 - B4100 (E)	480	4	2060	0.233	478	0.3	2.418	A
3 - Site Arm 3	12	464	1114	0.011	12	0.0	4.285	A
4 - Site Arm 4	23	441	1228	0.019	23	0.0	3.917	A

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 - B4100 (W)	768	40	2245	0.342	767	0.5	2.508	A
2 - B4100 (E)	573	4	2060	0.278	572	0.4	2.574	A
3 - Site Arm 3	14	555	1067	0.013	14	0.0	4.487	A
4 - Site Arm 4	28	527	1182	0.024	28	0.0	4.090	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 - B4100 (W)	940	48	2239	0.420	939	0.7	2.851	A
2 - B4100 (E)	701	6	2059	0.341	701	0.5	2.818	A
3 - Site Arm 3	18	680	1002	0.018	18	0.0	4.796	A
4 - Site Arm 4	34	646	1119	0.031	34	0.0	4.351	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 - B4100 (W)	940	48	2239	0.420	940	0.7	2.853	A
2 - B4100 (E)	701	6	2059	0.341	701	0.5	2.820	A
3 - Site Arm 3	18	680	1002	0.018	18	0.0	4.798	A
4 - Site Arm 4	34	646	1118	0.031	34	0.0	4.352	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 - B4100 (W)	768	40	2245	0.342	769	0.5	2.511	A
2 - B4100 (E)	573	4	2060	0.278	573	0.4	2.578	A
3 - Site Arm 3	14	556	1066	0.013	14	0.0	4.491	A
4 - Site Arm 4	28	528	1181	0.024	28	0.0	4.093	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 - B4100 (W)	643	33	2249	0.286	643	0.4	2.310	A
2 - B4100 (E)	480	4	2060	0.233	480	0.3	2.423	A
3 - Site Arm 3	12	466	1113	0.011	12	0.0	4.290	A
4 - Site Arm 4	23	442	1227	0.019	23	0.0	3.920	A

2025 Baseline + Committed + Both Developments, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	2 - B4100 (E) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Eastern Site Roundabout	Standard Roundabout		1, 2, 3, 4	3.11	A

Junction Network

Driving side	Lighting	Res Cap (%)	First arm reaching threshold	Network delay (s)	Network LOS
Left	Normal/unknown	110	2 - B4100 (E)	3.11	A

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)
D16	2025 Baseline + Committed + Both Developments	PM	ONE HOUR	16:45	18:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Av. Demand (PCU/hr)	Scaling Factor (%)
1 - B4100 (W)		✓	644	100.000
2 - B4100 (E)		✓	859	100.000
3 - Site Arm 3		✓	27	100.000
4 - Site Arm 4		✓	52	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1 - B4100 (W)	2 - B4100 (E)	3 - Site Arm 3	4 - Site Arm 4
From	1 - B4100 (W)	0	642	1	1
	2 - B4100 (E)	830	0	10	19
	3 - Site Arm 3	2	25	0	0
	4 - Site Arm 4	4	48	0	0

Vehicle Mix

HV %s

		To			
		1 - B4100 (W)	2 - B4100 (E)	3 - Site Arm 3	4 - Site Arm 4
From	1 - B4100 (W)	0	3	0	0
	2 - B4100 (E)	5	0	20	20
	3 - Site Arm 3	0	34	0	0
	4 - Site Arm 4	0	34	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Q (PCU)	Max LOS
1 - B4100 (W)	0.32	2.46	0.5	A
2 - B4100 (E)	0.46	3.40	0.9	A
3 - Site Arm 3	0.03	5.60	0.0	A
4 - Site Arm 4	0.06	5.21	0.1	A

Main Results for each time segment
16:45 - 17:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - B4100 (W)	485	55	2235	0.217	484	0.3	2.116	A
2 - B4100 (E)	647	2	2062	0.314	645	0.5	2.676	A
3 - Site Arm 3	20	638	1024	0.020	20	0.0	4.687	A
4 - Site Arm 4	39	643	1120	0.035	39	0.0	4.348	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - B4100 (W)	579	66	2228	0.260	579	0.4	2.248	A
2 - B4100 (E)	772	2	2061	0.375	772	0.6	2.941	A
3 - Site Arm 3	24	764	959	0.025	24	0.0	5.034	A
4 - Site Arm 4	47	770	1053	0.044	47	0.1	4.673	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 - B4100 (W)	709	80	2218	0.320	709	0.5	2.457	A
2 - B4100 (E)	946	2	2061	0.459	945	0.9	3.397	A
3 - Site Arm 3	30	935	870	0.034	30	0.0	5.599	A
4 - Site Arm 4	57	943	961	0.060	57	0.1	5.204	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 - B4100 (W)	709	80	2218	0.320	709	0.5	2.457	A
2 - B4100 (E)	946	2	2061	0.459	946	0.9	3.402	A
3 - Site Arm 3	30	936	869	0.034	30	0.0	5.602	A
4 - Site Arm 4	57	944	960	0.060	57	0.1	5.207	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 - B4100 (W)	579	66	2227	0.260	579	0.4	2.251	A
2 - B4100 (E)	772	2	2061	0.375	773	0.6	2.948	A
3 - Site Arm 3	24	765	958	0.025	24	0.0	5.039	A
4 - Site Arm 4	47	771	1052	0.044	47	0.1	4.678	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 - B4100 (W)	485	55	2235	0.217	485	0.3	2.121	A
2 - B4100 (E)	647	2	2061	0.314	647	0.5	2.686	A
3 - Site Arm 3	20	641	1023	0.020	20	0.0	4.694	A
4 - Site Arm 4	39	646	1119	0.035	39	0.0	4.354	A

2031 Baseline, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	2 - B4100 (E) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Eastern Site Roundabout	Standard Roundabout		1, 2, 3, 4	2.54	A

Junction Network

Driving side	Lighting	Res Cap (%)	First arm reaching threshold	Network delay (s)	Network LOS
Left	Normal/unknown	163	1 - B4100 (W)	2.54	A

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)
D17	2031 Baseline	AM	ONE HOUR	07:45	09:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Av. Demand (PCU/hr)	Scaling Factor (%)
1 - B4100 (W)		✓	760	100.000
2 - B4100 (E)		✓	481	100.000
3 - Site Arm 3		✓	0	100.000
4 - Site Arm 4		✓	0	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1 - B4100 (W)	2 - B4100 (E)	3 - Site Arm 3	4 - Site Arm 4
From	1 - B4100 (W)	0	760	0	0
	2 - B4100 (E)	481	0	0	0
	3 - Site Arm 3	0	0	0	0
	4 - Site Arm 4	0	0	0	0

Vehicle Mix

HV %s

		To			
		1 - B4100 (W)	2 - B4100 (E)	3 - Site Arm 3	4 - Site Arm 4
From	1 - B4100 (W)	0	3	0	0
	2 - B4100 (E)	5	0	0	0
	3 - Site Arm 3	0	0	0	0
	4 - Site Arm 4	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Q (PCU)	Max LOS
1 - B4100 (W)	0.37	2.58	0.6	A
2 - B4100 (E)	0.26	2.47	0.4	A
3 - Site Arm 3	0.00	0.00	0.0	A
4 - Site Arm 4	0.00	0.00	0.0	A

Main Results for each time segment
07:45 - 08:00

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 - B4100 (W)	572	0	2272	0.252	571	0.3	2.177	A
2 - B4100 (E)	362	0	2062	0.176	361	0.2	2.220	A
3 - Site Arm 3	0	361	1168	0.000	0	0.0	0.000	A
4 - Site Arm 4	0	361	1271	0.000	0	0.0	0.000	A

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 - B4100 (W)	683	0	2272	0.301	683	0.4	2.333	A
2 - B4100 (E)	432	0	2062	0.210	432	0.3	2.318	A
3 - Site Arm 3	0	432	1131	0.000	0	0.0	0.000	A
4 - Site Arm 4	0	432	1233	0.000	0	0.0	0.000	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 - B4100 (W)	837	0	2272	0.368	836	0.6	2.581	A
2 - B4100 (E)	530	0	2062	0.257	529	0.4	2.465	A
3 - Site Arm 3	0	529	1080	0.000	0	0.0	0.000	A
4 - Site Arm 4	0	529	1181	0.000	0	0.0	0.000	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 - B4100 (W)	837	0	2272	0.368	837	0.6	2.583	A
2 - B4100 (E)	530	0	2062	0.257	530	0.4	2.465	A
3 - Site Arm 3	0	530	1080	0.000	0	0.0	0.000	A
4 - Site Arm 4	0	530	1181	0.000	0	0.0	0.000	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 - B4100 (W)	683	0	2272	0.301	684	0.4	2.335	A
2 - B4100 (E)	432	0	2062	0.210	433	0.3	2.321	A
3 - Site Arm 3	0	433	1130	0.000	0	0.0	0.000	A
4 - Site Arm 4	0	433	1232	0.000	0	0.0	0.000	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 - B4100 (W)	572	0	2272	0.252	573	0.3	2.184	A
2 - B4100 (E)	362	0	2062	0.176	362	0.2	2.225	A
3 - Site Arm 3	0	362	1167	0.000	0	0.0	0.000	A
4 - Site Arm 4	0	362	1270	0.000	0	0.0	0.000	A

2031 Baseline, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	2 - B4100 (E) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Eastern Site Roundabout	Standard Roundabout		1, 2, 3, 4	2.63	A

Junction Network

Driving side	Lighting	Res Cap (%)	First arm reaching threshold	Network delay (s)	Network LOS
Left	Normal/unknown	143	2 - B4100 (E)	2.63	A

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)
D18	2031 Baseline	PM	ONE HOUR	16:45	18:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Av. Demand (PCU/hr)	Scaling Factor (%)
1 - B4100 (W)		✓	528	100.000
2 - B4100 (E)		✓	744	100.000
3 - Site Arm 3		✓	0	100.000
4 - Site Arm 4		✓	0	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1 - B4100 (W)	2 - B4100 (E)	3 - Site Arm 3	4 - Site Arm 4
From	1 - B4100 (W)	0	528	0	0
	2 - B4100 (E)	744	0	0	0
	3 - Site Arm 3	0	0	0	0
	4 - Site Arm 4	0	0	0	0

Vehicle Mix

HV %s

		To			
		1 - B4100 (W)	2 - B4100 (E)	3 - Site Arm 3	4 - Site Arm 4
From	1 - B4100 (W)	0	2	0	0
	2 - B4100 (E)	2	0	0	0
	3 - Site Arm 3	0	0	0	0
	4 - Site Arm 4	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Q (PCU)	Max LOS
1 - B4100 (W)	0.26	2.17	0.4	A
2 - B4100 (E)	0.40	2.95	0.7	A
3 - Site Arm 3	0.00	0.00	0.0	A
4 - Site Arm 4	0.00	0.00	0.0	A

Main Results for each time segment
16:45 - 17:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - B4100 (W)	398	0	2272	0.175	397	0.2	1.957	A
2 - B4100 (E)	560	0	2062	0.272	559	0.4	2.439	A
3 - Site Arm 3	0	559	1065	0.000	0	0.0	0.000	A
4 - Site Arm 4	0	559	1165	0.000	0	0.0	0.000	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - B4100 (W)	475	0	2272	0.209	474	0.3	2.043	A
2 - B4100 (E)	669	0	2062	0.324	668	0.5	2.634	A
3 - Site Arm 3	0	668	1008	0.000	0	0.0	0.000	A
4 - Site Arm 4	0	668	1107	0.000	0	0.0	0.000	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 - B4100 (W)	581	0	2272	0.256	581	0.3	2.171	A
2 - B4100 (E)	819	0	2062	0.397	818	0.7	2.950	A
3 - Site Arm 3	0	818	930	0.000	0	0.0	0.000	A
4 - Site Arm 4	0	818	1027	0.000	0	0.0	0.000	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 - B4100 (W)	581	0	2272	0.256	581	0.4	2.171	A
2 - B4100 (E)	819	0	2062	0.397	819	0.7	2.952	A
3 - Site Arm 3	0	819	930	0.000	0	0.0	0.000	A
4 - Site Arm 4	0	819	1026	0.000	0	0.0	0.000	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 - B4100 (W)	475	0	2272	0.209	475	0.3	2.043	A
2 - B4100 (E)	669	0	2062	0.324	670	0.5	2.637	A
3 - Site Arm 3	0	670	1008	0.000	0	0.0	0.000	A
4 - Site Arm 4	0	670	1106	0.000	0	0.0	0.000	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 - B4100 (W)	398	0	2272	0.175	398	0.2	1.959	A
2 - B4100 (E)	560	0	2062	0.272	561	0.4	2.445	A
3 - Site Arm 3	0	561	1064	0.000	0	0.0	0.000	A
4 - Site Arm 4	0	561	1164	0.000	0	0.0	0.000	A

2031 Baseline + Committed, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	2 - B4100 (E) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Eastern Site Roundabout	Standard Roundabout		1, 2, 3, 4	2.68	A

Junction Network

Driving side	Lighting	Res Cap (%)	First arm reaching threshold	Network delay (s)	Network LOS
Left	Normal/unknown	137	1 - B4100 (W)	2.68	A

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)
D19	2031 Baseline + Committed	AM	ONE HOUR	07:45	09:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Av. Demand (PCU/hr)	Scaling Factor (%)
1 - B4100 (W)		✓	845	100.000
2 - B4100 (E)		✓	532	100.000
3 - Site Arm 3		✓	0	100.000
4 - Site Arm 4		✓	0	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1 - B4100 (W)	2 - B4100 (E)	3 - Site Arm 3	4 - Site Arm 4
From	1 - B4100 (W)	0	845	0	0
	2 - B4100 (E)	532	0	0	0
	3 - Site Arm 3	0	0	0	0
	4 - Site Arm 4	0	0	0	0

Vehicle Mix

HV %s

		To			
		1 - B4100 (W)	2 - B4100 (E)	3 - Site Arm 3	4 - Site Arm 4
From	1 - B4100 (W)	0	3	0	0
	2 - B4100 (E)	5	0	0	0
	3 - Site Arm 3	0	0	0	0
	4 - Site Arm 4	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Q (PCU)	Max LOS
1 - B4100 (W)	0.41	2.76	0.7	A
2 - B4100 (E)	0.28	2.56	0.4	A
3 - Site Arm 3	0.00	0.00	0.0	A
4 - Site Arm 4	0.00	0.00	0.0	A

Main Results for each time segment
07:45 - 08:00

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 - B4100 (W)	636	0	2272	0.280	635	0.4	2.263	A
2 - B4100 (E)	401	0	2062	0.194	400	0.3	2.272	A
3 - Site Arm 3	0	400	1148	0.000	0	0.0	0.000	A
4 - Site Arm 4	0	400	1250	0.000	0	0.0	0.000	A

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 - B4100 (W)	760	0	2272	0.334	759	0.5	2.451	A
2 - B4100 (E)	478	0	2062	0.232	478	0.3	2.385	A
3 - Site Arm 3	0	478	1107	0.000	0	0.0	0.000	A
4 - Site Arm 4	0	478	1208	0.000	0	0.0	0.000	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 - B4100 (W)	930	0	2272	0.410	930	0.7	2.761	A
2 - B4100 (E)	586	0	2062	0.284	585	0.4	2.559	A
3 - Site Arm 3	0	585	1051	0.000	0	0.0	0.000	A
4 - Site Arm 4	0	585	1151	0.000	0	0.0	0.000	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 - B4100 (W)	930	0	2272	0.410	930	0.7	2.763	A
2 - B4100 (E)	586	0	2062	0.284	586	0.4	2.559	A
3 - Site Arm 3	0	586	1051	0.000	0	0.0	0.000	A
4 - Site Arm 4	0	586	1151	0.000	0	0.0	0.000	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 - B4100 (W)	760	0	2272	0.334	760	0.5	2.456	A
2 - B4100 (E)	478	0	2062	0.232	479	0.3	2.388	A
3 - Site Arm 3	0	479	1107	0.000	0	0.0	0.000	A
4 - Site Arm 4	0	479	1208	0.000	0	0.0	0.000	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 - B4100 (W)	636	0	2272	0.280	637	0.4	2.269	A
2 - B4100 (E)	401	0	2062	0.194	401	0.3	2.276	A
3 - Site Arm 3	0	401	1147	0.000	0	0.0	0.000	A
4 - Site Arm 4	0	401	1249	0.000	0	0.0	0.000	A

2031 Baseline + Committed, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	2 - B4100 (E) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Eastern Site Roundabout	Standard Roundabout		1, 2, 3, 4	2.63	A

Junction Network

Driving side	Lighting	Res Cap (%)	First arm reaching threshold	Network delay (s)	Network LOS
Left	Normal/unknown	143	2 - B4100 (E)	2.63	A

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)
D20	2031 Baseline + Committed	PM	ONE HOUR	16:45	18:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Av. Demand (PCU/hr)	Scaling Factor (%)
1 - B4100 (W)		✓	528	100.000
2 - B4100 (E)		✓	744	100.000
3 - Site Arm 3		✓	0	100.000
4 - Site Arm 4		✓	0	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1 - B4100 (W)	2 - B4100 (E)	3 - Site Arm 3	4 - Site Arm 4
From	1 - B4100 (W)	0	528	0	0
	2 - B4100 (E)	744	0	0	0
	3 - Site Arm 3	0	0	0	0
	4 - Site Arm 4	0	0	0	0

Vehicle Mix

HV %s

		To			
		1 - B4100 (W)	2 - B4100 (E)	3 - Site Arm 3	4 - Site Arm 4
From	1 - B4100 (W)	0	2	0	0
	2 - B4100 (E)	2	0	0	0
	3 - Site Arm 3	0	0	0	0
	4 - Site Arm 4	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Q (PCU)	Max LOS
1 - B4100 (W)	0.26	2.17	0.4	A
2 - B4100 (E)	0.40	2.95	0.7	A
3 - Site Arm 3	0.00	0.00	0.0	A
4 - Site Arm 4	0.00	0.00	0.0	A

Main Results for each time segment
16:45 - 17:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - B4100 (W)	398	0	2272	0.175	397	0.2	1.957	A
2 - B4100 (E)	560	0	2062	0.272	559	0.4	2.439	A
3 - Site Arm 3	0	559	1065	0.000	0	0.0	0.000	A
4 - Site Arm 4	0	559	1165	0.000	0	0.0	0.000	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - B4100 (W)	475	0	2272	0.209	474	0.3	2.043	A
2 - B4100 (E)	669	0	2062	0.324	668	0.5	2.634	A
3 - Site Arm 3	0	668	1008	0.000	0	0.0	0.000	A
4 - Site Arm 4	0	668	1107	0.000	0	0.0	0.000	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 - B4100 (W)	581	0	2272	0.256	581	0.3	2.171	A
2 - B4100 (E)	819	0	2062	0.397	818	0.7	2.950	A
3 - Site Arm 3	0	818	930	0.000	0	0.0	0.000	A
4 - Site Arm 4	0	818	1027	0.000	0	0.0	0.000	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 - B4100 (W)	581	0	2272	0.256	581	0.4	2.171	A
2 - B4100 (E)	819	0	2062	0.397	819	0.7	2.952	A
3 - Site Arm 3	0	819	930	0.000	0	0.0	0.000	A
4 - Site Arm 4	0	819	1026	0.000	0	0.0	0.000	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 - B4100 (W)	475	0	2272	0.209	475	0.3	2.043	A
2 - B4100 (E)	669	0	2062	0.324	670	0.5	2.637	A
3 - Site Arm 3	0	670	1008	0.000	0	0.0	0.000	A
4 - Site Arm 4	0	670	1106	0.000	0	0.0	0.000	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 - B4100 (W)	398	0	2272	0.175	398	0.2	1.959	A
2 - B4100 (E)	560	0	2062	0.272	561	0.4	2.445	A
3 - Site Arm 3	0	561	1064	0.000	0	0.0	0.000	A
4 - Site Arm 4	0	561	1164	0.000	0	0.0	0.000	A

2031 Baseline + Committed + Eastern Development, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	2 - B4100 (E) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Eastern Site Roundabout	Standard Roundabout		1, 2, 3, 4	2.85	A

Junction Network

Driving side	Lighting	Res Cap (%)	First arm reaching threshold	Network delay (s)	Network LOS
Left	Normal/unknown	127	1 - B4100 (W)	2.85	A

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)
D21	2031 Baseline + Committed + Eastern Development	AM	ONE HOUR	07:45	09:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Av. Demand (PCU/hr)	Scaling Factor (%)
1 - B4100 (W)		✓	850	100.000
2 - B4100 (E)		✓	598	100.000
3 - Site Arm 3		✓	16	100.000
4 - Site Arm 4		✓	31	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1 - B4100 (W)	2 - B4100 (E)	3 - Site Arm 3	4 - Site Arm 4
From	1 - B4100 (W)	0	845	2	3
	2 - B4100 (E)	532	0	22	44
	3 - Site Arm 3	1	15	0	0
	4 - Site Arm 4	2	29	0	0

Vehicle Mix

HV %s

		To			
		1 - B4100 (W)	2 - B4100 (E)	3 - Site Arm 3	4 - Site Arm 4
From	1 - B4100 (W)	0	3	0	0
	2 - B4100 (E)	5	0	34	34
	3 - Site Arm 3	0	20	0	0
	4 - Site Arm 4	0	20	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Q (PCU)	Max LOS
1 - B4100 (W)	0.42	2.84	0.7	A
2 - B4100 (E)	0.32	2.76	0.5	A
3 - Site Arm 3	0.02	4.24	0.0	A
4 - Site Arm 4	0.03	3.85	0.0	A

Main Results for each time segment
07:45 - 08:00

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 - B4100 (W)	640	33	2249	0.284	638	0.4	2.299	A
2 - B4100 (E)	450	4	2060	0.219	449	0.3	2.403	A
3 - Site Arm 3	12	435	1129	0.011	12	0.0	3.817	A
4 - Site Arm 4	23	411	1244	0.019	23	0.0	3.493	A

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 - B4100 (W)	764	40	2245	0.340	764	0.5	2.502	A
2 - B4100 (E)	538	4	2060	0.261	537	0.4	2.543	A
3 - Site Arm 3	14	520	1085	0.013	14	0.0	3.984	A
4 - Site Arm 4	28	492	1201	0.023	28	0.0	3.635	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 - B4100 (W)	936	48	2239	0.418	935	0.7	2.841	A
2 - B4100 (E)	658	6	2059	0.320	658	0.5	2.764	A
3 - Site Arm 3	18	637	1025	0.017	18	0.0	4.237	A
4 - Site Arm 4	34	603	1142	0.030	34	0.0	3.850	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 - B4100 (W)	936	48	2239	0.418	936	0.7	2.844	A
2 - B4100 (E)	658	6	2059	0.320	658	0.5	2.764	A
3 - Site Arm 3	18	637	1024	0.017	18	0.0	4.238	A
4 - Site Arm 4	34	603	1141	0.030	34	0.0	3.851	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 - B4100 (W)	764	40	2245	0.340	765	0.5	2.507	A
2 - B4100 (E)	538	4	2060	0.261	538	0.4	2.547	A
3 - Site Arm 3	14	521	1085	0.013	14	0.0	3.987	A
4 - Site Arm 4	28	493	1200	0.023	28	0.0	3.637	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 - B4100 (W)	640	33	2249	0.284	640	0.4	2.304	A
2 - B4100 (E)	450	4	2060	0.219	451	0.3	2.407	A
3 - Site Arm 3	12	436	1129	0.011	12	0.0	3.823	A
4 - Site Arm 4	23	413	1243	0.019	23	0.0	3.498	A

2031 Baseline + Committed + Eastern Development, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	2 - B4100 (E) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Eastern Site Roundabout	Standard Roundabout		1, 2, 3, 4	2.82	A

Junction Network

Driving side	Lighting	Res Cap (%)	First arm reaching threshold	Network delay (s)	Network LOS
Left	Normal/unknown	133	2 - B4100 (E)	2.82	A

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)
D22	2031 Baseline + Committed + Eastern Development	PM	ONE HOUR	16:45	18:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Av. Demand (PCU/hr)	Scaling Factor (%)
1 - B4100 (W)		✓	530	100.000
2 - B4100 (E)		✓	773	100.000
3 - Site Arm 3		✓	27	100.000
4 - Site Arm 4		✓	52	100.000

Origin-Destination Data

Demand (PCU/hr)

From		To			
		1 - B4100 (W)	2 - B4100 (E)	3 - Site Arm 3	4 - Site Arm 4
From	1 - B4100 (W)	0	528	1	1
	2 - B4100 (E)	744	0	10	19
	3 - Site Arm 3	2	25	0	0
	4 - Site Arm 4	4	48	0	0

Vehicle Mix

HV %s

From	To			
	1 - B4100 (W)	2 - B4100 (E)	3 - Site Arm 3	4 - Site Arm 4
1 - B4100 (W)	0	2	0	0
2 - B4100 (E)	2	0	34	34
3 - Site Arm 3	0	14	0	0
4 - Site Arm 4	0	14	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Q (PCU)	Max LOS
1 - B4100 (W)	0.26	2.25	0.4	A
2 - B4100 (E)	0.41	3.06	0.7	A
3 - Site Arm 3	0.03	4.57	0.0	A
4 - Site Arm 4	0.06	4.26	0.1	A

Main Results for each time segment
16:45 - 17:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - B4100 (W)	399	55	2235	0.179	398	0.2	1.998	A
2 - B4100 (E)	582	2	2062	0.282	580	0.4	2.499	A
3 - Site Arm 3	20	574	1057	0.019	20	0.0	3.916	A
4 - Site Arm 4	39	579	1154	0.034	39	0.0	3.639	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - B4100 (W)	476	66	2228	0.214	476	0.3	2.096	A
2 - B4100 (E)	695	2	2061	0.337	694	0.5	2.711	A
3 - Site Arm 3	24	686	999	0.024	24	0.0	4.167	A
4 - Site Arm 4	47	693	1094	0.043	47	0.1	3.877	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 - B4100 (W)	584	80	2218	0.263	583	0.4	2.246	A
2 - B4100 (E)	851	2	2061	0.413	850	0.7	3.059	A
3 - Site Arm 3	30	840	919	0.032	30	0.0	4.567	A
4 - Site Arm 4	57	848	1011	0.057	57	0.1	4.257	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 - B4100 (W)	584	80	2218	0.263	584	0.4	2.246	A
2 - B4100 (E)	851	2	2061	0.413	851	0.7	3.061	A
3 - Site Arm 3	30	841	919	0.032	30	0.0	4.569	A
4 - Site Arm 4	57	849	1010	0.057	57	0.1	4.259	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 - B4100 (W)	476	66	2227	0.214	477	0.3	2.099	A
2 - B4100 (E)	695	2	2061	0.337	696	0.5	2.714	A
3 - Site Arm 3	24	688	998	0.024	24	0.0	4.171	A
4 - Site Arm 4	47	694	1093	0.043	47	0.1	3.882	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 - B4100 (W)	399	55	2235	0.179	399	0.2	2.000	A
2 - B4100 (E)	582	2	2061	0.282	582	0.4	2.505	A
3 - Site Arm 3	20	576	1056	0.019	20	0.0	3.922	A
4 - Site Arm 4	39	581	1153	0.034	39	0.0	3.643	A

2031 Baseline + Committed + Both Developments, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	2 - B4100 (E) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Eastern Site Roundabout	Standard Roundabout		1, 2, 3, 4	2.94	A

Junction Network

Driving side	Lighting	Res Cap (%)	First arm reaching threshold	Network delay (s)	Network LOS
Left	Normal/unknown	119	1 - B4100 (W)	2.94	A

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)
D23	2031 Baseline + Committed + Both Developments	AM	ONE HOUR	07:45	09:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Av. Demand (PCU/hr)	Scaling Factor (%)
1 - B4100 (W)		✓	882	100.000
2 - B4100 (E)		✓	655	100.000
3 - Site Arm 3		✓	16	100.000
4 - Site Arm 4		✓	31	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1 - B4100 (W)	2 - B4100 (E)	3 - Site Arm 3	4 - Site Arm 4
From	1 - B4100 (W)	0	877	2	3
	2 - B4100 (E)	589	0	22	44
	3 - Site Arm 3	1	15	0	0
	4 - Site Arm 4	2	29	0	0

Vehicle Mix

HV %s

		To			
		1 - B4100 (W)	2 - B4100 (E)	3 - Site Arm 3	4 - Site Arm 4
From	1 - B4100 (W)	0	3	0	0
	2 - B4100 (E)	5	0	34	34
	3 - Site Arm 3	0	20	0	0
	4 - Site Arm 4	0	20	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Q (PCU)	Max LOS
1 - B4100 (W)	0.43	2.92	0.8	A
2 - B4100 (E)	0.35	2.89	0.6	A
3 - Site Arm 3	0.02	4.38	0.0	A
4 - Site Arm 4	0.03	3.97	0.0	A

Main Results for each time segment
07:45 - 08:00

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 - B4100 (W)	664	33	2249	0.295	662	0.4	2.334	A
2 - B4100 (E)	493	4	2060	0.239	492	0.3	2.461	A
3 - Site Arm 3	12	478	1107	0.011	12	0.0	3.895	A
4 - Site Arm 4	23	454	1221	0.019	23	0.0	3.560	A

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 - B4100 (W)	793	40	2245	0.353	792	0.6	2.552	A
2 - B4100 (E)	589	4	2060	0.286	588	0.4	2.626	A
3 - Site Arm 3	14	571	1059	0.014	14	0.0	4.085	A
4 - Site Arm 4	28	544	1173	0.024	28	0.0	3.722	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 - B4100 (W)	971	48	2239	0.434	970	0.8	2.920	A
2 - B4100 (E)	721	6	2059	0.350	721	0.6	2.885	A
3 - Site Arm 3	18	700	992	0.018	18	0.0	4.378	A
4 - Site Arm 4	34	666	1108	0.031	34	0.0	3.970	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 - B4100 (W)	971	48	2239	0.434	971	0.8	2.923	A
2 - B4100 (E)	721	6	2059	0.350	721	0.6	2.887	A
3 - Site Arm 3	18	700	992	0.018	18	0.0	4.379	A
4 - Site Arm 4	34	666	1108	0.031	34	0.0	3.971	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 - B4100 (W)	793	40	2245	0.353	794	0.6	2.555	A
2 - B4100 (E)	589	4	2060	0.286	589	0.4	2.628	A
3 - Site Arm 3	14	572	1058	0.014	14	0.0	4.087	A
4 - Site Arm 4	28	544	1173	0.024	28	0.0	3.727	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 - B4100 (W)	664	33	2249	0.295	665	0.4	2.341	A
2 - B4100 (E)	493	4	2060	0.239	493	0.3	2.468	A
3 - Site Arm 3	12	479	1106	0.011	12	0.0	3.900	A
4 - Site Arm 4	23	456	1220	0.019	23	0.0	3.565	A

2031 Baseline + Committed + Both Developments, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	2 - B4100 (E) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Eastern Site Roundabout	Standard Roundabout		1, 2, 3, 4	3.09	A

Junction Network

Driving side	Lighting	Res Cap (%)	First arm reaching threshold	Network delay (s)	Network LOS
Left	Normal/unknown	103	2 - B4100 (E)	3.09	A

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)
D24	2031 Baseline + Committed + Both Developments	PM	ONE HOUR	16:45	18:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Av. Demand (PCU/hr)	Scaling Factor (%)
1 - B4100 (W)		✓	665	100.000
2 - B4100 (E)		✓	888	100.000
3 - Site Arm 3		✓	27	100.000
4 - Site Arm 4		✓	52	100.000

Origin-Destination Data

Demand (PCU/hr)

From		To			
		1 - B4100 (W)	2 - B4100 (E)	3 - Site Arm 3	4 - Site Arm 4
From	1 - B4100 (W)	0	663	1	1
	2 - B4100 (E)	859	0	10	19
	3 - Site Arm 3	2	25	0	0
	4 - Site Arm 4	4	48	0	0

Vehicle Mix

HV %s

		To			
		1 - B4100 (W)	2 - B4100 (E)	3 - Site Arm 3	4 - Site Arm 4
From	1 - B4100 (W)	0	2	0	0
	2 - B4100 (E)	2	0	34	34
	3 - Site Arm 3	0	14	0	0
	4 - Site Arm 4	0	14	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Q (PCU)	Max LOS
1 - B4100 (W)	0.33	2.47	0.5	A
2 - B4100 (E)	0.47	3.41	0.9	A
3 - Site Arm 3	0.03	4.93	0.0	A
4 - Site Arm 4	0.06	4.58	0.1	A

Main Results for each time segment
16:45 - 17:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - B4100 (W)	501	55	2235	0.224	499	0.3	2.115	A
2 - B4100 (E)	669	2	2062	0.324	667	0.5	2.650	A
3 - Site Arm 3	20	660	1013	0.020	20	0.0	4.092	A
4 - Site Arm 4	39	665	1108	0.035	39	0.0	3.795	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - B4100 (W)	598	66	2228	0.268	598	0.4	2.252	A
2 - B4100 (E)	798	2	2061	0.387	798	0.6	2.927	A
3 - Site Arm 3	24	790	945	0.026	24	0.0	4.409	A
4 - Site Arm 4	47	796	1039	0.045	47	0.1	4.092	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 - B4100 (W)	732	80	2218	0.330	732	0.5	2.471	A
2 - B4100 (E)	978	2	2061	0.474	977	0.9	3.409	A
3 - Site Arm 3	30	967	853	0.035	30	0.0	4.930	A
4 - Site Arm 4	57	974	944	0.061	57	0.1	4.581	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 - B4100 (W)	732	80	2218	0.330	732	0.5	2.471	A
2 - B4100 (E)	978	2	2061	0.474	978	0.9	3.415	A
3 - Site Arm 3	30	968	853	0.035	30	0.0	4.933	A
4 - Site Arm 4	57	975	943	0.061	57	0.1	4.584	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 - B4100 (W)	598	66	2227	0.268	598	0.4	2.254	A
2 - B4100 (E)	798	2	2061	0.387	799	0.7	2.936	A
3 - Site Arm 3	24	791	944	0.026	24	0.0	4.414	A
4 - Site Arm 4	47	798	1038	0.045	47	0.1	4.098	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 - B4100 (W)	501	55	2235	0.224	501	0.3	2.118	A
2 - B4100 (E)	669	2	2061	0.324	669	0.5	2.660	A
3 - Site Arm 3	20	662	1011	0.020	20	0.0	4.098	A
4 - Site Arm 4	39	668	1107	0.035	39	0.0	3.804	A

Junctions 10

ARCADY 10 - Roundabout Module

Version: 10.0.2.1574
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Filename: A43 roundabout existing layout RevB.j10

Path: P:\17000's\17213\Junction Assessments

Report generation date: 22/09/2021 12:27:09

»2019 Baseline, AM
 »2019 Baseline, PM
 »2019 Baseline + Committed, AM
 »2019 Baseline + Committed, PM
 »2019 Baseline + Western Development, AM
 »2019 Baseline + Western Development, PM
 »2019 Baseline + Eastern Development, AM
 »2019 Baseline + Eastern Development, PM
 »2019 Baseline + Both Developments, AM
 »2019 Baseline + Both Developments, PM
 »2019 Baseline + Committed + Western Development, AM
 »2019 Baseline + Committed + Western Development, PM
 »2019 Baseline + Committed + Eastern Development, AM
 »2019 Baseline + Committed + Eastern Development, PM
 »2019 Baseline + Committed + Both Developments, AM
 »2019 Baseline + Committed + Both Developments, PM
 »2025 Baseline, AM
 »2025 Baseline, PM
 »2025 Baseline + Committed, AM
 »2025 Baseline + Committed, PM
 »2025 Baseline + Western Development , AM
 »2025 Baseline + Western Development, PM
 »2025 Baseline + Eastern Development, AM
 »2025 Baseline + Eastern Development, PM
 »2025 Baseline + Both Developments, AM
 »2025 Baseline + Both Developments, PM
 »2025 Baseline + Committed + Western Development, AM
 »2025 Baseline + Committed + Western Development , PM
 »2025 Baseline + Committed + Eastern Development, AM
 »2025 Baseline + Committed + Eastern Development , PM
 »2025 Baseline + Committed + Both Developments, AM
 »2025 Baseline + Committed + Both Developments, PM
 »2031 Baseline , AM
 »2031 Baseline, PM
 »2031 Baseline + Committed, AM
 »2031 Baseline + Committed, PM
 »2031 Baseline + Committed + Western Development , AM
 »2031 Baseline + Committed + Western Development , PM
 »2031 Baseline + Committed + Eastern Development , AM
 »2031 Baseline + Committed + Eastern Development , PM
 »2031 Baseline + Committed + Both Developments, AM
 »2031 Baseline + Committed + Both Developments, PM

Summary of junction performance

	AM				PM			
	Queue (PCU)	Delay (s)	RFC	Network Residual Capacity	Queue (PCU)	Delay (s)	RFC	Network Residual Capacity
2019 Baseline								
B4100(E)	8.6	61.88	0.93	-5 % [B4100(E)]	27.9	125.22	1.04	-9 % [B4100(E)]
A43 (S)	3.8	8.36	0.77		15.6	29.75	0.95	
B4100 (W)	2.0	12.64	0.66		1.7	14.57	0.63	
A43 (N)	27.1	49.79	0.99		3.2	7.19	0.75	
2019 Baseline + Committed								
B4100(E)	14.7	102.09	0.99	-12 % [B4100(E)]	52.3	223.81	1.14	-13 % [B4100(E)]
A43 (S)	6.0	12.22	0.85		66.1	96.66	1.05	
B4100 (W)	2.7	17.23	0.73		2.2	18.46	0.69	
A43 (N)	114.9	163.15	1.10		4.5	9.34	0.81	
2019 Baseline + Western Development								
B4100(E)	25.6	146.48	1.06	-11 % [B4100(E)]	45.8	191.16	1.11	-12 % [B4100(E)]
A43 (S)	4.6	9.98	0.81		9.6	18.95	0.91	
B4100 (W)	3.3	17.79	0.76		4.3	28.41	0.82	
A43 (N)	44.2	74.78	1.02		3.8	8.40	0.78	
2019 Baseline + Eastern Development								
B4100(E)	3.6	29.88	0.78	-4 % [A43 (N)]	1.9	14.61	0.65	5 % [A43 (S)]
A43 (S)	3.6	7.88	0.76		10.0	18.86	0.91	
B4100 (W)	2.2	13.80	0.68		1.9	16.24	0.66	
A43 (N)	34.2	60.38	1.00		3.3	7.40	0.76	
2019 Baseline + Both Developments								
B4100(E)	34.9	187.00	1.10	-13 % [B4100(E)]	69.8	276.80	1.18	-15 % [B4100(E)]
A43 (S)	3.7	8.30	0.76		20.1	37.17	0.97	
B4100 (W)	3.5	19.33	0.77		5.0	32.31	0.84	
A43 (N)	54.6	89.13	1.03		4.0	8.91	0.79	
2019 Baseline + Committed + Western Development								
B4100(E)	1.8	10.82	0.63	1 % [B4100 (W)]	68.5	286.89	1.19	-14 % [B4100(E)]
A43 (S)	9.1	18.38	0.90		78.4	112.10	1.06	
B4100 (W)	5.3	29.46	0.84		4.9	33.87	0.84	
A43 (N)	1.6	4.94	0.58		5.3	11.03	0.84	
2019 Baseline + Committed + Eastern Development								
B4100(E)	20.3	129.35	1.02	-14 % [B4100(E)]	73.2	299.88	1.20	-15 % [B4100(E)]
A43 (S)	6.7	13.37	0.86		69.1	100.16	1.05	
B4100 (W)	3.2	19.79	0.75		2.2	18.75	0.69	
A43 (N)	129.6	183.47	1.12		4.7	9.69	0.82	
2019 Baseline + Committed + Both Developments								
B4100(E)	46.7	303.49	1.14	-19 % [B4100(E)]	97.8	402.58	1.29	-18 % [B4100(E)]
A43 (S)	8.5	16.82	0.89		78.5	111.77	1.06	
B4100 (W)	5.5	30.48	0.85		7.2	47.28	0.90	
A43 (N)	161.2	244.19	1.15		5.9	12.20	0.85	
2025 Baseline								
B4100(E)	22.5	136.65	1.04	-13 % [B4100(E)]	91.8	371.41	1.26	-17 % [B4100(E)]
A43 (S)	6.2	12.65	0.85		57.2	86.24	1.03	
B4100 (W)	3.8	22.01	0.79		2.8	21.72	0.74	
A43 (N)	110.7	160.51	1.10		5.3	10.81	0.83	
2025 Baseline + Committed								
B4100(E)	29.4	176.41	1.07	-19 % [B4100(E)]	122.5	534.74	1.39	-20 % [B4100(E)]
A43 (S)	11.8	22.69	0.92		148.3	232.81	1.12	
B4100 (W)	6.4	37.75	0.88		3.0	23.64	0.76	
A43 (N)	229.1	381.06	1.22		8.3	16.14	0.89	
2025 Baseline + Western Development								
B4100(E)	49.4	311.11	1.15	-18 % [B4100(E)]	91.3	358.70	1.25	-17 % [B4100(E)]
A43 (S)	8.1	16.23	0.88		75.1	109.15	1.06	
B4100 (W)	7.4	38.87	0.89		3.3	24.19	0.78	
A43 (N)	140.2	204.07	1.13		5.6	11.34	0.84	
2025 Baseline + Eastern Development								
B4100(E)	30.6	172.54	1.07	-15 % [B4100(E)]	115.8	467.41	1.33	-19 % [B4100(E)]
A43 (S)	6.8	13.68	0.86		59.7	89.25	1.04	
B4100 (W)	4.3	24.70	0.81		2.9	22.23	0.75	
A43 (N)	125.7	181.57	1.12		5.5	11.29	0.84	

2025 Baseline + Both Developments								
B4100(E)	60.3	387.20	1.19	-20 % [B4100(E)]	141.6	614.96	1.42	-22 % [B4100(E)]
A43 (S)	8.6	17.18	0.89		68.3	99.74	1.05	
B4100 (W)	8.4	43.74	0.91		10.8	65.08	0.95	
A43 (N)	155.5	238.30	1.15		7.1	14.57	0.87	
2025 Baseline + Committed + Western Development								
B4100(E)	59.9	411.15	1.19	-23 % [B4100(E)]	147.8	692.45	1.49	-22 % [B4100(E)]
A43 (S)	16.8	31.55	0.95		159.7	254.37	1.13	
B4100 (W)	15.1	75.60	0.98		12.4	74.92	0.96	
A43 (N)	260.7	459.39	1.25		11.6	22.88	0.93	
2025 Baseline + Committed + Eastern Development								
B4100(E)	39.0	241.19	1.10	-21 % [B4100(E)]	147.9	664.52	1.46	-22 % [B4100(E)]
A43 (S)	13.6	25.73	0.93		152.2	239.00	1.13	
B4100 (W)	7.8	45.89	0.90		3.1	24.16	0.76	
A43 (N)	246.0	419.46	1.23		8.8	17.14	0.90	
2025 Baseline + Committed + Both Developments								
B4100(E)	75.3	501.95	1.22	-25 % [B4100(E)]	180.8	829.62	1.56	-24 % [B4100(E)]
A43 (S)	19.5	35.98	0.96		163.8	261.43	1.14	
B4100 (W)	18.5	89.83	1.00		13.1	78.55	0.97	
A43 (N)	281.7	500.28	1.26		12.6	24.62	0.93	
2031 Baseline								
B4100(E)	57.7	371.69	1.17	-24 % [B4100(E)]	252.9	1204.65	1.74	-28 % [B4100(E)]
A43 (S)	22.9	41.37	0.97		200.1	332.64	1.17	
B4100 (W)	27.2	124.59	1.05		5.4	37.25	0.86	
A43 (N)	318.2	556.89	1.28		21.8	39.51	0.97	
2031 Baseline + Committed								
B4100(E)	68.6	456.19	1.20	-28 % [B4100(E)]	306.8	1526.04	1.86	-30 % [B4100(E)]
A43 (S)	68.4	99.49	1.05		347.5	569.02	1.26	
B4100 (W)	42.4	191.20	1.11		5.8	40.17	0.87	
A43 (N)	511.1	858.71	1.39		54.5	82.42	1.03	
2031 Baseline + Committed + Western Development								
B4100(E)	50.8	321.35	1.15	-29 % [A43 (N)]	347.3	1780.35	1.90	-32 % [B4100(E)]
A43 (S)	113.2	157.34	1.10		366.9	597.25	1.27	
B4100 (W)	69.1	333.49	1.18		34.7	171.16	1.07	
A43 (N)	546.5	1009.29	1.40		79.3	114.95	1.06	
2031 Baseline + Committed + Eastern Development								
B4100(E)	85.4	553.43	1.24	-30 % [B4100(E)]	346.9	1693.93	1.93	-32 % [B4100(E)]
A43 (S)	78.0	111.14	1.06		354.3	577.82	1.26	
B4100 (W)	46.4	216.24	1.12		6.0	41.52	0.87	
A43 (N)	533.0	921.56	1.40		59.8	89.06	1.04	
2031 Baseline + Committed + Both Developments								
B4100(E)	141.7	901.49	1.36	-33 % [B4100(E)]	386.1	1961.86	1.97	-34 % [B4100(E)]
A43 (S)	104.2	143.58	1.08		375.1	607.85	1.28	
B4100 (W)	73.5	357.41	1.20		35.8	175.90	1.07	
A43 (N)	572.5	1077.62	1.42		84.8	122.09	1.07	

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

File summary

File Description

Title	(untitled)
Location	
Site number	
Date	22/05/2015
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	DTA\arcady

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	Show lane queues in feet / metres	Show all PICADY stream intercepts	Calculate residual capacity	Residual capacity criteria type	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)	Use iterations with HCM roundabouts	Max number of iterations for roundabouts
5.75					✓	Delay	0.85	36.00	20.00		500

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	2019 Baseline	AM	ONE HOUR	07:45	09:15	15	✓
D2	2019 Baseline	PM	ONE HOUR	16:45	18:15	15	✓
D3	2019 Baseline + Committed	AM	ONE HOUR	07:45	09:15	15	✓
D4	2019 Baseline + Committed	PM	ONE HOUR	16:45	18:15	15	✓
D5	2019 Baseline + Western Development	AM	ONE HOUR	07:45	09:15	15	✓
D6	2019 Baseline + Western Development	PM	ONE HOUR	16:45	18:15	15	✓
D7	2019 Baseline + Eastern Development	AM	ONE HOUR	07:45	09:15	15	✓
D8	2019 Baseline + Eastern Development	PM	ONE HOUR	16:45	18:15	15	✓
D9	2019 Baseline + Both Developments	AM	ONE HOUR	07:45	09:15	15	✓
D10	2019 Baseline + Both Developments	PM	ONE HOUR	16:45	18:15	15	✓
D11	2019 Baseline + Committed + Western Development	AM	ONE HOUR	07:45	09:15	15	✓
D12	2019 Baseline + Committed + Western Development	PM	ONE HOUR	16:45	18:15	15	✓
D13	2019 Baseline + Committed + Eastern Development	AM	ONE HOUR	07:45	09:15	15	✓
D14	2019 Baseline + Committed + Eastern Development	PM	ONE HOUR	16:45	18:15	15	✓
D15	2019 Baseline + Committed + Both Developments	AM	ONE HOUR	07:45	09:15	15	✓
D16	2019 Baseline + Committed + Both Developments	PM	ONE HOUR	16:45	18:15	15	✓
D17	2025 Baseline	AM	ONE HOUR	07:45	09:15	15	✓
D18	2025 Baseline	PM	ONE HOUR	16:45	18:15	15	✓
D19	2025 Baseline + Committed	AM	ONE HOUR	07:45	09:15	15	✓
D20	2025 Baseline + Committed	PM	ONE HOUR	16:45	18:15	15	✓
D21	2025 Baseline + Western Development	AM	ONE HOUR	07:45	09:15	15	✓
D22	2025 Baseline + Western Development	PM	ONE HOUR	16:45	18:15	15	✓
D23	2025 Baseline + Eastern Development	AM	ONE HOUR	07:45	09:15	15	✓
D24	2025 Baseline + Eastern Development	PM	ONE HOUR	16:45	18:15	15	✓
D25	2025 Baseline + Both Developments	AM	ONE HOUR	07:45	09:15	15	✓
D26	2025 Baseline + Both Developments	PM	ONE HOUR	16:45	18:15	15	✓
D27	2025 Baseline + Committed + Western Development	AM	ONE HOUR	07:45	09:15	15	✓

D28	2025 Baseline + Committed + Western Development	PM	ONE HOUR	16:45	18:15	15	✓
D29	2025 Baseline + Committed + Eastern Development	AM	ONE HOUR	07:45	09:15	15	✓
D30	2025 Baseline + Committed + Eastern Development	PM	ONE HOUR	16:45	18:15	15	✓
D31	2025 Baseline + Committed + Both Developments	AM	ONE HOUR	07:45	09:15	15	✓
D32	2025 Baseline + Committed + Both Developments	PM	ONE HOUR	16:45	18:15	15	✓
D33	2031 Baseline	AM	ONE HOUR	07:45	09:15	15	✓
D34	2031 Baseline	PM	ONE HOUR	16:45	18:15	15	✓
D35	2031 Baseline + Committed	AM	ONE HOUR	07:45	09:15	15	✓
D36	2031 Baseline + Committed	PM	ONE HOUR	16:45	18:15	15	✓
D37	2031 Baseline + Committed + Western Development	AM	ONE HOUR	07:45	09:15	15	✓
D38	2031 Baseline + Committed + Western Development	PM	ONE HOUR	16:45	18:15	15	✓
D39	2031 Baseline + Committed + Eastern Development	AM	ONE HOUR	07:45	09:15	15	✓
D40	2031 Baseline + Committed + Eastern Development	PM	ONE HOUR	16:45	18:15	15	✓
D41	2031 Baseline + Committed + Both Developments	AM	ONE HOUR	07:45	09:15	15	✓
D42	2031 Baseline + Committed + Both Developments	PM	ONE HOUR	16:45	18:15	15	✓

Analysis Set Details

ID	Include in report	Network flow scaling factor (%)	Network capacity scaling factor (%)
A1	✓	100.000	100.000

2019 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	32.16	D

Junction Network

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold	Network delay (s)	Network LOS
Left	Normal/unknown	-5	B4100(E)	32.16	D

Arms

Arms

Arm	Name	Description	No give-way line
1	B4100(E)	B4100(E)	
2	A43 (S)	A43 (S)	
3	B4100 (W)	B4100 (W)	
4	A43 (N)	A43 (N)	

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)	Entry only	Exit only
B4100(E)	3.65	6.17	11.0	25.2	75.0	26.0		
A43 (S)	7.30	8.40	10.0	40.0	75.0	28.0		
B4100 (W)	3.65	7.30	19.0	25.0	75.0	37.0		
A43 (N)	7.30	8.00	16.5	40.0	75.0	29.0		

Slope / Intercept / Capacity

Arm Intercept Adjustments

Arm	Type	Reason	Percentage intercept adjustment (%)
B4100(E)	Percentage	Observed queuing	92.00
A43 (S)	None		
B4100 (W)	None		
A43 (N)	None		

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
B4100(E)	0.474	1457
A43 (S)	0.620	2536
B4100 (W)	0.493	1765
A43 (N)	0.608	2466

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
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D1	2019 Baseline	AM	ONE HOUR	07:45	09:15	15	✓
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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 (%)
B4100(E)		ONE HOUR	✓	485	100.000
A43 (S)		ONE HOUR	✓	1516	100.000
B4100 (W)		ONE HOUR	✓	538	100.000
A43 (N)		ONE HOUR	✓	1825	100.000

Origin-Destination Data

Demand (PCU/hr)

From	To			
	B4100(E)	A43 (S)	B4100 (W)	A43 (N)
B4100(E)	0	78	175	232
A43 (S)	204	0	138	1174
B4100 (W)	256	166	12	104
A43 (N)	297	1392	136	0

Vehicle Mix

Heavy Vehicle Percentages

From	To			
	B4100(E)	A43 (S)	B4100 (W)	A43 (N)
B4100(E)	0	15	4	7
A43 (S)	8	0	9	17
B4100 (W)	6	6	8	6
A43 (N)	7	18	9	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)
B4100(E)	0.93	61.88	8.6	F	445	668
A43 (S)	0.77	8.36	3.8	A	1391	2087
B4100 (W)	0.66	12.64	2.0	B	494	741
A43 (N)	0.99	49.79	27.1	E	1675	2512

Main Results for each time segment

07:45 - 08:00

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
B4100(E)	365	91	1277	851	0.429	362	567	0.0	0.8	7.828	A
A43 (S)	1141	285	415	2279	0.501	1137	1225	0.0	1.1	3.609	A
B4100 (W)	405	101	1206	1170	0.346	403	345	0.0	0.6	4.960	A
A43 (N)	1374	343	478	2175	0.632	1366	1131	0.0	1.9	5.088	A

08:00 - 08:15

Arm	Total Demand	Junction Arrivals	Circulating flow	Capacity	RFC	Throughput	Throughput (exit side)	Start queue	End queue	Delay	Unsignalised level of
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	(PCU/hr)	(PCU)	(PCU/hr)	(PCU/hr)		(PCU/hr)	(PCU/hr)	(PCU)	(PCU)	(s)	service
B4100(E)	436	109	1527	733	0.595	433	678	0.8	1.5	12.734	B
A43 (S)	1363	341	496	2228	0.612	1360	1464	1.1	1.8	4.753	A
B4100 (W)	484	121	1444	1053	0.459	482	413	0.6	0.9	6.669	A
A43 (N)	1641	410	572	2117	0.775	1633	1354	1.9	3.8	8.446	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
B4100(E)	534	133	1822	593	0.900	514	820	1.5	6.5	41.446	E
A43 (S)	1669	417	589	2170	0.769	1662	1747	1.8	3.7	8.016	A
B4100 (W)	592	148	1756	899	0.659	588	495	0.9	2.0	12.093	B
A43 (N)	2009	502	698	2041	0.985	1944	1646	3.8	20.3	31.183	D

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
B4100(E)	534	133	1855	577	0.925	525	829	6.5	8.6	61.884	F
A43 (S)	1669	417	602	2163	0.772	1669	1779	3.7	3.8	8.362	A
B4100 (W)	592	148	1768	894	0.663	592	502	2.0	2.0	12.638	B
A43 (N)	2009	502	702	2038	0.986	1982	1658	20.3	27.1	49.792	E

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
B4100(E)	436	109	1612	693	0.629	463	699	8.6	1.9	18.553	C
A43 (S)	1363	341	528	2208	0.617	1371	1546	3.8	1.9	4.986	A
B4100 (W)	484	121	1467	1042	0.464	488	432	2.0	0.9	6.945	A
A43 (N)	1641	410	578	2114	0.776	1732	1377	27.1	4.2	13.405	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
B4100(E)	365	91	1292	844	0.432	369	572	1.9	0.8	8.189	A
A43 (S)	1141	285	422	2274	0.502	1144	1239	1.9	1.2	3.670	A
B4100 (W)	405	101	1217	1165	0.348	406	350	0.9	0.6	5.042	A
A43 (N)	1374	343	482	2172	0.632	1383	1141	4.2	2.0	5.317	A

2019 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	35.75	E

Junction Network

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold	Network delay (s)	Network LOS
Left	Normal/unknown	-9	B4100(E)	35.75	E

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	2019 Baseline	PM	ONE HOUR	16:45	18:15	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 (%)
B4100(E)		ONE HOUR	✓	695	100.000
A43 (S)		ONE HOUR	✓	1826	100.000
B4100 (W)		ONE HOUR	✓	399	100.000
A43 (N)		ONE HOUR	✓	1497	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		B4100(E)	A43 (S)	B4100 (W)	A43 (N)
From	B4100(E)	0	150	243	302
	A43 (S)	116	0	128	1582
	B4100 (W)	170	108	16	105
	A43 (N)	239	1169	89	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		B4100(E)	A43 (S)	B4100 (W)	A43 (N)
From	B4100(E)	0	6	1	3
	A43 (S)	3	0	6	7
	B4100 (W)	3	4	0	4
	A43 (N)	4	10	3	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)
B4100(E)	1.04	125.22	27.9	F	638	957
A43 (S)	0.95	29.75	15.6	D	1676	2513
B4100 (W)	0.63	14.57	1.7	B	366	549
A43 (N)	0.75	7.19	3.2	A	1374	2061

Main Results for each time segment

16:45 - 17:00

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
B4100(E)	523	131	1036	966	0.542	518	393	0.0	1.2	8.202	A
A43 (S)	1375	344	485	2235	0.615	1368	1070	0.0	1.7	4.398	A
B4100 (W)	300	75	1497	1027	0.292	299	356	0.0	0.4	5.100	A
A43 (N)	1127	282	307	2279	0.495	1123	1489	0.0	1.1	3.368	A

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
B4100(E)	625	156	1240	869	0.719	620	471	1.2	2.5	14.562	B
A43 (S)	1642	410	580	2176	0.754	1636	1280	1.7	3.2	7.026	A
B4100 (W)	359	90	1790	883	0.406	358	425	0.4	0.7	7.075	A
A43 (N)	1346	336	367	2242	0.600	1344	1780	1.1	1.6	4.339	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
B4100(E)	765	191	1515	739	1.036	705	573	2.5	17.6	67.112	F
A43 (S)	2010	503	668	2122	0.948	1971	1552	3.2	13.0	21.502	C
B4100 (W)	439	110	2139	711	0.618	436	500	0.7	1.6	13.365	B
A43 (N)	1648	412	446	2194	0.751	1642	2129	1.6	3.2	7.000	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
B4100(E)	765	191	1521	736	1.040	724	577	17.6	27.9	125.217	F
A43 (S)	2010	503	683	2112	0.952	2000	1562	13.0	15.6	29.750	D
B4100 (W)	439	110	2174	693	0.633	439	509	1.6	1.7	14.572	B
A43 (N)	1648	412	450	2192	0.752	1648	2163	3.2	3.2	7.188	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
B4100(E)	625	156	1249	865	0.722	725	478	27.9	2.9	41.721	E
A43 (S)	1642	410	663	2125	0.773	1689	1310	15.6	3.8	9.714	A
B4100 (W)	359	90	1885	836	0.429	362	467	1.7	0.8	7.926	A
A43 (N)	1346	336	374	2238	0.601	1352	1874	3.2	1.7	4.443	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
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B4100(E)	523	131	1043	962	0.544	530	397	2.9	1.3	8.692	A
A43 (S)	1375	344	495	2229	0.617	1383	1078	3.8	1.7	4.582	A
B4100 (W)	300	75	1516	1018	0.295	302	361	0.8	0.4	5.209	A
A43 (N)	1127	282	310	2277	0.495	1129	1508	1.7	1.1	3.414	A

2019 Baseline + Committed, 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	87.00	F

Junction Network

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold	Network delay (s)	Network LOS
Left	Normal/unknown	-12	B4100(E)	87.00	F

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	2019 Baseline + Committed	AM	ONE HOUR	07:45	09:15	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 (%)
B4100(E)		ONE HOUR	✓	485	100.000
A43 (S)		ONE HOUR	✓	1671	100.000
B4100 (W)		ONE HOUR	✓	538	100.000
A43 (N)		ONE HOUR	✓	2038	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		B4100(E)	A43 (S)	B4100 (W)	A43 (N)
From	B4100(E)	0	78	175	232
	A43 (S)	204	0	138	1329
	B4100 (W)	256	166	12	104
	A43 (N)	297	1605	136	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		B4100(E)	A43 (S)	B4100 (W)	A43 (N)
From	B4100(E)	0	15	4	7
	A43 (S)	8	0	9	17
	B4100 (W)	6	6	8	6
	A43 (N)	7	18	9	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)
B4100(E)	0.99	102.09	14.7	F	445	668
A43 (S)	0.85	12.22	6.0	B	1533	2300
B4100 (W)	0.73	17.23	2.7	C	494	741
A43 (N)	1.10	163.15	114.9	F	1870	2805

Main Results for each time segment

07:45 - 08:00

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
B4100(E)	365	91	1435	777	0.470	361	567	0.0	0.9	9.203	A
A43 (S)	1258	315	414	2279	0.552	1252	1382	0.0	1.4	4.016	A
B4100 (W)	405	101	1322	1113	0.364	403	344	0.0	0.6	5.352	A
A43 (N)	1534	384	478	2175	0.705	1523	1247	0.0	2.7	6.291	A

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
B4100(E)	436	109	1711	646	0.675	431	677	0.9	2.1	17.608	C
A43 (S)	1502	376	494	2229	0.674	1498	1648	1.4	2.3	5.640	A
B4100 (W)	484	121	1581	986	0.491	482	411	0.6	1.0	7.554	A
A43 (N)	1832	458	572	2118	0.865	1816	1491	2.7	6.7	13.152	B

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
B4100(E)	534	133	1919	547	0.976	502	796	2.1	10.2	61.625	F
A43 (S)	1840	460	569	2183	0.843	1826	1852	2.3	5.7	11.211	B
B4100 (W)	592	148	1915	821	0.721	586	480	1.0	2.6	15.838	C
A43 (N)	2244	561	696	2042	1.099	2019	1806	6.7	62.8	71.187	F

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
B4100(E)	534	133	1935	540	0.990	516	803	10.2	14.7	102.092	F
A43 (S)	1840	460	582	2175	0.846	1839	1869	5.7	6.0	12.225	B
B4100 (W)	592	148	1934	812	0.729	592	487	2.6	2.7	17.227	C
A43 (N)	2244	561	702	2039	1.101	2035	1824	62.8	114.9	163.146	F

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
B4100(E)	436	109	1949	533	0.818	471	723	14.7	5.9	70.665	F
A43 (S)	1502	376	546	2197	0.684	1516	1874	6.0	2.5	6.205	A
B4100 (W)	484	121	1616	968	0.499	490	446	2.7	1.1	8.092	A
A43 (N)	1832	458	581	2112	0.867	2091	1526	114.9	50.2	144.204	F

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
B4100(E)	436	109	1949	533	0.818	471	723	14.7	5.9	70.665	F
A43 (S)	1502	376	546	2197	0.684	1516	1874	6.0	2.5	6.205	A
B4100 (W)	484	121	1616	968	0.499	490	446	2.7	1.1	8.092	A
A43 (N)	1832	458	581	2112	0.867	2091	1526	114.9	50.2	144.204	F

B4100(E)	365	91	1607	695	0.525	384	599	5.9	1.2	13.104	B
A43 (S)	1258	315	446	2259	0.557	1262	1545	2.5	1.5	4.177	A
B4100 (W)	405	101	1342	1104	0.367	407	367	1.1	0.6	5.494	A
A43 (N)	1534	384	482	2172	0.706	1724	1266	50.2	2.9	14.103	B

2019 Baseline + Committed, 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	78.97	F

Junction Network

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold	Network delay (s)	Network LOS
Left	Normal/unknown	-13	B4100(E)	78.97	F

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	2019 Baseline + Committed	PM	ONE HOUR	16:45	18:15	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 (%)
B4100(E)		ONE HOUR	✓	695	100.000
A43 (S)		ONE HOUR	✓	2030	100.000
B4100 (W)		ONE HOUR	✓	399	100.000
A43 (N)		ONE HOUR	✓	1615	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		B4100(E)	A43 (S)	B4100 (W)	A43 (N)
From	B4100(E)	0	150	243	302
	A43 (S)	116	0	128	1786
	B4100 (W)	170	108	16	105
	A43 (N)	239	1287	89	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		B4100(E)	A43 (S)	B4100 (W)	A43 (N)
From	B4100(E)	0	6	1	3
	A43 (S)	3	0	6	7
	B4100 (W)	3	4	0	4
	A43 (N)	4	10	3	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)
B4100(E)	1.14	223.81	52.3	F	638	957
A43 (S)	1.05	96.66	66.1	F	1863	2794
B4100 (W)	0.69	18.46	2.2	C	366	549
A43 (N)	0.81	9.34	4.5	A	1482	2223

Main Results for each time segment

16:45 - 17:00

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
B4100(E)	523	131	1124	924	0.566	518	393	0.0	1.3	9.018	A
A43 (S)	1528	382	485	2235	0.684	1519	1158	0.0	2.3	5.302	A
B4100 (W)	300	75	1649	953	0.315	299	356	0.0	0.5	5.676	A
A43 (N)	1216	304	307	2279	0.534	1211	1640	0.0	1.2	3.647	A

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
B4100(E)	625	156	1346	819	0.763	618	470	1.3	3.1	17.824	C
A43 (S)	1825	456	579	2177	0.838	1813	1385	2.3	5.2	10.247	B
B4100 (W)	359	90	1967	795	0.451	357	425	0.5	0.8	8.467	A
A43 (N)	1452	363	367	2242	0.647	1449	1958	1.2	2.0	4.911	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
B4100(E)	765	191	1642	678	1.128	662	567	3.1	28.8	103.168	F
A43 (S)	2235	559	634	2143	1.043	2100	1670	5.2	39.1	47.068	E
B4100 (W)	439	110	2255	654	0.672	435	479	0.8	2.0	16.645	C
A43 (N)	1778	445	440	2198	0.809	1768	2249	2.0	4.4	8.917	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
B4100(E)	765	191	1651	674	1.135	671	571	28.8	52.3	223.809	F
A43 (S)	2235	559	642	2138	1.046	2127	1680	39.1	66.1	96.660	F
B4100 (W)	439	110	2284	639	0.687	439	484	2.0	2.2	18.456	C
A43 (N)	1778	445	445	2195	0.810	1778	2278	4.4	4.5	9.344	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
B4100(E)	625	156	1358	813	0.768	797	488	52.3	9.1	145.643	F
A43 (S)	1825	456	720	2089	0.874	2047	1435	66.1	10.5	70.591	F
B4100 (W)	359	90	2265	649	0.553	362	503	2.2	1.3	13.137	B
A43 (N)	1452	363	384	2232	0.650	1462	2243	4.5	2.1	5.140	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
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B4100(E)	523	131	1133	920	0.569	554	399	9.1	1.4	10.971	B
A43 (S)	1528	382	514	2217	0.689	1561	1173	10.5	2.4	6.132	A
B4100 (W)	300	75	1703	926	0.325	304	372	1.3	0.5	6.014	A
A43 (N)	1216	304	313	2275	0.534	1219	1694	2.1	1.3	3.714	A

2019 Baseline + Western Development, 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	53.45	F

Junction Network

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold	Network delay (s)	Network LOS
Left	Normal/unknown	-11	B4100(E)	53.45	F

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	2019 Baseline + Western Development	AM	ONE HOUR	07:45	09:15	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 (%)
B4100(E)		ONE HOUR	✓	542	100.000
A43 (S)		ONE HOUR	✓	1558	100.000
B4100 (W)		ONE HOUR	✓	619	100.000
A43 (N)		ONE HOUR	✓	1846	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		B4100(E)	A43 (S)	B4100 (W)	A43 (N)
From	B4100(E)	0	78	232	232
	A43 (S)	204	0	180	1174
	B4100 (W)	289	198	12	120
	A43 (N)	297	1392	157	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		B4100(E)	A43 (S)	B4100 (W)	A43 (N)
From	B4100(E)	0	15	3	7
	A43 (S)	8	0	15	17
	B4100 (W)	6	13	8	12
	A43 (N)	7	18	13	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)
B4100(E)	1.06	146.48	25.6	F	497	746
A43 (S)	0.81	9.98	4.6	A	1430	2144
B4100 (W)	0.76	17.79	3.3	C	568	852
A43 (N)	1.02	74.78	44.2	F	1694	2541

Main Results for each time segment

07:45 - 08:00

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
B4100(E)	408	102	1316	833	0.490	404	591	0.0	1.0	8.844	A
A43 (S)	1173	293	472	2243	0.523	1168	1248	0.0	1.3	3.851	A
B4100 (W)	466	117	1206	1171	0.398	463	434	0.0	0.7	5.542	A
A43 (N)	1390	347	526	2145	0.648	1381	1143	0.0	2.1	5.393	A

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
B4100(E)	487	122	1573	711	0.685	482	707	1.0	2.2	16.410	C
A43 (S)	1401	350	564	2186	0.641	1398	1491	1.3	2.0	5.253	A
B4100 (W)	556	139	1443	1054	0.528	555	519	0.7	1.2	7.851	A
A43 (N)	1660	415	630	2082	0.797	1651	1367	2.1	4.3	9.453	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
B4100(E)	597	149	1852	579	1.031	546	849	2.2	14.8	74.453	F
A43 (S)	1715	429	645	2136	0.803	1706	1753	2.0	4.5	9.458	A
B4100 (W)	682	170	1742	906	0.752	674	609	1.2	3.1	16.437	C
A43 (N)	2032	508	767	1999	1.017	1935	1650	4.3	28.7	40.522	E

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
B4100(E)	597	149	1884	563	1.059	554	859	14.8	25.6	146.475	F
A43 (S)	1715	429	655	2130	0.805	1715	1783	4.5	4.6	9.984	A
B4100 (W)	682	170	1754	901	0.757	681	616	3.1	3.3	17.786	C
A43 (N)	2032	508	773	1995	1.019	1971	1661	28.7	44.2	74.781	F

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
B4100(E)	487	122	1716	643	0.757	574	740	25.6	3.9	75.370	F
A43 (S)	1401	350	657	2129	0.658	1410	1633	4.6	2.3	5.864	A
B4100 (W)	556	139	1493	1029	0.541	564	574	3.3	1.3	8.602	A
A43 (N)	1660	415	639	2076	0.799	1817	1418	44.2	5.0	24.768	C

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
B4100(E)	487	122	1716	643	0.757	574	740	25.6	3.9	75.370	F
A43 (S)	1401	350	657	2129	0.658	1410	1633	4.6	2.3	5.864	A
B4100 (W)	556	139	1493	1029	0.541	564	574	3.3	1.3	8.602	A
A43 (N)	1660	415	639	2076	0.799	1817	1418	44.2	5.0	24.768	C

B4100(E)	408	102	1334	824	0.495	420	598	3.9	1.1	9.712	A
A43 (S)	1173	293	487	2233	0.525	1177	1267	2.3	1.3	3.951	A
B4100 (W)	466	117	1220	1163	0.401	468	444	1.3	0.7	5.682	A
A43 (N)	1390	347	532	2142	0.649	1401	1157	5.0	2.2	5.698	A

2019 Baseline + Western Development, 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	43.95	E

Junction Network

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold	Network delay (s)	Network LOS
Left	Normal/unknown	-12	B4100(E)	43.95	E

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	2019 Baseline + Western Development	PM	ONE HOUR	16:45	18:15	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 (%)
B4100(E)		ONE HOUR	✓	716	100.000
A43 (S)		ONE HOUR	✓	1747	100.000
B4100 (W)		ONE HOUR	✓	521	100.000
A43 (N)		ONE HOUR	✓	1508	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		B4100(E)	A43 (S)	B4100 (W)	A43 (N)
From	B4100(E)	0	150	264	302
	A43 (S)	116	0	49	1582
	B4100 (W)	237	151	6	127
	A43 (N)	239	1169	100	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		B4100(E)	A43 (S)	B4100 (W)	A43 (N)
From	B4100(E)	0	10	1	5
	A43 (S)	9	0	5	7
	B4100 (W)	2	3	0	3
	A43 (N)	5	10	3	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)
B4100(E)	1.11	191.16	45.8	F	657	986
A43 (S)	0.91	18.95	9.6	C	1603	2405
B4100 (W)	0.82	28.41	4.3	D	478	717
A43 (N)	0.78	8.40	3.8	A	1384	2076

Main Results for each time segment

16:45 - 17:00

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
B4100(E)	539	135	1069	950	0.567	534	443	0.0	1.3	8.922	A
A43 (S)	1315	329	501	2225	0.591	1309	1101	0.0	1.5	4.182	A
B4100 (W)	392	98	1497	1027	0.382	390	313	0.0	0.6	5.770	A
A43 (N)	1135	284	382	2233	0.508	1131	1506	0.0	1.1	3.534	A

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
B4100(E)	644	161	1279	850	0.757	637	531	1.3	3.0	17.096	C
A43 (S)	1571	393	599	2165	0.726	1566	1318	1.5	2.8	6.384	A
B4100 (W)	468	117	1790	883	0.531	466	374	0.6	1.1	8.823	A
A43 (N)	1356	339	457	2188	0.620	1353	1800	1.1	1.7	4.674	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
B4100(E)	788	197	1560	717	1.099	697	644	3.0	25.9	91.085	F
A43 (S)	1923	481	667	2122	0.906	1900	1590	2.8	8.7	15.866	C
B4100 (W)	574	143	2140	710	0.808	563	426	1.1	3.8	23.585	C
A43 (N)	1660	415	552	2130	0.780	1653	2151	1.7	3.7	8.070	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
B4100(E)	788	197	1569	713	1.106	709	651	25.9	45.8	191.163	F
A43 (S)	1923	481	677	2116	0.909	1920	1601	8.7	9.6	18.949	C
B4100 (W)	574	143	2165	698	0.822	572	432	3.8	4.3	28.408	D
A43 (N)	1660	415	560	2125	0.781	1660	2177	3.7	3.8	8.397	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
B4100(E)	644	161	1292	844	0.762	809	540	45.8	4.4	110.886	F
A43 (S)	1571	393	736	2080	0.755	1595	1366	9.6	3.4	8.336	A
B4100 (W)	468	117	1892	833	0.562	480	439	4.3	1.4	10.796	B
A43 (N)	1356	339	469	2180	0.622	1364	1903	3.8	1.8	4.838	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
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B4100(E)	539	135	1077	946	0.570	551	448	4.4	1.4	9.788	A
A43 (S)	1315	329	516	2216	0.594	1323	1112	3.4	1.6	4.349	A
B4100 (W)	392	98	1518	1017	0.386	395	320	1.4	0.7	5.962	A
A43 (N)	1135	284	387	2230	0.509	1138	1526	1.8	1.1	3.592	A

2019 Baseline + Eastern Development, 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	32.98	D

Junction Network

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold	Network delay (s)	Network LOS
Left	Normal/unknown	-4	A43 (N)	32.98	D

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	2019 Baseline + Eastern Development	AM	ONE HOUR	07:45	09:15	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 (%)
B4100(E)		ONE HOUR	✓	413	100.000
A43 (S)		ONE HOUR	✓	1539	100.000
B4100 (W)		ONE HOUR	✓	543	100.000
A43 (N)		ONE HOUR	✓	1836	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		B4100(E)	A43 (S)	B4100 (W)	A43 (N)
From	B4100(E)	0	95	77	241
	A43 (S)	227	0	138	1174
	B4100 (W)	261	166	12	104
	A43 (N)	308	1392	136	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		B4100(E)	A43 (S)	B4100 (W)	A43 (N)
From	B4100(E)	0	22	4	8
	A43 (S)	11	0	9	17
	B4100 (W)	7	6	8	6
	A43 (N)	9	18	9	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)
B4100(E)	0.78	29.88	3.6	D	379	568
A43 (S)	0.76	7.88	3.6	A	1412	2118
B4100 (W)	0.68	13.80	2.2	B	498	747
A43 (N)	1.00	60.38	34.2	F	1685	2527

Main Results for each time segment

07:45 - 08:00

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
B4100(E)	311	78	1277	852	0.365	308	596	0.0	0.6	7.266	A
A43 (S)	1159	290	348	2320	0.499	1154	1237	0.0	1.1	3.549	A
B4100 (W)	409	102	1231	1158	0.353	406	272	0.0	0.6	5.084	A
A43 (N)	1382	346	499	2162	0.639	1374	1138	0.0	2.0	5.234	A

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
B4100(E)	371	93	1526	733	0.506	369	713	0.6	1.1	10.840	B
A43 (S)	1384	346	417	2277	0.608	1381	1479	1.1	1.8	4.619	A
B4100 (W)	488	122	1473	1039	0.470	487	325	0.6	0.9	6.923	A
A43 (N)	1651	413	597	2102	0.785	1642	1362	2.0	4.0	8.902	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
B4100(E)	455	114	1811	598	0.760	447	860	1.1	3.1	24.901	C
A43 (S)	1694	424	501	2225	0.762	1687	1756	1.8	3.6	7.618	A
B4100 (W)	598	149	1797	880	0.680	593	392	0.9	2.2	13.158	B
A43 (N)	2021	505	728	2022	1.000	1942	1661	4.0	23.9	35.301	E

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
B4100(E)	455	114	1844	583	0.781	453	869	3.1	3.6	29.885	D
A43 (S)	1694	424	509	2220	0.763	1694	1788	3.6	3.6	7.878	A
B4100 (W)	598	149	1807	875	0.684	598	396	2.2	2.2	13.804	B
A43 (N)	2021	505	733	2020	1.001	1981	1671	23.9	34.2	60.381	F

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
B4100(E)	371	93	1634	682	0.544	380	739	3.6	1.4	13.487	B
A43 (S)	1384	346	435	2266	0.611	1391	1579	3.6	1.8	4.782	A
B4100 (W)	488	122	1488	1032	0.473	493	338	2.2	1.0	7.186	A
A43 (N)	1651	413	604	2098	0.787	1769	1377	34.2	4.5	17.033	C

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
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B4100(E)	311	78	1293	844	0.368	314	602	1.4	0.7	7.515	A
A43 (S)	1159	290	354	2316	0.500	1161	1253	1.8	1.2	3.601	A
B4100 (W)	409	102	1240	1154	0.354	410	275	1.0	0.6	5.168	A
A43 (N)	1382	346	503	2159	0.640	1392	1148	4.5	2.1	5.492	A

2019 Baseline + Eastern Development, 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	14.04	B

Junction Network

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold	Network delay (s)	Network LOS
Left	Normal/unknown	5	A43 (S)	14.04	B

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	2019 Baseline + Eastern Development	PM	ONE HOUR	16:45	18:15	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 (%)
B4100(E)		ONE HOUR	✓	435	100.000
A43 (S)		ONE HOUR	✓	1838	100.000
B4100 (W)		ONE HOUR	✓	400	100.000
A43 (N)		ONE HOUR	✓	1503	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		B4100(E)	A43 (S)	B4100 (W)	A43 (N)
From	B4100(E)	0	73	48	314
	A43 (S)	128	0	128	1582
	B4100 (W)	171	108	16	105
	A43 (N)	245	1169	89	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		B4100(E)	A43 (S)	B4100 (W)	A43 (N)
From	B4100(E)	0	9	1	4
	A43 (S)	8	0	6	7
	B4100 (W)	3	4	0	4
	A43 (N)	5	10	3	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)
B4100(E)	0.65	14.61	1.9	B	399	599
A43 (S)	0.91	18.86	10.0	C	1687	2530
B4100 (W)	0.66	16.24	1.9	C	367	551
A43 (N)	0.76	7.40	3.3	A	1379	2069

Main Results for each time segment

16:45 - 17:00

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
B4100(E)	327	82	1036	966	0.339	325	408	0.0	0.5	5.856	A
A43 (S)	1384	346	349	2319	0.597	1377	1012	0.0	1.6	4.065	A
B4100 (W)	301	75	1516	1018	0.296	299	211	0.0	0.4	5.170	A
A43 (N)	1132	283	317	2273	0.498	1127	1499	0.0	1.1	3.404	A

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
B4100(E)	391	98	1240	869	0.450	390	488	0.5	0.8	7.829	A
A43 (S)	1652	413	419	2276	0.726	1648	1211	1.6	2.8	6.080	A
B4100 (W)	360	90	1814	871	0.413	358	252	0.4	0.7	7.248	A
A43 (N)	1351	338	379	2235	0.605	1349	1794	1.1	1.6	4.405	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
B4100(E)	479	120	1515	739	0.648	475	594	0.8	1.8	14.045	B
A43 (S)	2024	506	510	2219	0.912	1998	1479	2.8	9.2	15.846	C
B4100 (W)	440	110	2202	680	0.648	436	307	0.7	1.8	15.000	C
A43 (N)	1655	414	461	2185	0.757	1648	2177	1.6	3.3	7.202	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
B4100(E)	479	120	1521	736	0.651	479	598	1.8	1.9	14.606	B
A43 (S)	2024	506	514	2217	0.913	2020	1486	9.2	10.0	18.865	C
B4100 (W)	440	110	2225	668	0.659	440	309	1.8	1.9	16.238	C
A43 (N)	1655	414	465	2183	0.758	1655	2200	3.3	3.3	7.404	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
B4100(E)	391	98	1249	865	0.452	395	494	1.9	0.9	8.080	A
A43 (S)	1652	413	424	2273	0.727	1681	1221	10.0	2.9	6.803	A
B4100 (W)	360	90	1849	854	0.421	364	256	1.9	0.8	7.677	A
A43 (N)	1351	338	386	2231	0.606	1358	1828	3.3	1.7	4.515	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
B4100(E)	391	98	1249	865	0.452	395	494	1.9	0.9	8.080	A
A43 (S)	1652	413	424	2273	0.727	1681	1221	10.0	2.9	6.803	A
B4100 (W)	360	90	1849	854	0.421	364	256	1.9	0.8	7.677	A
A43 (N)	1351	338	386	2231	0.606	1358	1828	3.3	1.7	4.515	A

B4100(E)	327	82	1043	962	0.340	329	411	0.9	0.5	5.948	A
A43 (S)	1384	346	353	2317	0.597	1389	1019	2.9	1.6	4.176	A
B4100 (W)	301	75	1530	1011	0.298	302	212	0.8	0.4	5.261	A
A43 (N)	1132	283	320	2271	0.498	1134	1512	1.7	1.1	3.448	A

2019 Baseline + Both Developments, 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	65.45	F

Junction Network

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold	Network delay (s)	Network LOS
Left	Normal/unknown	-13	B4100(E)	65.45	F

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	2019 Baseline + Both Developments	AM	ONE HOUR	07:45	09:15	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 (%)
B4100(E)		ONE HOUR	✓	571	100.000
A43 (S)		ONE HOUR	✓	1481	100.000
B4100 (W)		ONE HOUR	✓	623	100.000
A43 (N)		ONE HOUR	✓	1857	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		B4100(E)	A43 (S)	B4100 (W)	A43 (N)
From	B4100(E)	0	95	235	241
	A43 (S)	227	0	80	1174
	B4100 (W)	293	198	12	120
	A43 (N)	308	1392	157	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		B4100(E)	A43 (S)	B4100 (W)	A43 (N)
From	B4100(E)	0	22	4	8
	A43 (S)	11	0	15	17
	B4100 (W)	6	13	8	12
	A43 (N)	9	18	13	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)
B4100(E)	1.10	187.00	34.9	F	524	786
A43 (S)	0.76	8.30	3.7	A	1359	2038
B4100 (W)	0.77	19.33	3.5	C	572	858
A43 (N)	1.03	89.13	54.6	F	1704	2556

Main Results for each time segment

07:45 - 08:00

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
B4100(E)	430	107	1316	833	0.516	425	620	0.0	1.1	9.469	A
A43 (S)	1115	279	481	2237	0.498	1110	1260	0.0	1.1	3.688	A
B4100 (W)	469	117	1230	1159	0.405	466	361	0.0	0.7	5.658	A
A43 (N)	1398	350	547	2133	0.655	1389	1150	0.0	2.2	5.550	A

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
B4100(E)	513	128	1572	711	0.722	507	741	1.1	2.6	18.601	C
A43 (S)	1331	333	574	2180	0.611	1329	1506	1.1	1.8	4.890	A
B4100 (W)	560	140	1471	1040	0.539	558	432	0.7	1.3	8.128	A
A43 (N)	1669	417	654	2067	0.807	1660	1375	2.2	4.6	10.002	B

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
B4100(E)	629	157	1837	586	1.073	562	887	2.6	19.4	89.401	F
A43 (S)	1631	408	644	2136	0.763	1623	1754	1.8	3.6	8.025	A
B4100 (W)	686	171	1773	891	0.770	677	495	1.3	3.4	17.748	C
A43 (N)	2045	511	796	1981	1.032	1929	1654	4.6	33.6	45.632	E

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
B4100(E)	629	157	1866	572	1.099	566	897	19.4	34.9	186.996	F
A43 (S)	1631	408	651	2132	0.765	1630	1782	3.6	3.7	8.304	A
B4100 (W)	686	171	1781	887	0.773	685	500	3.4	3.5	19.329	C
A43 (N)	2045	511	803	1977	1.034	1961	1663	33.6	54.6	89.131	F

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
B4100(E)	513	128	1748	628	0.817	609	782	34.9	11.0	142.825	F
A43 (S)	1331	333	677	2116	0.629	1338	1681	3.7	2.0	5.411	A
B4100 (W)	560	140	1523	1014	0.552	569	492	3.5	1.4	8.995	A
A43 (N)	1669	417	664	2061	0.810	1866	1427	54.6	5.5	36.668	E

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
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B4100(E)	430	107	1336	824	0.522	469	627	11.0	1.2	12.208	B
A43 (S)	1115	279	519	2214	0.504	1118	1285	2.0	1.2	3.822	A
B4100 (W)	469	117	1256	1146	0.409	471	382	1.4	0.8	5.856	A
A43 (N)	1398	350	552	2130	0.656	1411	1175	5.5	2.3	5.907	A

2019 Baseline + Both Developments, 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	66.26	F

Junction Network

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold	Network delay (s)	Network LOS
Left	Normal/unknown	-15	B4100(E)	66.26	F

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	2019 Baseline + Both Developments	PM	ONE HOUR	16:45	18:15	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 (%)
B4100(E)		ONE HOUR	✓	756	100.000
A43 (S)		ONE HOUR	✓	1865	100.000
B4100 (W)		ONE HOUR	✓	533	100.000
A43 (N)		ONE HOUR	✓	1514	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		B4100(E)	A43 (S)	B4100 (W)	A43 (N)
From	B4100(E)	0	173	269	314
	A43 (S)	128	6	149	1582
	B4100 (W)	239	151	16	127
	A43 (N)	245	1169	100	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		B4100(E)	A43 (S)	B4100 (W)	A43 (N)
From	B4100(E)	0	9	1	4
	A43 (S)	8	0	13	7
	B4100 (W)	3	10	0	8
	A43 (N)	5	10	9	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)
B4100(E)	1.18	276.80	69.8	F	694	1041
A43 (S)	0.97	37.17	20.1	E	1711	2567
B4100 (W)	0.84	32.31	5.0	D	489	734
A43 (N)	0.79	8.91	4.0	A	1389	2084

Main Results for each time segment

16:45 - 17:00

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
B4100(E)	569	142	1081	944	0.603	563	458	0.0	1.5	9.667	A
A43 (S)	1404	351	521	2213	0.635	1397	1123	0.0	1.8	4.702	A
B4100 (W)	401	100	1519	1016	0.395	399	399	0.0	0.7	6.149	A
A43 (N)	1140	285	404	2220	0.513	1135	1514	0.0	1.1	3.607	A

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
B4100(E)	680	170	1293	844	0.806	670	548	1.5	3.9	20.566	C
A43 (S)	1677	419	621	2151	0.780	1669	1343	1.8	3.7	7.920	A
B4100 (W)	479	120	1814	871	0.550	477	476	0.7	1.3	9.627	A
A43 (N)	1361	340	483	2172	0.627	1358	1808	1.1	1.8	4.814	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
B4100(E)	832	208	1577	709	1.173	698	664	3.9	37.5	122.473	F
A43 (S)	2053	513	665	2124	0.967	2003	1610	3.7	16.2	25.425	D
B4100 (W)	587	147	2133	714	0.822	575	535	1.3	4.2	25.626	D
A43 (N)	1667	417	582	2111	0.789	1658	2126	1.8	3.9	8.514	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
B4100(E)	832	208	1586	705	1.181	703	671	37.5	69.8	276.801	F
A43 (S)	2053	513	670	2120	0.968	2037	1620	16.2	20.1	37.172	E
B4100 (W)	587	147	2167	697	0.842	584	541	4.2	5.0	32.305	D
A43 (N)	1667	417	591	2106	0.792	1666	2160	3.9	4.0	8.914	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
B4100(E)	680	170	1308	837	0.812	824	562	69.8	33.6	227.432	F
A43 (S)	1677	419	741	2076	0.808	1738	1391	20.1	4.8	13.288	B
B4100 (W)	479	120	1942	808	0.593	493	537	5.0	1.6	12.574	B
A43 (N)	1361	340	500	2161	0.630	1370	1934	4.0	1.9	5.015	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
B4100(E)	680	170	1308	837	0.812	824	562	69.8	33.6	227.432	F
A43 (S)	1677	419	741	2076	0.808	1738	1391	20.1	4.8	13.288	B
B4100 (W)	479	120	1942	808	0.593	493	537	5.0	1.6	12.574	B
A43 (N)	1361	340	500	2161	0.630	1370	1934	4.0	1.9	5.015	A

B4100(E)	569	142	1089	941	0.605	697	463	33.6	1.7	25.403	D
A43 (S)	1404	351	625	2148	0.654	1415	1161	4.8	2.1	5.355	A
B4100 (W)	401	100	1591	981	0.409	405	449	1.6	0.7	6.661	A
A43 (N)	1140	285	410	2216	0.514	1143	1586	1.9	1.2	3.667	A

2019 Baseline + Committed + Western Development, 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	15.46	C

Junction Network

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold	Network delay (s)	Network LOS
Left	Normal/unknown	1	B4100 (W)	15.46	C

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	2019 Baseline + Committed + Western Development	AM	ONE HOUR	07:45	09:15	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 (%)
B4100(E)		ONE HOUR	✓	542	100.000
A43 (S)		ONE HOUR	✓	1713	100.000
B4100 (W)		ONE HOUR	✓	619	100.000
A43 (N)		ONE HOUR	✓	1059	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		B4100(E)	A43 (S)	B4100 (W)	A43 (N)
From	B4100(E)	0	78	232	232
	A43 (S)	204	0	180	1329
	B4100 (W)	289	198	12	120
	A43 (N)	297	605	157	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		B4100(E)	A43 (S)	B4100 (W)	A43 (N)
From	B4100(E)	0	15	3	7
	A43 (S)	8	0	15	17
	B4100 (W)	6	13	8	12

	A43 (N)	7	18	13	0
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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)
B4100(E)	0.63	10.82	1.8	B	497	746
A43 (S)	0.90	18.38	9.1	C	1572	2358
B4100 (W)	0.84	29.46	5.3	D	568	852
A43 (N)	0.58	4.94	1.6	A	972	1458

Main Results for each time segment

07:45 - 08:00

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
B4100(E)	408	102	729	1111	0.367	406	592	0.0	0.6	5.403	A
A43 (S)	1290	322	474	2242	0.575	1283	660	0.0	1.5	4.317	A
B4100 (W)	466	117	1322	1113	0.419	463	435	0.0	0.8	6.023	A
A43 (N)	797	199	526	2145	0.372	795	1259	0.0	0.7	3.030	A

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
B4100(E)	487	122	872	1043	0.467	486	708	0.6	0.9	6.850	A
A43 (S)	1540	385	568	2184	0.705	1535	790	1.5	2.7	6.375	A
B4100 (W)	556	139	1582	985	0.565	554	521	0.8	1.4	9.077	A
A43 (N)	952	238	629	2083	0.457	951	1507	0.7	1.0	3.622	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
B4100(E)	597	149	1064	952	0.627	594	860	0.9	1.7	10.560	B
A43 (S)	1886	472	694	2106	0.896	1863	964	2.7	8.5	15.836	C
B4100 (W)	682	170	1921	818	0.833	668	635	1.4	4.7	24.425	C
A43 (N)	1166	291	761	2003	0.582	1164	1829	1.0	1.6	4.874	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
B4100(E)	597	149	1069	950	0.628	597	868	1.7	1.8	10.820	B
A43 (S)	1886	472	697	2104	0.897	1883	969	8.5	9.1	18.382	C
B4100 (W)	682	170	1941	808	0.843	679	639	4.7	5.3	29.455	D
A43 (N)	1166	291	772	1996	0.584	1166	1848	1.6	1.6	4.943	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
B4100(E)	487	122	881	1039	0.469	491	721	1.8	1.0	7.014	A
A43 (S)	1540	385	572	2181	0.706	1565	799	9.1	2.8	7.029	A
B4100 (W)	556	139	1611	971	0.573	571	527	5.3	1.5	10.199	B
A43 (N)	952	238	647	2072	0.460	954	1535	1.6	1.0	3.678	A

09:00 - 09:15

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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
B4100(E)	408	102	734	1109	0.368	409	597	1.0	0.6	5.480	A
A43 (S)	1290	322	478	2239	0.576	1295	665	2.8	1.6	4.431	A
B4100 (W)	466	117	1334	1108	0.421	469	439	1.5	0.8	6.188	A
A43 (N)	797	199	532	2142	0.372	798	1271	1.0	0.7	3.058	A

2019 Baseline + Committed + Western Development, 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	96.09	F

Junction Network

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold	Network delay (s)	Network LOS
Left	Normal/unknown	-14	B4100(E)	96.09	F

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	2019 Baseline + Committed + Western Development	PM	ONE HOUR	16:45	18:15	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 (%)
B4100(E)		ONE HOUR	✓	716	100.000
A43 (S)		ONE HOUR	✓	2051	100.000
B4100 (W)		ONE HOUR	✓	501	100.000
A43 (N)		ONE HOUR	✓	1626	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		B4100(E)	A43 (S)	B4100 (W)	A43 (N)
From	B4100(E)	0	150	264	302
	A43 (S)	116	0	149	1786
	B4100 (W)	237	121	16	127
	A43 (N)	239	1287	100	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		B4100(E)	A43 (S)	B4100 (W)	A43 (N)
From	B4100(E)	0	6	1	3
	A43 (S)	3	0	13	7
	B4100 (W)	2	10	0	8

	A43 (N)	4	10	9	0
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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)
B4100(E)	1.19	286.89	68.5	F	657	986
A43 (S)	1.06	112.10	78.4	F	1882	2823
B4100 (W)	0.84	33.87	4.9	D	460	690
A43 (N)	0.84	11.03	5.3	B	1492	2238

Main Results for each time segment

16:45 - 17:00

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
B4100(E)	539	135	1142	915	0.589	533	443	0.0	1.4	9.554	A
A43 (S)	1544	386	508	2220	0.695	1535	1167	0.0	2.4	5.550	A
B4100 (W)	377	94	1648	953	0.396	374	395	0.0	0.7	6.523	A
A43 (N)	1224	306	366	2243	0.546	1219	1656	0.0	1.3	3.815	A

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
B4100(E)	644	161	1367	809	0.796	635	530	1.4	3.6	20.325	C
A43 (S)	1844	461	606	2160	0.854	1830	1396	2.4	5.8	11.265	B
B4100 (W)	450	113	1965	796	0.565	448	471	0.7	1.3	10.786	B
A43 (N)	1462	365	438	2199	0.665	1458	1975	1.3	2.1	5.275	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
B4100(E)	788	197	1665	668	1.181	656	636	3.6	36.6	126.314	F
A43 (S)	2258	565	645	2135	1.057	2100	1676	5.8	45.2	52.791	F
B4100 (W)	552	138	2225	669	0.825	540	521	1.3	4.2	27.353	D
A43 (N)	1790	448	522	2148	0.833	1778	2243	2.1	5.1	10.297	B

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
B4100(E)	788	197	1677	662	1.191	661	643	36.6	68.5	286.893	F
A43 (S)	2258	565	650	2133	1.059	2125	1687	45.2	78.4	112.102	F
B4100 (W)	552	138	2250	656	0.840	549	526	4.2	4.9	33.874	D
A43 (N)	1790	448	530	2143	0.835	1789	2269	5.1	5.3	11.032	B

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
B4100(E)	644	161	1383	801	0.804	789	551	68.5	32.1	231.231	F
A43 (S)	1844	461	729	2084	0.885	2055	1443	78.4	25.5	94.336	F
B4100 (W)	450	113	2239	662	0.681	460	546	4.9	2.4	19.670	C
A43 (N)	1462	365	460	2186	0.669	1474	2239	5.3	2.2	5.606	A

18:00 - 18:15

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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
B4100(E)	539	135	1152	911	0.592	661	454	32.1	1.5	23.933	C
A43 (S)	1544	386	611	2157	0.716	1635	1203	25.5	2.8	8.723	A
B4100 (W)	377	94	1795	880	0.428	383	450	2.4	0.8	7.723	A
A43 (N)	1224	306	379	2235	0.548	1228	1800	2.2	1.3	3.909	A

2019 Baseline + Committed + Eastern Development, 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	99.12	F

Junction Network

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold	Network delay (s)	Network LOS
Left	Normal/unknown	-14	B4100(E)	99.12	F

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	2019 Baseline + Committed + Eastern Development	AM	ONE HOUR	07:45	09:15	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 (%)
B4100(E)		ONE HOUR	✓	513	100.000
A43 (S)		ONE HOUR	✓	1694	100.000
B4100 (W)		ONE HOUR	✓	543	100.000
A43 (N)		ONE HOUR	✓	2049	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		B4100(E)	A43 (S)	B4100 (W)	A43 (N)
From	B4100(E)	0	95	177	241
	A43 (S)	227	0	138	1329
	B4100 (W)	261	166	12	104
	A43 (N)	308	1605	136	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		B4100(E)	A43 (S)	B4100 (W)	A43 (N)
From	B4100(E)	0	22	4	8
	A43 (S)	11	0	20	17
	B4100 (W)	7	16	8	14

	A43 (N)	9	18	15	0
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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)
B4100(E)	1.02	129.35	20.3	F	471	706
A43 (S)	0.86	13.37	6.7	B	1554	2332
B4100 (W)	0.75	19.79	3.2	C	498	747
A43 (N)	1.12	183.47	129.6	F	1880	2820

Main Results for each time segment

07:45 - 08:00

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
B4100(E)	386	97	1434	777	0.497	382	596	0.0	1.1	9.826	A
A43 (S)	1275	319	422	2274	0.561	1269	1394	0.0	1.5	4.147	A
B4100 (W)	409	102	1345	1102	0.371	406	346	0.0	0.6	5.722	A
A43 (N)	1543	386	499	2162	0.713	1531	1253	0.0	2.8	6.538	A

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
B4100(E)	461	115	1709	646	0.713	455	711	1.1	2.5	19.918	C
A43 (S)	1523	381	503	2224	0.685	1519	1662	1.5	2.5	5.908	A
B4100 (W)	488	122	1609	972	0.502	486	413	0.6	1.1	8.194	A
A43 (N)	1842	461	597	2102	0.876	1824	1499	2.8	7.3	14.203	B

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
B4100(E)	565	141	1897	557	1.014	522	833	2.5	13.2	72.883	F
A43 (S)	1865	466	572	2181	0.855	1850	1848	2.5	6.3	12.117	B
B4100 (W)	598	149	1944	807	0.741	590	477	1.1	3.0	17.894	C
A43 (N)	2256	564	725	2024	1.114	2005	1810	7.3	70.0	78.469	F

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
B4100(E)	565	141	1910	551	1.025	536	840	13.2	20.3	129.353	F
A43 (S)	1865	466	584	2173	0.858	1864	1862	6.3	6.7	13.374	B
B4100 (W)	598	149	1964	797	0.750	597	484	3.0	3.2	19.788	C
A43 (N)	2256	564	732	2020	1.117	2018	1828	70.0	129.6	183.471	F

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
B4100(E)	461	115	1928	543	0.850	509	757	20.3	8.4	104.631	F
A43 (S)	1523	381	563	2186	0.697	1539	1873	6.7	2.7	6.620	A
B4100 (W)	488	122	1652	951	0.513	496	450	3.2	1.2	8.931	A
A43 (N)	1842	461	607	2096	0.879	2077	1541	129.6	70.7	174.895	F

09:00 - 09:15

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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
B4100(E)	386	97	1676	662	0.583	414	642	8.4	1.6	17.370	C
A43 (S)	1275	319	466	2246	0.568	1280	1623	2.7	1.5	4.356	A
B4100 (W)	409	102	1370	1090	0.375	411	376	1.2	0.7	5.903	A
A43 (N)	1543	386	504	2159	0.714	1813	1277	70.7	3.0	25.567	D

2019 Baseline + Committed + Eastern Development, 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	93.40	F

Junction Network

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold	Network delay (s)	Network LOS
Left	Normal/unknown	-15	B4100(E)	93.40	F

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	2019 Baseline + Committed + Eastern Development	PM	ONE HOUR	16:45	18:15	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 (%)
B4100(E)		ONE HOUR	✓	735	100.000
A43 (S)		ONE HOUR	✓	2042	100.000
B4100 (W)		ONE HOUR	✓	400	100.000
A43 (N)		ONE HOUR	✓	1621	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		B4100(E)	A43 (S)	B4100 (W)	A43 (N)
From	B4100(E)	0	173	248	314
	A43 (S)	128	0	128	1786
	B4100 (W)	171	108	16	105
	A43 (N)	245	1287	89	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		B4100(E)	A43 (S)	B4100 (W)	A43 (N)
From	B4100(E)	0	9	1	4
	A43 (S)	8	0	6	7
	B4100 (W)	3	4	0	4

	A43 (N)	5	10	3	0
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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)
B4100(E)	1.20	299.88	73.2	F	674	1012
A43 (S)	1.05	100.16	69.1	F	1874	2811
B4100 (W)	0.69	18.75	2.2	C	367	551
A43 (N)	0.82	9.69	4.7	A	1487	2231

Main Results for each time segment

16:45 - 17:00

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
B4100(E)	553	138	1124	924	0.599	547	407	0.0	1.5	9.800	A
A43 (S)	1537	384	497	2227	0.690	1528	1175	0.0	2.3	5.437	A
B4100 (W)	301	75	1666	944	0.319	299	359	0.0	0.5	5.757	A
A43 (N)	1220	305	316	2273	0.537	1215	1649	0.0	1.3	3.688	A

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
B4100(E)	661	165	1345	819	0.807	651	487	1.5	3.9	21.234	C
A43 (S)	1836	459	592	2169	0.847	1823	1405	2.3	5.5	10.775	B
B4100 (W)	360	90	1987	786	0.458	358	428	0.5	0.9	8.675	A
A43 (N)	1457	364	378	2235	0.652	1454	1967	1.3	2.0	4.996	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
B4100(E)	809	202	1641	679	1.192	668	587	3.9	39.1	131.727	F
A43 (S)	2248	562	626	2148	1.047	2107	1684	5.5	40.8	48.653	E
B4100 (W)	440	110	2261	651	0.677	436	472	0.9	2.0	16.930	C
A43 (N)	1785	446	453	2190	0.815	1775	2243	2.0	4.5	9.215	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
B4100(E)	809	202	1651	674	1.200	673	591	39.1	73.2	299.882	F
A43 (S)	2248	562	630	2145	1.048	2135	1694	40.8	69.1	100.155	F
B4100 (W)	440	110	2289	637	0.691	440	476	2.0	2.2	18.752	C
A43 (N)	1785	446	458	2187	0.816	1784	2270	4.5	4.7	9.695	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
B4100(E)	661	165	1358	813	0.813	801	506	73.2	38.0	250.472	F
A43 (S)	1836	459	708	2097	0.876	2065	1452	69.1	11.6	75.347	F
B4100 (W)	360	90	2278	642	0.560	363	495	2.2	1.4	13.495	B
A43 (N)	1457	364	397	2224	0.655	1468	2244	4.7	2.1	5.247	A

18:00 - 18:15

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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
B4100(E)	553	138	1133	920	0.602	699	414	38.0	1.6	31.631	D
A43 (S)	1537	384	614	2155	0.713	1573	1218	11.6	2.7	7.009	A
B4100 (W)	301	75	1773	891	0.338	304	414	1.4	0.5	6.380	A
A43 (N)	1220	305	323	2269	0.538	1224	1754	2.1	1.3	3.758	A

2019 Baseline + Committed + Both Developments, 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	145.39	F

Junction Network

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold	Network delay (s)	Network LOS
Left	Normal/unknown	-19	B4100(E)	145.39	F

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
D15	2019 Baseline + Committed + Both Developments	AM	ONE HOUR	07:45	09:15	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 (%)
B4100(E)		ONE HOUR	✓	571	100.000
A43 (S)		ONE HOUR	✓	1736	100.000
B4100 (W)		ONE HOUR	✓	623	100.000
A43 (N)		ONE HOUR	✓	2070	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		B4100(E)	A43 (S)	B4100 (W)	A43 (N)
From	B4100(E)	0	95	235	241
	A43 (S)	227	0	180	1329
	B4100 (W)	293	198	12	120
	A43 (N)	308	1605	157	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		B4100(E)	A43 (S)	B4100 (W)	A43 (N)
From	B4100(E)	0	22	3	8
	A43 (S)	11	0	15	17
	B4100 (W)	6	13	8	12

	A43 (N)	9	18	13	0
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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)
B4100(E)	1.14	303.49	46.7	F	524	786
A43 (S)	0.89	16.82	8.5	C	1593	2389
B4100 (W)	0.85	30.48	5.5	D	572	858
A43 (N)	1.15	244.19	161.2	F	1899	2849

Main Results for each time segment

07:45 - 08:00

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
B4100(E)	430	107	1473	758	0.567	424	619	0.0	1.4	11.452	B
A43 (S)	1307	327	480	2238	0.584	1301	1417	0.0	1.6	4.424	A
B4100 (W)	469	117	1345	1102	0.426	466	436	0.0	0.8	6.154	A
A43 (N)	1558	390	546	2133	0.731	1546	1264	0.0	3.1	6.988	A

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
B4100(E)	513	128	1752	626	0.820	502	739	1.4	4.2	29.079	D
A43 (S)	1561	390	569	2183	0.715	1556	1686	1.6	2.8	6.601	A
B4100 (W)	560	140	1606	973	0.575	557	518	0.8	1.4	9.406	A
A43 (N)	1861	465	654	2068	0.900	1838	1510	3.1	8.8	16.725	C

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
B4100(E)	629	157	1905	554	1.136	540	857	4.2	26.4	121.298	F
A43 (S)	1911	478	613	2156	0.887	1891	1832	2.8	7.9	14.745	B
B4100 (W)	686	171	1923	817	0.839	672	581	1.4	4.9	25.114	D
A43 (N)	2279	570	790	1985	1.148	1972	1805	8.8	85.6	94.851	F

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
B4100(E)	629	157	1913	550	1.143	547	865	26.4	46.7	257.266	F
A43 (S)	1911	478	619	2152	0.888	1909	1841	7.9	8.5	16.823	C
B4100 (W)	686	171	1942	808	0.849	683	586	4.9	5.5	30.481	D
A43 (N)	2279	570	801	1978	1.152	1977	1824	85.6	161.2	228.912	F

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
B4100(E)	513	128	1932	541	0.949	529	781	46.7	42.9	303.493	F
A43 (S)	1561	390	607	2160	0.723	1582	1854	8.5	3.1	7.489	A
B4100 (W)	560	140	1641	956	0.586	576	548	5.5	1.6	10.743	B
A43 (N)	1861	465	672	2057	0.905	2042	1545	161.2	115.9	244.188	F

09:00 - 09:15

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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
B4100(E)	430	107	1868	571	0.753	557	692	42.9	11.1	182.800	F
A43 (S)	1307	327	626	2148	0.609	1312	1799	3.1	1.8	5.028	A
B4100 (W)	469	117	1411	1069	0.439	472	527	1.6	0.9	6.616	A
A43 (N)	1558	390	553	2129	0.732	2008	1331	115.9	3.6	87.371	F

2019 Baseline + Committed + Both Developments, 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	116.38	F

Junction Network

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold	Network delay (s)	Network LOS
Left	Normal/unknown	-18	B4100(E)	116.38	F

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
D16	2019 Baseline + Committed + Both Developments	PM	ONE HOUR	16:45	18:15	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 (%)
B4100(E)		ONE HOUR	✓	756	100.000
A43 (S)		ONE HOUR	✓	2063	100.000
B4100 (W)		ONE HOUR	✓	533	100.000
A43 (N)		ONE HOUR	✓	1632	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		B4100(E)	A43 (S)	B4100 (W)	A43 (N)
From	B4100(E)	0	173	269	314
	A43 (S)	128	0	149	1786
	B4100 (W)	239	151	16	127
	A43 (N)	245	1287	100	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		B4100(E)	A43 (S)	B4100 (W)	A43 (N)
From	B4100(E)	0	9	1	4
	A43 (S)	8	0	13	7
	B4100 (W)	3	10	0	8

	A43 (N)	5	10	9	0
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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)
B4100(E)	1.29	402.58	97.8	F	694	1041
A43 (S)	1.06	111.77	78.5	F	1893	2840
B4100 (W)	0.90	47.28	7.2	E	489	734
A43 (N)	0.85	12.20	5.9	B	1498	2246

Main Results for each time segment

16:45 - 17:00

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
B4100(E)	569	142	1164	905	0.629	562	458	0.0	1.7	10.729	B
A43 (S)	1553	388	521	2213	0.702	1543	1206	0.0	2.5	5.696	A
B4100 (W)	401	100	1665	944	0.425	398	398	0.0	0.8	6.949	A
A43 (N)	1229	307	399	2223	0.553	1223	1664	0.0	1.3	3.912	A

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
B4100(E)	680	170	1393	796	0.853	666	547	1.7	5.0	26.433	D
A43 (S)	1855	464	618	2153	0.862	1840	1441	2.5	6.1	11.854	B
B4100 (W)	479	120	1984	787	0.609	476	474	0.8	1.6	12.126	B
A43 (N)	1467	367	477	2176	0.674	1464	1983	1.3	2.2	5.492	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
B4100(E)	832	208	1694	654	1.273	647	654	5.0	51.3	171.943	F
A43 (S)	2271	568	626	2148	1.058	2113	1716	6.1	45.6	53.200	F
B4100 (W)	587	147	2230	666	0.881	570	509	1.6	5.9	34.802	D
A43 (N)	1797	449	565	2122	0.847	1783	2234	2.2	5.6	11.192	B

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
B4100(E)	832	208	1708	647	1.287	646	663	51.3	97.8	402.581	F
A43 (S)	2271	568	626	2148	1.058	2140	1729	45.6	78.5	111.773	F
B4100 (W)	587	147	2254	654	0.897	582	512	5.9	7.2	47.284	E
A43 (N)	1797	449	576	2115	0.850	1796	2260	5.6	5.9	12.196	B

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
B4100(E)	680	170	1414	786	0.864	778	573	97.8	73.1	387.429	F
A43 (S)	1855	464	706	2098	0.884	2070	1487	78.5	24.7	93.190	F
B4100 (W)	479	120	2244	659	0.727	496	532	7.2	3.0	25.238	D
A43 (N)	1467	367	506	2158	0.680	1481	2233	5.9	2.4	5.927	A

18:00 - 18:15

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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
B4100(E)	569	142	1176	899	0.633	853	470	73.1	2.1	144.599	F
A43 (S)	1553	388	746	2073	0.749	1639	1283	24.7	3.3	10.650	B
B4100 (W)	401	100	1875	841	0.477	410	510	3.0	1.0	9.002	A
A43 (N)	1229	307	414	2214	0.555	1233	1870	2.4	1.4	4.020	A

2025 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	89.39	F

Junction Network

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold	Network delay (s)	Network LOS
Left	Normal/unknown	-13	B4100(E)	89.39	F

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
D17	2025 Baseline	AM	ONE HOUR	07:45	09:15	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 (%)
B4100(E)		ONE HOUR	✓	530	100.000
A43 (S)		ONE HOUR	✓	1657	100.000
B4100 (W)		ONE HOUR	✓	589	100.000
A43 (N)		ONE HOUR	✓	1994	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		B4100(E)	A43 (S)	B4100 (W)	A43 (N)
From	B4100(E)	0	85	191	254
	A43 (S)	223	0	151	1283
	B4100 (W)	280	182	14	113
	A43 (N)	324	1521	149	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		B4100(E)	A43 (S)	B4100 (W)	A43 (N)
From	B4100(E)	0	15	4	7
	A43 (S)	8	0	9	17
	B4100 (W)	6	6	8	6
	A43 (N)	7	18	9	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)
B4100(E)	1.04	136.65	22.5	F	486	730
A43 (S)	0.85	12.65	6.2	B	1520	2281
B4100 (W)	0.79	22.01	3.8	C	540	811
A43 (N)	1.10	160.51	110.7	F	1830	2745

Main Results for each time segment

07:45 - 08:00

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
B4100(E)	399	100	1395	795	0.502	395	619	0.0	1.1	9.526	A
A43 (S)	1247	312	453	2255	0.553	1242	1337	0.0	1.4	4.063	A
B4100 (W)	443	111	1318	1115	0.398	441	377	0.0	0.7	5.635	A
A43 (N)	1501	375	523	2147	0.699	1491	1235	0.0	2.6	6.232	A

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
B4100(E)	476	119	1664	668	0.713	471	739	1.1	2.5	19.020	C
A43 (S)	1490	372	541	2200	0.677	1486	1594	1.4	2.4	5.758	A
B4100 (W)	529	132	1576	988	0.536	527	450	0.7	1.2	8.248	A
A43 (N)	1793	448	626	2085	0.860	1777	1477	2.6	6.4	12.915	B

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
B4100(E)	584	146	1870	570	1.024	537	869	2.5	14.1	74.198	F
A43 (S)	1824	456	614	2155	0.847	1810	1793	2.4	5.9	11.561	B
B4100 (W)	649	162	1903	827	0.784	639	522	1.2	3.5	19.440	C
A43 (N)	2195	549	760	2003	1.096	1979	1782	6.4	60.5	70.200	F

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
B4100(E)	584	146	1886	563	1.037	550	877	14.1	22.5	136.654	F
A43 (S)	1824	456	626	2147	0.850	1823	1810	5.9	6.2	12.645	B
B4100 (W)	649	162	1921	818	0.792	647	529	3.5	3.8	22.008	C
A43 (N)	2195	549	768	1998	1.099	1995	1799	60.5	110.7	160.506	F

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
B4100(E)	476	119	1901	555	0.858	529	793	22.5	9.3	114.808	F
A43 (S)	1490	372	611	2157	0.691	1504	1820	6.2	2.6	6.465	A
B4100 (W)	529	132	1620	966	0.548	539	494	3.8	1.3	9.140	A
A43 (N)	1793	448	638	2077	0.863	2056	1521	110.7	44.9	138.529	F

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
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B4100(E)	399	100	1547	724	0.551	431	652	9.3	1.4	14.566	B
A43 (S)	1247	312	497	2227	0.560	1252	1480	2.6	1.5	4.263	A
B4100 (W)	443	111	1344	1102	0.402	446	405	1.3	0.7	5.837	A
A43 (N)	1501	375	529	2144	0.700	1670	1262	44.9	2.8	12.449	B

2025 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	99.60	F

Junction Network

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold	Network delay (s)	Network LOS
Left	Normal/unknown	-17	B4100(E)	99.60	F

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
D18	2025 Baseline	PM	ONE HOUR	16:45	18:15	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 (%)
B4100(E)		ONE HOUR	✓	761	100.000
A43 (S)		ONE HOUR	✓	2004	100.000
B4100 (W)		ONE HOUR	✓	439	100.000
A43 (N)		ONE HOUR	✓	1643	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		B4100(E)	A43 (S)	B4100 (W)	A43 (N)
From	B4100(E)	0	164	266	331
	A43 (S)	127	0	141	1736
	B4100 (W)	186	119	18	116
	A43 (N)	262	1283	98	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		B4100(E)	A43 (S)	B4100 (W)	A43 (N)
From	B4100(E)	0	6	1	3
	A43 (S)	3	0	6	7
	B4100 (W)	3	4	0	4
	A43 (N)	4	10	3	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)
B4100(E)	1.26	371.41	91.8	F	698	1047
A43 (S)	1.03	86.24	57.2	F	1839	2758
B4100 (W)	0.74	21.72	2.8	C	403	604
A43 (N)	0.83	10.81	5.3	B	1508	2261

Main Results for each time segment

16:45 - 17:00

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
B4100(E)	573	143	1138	917	0.624	566	431	0.0	1.7	10.366	B
A43 (S)	1509	377	531	2206	0.684	1500	1173	0.0	2.3	5.368	A
B4100 (W)	331	83	1640	956	0.346	328	390	0.0	0.5	5.906	A
A43 (N)	1237	309	337	2261	0.547	1232	1632	0.0	1.3	3.780	A

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
B4100(E)	684	171	1361	811	0.843	672	515	1.7	4.7	24.653	C
A43 (S)	1802	450	631	2144	0.840	1790	1402	2.3	5.2	10.487	B
B4100 (W)	395	99	1956	801	0.493	393	465	0.5	1.0	9.082	A
A43 (N)	1477	369	402	2221	0.665	1474	1946	1.3	2.1	5.209	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
B4100(E)	838	209	1659	670	1.250	663	621	4.7	48.4	159.393	F
A43 (S)	2206	552	647	2135	1.034	2086	1676	5.2	35.3	44.123	E
B4100 (W)	483	121	2228	667	0.725	477	505	1.0	2.5	19.023	C
A43 (N)	1809	452	483	2171	0.833	1797	2222	2.1	5.1	10.132	B

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
B4100(E)	838	209	1670	665	1.260	664	627	48.4	91.8	371.406	F
A43 (S)	2206	552	649	2133	1.034	2119	1686	35.3	57.2	86.242	F
B4100 (W)	483	121	2259	652	0.742	482	509	2.5	2.8	21.717	C
A43 (N)	1809	452	489	2168	0.834	1808	2252	5.1	5.3	10.806	B

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
B4100(E)	684	171	1377	804	0.851	795	533	91.8	64.0	347.720	F
A43 (S)	1802	450	729	2084	0.865	1996	1443	57.2	8.4	54.810	F
B4100 (W)	395	99	2202	680	0.581	400	524	2.8	1.5	13.537	B
A43 (N)	1477	369	421	2210	0.668	1489	2181	5.3	2.2	5.513	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
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B4100(E)	573	143	1147	913	0.627	821	436	64.0	1.9	105.963	F
A43 (S)	1509	377	732	2082	0.725	1531	1236	8.4	2.9	7.238	A
B4100 (W)	331	83	1780	888	0.372	334	482	1.5	0.6	6.766	A
A43 (N)	1237	309	343	2257	0.548	1241	1772	2.2	1.3	3.858	A

2025 Baseline + Committed, 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	194.21	F

Junction Network

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold	Network delay (s)	Network LOS
Left	Normal/unknown	-19	B4100(E)	194.21	F

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
D19	2025 Baseline + Committed	AM	ONE HOUR	07:45	09:15	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 (%)
B4100(E)		ONE HOUR	✓	530	100.000
A43 (S)		ONE HOUR	✓	1812	100.000
B4100 (W)		ONE HOUR	✓	589	100.000
A43 (N)		ONE HOUR	✓	2207	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		B4100(E)	A43 (S)	B4100 (W)	A43 (N)
From	B4100(E)	0	85	191	254
	A43 (S)	223	0	151	1438
	B4100 (W)	280	182	14	113
	A43 (N)	324	1734	149	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		B4100(E)	A43 (S)	B4100 (W)	A43 (N)
From	B4100(E)	0	15	4	7
	A43 (S)	8	0	9	17
	B4100 (W)	6	6	8	6
	A43 (N)	7	18	9	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)
B4100(E)	1.07	176.41	29.4	F	486	730
A43 (S)	0.92	22.69	11.8	C	1663	2494
B4100 (W)	0.88	37.75	6.4	E	540	811
A43 (N)	1.22	381.06	229.1	F	2025	3038

Main Results for each time segment

07:45 - 08:00

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
B4100(E)	399	100	1551	721	0.553	394	618	0.0	1.3	11.596	B
A43 (S)	1364	341	452	2255	0.605	1357	1493	0.0	1.7	4.581	A
B4100 (W)	443	111	1433	1059	0.419	440	377	0.0	0.8	6.145	A
A43 (N)	1662	415	523	2147	0.774	1646	1350	0.0	3.8	8.079	A

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
B4100(E)	476	119	1832	588	0.810	466	735	1.3	3.9	29.376	D
A43 (S)	1629	407	535	2204	0.739	1623	1763	1.7	3.2	7.064	A
B4100 (W)	529	132	1711	922	0.575	527	447	0.8	1.4	9.611	A
A43 (N)	1984	496	626	2085	0.952	1942	1613	3.8	14.3	24.086	C

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
B4100(E)	584	146	1918	547	1.066	526	837	3.9	18.3	95.526	F
A43 (S)	1995	499	592	2169	0.920	1966	1852	3.2	10.5	18.249	C
B4100 (W)	649	162	2054	753	0.862	633	504	1.4	5.3	28.777	D
A43 (N)	2430	607	753	2007	1.211	2001	1934	14.3	121.5	129.794	F

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
B4100(E)	584	146	1920	546	1.068	539	845	18.3	29.4	176.411	F
A43 (S)	1995	499	603	2162	0.923	1990	1856	10.5	11.8	22.695	C
B4100 (W)	649	162	2082	739	0.878	644	510	5.3	6.4	37.751	E
A43 (N)	2430	607	766	2000	1.215	1999	1961	121.5	229.1	317.726	F

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
B4100(E)	476	119	1941	537	0.888	518	768	29.4	19.0	172.658	F
A43 (S)	1629	407	587	2172	0.750	1662	1872	11.8	3.6	8.623	A
B4100 (W)	529	132	1772	892	0.594	549	477	6.4	1.6	11.704	B
A43 (N)	1984	496	648	2071	0.958	2061	1672	229.1	209.9	381.060	F

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
B4100(E)	476	119	1941	537	0.888	518	768	29.4	19.0	172.658	F
A43 (S)	1629	407	587	2172	0.750	1662	1872	11.8	3.6	8.623	A
B4100 (W)	529	132	1772	892	0.594	549	477	6.4	1.6	11.704	B
A43 (N)	1984	496	648	2071	0.958	2061	1672	229.1	209.9	381.060	F

B4100(E)	399	100	1967	524	0.761	459	694	19.0	4.1	74.855	F
A43 (S)	1364	341	540	2201	0.620	1371	1886	3.6	1.9	5.032	A
B4100 (W)	443	111	1476	1037	0.427	447	434	1.6	0.8	6.496	A
A43 (N)	1662	415	530	2143	0.775	2132	1393	209.9	92.4	256.792	F

2025 Baseline + Committed, 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	185.68	F

Junction Network

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold	Network delay (s)	Network LOS
Left	Normal/unknown	-20	B4100(E)	185.68	F

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
D20	2025 Baseline + Committed	PM	ONE HOUR	16:45	18:15	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 (%)
B4100(E)		ONE HOUR	✓	761	100.000
A43 (S)		ONE HOUR	✓	2208	100.000
B4100 (W)		ONE HOUR	✓	439	100.000
A43 (N)		ONE HOUR	✓	1761	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		B4100(E)	A43 (S)	B4100 (W)	A43 (N)
From	B4100(E)	0	164	266	331
	A43 (S)	127	0	141	1940
	B4100 (W)	186	119	18	116
	A43 (N)	262	1401	98	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		B4100(E)	A43 (S)	B4100 (W)	A43 (N)
From	B4100(E)	0	6	1	3
	A43 (S)	3	0	6	7
	B4100 (W)	3	4	0	4
	A43 (N)	4	10	3	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)
B4100(E)	1.39	534.74	122.5	F	698	1047
A43 (S)	1.12	232.81	148.3	F	2026	3039
B4100 (W)	0.76	23.64	3.0	C	403	604
A43 (N)	0.89	16.14	8.3	C	1616	2424

Main Results for each time segment

16:45 - 17:00

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
B4100(E)	573	143	1226	876	0.654	565	430	0.0	1.9	11.676	B
A43 (S)	1662	416	530	2207	0.753	1650	1261	0.0	3.2	6.750	A
B4100 (W)	331	83	1790	883	0.374	328	390	0.0	0.6	6.682	A
A43 (N)	1326	331	336	2261	0.586	1320	1782	0.0	1.5	4.130	A

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
B4100(E)	684	171	1466	762	0.898	665	514	1.9	6.6	33.401	D
A43 (S)	1985	496	626	2148	0.924	1957	1506	3.2	10.3	17.917	C
B4100 (W)	395	99	2121	720	0.548	392	461	0.6	1.2	11.284	B
A43 (N)	1583	396	401	2221	0.713	1579	2112	1.5	2.6	6.042	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
B4100(E)	838	209	1782	612	1.369	609	611	6.6	63.9	223.846	F
A43 (S)	2431	608	604	2161	1.125	2148	1787	10.3	80.9	84.471	F
B4100 (W)	483	121	2276	643	0.751	477	476	1.2	2.9	21.549	C
A43 (N)	1939	485	474	2177	0.891	1918	2278	2.6	7.7	14.139	B

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
B4100(E)	838	209	1799	604	1.388	604	617	63.9	122.5	523.690	F
A43 (S)	2431	608	601	2163	1.124	2161	1802	80.9	148.3	197.093	F
B4100 (W)	483	121	2286	638	0.757	483	477	2.9	3.0	23.638	C
A43 (N)	1939	485	479	2174	0.892	1937	2289	7.7	8.3	16.140	C

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
B4100(E)	684	171	1491	750	0.912	744	529	122.5	107.6	534.740	F
A43 (S)	1985	496	689	2108	0.941	2093	1546	148.3	121.2	232.814	F
B4100 (W)	395	99	2283	640	0.617	400	499	3.0	1.7	15.838	C
A43 (N)	1583	396	415	2213	0.715	1605	2268	8.3	2.8	6.655	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
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B4100(E)	573	143	1237	871	0.658	862	457	107.6	35.2	301.565	F
A43 (S)	1662	416	764	2062	0.806	2044	1335	121.2	25.8	132.619	F
B4100 (W)	331	83	2288	637	0.519	333	520	1.7	1.1	12.328	B
A43 (N)	1326	331	362	2245	0.591	1331	2259	2.8	1.6	4.299	A

2025 Baseline + Western Development , 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	130.27	F

Junction Network

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold	Network delay (s)	Network LOS
Left	Normal/unknown	-18	B4100(E)	130.27	F

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
D21	2025 Baseline + Western Development	AM	ONE HOUR	07:45	09:15	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 (%)
B4100(E)		ONE HOUR	✓	587	100.000
A43 (S)		ONE HOUR	✓	1699	100.000
B4100 (W)		ONE HOUR	✓	668	100.000
A43 (N)		ONE HOUR	✓	2014	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		B4100(E)	A43 (S)	B4100 (W)	A43 (N)
From	B4100(E)	0	85	248	254
	A43 (S)	223	0	193	1283
	B4100 (W)	312	213	14	129
	A43 (N)	324	1521	169	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		B4100(E)	A43 (S)	B4100 (W)	A43 (N)
From	B4100(E)	0	15	4	9
	A43 (S)	11	0	18	21
	B4100 (W)	8	20	6	22
	A43 (N)	4	20	15	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)
B4100(E)	1.15	311.11	49.4	F	539	808
A43 (S)	0.88	16.23	8.1	C	1559	2339
B4100 (W)	0.89	38.87	7.4	E	613	919
A43 (N)	1.13	204.07	140.2	F	1848	2772

Main Results for each time segment

07:45 - 08:00

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
B4100(E)	442	110	1432	778	0.568	436	642	0.0	1.4	11.179	B
A43 (S)	1279	320	510	2219	0.576	1273	1359	0.0	1.6	4.503	A
B4100 (W)	503	126	1317	1116	0.451	499	466	0.0	0.9	6.622	A
A43 (N)	1516	379	570	2119	0.716	1505	1246	0.0	2.9	6.722	A

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
B4100(E)	528	132	1706	648	0.814	517	767	1.4	4.1	27.591	D
A43 (S)	1527	382	605	2161	0.707	1523	1618	1.6	2.8	6.677	A
B4100 (W)	601	150	1573	990	0.607	597	554	0.9	1.7	10.393	B
A43 (N)	1811	453	682	2051	0.883	1791	1489	2.9	7.7	15.165	C

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
B4100(E)	646	162	1879	566	1.142	552	891	4.1	27.5	122.026	F
A43 (S)	1871	468	651	2132	0.877	1852	1781	2.8	7.6	14.420	B
B4100 (W)	735	184	1880	838	0.877	717	622	1.7	6.4	30.173	D
A43 (N)	2217	554	821	1966	1.128	1949	1776	7.7	74.7	85.202	F

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
B4100(E)	646	162	1889	561	1.152	559	901	27.5	49.4	264.316	F
A43 (S)	1871	468	657	2128	0.879	1869	1791	7.6	8.1	16.234	C
B4100 (W)	735	184	1898	830	0.887	731	628	6.4	7.4	38.869	E
A43 (N)	2217	554	835	1957	1.133	1955	1794	74.7	140.2	202.838	F

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
B4100(E)	528	132	1906	553	0.954	541	819	49.4	46.0	311.112	F
A43 (S)	1527	382	645	2136	0.715	1547	1802	8.1	3.1	7.534	A
B4100 (W)	601	150	1606	974	0.617	623	587	7.4	1.9	12.395	B
A43 (N)	1811	453	705	2036	0.889	2019	1523	140.2	88.0	204.069	F

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
B4100(E)	528	132	1906	553	0.954	541	819	49.4	46.0	311.112	F
A43 (S)	1527	382	645	2136	0.715	1547	1802	8.1	3.1	7.534	A
B4100 (W)	601	150	1606	974	0.617	623	587	7.4	1.9	12.395	B
A43 (N)	1811	453	705	2036	0.889	2019	1523	140.2	88.0	204.069	F

B4100(E)	442	110	1729	637	0.694	613	704	46.0	3.4	147.012	F
A43 (S)	1279	320	690	2108	0.607	1284	1652	3.1	1.9	5.242	A
B4100 (W)	503	126	1403	1073	0.469	506	571	1.9	1.0	7.291	A
A43 (N)	1516	379	577	2114	0.717	1856	1332	88.0	3.1	44.572	E

2025 Baseline + Western Development, 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	107.82	F

Junction Network

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold	Network delay (s)	Network LOS
Left	Normal/unknown	-17	B4100(E)	107.82	F

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
D22	2025 Baseline + Western Development	PM	ONE HOUR	16:45	18:15	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 (%)
B4100(E)		ONE HOUR	✓	782	100.000
A43 (S)		ONE HOUR	✓	2025	100.000
B4100 (W)		ONE HOUR	✓	471	100.000
A43 (N)		ONE HOUR	✓	1653	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		B4100(E)	A43 (S)	B4100 (W)	A43 (N)
From	B4100(E)	0	164	287	331
	A43 (S)	127	0	162	1736
	B4100 (W)	254	62	18	137
	A43 (N)	262	1283	108	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		B4100(E)	A43 (S)	B4100 (W)	A43 (N)
From	B4100(E)	0	10	1	4
	A43 (S)	8	0	5	7
	B4100 (W)	2	3	0	3
	A43 (N)	5	10	3	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)
B4100(E)	1.25	358.70	91.3	F	718	1076
A43 (S)	1.06	109.15	75.1	F	1858	2787
B4100 (W)	0.78	24.19	3.3	C	432	648
A43 (N)	0.84	11.34	5.6	B	1517	2275

Main Results for each time segment

16:45 - 17:00

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
B4100(E)	589	147	1103	934	0.630	582	481	0.0	1.7	10.441	B
A43 (S)	1525	381	554	2192	0.695	1515	1130	0.0	2.4	5.610	A
B4100 (W)	355	89	1640	957	0.371	352	429	0.0	0.6	6.072	A
A43 (N)	1244	311	345	2256	0.552	1239	1647	0.0	1.3	3.829	A

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
B4100(E)	703	176	1319	831	0.846	691	576	1.7	4.8	24.655	C
A43 (S)	1820	455	659	2127	0.856	1807	1351	2.4	5.8	11.533	B
B4100 (W)	423	106	1954	802	0.528	421	511	0.6	1.1	9.630	A
A43 (N)	1486	372	412	2215	0.671	1483	1964	1.3	2.2	5.320	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
B4100(E)	861	215	1608	695	1.239	687	692	4.8	48.3	154.229	F
A43 (S)	2230	557	681	2114	1.055	2078	1614	5.8	43.8	52.148	F
B4100 (W)	519	130	2202	680	0.763	511	556	1.1	3.0	20.993	C
A43 (N)	1820	455	493	2166	0.840	1807	2221	2.2	5.3	10.562	B

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
B4100(E)	861	215	1619	689	1.249	689	699	48.3	91.3	358.695	F
A43 (S)	2230	557	683	2112	1.056	2104	1624	43.8	75.1	109.151	F
B4100 (W)	519	130	2227	667	0.777	517	560	3.0	3.3	24.190	C
A43 (N)	1820	455	499	2162	0.842	1819	2246	5.3	5.6	11.339	B

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
B4100(E)	703	176	1334	824	0.853	815	597	91.3	63.4	337.544	F
A43 (S)	1820	455	758	2065	0.881	2036	1391	75.1	21.1	88.799	F
B4100 (W)	423	106	2219	672	0.630	429	576	3.3	1.8	15.568	C
A43 (N)	1486	372	432	2203	0.675	1499	2216	5.6	2.3	5.663	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
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B4100(E)	589	147	1111	930	0.633	834	492	63.4	2.0	101.944	F
A43 (S)	1525	381	755	2068	0.737	1596	1191	21.1	3.1	9.402	A
B4100 (W)	355	89	1822	867	0.409	359	529	1.8	0.7	7.314	A
A43 (N)	1244	311	355	2250	0.553	1248	1826	2.3	1.4	3.921	A

2025 Baseline + Eastern Development, 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	103.00	F

Junction Network

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold	Network delay (s)	Network LOS
Left	Normal/unknown	-15	B4100(E)	103.00	F

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
D23	2025 Baseline + Eastern Development	AM	ONE HOUR	07:45	09:15	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 (%)
B4100(E)		ONE HOUR	✓	560	100.000
A43 (S)		ONE HOUR	✓	1680	100.000
B4100 (W)		ONE HOUR	✓	594	100.000
A43 (N)		ONE HOUR	✓	2006	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		B4100(E)	A43 (S)	B4100 (W)	A43 (N)
From	B4100(E)	0	103	194	263
	A43 (S)	246	0	151	1283
	B4100 (W)	285	182	14	113
	A43 (N)	336	1521	149	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		B4100(E)	A43 (S)	B4100 (W)	A43 (N)
From	B4100(E)	0	21	4	8
	A43 (S)	11	0	9	17
	B4100 (W)	7	6	8	6
	A43 (N)	8	18	9	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)
B4100(E)	1.07	172.54	30.6	F	514	771
A43 (S)	0.86	13.68	6.8	B	1542	2312
B4100 (W)	0.81	24.70	4.3	C	545	818
A43 (N)	1.12	181.57	125.7	F	1841	2761

Main Results for each time segment

07:45 - 08:00

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
B4100(E)	422	105	1395	796	0.530	417	649	0.0	1.2	10.209	B
A43 (S)	1265	316	462	2249	0.562	1259	1350	0.0	1.5	4.169	A
B4100 (W)	447	112	1342	1104	0.405	444	379	0.0	0.7	5.791	A
A43 (N)	1510	378	544	2134	0.708	1499	1242	0.0	2.7	6.441	A

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
B4100(E)	503	126	1663	669	0.753	496	775	1.2	3.0	21.808	C
A43 (S)	1510	378	550	2195	0.688	1506	1609	1.5	2.5	5.995	A
B4100 (W)	534	133	1604	975	0.548	532	452	0.7	1.3	8.619	A
A43 (N)	1803	451	651	2069	0.871	1786	1484	2.7	7.0	13.912	B

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
B4100(E)	617	154	1849	580	1.062	556	907	3.0	18.3	88.095	F
A43 (S)	1850	462	615	2155	0.858	1834	1790	2.5	6.4	12.389	B
B4100 (W)	654	164	1930	814	0.804	644	518	1.3	3.9	21.345	C
A43 (N)	2209	552	790	1985	1.113	1966	1784	7.0	67.8	77.641	F

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
B4100(E)	617	154	1861	574	1.073	567	915	18.3	30.6	172.537	F
A43 (S)	1850	462	625	2148	0.861	1848	1803	6.4	6.8	13.682	B
B4100 (W)	654	164	1948	805	0.813	653	525	3.9	4.3	24.702	C
A43 (N)	2209	552	799	1979	1.116	1977	1802	67.8	125.7	181.573	F

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
B4100(E)	503	126	1880	566	0.890	546	827	30.6	20.0	168.885	F
A43 (S)	1510	378	610	2157	0.700	1526	1816	6.8	2.8	6.741	A
B4100 (W)	534	133	1646	954	0.560	546	491	4.3	1.4	9.643	A
A43 (N)	1803	451	665	2061	0.875	2042	1526	125.7	66.0	170.403	F

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
B4100(E)	503	126	1880	566	0.890	546	827	30.6	20.0	168.885	F
A43 (S)	1510	378	610	2157	0.700	1526	1816	6.8	2.8	6.741	A
B4100 (W)	534	133	1646	954	0.560	546	491	4.3	1.4	9.643	A
A43 (N)	1803	451	665	2061	0.875	2042	1526	125.7	66.0	170.403	F

B4100(E)	422	105	1616	691	0.610	494	697	20.0	1.8	27.389	D
A43 (S)	1265	316	545	2198	0.575	1269	1565	2.8	1.6	4.495	A
B4100 (W)	447	112	1388	1081	0.414	450	427	1.4	0.8	6.096	A
A43 (N)	1510	378	550	2131	0.709	1763	1287	66.0	2.9	22.121	C

2025 Baseline + Eastern Development, 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	118.90	F

Junction Network

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold	Network delay (s)	Network LOS
Left	Normal/unknown	-19	B4100(E)	118.90	F

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
D24	2025 Baseline + Eastern Development	PM	ONE HOUR	16:45	18:15	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 (%)
B4100(E)		ONE HOUR	✓	803	100.000
A43 (S)		ONE HOUR	✓	2016	100.000
B4100 (W)		ONE HOUR	✓	441	100.000
A43 (N)		ONE HOUR	✓	1649	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		B4100(E)	A43 (S)	B4100 (W)	A43 (N)
From	B4100(E)	0	188	272	343
	A43 (S)	139	0	141	1736
	B4100 (W)	188	119	18	116
	A43 (N)	268	1283	98	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		B4100(E)	A43 (S)	B4100 (W)	A43 (N)
From	B4100(E)	0	8	1	4
	A43 (S)	8	0	6	7
	B4100 (W)	3	4	0	4
	A43 (N)	5	10	3	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)
B4100(E)	1.33	467.41	115.8	F	737	1105
A43 (S)	1.04	89.25	59.7	F	1850	2775
B4100 (W)	0.75	22.23	2.9	C	405	607
A43 (N)	0.84	11.29	5.5	B	1513	2270

Main Results for each time segment

16:45 - 17:00

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
B4100(E)	605	151	1138	917	0.659	597	446	0.0	1.9	11.402	B
A43 (S)	1518	379	544	2198	0.690	1508	1191	0.0	2.3	5.510	A
B4100 (W)	332	83	1658	948	0.350	330	395	0.0	0.6	5.999	A
A43 (N)	1241	310	347	2254	0.551	1236	1641	0.0	1.3	3.824	A

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
B4100(E)	722	180	1361	812	0.890	704	533	1.9	6.4	30.797	D
A43 (S)	1812	453	643	2137	0.848	1800	1422	2.3	5.5	11.020	B
B4100 (W)	396	99	1974	792	0.501	395	468	0.6	1.0	9.326	A
A43 (N)	1482	371	415	2213	0.670	1479	1954	1.3	2.2	5.307	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
B4100(E)	884	221	1659	670	1.319	666	642	6.4	60.9	196.357	F
A43 (S)	2220	555	637	2141	1.037	2095	1688	5.5	36.7	45.473	E
B4100 (W)	486	121	2233	664	0.731	479	499	1.0	2.6	19.462	C
A43 (N)	1816	454	498	2163	0.839	1803	2215	2.2	5.3	10.528	B

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
B4100(E)	884	221	1670	665	1.330	665	648	60.9	115.8	459.475	F
A43 (S)	2220	555	637	2141	1.037	2127	1698	36.7	59.7	89.248	F
B4100 (W)	486	121	2263	650	0.747	484	502	2.6	2.9	22.235	C
A43 (N)	1816	454	504	2159	0.841	1815	2243	5.3	5.5	11.294	B

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
B4100(E)	722	180	1377	804	0.898	797	553	115.8	97.0	467.406	F
A43 (S)	1812	453	716	2092	0.866	2016	1458	59.7	8.8	58.583	F
B4100 (W)	396	99	2215	673	0.589	402	516	2.9	1.5	13.979	B
A43 (N)	1482	371	435	2201	0.674	1495	2182	5.5	2.3	5.646	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
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B4100(E)	605	151	1147	913	0.662	903	452	97.0	22.3	242.226	F
A43 (S)	1518	379	780	2052	0.740	1540	1271	8.8	3.1	7.836	A
B4100 (W)	332	83	1818	869	0.382	336	501	1.5	0.6	7.028	A
A43 (N)	1241	310	353	2250	0.552	1245	1801	2.3	1.4	3.907	A

2025 Baseline + Both Developments, 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	154.97	F

Junction Network

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold	Network delay (s)	Network LOS
Left	Normal/unknown	-20	B4100(E)	154.97	F

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
D25	2025 Baseline + Both Developments	AM	ONE HOUR	07:45	09:15	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 (%)
B4100(E)		ONE HOUR	✓	617	100.000
A43 (S)		ONE HOUR	✓	1722	100.000
B4100 (W)		ONE HOUR	✓	673	100.000
A43 (N)		ONE HOUR	✓	2026	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		B4100(E)	A43 (S)	B4100 (W)	A43 (N)
From	B4100(E)	0	103	251	263
	A43 (S)	246	0	193	1283
	B4100 (W)	317	213	14	129
	A43 (N)	336	1521	169	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		B4100(E)	A43 (S)	B4100 (W)	A43 (N)
From	B4100(E)	0	21	3	8
	A43 (S)	11	0	15	17
	B4100 (W)	6	13	8	12
	A43 (N)	8	18	12	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)
B4100(E)	1.19	387.20	60.3	F	566	849
A43 (S)	0.89	17.18	8.6	C	1580	2370
B4100 (W)	0.91	43.74	8.4	E	618	926
A43 (N)	1.15	238.30	155.5	F	1859	2789

Main Results for each time segment

07:45 - 08:00

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
B4100(E)	465	116	1432	778	0.597	458	672	0.0	1.5	11.928	B
A43 (S)	1296	324	519	2214	0.586	1290	1372	0.0	1.6	4.482	A
B4100 (W)	507	127	1341	1104	0.459	503	468	0.0	0.9	6.507	A
A43 (N)	1525	381	591	2106	0.724	1513	1253	0.0	3.0	6.899	A

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
B4100(E)	555	139	1704	649	0.855	541	802	1.5	5.1	32.360	D
A43 (S)	1548	387	613	2156	0.718	1543	1632	1.6	2.9	6.752	A
B4100 (W)	605	151	1600	976	0.620	602	555	0.9	1.7	10.419	B
A43 (N)	1821	455	707	2035	0.895	1800	1495	3.0	8.4	16.329	C

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
B4100(E)	679	170	1857	576	1.178	567	928	5.1	33.2	140.413	F
A43 (S)	1896	474	648	2134	0.889	1875	1775	2.9	8.0	15.067	C
B4100 (W)	741	185	1907	825	0.898	720	617	1.7	7.0	32.454	D
A43 (N)	2231	558	850	1948	1.145	1935	1777	8.4	82.3	93.209	F

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
B4100(E)	679	170	1865	573	1.186	571	938	33.2	60.3	310.418	F
A43 (S)	1896	474	653	2131	0.890	1894	1783	8.0	8.6	17.183	C
B4100 (W)	741	185	1925	816	0.908	735	622	7.0	8.4	43.739	E
A43 (N)	2231	558	865	1939	1.150	1938	1795	82.3	155.5	225.185	F

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
B4100(E)	555	139	1884	563	0.984	555	854	60.3	60.3	387.205	F
A43 (S)	1548	387	642	2137	0.724	1570	1797	8.6	3.1	7.622	A
B4100 (W)	605	151	1630	961	0.629	631	582	8.4	1.9	12.786	B
A43 (N)	1821	455	734	2019	0.902	2004	1527	155.5	109.9	238.301	F

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
B4100(E)	555	139	1884	563	0.984	555	854	60.3	60.3	387.205	F
A43 (S)	1548	387	642	2137	0.724	1570	1797	8.6	3.1	7.622	A
B4100 (W)	605	151	1630	961	0.629	631	582	8.4	1.9	12.786	B
A43 (N)	1821	455	734	2019	0.902	2004	1527	155.5	109.9	238.301	F

B4100(E)	465	116	1800	604	0.770	593	750	60.3	28.2	273.029	F
A43 (S)	1296	324	667	2122	0.611	1302	1725	3.1	1.8	5.117	A
B4100 (W)	507	127	1408	1071	0.473	510	560	1.9	1.0	7.068	A
A43 (N)	1525	381	598	2101	0.726	1951	1320	109.9	3.4	78.237	F

2025 Baseline + Both Developments, 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	151.46	F

Junction Network

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold	Network delay (s)	Network LOS
Left	Normal/unknown	-22	B4100(E)	151.46	F

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
D26	2025 Baseline + Both Developments	PM	ONE HOUR	16:45	18:15	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 (%)
B4100(E)		ONE HOUR	✓	824	100.000
A43 (S)		ONE HOUR	✓	2037	100.000
B4100 (W)		ONE HOUR	✓	573	100.000
A43 (N)		ONE HOUR	✓	1659	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		B4100(E)	A43 (S)	B4100 (W)	A43 (N)
From	B4100(E)	0	188	293	343
	A43 (S)	139	0	162	1736
	B4100 (W)	256	162	18	137
	A43 (N)	268	1283	108	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		B4100(E)	A43 (S)	B4100 (W)	A43 (N)
From	B4100(E)	0	8	1	4
	A43 (S)	8	0	12	7
	B4100 (W)	3	10	0	7
	A43 (N)	5	10	8	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)
B4100(E)	1.42	614.96	141.6	F	756	1134
A43 (S)	1.05	99.74	68.3	F	1869	2804
B4100 (W)	0.95	65.08	10.8	F	526	789
A43 (N)	0.87	14.57	7.1	B	1522	2283

Main Results for each time segment

16:45 - 17:00

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
B4100(E)	620	155	1177	899	0.690	612	496	0.0	2.2	12.643	B
A43 (S)	1534	383	566	2185	0.702	1524	1222	0.0	2.5	5.769	A
B4100 (W)	431	108	1657	948	0.455	428	433	0.0	0.9	7.268	A
A43 (N)	1249	312	430	2204	0.567	1243	1655	0.0	1.4	4.062	A

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
B4100(E)	741	185	1408	789	0.938	714	593	2.2	8.9	40.116	E
A43 (S)	1831	458	664	2124	0.862	1817	1458	2.5	6.1	12.044	B
B4100 (W)	515	129	1969	794	0.648	511	511	0.9	1.9	13.252	B
A43 (N)	1491	373	513	2153	0.693	1487	1968	1.4	2.4	5.858	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
B4100(E)	907	227	1708	647	1.402	645	707	8.9	74.5	247.379	F
A43 (S)	2243	561	634	2142	1.047	2103	1718	6.1	41.0	49.592	E
B4100 (W)	631	158	2204	679	0.930	606	533	1.9	8.0	42.816	E
A43 (N)	1827	457	605	2098	0.871	1810	2206	2.4	6.6	12.943	B

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
B4100(E)	907	227	1725	639	1.419	639	717	74.5	141.6	573.656	F
A43 (S)	2243	561	631	2144	1.046	2134	1732	41.0	68.3	99.741	F
B4100 (W)	631	158	2230	666	0.947	620	535	8.0	10.8	65.085	F
A43 (N)	1827	457	617	2090	0.874	1825	2233	6.6	7.1	14.573	B

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
B4100(E)	741	185	1436	776	0.955	770	627	141.6	134.2	614.959	F
A43 (S)	1831	458	710	2096	0.874	2060	1496	68.3	11.0	73.632	F
B4100 (W)	515	129	2217	672	0.766	543	553	10.8	3.8	33.697	D
A43 (N)	1491	373	554	2129	0.701	1509	2206	7.1	2.6	6.514	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
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B4100(E)	620	155	1190	893	0.695	886	507	134.2	67.8	412.598	F
A43 (S)	1534	383	779	2053	0.747	1565	1297	11.0	3.3	8.403	A
B4100 (W)	431	108	1809	873	0.494	443	535	3.8	1.1	9.054	A
A43 (N)	1249	312	444	2196	0.569	1254	1808	2.6	1.5	4.186	A

2025 Baseline + Committed + Western Development, 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	257.38	F

Junction Network

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold	Network delay (s)	Network LOS
Left	Normal/unknown	-23	B4100(E)	257.38	F

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
D27	2025 Baseline + Committed + Western Development	AM	ONE HOUR	07:45	09:15	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 (%)
B4100(E)		ONE HOUR	✓	587	100.000
A43 (S)		ONE HOUR	✓	1854	100.000
B4100 (W)		ONE HOUR	✓	668	100.000
A43 (N)		ONE HOUR	✓	2227	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		B4100(E)	A43 (S)	B4100 (W)	A43 (N)
From	B4100(E)	0	85	248	254
	A43 (S)	223	0	193	1438
	B4100 (W)	312	213	14	129
	A43 (N)	324	1734	169	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		B4100(E)	A43 (S)	B4100 (W)	A43 (N)
From	B4100(E)	0	15	3	7
	A43 (S)	8	0	15	17
	B4100 (W)	6	13	8	12

	A43 (N)	7	18	13	0
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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)
B4100(E)	1.19	411.15	59.9	F	539	808
A43 (S)	0.95	31.55	16.8	D	1701	2552
B4100 (W)	0.98	75.60	15.1	F	613	919
A43 (N)	1.25	459.39	260.7	F	2044	3065

Main Results for each time segment

07:45 - 08:00

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
B4100(E)	442	110	1588	704	0.628	435	642	0.0	1.7	13.902	B
A43 (S)	1396	349	508	2220	0.629	1388	1515	0.0	1.9	4.956	A
B4100 (W)	503	126	1432	1059	0.475	499	465	0.0	1.0	6.979	A
A43 (N)	1677	419	570	2119	0.791	1660	1361	0.0	4.2	8.792	A

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
B4100(E)	528	132	1864	573	0.921	506	761	1.7	7.3	46.539	E
A43 (S)	1667	417	592	2168	0.769	1660	1777	1.9	3.7	8.070	A
B4100 (W)	601	150	1706	924	0.650	597	546	1.0	2.0	11.867	B
A43 (N)	2002	501	681	2051	0.976	1944	1621	4.2	18.6	29.561	D

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
B4100(E)	646	162	1923	545	1.185	538	855	7.3	34.3	158.220	F
A43 (S)	2041	510	624	2149	0.950	1999	1836	3.7	14.2	23.221	C
B4100 (W)	735	184	2024	767	0.958	701	600	2.0	10.5	45.865	E
A43 (N)	2452	613	806	1975	1.242	1971	1919	18.6	138.8	151.145	F

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
B4100(E)	646	162	1922	545	1.185	544	865	34.3	59.9	327.719	F
A43 (S)	2041	510	629	2146	0.951	2031	1837	14.2	16.8	31.551	D
B4100 (W)	735	184	2055	752	0.978	717	605	10.5	15.1	75.596	F
A43 (N)	2452	613	823	1965	1.248	1965	1949	138.8	260.7	367.793	F

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
B4100(E)	528	132	1940	537	0.982	528	803	59.9	59.9	411.150	F
A43 (S)	1667	417	618	2153	0.774	1717	1850	16.8	4.1	10.593	B
B4100 (W)	601	150	1767	894	0.672	651	568	15.1	2.3	19.403	C
A43 (N)	2002	501	732	2020	0.991	2011	1686	260.7	258.4	459.391	F

09:00 - 09:15

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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
B4100(E)	442	110	1970	523	0.846	514	712	59.9	42.0	359.715	F
A43 (S)	1396	349	609	2158	0.647	1404	1875	4.1	2.2	5.578	A
B4100 (W)	503	126	1480	1036	0.486	508	533	2.3	1.0	7.531	A
A43 (N)	1677	419	579	2113	0.793	2104	1409	258.4	151.6	351.715	F

2025 Baseline + Committed + Western Development , 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	222.64	F

Junction Network

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold	Network delay (s)	Network LOS
Left	Normal/unknown	-22	B4100(E)	222.64	F

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
D28	2025 Baseline + Committed + Western Development	PM	ONE HOUR	16:45	18:15	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 (%)
B4100(E)		ONE HOUR	✓	782	100.000
A43 (S)		ONE HOUR	✓	2229	100.000
B4100 (W)		ONE HOUR	✓	571	100.000
A43 (N)		ONE HOUR	✓	1771	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		B4100(E)	A43 (S)	B4100 (W)	A43 (N)
From	B4100(E)	0	164	287	331
	A43 (S)	127	0	162	1940
	B4100 (W)	254	162	18	137
	A43 (N)	262	1401	108	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		B4100(E)	A43 (S)	B4100 (W)	A43 (N)
From	B4100(E)	0	6	1	3
	A43 (S)	3	0	13	7
	B4100 (W)	2	10	0	8

	A43 (N)	4	10	9	0
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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)
B4100(E)	1.49	692.45	147.8	F	718	1076
A43 (S)	1.13	254.37	159.7	F	2045	3068
B4100 (W)	0.96	74.92	12.4	F	524	786
A43 (N)	0.93	22.88	11.6	C	1625	2438

Main Results for each time segment

16:45 - 17:00

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
B4100(E)	589	147	1265	857	0.687	580	481	0.0	2.2	12.992	B
A43 (S)	1678	420	553	2193	0.765	1665	1292	0.0	3.4	7.133	A
B4100 (W)	430	107	1789	883	0.487	426	428	0.0	1.0	8.239	A
A43 (N)	1333	333	419	2211	0.603	1327	1797	0.0	1.6	4.406	A

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
B4100(E)	703	176	1512	740	0.950	674	573	2.2	9.4	44.075	E
A43 (S)	2004	501	645	2135	0.938	1970	1541	3.4	11.8	20.135	C
B4100 (W)	513	128	2112	724	0.709	508	503	1.0	2.4	17.112	C
A43 (N)	1592	398	498	2163	0.736	1587	2122	1.6	3.0	6.755	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
B4100(E)	861	215	1826	591	1.456	589	674	9.4	77.3	280.777	F
A43 (S)	2454	614	602	2163	1.135	2152	1813	11.8	87.4	90.954	F
B4100 (W)	629	157	2245	659	0.954	600	509	2.4	9.5	50.191	F
A43 (N)	1950	487	579	2113	0.923	1921	2266	3.0	10.2	18.150	C

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
B4100(E)	861	215	1851	579	1.487	579	685	77.3	147.8	647.667	F
A43 (S)	2454	614	596	2166	1.133	2165	1835	87.4	159.7	211.525	F
B4100 (W)	629	157	2253	655	0.960	617	508	9.5	12.4	74.918	F
A43 (N)	1950	487	592	2105	0.926	1944	2278	10.2	11.6	22.877	C

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
B4100(E)	703	176	1557	719	0.978	714	603	147.8	145.2	692.447	F
A43 (S)	2004	501	680	2114	0.948	2100	1591	159.7	135.7	254.366	F
B4100 (W)	513	128	2249	656	0.782	546	531	12.4	4.3	40.287	E
A43 (N)	1592	398	534	2140	0.744	1626	2261	11.6	3.3	8.095	A

18:00 - 18:15

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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
B4100(E)	589	147	1280	850	0.692	844	510	145.2	81.3	484.660	F
A43 (S)	1678	420	763	2063	0.814	2047	1361	135.7	43.6	160.027	F
B4100 (W)	430	107	2255	654	0.658	438	554	4.3	2.1	18.307	C
A43 (N)	1333	333	450	2192	0.608	1340	2244	3.3	1.7	4.638	A

2025 Baseline + Committed + Eastern Development, 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	218.96	F

Junction Network

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold	Network delay (s)	Network LOS
Left	Normal/unknown	-21	B4100(E)	218.96	F

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
D29	2025 Baseline + Committed + Eastern Development	AM	ONE HOUR	07:45	09:15	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 (%)
B4100(E)		ONE HOUR	✓	560	100.000
A43 (S)		ONE HOUR	✓	1835	100.000
B4100 (W)		ONE HOUR	✓	594	100.000
A43 (N)		ONE HOUR	✓	2219	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		B4100(E)	A43 (S)	B4100 (W)	A43 (N)
From	B4100(E)	0	103	194	263
	A43 (S)	246	0	151	1438
	B4100 (W)	285	182	14	113
	A43 (N)	336	1734	149	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		B4100(E)	A43 (S)	B4100 (W)	A43 (N)
From	B4100(E)	0	22	4	8
	A43 (S)	11	0	20	17
	B4100 (W)	7	16	8	14

	A43 (N)	9	18	15	0
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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)
B4100(E)	1.10	241.19	39.0	F	514	771
A43 (S)	0.93	25.73	13.6	D	1684	2526
B4100 (W)	0.90	45.89	7.8	E	545	818
A43 (N)	1.23	419.46	246.0	F	2036	3054

Main Results for each time segment

07:45 - 08:00

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
B4100(E)	422	105	1550	722	0.584	416	648	0.0	1.5	12.574	B
A43 (S)	1381	345	461	2250	0.614	1374	1505	0.0	1.8	4.747	A
B4100 (W)	447	112	1456	1047	0.427	444	379	0.0	0.8	6.586	A
A43 (N)	1671	418	544	2135	0.783	1655	1357	0.0	4.0	8.462	A

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
B4100(E)	503	126	1826	591	0.852	490	770	1.5	4.9	34.764	D
A43 (S)	1650	412	543	2199	0.750	1643	1773	1.8	3.4	7.456	A
B4100 (W)	534	133	1738	908	0.588	531	448	0.8	1.5	10.506	B
A43 (N)	1995	499	650	2070	0.964	1946	1619	4.0	16.3	26.743	D

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
B4100(E)	617	154	1895	559	1.104	543	872	4.9	23.3	113.447	F
A43 (S)	2020	505	592	2169	0.932	1987	1846	3.4	11.8	20.062	C
B4100 (W)	654	164	2078	741	0.883	635	500	1.5	6.3	33.216	D
A43 (N)	2443	611	781	1991	1.227	1986	1933	16.3	130.7	140.782	F

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
B4100(E)	617	154	1895	558	1.105	554	881	23.3	39.0	219.532	F
A43 (S)	2020	505	600	2163	0.934	2013	1849	11.8	13.6	25.733	D
B4100 (W)	654	164	2108	726	0.901	648	506	6.3	7.8	45.891	E
A43 (N)	2443	611	795	1982	1.233	1982	1961	130.7	246.0	343.691	F

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
B4100(E)	503	126	1918	548	0.919	533	803	39.0	31.7	241.187	F
A43 (S)	1650	412	585	2173	0.759	1689	1866	13.6	3.8	9.300	A
B4100 (W)	534	133	1800	878	0.608	558	474	7.8	1.8	13.364	B
A43 (N)	1995	499	678	2053	0.972	2043	1680	246.0	233.9	419.464	F

09:00 - 09:15

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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
B4100(E)	422	105	1947	534	0.790	517	723	31.7	7.9	148.756	F
A43 (S)	1381	345	575	2179	0.634	1389	1890	3.8	2.0	5.343	A
B4100 (W)	447	112	1517	1017	0.440	451	446	1.8	0.9	7.095	A
A43 (N)	1671	418	551	2130	0.784	2120	1417	233.9	121.7	303.167	F

2025 Baseline + Committed + Eastern Development , 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	211.27	F

Junction Network

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold	Network delay (s)	Network LOS
Left	Normal/unknown	-22	B4100(E)	211.27	F

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
D30	2025 Baseline + Committed + Eastern Development	PM	ONE HOUR	16:45	18:15	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 (%)
B4100(E)		ONE HOUR	✓	803	100.000
A43 (S)		ONE HOUR	✓	2220	100.000
B4100 (W)		ONE HOUR	✓	441	100.000
A43 (N)		ONE HOUR	✓	1767	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		B4100(E)	A43 (S)	B4100 (W)	A43 (N)
From	B4100(E)	0	188	272	343
	A43 (S)	139	0	141	1940
	B4100 (W)	188	119	18	116
	A43 (N)	268	1401	98	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		B4100(E)	A43 (S)	B4100 (W)	A43 (N)
From	B4100(E)	0	9	1	4
	A43 (S)	8	0	6	7
	B4100 (W)	3	4	0	4

	A43 (N)	5	10	3	0
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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)
B4100(E)	1.46	664.52	147.9	F	737	1105
A43 (S)	1.13	239.00	152.2	F	2037	3056
B4100 (W)	0.76	24.16	3.1	C	405	607
A43 (N)	0.90	17.14	8.8	C	1621	2432

Main Results for each time segment

16:45 - 17:00

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
B4100(E)	605	151	1226	876	0.690	596	445	0.0	2.2	12.998	B
A43 (S)	1671	418	543	2199	0.760	1658	1278	0.0	3.3	6.966	A
B4100 (W)	332	83	1807	874	0.380	330	394	0.0	0.6	6.802	A
A43 (N)	1330	333	347	2255	0.590	1324	1790	0.0	1.5	4.182	A

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
B4100(E)	722	180	1466	762	0.948	693	531	2.2	9.4	43.114	E
A43 (S)	1996	499	635	2142	0.932	1965	1524	3.3	11.1	19.047	C
B4100 (W)	396	99	2136	712	0.557	394	463	0.6	1.3	11.597	B
A43 (N)	1588	397	413	2214	0.717	1584	2117	1.5	2.7	6.170	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
B4100(E)	884	221	1781	613	1.443	611	631	9.4	77.8	272.113	F
A43 (S)	2444	611	594	2167	1.128	2155	1797	11.1	83.3	86.793	F
B4100 (W)	486	121	2279	642	0.757	479	470	1.3	2.9	22.010	C
A43 (N)	1946	486	488	2169	0.897	1924	2270	2.7	8.2	14.819	B

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
B4100(E)	884	221	1799	604	1.464	604	637	77.8	147.9	624.342	F
A43 (S)	2444	611	590	2170	1.126	2168	1813	83.3	152.2	201.606	F
B4100 (W)	486	121	2289	637	0.762	485	470	2.9	3.1	24.163	C
A43 (N)	1946	486	493	2166	0.898	1943	2280	8.2	8.8	17.140	C

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
B4100(E)	722	180	1493	749	0.963	744	547	147.9	142.3	664.523	F
A43 (S)	1996	499	676	2117	0.943	2102	1561	152.2	125.7	239.000	F
B4100 (W)	396	99	2286	638	0.621	402	491	3.1	1.8	16.090	C
A43 (N)	1588	397	428	2205	0.720	1612	2260	8.8	2.9	6.858	A

18:00 - 18:15

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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
B4100(E)	605	151	1237	871	0.694	864	474	142.3	77.4	459.583	F
A43 (S)	1671	418	750	2071	0.807	2053	1351	125.7	30.1	139.460	F
B4100 (W)	332	83	2292	635	0.523	334	511	1.8	1.2	12.468	B
A43 (N)	1330	333	375	2237	0.595	1335	2252	2.9	1.6	4.365	A

2025 Baseline + Committed + Both Developments, 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	288.17	F

Junction Network

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold	Network delay (s)	Network LOS
Left	Normal/unknown	-25	B4100(E)	288.17	F

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
D31	2025 Baseline + Committed + Both Developments	AM	ONE HOUR	07:45	09:15	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 (%)
B4100(E)		ONE HOUR	✓	617	100.000
A43 (S)		ONE HOUR	✓	1877	100.000
B4100 (W)		ONE HOUR	✓	673	100.000
A43 (N)		ONE HOUR	✓	2239	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		B4100(E)	A43 (S)	B4100 (W)	A43 (N)
From	B4100(E)	0	103	251	263
	A43 (S)	246	0	193	1438
	B4100 (W)	317	213	14	129
	A43 (N)	336	1734	169	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		B4100(E)	A43 (S)	B4100 (W)	A43 (N)
From	B4100(E)	0	22	3	8
	A43 (S)	11	0	15	17
	B4100 (W)	6	13	8	12

	A43 (N)	9	18	13	0
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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)
B4100(E)	1.22	501.95	75.3	F	566	849
A43 (S)	0.96	35.98	19.5	E	1722	2584
B4100 (W)	1.00	89.83	18.5	F	618	926
A43 (N)	1.26	500.28	281.7	F	2055	3082

Main Results for each time segment

07:45 - 08:00

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
B4100(E)	465	116	1587	704	0.659	457	671	0.0	2.0	15.234	C
A43 (S)	1413	353	517	2215	0.638	1405	1527	0.0	2.0	5.104	A
B4100 (W)	507	127	1455	1048	0.484	503	467	0.0	1.0	7.166	A
A43 (N)	1686	421	590	2106	0.800	1668	1367	0.0	4.4	9.203	A

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
B4100(E)	555	139	1856	577	0.961	525	795	2.0	9.5	55.930	F
A43 (S)	1687	422	596	2166	0.779	1680	1784	2.0	3.9	8.454	A
B4100 (W)	605	151	1731	912	0.663	601	545	1.0	2.1	12.471	B
A43 (N)	2013	503	706	2036	0.989	1945	1626	4.4	21.3	32.854	D

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
B4100(E)	679	170	1900	556	1.221	551	888	9.5	41.5	185.077	F
A43 (S)	2067	517	621	2150	0.961	2018	1829	3.9	16.0	25.393	D
B4100 (W)	741	185	2046	757	0.979	701	594	2.1	12.1	51.288	F
A43 (N)	2465	616	831	1960	1.258	1957	1916	21.3	148.4	163.417	F

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
B4100(E)	679	170	1898	557	1.220	556	899	41.5	72.4	384.963	F
A43 (S)	2067	517	625	2148	0.962	2053	1829	16.0	19.5	35.982	E
B4100 (W)	741	185	2078	741	1.000	715	599	12.1	18.5	89.835	F
A43 (N)	2465	616	847	1950	1.264	1950	1946	148.4	277.3	394.729	F

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
B4100(E)	555	139	1921	546	1.016	543	844	72.4	75.3	501.946	F
A43 (S)	1687	422	617	2153	0.784	1748	1847	19.5	4.4	11.720	B
B4100 (W)	605	151	1800	878	0.689	669	565	18.5	2.6	24.142	C
A43 (N)	2013	503	770	1997	1.008	1995	1699	277.3	281.7	500.280	F

09:00 - 09:15

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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
B4100(E)	465	116	1950	532	0.873	525	742	75.3	60.2	466.309	F
A43 (S)	1413	353	606	2160	0.654	1422	1870	4.4	2.2	5.720	A
B4100 (W)	507	127	1499	1026	0.494	513	528	2.6	1.1	7.750	A
A43 (N)	1686	421	601	2100	0.803	2091	1411	281.7	180.3	398.427	F

2025 Baseline + Committed + Both Developments, 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	250.83	F

Junction Network

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold	Network delay (s)	Network LOS
Left	Normal/unknown	-24	B4100(E)	250.83	F

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
D32	2025 Baseline + Committed + Both Developments	PM	ONE HOUR	16:45	18:15	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 (%)
B4100(E)		ONE HOUR	✓	824	100.000
A43 (S)		ONE HOUR	✓	2241	100.000
B4100 (W)		ONE HOUR	✓	573	100.000
A43 (N)		ONE HOUR	✓	1777	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		B4100(E)	A43 (S)	B4100 (W)	A43 (N)
From	B4100(E)	0	188	293	343
	A43 (S)	139	0	162	1940
	B4100 (W)	256	162	18	137
	A43 (N)	268	1401	108	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		B4100(E)	A43 (S)	B4100 (W)	A43 (N)
From	B4100(E)	0	9	1	4
	A43 (S)	8	0	13	7
	B4100 (W)	3	10	0	8

	A43 (N)	5	10	9	0
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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)
B4100(E)	1.56	829.62	180.8	F	756	1134
A43 (S)	1.14	261.43	163.8	F	2056	3085
B4100 (W)	0.97	78.55	13.1	F	526	789
A43 (N)	0.93	24.62	12.6	C	1631	2446

Main Results for each time segment

16:45 - 17:00

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
B4100(E)	620	155	1265	857	0.724	610	495	0.0	2.6	14.597	B
A43 (S)	1687	422	565	2185	0.772	1673	1310	0.0	3.5	7.367	A
B4100 (W)	431	108	1806	875	0.493	427	432	0.0	1.0	8.451	A
A43 (N)	1338	334	429	2205	0.607	1331	1805	0.0	1.7	4.466	A

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
B4100(E)	741	185	1512	740	1.001	696	590	2.6	13.8	58.219	F
A43 (S)	2015	504	650	2133	0.945	1978	1558	3.5	12.7	21.244	C
B4100 (W)	515	129	2125	718	0.718	509	503	1.0	2.5	17.783	C
A43 (N)	1597	399	510	2155	0.741	1592	2124	1.7	3.0	6.910	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
B4100(E)	907	227	1824	592	1.532	591	693	13.8	92.8	340.387	F
A43 (S)	2467	617	592	2169	1.138	2158	1823	12.7	89.9	93.377	F
B4100 (W)	631	158	2249	657	0.960	601	502	2.5	9.9	52.046	F
A43 (N)	1957	489	591	2106	0.929	1925	2258	3.0	10.9	19.113	C

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
B4100(E)	907	227	1850	580	1.565	580	705	92.8	174.7	759.162	F
A43 (S)	2467	617	585	2173	1.136	2172	1844	89.9	163.8	216.359	F
B4100 (W)	631	158	2256	653	0.966	618	501	9.9	13.1	78.551	F
A43 (N)	1957	489	605	2097	0.933	1950	2269	10.9	12.6	24.618	C

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
B4100(E)	741	185	1560	717	1.033	716	623	174.7	180.8	829.618	F
A43 (S)	2015	504	670	2121	0.950	2107	1607	163.8	140.8	261.434	F
B4100 (W)	515	129	2253	655	0.787	550	524	13.1	4.5	42.926	E
A43 (N)	1597	399	549	2132	0.749	1634	2253	12.6	3.4	8.454	A

18:00 - 18:15

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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
B4100(E)	620	155	1280	850	0.730	845	527	180.8	124.6	651.430	F
A43 (S)	1687	422	748	2072	0.814	2056	1377	140.8	48.5	167.954	F
B4100 (W)	431	108	2259	651	0.662	440	545	4.5	2.2	18.786	C
A43 (N)	1338	334	463	2184	0.613	1344	2237	3.4	1.7	4.716	A

2031 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	303.88	F

Junction Network

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold	Network delay (s)	Network LOS
Left	Normal/unknown	-24	B4100(E)	303.88	F

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
D33	2031 Baseline	AM	ONE HOUR	07:45	09:15	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 (%)
B4100(E)		ONE HOUR	✓	605	100.000
A43 (S)		ONE HOUR	✓	1891	100.000
B4100 (W)		ONE HOUR	✓	672	100.000
A43 (N)		ONE HOUR	✓	2276	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		B4100(E)	A43 (S)	B4100 (W)	A43 (N)
From	B4100(E)	0	97	218	290
	A43 (S)	255	0	172	1464
	B4100 (W)	320	207	16	129
	A43 (N)	370	1736	170	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		B4100(E)	A43 (S)	B4100 (W)	A43 (N)
From	B4100(E)	0	15	4	7
	A43 (S)	8	0	9	17
	B4100 (W)	6	6	8	6
	A43 (N)	7	18	9	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)
B4100(E)	1.17	371.69	57.7	F	555	833
A43 (S)	0.97	41.37	22.9	E	1735	2603
B4100 (W)	1.05	124.59	27.2	F	617	925
A43 (N)	1.28	556.89	318.2	F	2088	3133

Main Results for each time segment

07:45 - 08:00

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
B4100(E)	455	114	1585	705	0.646	448	705	0.0	1.9	14.599	B
A43 (S)	1424	356	515	2217	0.642	1416	1519	0.0	2.0	5.116	A
B4100 (W)	506	126	1502	1025	0.494	502	429	0.0	1.0	7.245	A
A43 (N)	1713	428	596	2103	0.815	1694	1407	0.0	4.8	9.759	A

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
B4100(E)	544	136	1841	584	0.931	520	832	1.9	7.8	48.429	E
A43 (S)	1700	425	597	2165	0.785	1692	1763	2.0	4.0	8.598	A
B4100 (W)	604	151	1787	884	0.683	599	502	1.0	2.2	13.197	B
A43 (N)	2046	512	713	2032	1.007	1961	1674	4.8	26.2	37.955	E

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
B4100(E)	666	167	1869	571	1.167	563	918	7.8	33.6	151.321	F
A43 (S)	2082	521	635	2142	0.972	2026	1796	4.0	18.0	27.627	D
B4100 (W)	740	185	2112	724	1.022	685	550	2.2	15.8	63.443	F
A43 (N)	2506	626	827	1962	1.277	1960	1970	26.2	162.6	180.195	F

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
B4100(E)	666	167	1867	572	1.166	570	927	33.6	57.7	304.122	F
A43 (S)	2082	521	641	2138	0.974	2062	1796	18.0	22.9	41.374	E
B4100 (W)	740	185	2148	706	1.047	694	555	15.8	27.2	124.592	F
A43 (N)	2506	626	839	1955	1.282	1955	2003	162.6	300.4	429.261	F

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
B4100(E)	544	136	1886	563	0.967	563	894	57.7	53.1	371.688	F
A43 (S)	1700	425	637	2141	0.794	1773	1812	22.9	4.7	13.267	B
B4100 (W)	604	151	1881	838	0.721	701	528	27.2	3.0	43.231	E
A43 (N)	2046	512	805	1976	1.036	1975	1777	300.4	318.2	556.893	F

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
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B4100(E)	455	114	1919	547	0.833	536	777	53.1	32.9	291.689	F
A43 (S)	1424	356	618	2152	0.661	1433	1837	4.7	2.3	5.828	A
B4100 (W)	506	126	1560	996	0.508	513	492	3.0	1.1	8.027	A
A43 (N)	1713	428	608	2095	0.818	2088	1465	318.2	224.6	468.587	F

2031 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	343.75	F

Junction Network

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold	Network delay (s)	Network LOS
Left	Normal/unknown	-28	B4100(E)	343.75	F

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
D34	2031 Baseline	PM	ONE HOUR	16:45	18:15	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 (%)
B4100(E)		ONE HOUR	✓	876	100.000
A43 (S)		ONE HOUR	✓	2302	100.000
B4100 (W)		ONE HOUR	✓	505	100.000
A43 (N)		ONE HOUR	✓	1886	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		B4100(E)	A43 (S)	B4100 (W)	A43 (N)
From	B4100(E)	0	189	306	381
	A43 (S)	146	0	162	1994
	B4100 (W)	214	137	21	133
	A43 (N)	301	1473	112	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		B4100(E)	A43 (S)	B4100 (W)	A43 (N)
From	B4100(E)	0	6	1	3
	A43 (S)	3	0	6	7
	B4100 (W)	3	4	0	4
	A43 (N)	4	10	3	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)
B4100(E)	1.74	1204.65	252.9	F	804	1206
A43 (S)	1.17	332.64	200.1	F	2112	3169
B4100 (W)	0.86	37.25	5.4	E	463	695
A43 (N)	0.97	39.51	21.8	E	1731	2596

Main Results for each time segment

16:45 - 17:00

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
B4100(E)	659	165	1305	838	0.787	646	494	0.0	3.5	18.136	C
A43 (S)	1733	433	606	2160	0.802	1717	1345	0.0	4.1	8.373	A
B4100 (W)	380	95	1877	840	0.453	377	446	0.0	0.8	7.979	A
A43 (N)	1420	355	386	2230	0.637	1412	1867	0.0	1.9	4.736	A

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
B4100(E)	788	197	1560	717	1.098	698	588	3.5	25.8	94.298	F
A43 (S)	2069	517	666	2123	0.975	2015	1591	4.1	17.7	27.337	D
B4100 (W)	454	113	2177	692	0.656	450	505	0.8	1.9	15.112	C
A43 (N)	1695	424	459	2186	0.776	1689	2168	1.9	3.6	7.745	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
B4100(E)	964	241	1870	570	1.691	570	691	25.8	124.5	492.520	F
A43 (S)	2535	634	590	2170	1.168	2164	1850	17.7	110.3	113.613	F
B4100 (W)	556	139	2260	651	0.854	544	494	1.9	4.9	31.614	D
A43 (N)	2077	519	538	2138	0.971	2023	2266	3.6	17.1	26.259	D

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
B4100(E)	964	241	1903	555	1.738	555	701	124.5	226.9	1010.788	F
A43 (S)	2535	634	580	2176	1.165	2175	1877	110.3	200.1	262.661	F
B4100 (W)	556	139	2263	650	0.856	554	492	4.9	5.4	37.248	E
A43 (N)	2077	519	546	2133	0.973	2058	2271	17.1	21.8	39.514	E

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
B4100(E)	788	197	1630	684	1.151	684	613	226.9	252.9	1204.647	F
A43 (S)	2069	517	661	2126	0.973	2115	1654	200.1	188.8	332.641	F
B4100 (W)	454	113	2263	649	0.699	465	512	5.4	2.6	21.297	C
A43 (N)	1695	424	477	2175	0.779	1767	2252	21.8	4.0	11.146	B

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
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B4100(E)	659	165	1320	831	0.794	828	521	252.9	210.8	1009.125	F
A43 (S)	1733	433	750	2071	0.837	2059	1398	188.8	107.2	259.803	F
B4100 (W)	380	95	2274	644	0.590	384	535	2.6	1.5	14.537	B
A43 (N)	1420	355	414	2214	0.641	1428	2245	4.0	2.0	5.023	A

2031 Baseline + Committed, 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	472.36	F

Junction Network

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold	Network delay (s)	Network LOS
Left	Normal/unknown	-28	B4100(E)	472.36	F

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
D35	2031 Baseline + Committed	AM	ONE HOUR	07:45	09:15	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 (%)
B4100(E)		ONE HOUR	✓	605	100.000
A43 (S)		ONE HOUR	✓	2046	100.000
B4100 (W)		ONE HOUR	✓	672	100.000
A43 (N)		ONE HOUR	✓	2489	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		B4100(E)	A43 (S)	B4100 (W)	A43 (N)
From	B4100(E)	0	97	218	290
	A43 (S)	255	0	172	1619
	B4100 (W)	320	207	16	129
	A43 (N)	370	1949	170	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		B4100(E)	A43 (S)	B4100 (W)	A43 (N)
From	B4100(E)	0	15	4	7
	A43 (S)	8	0	9	17
	B4100 (W)	6	6	8	6
	A43 (N)	7	18	9	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)
B4100(E)	1.20	456.19	68.6	F	555	833
A43 (S)	1.05	99.49	68.4	F	1877	2816
B4100 (W)	1.11	191.20	42.4	F	617	925
A43 (N)	1.39	858.71	511.1	F	2284	3426

Main Results for each time segment

07:45 - 08:00

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
B4100(E)	455	114	1734	635	0.718	445	703	0.0	2.5	19.453	C
A43 (S)	1540	385	512	2218	0.694	1530	1668	0.0	2.6	5.935	A
B4100 (W)	506	126	1615	969	0.522	501	427	0.0	1.1	8.088	A
A43 (N)	1874	468	596	2103	0.891	1841	1521	0.0	8.1	14.470	B

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
B4100(E)	544	136	1912	550	0.988	509	811	2.5	11.1	65.922	F
A43 (S)	1839	460	579	2176	0.845	1826	1842	2.6	5.8	11.424	B
B4100 (W)	604	151	1917	820	0.737	598	489	1.1	2.8	16.676	C
A43 (N)	2238	559	710	2033	1.100	2013	1804	8.1	64.3	74.285	F

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
B4100(E)	666	167	1905	554	1.203	549	871	11.1	40.4	187.355	F
A43 (S)	2253	563	612	2156	1.045	2113	1842	5.8	40.9	49.285	E
B4100 (W)	740	185	2198	682	1.085	659	526	2.8	23.0	87.634	F
A43 (N)	2740	685	796	1981	1.383	1981	2061	64.3	254.2	294.742	F

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
B4100(E)	666	167	1903	555	1.201	553	876	40.4	68.6	368.716	F
A43 (S)	2253	563	616	2154	1.046	2143	1841	40.9	68.4	99.492	F
B4100 (W)	740	185	2228	667	1.109	663	530	23.0	42.4	191.201	F
A43 (N)	2740	685	802	1977	1.386	1977	2088	254.2	445.0	640.662	F

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
B4100(E)	544	136	1906	553	0.983	544	877	68.6	68.6	456.190	F
A43 (S)	1839	460	608	2159	0.852	2080	1842	68.4	8.3	63.035	F
B4100 (W)	604	151	2166	698	0.866	681	522	42.4	23.2	174.988	F
A43 (N)	2238	559	809	1973	1.134	1973	2037	445.0	511.1	858.317	F

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
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B4100(E)	455	114	1943	536	0.850	528	782	68.6	50.6	408.461	F
A43 (S)	1540	385	597	2165	0.711	1562	1873	8.3	2.9	7.101	A
B4100 (W)	506	126	1684	935	0.541	594	476	23.2	1.3	14.401	B
A43 (N)	1874	468	674	2055	0.912	2051	1603	511.1	467.0	858.712	F

2031 Baseline + Committed, 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	500.46	F

Junction Network

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold	Network delay (s)	Network LOS
Left	Normal/unknown	-30	B4100(E)	500.46	F

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
D36	2031 Baseline + Committed	PM	ONE HOUR	16:45	18:15	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 (%)
B4100(E)		ONE HOUR	✓	876	100.000
A43 (S)		ONE HOUR	✓	2506	100.000
B4100 (W)		ONE HOUR	✓	505	100.000
A43 (N)		ONE HOUR	✓	2004	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		B4100(E)	A43 (S)	B4100 (W)	A43 (N)
From	B4100(E)	0	189	306	381
	A43 (S)	146	0	162	2198
	B4100 (W)	214	137	21	133
	A43 (N)	301	1591	112	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		B4100(E)	A43 (S)	B4100 (W)	A43 (N)
From	B4100(E)	0	6	1	3
	A43 (S)	3	0	6	7
	B4100 (W)	3	4	0	4
	A43 (N)	4	10	3	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)
B4100(E)	1.86	1526.04	306.8	F	804	1206
A43 (S)	1.26	569.02	347.5	F	2300	3449
B4100 (W)	0.87	40.17	5.8	E	463	695
A43 (N)	1.03	82.42	54.5	F	1839	2758

Main Results for each time segment

16:45 - 17:00

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
B4100(E)	659	165	1392	797	0.828	642	493	0.0	4.3	22.041	C
A43 (S)	1887	472	603	2162	0.873	1860	1431	0.0	6.6	11.873	B
B4100 (W)	380	95	2019	770	0.494	376	444	0.0	1.0	9.370	A
A43 (N)	1509	377	386	2231	0.676	1500	2010	0.0	2.2	5.287	A

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
B4100(E)	788	197	1663	668	1.178	658	582	4.3	36.7	133.303	F
A43 (S)	2253	563	635	2142	1.052	2106	1686	6.6	43.2	51.652	F
B4100 (W)	454	113	2256	653	0.695	449	485	1.0	2.2	17.841	C
A43 (N)	1802	450	454	2190	0.823	1791	2252	2.2	4.8	9.582	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
B4100(E)	964	241	1947	534	1.807	534	672	36.7	144.4	630.270	F
A43 (S)	2759	690	558	2190	1.260	2188	1923	43.2	185.9	193.749	F
B4100 (W)	556	139	2279	642	0.866	544	467	2.2	5.3	34.263	D
A43 (N)	2206	552	528	2144	1.029	2091	2295	4.8	33.7	42.297	E

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
B4100(E)	964	241	1977	519	1.857	519	681	144.4	255.7	1396.173	F
A43 (S)	2759	690	549	2195	1.257	2195	1948	185.9	326.9	425.441	F
B4100 (W)	556	139	2279	642	0.866	554	465	5.3	5.8	40.167	E
A43 (N)	2206	552	536	2139	1.031	2123	2297	33.7	54.5	82.416	F

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
B4100(E)	788	197	1843	583	1.350	583	624	255.7	306.8	1526.041	F
A43 (S)	2253	563	588	2171	1.038	2170	1838	326.9	347.5	569.025	F
B4100 (W)	454	113	2284	639	0.710	466	475	5.8	2.7	22.810	C
A43 (N)	1802	450	470	2180	0.827	1997	2280	54.5	5.8	36.153	E

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
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B4100(E)	659	165	1414	786	0.839	784	513	306.8	275.7	1337.924	F
A43 (S)	1887	472	716	2092	0.902	2085	1482	347.5	297.8	557.191	F
B4100 (W)	380	95	2292	636	0.598	385	510	2.7	1.6	15.084	C
A43 (N)	1509	377	405	2219	0.680	1522	2271	5.8	2.4	5.718	A

2031 Baseline + Committed + Western Development , 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	556.57	F

Junction Network

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold	Network delay (s)	Network LOS
Left	Normal/unknown	-29	A43 (N)	556.57	F

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
D37	2031 Baseline + Committed + Western Development	AM	ONE HOUR	07:45	09:15	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 (%)
B4100(E)		ONE HOUR	✓	572	100.000
A43 (S)		ONE HOUR	✓	2088	100.000
B4100 (W)		ONE HOUR	✓	752	100.000
A43 (N)		ONE HOUR	✓	2509	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		B4100(E)	A43 (S)	B4100 (W)	A43 (N)
From	B4100(E)	0	7	275	290
	A43 (S)	255	0	214	1619
	B4100 (W)	352	239	16	145
	A43 (N)	370	1949	190	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		B4100(E)	A43 (S)	B4100 (W)	A43 (N)
From	B4100(E)	0	15	3	7
	A43 (S)	8	0	15	17
	B4100 (W)	6	13	8	12

	A43 (N)	7	18	13	0
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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)
B4100(E)	1.15	321.35	50.8	F	525	787
A43 (S)	1.10	157.34	113.2	F	1916	2874
B4100 (W)	1.18	333.49	69.1	F	690	1035
A43 (N)	1.40	1009.29	546.5	F	2302	3453

Main Results for each time segment

07:45 - 08:00

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
B4100(E)	431	108	1768	619	0.696	422	726	0.0	2.2	18.450	C
A43 (S)	1572	393	569	2183	0.720	1560	1621	0.0	2.9	6.566	A
B4100 (W)	566	142	1614	969	0.584	560	515	0.0	1.5	9.484	A
A43 (N)	1889	472	643	2074	0.911	1851	1532	0.0	9.6	16.520	C

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
B4100(E)	514	129	1919	547	0.940	491	831	2.2	8.1	53.199	F
A43 (S)	1877	469	650	2133	0.880	1859	1760	2.9	7.5	14.292	B
B4100 (W)	676	169	1917	820	0.824	664	591	1.5	4.5	23.637	C
A43 (N)	2256	564	763	2001	1.127	1987	1818	9.6	76.8	87.421	F

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
B4100(E)	630	157	1914	549	1.147	541	871	8.1	30.3	146.761	F
A43 (S)	2299	575	698	2103	1.093	2080	1757	7.5	62.3	69.595	F
B4100 (W)	828	207	2141	710	1.166	698	637	4.5	37.0	123.468	F
A43 (N)	2762	691	817	1968	1.403	1968	2021	76.8	275.4	327.181	F

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
B4100(E)	630	157	1913	550	1.146	548	873	30.3	50.8	281.806	F
A43 (S)	2299	575	705	2099	1.095	2095	1756	62.3	113.2	157.341	F
B4100 (W)	828	207	2158	701	1.181	700	642	37.0	69.1	284.943	F
A43 (N)	2762	691	821	1966	1.405	1966	2037	275.4	474.5	689.814	F

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
B4100(E)	514	129	1914	549	0.936	538	871	50.8	44.9	321.345	F
A43 (S)	1877	469	695	2105	0.892	2083	1757	113.2	61.6	152.745	F
B4100 (W)	676	169	2143	709	0.953	698	636	69.1	63.6	333.489	F
A43 (N)	2256	564	818	1968	1.146	1968	2023	474.5	546.5	945.355	F

09:00 - 09:15

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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
B4100(E)	431	108	1920	547	0.788	534	883	44.9	19.0	221.020	F
A43 (S)	1572	393	691	2107	0.746	1804	1763	61.6	3.6	26.491	D
B4100 (W)	566	142	1890	834	0.679	808	605	63.6	3.1	149.203	F
A43 (N)	1889	472	872	1935	0.976	1931	1825	546.5	536.0	1009.292	F

2031 Baseline + Committed + Western Development , 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	567.30	F

Junction Network

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold	Network delay (s)	Network LOS
Left	Normal/unknown	-32	B4100(E)	567.30	F

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
D38	2031 Baseline + Committed + Western Development	PM	ONE HOUR	16:45	18:15	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 (%)
B4100(E)		ONE HOUR	✓	897	100.000
A43 (S)		ONE HOUR	✓	2527	100.000
B4100 (W)		ONE HOUR	✓	637	100.000
A43 (N)		ONE HOUR	✓	2015	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		B4100(E)	A43 (S)	B4100 (W)	A43 (N)
From	B4100(E)	0	189	327	381
	A43 (S)	146	0	183	2198
	B4100 (W)	282	180	21	154
	A43 (N)	301	1591	123	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		B4100(E)	A43 (S)	B4100 (W)	A43 (N)
From	B4100(E)	0	6	1	3
	A43 (S)	3	0	13	7
	B4100 (W)	2	10	0	8

	A43 (N)	4	10	9	0
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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)
B4100(E)	1.90	1780.35	347.3	F	823	1235
A43 (S)	1.27	597.25	366.9	F	2319	3478
B4100 (W)	1.07	171.16	34.7	F	585	877
A43 (N)	1.06	114.95	79.3	F	1849	2773

Main Results for each time segment

16:45 - 17:00

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
B4100(E)	675	169	1431	778	0.868	654	543	0.0	5.4	26.382	D
A43 (S)	1902	476	624	2149	0.885	1873	1461	0.0	7.3	12.881	B
B4100 (W)	480	120	2015	772	0.621	473	482	0.0	1.7	12.451	B
A43 (N)	1517	379	467	2182	0.695	1507	2021	0.0	2.4	5.740	A

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
B4100(E)	806	202	1706	648	1.244	641	638	5.4	46.7	168.817	F
A43 (S)	2272	568	634	2142	1.060	2111	1713	7.3	47.4	55.678	F
B4100 (W)	573	143	2231	666	0.860	559	515	1.7	5.2	32.051	D
A43 (N)	1811	453	546	2134	0.849	1799	2244	2.4	5.7	11.292	B

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
B4100(E)	988	247	1953	531	1.861	531	715	46.7	160.9	722.198	F
A43 (S)	2782	696	566	2185	1.273	2184	1918	47.4	197.0	206.593	F
B4100 (W)	701	175	2251	656	1.070	636	498	5.2	21.6	93.514	F
A43 (N)	2219	555	608	2096	1.059	2060	2279	5.7	45.2	53.730	F

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
B4100(E)	988	247	1976	520	1.899	520	725	160.9	277.8	1527.315	F
A43 (S)	2782	696	559	2189	1.271	2189	1937	197.0	345.3	449.595	F
B4100 (W)	701	175	2251	655	1.070	649	497	21.6	34.7	171.158	F
A43 (N)	2219	555	618	2089	1.062	2082	2282	45.2	79.3	114.952	F

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
B4100(E)	806	202	1959	528	1.527	528	717	277.8	347.3	1780.352	F
A43 (S)	2272	568	564	2186	1.039	2186	1923	345.3	366.9	597.252	F
B4100 (W)	573	143	2252	655	0.874	636	498	34.7	18.9	156.530	F
A43 (N)	1811	453	609	2095	0.865	2067	2279	79.3	15.5	86.896	F

18:00 - 18:15

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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
B4100(E)	675	169	1505	743	0.908	741	595	347.3	330.9	1647.032	F
A43 (S)	1902	476	699	2103	0.905	2096	1547	366.9	318.4	588.560	F
B4100 (W)	480	120	2259	651	0.736	542	536	18.9	3.3	47.140	E
A43 (N)	1517	379	532	2142	0.708	1568	2269	15.5	2.7	7.434	A

2031 Baseline + Committed + Eastern Development , 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	515.56	F

Junction Network

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold	Network delay (s)	Network LOS
Left	Normal/unknown	-30	B4100(E)	515.56	F

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
D39	2031 Baseline + Committed + Eastern Development	AM	ONE HOUR	07:45	09:15	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 (%)
B4100(E)		ONE HOUR	✓	635	100.000
A43 (S)		ONE HOUR	✓	2069	100.000
B4100 (W)		ONE HOUR	✓	676	100.000
A43 (N)		ONE HOUR	✓	2500	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		B4100(E)	A43 (S)	B4100 (W)	A43 (N)
From	B4100(E)	0	115	221	299
	A43 (S)	278	0	172	1619
	B4100 (W)	324	207	16	129
	A43 (N)	381	1949	170	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		B4100(E)	A43 (S)	B4100 (W)	A43 (N)
From	B4100(E)	0	22	4	8
	A43 (S)	11	0	20	17
	B4100 (W)	7	16	8	14

	A43 (N)	9	18	15	0
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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)
B4100(E)	1.24	553.43	85.4	F	583	874
A43 (S)	1.06	111.14	78.0	F	1899	2848
B4100 (W)	1.12	216.24	46.4	F	620	930
A43 (N)	1.40	921.56	533.0	F	2294	3441

Main Results for each time segment

07:45 - 08:00

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
B4100(E)	478	120	1732	636	0.752	466	731	0.0	3.0	21.779	C
A43 (S)	1558	389	519	2214	0.704	1547	1679	0.0	2.7	6.188	A
B4100 (W)	509	127	1638	958	0.531	504	428	0.0	1.2	8.712	A
A43 (N)	1882	471	616	2091	0.900	1847	1526	0.0	8.8	15.439	C

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
B4100(E)	571	143	1895	559	1.022	527	841	3.0	14.1	77.031	F
A43 (S)	1860	465	582	2175	0.855	1846	1840	2.7	6.3	12.207	B
B4100 (W)	608	152	1940	809	0.751	600	487	1.2	3.1	18.521	C
A43 (N)	2247	562	734	2019	1.113	2002	1807	8.8	70.3	80.505	F

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
B4100(E)	699	175	1885	563	1.242	560	899	14.1	48.9	219.730	F
A43 (S)	2278	570	608	2159	1.055	2121	1837	6.3	45.6	53.587	F
B4100 (W)	744	186	2208	677	1.100	656	521	3.1	25.2	95.379	F
A43 (N)	2753	688	816	1969	1.398	1969	2048	70.3	266.2	312.821	F

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
B4100(E)	699	175	1883	564	1.240	563	904	48.9	82.9	434.202	F
A43 (S)	2278	570	611	2157	1.056	2148	1836	45.6	78.0	111.140	F
B4100 (W)	744	186	2235	663	1.122	660	524	25.2	46.4	209.962	F
A43 (N)	2753	688	822	1965	1.401	1965	2072	266.2	463.1	671.150	F

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
B4100(E)	571	143	1885	563	1.014	561	901	82.9	85.4	553.434	F
A43 (S)	1860	465	609	2158	0.862	2127	1837	78.0	11.3	80.696	F
B4100 (W)	608	152	2214	674	0.902	658	521	46.4	33.8	216.240	F
A43 (N)	2247	562	818	1968	1.142	1968	2054	463.1	533.0	902.071	F

09:00 - 09:15

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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
B4100(E)	478	120	1920	547	0.875	540	827	85.4	70.0	519.195	F
A43 (S)	1558	389	594	2167	0.719	1591	1865	11.3	3.1	7.663	A
B4100 (W)	509	127	1712	921	0.553	639	472	33.8	1.4	22.382	C
A43 (N)	1882	471	730	2021	0.931	2017	1621	533.0	499.4	921.564	F

2031 Baseline + Committed + Eastern Development , 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	538.84	F

Junction Network

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold	Network delay (s)	Network LOS
Left	Normal/unknown	-32	B4100(E)	538.84	F

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
D40	2031 Baseline + Committed + Eastern Development	PM	ONE HOUR	16:45	18:15	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 (%)
B4100(E)		ONE HOUR	✓	916	100.000
A43 (S)		ONE HOUR	✓	2518	100.000
B4100 (W)		ONE HOUR	✓	507	100.000
A43 (N)		ONE HOUR	✓	2010	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		B4100(E)	A43 (S)	B4100 (W)	A43 (N)
From	B4100(E)	0	212	311	393
	A43 (S)	158	0	162	2198
	B4100 (W)	216	137	21	133
	A43 (N)	307	1591	112	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		B4100(E)	A43 (S)	B4100 (W)	A43 (N)
From	B4100(E)	0	9	1	4
	A43 (S)	8	0	6	7
	B4100 (W)	3	4	0	4

	A43 (N)	5	10	3	0
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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)
B4100(E)	1.93	1693.93	346.9	F	841	1261
A43 (S)	1.26	577.82	354.3	F	2311	3466
B4100 (W)	0.87	41.52	6.0	E	465	698
A43 (N)	1.04	89.06	59.8	F	1844	2767

Main Results for each time segment

16:45 - 17:00

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
B4100(E)	690	172	1392	797	0.865	668	508	0.0	5.4	25.876	D
A43 (S)	1896	474	613	2156	0.879	1868	1447	0.0	6.9	12.394	B
B4100 (W)	382	95	2034	762	0.501	378	446	0.0	1.0	9.578	A
A43 (N)	1513	378	396	2225	0.680	1504	2016	0.0	2.3	5.370	A

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
B4100(E)	823	206	1662	669	1.231	662	599	5.4	45.9	162.383	F
A43 (S)	2264	566	627	2147	1.054	2113	1697	6.9	44.6	53.049	F
B4100 (W)	456	114	2261	651	0.700	451	479	1.0	2.3	18.165	C
A43 (N)	1807	452	465	2183	0.828	1796	2246	2.3	4.9	9.875	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
B4100(E)	1009	252	1939	537	1.877	537	689	45.9	163.7	721.215	F
A43 (S)	2772	693	552	2194	1.264	2192	1925	44.6	189.7	197.664	F
B4100 (W)	558	140	2282	640	0.872	546	462	2.3	5.4	35.153	E
A43 (N)	2213	553	540	2137	1.036	2088	2287	4.9	36.1	44.638	E

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
B4100(E)	1009	252	1968	524	1.926	524	698	163.7	284.9	1551.013	F
A43 (S)	2772	693	544	2199	1.261	2198	1948	189.7	333.1	432.717	F
B4100 (W)	558	140	2282	640	0.872	556	460	5.4	6.0	41.521	E
A43 (N)	2213	553	548	2132	1.038	2118	2290	36.1	59.8	89.056	F

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
B4100(E)	823	206	1859	576	1.431	576	645	284.9	346.9	1693.934	F
A43 (S)	2264	566	574	2180	1.039	2179	1860	333.1	354.3	577.818	F
B4100 (W)	456	114	2286	638	0.714	469	468	6.0	2.8	23.352	C
A43 (N)	1807	452	483	2172	0.832	2022	2272	59.8	6.1	43.787	E

18:00 - 18:15

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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
B4100(E)	690	172	1415	786	0.877	784	529	346.9	323.4	1539.890	F
A43 (S)	1896	474	703	2100	0.903	2093	1495	354.3	304.9	567.056	F
B4100 (W)	382	95	2295	634	0.602	386	502	2.8	1.6	15.286	C
A43 (N)	1513	378	416	2212	0.684	1528	2265	6.1	2.4	5.846	A

2031 Baseline + Committed + Both Developments, 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	643.60	F

Junction Network

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold	Network delay (s)	Network LOS
Left	Normal/unknown	-33	B4100(E)	643.60	F

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
D41	2031 Baseline + Committed + Both Developments	AM	ONE HOUR	07:45	09:15	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 (%)
B4100(E)		ONE HOUR	✓	692	100.000
A43 (S)		ONE HOUR	✓	2111	100.000
B4100 (W)		ONE HOUR	✓	757	100.000
A43 (N)		ONE HOUR	✓	2520	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		B4100(E)	A43 (S)	B4100 (W)	A43 (N)
From	B4100(E)	0	115	278	299
	A43 (S)	278	0	214	1619
	B4100 (W)	357	239	16	145
	A43 (N)	381	1949	190	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		B4100(E)	A43 (S)	B4100 (W)	A43 (N)
From	B4100(E)	0	22	3	8
	A43 (S)	11	0	15	17
	B4100 (W)	6	13	8	12

	A43 (N)	9	18	13	0
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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)
B4100(E)	1.36	901.49	141.7	F	635	952
A43 (S)	1.08	143.58	104.2	F	1937	2906
B4100 (W)	1.20	357.41	73.5	F	695	1042
A43 (N)	1.42	1077.62	572.5	F	2312	3469

Main Results for each time segment

07:45 - 08:00

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
B4100(E)	521	130	1765	620	0.840	503	754	0.0	4.6	29.592	D
A43 (S)	1589	397	571	2182	0.728	1577	1696	0.0	3.0	6.778	A
B4100 (W)	570	142	1634	959	0.594	564	514	0.0	1.6	9.796	A
A43 (N)	1897	474	663	2062	0.920	1855	1535	0.0	10.4	17.686	C

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
B4100(E)	622	156	1901	556	1.119	541	861	4.6	24.8	117.269	F
A43 (S)	1898	474	614	2155	0.881	1880	1828	3.0	7.6	14.299	B
B4100 (W)	681	170	1923	817	0.833	668	571	1.6	4.7	24.566	C
A43 (N)	2265	566	788	1986	1.141	1974	1803	10.4	83.3	94.511	F

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
B4100(E)	762	190	1892	560	1.361	559	903	24.8	75.6	337.950	F
A43 (S)	2324	581	628	2146	1.083	2121	1823	7.6	58.5	65.324	F
B4100 (W)	833	208	2147	707	1.179	696	601	4.7	39.1	129.632	F
A43 (N)	2775	694	842	1953	1.420	1953	2001	83.3	288.7	347.738	F

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
B4100(E)	762	190	1891	560	1.360	560	905	75.6	126.0	659.441	F
A43 (S)	2324	581	629	2146	1.083	2141	1822	58.5	104.2	143.585	F
B4100 (W)	833	208	2166	697	1.195	696	604	39.1	73.5	302.720	F
A43 (N)	2775	694	845	1952	1.422	1952	2018	288.7	494.5	725.501	F

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
B4100(E)	622	156	1892	560	1.111	559	903	126.0	141.7	874.708	F
A43 (S)	1898	474	628	2146	0.884	2122	1823	104.2	48.0	131.323	F
B4100 (W)	681	170	2149	706	0.964	696	602	73.5	69.7	357.409	F
A43 (N)	2265	566	842	1953	1.160	1953	2003	494.5	572.5	988.188	F

09:00 - 09:15

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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
B4100(E)	521	130	1902	555	0.938	551	916	141.7	134.2	901.491	F
A43 (S)	1589	397	621	2151	0.739	1768	1832	48.0	3.4	16.816	C
B4100 (W)	570	142	1827	865	0.659	837	562	69.7	2.8	154.533	F
A43 (N)	1897	474	910	1912	0.992	1908	1754	572.5	569.8	1077.617	F

2031 Baseline + Committed + Both Developments, 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	609.93	F

Junction Network

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold	Network delay (s)	Network LOS
Left	Normal/unknown	-34	B4100(E)	609.93	F

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
D42	2031 Baseline + Committed + Both Developments	PM	ONE HOUR	16:45	18:15	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 (%)
B4100(E)		ONE HOUR	✓	938	100.000
A43 (S)		ONE HOUR	✓	2539	100.000
B4100 (W)		ONE HOUR	✓	638	100.000
A43 (N)		ONE HOUR	✓	2021	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		B4100(E)	A43 (S)	B4100 (W)	A43 (N)
From	B4100(E)	0	212	333	393
	A43 (S)	158	0	183	2198
	B4100 (W)	283	180	21	154
	A43 (N)	307	1591	123	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		B4100(E)	A43 (S)	B4100 (W)	A43 (N)
From	B4100(E)	0	9	1	4
	A43 (S)	8	0	13	7
	B4100 (W)	3	10	0	8

	A43 (N)	5	10	9	0
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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)
B4100(E)	1.97	1961.86	386.1	F	861	1291
A43 (S)	1.28	607.85	375.1	F	2330	3495
B4100 (W)	1.07	175.90	35.8	F	585	878
A43 (N)	1.07	122.09	84.8	F	1855	2782

Main Results for each time segment

16:45 - 17:00

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
B4100(E)	706	177	1431	778	0.907	678	557	0.0	7.0	31.585	D
A43 (S)	1911	478	632	2144	0.892	1881	1477	0.0	7.7	13.454	B
B4100 (W)	480	120	2029	765	0.628	473	484	0.0	1.7	12.809	B
A43 (N)	1522	380	476	2176	0.699	1512	2027	0.0	2.5	5.833	A

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
B4100(E)	843	211	1706	648	1.301	644	654	7.0	56.9	203.257	F
A43 (S)	2283	571	627	2147	1.063	2118	1723	7.7	48.9	57.138	F
B4100 (W)	574	143	2235	664	0.864	559	509	1.7	5.3	32.840	D
A43 (N)	1817	454	556	2127	0.854	1803	2238	2.5	5.9	11.661	B

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
B4100(E)	1033	258	1945	535	1.931	535	730	56.9	181.4	820.481	F
A43 (S)	2795	699	560	2188	1.277	2187	1920	48.9	200.9	210.658	F
B4100 (W)	702	176	2254	654	1.074	635	494	5.3	22.2	95.650	F
A43 (N)	2225	556	618	2090	1.065	2057	2271	5.9	47.9	56.259	F

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
B4100(E)	1033	258	1966	525	1.968	525	739	181.4	308.4	1688.908	F
A43 (S)	2795	699	554	2192	1.275	2192	1937	200.9	351.7	457.405	F
B4100 (W)	702	176	2254	654	1.074	648	492	22.2	35.8	175.904	F
A43 (N)	2225	556	628	2083	1.068	2077	2274	47.9	84.8	122.094	F

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
B4100(E)	843	211	1950	532	1.584	532	731	308.4	386.1	1961.864	F
A43 (S)	2283	571	559	2189	1.043	2189	1924	351.7	375.1	607.846	F
B4100 (W)	574	143	2254	654	0.877	635	493	35.8	20.4	163.599	F
A43 (N)	1817	454	618	2089	0.870	2063	2271	84.8	23.3	97.909	F

18:00 - 18:15

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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
B4100(E)	706	177	1533	730	0.967	728	618	386.1	380.6	1894.919	F
A43 (S)	1911	478	679	2115	0.904	2108	1582	375.1	325.9	598.661	F
B4100 (W)	480	120	2262	650	0.739	548	526	20.4	3.4	51.881	F
A43 (N)	1522	380	547	2133	0.713	1604	2263	23.3	2.8	8.603	A

Junctions 10

ARCADY 10 - Roundabout Module

Version: 10.0.2.1574

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Filename: A43 roundabout mitigation layout RevB.j10

Path: P:\17000's\17213\Junction Assessments

Report generation date: 20/09/2021 17:18:30

- »2019 Baseline, AM
- »2019 Baseline, PM
- »2019 Baseline + Committed, AM
- »2019 Baseline + Committed, PM
- »2019 Baseline + Western Development, AM
- »2019 Baseline + Western Development, PM
- »2019 Baseline + Eastern Development, AM
- »2019 Baseline + Eastern Development, PM
- »2019 Baseline + Both Developments, AM
- »2019 Baseline + Both Developments, PM
- »2019 Baseline + Committed + Western Development, AM
- »2019 Baseline + Committed + Western Development, PM
- »2019 Baseline + Committed + Eastern Development, AM
- »2019 Baseline + Committed + Eastern Development, PM
- »2019 Baseline + Committed + Both Developments, AM
- »2019 Baseline + Committed + Both Developments, PM
- »2025 Baseline, AM
- »2025 Baseline, PM
- »2025 Baseline + Committed, AM
- »2025 Baseline + Committed, PM
- »2025 Baseline + Western Development , AM
- »2025 Baseline + Western Development, PM
- »2025 Baseline + Eastern Development, AM
- »2025 Baseline + Eastern Development, PM
- »2025 Baseline + Both Developments, AM
- »2025 Baseline + Both Developments, PM
- »2025 Baseline + Committed + Western Development, AM
- »2025 Baseline + Committed + Western Development , PM
- »2025 Baseline + Committed + Eastern Development, AM
- »2025 Baseline + Committed + Eastern Development , PM
- »2025 Baseline + Committed + Both Developments, AM
- »2025 Baseline + Committed + Both Developments, PM
- »2031 Baseline , AM
- »2031 Baseline, PM
- »2031 Baseline + Committed, AM
- »2031 Baseline + Committed, PM
- »2031 Baseline + Committed + Western Development , AM
- »2031 Baseline + Committed + Western Development , PM
- »2031 Baseline + Committed + Eastern Development , AM

- »2031 Baseline + Committed + Eastern Development , PM
- »2031 Baseline + Committed + Both Developments, AM
- »2031 Baseline + Committed + Both Developments, PM

Summary of junction performance

	AM				PM			
	Q (PCU)	Delay (s)	RFC	Res Cap	Q (PCU)	Delay (s)	RFC	Res Cap
2019 Baseline								
B4100(E)	1.0	6.90	0.49	-3 % [A43 (N)]	1.5	7.22	0.60	0 % [A43 (S)]
A43 (S)	3.8	8.44	0.77		17.9	34.03	0.96	
B4100 (W)	1.2	7.57	0.54		1.0	8.59	0.50	
A43 (N)	27.2	49.94	0.99		3.2	7.18	0.75	
2019 Baseline + Committed								
B4100(E)	1.1	7.49	0.51	-11 % [A43 (N)]	1.8	8.39	0.63	-9 % [A43 (S)]
A43 (S)	6.2	12.59	0.85		85.7	122.29	1.07	
B4100 (W)	1.5	9.24	0.59		1.2	9.75	0.54	
A43 (N)	115.3	163.79	1.10		4.5	9.32	0.81	
2019 Baseline + Western Development								
B4100(E)	1.3	7.97	0.55	-5 % [A43 (N)]	1.8	8.11	0.63	3 % [A43 (S)]
A43 (S)	4.9	10.56	0.81		11.5	22.91	0.93	
B4100 (W)	1.8	9.48	0.62		1.9	12.45	0.66	
A43 (N)	44.5	75.27	1.02		3.8	8.41	0.78	
2019 Baseline + Eastern Development								
B4100(E)	0.8	6.15	0.41	-4 % [A43 (N)]	0.6	4.70	0.37	5 % [A43 (S)]
A43 (S)	3.7	7.89	0.76		10.1	18.90	0.91	
B4100 (W)	1.3	8.00	0.56		1.1	9.00	0.52	
A43 (N)	34.3	60.61	1.00		3.4	7.41	0.76	
2019 Baseline + Both Developments								
B4100(E)	1.5	8.51	0.58	-7 % [A43 (N)]	2.1	9.13	0.67	-3 % [A43 (S)]
A43 (S)	3.9	8.87	0.78		31.5	55.14	1.00	
B4100 (W)	1.9	10.04	0.64		2.2	13.57	0.68	
A43 (N)	55.0	89.78	1.03		4.0	8.92	0.79	
2019 Baseline + Committed + Western Development								
B4100(E)	0.7	4.10	0.39	5 % [A43 (S)]	2.0	9.16	0.66	-10 % [A43 (S)]
A43 (S)	9.2	18.41	0.90		106.1	148.96	1.09	
B4100 (W)	2.2	12.10	0.68		2.0	13.05	0.66	
A43 (N)	1.6	4.95	0.58		5.3	11.01	0.84	
2019 Baseline + Committed + Eastern Development								
B4100(E)	1.2	7.87	0.53	-12 % [A43 (N)]	2.1	9.42	0.67	-9 % [A43 (S)]
A43 (S)	7.0	14.02	0.86		96.8	136.70	1.08	
B4100 (W)	1.7	10.27	0.61		1.2	9.84	0.54	
A43 (N)	130.1	184.27	1.12		4.7	9.65	0.82	
2019 Baseline + Committed + Both Developments								
B4100(E)	1.5	8.98	0.59	-14 % [A43 (N)]	2.5	10.94	0.71	-11 % [A43 (S)]
A43 (S)	10.0	19.98	0.91		117.7	164.32	1.10	
B4100 (W)	2.4	13.00	0.69		2.4	15.06	0.70	
A43 (N)	162.3	244.67	1.15		5.9	12.17	0.85	
2025 Baseline								
B4100(E)	0.8	6.44	0.44	-11 % [A43 (N)]	2.4	10.34	0.70	-9 % [A43 (S)]
A43 (S)	5.4	10.99	0.83		91.7	132.10	1.08	
B4100 (W)	1.9	10.60	0.64		1.4	10.64	0.58	
A43 (N)	111.4	161.65	1.10		5.2	10.74	0.83	
2025 Baseline + Committed								
B4100(E)	1.3	8.14	0.55	-18 %	2.9	12.89	0.75	-16 %
A43 (S)	13.3	25.59	0.93		202.6	313.29	1.19	

B4100 (W)	2.5	14.01	0.71	[A43 (N)]	1.4	10.93	0.59	[A43 (S)]
A43 (N)	230.7	381.59	1.22		8.2	15.93	0.89	
2025 Baseline + Western Development								
B4100(E)	1.6	9.05	0.60	-13 %	2.4	10.29	0.70	-11 %
A43 (S)	9.6	19.44	0.90		112.2	159.51	1.10	
B4100 (W)	3.0	14.92	0.73	[A43 (N)]	1.6	11.01	0.61	[A43 (S)]
A43 (N)	141.9	205.49	1.13		5.5	11.26	0.84	
2025 Baseline + Eastern Development								
B4100(E)	1.4	8.27	0.57	-12 %	2.9	11.96	0.74	-10 %
A43 (S)	7.3	14.89	0.87		103.3	147.49	1.09	
B4100 (W)	2.0	11.40	0.66	[A43 (N)]	1.4	10.77	0.58	[A43 (S)]
A43 (N)	126.5	182.83	1.12		5.5	11.19	0.84	
2025 Baseline + Both Developments								
B4100(E)	1.8	9.49	0.62	-14 %	3.5	14.45	0.78	-11 %
A43 (S)	10.8	21.75	0.91		124.0	175.53	1.11	
B4100 (W)	3.1	15.62	0.75	[A43 (N)]	2.9	17.16	0.74	[A43 (S)]
A43 (N)	157.5	239.17	1.15		7.1	14.59	0.87	
2025 Baseline + Committed + Western Development								
B4100(E)	1.7	9.34	0.61	-20 %	3.6	15.77	0.79	-17 %
A43 (S)	23.7	43.58	0.98		225.8	362.43	1.21	
B4100 (W)	3.9	20.16	0.79	[A43 (N)]	3.0	17.57	0.75	[A43 (S)]
A43 (N)	265.3	460.52	1.25		11.8	23.08	0.93	
2025 Baseline + Committed + Eastern Development								
B4100(E)	1.5	8.63	0.58	-19 %	3.7	15.46	0.79	-17 %
A43 (S)	16.1	30.62	0.95		215.9	341.39	1.20	
B4100 (W)	2.8	15.96	0.73	[A43 (N)]	1.5	11.05	0.59	[A43 (S)]
A43 (N)	248.0	420.06	1.23		8.7	16.84	0.90	
2025 Baseline + Committed + Both Developments								
B4100(E)	1.9	9.96	0.64	-21 %	4.7	19.60	0.83	-18 %
A43 (S)	30.1	53.08	0.99		239.2	391.55	1.22	
B4100 (W)	4.3	22.19	0.81	[A43 (N)]	3.0	17.94	0.75	[A43 (S)]
A43 (N)	283.2	501.51	1.27		12.6	24.78	0.93	
2031 Baseline								
B4100(E)	1.7	9.15	0.61	-22 %	8.1	32.22	0.91	-21 %
A43 (S)	32.7	56.61	1.00		300.3	518.63	1.28	
B4100 (W)	5.1	26.04	0.84	[A43 (N)]	2.0	13.23	0.66	[A43 (S)]
A43 (N)	318.8	558.63	1.29		21.0	38.24	0.97	
2031 Baseline + Committed								
B4100(E)	1.8	9.59	0.62	-28 %	11.4	45.29	0.94	-26 %
A43 (S)	93.3	132.43	1.07		490.8	802.76	1.39	
B4100 (W)	6.2	32.17	0.87	[A43 (N)]	2.1	13.58	0.67	[A43 (S)]
A43 (N)	520.1	866.81	1.41		52.7	80.24	1.03	
2031 Baseline + Committed + Western Development								
B4100(E)	1.5	8.71	0.59	-29 %	14.5	55.32	0.96	-27 %
A43 (S)	137.1	190.96	1.12		530.1	868.46	1.41	
B4100 (W)	10.4	48.36	0.93	[A43 (N)]	4.7	25.43	0.83	[A43 (S)]
A43 (N)	574.1	985.20	1.45		86.7	124.95	1.07	
2031 Baseline + Committed + Eastern Development								
B4100(E)	2.0	10.31	0.65	-28 %	17.5	63.93	0.98	-27 %
A43 (S)	108.4	151.70	1.09		512.7	838.94	1.40	
B4100 (W)	6.9	35.68	0.88	[A43 (N)]	2.1	13.78	0.67	[A43 (S)]
A43 (N)	545.6	912.94	1.43		57.6	86.40	1.03	
2031 Baseline + Committed + Both Developments								
B4100(E)	2.6	12.39	0.71	-30 %	22.9	79.41	1.00	-28 %
A43 (S)	153.0	220.87	1.14		552.3	906.30	1.42	
B4100 (W)	11.4	52.55	0.94	[A43 (N)]	4.8	26.00	0.83	[A43 (S)]
A43 (N)	600.2	1044.17	1.46		92.3	132.28	1.08	

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

File summary

File Description

Title	(untitled)
Location	
Site number	
Date	22/05/2015
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	DTA/larcady
Description	

Units

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

Analysis Options

Vehicle length (m)	Calculate Q Percentiles	Calculate detailed queueing delay	Show lane queues in feet / metres	Show all PICADY stream intercepts	Calculate residual capacity	Residual capacity criteria type	RFC Threshold	Av. Delay threshold (s)	Q threshold (PCU)	Use iterations with HCM roundabouts	Max number of iterations for roundabouts
5.75					✓	Delay	0.85	36.00	20.00		500

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	2019 Baseline	AM	ONE HOUR	07:45	09:15	15	✓
D2	2019 Baseline	PM	ONE HOUR	16:45	18:15	15	✓
D3	2019 Baseline + Committed	AM	ONE HOUR	07:45	09:15	15	✓
D4	2019 Baseline + Committed	PM	ONE HOUR	16:45	18:15	15	✓
D5	2019 Baseline + Western Development	AM	ONE HOUR	07:45	09:15	15	✓
D6	2019 Baseline + Western Development	PM	ONE HOUR	16:45	18:15	15	✓
D7	2019 Baseline + Eastern Development	AM	ONE HOUR	07:45	09:15	15	✓
D8	2019 Baseline + Eastern Development	PM	ONE HOUR	16:45	18:15	15	✓
D9	2019 Baseline + Both Developments	AM	ONE HOUR	07:45	09:15	15	✓
D10	2019 Baseline + Both Developments	PM	ONE HOUR	16:45	18:15	15	✓
D11	2019 Baseline + Committed + Western Development	AM	ONE HOUR	07:45	09:15	15	✓
D12	2019 Baseline + Committed + Western Development	PM	ONE HOUR	16:45	18:15	15	✓
D13	2019 Baseline + Committed + Eastern Development	AM	ONE HOUR	07:45	09:15	15	✓
D14	2019 Baseline + Committed + Eastern Development	PM	ONE HOUR	16:45	18:15	15	✓
D15	2019 Baseline + Committed + Both Developments	AM	ONE HOUR	07:45	09:15	15	✓
D16	2019 Baseline + Committed + Both Developments	PM	ONE HOUR	16:45	18:15	15	✓
D17	2025 Baseline	AM	ONE HOUR	07:45	09:15	15	✓
D18	2025 Baseline	PM	ONE HOUR	16:45	18:15	15	✓
D19	2025 Baseline + Committed	AM	ONE HOUR	07:45	09:15	15	✓
D20	2025 Baseline + Committed	PM	ONE HOUR	16:45	18:15	15	✓
D21	2025 Baseline + Western Development	AM	ONE HOUR	07:45	09:15	15	✓
D22	2025 Baseline + Western Development	PM	ONE HOUR	16:45	18:15	15	✓
D23	2025 Baseline + Eastern Development	AM	ONE HOUR	07:45	09:15	15	✓
D24	2025 Baseline + Eastern Development	PM	ONE HOUR	16:45	18:15	15	✓
D25	2025 Baseline + Both Developments	AM	ONE HOUR	07:45	09:15	15	✓
D26	2025 Baseline + Both Developments	PM	ONE HOUR	16:45	18:15	15	✓

D27	2025 Baseline + Committed + Western Development	AM	ONE HOUR	07:45	09:15	15	✓
D28	2025 Baseline + Committed + Western Development	PM	ONE HOUR	16:45	18:15	15	✓
D29	2025 Baseline + Committed + Eastern Development	AM	ONE HOUR	07:45	09:15	15	✓
D30	2025 Baseline + Committed + Eastern Development	PM	ONE HOUR	16:45	18:15	15	✓
D31	2025 Baseline + Committed + Both Developments	AM	ONE HOUR	07:45	09:15	15	✓
D32	2025 Baseline + Committed + Both Developments	PM	ONE HOUR	16:45	18:15	15	✓
D33	2031 Baseline	AM	ONE HOUR	07:45	09:15	15	✓
D34	2031 Baseline	PM	ONE HOUR	16:45	18:15	15	✓
D35	2031 Baseline + Committed	AM	ONE HOUR	07:45	09:15	15	✓
D36	2031 Baseline + Committed	PM	ONE HOUR	16:45	18:15	15	✓
D37	2031 Baseline + Committed + Western Development	AM	ONE HOUR	07:45	09:15	15	✓
D38	2031 Baseline + Committed + Western Development	PM	ONE HOUR	16:45	18:15	15	✓
D39	2031 Baseline + Committed + Eastern Development	AM	ONE HOUR	07:45	09:15	15	✓
D40	2031 Baseline + Committed + Eastern Development	PM	ONE HOUR	16:45	18:15	15	✓
D41	2031 Baseline + Committed + Both Developments	AM	ONE HOUR	07:45	09:15	15	✓
D42	2031 Baseline + Committed + Both Developments	PM	ONE HOUR	16:45	18:15	15	✓

Analysis Set Details

ID	Include in report	Network flow scaling factor (%)	Network capacity scaling factor (%)
A1	✓	100.000	100.000

2019 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	25.52	D

Junction Network

Driving side	Lighting	Res Cap (%)	First arm reaching threshold	Network delay (s)	Network LOS
Left	Normal/unknown	-3	A43 (N)	25.52	D

Arms

Arms

Arm	Name	Description	No give-way line
1	B4100(E)	B4100(E)	
2	A43 (S)	A43 (S)	
3	B4100 (W)	B4100 (W)	
4	A43 (N)	A43 (N)	

Roundabout Geometry

Arm	V (m)	E (m)	I' (m)	R (m)	D (m)	PHI (deg)	Entry only	Exit only
B4100(E)	3.65	8.50	30.0	25.2	75.0	26.0		
A43 (S)	7.30	8.40	10.0	40.0	75.0	28.0		
B4100 (W)	3.65	8.50	30.0	25.0	75.0	37.0		
A43 (N)	7.30	8.00	16.5	40.0	75.0	29.0		

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
B4100(E)	0.556	2124
A43 (S)	0.620	2536
B4100 (W)	0.535	2044
A43 (N)	0.608	2466

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	2019 Baseline	AM	ONE HOUR	07:45	09:15	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	Av. Demand (PCU/hr)	Scaling Factor (%)
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B4100(E)		ONE HOUR	✓	485	100.000
A43 (S)		ONE HOUR	✓	1516	100.000
B4100 (W)		ONE HOUR	✓	538	100.000
A43 (N)		ONE HOUR	✓	1825	100.000

Origin-Destination Data

Demand (PCU/hr)

From	To			
	B4100(E)	A43 (S)	B4100 (W)	A43 (N)
B4100(E)	0	78	175	232
A43 (S)	204	0	138	1174
B4100 (W)	256	166	12	104
A43 (N)	297	1392	136	0

Vehicle Mix

HV %s

From	To			
	B4100(E)	A43 (S)	B4100 (W)	A43 (N)
B4100(E)	0	15	4	7
A43 (S)	8	0	9	17
B4100 (W)	6	6	8	6
A43 (N)	7	18	9	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Q (PCU)	Max LOS	Av. Demand (PCU/hr)	Total Junction Arrivals (PCU)
B4100(E)	0.49	6.90	1.0	A	445	668
A43 (S)	0.77	8.44	3.8	A	1391	2087
B4100 (W)	0.54	7.57	1.2	A	494	741
A43 (N)	0.99	49.94	27.2	E	1675	2512

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B4100(E)	365	91	1277	1414	0.258	364	567	0.0	0.4	3.665	A
A43 (S)	1141	285	416	2278	0.501	1137	1225	0.0	1.1	3.611	A
B4100 (W)	405	101	1207	1398	0.290	403	345	0.0	0.4	3.830	A
A43 (N)	1374	343	478	2175	0.632	1366	1132	0.0	1.9	5.089	A

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) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B4100(E)	436	109	1527	1275	0.342	435	679	0.4	0.6	4.586	A
A43 (S)	1363	341	498	2227	0.612	1360	1465	1.1	1.8	4.759	A
B4100 (W)	484	121	1445	1271	0.380	483	413	0.4	0.6	4.836	A

A43 (N)	1641	410	573	2117	0.775	1633	1355	1.9	3.8	8.450	A
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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) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B4100(E)	534	133	1822	1111	0.481	532	821	0.6	1.0	6.639	A
A43 (S)	1669	417	605	2161	0.772	1661	1750	1.8	3.8	8.156	A
B4100 (W)	592	148	1765	1100	0.538	590	501	0.6	1.2	7.452	A
A43 (N)	2009	502	700	2040	0.985	1943	1655	3.8	20.4	31.304	D

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) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B4100(E)	534	133	1855	1093	0.489	534	829	1.0	1.0	6.897	A
A43 (S)	1669	417	609	2158	0.773	1669	1780	3.8	3.8	8.441	A
B4100 (W)	592	148	1772	1096	0.540	592	505	1.2	1.2	7.574	A
A43 (N)	2009	502	702	2038	0.986	1982	1662	20.4	27.2	49.942	E

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) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B4100(E)	436	109	1612	1228	0.355	438	698	1.0	0.6	4.886	A
A43 (S)	1363	341	507	2221	0.614	1371	1542	3.8	1.8	4.910	A
B4100 (W)	484	121	1455	1266	0.382	486	423	1.2	0.7	4.909	A
A43 (N)	1641	410	576	2115	0.776	1733	1365	27.2	4.2	13.392	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) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B4100(E)	365	91	1292	1406	0.260	366	572	0.6	0.4	3.712	A
A43 (S)	1141	285	419	2276	0.502	1144	1239	1.8	1.2	3.664	A
B4100 (W)	405	101	1215	1394	0.291	406	348	0.7	0.4	3.867	A
A43 (N)	1374	343	481	2173	0.632	1383	1140	4.2	2.0	5.315	A

2019 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	18.42	C

Junction Network

Driving side	Lighting	Res Cap (%)	First arm reaching threshold	Network delay (s)	Network LOS
Left	Normal/unknown	0	A43 (S)	18.42	C

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	2019 Baseline	PM	ONE HOUR	16:45	18:15	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	Av. Demand (PCU/hr)	Scaling Factor (%)
B4100(E)		ONE HOUR	✓	695	100.000
A43 (S)		ONE HOUR	✓	1826	100.000
B4100 (W)		ONE HOUR	✓	399	100.000
A43 (N)		ONE HOUR	✓	1497	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		B4100(E)	A43 (S)	B4100 (W)	A43 (N)
From	B4100(E)	0	150	243	302
	A43 (S)	116	0	128	1582
	B4100 (W)	170	108	16	105
	A43 (N)	239	1169	89	0

Vehicle Mix

HV %s

		To			
		B4100(E)	A43 (S)	B4100 (W)	A43 (N)
From	B4100(E)	0	6	1	3
	A43 (S)	3	0	6	7
	B4100 (W)	3	4	0	4
	A43 (N)	4	10	3	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Q (PCU)	Max LOS	Av. Demand (PCU/hr)	Total Junction Arrivals (PCU)
B4100(E)	0.60	7.22	1.5	A	638	957
A43 (S)	0.96	34.03	17.9	D	1676	2513
B4100 (W)	0.50	8.59	1.0	A	366	549
A43 (N)	0.75	7.18	3.2	A	1374	2061

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B4100(E)	523	131	1036	1548	0.338	521	394	0.0	0.5	3.600	A
A43 (S)	1375	344	487	2233	0.616	1368	1070	0.0	1.7	4.403	A
B4100 (W)	300	75	1499	1243	0.242	299	357	0.0	0.3	3.939	A
A43 (N)	1127	282	307	2279	0.495	1123	1490	0.0	1.1	3.369	A

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) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B4100(E)	625	156	1240	1435	0.436	624	471	0.5	0.8	4.564	A
A43 (S)	1642	410	583	2174	0.755	1636	1281	1.7	3.2	7.053	A
B4100 (W)	359	90	1792	1086	0.330	358	427	0.3	0.5	5.110	A
A43 (N)	1346	336	368	2242	0.600	1344	1782	1.1	1.6	4.340	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) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B4100(E)	765	191	1516	1281	0.597	762	573	0.8	1.5	7.100	A
A43 (S)	2010	503	713	2094	0.960	1964	1565	3.2	14.8	23.931	C
B4100 (W)	439	110	2158	890	0.494	437	519	0.5	1.0	8.191	A
A43 (N)	1648	412	447	2194	0.751	1642	2148	1.6	3.2	7.006	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) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B4100(E)	765	191	1521	1278	0.599	765	577	1.5	1.5	7.216	A
A43 (S)	2010	503	716	2092	0.961	1998	1571	14.8	17.9	34.033	D
B4100 (W)	439	110	2190	872	0.504	439	523	1.0	1.0	8.586	A
A43 (N)	1648	412	450	2191	0.752	1648	2179	3.2	3.2	7.185	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) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B4100(E)	625	156	1248	1430	0.437	628	478	1.5	0.8	4.632	A
A43 (S)	1642	410	587	2172	0.756	1700	1289	17.9	3.4	9.100	A
B4100 (W)	359	90	1853	1053	0.341	361	433	1.0	0.5	5.393	A
A43 (N)	1346	336	374	2238	0.601	1352	1840	3.2	1.7	4.441	A

18:00 - 18:15

	Total	Junction						Start			

Arm	Demand (PCU/hr)	Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B4100(E)	523	131	1043	1544	0.339	524	396	0.8	0.5	3.634	A
A43 (S)	1375	344	490	2232	0.616	1381	1077	3.4	1.7	4.551	A
B4100 (W)	300	75	1512	1235	0.243	301	359	0.5	0.3	3.989	A
A43 (N)	1127	282	310	2277	0.495	1129	1504	1.7	1.1	3.413	A

2019 Baseline + Committed, 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	76.80	F

Junction Network

Driving side	Lighting	Res Cap (%)	First arm reaching threshold	Network delay (s)	Network LOS
Left	Normal/unknown	-11	A43 (N)	76.80	F

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	2019 Baseline + Committed	AM	ONE HOUR	07:45	09:15	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	Av. Demand (PCU/hr)	Scaling Factor (%)
B4100(E)		ONE HOUR	✓	485	100.000
A43 (S)		ONE HOUR	✓	1671	100.000
B4100 (W)		ONE HOUR	✓	538	100.000
A43 (N)		ONE HOUR	✓	2038	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		B4100(E)	A43 (S)	B4100 (W)	A43 (N)
From	B4100(E)	0	78	175	232
	A43 (S)	204	0	138	1329
	B4100 (W)	256	166	12	104
	A43 (N)	297	1605	136	0

Vehicle Mix

HV %s

		To			
		B4100(E)	A43 (S)	B4100 (W)	A43 (N)
From	B4100(E)	0	15	4	7
	A43 (S)	8	0	9	17
	B4100 (W)	6	6	8	6
	A43 (N)	7	18	9	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Q (PCU)	Max LOS	Av. Demand (PCU/hr)	Total Junction Arrivals (PCU)
B4100(E)	0.51	7.49	1.1	A	445	668
A43 (S)	0.85	12.59	6.2	B	1533	2300
B4100 (W)	0.59	9.24	1.5	A	494	741
A43 (N)	1.10	163.79	115.3	F	1870	2805

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B4100(E)	365	91	1435	1326	0.275	364	567	0.0	0.4	3.997	A
A43 (S)	1258	315	416	2278	0.552	1252	1383	0.0	1.4	4.020	A
B4100 (W)	405	101	1323	1337	0.303	403	345	0.0	0.5	4.084	A
A43 (N)	1534	384	478	2175	0.706	1523	1248	0.0	2.7	6.294	A

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) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B4100(E)	436	109	1711	1173	0.372	435	677	0.4	0.6	5.219	A
A43 (S)	1502	376	497	2227	0.674	1498	1649	1.4	2.3	5.656	A
B4100 (W)	484	121	1583	1197	0.404	483	413	0.5	0.7	5.333	A
A43 (N)	1832	458	572	2117	0.865	1816	1493	2.7	6.7	13.162	B

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) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B4100(E)	534	133	1919	1057	0.505	532	797	0.6	1.1	7.316	A
A43 (S)	1840	460	594	2167	0.849	1825	1857	2.3	6.0	11.657	B
B4100 (W)	592	148	1929	1012	0.585	589	491	0.7	1.5	8.958	A
A43 (N)	2244	561	698	2041	1.100	2018	1820	6.7	63.2	71.528	F

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) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B4100(E)	534	133	1935	1049	0.509	534	803	1.1	1.1	7.486	A
A43 (S)	1840	460	597	2165	0.850	1839	1871	6.0	6.2	12.585	B
B4100 (W)	592	148	1942	1005	0.589	592	494	1.5	1.5	9.239	A
A43 (N)	2244	561	702	2038	1.101	2035	1832	63.2	115.3	163.786	F

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) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B4100(E)	436	109	1949	1041	0.419	437	722	1.1	0.8	6.402	A
A43 (S)	1502	376	517	2215	0.678	1517	1869	6.2	2.5	6.063	A
B4100 (W)	484	121	1601	1188	0.407	487	434	1.5	0.7	5.470	A
A43 (N)	1832	458	578	2114	0.867	2093	1510	115.3	50.1	144.407	F

09:00 - 09:15

	Total	Junction						Start			

Arm	Demand (PCU/hr)	Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B4100(E)	365	91	1607	1231	0.297	366	598	0.8	0.5	4.465	A
A43 (S)	1258	315	432	2268	0.555	1262	1541	2.5	1.4	4.136	A
B4100 (W)	405	101	1333	1331	0.304	406	361	0.7	0.5	4.133	A
A43 (N)	1534	384	482	2172	0.706	1723	1258	50.1	2.9	14.073	B

2019 Baseline + Committed, 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	57.61	F

Junction Network

Driving side	Lighting	Res Cap (%)	First arm reaching threshold	Network delay (s)	Network LOS
Left	Normal/unknown	-9	A43 (S)	57.61	F

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	2019 Baseline + Committed	PM	ONE HOUR	16:45	18:15	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	Av. Demand (PCU/hr)	Scaling Factor (%)
B4100(E)		ONE HOUR	✓	695	100.000
A43 (S)		ONE HOUR	✓	2030	100.000
B4100 (W)		ONE HOUR	✓	399	100.000
A43 (N)		ONE HOUR	✓	1615	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		B4100(E)	A43 (S)	B4100 (W)	A43 (N)
From	B4100(E)	0	150	243	302
	A43 (S)	116	0	128	1786
	B4100 (W)	170	108	16	105
	A43 (N)	239	1287	89	0

Vehicle Mix

HV %s

		To			
		B4100(E)	A43 (S)	B4100 (W)	A43 (N)
From	B4100(E)	0	6	1	3
	A43 (S)	3	0	6	7
	B4100 (W)	3	4	0	4
	A43 (N)	4	10	3	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Q (PCU)	Max LOS	Av. Demand (PCU/hr)	Total Junction Arrivals (PCU)
B4100(E)	0.63	8.39	1.8	A	638	957
A43 (S)	1.07	122.29	85.7	F	1863	2794
B4100 (W)	0.54	9.75	1.2	A	366	549
A43 (N)	0.81	9.32	4.5	A	1482	2223

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B4100(E)	523	131	1125	1499	0.349	521	393	0.0	0.5	3.781	A
A43 (S)	1528	382	487	2234	0.684	1519	1158	0.0	2.3	5.312	A
B4100 (W)	300	75	1650	1162	0.259	299	357	0.0	0.4	4.308	A
A43 (N)	1216	304	307	2279	0.534	1211	1642	0.0	1.2	3.648	A

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) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B4100(E)	625	156	1346	1376	0.454	624	470	0.5	0.8	4.916	A
A43 (S)	1825	456	583	2174	0.839	1813	1386	2.3	5.2	10.317	B
B4100 (W)	359	90	1970	990	0.362	358	427	0.4	0.6	5.876	A
A43 (N)	1452	363	367	2242	0.648	1449	1960	1.2	2.0	4.913	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) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B4100(E)	765	191	1643	1211	0.632	762	566	0.8	1.7	8.184	A
A43 (S)	2235	559	712	2094	1.067	2062	1692	5.2	48.5	55.874	F
B4100 (W)	439	110	2263	834	0.527	437	511	0.6	1.1	9.338	A
A43 (N)	1778	445	440	2198	0.809	1768	2260	2.0	4.4	8.915	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) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B4100(E)	765	191	1651	1206	0.634	765	569	1.7	1.8	8.392	A
A43 (S)	2235	559	716	2092	1.068	2086	1701	48.5	85.7	122.291	F
B4100 (W)	439	110	2287	821	0.535	439	515	1.1	1.2	9.750	A
A43 (N)	1778	445	443	2196	0.810	1778	2284	4.4	4.5	9.320	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) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B4100(E)	625	156	1357	1370	0.456	628	492	1.8	0.9	5.021	A
A43 (S)	1825	456	588	2171	0.840	2136	1398	85.7	8.0	81.776	F
B4100 (W)	359	90	2274	828	0.433	360	449	1.2	0.8	7.988	A
A43 (N)	1452	363	387	2230	0.651	1462	2247	4.5	2.1	5.154	A

18:00 - 18:15

	Total	Junction						Start			

Arm	Demand (PCU/hr)	Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B4100(E)	523	131	1133	1494	0.350	524	398	0.9	0.6	3.823	A
A43 (S)	1528	382	491	2231	0.685	1551	1166	8.0	2.4	5.822	A
B4100 (W)	300	75	1681	1145	0.262	302	360	0.8	0.4	4.426	A
A43 (N)	1216	304	311	2276	0.534	1219	1672	2.1	1.3	3.713	A

2019 Baseline + Western Development, 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	36.27	E

Junction Network

Driving side	Lighting	Res Cap (%)	First arm reaching threshold	Network delay (s)	Network LOS
Left	Normal/unknown	-5	A43 (N)	36.27	E

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	2019 Baseline + Western Development	AM	ONE HOUR	07:45	09:15	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	Av. Demand (PCU/hr)	Scaling Factor (%)
B4100(E)		ONE HOUR	✓	542	100.000
A43 (S)		ONE HOUR	✓	1558	100.000
B4100 (W)		ONE HOUR	✓	619	100.000
A43 (N)		ONE HOUR	✓	1846	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		B4100(E)	A43 (S)	B4100 (W)	A43 (N)
From	B4100(E)	0	78	232	232
	A43 (S)	204	0	180	1174
	B4100 (W)	289	198	12	120
	A43 (N)	297	1392	157	0

Vehicle Mix

HV %s

		To			
		B4100(E)	A43 (S)	B4100 (W)	A43 (N)
From	B4100(E)	0	15	3	7
	A43 (S)	8	0	15	17
	B4100 (W)	6	13	8	12
	A43 (N)	7	18	13	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Q (PCU)	Max LOS	Av. Demand (PCU/hr)	Total Junction Arrivals (PCU)
B4100(E)	0.55	7.97	1.3	A	497	746
A43 (S)	0.81	10.56	4.9	B	1430	2144
B4100 (W)	0.62	9.48	1.8	A	568	852
A43 (N)	1.02	75.27	44.5	F	1694	2541

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B4100(E)	408	102	1317	1392	0.293	406	592	0.0	0.4	3.874	A
A43 (S)	1173	293	474	2242	0.523	1168	1249	0.0	1.3	3.855	A
B4100 (W)	466	117	1207	1399	0.333	464	435	0.0	0.5	4.202	A
A43 (N)	1390	347	527	2145	0.648	1381	1144	0.0	2.1	5.396	A

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) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B4100(E)	487	122	1573	1249	0.390	486	708	0.4	0.7	5.008	A
A43 (S)	1401	350	567	2184	0.641	1398	1492	1.3	2.0	5.267	A
B4100 (W)	556	139	1444	1272	0.438	555	521	0.5	0.8	5.486	A
A43 (N)	1660	415	631	2082	0.797	1651	1369	2.1	4.3	9.461	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) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B4100(E)	597	149	1853	1094	0.545	594	851	0.7	1.3	7.622	A
A43 (S)	1715	429	686	2110	0.813	1705	1761	2.0	4.7	9.996	A
B4100 (W)	682	170	1762	1102	0.619	678	629	0.8	1.7	9.217	A
A43 (N)	2032	508	770	1997	1.018	1934	1670	4.3	29.0	40.821	E

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) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B4100(E)	597	149	1885	1076	0.554	597	860	1.3	1.3	7.970	A
A43 (S)	1715	429	691	2107	0.814	1715	1790	4.7	4.9	10.558	B
B4100 (W)	682	170	1772	1096	0.622	681	634	1.7	1.8	9.479	A
A43 (N)	2032	508	774	1995	1.019	1971	1680	29.0	44.5	75.265	F

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) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B4100(E)	487	122	1715	1170	0.416	489	739	1.3	0.8	5.635	A
A43 (S)	1401	350	584	2173	0.644	1412	1620	4.9	2.1	5.536	A
B4100 (W)	556	139	1458	1264	0.440	560	538	1.8	0.9	5.619	A
A43 (N)	1660	415	636	2078	0.798	1818	1382	44.5	4.9	24.784	C

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) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B4100(E)	487	122	1715	1170	0.416	489	739	1.3	0.8	5.635	A
A43 (S)	1401	350	584	2173	0.644	1412	1620	4.9	2.1	5.536	A
B4100 (W)	556	139	1458	1264	0.440	560	538	1.8	0.9	5.619	A
A43 (N)	1660	415	636	2078	0.798	1818	1382	44.5	4.9	24.784	C

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B4100(E)	408	102	1334	1382	0.295	409	598	0.8	0.4	3.937	A
A43 (S)	1173	293	479	2239	0.524	1176	1265	2.1	1.3	3.926	A
B4100 (W)	466	117	1216	1394	0.334	467	439	0.9	0.6	4.253	A
A43 (N)	1390	347	531	2143	0.649	1401	1152	4.9	2.2	5.695	A

2019 Baseline + Western Development, 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	14.47	B

Junction Network

Driving side	Lighting	Res Cap (%)	First arm reaching threshold	Network delay (s)	Network LOS
Left	Normal/unknown	3	A43 (S)	14.47	B

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	2019 Baseline + Western Development	PM	ONE HOUR	16:45	18:15	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	Av. Demand (PCU/hr)	Scaling Factor (%)
B4100(E)		ONE HOUR	✓	716	100.000
A43 (S)		ONE HOUR	✓	1747	100.000
B4100 (W)		ONE HOUR	✓	521	100.000
A43 (N)		ONE HOUR	✓	1508	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		B4100(E)	A43 (S)	B4100 (W)	A43 (N)
From	B4100(E)	0	150	264	302
	A43 (S)	116	0	49	1582
	B4100 (W)	237	151	6	127
	A43 (N)	239	1169	100	0

Vehicle Mix

HV %s

		To			
		B4100(E)	A43 (S)	B4100 (W)	A43 (N)
From	B4100(E)	0	10	1	5
	A43 (S)	9	0	5	7
	B4100 (W)	2	3	0	3
	A43 (N)	5	10	3	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Q (PCU)	Max LOS	Av. Demand (PCU/hr)	Total Junction Arrivals (PCU)
B4100(E)	0.63	8.11	1.8	A	657	986
A43 (S)	0.93	22.91	11.5	C	1603	2405
B4100 (W)	0.66	12.45	1.9	B	478	717
A43 (N)	0.78	8.41	3.8	A	1384	2076

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B4100(E)	539	135	1069	1530	0.352	537	444	0.0	0.6	3.780	A
A43 (S)	1315	329	504	2223	0.592	1309	1102	0.0	1.5	4.189	A
B4100 (W)	392	98	1499	1242	0.316	390	314	0.0	0.5	4.321	A
A43 (N)	1135	284	382	2233	0.508	1131	1507	0.0	1.1	3.535	A

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) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B4100(E)	644	161	1279	1413	0.456	642	531	0.6	0.9	4.874	A
A43 (S)	1571	393	603	2162	0.726	1566	1319	1.5	2.8	6.411	A
B4100 (W)	468	117	1793	1085	0.432	467	376	0.5	0.8	5.961	A
A43 (N)	1356	339	457	2187	0.620	1353	1803	1.1	1.7	4.676	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) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B4100(E)	788	197	1562	1256	0.628	785	647	0.9	1.7	7.932	A
A43 (S)	1923	481	737	2079	0.925	1893	1610	2.8	10.3	18.383	C
B4100 (W)	574	143	2171	883	0.650	569	459	0.8	1.8	11.626	B
A43 (N)	1660	415	556	2127	0.781	1652	2184	1.7	3.7	8.111	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) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B4100(E)	788	197	1570	1251	0.630	788	651	1.7	1.8	8.113	A
A43 (S)	1923	481	740	2077	0.926	1919	1618	10.3	11.5	22.907	C
B4100 (W)	574	143	2197	869	0.660	573	461	1.8	1.9	12.453	B
A43 (N)	1660	415	561	2124	0.782	1660	2210	3.7	3.8	8.410	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) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B4100(E)	644	161	1290	1407	0.458	647	538	1.8	0.9	4.973	A
A43 (S)	1571	393	607	2159	0.727	1605	1330	11.5	2.9	7.368	A
B4100 (W)	468	117	1833	1064	0.440	473	379	1.9	0.8	6.290	A
A43 (N)	1356	339	464	2183	0.621	1364	1841	3.8	1.8	4.819	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) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B4100(E)	644	161	1290	1407	0.458	647	538	1.8	0.9	4.973	A
A43 (S)	1571	393	607	2159	0.727	1605	1330	11.5	2.9	7.368	A
B4100 (W)	468	117	1833	1064	0.440	473	379	1.9	0.8	6.290	A
A43 (N)	1356	339	464	2183	0.621	1364	1841	3.8	1.8	4.819	A

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B4100(E)	539	135	1076	1526	0.353	540	447	0.9	0.6	3.820	A
A43 (S)	1315	329	507	2221	0.592	1321	1109	2.9	1.6	4.307	A
B4100 (W)	392	98	1512	1236	0.317	394	316	0.8	0.5	4.390	A
A43 (N)	1135	284	385	2231	0.509	1138	1520	1.8	1.1	3.587	A

2019 Baseline + Eastern Development, 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	30.09	D

Junction Network

Driving side	Lighting	Res Cap (%)	First arm reaching threshold	Network delay (s)	Network LOS
Left	Normal/unknown	-4	A43 (N)	30.09	D

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	2019 Baseline + Eastern Development	AM	ONE HOUR	07:45	09:15	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	Av. Demand (PCU/hr)	Scaling Factor (%)
B4100(E)		ONE HOUR	✓	413	100.000
A43 (S)		ONE HOUR	✓	1539	100.000
B4100 (W)		ONE HOUR	✓	543	100.000
A43 (N)		ONE HOUR	✓	1836	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		B4100(E)	A43 (S)	B4100 (W)	A43 (N)
From	B4100(E)	0	95	77	241
	A43 (S)	227	0	138	1174
	B4100 (W)	261	166	12	104
	A43 (N)	308	1392	136	0

Vehicle Mix

HV %s

		To			
		B4100(E)	A43 (S)	B4100 (W)	A43 (N)
From	B4100(E)	0	22	4	8
	A43 (S)	11	0	9	17
	B4100 (W)	7	6	8	6
	A43 (N)	9	18	9	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Q (PCU)	Max LOS	Av. Demand (PCU/hr)	Total Junction Arrivals (PCU)
B4100(E)	0.41	6.15	0.8	A	379	568
A43 (S)	0.76	7.89	3.7	A	1412	2118
B4100 (W)	0.56	8.00	1.3	A	498	747
A43 (N)	1.00	60.61	34.3	F	1685	2527

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B4100(E)	311	78	1277	1414	0.220	310	596	0.0	0.3	3.586	A
A43 (S)	1159	290	349	2319	0.500	1154	1238	0.0	1.1	3.551	A
B4100 (W)	409	102	1231	1386	0.295	407	272	0.0	0.4	3.912	A
A43 (N)	1382	346	499	2162	0.639	1374	1139	0.0	2.0	5.235	A

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) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B4100(E)	371	93	1527	1275	0.291	371	713	0.3	0.4	4.379	A
A43 (S)	1384	346	418	2277	0.608	1381	1479	1.1	1.8	4.622	A
B4100 (W)	488	122	1474	1256	0.389	487	325	0.4	0.7	4.982	A
A43 (N)	1651	413	598	2102	0.785	1642	1363	2.0	4.0	8.907	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) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B4100(E)	455	114	1811	1117	0.407	454	861	0.4	0.7	5.960	A
A43 (S)	1694	424	506	2222	0.763	1687	1758	1.8	3.6	7.662	A
B4100 (W)	598	149	1801	1081	0.553	595	393	0.7	1.3	7.856	A
A43 (N)	2021	505	730	2021	1.000	1941	1666	4.0	24.1	35.467	E

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) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B4100(E)	455	114	1844	1099	0.414	455	869	0.7	0.8	6.154	A
A43 (S)	1694	424	510	2219	0.763	1694	1789	3.6	3.7	7.892	A
B4100 (W)	598	149	1808	1077	0.555	598	397	1.3	1.3	7.996	A
A43 (N)	2021	505	733	2019	1.001	1981	1672	24.1	34.3	60.614	F

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) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B4100(E)	371	93	1634	1216	0.305	372	738	0.8	0.5	4.705	A
A43 (S)	1384	346	429	2270	0.610	1391	1577	3.7	1.8	4.762	A
B4100 (W)	488	122	1483	1251	0.390	491	336	1.3	0.7	5.061	A
A43 (N)	1651	413	602	2099	0.786	1770	1372	34.3	4.5	17.018	C

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) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B4100(E)											
A43 (S)											
B4100 (W)											
A43 (N)											

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B4100(E)	311	78	1293	1405	0.221	312	602	0.5	0.3	3.628	A
A43 (S)	1159	290	352	2317	0.500	1161	1252	1.8	1.2	3.601	A
B4100 (W)	409	102	1239	1381	0.296	410	274	0.7	0.5	3.950	A
A43 (N)	1382	346	503	2160	0.640	1392	1146	4.5	2.1	5.489	A

2019 Baseline + Eastern Development, 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	12.34	B

Junction Network

Driving side	Lighting	Res Cap (%)	First arm reaching threshold	Network delay (s)	Network LOS
Left	Normal/unknown	5	A43 (S)	12.34	B

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	2019 Baseline + Eastern Development	PM	ONE HOUR	16:45	18:15	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	Av. Demand (PCU/hr)	Scaling Factor (%)
B4100(E)		ONE HOUR	✓	435	100.000
A43 (S)		ONE HOUR	✓	1838	100.000
B4100 (W)		ONE HOUR	✓	400	100.000
A43 (N)		ONE HOUR	✓	1503	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		B4100(E)	A43 (S)	B4100 (W)	A43 (N)
From	B4100(E)	0	73	48	314
	A43 (S)	128	0	128	1582
	B4100 (W)	171	108	16	105
	A43 (N)	245	1169	89	0

Vehicle Mix

HV %s

		To			
		B4100(E)	A43 (S)	B4100 (W)	A43 (N)
From	B4100(E)	0	9	1	4
	A43 (S)	8	0	6	7
	B4100 (W)	3	4	0	4
	A43 (N)	5	10	3	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Q (PCU)	Max LOS	Av. Demand (PCU/hr)	Total Junction Arrivals (PCU)
B4100(E)	0.37	4.70	0.6	A	399	599
A43 (S)	0.91	18.90	10.1	C	1687	2530
B4100 (W)	0.52	9.00	1.1	A	367	551
A43 (N)	0.76	7.41	3.4	A	1379	2069

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B4100(E)	327	82	1036	1548	0.212	326	408	0.0	0.3	3.075	A
A43 (S)	1384	346	350	2318	0.597	1377	1012	0.0	1.6	4.067	A
B4100 (W)	301	75	1517	1233	0.244	300	211	0.0	0.3	3.985	A
A43 (N)	1132	283	317	2273	0.498	1127	1500	0.0	1.1	3.404	A

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) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B4100(E)	391	98	1240	1435	0.273	391	488	0.3	0.4	3.600	A
A43 (S)	1652	413	419	2276	0.726	1648	1212	1.6	2.8	6.084	A
B4100 (W)	360	90	1815	1073	0.335	359	252	0.3	0.5	5.204	A
A43 (N)	1351	338	379	2235	0.605	1349	1794	1.1	1.6	4.406	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) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B4100(E)	479	120	1515	1282	0.374	478	595	0.4	0.6	4.675	A
A43 (S)	2024	506	513	2218	0.913	1998	1481	2.8	9.2	15.933	C
B4100 (W)	440	110	2204	865	0.509	438	307	0.5	1.1	8.674	A
A43 (N)	1655	414	462	2184	0.758	1648	2180	1.6	3.3	7.213	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) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B4100(E)	479	120	1521	1278	0.375	479	599	0.6	0.6	4.704	A
A43 (S)	2024	506	514	2217	0.913	2020	1486	9.2	10.1	18.901	C
B4100 (W)	440	110	2225	854	0.516	440	309	1.1	1.1	9.001	A
A43 (N)	1655	414	465	2182	0.758	1655	2200	3.3	3.4	7.406	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) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B4100(E)	391	98	1249	1430	0.273	392	493	0.6	0.4	3.628	A
A43 (S)	1652	413	421	2275	0.726	1681	1220	10.1	2.9	6.788	A
B4100 (W)	360	90	1847	1056	0.340	362	255	1.1	0.5	5.378	A
A43 (N)	1351	338	384	2232	0.605	1358	1825	3.4	1.7	4.510	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) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B4100(E)											
A43 (S)											
B4100 (W)											
A43 (N)											

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B4100(E)	327	82	1043	1544	0.212	328	411	0.4	0.3	3.094	A
A43 (S)	1384	346	352	2317	0.597	1389	1019	2.9	1.6	4.172	A
B4100 (W)	301	75	1529	1226	0.246	302	212	0.5	0.3	4.032	A
A43 (N)	1132	283	319	2271	0.498	1134	1512	1.7	1.1	3.450	A

2019 Baseline + Both Developments, 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	42.14	E

Junction Network

Driving side	Lighting	Res Cap (%)	First arm reaching threshold	Network delay (s)	Network LOS
Left	Normal/unknown	-7	A43 (N)	42.14	E

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	2019 Baseline + Both Developments	AM	ONE HOUR	07:45	09:15	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	Av. Demand (PCU/hr)	Scaling Factor (%)
B4100(E)		ONE HOUR	✓	571	100.000
A43 (S)		ONE HOUR	✓	1481	100.000
B4100 (W)		ONE HOUR	✓	623	100.000
A43 (N)		ONE HOUR	✓	1857	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		B4100(E)	A43 (S)	B4100 (W)	A43 (N)
From	B4100(E)	0	95	235	241
	A43 (S)	227	0	80	1174
	B4100 (W)	293	198	12	120
	A43 (N)	308	1392	157	0

Vehicle Mix

HV %s

		To			
		B4100(E)	A43 (S)	B4100 (W)	A43 (N)
From	B4100(E)	0	22	4	8
	A43 (S)	11	0	15	17
	B4100 (W)	6	13	8	12
	A43 (N)	9	18	13	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Q (PCU)	Max LOS	Av. Demand (PCU/hr)	Total Junction Arrivals (PCU)
B4100(E)	0.58	8.51	1.5	A	524	786
A43 (S)	0.78	8.87	3.9	A	1359	2038
B4100 (W)	0.64	10.04	1.9	B	572	858
A43 (N)	1.03	89.78	55.0	F	1704	2556

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B4100(E)	430	107	1316	1392	0.309	428	620	0.0	0.5	4.036	A
A43 (S)	1115	279	483	2236	0.499	1110	1261	0.0	1.1	3.692	A
B4100 (W)	469	117	1231	1386	0.338	467	363	0.0	0.6	4.272	A
A43 (N)	1398	350	547	2133	0.656	1389	1151	0.0	2.2	5.554	A

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) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B4100(E)	513	128	1573	1250	0.411	512	742	0.5	0.7	5.281	A
A43 (S)	1331	333	578	2177	0.612	1329	1507	1.1	1.8	4.904	A
B4100 (W)	560	140	1473	1256	0.446	559	434	0.6	0.9	5.633	A
A43 (N)	1669	417	655	2067	0.808	1660	1377	2.2	4.6	10.012	B

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) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B4100(E)	629	157	1837	1103	0.570	626	889	0.7	1.4	8.139	A
A43 (S)	1631	408	698	2103	0.775	1622	1765	1.8	3.8	8.541	A
B4100 (W)	686	171	1799	1082	0.634	682	521	0.9	1.8	9.751	A
A43 (N)	2045	511	799	1979	1.033	1927	1682	4.6	34.0	46.008	E

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) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B4100(E)	629	157	1867	1086	0.579	628	898	1.4	1.5	8.512	A
A43 (S)	1631	408	703	2100	0.777	1630	1792	3.8	3.9	8.868	A
B4100 (W)	686	171	1807	1077	0.637	686	526	1.8	1.9	10.041	B
A43 (N)	2045	511	804	1977	1.034	1961	1690	34.0	55.0	89.778	F

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) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B4100(E)	513	128	1748	1152	0.445	516	780	1.5	0.9	6.148	A
A43 (S)	1331	333	599	2165	0.615	1340	1665	3.9	1.9	5.108	A
B4100 (W)	560	140	1485	1250	0.448	564	453	1.9	0.9	5.772	A
A43 (N)	1669	417	661	2064	0.809	1868	1388	55.0	5.4	36.751	E

09:00 - 09:15

	Total	Junction						Start			

Arm	Demand (PCU/hr)	Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B4100(E)	430	107	1335	1382	0.311	431	627	0.9	0.5	4.112	A
A43 (S)	1115	279	488	2233	0.499	1118	1279	1.9	1.2	3.750	A
B4100 (W)	469	117	1240	1381	0.340	470	366	0.9	0.6	4.326	A
A43 (N)	1398	350	551	2130	0.656	1411	1159	5.4	2.3	5.903	A

2019 Baseline + Both Developments, 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	27.95	D

Junction Network

Driving side	Lighting	Res Cap (%)	First arm reaching threshold	Network delay (s)	Network LOS
Left	Normal/unknown	-3	A43 (S)	27.95	D

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	2019 Baseline + Both Developments	PM	ONE HOUR	16:45	18:15	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	Av. Demand (PCU/hr)	Scaling Factor (%)
B4100(E)		ONE HOUR	✓	756	100.000
A43 (S)		ONE HOUR	✓	1865	100.000
B4100 (W)		ONE HOUR	✓	533	100.000
A43 (N)		ONE HOUR	✓	1514	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		B4100(E)	A43 (S)	B4100 (W)	A43 (N)
From	B4100(E)	0	173	269	314
	A43 (S)	128	6	149	1582
	B4100 (W)	239	151	16	127
	A43 (N)	245	1169	100	0

Vehicle Mix

HV %s

		To			
		B4100(E)	A43 (S)	B4100 (W)	A43 (N)
From	B4100(E)	0	9	1	4
	A43 (S)	8	0	13	7
	B4100 (W)	3	10	0	8
	A43 (N)	5	10	9	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Q (PCU)	Max LOS	Av. Demand (PCU/hr)	Total Junction Arrivals (PCU)
B4100(E)	0.67	9.13	2.1	A	694	1041
A43 (S)	1.00	55.14	31.5	F	1711	2567
B4100 (W)	0.68	13.57	2.2	B	489	734
A43 (N)	0.79	8.92	4.0	A	1389	2084

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B4100(E)	569	142	1081	1523	0.374	567	459	0.0	0.6	3.904	A
A43 (S)	1404	351	524	2211	0.635	1397	1124	0.0	1.8	4.712	A
B4100 (W)	401	100	1520	1231	0.326	399	400	0.0	0.5	4.577	A
A43 (N)	1140	285	404	2219	0.514	1135	1515	0.0	1.1	3.608	A

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) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B4100(E)	680	170	1294	1405	0.484	678	549	0.6	1.0	5.143	A
A43 (S)	1677	419	627	2147	0.781	1669	1345	1.8	3.7	7.979	A
B4100 (W)	479	120	1818	1072	0.447	478	479	0.5	0.8	6.408	A
A43 (N)	1361	340	484	2171	0.627	1358	1811	1.1	1.8	4.817	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) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B4100(E)	832	208	1579	1246	0.668	828	665	1.0	2.0	8.860	A
A43 (S)	2053	513	766	2061	0.996	1979	1641	3.7	22.4	32.588	D
B4100 (W)	587	147	2164	886	0.662	582	580	0.8	2.0	12.365	B
A43 (N)	1667	417	586	2109	0.790	1658	2161	1.8	3.9	8.554	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) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B4100(E)	832	208	1587	1242	0.670	832	671	2.0	2.1	9.130	A
A43 (S)	2053	513	769	2059	0.997	2017	1650	22.4	31.5	55.137	F
B4100 (W)	587	147	2202	866	0.677	586	585	2.0	2.2	13.567	B
A43 (N)	1667	417	591	2106	0.792	1667	2196	3.9	4.0	8.921	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) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B4100(E)	680	170	1305	1398	0.486	684	561	2.1	1.0	5.273	A
A43 (S)	1677	419	632	2144	0.782	1786	1357	31.5	4.1	14.128	B
B4100 (W)	479	120	1928	1013	0.473	484	491	2.2	1.0	7.273	A
A43 (N)	1361	340	497	2163	0.629	1370	1915	4.0	1.9	5.003	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) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B4100(E)	680	170	1305	1398	0.486	684	561	2.1	1.0	5.273	A
A43 (S)	1677	419	632	2144	0.782	1786	1357	31.5	4.1	14.128	B
B4100 (W)	479	120	1928	1013	0.473	484	491	2.2	1.0	7.273	A
A43 (N)	1361	340	497	2163	0.629	1370	1915	4.0	1.9	5.003	A

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B4100(E)	569	142	1089	1519	0.375	571	463	1.0	0.6	3.955	A
A43 (S)	1404	351	528	2209	0.636	1413	1132	4.1	1.9	4.913	A
B4100 (W)	401	100	1537	1222	0.328	403	403	1.0	0.5	4.668	A
A43 (N)	1140	285	409	2217	0.514	1143	1531	1.9	1.2	3.667	A

2019 Baseline + Committed + Western Development, 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	11.82	B

Junction Network

Driving side	Lighting	Res Cap (%)	First arm reaching threshold	Network delay (s)	Network LOS
Left	Normal/unknown	5	A43 (S)	11.82	B

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	2019 Baseline + Committed + Western Development	AM	ONE HOUR	07:45	09:15	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	Av. Demand (PCU/hr)	Scaling Factor (%)
B4100(E)		ONE HOUR	✓	542	100.000
A43 (S)		ONE HOUR	✓	1713	100.000
B4100 (W)		ONE HOUR	✓	619	100.000
A43 (N)		ONE HOUR	✓	1059	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		B4100(E)	A43 (S)	B4100 (W)	A43 (N)
From	B4100(E)	0	78	232	232
	A43 (S)	204	0	180	1329
	B4100 (W)	289	198	12	120
	A43 (N)	297	605	157	0

Vehicle Mix

HV %s

		To			
		B4100(E)	A43 (S)	B4100 (W)	A43 (N)
From	B4100(E)	0	15	3	7
	A43 (S)	8	0	15	17

	B4100 (W)	6	13	8	12
	A43 (N)	7	18	13	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Q (PCU)	Max LOS	Av. Demand (PCU/hr)	Total Junction Arrivals (PCU)
B4100(E)	0.39	4.10	0.7	A	497	746
A43 (S)	0.90	18.41	9.2	C	1572	2358
B4100 (W)	0.68	12.10	2.2	B	568	852
A43 (N)	0.58	4.95	1.6	A	972	1458

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B4100(E)	408	102	729	1719	0.237	407	592	0.0	0.3	2.914	A
A43 (S)	1290	322	475	2241	0.575	1283	661	0.0	1.5	4.320	A
B4100 (W)	466	117	1323	1337	0.349	464	436	0.0	0.6	4.497	A
A43 (N)	797	199	527	2145	0.372	795	1260	0.0	0.7	3.031	A

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) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B4100(E)	487	122	873	1639	0.297	487	709	0.3	0.4	3.319	A
A43 (S)	1540	385	568	2183	0.705	1535	791	1.5	2.7	6.379	A
B4100 (W)	556	139	1582	1198	0.465	555	521	0.6	0.9	6.111	A
A43 (N)	952	238	630	2082	0.457	951	1507	0.7	1.0	3.624	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) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B4100(E)	597	149	1067	1531	0.390	596	864	0.4	0.7	4.089	A
A43 (S)	1886	472	696	2104	0.896	1863	967	2.7	8.5	15.904	C
B4100 (W)	682	170	1922	1016	0.671	677	636	0.9	2.1	11.443	B
A43 (N)	1166	291	767	1999	0.583	1163	1831	1.0	1.6	4.898	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) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B4100(E)	597	149	1070	1529	0.390	597	869	0.7	0.7	4.103	A
A43 (S)	1886	472	697	2104	0.897	1883	970	8.5	9.2	18.407	C
B4100 (W)	682	170	1941	1006	0.678	681	639	2.1	2.2	12.097	B
A43 (N)	1166	291	773	1995	0.584	1166	1849	1.6	1.6	4.948	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) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B4100(E)	487	122	877	1636	0.298	488	716	0.7	0.5	3.337	A
A43 (S)	1540	385	570	2182	0.706	1565	795	9.2	2.8	7.014	A
B4100 (W)	556	139	1610	1183	0.470	561	526	2.2	1.0	6.381	A

A43 (N)	952	238	639	2077	0.458	954	1532	1.6	1.0	3.663	A
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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) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B4100(E)	408	102	733	1716	0.238	409	596	0.5	0.3	2.926	A
A43 (S)	1290	322	477	2240	0.576	1295	665	2.8	1.6	4.429	A
B4100 (W)	466	117	1333	1331	0.350	468	438	1.0	0.6	4.569	A
A43 (N)	797	199	531	2142	0.372	798	1270	1.0	0.7	3.054	A

2019 Baseline + Committed + Western Development, 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	68.76	F

Junction Network

Driving side	Lighting	Res Cap (%)	First arm reaching threshold	Network delay (s)	Network LOS
Left	Normal/unknown	-10	A43 (S)	68.76	F

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	2019 Baseline + Committed + Western Development	PM	ONE HOUR	16:45	18:15	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	Av. Demand (PCU/hr)	Scaling Factor (%)
B4100(E)		ONE HOUR	✓	716	100.000
A43 (S)		ONE HOUR	✓	2051	100.000
B4100 (W)		ONE HOUR	✓	501	100.000
A43 (N)		ONE HOUR	✓	1626	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		B4100(E)	A43 (S)	B4100 (W)	A43 (N)
From	B4100(E)	0	150	264	302
	A43 (S)	116	0	149	1786
	B4100 (W)	237	121	16	127
	A43 (N)	239	1287	100	0

Vehicle Mix

HV %s

		To			
		B4100(E)	A43 (S)	B4100 (W)	A43 (N)
From	B4100(E)	0	6	1	3
	A43 (S)	3	0	13	7

	B4100 (W)	2	10	0	8
	A43 (N)	4	10	9	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Q (PCU)	Max LOS	Av. Demand (PCU/hr)	Total Junction Arrivals (PCU)
B4100(E)	0.66	9.16	2.0	A	657	986
A43 (S)	1.09	148.96	106.1	F	1882	2823
B4100 (W)	0.66	13.05	2.0	B	460	690
A43 (N)	0.84	11.01	5.3	B	1492	2238

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B4100(E)	539	135	1142	1489	0.362	537	443	0.0	0.6	3.879	A
A43 (S)	1544	386	511	2219	0.696	1534	1168	0.0	2.4	5.564	A
B4100 (W)	377	94	1649	1162	0.325	375	396	0.0	0.5	4.806	A
A43 (N)	1224	306	367	2242	0.546	1219	1658	0.0	1.3	3.816	A

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) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B4100(E)	644	161	1367	1364	0.472	642	530	0.6	0.9	5.120	A
A43 (S)	1844	461	612	2156	0.855	1830	1397	2.4	5.8	11.375	B
B4100 (W)	450	113	1968	991	0.454	449	474	0.5	0.9	6.969	A
A43 (N)	1462	365	439	2199	0.665	1458	1978	1.3	2.1	5.279	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) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B4100(E)	788	197	1667	1198	0.658	784	636	0.9	1.9	8.872	A
A43 (S)	2258	565	747	2073	1.090	2048	1704	5.8	58.3	65.126	F
B4100 (W)	552	138	2230	851	0.648	548	565	0.9	1.9	12.328	B
A43 (N)	1790	448	525	2146	0.834	1778	2253	2.1	5.1	10.338	B

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) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B4100(E)	788	197	1677	1192	0.662	788	641	1.9	2.0	9.159	A
A43 (S)	2258	565	751	2070	1.091	2067	1715	58.3	106.1	148.964	F
B4100 (W)	552	138	2249	841	0.656	551	568	1.9	2.0	13.049	B
A43 (N)	1790	448	528	2144	0.835	1790	2272	5.1	5.3	11.010	B

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) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B4100(E)	644	161	1381	1356	0.475	648	552	2.0	0.9	5.259	A
A43 (S)	1844	461	617	2153	0.856	2131	1412	106.1	34.2	121.214	F
B4100 (W)	450	113	2250	841	0.536	453	499	2.0	1.2	9.856	A

A43 (N)	1462	365	459	2186	0.669	1474	2244	5.3	2.2	5.603	A
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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) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B4100(E)	539	135	1151	1484	0.363	540	455	0.9	0.6	3.929	A
A43 (S)	1544	386	515	2216	0.697	1671	1177	34.2	2.5	8.895	A
B4100 (W)	377	94	1777	1093	0.345	380	408	1.2	0.6	5.333	A
A43 (N)	1224	306	378	2235	0.548	1228	1779	2.2	1.3	3.908	A

2019 Baseline + Committed + Eastern Development, 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	85.63	F

Junction Network

Driving side	Lighting	Res Cap (%)	First arm reaching threshold	Network delay (s)	Network LOS
Left	Normal/unknown	-12	A43 (N)	85.63	F

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	2019 Baseline + Committed + Eastern Development	AM	ONE HOUR	07:45	09:15	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	Av. Demand (PCU/hr)	Scaling Factor (%)
B4100(E)		ONE HOUR	✓	513	100.000
A43 (S)		ONE HOUR	✓	1694	100.000
B4100 (W)		ONE HOUR	✓	543	100.000
A43 (N)		ONE HOUR	✓	2049	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		B4100(E)	A43 (S)	B4100 (W)	A43 (N)
From	B4100(E)	0	95	177	241
	A43 (S)	227	0	138	1329
	B4100 (W)	261	166	12	104
	A43 (N)	308	1605	136	0

Vehicle Mix

HV %s

		To			
		B4100(E)	A43 (S)	B4100 (W)	A43 (N)
From	B4100(E)	0	22	4	8
	A43 (S)	11	0	20	17

B4100 (W)	7	16	8	14
A43 (N)	9	18	15	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Q (PCU)	Max LOS	Av. Demand (PCU/hr)	Total Junction Arrivals (PCU)
B4100(E)	0.53	7.87	1.2	A	471	706
A43 (S)	0.86	14.02	7.0	B	1554	2332
B4100 (W)	0.61	10.27	1.7	B	498	747
A43 (N)	1.12	184.27	130.1	F	1880	2820

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B4100(E)	386	97	1434	1327	0.291	384	596	0.0	0.4	4.152	A
A43 (S)	1275	319	424	2273	0.561	1269	1395	0.0	1.5	4.152	A
B4100 (W)	409	102	1347	1324	0.309	407	347	0.0	0.5	4.348	A
A43 (N)	1543	386	499	2162	0.714	1531	1254	0.0	2.8	6.530	A

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) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B4100(E)	461	115	1710	1174	0.393	460	712	0.4	0.7	5.484	A
A43 (S)	1523	381	507	2221	0.686	1519	1663	1.5	2.5	5.929	A
B4100 (W)	488	122	1611	1182	0.413	487	414	0.5	0.8	5.736	A
A43 (N)	1842	461	597	2102	0.876	1824	1501	2.8	7.3	14.217	B

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) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B4100(E)	565	141	1897	1069	0.528	563	835	0.7	1.2	7.707	A
A43 (S)	1865	466	605	2161	0.863	1848	1855	2.5	6.7	12.783	B
B4100 (W)	598	149	1962	994	0.601	594	491	0.8	1.6	9.902	A
A43 (N)	2256	564	728	2022	1.115	2004	1828	7.3	70.4	78.893	F

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) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B4100(E)	565	141	1910	1062	0.532	565	840	1.2	1.2	7.873	A
A43 (S)	1865	466	607	2159	0.864	1864	1867	6.7	7.0	14.023	B
B4100 (W)	598	149	1977	986	0.606	598	494	1.6	1.7	10.265	B
A43 (N)	2256	564	733	2020	1.117	2017	1842	70.4	130.1	184.266	F

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) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B4100(E)	461	115	1928	1052	0.438	463	755	1.2	0.9	6.663	A
A43 (S)	1523	381	526	2210	0.689	1540	1865	7.0	2.6	6.418	A
B4100 (W)	488	122	1632	1171	0.417	492	434	1.7	0.8	5.910	A

A43 (N)	1842	461	604	2098	0.878	2080	1520	130.1	70.7	175.151	F
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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) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B4100(E)	386	97	1675	1193	0.324	388	641	0.9	0.5	4.874	A
A43 (S)	1275	319	445	2260	0.564	1280	1618	2.6	1.5	4.295	A
B4100 (W)	409	102	1358	1318	0.310	410	367	0.8	0.5	4.404	A
A43 (N)	1543	386	503	2160	0.714	1813	1265	70.7	3.0	25.510	D

2019 Baseline + Committed + Eastern Development, 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	63.70	F

Junction Network

Driving side	Lighting	Res Cap (%)	First arm reaching threshold	Network delay (s)	Network LOS
Left	Normal/unknown	-9	A43 (S)	63.70	F

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	2019 Baseline + Committed + Eastern Development	PM	ONE HOUR	16:45	18:15	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	Av. Demand (PCU/hr)	Scaling Factor (%)
B4100(E)		ONE HOUR	✓	735	100.000
A43 (S)		ONE HOUR	✓	2042	100.000
B4100 (W)		ONE HOUR	✓	400	100.000
A43 (N)		ONE HOUR	✓	1621	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		B4100(E)	A43 (S)	B4100 (W)	A43 (N)
From	B4100(E)	0	173	248	314
	A43 (S)	128	0	128	1786
	B4100 (W)	171	108	16	105
	A43 (N)	245	1287	89	0

Vehicle Mix

HV %s

		To			
		B4100(E)	A43 (S)	B4100 (W)	A43 (N)
From	B4100(E)	0	9	1	4
	A43 (S)	8	0	6	7

	B4100 (W)	3	4	0	4
	A43 (N)	5	10	3	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Q (PCU)	Max LOS	Av. Demand (PCU/hr)	Total Junction Arrivals (PCU)
B4100(E)	0.67	9.42	2.1	A	674	1012
A43 (S)	1.08	136.70	96.8	F	1874	2811
B4100 (W)	0.54	9.84	1.2	A	367	551
A43 (N)	0.82	9.65	4.7	A	1487	2231

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B4100(E)	553	138	1125	1499	0.369	551	408	0.0	0.6	3.943	A
A43 (S)	1537	384	500	2226	0.691	1528	1176	0.0	2.3	5.451	A
B4100 (W)	301	75	1668	1152	0.261	300	360	0.0	0.4	4.360	A
A43 (N)	1220	305	317	2273	0.537	1215	1650	0.0	1.3	3.689	A

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) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B4100(E)	661	165	1346	1376	0.480	659	487	0.6	1.0	5.219	A
A43 (S)	1836	459	598	2165	0.848	1823	1407	2.3	5.5	10.880	B
B4100 (W)	360	90	1990	979	0.367	359	431	0.4	0.6	5.988	A
A43 (N)	1457	364	379	2235	0.652	1454	1970	1.3	2.0	4.998	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) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B4100(E)	809	202	1642	1211	0.668	805	584	1.0	2.0	9.128	A
A43 (S)	2248	562	730	2083	1.079	2055	1717	5.5	53.8	60.850	F
B4100 (W)	440	110	2270	830	0.531	438	515	0.6	1.1	9.457	A
A43 (N)	1785	446	452	2191	0.815	1775	2257	2.0	4.5	9.200	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) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B4100(E)	809	202	1651	1206	0.671	809	588	2.0	2.1	9.423	A
A43 (S)	2248	562	734	2080	1.081	2076	1726	53.8	96.8	136.702	F
B4100 (W)	440	110	2292	818	0.538	440	519	1.1	1.2	9.841	A
A43 (N)	1785	446	455	2189	0.815	1784	2277	4.5	4.7	9.648	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) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B4100(E)	661	165	1358	1369	0.483	665	510	2.1	1.0	5.355	A
A43 (S)	1836	459	604	2161	0.849	2138	1419	96.8	21.3	102.984	F
B4100 (W)	360	90	2288	820	0.438	361	453	1.2	0.8	8.135	A

A43 (N)	1457	364	400	2222	0.656	1467	2249	4.7	2.1	5.259	A
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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) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B4100(E)	553	138	1133	1494	0.370	555	416	1.0	0.6	3.993	A
A43 (S)	1537	384	504	2223	0.691	1613	1184	21.3	2.4	7.101	A
B4100 (W)	301	75	1749	1109	0.272	303	368	0.8	0.4	4.630	A
A43 (N)	1220	305	324	2268	0.538	1224	1727	2.1	1.3	3.764	A

2019 Baseline + Committed + Both Developments, 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	110.87	F

Junction Network

Driving side	Lighting	Res Cap (%)	First arm reaching threshold	Network delay (s)	Network LOS
Left	Normal/unknown	-14	A43 (N)	110.87	F

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
D15	2019 Baseline + Committed + Both Developments	AM	ONE HOUR	07:45	09:15	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	Av. Demand (PCU/hr)	Scaling Factor (%)
B4100(E)		ONE HOUR	✓	571	100.000
A43 (S)		ONE HOUR	✓	1736	100.000
B4100 (W)		ONE HOUR	✓	623	100.000
A43 (N)		ONE HOUR	✓	2070	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		B4100(E)	A43 (S)	B4100 (W)	A43 (N)
From	B4100(E)	0	95	235	241
	A43 (S)	227	0	180	1329
	B4100 (W)	293	198	12	120
	A43 (N)	308	1605	157	0

Vehicle Mix

HV %s

		To			
		B4100(E)	A43 (S)	B4100 (W)	A43 (N)
From	B4100(E)	0	22	3	8
	A43 (S)	11	0	15	17

	B4100 (W)	6	13	8	12
	A43 (N)	9	18	13	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Q (PCU)	Max LOS	Av. Demand (PCU/hr)	Total Junction Arrivals (PCU)
B4100(E)	0.59	8.98	1.5	A	524	786
A43 (S)	0.91	19.98	10.0	C	1593	2389
B4100 (W)	0.69	13.00	2.4	B	572	858
A43 (N)	1.15	244.67	162.3	F	1899	2849

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B4100(E)	430	107	1473	1305	0.329	428	620	0.0	0.5	4.417	A
A43 (S)	1307	327	483	2236	0.584	1301	1418	0.0	1.6	4.432	A
B4100 (W)	469	117	1346	1324	0.354	467	437	0.0	0.6	4.577	A
A43 (N)	1558	390	547	2133	0.731	1546	1266	0.0	3.1	6.990	A

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) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B4100(E)	513	128	1753	1150	0.446	512	740	0.5	0.9	6.079	A
A43 (S)	1561	390	577	2178	0.717	1556	1688	1.6	2.9	6.656	A
B4100 (W)	560	140	1610	1183	0.474	559	522	0.6	1.0	6.290	A
A43 (N)	1861	465	654	2067	0.900	1838	1515	3.1	8.8	16.754	C

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) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B4100(E)	629	157	1905	1065	0.590	626	860	0.9	1.5	8.795	A
A43 (S)	1911	478	684	2111	0.905	1886	1847	2.9	9.2	16.893	C
B4100 (W)	686	171	1955	999	0.687	681	616	1.0	2.3	12.180	B
A43 (N)	2279	570	796	1981	1.150	1969	1839	8.8	86.5	95.774	F

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) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B4100(E)	629	157	1913	1061	0.593	629	866	1.5	1.5	8.984	A
A43 (S)	1911	478	687	2110	0.906	1908	1854	9.2	10.0	19.979	C
B4100 (W)	686	171	1976	987	0.695	685	620	2.3	2.4	12.998	B
A43 (N)	2279	570	803	1977	1.153	1976	1858	86.5	162.3	230.656	F

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) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B4100(E)	513	128	1933	1050	0.489	515	778	1.5	1.0	7.299	A
A43 (S)	1561	390	596	2166	0.720	1588	1852	10.0	3.1	7.555	A
B4100 (W)	560	140	1641	1166	0.480	566	543	2.4	1.0	6.611	A

A43 (N)	1861	465	664	2061	0.903	2047	1543	162.3	115.9	244.667	F
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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) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B4100(E)	430	107	1868	1086	0.396	431	692	1.0	0.7	5.945	A
A43 (S)	1307	327	521	2213	0.591	1312	1778	3.1	1.7	4.664	A
B4100 (W)	469	117	1358	1318	0.356	471	475	1.0	0.6	4.655	A
A43 (N)	1558	390	552	2130	0.732	2008	1277	115.9	3.5	87.216	F

2019 Baseline + Committed + Both Developments, 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	75.27	F

Junction Network

Driving side	Lighting	Res Cap (%)	First arm reaching threshold	Network delay (s)	Network LOS
Left	Normal/unknown	-11	A43 (S)	75.27	F

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
D16	2019 Baseline + Committed + Both Developments	PM	ONE HOUR	16:45	18:15	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	Av. Demand (PCU/hr)	Scaling Factor (%)
B4100(E)		ONE HOUR	✓	756	100.000
A43 (S)		ONE HOUR	✓	2063	100.000
B4100 (W)		ONE HOUR	✓	533	100.000
A43 (N)		ONE HOUR	✓	1632	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		B4100(E)	A43 (S)	B4100 (W)	A43 (N)
From	B4100(E)	0	173	269	314
	A43 (S)	128	0	149	1786
	B4100 (W)	239	151	16	127
	A43 (N)	245	1287	100	0

Vehicle Mix

HV %s

		To			
		B4100(E)	A43 (S)	B4100 (W)	A43 (N)
From	B4100(E)	0	9	1	4
	A43 (S)	8	0	13	7

	B4100 (W)	3	10	0	8
	A43 (N)	5	10	9	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Q (PCU)	Max LOS	Av. Demand (PCU/hr)	Total Junction Arrivals (PCU)
B4100(E)	0.71	10.94	2.5	B	694	1041
A43 (S)	1.10	164.32	117.7	F	1893	2840
B4100 (W)	0.70	15.06	2.4	C	489	734
A43 (N)	0.85	12.17	5.9	B	1498	2246

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B4100(E)	569	142	1165	1477	0.385	567	458	0.0	0.6	4.102	A
A43 (S)	1553	388	524	2211	0.703	1543	1207	0.0	2.5	5.713	A
B4100 (W)	401	100	1667	1152	0.348	399	400	0.0	0.6	5.049	A
A43 (N)	1229	307	400	2222	0.553	1223	1666	0.0	1.3	3.914	A

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) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B4100(E)	680	170	1393	1349	0.504	678	548	0.6	1.0	5.562	A
A43 (S)	1855	464	627	2147	0.864	1840	1445	2.5	6.2	12.039	B
B4100 (W)	479	120	1988	980	0.489	477	478	0.6	1.0	7.559	A
A43 (N)	1467	367	478	2175	0.675	1464	1988	1.3	2.2	5.498	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) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B4100(E)	832	208	1698	1180	0.705	827	655	1.0	2.4	10.439	B
A43 (S)	2271	568	764	2062	1.102	2041	1760	6.2	63.9	70.483	F
B4100 (W)	587	147	2237	848	0.692	582	568	1.0	2.3	14.089	B
A43 (N)	1797	449	570	2119	0.848	1783	2249	2.2	5.6	11.273	B

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) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B4100(E)	832	208	1710	1173	0.709	832	660	2.4	2.5	10.943	B
A43 (S)	2271	568	769	2059	1.103	2056	1773	63.9	117.7	164.319	F
B4100 (W)	587	147	2253	839	0.700	586	572	2.3	2.4	15.059	C
A43 (N)	1797	449	574	2116	0.849	1796	2265	5.6	5.9	12.175	B

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) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B4100(E)	680	170	1410	1340	0.507	685	571	2.5	1.1	5.765	A
A43 (S)	1855	464	634	2143	0.866	2123	1462	117.7	50.5	144.526	F
B4100 (W)	479	120	2255	838	0.572	483	502	2.4	1.5	10.854	B

A43 (N)	1467	367	500	2162	0.679	1481	2238	5.9	2.4	5.893	A
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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) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B4100(E)	569	142	1174	1471	0.387	571	475	1.1	0.7	4.166	A
A43 (S)	1553	388	528	2208	0.703	1745	1217	50.5	2.6	12.692	B
B4100 (W)	401	100	1856	1051	0.382	404	417	1.5	0.7	5.924	A
A43 (N)	1229	307	416	2212	0.555	1233	1844	2.4	1.4	4.028	A

2025 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	74.85	F

Junction Network

Driving side	Lighting	Res Cap (%)	First arm reaching threshold	Network delay (s)	Network LOS
Left	Normal/unknown	-11	A43 (N)	74.85	F

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
D17	2025 Baseline	AM	ONE HOUR	07:45	09:15	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	Av. Demand (PCU/hr)	Scaling Factor (%)
B4100(E)		ONE HOUR	✓	430	100.000
A43 (S)		ONE HOUR	✓	1657	100.000
B4100 (W)		ONE HOUR	✓	589	100.000
A43 (N)		ONE HOUR	✓	1994	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		B4100(E)	A43 (S)	B4100 (W)	A43 (N)
From	B4100(E)	0	85	91	254
	A43 (S)	223	0	151	1283
	B4100 (W)	280	182	14	113
	A43 (N)	324	1521	149	0

Vehicle Mix

HV %s

		To			
		B4100(E)	A43 (S)	B4100 (W)	A43 (N)
From	B4100(E)	0	15	4	7
	A43 (S)	8	0	9	17
	B4100 (W)	6	6	8	6
	A43 (N)	7	18	9	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Q (PCU)	Max LOS	Av. Demand (PCU/hr)	Total Junction Arrivals (PCU)
B4100(E)	0.44	6.44	0.8	A	395	592
A43 (S)	0.83	10.99	5.4	B	1520	2281
B4100 (W)	0.64	10.60	1.9	B	540	811
A43 (N)	1.10	161.65	111.4	F	1830	2745

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B4100(E)	324	81	1395	1348	0.240	322	619	0.0	0.3	3.778	A
A43 (S)	1247	312	381	2300	0.542	1242	1337	0.0	1.3	3.893	A
B4100 (W)	443	111	1319	1338	0.331	441	303	0.0	0.5	4.246	A
A43 (N)	1501	375	524	2147	0.699	1491	1237	0.0	2.6	6.235	A

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) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B4100(E)	387	97	1664	1199	0.322	386	740	0.3	0.5	4.770	A
A43 (S)	1490	372	455	2254	0.661	1486	1595	1.3	2.2	5.369	A
B4100 (W)	529	132	1579	1200	0.441	528	362	0.5	0.8	5.675	A
A43 (N)	1793	448	627	2084	0.860	1777	1480	2.6	6.4	12.929	B

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) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B4100(E)	473	118	1870	1084	0.437	472	872	0.5	0.8	6.327	A
A43 (S)	1824	456	542	2200	0.829	1812	1800	2.2	5.2	10.368	B
B4100 (W)	649	162	1926	1014	0.640	645	428	0.8	1.8	10.228	B
A43 (N)	2195	549	765	2000	1.098	1977	1806	6.4	61.1	70.799	F

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) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B4100(E)	473	118	1886	1076	0.440	473	878	0.8	0.8	6.444	A
A43 (S)	1824	456	544	2198	0.830	1824	1815	5.2	5.4	10.992	B
B4100 (W)	649	162	1937	1008	0.643	648	431	1.8	1.9	10.603	B
A43 (N)	2195	549	769	1997	1.099	1994	1816	61.1	111.4	161.653	F

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) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B4100(E)	387	97	1902	1067	0.362	387	790	0.8	0.6	5.720	A
A43 (S)	1490	372	477	2240	0.665	1502	1812	5.4	2.3	5.699	A
B4100 (W)	529	132	1594	1192	0.444	534	385	1.9	0.9	5.837	A
A43 (N)	1793	448	633	2080	0.862	2059	1494	111.4	44.8	138.896	F

09:00 - 09:15

	Total	Junction						Start			

Arm	Demand (PCU/hr)	Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B4100(E)	324	81	1546	1265	0.256	325	651	0.6	0.4	4.134	A
A43 (S)	1247	312	396	2290	0.545	1251	1475	2.3	1.4	3.996	A
B4100 (W)	443	111	1329	1333	0.333	445	318	0.9	0.5	4.304	A
A43 (N)	1501	375	528	2144	0.700	1669	1246	44.8	2.8	12.412	B

2025 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	60.85	F

Junction Network

Driving side	Lighting	Res Cap (%)	First arm reaching threshold	Network delay (s)	Network LOS
Left	Normal/unknown	-9	A43 (S)	60.85	F

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
D18	2025 Baseline	PM	ONE HOUR	16:45	18:15	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	Av. Demand (PCU/hr)	Scaling Factor (%)
B4100(E)		ONE HOUR	✓	761	100.000
A43 (S)		ONE HOUR	✓	2004	100.000
B4100 (W)		ONE HOUR	✓	439	100.000
A43 (N)		ONE HOUR	✓	1643	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		B4100(E)	A43 (S)	B4100 (W)	A43 (N)
From	B4100(E)	0	164	266	331
	A43 (S)	127	0	141	1736
	B4100 (W)	186	119	18	116
	A43 (N)	262	1283	98	0

Vehicle Mix

HV %s

		To			
		B4100(E)	A43 (S)	B4100 (W)	A43 (N)
From	B4100(E)	0	6	1	3
	A43 (S)	3	0	6	7
	B4100 (W)	3	4	0	4
	A43 (N)	4	10	3	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Q (PCU)	Max LOS	Av. Demand (PCU/hr)	Total Junction Arrivals (PCU)
B4100(E)	0.70	10.34	2.4	B	698	1047
A43 (S)	1.08	132.10	91.7	F	1839	2758
B4100 (W)	0.58	10.64	1.4	B	403	604
A43 (N)	0.83	10.74	5.2	B	1508	2261

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B4100(E)	573	143	1138	1491	0.384	570	431	0.0	0.6	4.010	A
A43 (S)	1509	377	534	2204	0.684	1500	1174	0.0	2.3	5.451	A
B4100 (W)	331	83	1642	1166	0.284	329	392	0.0	0.4	4.441	A
A43 (N)	1237	309	337	2260	0.547	1232	1634	0.0	1.3	3.781	A

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) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B4100(E)	684	171	1362	1367	0.500	683	515	0.6	1.0	5.400	A
A43 (S)	1802	450	640	2139	0.842	1789	1405	2.3	5.3	10.624	B
B4100 (W)	395	99	1960	995	0.396	394	469	0.4	0.7	6.173	A
A43 (N)	1477	369	403	2220	0.665	1474	1951	1.3	2.1	5.212	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) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B4100(E)	838	209	1661	1201	0.698	833	618	1.0	2.3	9.929	A
A43 (S)	2206	552	780	2052	1.075	2023	1713	5.3	51.2	59.269	F
B4100 (W)	483	121	2243	844	0.572	481	560	0.7	1.3	10.160	B
A43 (N)	1809	452	482	2172	0.833	1797	2242	2.1	5.1	10.111	B

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) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B4100(E)	838	209	1671	1195	0.701	838	623	2.3	2.4	10.340	B
A43 (S)	2206	552	785	2049	1.077	2044	1724	51.2	91.7	132.104	F
B4100 (W)	483	121	2265	833	0.581	483	564	1.3	1.4	10.640	B
A43 (N)	1809	452	485	2170	0.833	1808	2263	5.1	5.2	10.738	B

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) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B4100(E)	684	171	1375	1359	0.503	689	539	2.4	1.1	5.570	A
A43 (S)	1802	450	646	2135	0.844	2111	1419	91.7	14.4	94.617	F
B4100 (W)	395	99	2262	834	0.473	396	495	1.4	0.9	8.544	A
A43 (N)	1477	369	425	2207	0.669	1489	2233	5.2	2.2	5.536	A

18:00 - 18:15

	Total	Junction						Start			

Arm	Demand (PCU/hr)	Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B4100(E)	573	143	1147	1487	0.385	575	437	1.1	0.6	4.068	A
A43 (S)	1509	377	538	2202	0.685	1557	1183	14.4	2.4	6.395	A
B4100 (W)	331	83	1697	1136	0.291	333	398	0.9	0.4	4.643	A
A43 (N)	1237	309	343	2257	0.548	1241	1686	2.2	1.3	3.859	A

2025 Baseline + Committed, 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	175.38	F

Junction Network

Driving side	Lighting	Res Cap (%)	First arm reaching threshold	Network delay (s)	Network LOS
Left	Normal/unknown	-18	A43 (N)	175.38	F

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
D19	2025 Baseline + Committed	AM	ONE HOUR	07:45	09:15	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	Av. Demand (PCU/hr)	Scaling Factor (%)
B4100(E)		ONE HOUR	✓	530	100.000
A43 (S)		ONE HOUR	✓	1812	100.000
B4100 (W)		ONE HOUR	✓	589	100.000
A43 (N)		ONE HOUR	✓	2207	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		B4100(E)	A43 (S)	B4100 (W)	A43 (N)
From	B4100(E)	0	85	191	254
	A43 (S)	223	0	151	1438
	B4100 (W)	280	182	14	113
	A43 (N)	324	1734	149	0

Vehicle Mix

HV %s

		To			
		B4100(E)	A43 (S)	B4100 (W)	A43 (N)
From	B4100(E)	0	15	4	7
	A43 (S)	8	0	9	17
	B4100 (W)	6	6	8	6
	A43 (N)	7	18	9	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Q (PCU)	Max LOS	Av. Demand (PCU/hr)	Total Junction Arrivals (PCU)
B4100(E)	0.55	8.14	1.3	A	486	730
A43 (S)	0.93	25.59	13.3	D	1663	2494
B4100 (W)	0.71	14.01	2.5	B	540	811
A43 (N)	1.22	381.59	230.7	F	2025	3038

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B4100(E)	399	100	1551	1262	0.316	397	618	0.0	0.5	4.449	A
A43 (S)	1364	341	455	2254	0.605	1357	1494	0.0	1.7	4.588	A
B4100 (W)	443	111	1434	1277	0.347	441	378	0.0	0.6	4.556	A
A43 (N)	1662	415	524	2147	0.774	1646	1352	0.0	3.8	8.086	A

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) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B4100(E)	476	119	1833	1105	0.431	475	736	0.5	0.8	6.105	A
A43 (S)	1629	407	543	2199	0.741	1623	1765	1.7	3.2	7.121	A
B4100 (W)	529	132	1716	1126	0.470	528	450	0.6	0.9	6.365	A
A43 (N)	1984	496	626	2084	0.952	1942	1617	3.8	14.3	24.137	C

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) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B4100(E)	584	146	1918	1058	0.552	582	840	0.8	1.3	8.057	A
A43 (S)	1995	499	638	2140	0.932	1961	1861	3.2	11.8	20.136	C
B4100 (W)	649	162	2076	934	0.695	643	523	0.9	2.3	12.902	B
A43 (N)	2430	607	761	2003	1.213	1997	1958	14.3	122.6	131.096	F

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) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B4100(E)	584	146	1920	1057	0.552	583	846	1.3	1.3	8.142	A
A43 (S)	1995	499	640	2139	0.933	1989	1863	11.8	13.3	25.591	D
B4100 (W)	649	162	2103	919	0.705	648	526	2.3	2.5	14.013	B
A43 (N)	2430	607	768	1998	1.216	1998	1982	122.6	230.7	320.119	F

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) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B4100(E)	476	119	1942	1045	0.456	478	763	1.3	0.9	6.822	A
A43 (S)	1629	407	554	2192	0.743	1668	1866	13.3	3.4	8.473	A
B4100 (W)	529	132	1759	1103	0.480	535	464	2.5	1.0	6.788	A
A43 (N)	1984	496	638	2077	0.955	2067	1656	230.7	210.0	381.586	F

09:00 - 09:15

	Total	Junction						Start			

Arm	Demand (PCU/hr)	Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B4100(E)	399	100	1967	1030	0.387	400	693	0.9	0.7	6.125	A
A43 (S)	1364	341	490	2232	0.611	1371	1877	3.4	1.8	4.849	A
B4100 (W)	443	111	1448	1270	0.349	445	413	1.0	0.6	4.641	A
A43 (N)	1662	415	528	2144	0.775	2132	1365	210.0	92.3	256.664	F

2025 Baseline + Committed, 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	142.08	F

Junction Network

Driving side	Lighting	Res Cap (%)	First arm reaching threshold	Network delay (s)	Network LOS
Left	Normal/unknown	-16	A43 (S)	142.08	F

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
D20	2025 Baseline + Committed	PM	ONE HOUR	16:45	18:15	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	Av. Demand (PCU/hr)	Scaling Factor (%)
B4100(E)		ONE HOUR	✓	761	100.000
A43 (S)		ONE HOUR	✓	2208	100.000
B4100 (W)		ONE HOUR	✓	439	100.000
A43 (N)		ONE HOUR	✓	1761	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		B4100(E)	A43 (S)	B4100 (W)	A43 (N)
From	B4100(E)	0	164	266	331
	A43 (S)	127	0	141	1940
	B4100 (W)	186	119	18	116
	A43 (N)	262	1401	98	0

Vehicle Mix

HV %s

		To			
		B4100(E)	A43 (S)	B4100 (W)	A43 (N)
From	B4100(E)	0	6	1	3
	A43 (S)	3	0	6	7
	B4100 (W)	3	4	0	4
	A43 (N)	4	10	3	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Q (PCU)	Max LOS	Av. Demand (PCU/hr)	Total Junction Arrivals (PCU)
B4100(E)	0.75	12.89	2.9	B	698	1047
A43 (S)	1.19	313.29	202.6	F	2026	3039
B4100 (W)	0.59	10.93	1.4	B	403	604
A43 (N)	0.89	15.93	8.2	C	1616	2424

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B4100(E)	573	143	1226	1443	0.397	570	430	0.0	0.7	4.235	A
A43 (S)	1662	416	534	2204	0.754	1650	1262	0.0	3.2	6.777	A
B4100 (W)	331	83	1792	1085	0.305	329	392	0.0	0.4	4.904	A
A43 (N)	1326	331	337	2261	0.586	1320	1784	0.0	1.5	4.131	A

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) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B4100(E)	684	171	1467	1309	0.523	682	514	0.7	1.1	5.897	A
A43 (S)	1985	496	639	2139	0.928	1955	1510	3.2	10.6	18.452	C
B4100 (W)	395	99	2127	906	0.435	393	467	0.4	0.8	7.238	A
A43 (N)	1583	396	402	2221	0.713	1579	2119	1.5	2.6	6.047	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) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B4100(E)	838	209	1783	1133	0.740	831	607	1.1	2.8	12.030	B
A43 (S)	2431	608	779	2053	1.184	2045	1836	10.6	107.1	110.967	F
B4100 (W)	483	121	2276	826	0.585	481	548	0.8	1.4	10.691	B
A43 (N)	1939	485	471	2179	0.890	1919	2286	2.6	7.7	14.064	B

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) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B4100(E)	838	209	1800	1124	0.746	837	611	2.8	2.9	12.889	B
A43 (S)	2431	608	784	2049	1.186	2049	1852	107.1	202.6	274.385	F
B4100 (W)	483	121	2282	823	0.587	483	551	1.4	1.4	10.934	B
A43 (N)	1939	485	473	2178	0.890	1937	2292	7.7	8.2	15.933	C

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) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B4100(E)	684	171	1490	1296	0.528	691	529	2.9	1.2	6.196	A
A43 (S)	1985	496	648	2134	0.930	2123	1533	202.6	168.2	313.291	F
B4100 (W)	395	99	2288	820	0.481	397	483	1.4	1.0	8.825	A
A43 (N)	1583	396	414	2214	0.715	1605	2271	8.2	2.8	6.639	A

18:00 - 18:15

	Total	Junction						Start			

Arm	Demand (PCU/hr)	Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B4100(E)	573	143	1236	1437	0.399	575	464	1.2	0.7	4.306	A
A43 (S)	1662	416	539	2202	0.755	2188	1272	168.2	36.8	171.031	F
B4100 (W)	331	83	2298	815	0.406	332	428	1.0	0.7	7.721	A
A43 (N)	1326	331	370	2241	0.592	1331	2260	2.8	1.6	4.322	A

2025 Baseline + Western Development , 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	93.03	F

Junction Network

Driving side	Lighting	Res Cap (%)	First arm reaching threshold	Network delay (s)	Network LOS
Left	Normal/unknown	-13	A43 (N)	93.03	F

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
D21	2025 Baseline + Western Development	AM	ONE HOUR	07:45	09:15	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	Av. Demand (PCU/hr)	Scaling Factor (%)
B4100(E)		ONE HOUR	✓	587	100.000
A43 (S)		ONE HOUR	✓	1699	100.000
B4100 (W)		ONE HOUR	✓	668	100.000
A43 (N)		ONE HOUR	✓	2014	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		B4100(E)	A43 (S)	B4100 (W)	A43 (N)
From	B4100(E)	0	85	248	254
	A43 (S)	223	0	193	1283
	B4100 (W)	312	213	14	129
	A43 (N)	324	1521	169	0

Vehicle Mix

HV %s

		To			
		B4100(E)	A43 (S)	B4100 (W)	A43 (N)
From	B4100(E)	0	15	4	9
	A43 (S)	11	0	18	21
	B4100 (W)	8	20	6	22
	A43 (N)	4	20	15	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Q (PCU)	Max LOS	Av. Demand (PCU/hr)	Total Junction Arrivals (PCU)
B4100(E)	0.60	9.05	1.6	A	539	808
A43 (S)	0.90	19.44	9.6	C	1559	2339
B4100 (W)	0.73	14.92	3.0	B	613	919
A43 (N)	1.13	205.49	141.9	F	1848	2772

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B4100(E)	442	110	1433	1328	0.333	440	643	0.0	0.5	4.353	A
A43 (S)	1279	320	513	2218	0.577	1273	1360	0.0	1.6	4.512	A
B4100 (W)	503	126	1318	1339	0.376	500	467	0.0	0.7	4.882	A
A43 (N)	1516	379	571	2118	0.716	1505	1248	0.0	2.9	6.727	A

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) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B4100(E)	528	132	1706	1175	0.449	526	768	0.5	0.9	5.957	A
A43 (S)	1527	382	613	2156	0.709	1522	1620	1.6	2.8	6.728	A
B4100 (W)	601	150	1577	1200	0.500	599	558	0.7	1.1	6.807	A
A43 (N)	1811	453	683	2050	0.883	1791	1493	2.9	7.7	15.195	C

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) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B4100(E)	646	162	1879	1079	0.599	643	896	0.9	1.6	8.831	A
A43 (S)	1871	468	729	2084	0.898	1847	1794	2.8	8.8	16.633	C
B4100 (W)	735	184	1915	1020	0.721	729	660	1.1	2.8	13.821	B
A43 (N)	2217	554	830	1960	1.131	1944	1814	7.7	76.0	86.523	F

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) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B4100(E)	646	162	1889	1074	0.602	646	903	1.6	1.6	9.053	A
A43 (S)	1871	468	732	2082	0.899	1868	1803	8.8	9.6	19.435	C
B4100 (W)	735	184	1935	1009	0.729	735	665	2.8	3.0	14.919	B
A43 (N)	2217	554	838	1956	1.134	1954	1832	76.0	141.9	205.487	F

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) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B4100(E)	528	132	1907	1064	0.496	530	814	1.6	1.1	7.281	A
A43 (S)	1527	382	636	2141	0.713	1553	1801	9.6	3.0	7.611	A
B4100 (W)	601	150	1606	1185	0.507	608	583	3.0	1.2	7.199	A
A43 (N)	1811	453	694	2043	0.886	2027	1520	141.9	87.9	204.840	F

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) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B4100(E)	528	132	1907	1064	0.496	530	814	1.6	1.1	7.281	A
A43 (S)	1527	382	636	2141	0.713	1553	1801	9.6	3.0	7.611	A
B4100 (W)	601	150	1606	1185	0.507	608	583	3.0	1.2	7.199	A
A43 (N)	1811	453	694	2043	0.886	2027	1520	141.9	87.9	204.840	F

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B4100(E)	442	110	1728	1163	0.380	444	703	1.1	0.7	5.395	A
A43 (S)	1279	320	546	2197	0.582	1285	1626	3.0	1.7	4.731	A
B4100 (W)	503	126	1331	1332	0.377	505	500	1.2	0.7	4.977	A
A43 (N)	1516	379	576	2115	0.717	1855	1259	87.9	3.1	44.361	E

2025 Baseline + Western Development, 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	71.96	F

Junction Network

Driving side	Lighting	Res Cap (%)	First arm reaching threshold	Network delay (s)	Network LOS
Left	Normal/unknown	-11	A43 (S)	71.96	F

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
D22	2025 Baseline + Western Development	PM	ONE HOUR	16:45	18:15	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	Av. Demand (PCU/hr)	Scaling Factor (%)
B4100(E)		ONE HOUR	✓	782	100.000
A43 (S)		ONE HOUR	✓	2025	100.000
B4100 (W)		ONE HOUR	✓	471	100.000
A43 (N)		ONE HOUR	✓	1653	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		B4100(E)	A43 (S)	B4100 (W)	A43 (N)
From	B4100(E)	0	164	287	331
	A43 (S)	127	0	162	1736
	B4100 (W)	254	62	18	137
	A43 (N)	262	1283	108	0

Vehicle Mix

HV %s

		To			
		B4100(E)	A43 (S)	B4100 (W)	A43 (N)
From	B4100(E)	0	10	1	4
	A43 (S)	8	0	5	7
	B4100 (W)	2	3	0	3
	A43 (N)	5	10	3	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Q (PCU)	Max LOS	Av. Demand (PCU/hr)	Total Junction Arrivals (PCU)
B4100(E)	0.70	10.29	2.4	B	718	1076
A43 (S)	1.10	159.51	112.2	F	1858	2787
B4100 (W)	0.61	11.01	1.6	B	432	648
A43 (N)	0.84	11.26	5.5	B	1517	2275

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B4100(E)	589	147	1103	1511	0.390	586	482	0.0	0.7	4.038	A
A43 (S)	1525	381	558	2190	0.696	1515	1131	0.0	2.4	5.624	A
B4100 (W)	355	89	1642	1166	0.304	353	431	0.0	0.4	4.521	A
A43 (N)	1244	311	345	2256	0.552	1239	1649	0.0	1.3	3.830	A

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) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B4100(E)	703	176	1319	1391	0.506	701	576	0.7	1.1	5.423	A
A43 (S)	1820	455	667	2122	0.858	1806	1353	2.4	5.9	11.701	B
B4100 (W)	423	106	1959	996	0.425	422	515	0.4	0.7	6.404	A
A43 (N)	1486	372	413	2214	0.671	1483	1968	1.3	2.2	5.330	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) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B4100(E)	861	215	1608	1230	0.700	856	690	1.1	2.3	9.880	A
A43 (S)	2230	557	814	2031	1.098	2009	1650	5.9	61.1	68.804	F
B4100 (W)	519	130	2210	862	0.602	516	613	0.7	1.5	10.552	B
A43 (N)	1820	455	492	2166	0.840	1807	2234	2.2	5.3	10.546	B

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) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B4100(E)	861	215	1619	1224	0.703	861	695	2.3	2.4	10.292	B
A43 (S)	2230	557	819	2028	1.099	2025	1661	61.1	112.2	159.505	F
B4100 (W)	519	130	2227	853	0.608	518	617	1.5	1.6	11.011	B
A43 (N)	1820	455	495	2165	0.841	1819	2251	5.3	5.5	11.261	B

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) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B4100(E)	703	176	1334	1383	0.508	708	599	2.4	1.1	5.596	A
A43 (S)	1820	455	674	2118	0.860	2098	1368	112.2	42.9	135.294	F
B4100 (W)	423	106	2230	851	0.497	426	542	1.6	1.0	8.695	A
A43 (N)	1486	372	433	2202	0.675	1499	2222	5.5	2.3	5.664	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) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B4100(E)	703	176	1334	1383	0.508	708	599	2.4	1.1	5.596	A
A43 (S)	1820	455	674	2118	0.860	2098	1368	112.2	42.9	135.294	F
B4100 (W)	423	106	2230	851	0.497	426	542	1.6	1.0	8.695	A
A43 (N)	1486	372	433	2202	0.675	1499	2222	5.5	2.3	5.664	A

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B4100(E)	589	147	1111	1506	0.391	590	496	1.1	0.7	4.097	A
A43 (S)	1525	381	562	2187	0.697	1686	1140	42.9	2.5	10.602	B
B4100 (W)	355	89	1801	1081	0.328	357	447	1.0	0.5	5.102	A
A43 (N)	1244	311	359	2247	0.554	1248	1799	2.3	1.4	3.932	A

2025 Baseline + Eastern Development, 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	83.30	F

Junction Network

Driving side	Lighting	Res Cap (%)	First arm reaching threshold	Network delay (s)	Network LOS
Left	Normal/unknown	-12	A43 (N)	83.30	F

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
D23	2025 Baseline + Eastern Development	AM	ONE HOUR	07:45	09:15	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	Av. Demand (PCU/hr)	Scaling Factor (%)
B4100(E)		ONE HOUR	✓	560	100.000
A43 (S)		ONE HOUR	✓	1680	100.000
B4100 (W)		ONE HOUR	✓	594	100.000
A43 (N)		ONE HOUR	✓	2006	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		B4100(E)	A43 (S)	B4100 (W)	A43 (N)
From	B4100(E)	0	103	194	263
	A43 (S)	246	0	151	1283
	B4100 (W)	285	182	14	113
	A43 (N)	336	1521	149	0

Vehicle Mix

HV %s

		To			
		B4100(E)	A43 (S)	B4100 (W)	A43 (N)
From	B4100(E)	0	21	4	8
	A43 (S)	11	0	9	17
	B4100 (W)	7	6	8	6
	A43 (N)	8	18	9	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Q (PCU)	Max LOS	Av. Demand (PCU/hr)	Total Junction Arrivals (PCU)
B4100(E)	0.57	8.27	1.4	A	514	771
A43 (S)	0.87	14.89	7.3	B	1542	2312
B4100 (W)	0.66	11.40	2.0	B	545	818
A43 (N)	1.12	182.83	126.5	F	1841	2761

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B4100(E)	422	105	1395	1349	0.313	420	649	0.0	0.5	4.204	A
A43 (S)	1265	316	464	2248	0.563	1259	1350	0.0	1.5	4.175	A
B4100 (W)	447	112	1343	1326	0.337	445	380	0.0	0.5	4.343	A
A43 (N)	1510	378	545	2134	0.708	1499	1243	0.0	2.7	6.445	A

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) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B4100(E)	503	126	1663	1200	0.420	502	775	0.5	0.8	5.602	A
A43 (S)	1510	378	555	2191	0.689	1506	1610	1.5	2.5	6.020	A
B4100 (W)	534	133	1607	1185	0.451	533	455	0.5	0.9	5.869	A
A43 (N)	1803	451	652	2069	0.872	1786	1487	2.7	7.0	13.929	B

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) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B4100(E)	617	154	1849	1096	0.562	614	909	0.8	1.4	8.075	A
A43 (S)	1850	462	662	2125	0.870	1832	1800	2.5	7.0	13.418	B
B4100 (W)	654	164	1956	998	0.655	650	539	0.9	2.0	10.874	B
A43 (N)	2209	552	794	1982	1.114	1963	1811	7.0	68.4	78.296	F

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) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B4100(E)	617	154	1861	1089	0.566	616	915	1.4	1.4	8.272	A
A43 (S)	1850	462	665	2123	0.871	1848	1812	7.0	7.3	14.886	B
B4100 (W)	654	164	1972	989	0.661	654	542	2.0	2.0	11.401	B
A43 (N)	2209	552	800	1979	1.116	1976	1825	68.4	126.5	182.828	F

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) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B4100(E)	503	126	1880	1079	0.467	505	825	1.4	1.0	6.842	A
A43 (S)	1510	378	577	2178	0.693	1529	1809	7.3	2.7	6.574	A
B4100 (W)	534	133	1629	1173	0.455	539	477	2.0	0.9	6.088	A
A43 (N)	1803	451	660	2064	0.874	2045	1507	126.5	66.0	170.795	F

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) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B4100(E)	503	126	1880	1079	0.467	505	825	1.4	1.0	6.842	A
A43 (S)	1510	378	577	2178	0.693	1529	1809	7.3	2.7	6.574	A
B4100 (W)	534	133	1629	1173	0.455	539	477	2.0	0.9	6.088	A
A43 (N)	1803	451	660	2064	0.874	2045	1507	126.5	66.0	170.795	F

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B4100(E)	422	105	1615	1226	0.344	423	696	1.0	0.6	4.884	A
A43 (S)	1265	316	487	2234	0.566	1269	1552	2.7	1.5	4.326	A
B4100 (W)	447	112	1354	1320	0.339	449	402	0.9	0.5	4.408	A
A43 (N)	1510	378	549	2131	0.709	1762	1253	66.0	2.9	22.048	C

2025 Baseline + Eastern Development, 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	67.25	F

Junction Network

Driving side	Lighting	Res Cap (%)	First arm reaching threshold	Network delay (s)	Network LOS
Left	Normal/unknown	-10	A43 (S)	67.25	F

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
D24	2025 Baseline + Eastern Development	PM	ONE HOUR	16:45	18:15	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	Av. Demand (PCU/hr)	Scaling Factor (%)
B4100(E)		ONE HOUR	✓	803	100.000
A43 (S)		ONE HOUR	✓	2016	100.000
B4100 (W)		ONE HOUR	✓	441	100.000
A43 (N)		ONE HOUR	✓	1649	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		B4100(E)	A43 (S)	B4100 (W)	A43 (N)
From	B4100(E)	0	188	272	343
	A43 (S)	139	0	141	1736
	B4100 (W)	188	119	18	116
	A43 (N)	268	1283	98	0

Vehicle Mix

HV %s

		To			
		B4100(E)	A43 (S)	B4100 (W)	A43 (N)
From	B4100(E)	0	8	1	4
	A43 (S)	8	0	6	7
	B4100 (W)	3	4	0	4
	A43 (N)	5	10	3	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Q (PCU)	Max LOS	Av. Demand (PCU/hr)	Total Junction Arrivals (PCU)
B4100(E)	0.74	11.96	2.9	B	737	1105
A43 (S)	1.09	147.49	103.3	F	1850	2775
B4100 (W)	0.58	10.77	1.4	B	405	607
A43 (N)	0.84	11.19	5.5	B	1513	2270

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B4100(E)	605	151	1138	1491	0.405	602	446	0.0	0.7	4.202	A
A43 (S)	1518	379	548	2196	0.691	1508	1192	0.0	2.3	5.529	A
B4100 (W)	332	83	1660	1156	0.287	330	396	0.0	0.4	4.498	A
A43 (N)	1241	310	347	2254	0.551	1236	1643	0.0	1.3	3.825	A

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) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B4100(E)	722	180	1361	1367	0.528	720	533	0.7	1.1	5.761	A
A43 (S)	1812	453	656	2129	0.851	1799	1426	2.3	5.7	11.238	B
B4100 (W)	396	99	1981	984	0.403	395	474	0.4	0.7	6.307	A
A43 (N)	1482	371	415	2213	0.670	1479	1961	1.3	2.2	5.310	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) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B4100(E)	884	221	1660	1201	0.736	878	638	1.1	2.8	11.334	B
A43 (S)	2220	555	799	2040	1.088	2015	1739	5.7	56.7	64.585	F
B4100 (W)	486	121	2249	841	0.577	483	565	0.7	1.4	10.318	B
A43 (N)	1816	454	495	2165	0.839	1803	2237	2.2	5.3	10.484	B

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) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B4100(E)	884	221	1671	1195	0.740	884	642	2.8	2.9	11.964	B
A43 (S)	2220	555	804	2037	1.090	2033	1750	56.7	103.3	147.490	F
B4100 (W)	486	121	2269	831	0.585	485	569	1.4	1.4	10.773	B
A43 (N)	1816	454	498	2163	0.840	1815	2256	5.3	5.5	11.187	B

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) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B4100(E)	722	180	1376	1359	0.531	729	558	2.9	1.2	5.991	A
A43 (S)	1812	453	663	2125	0.853	2103	1441	103.3	30.7	117.583	F
B4100 (W)	396	99	2267	831	0.477	398	499	1.4	1.0	8.631	A
A43 (N)	1482	371	439	2199	0.674	1495	2227	5.5	2.3	5.659	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) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B4100(E)											
A43 (S)											
B4100 (W)											
A43 (N)											

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B4100(E)	605	151	1147	1487	0.407	606	457	1.2	0.7	4.258	A
A43 (S)	1518	379	552	2193	0.692	1631	1201	30.7	2.5	8.334	A
B4100 (W)	332	83	1776	1094	0.303	334	407	1.0	0.5	4.910	A
A43 (N)	1241	310	359	2247	0.552	1245	1751	2.3	1.4	3.921	A

2025 Baseline + Both Developments, 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	106.86	F

Junction Network

Driving side	Lighting	Res Cap (%)	First arm reaching threshold	Network delay (s)	Network LOS
Left	Normal/unknown	-14	A43 (N)	106.86	F

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
D25	2025 Baseline + Both Developments	AM	ONE HOUR	07:45	09:15	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	Av. Demand (PCU/hr)	Scaling Factor (%)
B4100(E)		ONE HOUR	✓	617	100.000
A43 (S)		ONE HOUR	✓	1722	100.000
B4100 (W)		ONE HOUR	✓	673	100.000
A43 (N)		ONE HOUR	✓	2026	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		B4100(E)	A43 (S)	B4100 (W)	A43 (N)
From	B4100(E)	0	103	251	263
	A43 (S)	246	0	193	1283
	B4100 (W)	317	213	14	129
	A43 (N)	336	1521	169	0

Vehicle Mix

HV %s

		To			
		B4100(E)	A43 (S)	B4100 (W)	A43 (N)
From	B4100(E)	0	21	3	8
	A43 (S)	11	0	15	17
	B4100 (W)	6	13	8	12
	A43 (N)	8	18	12	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Q (PCU)	Max LOS	Av. Demand (PCU/hr)	Total Junction Arrivals (PCU)
B4100(E)	0.62	9.49	1.8	A	566	849
A43 (S)	0.91	21.75	10.8	C	1580	2370
B4100 (W)	0.75	15.62	3.1	C	618	926
A43 (N)	1.15	239.17	157.5	F	1859	2789

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B4100(E)	465	116	1432	1328	0.350	462	673	0.0	0.6	4.472	A
A43 (S)	1296	324	522	2212	0.586	1290	1373	0.0	1.6	4.492	A
B4100 (W)	507	127	1342	1326	0.382	504	469	0.0	0.7	4.771	A
A43 (N)	1525	381	592	2106	0.724	1513	1255	0.0	3.0	6.905	A

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) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B4100(E)	555	139	1705	1176	0.471	553	803	0.6	0.9	6.211	A
A43 (S)	1548	387	623	2149	0.720	1543	1634	1.6	2.9	6.822	A
B4100 (W)	605	151	1606	1185	0.510	603	561	0.7	1.1	6.761	A
A43 (N)	1821	455	708	2035	0.895	1800	1501	3.0	8.4	16.366	C

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) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B4100(E)	679	170	1857	1092	0.622	676	932	0.9	1.7	9.267	A
A43 (S)	1896	474	740	2077	0.913	1868	1793	2.9	9.8	17.998	C
B4100 (W)	741	185	1947	1003	0.739	734	661	1.1	2.9	14.278	B
A43 (N)	2231	558	860	1942	1.149	1929	1821	8.4	83.8	94.786	F

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) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B4100(E)	679	170	1864	1088	0.625	679	940	1.7	1.8	9.493	A
A43 (S)	1896	474	743	2075	0.914	1892	1801	9.8	10.8	21.748	C
B4100 (W)	741	185	1969	991	0.748	740	665	2.9	3.1	15.622	C
A43 (N)	2231	558	869	1937	1.152	1936	1841	83.8	157.5	228.379	F

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) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B4100(E)	555	139	1885	1076	0.515	557	848	1.8	1.2	7.511	A
A43 (S)	1548	387	645	2136	0.725	1579	1798	10.8	3.1	7.876	A
B4100 (W)	605	151	1639	1167	0.518	613	584	3.1	1.2	7.189	A
A43 (N)	1821	455	721	2027	0.899	2012	1531	157.5	109.8	239.170	F

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) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B4100(E)											
A43 (S)											
B4100 (W)											
A43 (N)											

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B4100(E)	465	116	1799	1124	0.413	466	749	1.2	0.8	5.913	A
A43 (S)	1296	324	562	2187	0.593	1302	1704	3.1	1.7	4.741	A
B4100 (W)	507	127	1355	1319	0.384	509	509	1.2	0.7	4.865	A
A43 (N)	1525	381	597	2102	0.726	1951	1266	109.8	3.4	77.969	F

2025 Baseline + Both Developments, 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	79.23	F

Junction Network

Driving side	Lighting	Res Cap (%)	First arm reaching threshold	Network delay (s)	Network LOS
Left	Normal/unknown	-11	A43 (S)	79.23	F

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
D26	2025 Baseline + Both Developments	PM	ONE HOUR	16:45	18:15	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	Av. Demand (PCU/hr)	Scaling Factor (%)
B4100(E)		ONE HOUR	✓	824	100.000
A43 (S)		ONE HOUR	✓	2037	100.000
B4100 (W)		ONE HOUR	✓	573	100.000
A43 (N)		ONE HOUR	✓	1659	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		B4100(E)	A43 (S)	B4100 (W)	A43 (N)
From	B4100(E)	0	188	293	343
	A43 (S)	139	0	162	1736
	B4100 (W)	256	162	18	137
	A43 (N)	268	1283	108	0

Vehicle Mix

HV %s

		To			
		B4100(E)	A43 (S)	B4100 (W)	A43 (N)
From	B4100(E)	0	8	1	4
	A43 (S)	8	0	12	7
	B4100 (W)	3	10	0	7
	A43 (N)	5	10	8	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Q (PCU)	Max LOS	Av. Demand (PCU/hr)	Total Junction Arrivals (PCU)
B4100(E)	0.78	14.45	3.5	B	756	1134
A43 (S)	1.11	175.53	124.0	F	1869	2804
B4100 (W)	0.74	17.16	2.9	C	526	789
A43 (N)	0.87	14.59	7.1	B	1522	2283

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B4100(E)	620	155	1177	1470	0.422	617	496	0.0	0.8	4.369	A
A43 (S)	1534	383	571	2182	0.703	1524	1224	0.0	2.5	5.794	A
B4100 (W)	431	108	1659	1156	0.373	429	435	0.0	0.6	5.214	A
A43 (N)	1249	312	430	2204	0.567	1243	1658	0.0	1.4	4.064	A

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) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B4100(E)	741	185	1408	1341	0.552	739	593	0.8	1.3	6.180	A
A43 (S)	1831	458	683	2112	0.867	1816	1464	2.5	6.4	12.445	B
B4100 (W)	515	129	1979	986	0.523	513	520	0.6	1.1	8.022	A
A43 (N)	1491	373	514	2153	0.693	1487	1978	1.4	2.4	5.865	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) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B4100(E)	907	227	1713	1172	0.774	899	708	1.3	3.3	13.313	B
A43 (S)	2243	561	831	2020	1.110	2001	1781	6.4	66.8	74.379	F
B4100 (W)	631	158	2216	859	0.735	624	616	1.1	2.8	15.839	C
A43 (N)	1827	457	612	2093	0.873	1809	2229	2.4	6.7	13.097	B

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) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B4100(E)	907	227	1728	1163	0.780	907	714	3.3	3.5	14.454	B
A43 (S)	2243	561	838	2016	1.113	2014	1796	66.8	124.0	175.526	F
B4100 (W)	631	158	2231	851	0.742	630	621	2.8	2.9	17.164	C
A43 (N)	1827	457	617	2090	0.874	1825	2244	6.7	7.1	14.592	B

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) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B4100(E)	741	185	1429	1330	0.557	750	619	3.5	1.3	6.537	A
A43 (S)	1831	458	693	2106	0.870	2088	1485	124.0	59.9	160.053	F
B4100 (W)	515	129	2234	849	0.607	520	547	2.9	1.7	11.735	B
A43 (N)	1491	373	538	2138	0.698	1510	2216	7.1	2.6	6.416	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) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B4100(E)	741	185	1429	1330	0.557	750	619	3.5	1.3	6.537	A
A43 (S)	1831	458	693	2106	0.870	2088	1485	124.0	59.9	160.053	F
B4100 (W)	515	129	2234	849	0.607	520	547	2.9	1.7	11.735	B
A43 (N)	1491	373	538	2138	0.698	1510	2216	7.1	2.6	6.416	A

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B4100(E)	620	155	1188	1464	0.424	623	517	1.3	0.8	4.454	A
A43 (S)	1534	383	576	2179	0.704	1762	1234	59.9	2.6	16.339	C
B4100 (W)	431	108	1881	1038	0.416	435	457	1.7	0.8	6.356	A
A43 (N)	1249	312	451	2191	0.570	1253	1865	2.6	1.5	4.205	A

2025 Baseline + Committed + Western Development, 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	210.89	F

Junction Network

Driving side	Lighting	Res Cap (%)	First arm reaching threshold	Network delay (s)	Network LOS
Left	Normal/unknown	-20	A43 (N)	210.89	F

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
D27	2025 Baseline + Committed + Western Development	AM	ONE HOUR	07:45	09:15	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	Av. Demand (PCU/hr)	Scaling Factor (%)
B4100(E)		ONE HOUR	✓	587	100.000
A43 (S)		ONE HOUR	✓	1854	100.000
B4100 (W)		ONE HOUR	✓	668	100.000
A43 (N)		ONE HOUR	✓	2227	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		B4100(E)	A43 (S)	B4100 (W)	A43 (N)
From	B4100(E)	0	85	248	254
	A43 (S)	223	0	193	1438
	B4100 (W)	312	213	14	129
	A43 (N)	324	1734	169	0

Vehicle Mix

HV %s

		To			
		B4100(E)	A43 (S)	B4100 (W)	A43 (N)
From	B4100(E)	0	15	3	7
	A43 (S)	8	0	15	17

	B4100 (W)	6	13	8	12
	A43 (N)	7	18	13	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Q (PCU)	Max LOS	Av. Demand (PCU/hr)	Total Junction Arrivals (PCU)
B4100(E)	0.61	9.34	1.7	A	539	808
A43 (S)	0.98	43.58	23.7	E	1701	2552
B4100 (W)	0.79	20.16	3.9	C	613	919
A43 (N)	1.25	460.52	265.3	F	2044	3065

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B4100(E)	442	110	1588	1241	0.356	440	642	0.0	0.6	4.762	A
A43 (S)	1396	349	512	2218	0.629	1388	1515	0.0	1.9	4.971	A
B4100 (W)	503	126	1434	1277	0.394	500	467	0.0	0.7	5.046	A
A43 (N)	1677	419	570	2118	0.791	1660	1363	0.0	4.2	8.801	A

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) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B4100(E)	528	132	1865	1087	0.485	526	762	0.6	1.0	6.799	A
A43 (S)	1667	417	610	2157	0.773	1659	1781	1.9	3.8	8.234	A
B4100 (W)	601	150	1714	1127	0.533	598	555	0.7	1.2	7.414	A
A43 (N)	2002	501	682	2050	0.976	1944	1630	4.2	18.7	29.666	D

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) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B4100(E)	646	162	1922	1056	0.612	644	863	1.0	1.6	9.232	A
A43 (S)	2041	510	714	2093	0.975	1982	1851	3.8	18.5	28.661	D
B4100 (W)	735	184	2055	945	0.778	726	642	1.2	3.5	17.309	C
A43 (N)	2452	613	824	1964	1.249	1960	1956	18.7	141.6	154.464	F

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) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B4100(E)	646	162	1922	1056	0.612	646	871	1.6	1.7	9.345	A
A43 (S)	2041	510	717	2091	0.976	2020	1851	18.5	23.7	43.581	E
B4100 (W)	735	184	2090	926	0.794	734	647	3.5	3.9	20.159	C
A43 (N)	2452	613	835	1957	1.253	1957	1988	141.6	265.3	374.557	F

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) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B4100(E)	528	132	1941	1045	0.505	530	790	1.7	1.1	7.465	A
A43 (S)	1667	417	620	2151	0.775	1745	1851	23.7	4.2	12.121	B
B4100 (W)	601	150	1793	1085	0.553	611	572	3.9	1.4	8.468	A

A43 (N)	2002	501	703	2038	0.982	2029	1701	265.3	258.6	460.516	F
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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) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B4100(E)	442	110	1971	1029	0.430	443	711	1.1	0.8	6.553	A
A43 (S)	1396	349	549	2195	0.636	1404	1864	4.2	2.1	5.317	A
B4100 (W)	503	126	1450	1269	0.396	506	504	1.4	0.7	5.174	A
A43 (N)	1677	419	577	2115	0.793	2105	1379	258.6	151.4	351.484	F

2025 Baseline + Committed + Western Development , 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	162.73	F

Junction Network

Driving side	Lighting	Res Cap (%)	First arm reaching threshold	Network delay (s)	Network LOS
Left	Normal/unknown	-17	A43 (S)	162.73	F

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
D28	2025 Baseline + Committed + Western Development	PM	ONE HOUR	16:45	18:15	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	Av. Demand (PCU/hr)	Scaling Factor (%)
B4100(E)		ONE HOUR	✓	782	100.000
A43 (S)		ONE HOUR	✓	2229	100.000
B4100 (W)		ONE HOUR	✓	571	100.000
A43 (N)		ONE HOUR	✓	1771	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		B4100(E)	A43 (S)	B4100 (W)	A43 (N)
From	B4100(E)	0	164	287	331
	A43 (S)	127	0	162	1940
	B4100 (W)	254	162	18	137
	A43 (N)	262	1401	108	0

Vehicle Mix

HV %s

		To			
		B4100(E)	A43 (S)	B4100 (W)	A43 (N)
From	B4100(E)	0	6	1	3
	A43 (S)	3	0	13	7

	B4100 (W)	2	10	0	8
	A43 (N)	4	10	9	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Q (PCU)	Max LOS	Av. Demand (PCU/hr)	Total Junction Arrivals (PCU)
B4100(E)	0.79	15.77	3.6	C	718	1076
A43 (S)	1.21	362.43	225.8	F	2045	3068
B4100 (W)	0.75	17.57	3.0	C	524	786
A43 (N)	0.93	23.08	11.8	C	1625	2438

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B4100(E)	589	147	1265	1421	0.414	586	481	0.0	0.7	4.420	A
A43 (S)	1678	420	557	2190	0.766	1665	1294	0.0	3.4	7.166	A
B4100 (W)	430	107	1792	1086	0.396	427	430	0.0	0.7	5.745	A
A43 (N)	1333	333	419	2210	0.603	1327	1799	0.0	1.6	4.409	A

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) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B4100(E)	703	176	1513	1283	0.548	701	574	0.7	1.2	6.342	A
A43 (S)	2004	501	667	2122	0.944	1967	1547	3.4	12.6	21.149	C
B4100 (W)	513	128	2121	910	0.564	511	513	0.7	1.3	9.462	A
A43 (N)	1592	398	500	2161	0.737	1587	2131	1.6	3.0	6.768	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) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B4100(E)	861	215	1832	1106	0.779	852	676	1.2	3.4	14.167	B
A43 (S)	2454	614	810	2033	1.207	2027	1874	12.6	119.2	124.198	F
B4100 (W)	629	157	2241	845	0.744	623	597	1.3	2.9	16.605	C
A43 (N)	1950	487	589	2107	0.925	1920	2275	3.0	10.5	18.532	C

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) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B4100(E)	861	215	1855	1093	0.788	860	683	3.4	3.6	15.775	C
A43 (S)	2454	614	818	2029	1.210	2028	1897	119.2	225.8	307.606	F
B4100 (W)	629	157	2245	843	0.745	628	601	2.9	3.0	17.565	C
A43 (N)	1950	487	593	2105	0.926	1945	2280	10.5	11.8	23.081	C

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) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B4100(E)	703	176	1549	1263	0.557	712	591	3.6	1.3	6.837	A
A43 (S)	2004	501	678	2115	0.947	2105	1583	225.8	200.5	362.434	F
B4100 (W)	513	128	2254	839	0.612	518	530	3.0	1.7	12.040	B

A43 (N)	1592	398	514	2153	0.740	1626	2258	11.8	3.2	7.913	A
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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) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B4100(E)	589	147	1277	1414	0.416	591	514	1.3	0.7	4.513	A
A43 (S)	1678	420	562	2187	0.767	2175	1306	200.5	76.1	230.466	F
B4100 (W)	430	107	2267	831	0.517	432	470	1.7	1.2	9.572	A
A43 (N)	1333	333	452	2190	0.609	1339	2247	3.2	1.7	4.643	A

2025 Baseline + Committed + Eastern Development, 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	192.51	F

Junction Network

Driving side	Lighting	Res Cap (%)	First arm reaching threshold	Network delay (s)	Network LOS
Left	Normal/unknown	-19	A43 (N)	192.51	F

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
D29	2025 Baseline + Committed + Eastern Development	AM	ONE HOUR	07:45	09:15	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	Av. Demand (PCU/hr)	Scaling Factor (%)
B4100(E)		ONE HOUR	✓	560	100.000
A43 (S)		ONE HOUR	✓	1835	100.000
B4100 (W)		ONE HOUR	✓	594	100.000
A43 (N)		ONE HOUR	✓	2219	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		B4100(E)	A43 (S)	B4100 (W)	A43 (N)
From	B4100(E)	0	103	194	263
	A43 (S)	246	0	151	1438
	B4100 (W)	285	182	14	113
	A43 (N)	336	1734	149	0

Vehicle Mix

HV %s

		To			
		B4100(E)	A43 (S)	B4100 (W)	A43 (N)
From	B4100(E)	0	22	4	8
	A43 (S)	11	0	20	17

	B4100 (W)	7	16	8	14
	A43 (N)	9	18	15	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Q (PCU)	Max LOS	Av. Demand (PCU/hr)	Total Junction Arrivals (PCU)
B4100(E)	0.58	8.63	1.5	A	514	771
A43 (S)	0.95	30.62	16.1	D	1684	2526
B4100 (W)	0.73	15.96	2.8	C	545	818
A43 (N)	1.23	420.06	248.0	F	2036	3054

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B4100(E)	422	105	1551	1262	0.334	419	648	0.0	0.5	4.638	A
A43 (S)	1381	345	464	2248	0.615	1374	1506	0.0	1.8	4.758	A
B4100 (W)	447	112	1458	1264	0.354	445	380	0.0	0.6	4.861	A
A43 (N)	1671	418	544	2134	0.783	1655	1358	0.0	4.0	8.468	A

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) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B4100(E)	503	126	1826	1109	0.454	502	770	0.5	0.9	6.445	A
A43 (S)	1650	412	553	2193	0.752	1643	1776	1.8	3.4	7.536	A
B4100 (W)	534	133	1744	1111	0.481	532	452	0.6	1.0	6.880	A
A43 (N)	1995	499	651	2069	0.964	1945	1625	4.0	16.4	26.807	D

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) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B4100(E)	617	154	1894	1071	0.576	614	876	0.9	1.4	8.539	A
A43 (S)	2020	505	650	2133	0.947	1979	1859	3.4	13.8	22.788	C
B4100 (W)	654	164	2105	918	0.712	648	524	1.0	2.6	14.433	B
A43 (N)	2443	611	790	1985	1.231	1980	1963	16.4	132.1	142.409	F

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) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B4100(E)	617	154	1895	1071	0.576	617	883	1.4	1.5	8.627	A
A43 (S)	2020	505	651	2132	0.948	2011	1860	13.8	16.1	30.619	D
B4100 (W)	654	164	2135	902	0.725	653	527	2.6	2.8	15.962	C
A43 (N)	2443	611	799	1980	1.234	1979	1990	132.1	248.0	346.691	F

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) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B4100(E)	503	126	1919	1057	0.476	505	798	1.5	1.0	7.119	A
A43 (S)	1650	412	563	2187	0.754	1699	1861	16.1	3.7	9.424	A
B4100 (W)	534	133	1797	1083	0.493	541	465	2.8	1.1	7.459	A

A43 (N)	1995	499	666	2060	0.968	2051	1672	248.0	234.0	420.062	F
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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) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B4100(E)	422	105	1948	1041	0.405	423	723	1.0	0.7	6.342	A
A43 (S)	1381	345	498	2227	0.620	1389	1872	3.7	1.9	5.038	A
B4100 (W)	447	112	1473	1256	0.356	449	414	1.1	0.6	4.961	A
A43 (N)	1671	418	550	2131	0.784	2120	1372	234.0	121.6	303.038	F

2025 Baseline + Committed + Eastern Development , 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	153.88	F

Junction Network

Driving side	Lighting	Res Cap (%)	First arm reaching threshold	Network delay (s)	Network LOS
Left	Normal/unknown	-17	A43 (S)	153.88	F

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
D30	2025 Baseline + Committed + Eastern Development	PM	ONE HOUR	16:45	18:15	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	Av. Demand (PCU/hr)	Scaling Factor (%)
B4100(E)		ONE HOUR	✓	803	100.000
A43 (S)		ONE HOUR	✓	2220	100.000
B4100 (W)		ONE HOUR	✓	441	100.000
A43 (N)		ONE HOUR	✓	1767	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		B4100(E)	A43 (S)	B4100 (W)	A43 (N)
From	B4100(E)	0	188	272	343
	A43 (S)	139	0	141	1940
	B4100 (W)	188	119	18	116
	A43 (N)	268	1401	98	0

Vehicle Mix

HV %s

		To			
		B4100(E)	A43 (S)	B4100 (W)	A43 (N)
From	B4100(E)	0	9	1	4
	A43 (S)	8	0	6	7

	B4100 (W)	3	4	0	4
	A43 (N)	5	10	3	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Q (PCU)	Max LOS	Av. Demand (PCU/hr)	Total Junction Arrivals (PCU)
B4100(E)	0.79	15.46	3.7	C	737	1105
A43 (S)	1.20	341.39	215.9	F	2037	3056
B4100 (W)	0.59	11.05	1.5	B	405	607
A43 (N)	0.90	16.84	8.7	C	1621	2432

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B4100(E)	605	151	1226	1443	0.419	602	445	0.0	0.7	4.440	A
A43 (S)	1671	418	548	2196	0.761	1658	1280	0.0	3.3	6.997	A
B4100 (W)	332	83	1810	1076	0.309	330	396	0.0	0.5	4.979	A
A43 (N)	1330	333	347	2254	0.590	1324	1793	0.0	1.5	4.183	A

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) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B4100(E)	722	180	1466	1309	0.552	720	531	0.7	1.3	6.340	A
A43 (S)	1996	499	655	2129	0.937	1962	1531	3.3	11.7	19.946	C
B4100 (W)	396	99	2145	897	0.442	395	472	0.5	0.8	7.400	A
A43 (N)	1588	397	414	2214	0.718	1584	2126	1.5	2.7	6.174	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) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B4100(E)	884	221	1782	1133	0.780	875	625	1.3	3.4	14.073	B
A43 (S)	2444	611	797	2042	1.197	2035	1861	11.7	114.0	118.422	F
B4100 (W)	486	121	2280	825	0.589	483	552	0.8	1.4	10.818	B
A43 (N)	1946	486	483	2171	0.896	1924	2279	2.7	8.1	14.696	B

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) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B4100(E)	884	221	1799	1124	0.787	883	629	3.4	3.7	15.457	C
A43 (S)	2444	611	804	2037	1.200	2037	1878	114.0	215.9	293.301	F
B4100 (W)	486	121	2285	822	0.591	485	556	1.4	1.5	11.049	B
A43 (N)	1946	486	485	2170	0.896	1943	2285	8.1	8.7	16.841	C

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) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B4100(E)	722	180	1491	1295	0.557	731	547	3.7	1.3	6.751	A
A43 (S)	1996	499	666	2123	0.940	2112	1557	215.9	186.7	341.388	F
B4100 (W)	396	99	2291	819	0.484	398	488	1.5	1.0	8.897	A

A43 (N)	1588	397	426	2206	0.720	1612	2263	8.7	2.9	6.832	A
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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) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B4100(E)	605	151	1236	1437	0.421	607	481	1.3	0.8	4.527	A
A43 (S)	1671	418	552	2193	0.762	2181	1291	186.7	59.3	204.967	F
B4100 (W)	332	83	2301	813	0.408	333	432	1.0	0.7	7.774	A
A43 (N)	1330	333	382	2233	0.596	1335	2252	2.9	1.6	4.387	A

2025 Baseline + Committed + Both Developments, 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	230.04	F

Junction Network

Driving side	Lighting	Res Cap (%)	First arm reaching threshold	Network delay (s)	Network LOS
Left	Normal/unknown	-21	A43 (N)	230.04	F

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
D31	2025 Baseline + Committed + Both Developments	AM	ONE HOUR	07:45	09:15	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	Av. Demand (PCU/hr)	Scaling Factor (%)
B4100(E)		ONE HOUR	✓	617	100.000
A43 (S)		ONE HOUR	✓	1877	100.000
B4100 (W)		ONE HOUR	✓	673	100.000
A43 (N)		ONE HOUR	✓	2239	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		B4100(E)	A43 (S)	B4100 (W)	A43 (N)
From	B4100(E)	0	103	251	263
	A43 (S)	246	0	193	1438
	B4100 (W)	317	213	14	129
	A43 (N)	336	1734	169	0

Vehicle Mix

HV %s

		To			
		B4100(E)	A43 (S)	B4100 (W)	A43 (N)
From	B4100(E)	0	22	3	8
	A43 (S)	11	0	15	17

	B4100 (W)	6	13	8	12
	A43 (N)	9	18	13	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Q (PCU)	Max LOS	Av. Demand (PCU/hr)	Total Junction Arrivals (PCU)
B4100(E)	0.64	9.96	1.9	A	566	849
A43 (S)	0.99	53.08	30.1	F	1722	2584
B4100 (W)	0.81	22.19	4.3	C	618	926
A43 (N)	1.27	501.51	283.2	F	2055	3082

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B4100(E)	465	116	1588	1242	0.374	462	672	0.0	0.6	4.969	A
A43 (S)	1413	353	521	2213	0.639	1405	1528	0.0	2.0	5.122	A
B4100 (W)	507	127	1457	1265	0.401	504	469	0.0	0.7	5.153	A
A43 (N)	1686	421	591	2106	0.801	1668	1370	0.0	4.4	9.214	A

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) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B4100(E)	555	139	1856	1092	0.508	553	796	0.6	1.1	7.180	A
A43 (S)	1687	422	620	2151	0.784	1679	1789	2.0	4.0	8.695	A
B4100 (W)	605	151	1742	1112	0.544	603	557	0.7	1.3	7.692	A
A43 (N)	2013	503	707	2035	0.989	1945	1638	4.4	21.5	33.024	D

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) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B4100(E)	679	170	1899	1068	0.636	676	897	1.1	1.8	9.834	A
A43 (S)	2067	517	725	2086	0.991	1995	1850	4.0	22.0	32.513	D
B4100 (W)	741	185	2078	933	0.795	731	642	1.3	3.8	18.630	C
A43 (N)	2465	616	852	1947	1.266	1944	1957	21.5	151.7	167.474	F

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) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B4100(E)	679	170	1898	1069	0.635	679	906	1.8	1.9	9.961	A
A43 (S)	2067	517	728	2085	0.991	2034	1849	22.0	30.1	53.078	F
B4100 (W)	741	185	2115	913	0.812	739	647	3.8	4.3	22.186	C
A43 (N)	2465	616	864	1940	1.271	1940	1990	151.7	283.1	403.129	F

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) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B4100(E)	555	139	1919	1058	0.524	557	827	1.9	1.2	7.806	A
A43 (S)	1687	422	629	2146	0.786	1790	1847	30.1	4.5	14.921	B
B4100 (W)	605	151	1843	1058	0.572	616	575	4.3	1.5	9.128	A

A43 (N)	2013	503	733	2020	0.997	2013	1727	283.1	283.2	501.514	F
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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) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B4100(E)	465	116	1951	1040	0.447	466	741	1.2	0.9	6.786	A
A43 (S)	1413	353	557	2191	0.645	1423	1860	4.5	2.1	5.502	A
B4100 (W)	507	127	1475	1255	0.404	510	504	1.5	0.7	5.300	A
A43 (N)	1686	421	598	2101	0.802	2093	1386	283.2	181.4	400.305	F

2025 Baseline + Committed + Both Developments, 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	175.06	F

Junction Network

Driving side	Lighting	Res Cap (%)	First arm reaching threshold	Network delay (s)	Network LOS
Left	Normal/unknown	-18	A43 (S)	175.06	F

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
D32	2025 Baseline + Committed + Both Developments	PM	ONE HOUR	16:45	18:15	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	Av. Demand (PCU/hr)	Scaling Factor (%)
B4100(E)		ONE HOUR	✓	824	100.000
A43 (S)		ONE HOUR	✓	2241	100.000
B4100 (W)		ONE HOUR	✓	573	100.000
A43 (N)		ONE HOUR	✓	1777	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		B4100(E)	A43 (S)	B4100 (W)	A43 (N)
From	B4100(E)	0	188	293	343
	A43 (S)	139	0	162	1940
	B4100 (W)	256	162	18	137
	A43 (N)	268	1401	108	0

Vehicle Mix

HV %s

		To			
		B4100(E)	A43 (S)	B4100 (W)	A43 (N)
From	B4100(E)	0	9	1	4
	A43 (S)	8	0	13	7

	B4100 (W)	3	10	0	8
	A43 (N)	5	10	9	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Q (PCU)	Max LOS	Av. Demand (PCU/hr)	Total Junction Arrivals (PCU)
B4100(E)	0.83	19.60	4.7	C	756	1134
A43 (S)	1.22	391.55	239.2	F	2056	3085
B4100 (W)	0.75	17.94	3.0	C	526	789
A43 (N)	0.93	24.78	12.6	C	1631	2446

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B4100(E)	620	155	1265	1421	0.437	617	496	0.0	0.8	4.639	A
A43 (S)	1687	422	571	2182	0.773	1673	1311	0.0	3.5	7.411	A
B4100 (W)	431	108	1809	1076	0.401	429	435	0.0	0.7	5.865	A
A43 (N)	1338	334	430	2204	0.607	1331	1808	0.0	1.7	4.469	A

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) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B4100(E)	741	185	1513	1283	0.577	738	591	0.8	1.4	6.843	A
A43 (S)	2015	504	683	2112	0.954	1973	1568	3.5	13.9	22.947	C
B4100 (W)	515	129	2138	901	0.572	512	518	0.7	1.4	9.761	A
A43 (N)	1597	399	512	2154	0.742	1592	2138	1.7	3.0	6.924	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) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B4100(E)	907	227	1830	1107	0.820	896	694	1.4	4.3	16.900	C
A43 (S)	2467	617	828	2022	1.220	2017	1898	13.9	126.4	132.271	F
B4100 (W)	631	158	2244	843	0.748	625	601	1.4	2.9	16.968	C
A43 (N)	1957	489	600	2100	0.932	1924	2269	3.0	11.2	19.497	C

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) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B4100(E)	907	227	1854	1093	0.830	906	701	4.3	4.7	19.605	C
A43 (S)	2467	617	837	2017	1.224	2016	1923	126.4	239.2	327.293	F
B4100 (W)	631	158	2247	842	0.749	630	606	2.9	3.0	17.942	C
A43 (N)	1957	489	605	2098	0.933	1951	2273	11.2	12.6	24.785	C

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) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B4100(E)	741	185	1552	1261	0.587	754	609	4.7	1.5	7.553	A
A43 (S)	2015	504	697	2103	0.958	2094	1608	239.2	219.4	391.547	F
B4100 (W)	515	129	2256	837	0.615	520	535	3.0	1.7	12.229	B

A43 (N)	1597	399	526	2146	0.745	1635	2251	12.6	3.3	8.231	A
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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) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B4100(E)	620	155	1277	1414	0.439	623	531	1.5	0.8	4.751	A
A43 (S)	1687	422	576	2178	0.774	2168	1324	219.4	99.2	265.837	F
B4100 (W)	431	108	2270	830	0.520	434	474	1.7	1.2	9.693	A
A43 (N)	1338	334	464	2183	0.613	1344	2240	3.3	1.8	4.718	A

2031 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	257.44	F

Junction Network

Driving side	Lighting	Res Cap (%)	First arm reaching threshold	Network delay (s)	Network LOS
Left	Normal/unknown	-22	A43 (N)	257.44	F

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
D33	2031 Baseline	AM	ONE HOUR	07:45	09:15	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	Av. Demand (PCU/hr)	Scaling Factor (%)
B4100(E)		ONE HOUR	✓	605	100.000
A43 (S)		ONE HOUR	✓	1891	100.000
B4100 (W)		ONE HOUR	✓	672	100.000
A43 (N)		ONE HOUR	✓	2276	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		B4100(E)	A43 (S)	B4100 (W)	A43 (N)
From	B4100(E)	0	97	218	290
	A43 (S)	255	0	172	1464
	B4100 (W)	320	207	16	129
	A43 (N)	370	1736	170	0

Vehicle Mix

HV %s

		To			
		B4100(E)	A43 (S)	B4100 (W)	A43 (N)
From	B4100(E)	0	15	4	7
	A43 (S)	8	0	9	17
	B4100 (W)	6	6	8	6
	A43 (N)	7	18	9	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Q (PCU)	Max LOS	Av. Demand (PCU/hr)	Total Junction Arrivals (PCU)
B4100(E)	0.61	9.15	1.7	A	555	833
A43 (S)	1.00	56.61	32.7	F	1735	2603
B4100 (W)	0.84	26.04	5.1	D	617	925
A43 (N)	1.29	558.63	318.8	F	2088	3133

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B4100(E)	455	114	1586	1242	0.367	453	706	0.0	0.6	4.869	A
A43 (S)	1424	356	519	2214	0.643	1415	1520	0.0	2.0	5.133	A
B4100 (W)	506	126	1504	1240	0.408	503	431	0.0	0.7	5.163	A
A43 (N)	1713	428	597	2102	0.815	1694	1410	0.0	4.8	9.772	A

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) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B4100(E)	544	136	1841	1101	0.494	542	833	0.6	1.0	6.883	A
A43 (S)	1700	425	616	2154	0.789	1692	1767	2.0	4.1	8.797	A
B4100 (W)	604	151	1798	1083	0.558	602	510	0.7	1.3	7.902	A
A43 (N)	2046	512	714	2031	1.007	1960	1685	4.8	26.3	38.138	E

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) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B4100(E)	666	167	1867	1086	0.613	664	932	1.0	1.7	9.068	A
A43 (S)	2082	521	720	2090	0.996	2005	1811	4.1	23.4	33.809	D
B4100 (W)	740	185	2141	899	0.823	728	584	1.3	4.4	20.973	C
A43 (N)	2506	626	858	1943	1.290	1941	2010	26.3	167.5	186.509	F

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) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B4100(E)	666	167	1865	1087	0.613	666	941	1.7	1.7	9.149	A
A43 (S)	2082	521	721	2088	0.997	2045	1810	23.4	32.7	56.608	F
B4100 (W)	740	185	2178	879	0.842	737	588	4.4	5.1	26.043	D
A43 (N)	2506	626	871	1935	1.295	1935	2044	167.5	310.2	442.966	F

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) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B4100(E)	544	136	1890	1073	0.507	546	866	1.7	1.1	7.342	A
A43 (S)	1700	425	624	2149	0.791	1812	1812	32.7	4.6	16.176	C
B4100 (W)	604	151	1909	1023	0.591	618	527	5.1	1.6	9.740	A
A43 (N)	2046	512	744	2013	1.016	2012	1783	310.2	318.8	558.630	F

09:00 - 09:15

	Total	Junction						Start			

Arm	Demand (PCU/hr)	Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B4100(E)	455	114	1919	1057	0.431	457	776	1.1	0.8	6.431	A
A43 (S)	1424	356	552	2194	0.649	1433	1824	4.6	2.2	5.512	A
B4100 (W)	506	126	1522	1230	0.411	509	463	1.6	0.7	5.319	A
A43 (N)	1713	428	605	2098	0.817	2090	1426	318.8	224.6	468.570	F

2031 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	233.60	F

Junction Network

Driving side	Lighting	Res Cap (%)	First arm reaching threshold	Network delay (s)	Network LOS
Left	Normal/unknown	-21	A43 (S)	233.60	F

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
D34	2031 Baseline	PM	ONE HOUR	16:45	18:15	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	Av. Demand (PCU/hr)	Scaling Factor (%)
B4100(E)		ONE HOUR	✓	876	100.000
A43 (S)		ONE HOUR	✓	2302	100.000
B4100 (W)		ONE HOUR	✓	505	100.000
A43 (N)		ONE HOUR	✓	1886	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		B4100(E)	A43 (S)	B4100 (W)	A43 (N)
From	B4100(E)	0	189	306	381
	A43 (S)	146	0	162	1994
	B4100 (W)	214	137	21	133
	A43 (N)	301	1473	112	0

Vehicle Mix

HV %s

		To			
		B4100(E)	A43 (S)	B4100 (W)	A43 (N)
From	B4100(E)	0	6	1	3
	A43 (S)	3	0	6	7
	B4100 (W)	3	4	0	4
	A43 (N)	4	10	3	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Q (PCU)	Max LOS	Av. Demand (PCU/hr)	Total Junction Arrivals (PCU)
B4100(E)	0.91	32.22	8.1	D	804	1206
A43 (S)	1.28	518.63	300.3	F	2112	3169
B4100 (W)	0.66	13.23	2.0	B	463	695
A43 (N)	0.97	38.24	21.0	E	1731	2596

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B4100(E)	659	165	1305	1398	0.472	656	494	0.0	0.9	4.966	A
A43 (S)	1733	433	614	2155	0.804	1716	1347	0.0	4.2	8.460	A
B4100 (W)	380	95	1881	1038	0.366	378	449	0.0	0.6	5.618	A
A43 (N)	1420	355	387	2230	0.637	1412	1871	0.0	1.9	4.739	A

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) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B4100(E)	788	197	1560	1257	0.627	784	588	0.9	1.7	7.794	A
A43 (S)	2069	517	734	2080	0.995	1998	1611	4.2	22.1	32.398	D
B4100 (W)	454	113	2198	868	0.523	452	534	0.6	1.1	8.900	A
A43 (N)	1695	424	460	2186	0.776	1689	2191	1.9	3.6	7.749	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) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B4100(E)	964	241	1874	1082	0.891	944	683	1.7	6.7	24.044	C
A43 (S)	2535	634	884	1988	1.275	1985	1934	22.1	159.4	170.961	F
B4100 (W)	556	139	2256	837	0.664	553	613	1.1	2.0	12.928	B
A43 (N)	2077	519	533	2141	0.970	2024	2276	3.6	16.8	25.953	D

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) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B4100(E)	964	241	1905	1065	0.906	959	690	6.7	8.1	32.217	D
A43 (S)	2535	634	897	1979	1.281	1979	1966	159.4	298.2	414.825	F
B4100 (W)	556	139	2257	837	0.664	556	620	2.0	2.0	13.227	B
A43 (N)	2077	519	535	2140	0.970	2060	2278	16.8	21.0	38.238	E

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) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B4100(E)	788	197	1625	1221	0.645	812	606	8.1	1.9	9.593	A
A43 (S)	2069	517	761	2064	1.003	2061	1677	298.2	300.3	518.634	F
B4100 (W)	454	113	2270	830	0.547	457	553	2.0	1.3	10.052	B
A43 (N)	1695	424	467	2181	0.777	1764	2259	21.0	4.0	10.814	B

18:00 - 18:15

	Total	Junction						Start			

Arm	Demand (PCU/hr)	Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B4100(E)	659	165	1319	1391	0.474	663	526	1.9	0.9	5.123	A
A43 (S)	1733	433	621	2151	0.806	2143	1362	300.3	197.8	418.930	F
B4100 (W)	380	95	2281	824	0.461	382	483	1.3	0.9	8.446	A
A43 (N)	1420	355	417	2212	0.642	1428	2245	4.0	2.0	5.035	A

2031 Baseline + Committed, 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	422.55	F

Junction Network

Driving side	Lighting	Res Cap (%)	First arm reaching threshold	Network delay (s)	Network LOS
Left	Normal/unknown	-28	A43 (N)	422.55	F

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
D35	2031 Baseline + Committed	AM	ONE HOUR	07:45	09:15	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	Av. Demand (PCU/hr)	Scaling Factor (%)
B4100(E)		ONE HOUR	✓	605	100.000
A43 (S)		ONE HOUR	✓	2046	100.000
B4100 (W)		ONE HOUR	✓	672	100.000
A43 (N)		ONE HOUR	✓	2489	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		B4100(E)	A43 (S)	B4100 (W)	A43 (N)
From	B4100(E)	0	97	218	290
	A43 (S)	255	0	172	1619
	B4100 (W)	320	207	16	129
	A43 (N)	370	1949	170	0

Vehicle Mix

HV %s

		To			
		B4100(E)	A43 (S)	B4100 (W)	A43 (N)
From	B4100(E)	0	15	4	7
	A43 (S)	8	0	9	17
	B4100 (W)	6	6	8	6
	A43 (N)	7	18	9	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Q (PCU)	Max LOS	Av. Demand (PCU/hr)	Total Junction Arrivals (PCU)
B4100(E)	0.62	9.59	1.8	A	555	833
A43 (S)	1.07	132.43	93.3	F	1877	2816
B4100 (W)	0.87	32.17	6.2	D	617	925
A43 (N)	1.41	866.81	520.1	F	2284	3426

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B4100(E)	455	114	1734	1160	0.393	453	704	0.0	0.7	5.431	A
A43 (S)	1540	385	518	2215	0.696	1530	1669	0.0	2.6	5.966	A
B4100 (W)	506	126	1618	1178	0.429	503	429	0.0	0.8	5.625	A
A43 (N)	1874	468	597	2102	0.891	1841	1524	0.0	8.2	14.499	B

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) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B4100(E)	544	136	1912	1061	0.512	542	813	0.7	1.1	7.403	A
A43 (S)	1839	460	607	2159	0.852	1825	1847	2.6	6.1	11.923	B
B4100 (W)	604	151	1932	1011	0.598	601	501	0.8	1.5	9.251	A
A43 (N)	2238	559	713	2032	1.101	2011	1820	8.2	64.7	74.791	F

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) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B4100(E)	666	167	1902	1067	0.625	664	893	1.1	1.7	9.506	A
A43 (S)	2253	563	708	2097	1.074	2066	1858	6.1	52.7	60.547	F
B4100 (W)	740	185	2211	862	0.859	725	563	1.5	5.4	25.508	D
A43 (N)	2740	685	843	1953	1.404	1952	2092	64.7	261.8	306.512	F

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) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B4100(E)	666	167	1900	1068	0.624	666	900	1.7	1.8	9.594	A
A43 (S)	2253	563	710	2096	1.075	2090	1857	52.7	93.3	132.425	F
B4100 (W)	740	185	2234	849	0.871	736	566	5.4	6.2	32.171	D
A43 (N)	2740	685	856	1945	1.409	1945	2115	261.8	460.7	664.276	F

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) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B4100(E)	544	136	1908	1064	0.511	546	857	1.8	1.1	7.487	A
A43 (S)	1839	460	610	2157	0.853	2131	1844	93.3	20.3	99.823	F
B4100 (W)	604	151	2214	860	0.703	618	527	6.2	2.6	16.643	C
A43 (N)	2238	559	765	2000	1.119	2000	2067	460.7	520.1	866.806	F

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) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
	Total	Junction						Start			

Arm	Demand (PCU/hr)	Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B4100(E)	455	114	1947	1042	0.437	457	755	1.1	0.8	6.599	A
A43 (S)	1540	385	538	2202	0.700	1611	1865	20.3	2.7	7.841	A
B4100 (W)	506	126	1694	1138	0.445	513	455	2.6	0.9	6.176	A
A43 (N)	1874	468	615	2091	0.896	2087	1592	520.1	467.0	851.705	F

2031 Baseline + Committed, 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	376.68	F

Junction Network

Driving side	Lighting	Res Cap (%)	First arm reaching threshold	Network delay (s)	Network LOS
Left	Normal/unknown	-26	A43 (S)	376.68	F

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
D36	2031 Baseline + Committed	PM	ONE HOUR	16:45	18:15	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	Av. Demand (PCU/hr)	Scaling Factor (%)
B4100(E)		ONE HOUR	✓	876	100.000
A43 (S)		ONE HOUR	✓	2506	100.000
B4100 (W)		ONE HOUR	✓	505	100.000
A43 (N)		ONE HOUR	✓	2004	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		B4100(E)	A43 (S)	B4100 (W)	A43 (N)
From	B4100(E)	0	189	306	381
	A43 (S)	146	0	162	2198
	B4100 (W)	214	137	21	133
	A43 (N)	301	1591	112	0

Vehicle Mix

HV %s

		To			
		B4100(E)	A43 (S)	B4100 (W)	A43 (N)
From	B4100(E)	0	6	1	3
	A43 (S)	3	0	6	7
	B4100 (W)	3	4	0	4
	A43 (N)	4	10	3	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Q (PCU)	Max LOS	Av. Demand (PCU/hr)	Total Junction Arrivals (PCU)
B4100(E)	0.94	45.29	11.4	E	804	1206
A43 (S)	1.39	802.76	490.8	F	2300	3449
B4100 (W)	0.67	13.58	2.1	B	463	695
A43 (N)	1.03	80.24	52.7	F	1839	2758

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B4100(E)	659	165	1393	1350	0.489	656	494	0.0	1.0	5.307	A
A43 (S)	1887	472	614	2155	0.875	1860	1435	0.0	6.7	12.084	B
B4100 (W)	380	95	2025	961	0.396	378	449	0.0	0.7	6.350	A
A43 (N)	1509	377	386	2230	0.676	1500	2016	0.0	2.2	5.291	A

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) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B4100(E)	788	197	1664	1199	0.657	784	580	1.0	1.9	8.837	A
A43 (S)	2253	563	734	2081	1.083	2056	1714	6.7	55.8	63.929	F
B4100 (W)	454	113	2264	833	0.545	452	526	0.7	1.2	9.713	A
A43 (N)	1802	450	453	2190	0.823	1791	2263	2.2	4.8	9.571	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) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B4100(E)	964	241	1951	1039	0.928	937	665	1.9	8.8	30.473	D
A43 (S)	2759	690	875	1993	1.384	1993	2014	55.8	247.4	279.166	F
B4100 (W)	556	139	2271	829	0.671	553	596	1.2	2.0	13.316	B
A43 (N)	2206	552	523	2147	1.028	2093	2301	4.8	33.2	41.828	E

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) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B4100(E)	964	241	1983	1022	0.944	954	671	8.8	11.4	45.292	E
A43 (S)	2759	690	890	1984	1.391	1984	2046	247.4	441.3	619.267	F
B4100 (W)	556	139	2270	830	0.670	556	603	2.0	2.1	13.576	B
A43 (N)	2206	552	525	2146	1.028	2128	2301	33.2	52.7	80.239	F

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) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B4100(E)	788	197	1834	1104	0.713	823	612	11.4	2.7	14.640	B
A43 (S)	2253	563	775	2055	1.096	2055	1881	441.3	490.8	802.760	F
B4100 (W)	454	113	2280	825	0.551	457	550	2.1	1.3	10.212	B
A43 (N)	1802	450	456	2188	0.823	1990	2280	52.7	5.6	33.257	D

18:00 - 18:15

	Total	Junction						Start			

Arm	Demand (PCU/hr)	Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B4100(E)	659	165	1413	1339	0.493	666	515	2.7	1.0	5.562	A
A43 (S)	1887	472	623	2149	0.878	2145	1455	490.8	426.3	769.928	F
B4100 (W)	380	95	2296	816	0.466	382	472	1.3	0.9	8.599	A
A43 (N)	1509	377	406	2218	0.680	1522	2271	5.6	2.4	5.716	A

2031 Baseline + Committed + Western Development , 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	491.80	F

Junction Network

Driving side	Lighting	Res Cap (%)	First arm reaching threshold	Network delay (s)	Network LOS
Left	Normal/unknown	-29	A43 (N)	491.80	F

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
D37	2031 Baseline + Committed + Western Development	AM	ONE HOUR	07:45	09:15	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	Av. Demand (PCU/hr)	Scaling Factor (%)
B4100(E)		ONE HOUR	✓	572	100.000
A43 (S)		ONE HOUR	✓	2088	100.000
B4100 (W)		ONE HOUR	✓	752	100.000
A43 (N)		ONE HOUR	✓	2509	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		B4100(E)	A43 (S)	B4100 (W)	A43 (N)
From	B4100(E)	0	7	275	290
	A43 (S)	255	0	214	1619
	B4100 (W)	352	239	16	145
	A43 (N)	370	1949	190	0

Vehicle Mix

HV %s

		To			
		B4100(E)	A43 (S)	B4100 (W)	A43 (N)
From	B4100(E)	0	15	3	7
	A43 (S)	8	0	15	17

	B4100 (W)	6	13	8	12
	A43 (N)	7	18	13	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Q (PCU)	Max LOS	Av. Demand (PCU/hr)	Total Junction Arrivals (PCU)
B4100(E)	0.59	8.71	1.5	A	525	787
A43 (S)	1.12	190.96	137.1	F	1916	2874
B4100 (W)	0.93	48.36	10.4	E	690	1035
A43 (N)	1.45	985.20	574.1	F	2302	3453

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B4100(E)	431	108	1768	1141	0.377	428	727	0.0	0.6	5.290	A
A43 (S)	1572	393	575	2179	0.721	1560	1621	0.0	2.9	6.607	A
B4100 (W)	566	142	1617	1179	0.480	562	518	0.0	1.0	6.341	A
A43 (N)	1889	472	644	2074	0.911	1850	1535	0.0	9.6	16.572	C

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) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B4100(E)	514	129	1919	1057	0.486	513	834	0.6	1.0	6.930	A
A43 (S)	1877	469	671	2120	0.886	1857	1760	2.9	7.8	14.864	B
B4100 (W)	676	169	1927	1013	0.667	672	601	1.0	2.1	11.370	B
A43 (N)	2256	564	769	1998	1.129	1983	1830	9.6	77.6	88.577	F

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) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B4100(E)	630	157	1909	1063	0.593	628	907	1.0	1.5	8.654	A
A43 (S)	2299	575	783	2051	1.121	2033	1754	7.8	74.2	81.492	F
B4100 (W)	828	207	2143	898	0.922	802	673	2.1	8.5	34.730	D
A43 (N)	2762	691	896	1920	1.439	1920	2050	77.6	288.3	348.477	F

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) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B4100(E)	630	157	1907	1064	0.592	630	916	1.5	1.5	8.712	A
A43 (S)	2299	575	784	2050	1.122	2047	1752	74.2	137.1	190.964	F
B4100 (W)	828	207	2157	890	0.930	820	675	8.5	10.4	48.359	E
A43 (N)	2762	691	912	1911	1.446	1910	2065	288.3	501.3	737.933	F

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) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B4100(E)	514	129	1913	1061	0.485	516	875	1.5	1.0	6.978	A
A43 (S)	1877	469	674	2118	0.886	2100	1755	137.1	81.3	188.193	F
B4100 (W)	676	169	2147	896	0.755	703	627	10.4	3.6	22.749	C

A43 (N)	2256	564	824	1964	1.148	1964	2026	501.3	574.1	985.202	F
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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) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B4100(E)	431	108	1933	1049	0.410	432	800	1.0	0.7	6.139	A
A43 (S)	1572	393	593	2168	0.725	1884	1772	81.3	3.2	36.706	E
B4100 (W)	566	142	1910	1022	0.554	575	567	3.6	1.4	8.967	A
A43 (N)	1889	472	694	2043	0.925	2039	1791	574.1	536.6	980.695	F

2031 Baseline + Committed + Western Development , 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	413.46	F

Junction Network

Driving side	Lighting	Res Cap (%)	First arm reaching threshold	Network delay (s)	Network LOS
Left	Normal/unknown	-27	A43 (S)	413.46	F

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
D38	2031 Baseline + Committed + Western Development	PM	ONE HOUR	16:45	18:15	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	Av. Demand (PCU/hr)	Scaling Factor (%)
B4100(E)		ONE HOUR	✓	897	100.000
A43 (S)		ONE HOUR	✓	2527	100.000
B4100 (W)		ONE HOUR	✓	637	100.000
A43 (N)		ONE HOUR	✓	2015	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		B4100(E)	A43 (S)	B4100 (W)	A43 (N)
From	B4100(E)	0	189	327	381
	A43 (S)	146	0	183	2198
	B4100 (W)	282	180	21	154
	A43 (N)	301	1591	123	0

Vehicle Mix

HV %s

		To			
		B4100(E)	A43 (S)	B4100 (W)	A43 (N)
From	B4100(E)	0	6	1	3
	A43 (S)	3	0	13	7

	B4100 (W)	2	10	0	8
	A43 (N)	4	10	9	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Q (PCU)	Max LOS	Av. Demand (PCU/hr)	Total Junction Arrivals (PCU)
B4100(E)	0.96	55.32	14.5	F	823	1235
A43 (S)	1.41	868.46	530.1	F	2319	3478
B4100 (W)	0.83	25.43	4.7	D	585	877
A43 (N)	1.07	124.95	86.7	F	1849	2773

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B4100(E)	675	169	1432	1328	0.509	671	544	0.0	1.1	5.603	A
A43 (S)	1902	476	637	2141	0.889	1873	1466	0.0	7.5	13.201	B
B4100 (W)	480	120	2022	963	0.498	475	488	0.0	1.0	7.736	A
A43 (N)	1517	379	469	2180	0.696	1507	2029	0.0	2.4	5.750	A

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) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B4100(E)	806	202	1709	1174	0.687	802	638	1.1	2.2	9.834	A
A43 (S)	2272	568	761	2064	1.101	2044	1750	7.5	64.4	72.306	F
B4100 (W)	573	143	2237	848	0.676	568	569	1.0	2.1	13.400	B
A43 (N)	1811	453	549	2131	0.850	1798	2256	2.4	5.7	11.355	B

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) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B4100(E)	988	247	1958	1035	0.954	953	726	2.2	10.8	35.589	E
A43 (S)	2782	696	900	1978	1.407	1977	2011	64.4	265.6	305.542	F
B4100 (W)	701	175	2239	846	0.829	692	638	2.1	4.5	23.234	C
A43 (N)	2219	555	639	2077	1.068	2045	2292	5.7	49.0	57.324	F

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) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B4100(E)	988	247	1980	1024	0.965	973	733	10.8	14.5	55.318	F
A43 (S)	2782	696	917	1967	1.414	1967	2035	265.6	469.4	666.901	F
B4100 (W)	701	175	2238	847	0.828	700	646	4.5	4.7	25.426	D
A43 (N)	2219	555	645	2073	1.070	2068	2293	49.0	86.7	124.949	F

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) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B4100(E)	806	202	1969	1029	0.783	848	689	14.5	4.1	24.083	C
A43 (S)	2272	568	817	2029	1.119	2029	2001	469.4	530.1	868.462	F
B4100 (W)	573	143	2243	845	0.678	582	603	4.7	2.3	14.972	B

A43 (N)	1811	453	559	2126	0.852	2099	2266	86.7	14.8	91.325	F
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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) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B4100(E)	675	169	1484	1299	0.520	687	571	4.1	1.1	6.166	A
A43 (S)	1902	476	654	2130	0.893	2126	1518	530.1	474.2	850.341	F
B4100 (W)	480	120	2264	833	0.576	483	516	2.3	1.5	10.956	B
A43 (N)	1517	379	489	2168	0.700	1566	2258	14.8	2.6	7.034	A

2031 Baseline + Committed + Eastern Development , 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	446.75	F

Junction Network

Driving side	Lighting	Res Cap (%)	First arm reaching threshold	Network delay (s)	Network LOS
Left	Normal/unknown	-28	A43 (N)	446.75	F

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
D39	2031 Baseline + Committed + Eastern Development	AM	ONE HOUR	07:45	09:15	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	Av. Demand (PCU/hr)	Scaling Factor (%)
B4100(E)		ONE HOUR	✓	635	100.000
A43 (S)		ONE HOUR	✓	2069	100.000
B4100 (W)		ONE HOUR	✓	676	100.000
A43 (N)		ONE HOUR	✓	2500	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		B4100(E)	A43 (S)	B4100 (W)	A43 (N)
From	B4100(E)	0	115	221	299
	A43 (S)	278	0	172	1619
	B4100 (W)	324	207	16	129
	A43 (N)	381	1949	170	0

Vehicle Mix

HV %s

		To			
		B4100(E)	A43 (S)	B4100 (W)	A43 (N)
From	B4100(E)	0	22	4	8
	A43 (S)	11	0	20	17

	B4100 (W)	7	16	8	14
	A43 (N)	9	18	15	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Q (PCU)	Max LOS	Av. Demand (PCU/hr)	Total Junction Arrivals (PCU)
B4100(E)	0.65	10.31	2.0	B	583	874
A43 (S)	1.09	151.70	108.4	F	1899	2848
B4100 (W)	0.88	35.68	6.9	E	620	930
A43 (N)	1.43	912.94	545.6	F	2294	3441

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B4100(E)	478	120	1732	1161	0.412	475	732	0.0	0.8	5.684	A
A43 (S)	1558	389	527	2209	0.705	1547	1681	0.0	2.7	6.229	A
B4100 (W)	509	127	1642	1166	0.437	506	431	0.0	0.8	6.020	A
A43 (N)	1882	471	617	2090	0.900	1847	1531	0.0	8.8	15.475	C

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) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B4100(E)	571	143	1894	1071	0.533	569	842	0.8	1.2	7.775	A
A43 (S)	1860	465	616	2154	0.864	1844	1847	2.7	6.7	12.918	B
B4100 (W)	608	152	1959	996	0.610	604	502	0.8	1.7	10.105	B
A43 (N)	2247	562	737	2017	1.114	2000	1826	8.8	70.7	81.114	F

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) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B4100(E)	699	175	1883	1077	0.649	696	921	1.2	2.0	10.195	B
A43 (S)	2278	570	719	2090	1.090	2065	1860	6.7	60.0	67.426	F
B4100 (W)	744	186	2221	856	0.869	727	563	1.7	5.9	27.988	D
A43 (N)	2753	688	866	1939	1.420	1938	2082	70.7	274.3	325.807	F

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) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B4100(E)	699	175	1881	1079	0.648	699	929	2.0	2.0	10.310	B
A43 (S)	2278	570	721	2089	1.091	2085	1858	60.0	108.4	151.698	F
B4100 (W)	744	186	2241	846	0.880	740	565	5.9	6.9	35.677	E
A43 (N)	2753	688	879	1931	1.426	1930	2102	274.3	479.8	698.115	F

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) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B4100(E)	571	143	1888	1075	0.531	574	887	2.0	1.3	7.863	A
A43 (S)	1860	465	620	2152	0.864	2129	1842	108.4	41.2	129.014	F
B4100 (W)	608	152	2222	856	0.710	624	526	6.9	2.9	18.282	C

A43 (N)	2247	562	791	1984	1.133	1984	2055	479.8	545.6	912.937	F
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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) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B4100(E)	478	120	1922	1055	0.453	479	792	1.3	0.9	6.818	A
A43 (S)	1558	389	545	2198	0.709	1711	1856	41.2	2.9	11.701	B
B4100 (W)	509	127	1794	1084	0.469	516	462	2.9	1.0	7.123	A
A43 (N)	1882	471	648	2071	0.909	2067	1663	545.6	499.4	910.119	F

2031 Baseline + Committed + Eastern Development , 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	395.17	F

Junction Network

Driving side	Lighting	Res Cap (%)	First arm reaching threshold	Network delay (s)	Network LOS
Left	Normal/unknown	-27	A43 (S)	395.17	F

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
D40	2031 Baseline + Committed + Eastern Development	PM	ONE HOUR	16:45	18:15	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	Av. Demand (PCU/hr)	Scaling Factor (%)
B4100(E)		ONE HOUR	✓	916	100.000
A43 (S)		ONE HOUR	✓	2518	100.000
B4100 (W)		ONE HOUR	✓	507	100.000
A43 (N)		ONE HOUR	✓	2010	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		B4100(E)	A43 (S)	B4100 (W)	A43 (N)
From	B4100(E)	0	212	311	393
	A43 (S)	158	0	162	2198
	B4100 (W)	216	137	21	133
	A43 (N)	307	1591	112	0

Vehicle Mix

HV %s

		To			
		B4100(E)	A43 (S)	B4100 (W)	A43 (N)
From	B4100(E)	0	9	1	4
	A43 (S)	8	0	6	7

	B4100 (W)	3	4	0	4
	A43 (N)	5	10	3	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Q (PCU)	Max LOS	Av. Demand (PCU/hr)	Total Junction Arrivals (PCU)
B4100(E)	0.98	63.93	17.5	F	841	1261
A43 (S)	1.40	838.94	512.7	F	2311	3466
B4100 (W)	0.67	13.78	2.1	B	465	698
A43 (N)	1.03	86.40	57.6	F	1844	2767

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B4100(E)	690	172	1393	1350	0.511	685	508	0.0	1.1	5.601	A
A43 (S)	1896	474	626	2147	0.883	1867	1452	0.0	7.1	12.682	B
B4100 (W)	382	95	2041	952	0.401	379	452	0.0	0.7	6.453	A
A43 (N)	1513	378	397	2224	0.680	1504	2023	0.0	2.3	5.375	A

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) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B4100(E)	823	206	1663	1199	0.687	819	596	1.1	2.2	9.731	A
A43 (S)	2264	566	748	2072	1.093	2050	1734	7.1	60.5	68.458	F
B4100 (W)	456	114	2270	830	0.549	454	529	0.7	1.2	9.832	A
A43 (N)	1807	452	463	2184	0.827	1796	2260	2.3	4.9	9.849	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) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B4100(E)	1009	252	1944	1043	0.967	969	680	2.2	12.2	38.372	E
A43 (S)	2772	693	884	1988	1.395	1987	2029	60.5	256.8	292.566	F
B4100 (W)	558	140	2275	827	0.675	555	596	1.2	2.1	13.504	B
A43 (N)	2213	553	534	2141	1.034	2091	2296	4.9	35.5	44.026	E

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) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B4100(E)	1009	252	1974	1027	0.982	987	686	12.2	17.5	63.929	F
A43 (S)	2772	693	900	1978	1.402	1978	2061	256.8	455.5	643.852	F
B4100 (W)	558	140	2274	828	0.674	558	604	2.1	2.1	13.780	B
A43 (N)	2213	553	536	2140	1.034	2125	2296	35.5	57.6	86.399	F

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) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B4100(E)	823	206	1849	1096	0.751	880	631	17.5	3.4	21.293	C
A43 (S)	2264	566	808	2035	1.112	2035	1922	455.5	512.7	838.944	F
B4100 (W)	456	114	2282	824	0.553	459	561	2.1	1.3	10.292	B

A43 (N)	1807	452	466	2182	0.828	2014	2274	57.6	5.9	39.774	E
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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) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B4100(E)	690	172	1413	1338	0.515	699	531	3.4	1.1	5.934	A
A43 (S)	1896	474	638	2140	0.886	2136	1474	512.7	452.7	813.760	F
B4100 (W)	382	95	2298	815	0.468	383	476	1.3	0.9	8.658	A
A43 (N)	1513	378	417	2212	0.684	1527	2265	5.9	2.4	5.833	A

2031 Baseline + Committed + Both Developments, 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	517.42	F

Junction Network

Driving side	Lighting	Res Cap (%)	First arm reaching threshold	Network delay (s)	Network LOS
Left	Normal/unknown	-30	A43 (N)	517.42	F

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
D41	2031 Baseline + Committed + Both Developments	AM	ONE HOUR	07:45	09:15	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	Av. Demand (PCU/hr)	Scaling Factor (%)
B4100(E)		ONE HOUR	✓	692	100.000
A43 (S)		ONE HOUR	✓	2111	100.000
B4100 (W)		ONE HOUR	✓	757	100.000
A43 (N)		ONE HOUR	✓	2520	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		B4100(E)	A43 (S)	B4100 (W)	A43 (N)
From	B4100(E)	0	115	278	299
	A43 (S)	278	0	214	1619
	B4100 (W)	357	239	16	145
	A43 (N)	381	1949	190	0

Vehicle Mix

HV %s

		To			
		B4100(E)	A43 (S)	B4100 (W)	A43 (N)
From	B4100(E)	0	22	3	8
	A43 (S)	11	0	15	17

B4100 (W)	6	13	8	12
A43 (N)	9	18	13	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Q (PCU)	Max LOS	Av. Demand (PCU/hr)	Total Junction Arrivals (PCU)
B4100(E)	0.71	12.39	2.6	B	635	952
A43 (S)	1.14	220.87	153.0	F	1937	2906
B4100 (W)	0.94	52.55	11.4	F	695	1042
A43 (N)	1.46	1044.17	600.2	F	2312	3469

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B4100(E)	521	130	1765	1143	0.456	517	755	0.0	0.9	6.181	A
A43 (S)	1589	397	583	2174	0.731	1577	1699	0.0	3.1	6.859	A
B4100 (W)	570	142	1641	1166	0.489	566	520	0.0	1.0	6.507	A
A43 (N)	1897	474	665	2061	0.921	1855	1541	0.0	10.5	17.747	C

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) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B4100(E)	622	156	1900	1068	0.583	620	864	0.9	1.5	8.633	A
A43 (S)	1898	474	680	2114	0.898	1875	1841	3.1	8.6	16.143	C
B4100 (W)	681	170	1953	999	0.681	676	602	1.0	2.2	11.977	B
A43 (N)	2265	566	793	1983	1.142	1971	1836	10.5	84.1	95.722	F

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) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B4100(E)	762	190	1889	1074	0.710	758	936	1.5	2.5	12.132	B
A43 (S)	2324	581	793	2044	1.137	2030	1855	8.6	82.2	89.202	F
B4100 (W)	833	208	2152	893	0.933	806	671	2.2	9.2	36.986	E
A43 (N)	2775	694	919	1907	1.455	1906	2039	84.1	301.2	369.303	F

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) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B4100(E)	762	190	1887	1075	0.709	762	944	2.5	2.6	12.389	B
A43 (S)	2324	581	796	2042	1.138	2041	1854	82.2	153.0	212.117	F
B4100 (W)	833	208	2163	887	0.940	825	673	9.2	11.4	52.553	F
A43 (N)	2775	694	935	1896	1.463	1896	2052	301.2	520.8	773.750	F

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) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B4100(E)	622	156	1893	1072	0.580	626	906	2.6	1.5	8.802	A
A43 (S)	1898	474	684	2112	0.899	2096	1835	153.0	103.6	220.874	F
B4100 (W)	681	170	2154	892	0.763	711	626	11.4	3.8	24.575	C

A43 (N)	2265	566	851	1948	1.163	1948	2014	520.8	600.2	1033.859	F
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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) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B4100(E)	521	130	1907	1064	0.490	523	840	1.5	1.1	7.210	A
A43 (S)	1589	397	600	2163	0.735	1990	1830	103.6	3.5	67.646	F
B4100 (W)	570	142	2014	967	0.589	579	576	3.8	1.6	10.356	B
A43 (N)	1897	474	730	2021	0.939	2018	1863	600.2	570.1	1044.170	F

2031 Baseline + Committed + Both Developments, 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	433.42	F

Junction Network

Driving side	Lighting	Res Cap (%)	First arm reaching threshold	Network delay (s)	Network LOS
Left	Normal/unknown	-28	A43 (S)	433.42	F

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
D42	2031 Baseline + Committed + Both Developments	PM	ONE HOUR	16:45	18:15	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	Av. Demand (PCU/hr)	Scaling Factor (%)
B4100(E)		ONE HOUR	✓	938	100.000
A43 (S)		ONE HOUR	✓	2539	100.000
B4100 (W)		ONE HOUR	✓	638	100.000
A43 (N)		ONE HOUR	✓	2021	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		B4100(E)	A43 (S)	B4100 (W)	A43 (N)
From	B4100(E)	0	212	333	393
	A43 (S)	158	0	183	2198
	B4100 (W)	283	180	21	154
	A43 (N)	307	1591	123	0

Vehicle Mix

HV %s

		To			
		B4100(E)	A43 (S)	B4100 (W)	A43 (N)
From	B4100(E)	0	9	1	4
	A43 (S)	8	0	13	7

	B4100 (W)	3	10	0	8
	A43 (N)	5	10	9	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Q (PCU)	Max LOS	Av. Demand (PCU/hr)	Total Junction Arrivals (PCU)
B4100(E)	1.00	79.41	22.9	F	861	1291
A43 (S)	1.42	906.30	552.3	F	2330	3495
B4100 (W)	0.83	26.00	4.8	D	585	878
A43 (N)	1.08	132.28	92.3	F	1855	2782

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B4100(E)	706	177	1432	1328	0.532	702	558	0.0	1.2	5.931	A
A43 (S)	1911	478	651	2132	0.896	1880	1483	0.0	8.0	13.912	B
B4100 (W)	480	120	2038	954	0.504	476	492	0.0	1.1	7.917	A
A43 (N)	1522	380	478	2175	0.700	1512	2036	0.0	2.5	5.841	A

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) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B4100(E)	843	211	1709	1174	0.718	838	653	1.2	2.5	10.949	B
A43 (S)	2283	571	777	2054	1.111	2037	1769	8.0	69.4	77.293	F
B4100 (W)	574	143	2241	845	0.679	569	573	1.1	2.1	13.614	B
A43 (N)	1817	454	559	2126	0.855	1803	2252	2.5	5.9	11.711	B

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) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B4100(E)	1033	258	1950	1040	0.993	982	740	2.5	15.3	45.174	E
A43 (S)	2795	699	907	1973	1.417	1973	2025	69.4	275.0	319.278	F
B4100 (W)	702	176	2242	845	0.832	693	638	2.1	4.6	23.683	C
A43 (N)	2225	556	648	2071	1.074	2042	2287	5.9	51.7	59.903	F

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) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B4100(E)	1033	258	1970	1029	1.004	1002	747	15.3	22.9	79.413	F
A43 (S)	2795	699	924	1963	1.424	1963	2048	275.0	483.2	691.912	F
B4100 (W)	702	176	2241	845	0.831	701	646	4.6	4.8	25.999	D
A43 (N)	2225	556	654	2067	1.076	2063	2288	51.7	92.3	132.276	F

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) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B4100(E)	843	211	1961	1034	0.816	914	702	22.9	5.3	40.499	E
A43 (S)	2283	571	854	2006	1.138	2006	2021	483.2	552.3	906.296	F
B4100 (W)	574	143	2244	843	0.680	583	616	4.8	2.4	15.186	C

A43 (N)	1817	454	567	2120	0.857	2095	2260	92.3	22.7	102.344	F
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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) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B4100(E)	706	177	1511	1284	0.550	722	589	5.3	1.3	6.842	A
A43 (S)	1911	478	672	2119	0.902	2115	1560	552.3	501.5	897.063	F
B4100 (W)	480	120	2265	833	0.577	484	522	2.4	1.5	11.047	B
A43 (N)	1522	380	499	2162	0.704	1602	2250	22.7	2.7	8.032	A

Junctions 10
ARCADY 10 - Roundabout Module
Version: 10.0.2.1574 © Copyright TRL Software Limited, 2021
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Filename: Banbury Road.j10
 Path: P:\17000's\17213\Junction Assessments
 Report generation date: 08/09/2021 16:32:12

- »2026RC, AM
- »2026RC, PM
- »2026WEST, AM
- »2026WEST, PM
- »2026EAST, AM
- »2026EAST, PM
- »2026DES, AM
- »2026DES, PM

Summary of junction performance

	AM				PM			
	Q (PCU)	Delay (s)	RFC	Res Cap	Q (PCU)	Delay (s)	RFC	Res Cap
2026RC								
1 - B4100	3.3	9.98	0.77	17 % [1 - B4100]	2.4	9.35	0.71	10 % [4 - A4095 W]
2 - A4095 E	2.6	7.70	0.72		2.8	7.69	0.74	
3 - Banbury Road	0.8	7.07	0.45		1.2	9.34	0.55	
4 - A4095 W	0.7	5.73	0.42		2.9	14.77	0.75	
2026WEST								
1 - B4100	3.6	10.89	0.79	15 % [1 - B4100]	3.6	12.57	0.78	8 % [4 - A4095 W]
2 - A4095 E	3.1	8.78	0.76		3.1	8.60	0.76	
3 - Banbury Road	0.9	7.91	0.48		1.4	10.23	0.58	
4 - A4095 W	0.8	6.44	0.46		3.2	16.09	0.77	
2026EAST								
1 - B4100	3.5	10.48	0.78	16 % [1 - B4100]	3.0	10.90	0.75	9 % [4 - A4095 W]
2 - A4095 E	2.8	8.29	0.74		3.0	8.17	0.75	
3 - Banbury Road	0.9	7.52	0.47		1.3	9.81	0.57	
4 - A4095 W	0.8	6.11	0.44		3.1	15.48	0.76	
2026DES								
1 - B4100	3.9	11.48	0.80	14 % [1 - B4100]	4.6	15.54	0.82	7 % [4 - A4095 W]
2 - A4095 E	3.4	9.54	0.77		3.4	9.20	0.77	
3 - Banbury Road	1.0	8.48	0.51		1.4	10.76	0.59	
4 - A4095 W	0.9	6.93	0.49		3.4	16.88	0.78	

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

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

File summary

File Description

Title	
Location	
Site number	
Date	01/09/2021
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	DTA\richardmcculloch
Description	

Units

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

Analysis Options

Calculate Q Percentiles	Calculate residual capacity	Residual capacity criteria type	RFC Threshold	Av. Delay threshold (s)	Q threshold (PCU)
	✓	Delay	0.85	36.00	20.00

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)
D1	2026RC	AM	FLAT	07:45	09:15	90	15
D2	2026RC	PM	FLAT	16:45	18:15	90	15
D3	2026WEST	AM	FLAT	07:45	09:15	90	15
D4	2026WEST	PM	FLAT	16:45	18:15	90	15
D5	2026EAST	AM	FLAT	07:45	09:15	90	15
D6	2026EAST	PM	FLAT	16:45	18:15	90	15
D7	2026DES	AM	FLAT	07:45	09:15	90	15
D8	2026DES	PM	FLAT	16:45	18:15	90	15

Analysis Set Details

ID	Network flow scaling factor (%)
A1	100.000

2026RC, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	1 - B4100 - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4	8.18	A

Junction Network

Driving side	Lighting	Res Cap (%)	First arm reaching threshold	Network delay (s)	Network LOS
Left	Normal/unknown	17	1 - B4100	8.18	A

Arms

Arms

Arm	Name	Description	No give-way line
1	B4100		
2	A4095 E		
3	Banbury Road		
4	A4095 W		

Roundabout Geometry

Arm	V (m)	E (m)	I' (m)	R (m)	D (m)	PHI (deg)	Entry only	Exit only
1 - B4100	3.38	6.75	33.0	32.0	40.0	22.0		
2 - A4095 E	4.30	8.30	27.0	20.0	40.0	33.0		
3 - Banbury Road	3.65	7.30	21.0	15.0	40.0	33.0		
4 - A4095 W	4.30	6.40	7.8	30.0	40.0	26.0		

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
1 - B4100	0.691	1876
2 - A4095 E	0.719	2103
3 - Banbury Road	0.647	1768
4 - A4095 W	0.650	1694

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 period length (min)	Time segment length (min)
D1	2026RC	AM	FLAT	07:45	09:15	90	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Av. Demand (PCU/hr)	Scaling Factor (%)
1 - B4100		✓	1183	100.000
2 - A4095 E		✓	1218	100.000
3 - Banbury Road		✓	410	100.000
4 - A4095 W		✓	449	100.000

Origin-Destination Data

Demand (PCU/hr)

	To			
	1 - B4100	2 - A4095 E	3 - Banbury Road	4 - A4095 W
From				
1 - B4100	0	621	392	170
2 - A4095 E	592	0	77	549
3 - Banbury Road	265	92	0	53
4 - A4095 W	59	371	19	0

Vehicle Mix

HV %s

	To			
	1 - B4100	2 - A4095 E	3 - Banbury Road	4 - A4095 W
From				
1 - B4100	0	0	0	0
2 - A4095 E	0	0	0	0
3 - Banbury Road	0	0	0	0
4 - A4095 W	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Q (PCU)	Max LOS
1 - B4100	0.77	9.98	3.3	A
2 - A4095 E	0.72	7.70	2.6	A
3 - Banbury Road	0.45	7.07	0.8	A
4 - A4095 W	0.42	5.73	0.7	A

Main Results for each time segment

07:45 - 08:00

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 - B4100	1183	479	1546	0.765	1171	3.1	9.315	A
2 - A4095 E	1218	575	1689	0.721	1208	2.5	7.333	A
3 - Banbury Road	410	1300	927	0.442	407	0.8	6.886	A
4 - A4095 W	449	941	1083	0.415	446	0.7	5.633	A

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 - B4100	1183	482	1543	0.767	1183	3.2	9.958	A
2 - A4095 E	1218	581	1685	0.723	1218	2.6	7.692	A
3 - Banbury Road	410	1311	919	0.446	410	0.8	7.064	A
4 - A4095 W	449	949	1078	0.417	449	0.7	5.725	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 - B4100	1183	482	1543	0.767	1183	3.2	9.974	A
2 - A4095 E	1218	581	1685	0.723	1218	2.6	7.701	A
3 - Banbury Road	410	1311	919	0.446	410	0.8	7.066	A
4 - A4095 W	449	949	1078	0.417	449	0.7	5.726	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 - B4100	1183	482	1543	0.767	1183	3.2	9.980	A
2 - A4095 E	1218	581	1685	0.723	1218	2.6	7.703	A
3 - Banbury Road	410	1311	919	0.446	410	0.8	7.066	A
4 - A4095 W	449	949	1078	0.417	449	0.7	5.726	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 - B4100	1183	482	1543	0.767	1183	3.3	9.982	A
2 - A4095 E	1218	581	1685	0.723	1218	2.6	7.704	A
3 - Banbury Road	410	1311	919	0.446	410	0.8	7.066	A
4 - A4095 W	449	949	1078	0.417	449	0.7	5.726	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 - B4100	1183	482	1543	0.767	1183	3.3	9.984	A
2 - A4095 E	1218	581	1685	0.723	1218	2.6	7.704	A
3 - Banbury Road	410	1311	919	0.446	410	0.8	7.066	A
4 - A4095 W	449	949	1078	0.417	449	0.7	5.726	A

2026RC, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	1 - B4100 - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4	9.87	A

Junction Network

Driving side	Lighting	Res Cap (%)	First arm reaching threshold	Network delay (s)	Network LOS
Left	Normal/unknown	10	4 - A4095 W	9.87	A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)
D2	2026RC	PM	FLAT	16:45	18:15	90	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Av. Demand (PCU/hr)	Scaling Factor (%)
1 - B4100		✓	931	100.000
2 - A4095 E		✓	1300	100.000
3 - Banbury Road		✓	477	100.000
4 - A4095 W		✓	725	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1 - B4100	2 - A4095 E	3 - Banbury Road	4 - A4095 W
From	1 - B4100	0	509	246	176
	2 - A4095 E	688	2	77	533
	3 - Banbury Road	271	156	0	50
	4 - A4095 W	72	609	44	0

Vehicle Mix

HV %s

		To			
		1 - B4100	2 - A4095 E	3 - Banbury Road	4 - A4095 W
From	1 - B4100	0	0	0	0
	2 - A4095 E	0	0	0	0
	3 - Banbury Road	0	0	0	0
	4 - A4095 W	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Q (PCU)	Max LOS
1 - B4100	0.71	9.35	2.4	A
2 - A4095 E	0.74	7.69	2.8	A
3 - Banbury Road	0.55	9.34	1.2	A
4 - A4095 W	0.75	14.77	2.9	B

Main Results for each time segment
16:45 - 17:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - B4100	931	800	1324	0.703	922	2.3	8.767	A
2 - A4095 E	1300	461	1771	0.734	1289	2.7	7.315	A
3 - Banbury Road	477	1387	870	0.548	472	1.2	8.948	A
4 - A4095 W	725	1107	975	0.744	714	2.7	13.301	B

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 - B4100	931	810	1316	0.707	931	2.4	9.320	A
2 - A4095 E	1300	466	1768	0.735	1300	2.7	7.680	A
3 - Banbury Road	477	1399	863	0.553	477	1.2	9.328	A
4 - A4095 W	725	1117	969	0.749	724	2.9	14.679	B

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 - B4100	931	811	1316	0.707	931	2.4	9.339	A
2 - A4095 E	1300	466	1768	0.735	1300	2.7	7.692	A
3 - Banbury Road	477	1399	862	0.553	477	1.2	9.338	A
4 - A4095 W	725	1117	968	0.749	725	2.9	14.740	B

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 - B4100	931	811	1316	0.707	931	2.4	9.344	A
2 - A4095 E	1300	466	1768	0.735	1300	2.8	7.691	A
3 - Banbury Road	477	1399	862	0.553	477	1.2	9.338	A
4 - A4095 W	725	1117	968	0.749	725	2.9	14.759	B

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 - B4100	931	811	1316	0.707	931	2.4	9.346	A
2 - A4095 E	1300	466	1768	0.735	1300	2.8	7.693	A
3 - Banbury Road	477	1399	862	0.553	477	1.2	9.341	A
4 - A4095 W	725	1117	968	0.749	725	2.9	14.768	B

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 - B4100	931	811	1316	0.707	931	2.4	9.348	A
2 - A4095 E	1300	466	1768	0.735	1300	2.8	7.693	A
3 - Banbury Road	477	1399	862	0.553	477	1.2	9.341	A
4 - A4095 W	725	1117	968	0.749	725	2.9	14.771	B

2026WEST, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	1 - B4100 - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4	9.10	A

Junction Network

Driving side	Lighting	Res Cap (%)	First arm reaching threshold	Network delay (s)	Network LOS
Left	Normal/unknown	15	1 - B4100	9.10	A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)
D3	2026WEST	AM	FLAT	07:45	09:15	90	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Av. Demand (PCU/hr)	Scaling Factor (%)
1 - B4100		✓	1213	100.000
2 - A4095 E		✓	1266	100.000
3 - Banbury Road		✓	428	100.000
4 - A4095 W		✓	476	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1 - B4100	2 - A4095 E	3 - Banbury Road	4 - A4095 W
From	1 - B4100	0	638	397	178
	2 - A4095 E	640	0	77	549
	3 - Banbury Road	283	92	0	53
	4 - A4095 W	86	371	19	0

Vehicle Mix

HV %s

		To			
		1 - B4100	2 - A4095 E	3 - Banbury Road	4 - A4095 W
From	1 - B4100	0	0	0	0
	2 - A4095 E	0	0	0	0
	3 - Banbury Road	0	0	0	0
	4 - A4095 W	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Q (PCU)	Max LOS
1 - B4100	0.79	10.89	3.6	B
2 - A4095 E	0.76	8.78	3.1	A
3 - Banbury Road	0.48	7.91	0.9	A
4 - A4095 W	0.46	6.44	0.8	A

Main Results for each time segment
07:45 - 08:00

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 - B4100	1213	478	1546	0.785	1199	3.5	10.023	B
2 - A4095 E	1266	587	1681	0.753	1254	2.9	8.231	A
3 - Banbury Road	428	1354	892	0.480	424	0.9	7.649	A
4 - A4095 W	476	1006	1041	0.457	473	0.8	6.302	A

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 - B4100	1213	482	1543	0.786	1213	3.6	10.847	B
2 - A4095 E	1266	594	1676	0.755	1266	3.0	8.759	A
3 - Banbury Road	428	1367	883	0.485	428	0.9	7.903	A
4 - A4095 W	476	1015	1035	0.460	476	0.8	6.441	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 - B4100	1213	482	1543	0.786	1213	3.6	10.873	B
2 - A4095 E	1266	594	1676	0.755	1266	3.0	8.773	A
3 - Banbury Road	428	1367	883	0.485	428	0.9	7.909	A
4 - A4095 W	476	1015	1035	0.460	476	0.8	6.442	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 - B4100	1213	482	1543	0.786	1213	3.6	10.882	B
2 - A4095 E	1266	594	1676	0.755	1266	3.1	8.777	A
3 - Banbury Road	428	1367	883	0.485	428	0.9	7.909	A
4 - A4095 W	476	1015	1035	0.460	476	0.8	6.442	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 - B4100	1213	482	1543	0.786	1213	3.6	10.886	B
2 - A4095 E	1266	594	1676	0.755	1266	3.1	8.779	A
3 - Banbury Road	428	1367	883	0.485	428	0.9	7.910	A
4 - A4095 W	476	1015	1035	0.460	476	0.8	6.442	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 - B4100	1213	482	1543	0.786	1213	3.6	10.888	B
2 - A4095 E	1266	594	1676	0.755	1266	3.1	8.781	A
3 - Banbury Road	428	1367	883	0.485	428	0.9	7.910	A
4 - A4095 W	476	1015	1035	0.460	476	0.8	6.442	A

2026WEST, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	1 - B4100 - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4	11.51	B

Junction Network

Driving side	Lighting	Res Cap (%)	First arm reaching threshold	Network delay (s)	Network LOS
Left	Normal/unknown	8	4 - A4095 W	11.51	B

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)
D4	2026WEST	PM	FLAT	16:45	18:15	90	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Av. Demand (PCU/hr)	Scaling Factor (%)
1 - B4100		✓	1030	100.000
2 - A4095 E		✓	1315	100.000
3 - Banbury Road		✓	482	100.000
4 - A4095 W		✓	732	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1 - B4100	2 - A4095 E	3 - Banbury Road	4 - A4095 W
From	1 - B4100	0	560	265	205
	2 - A4095 E	703	2	77	533
	3 - Banbury Road	276	156	0	50
	4 - A4095 W	79	609	44	0

Vehicle Mix

HV %s

		To			
		1 - B4100	2 - A4095 E	3 - Banbury Road	4 - A4095 W
From	1 - B4100	0	0	0	0
	2 - A4095 E	0	0	0	0
	3 - Banbury Road	0	0	0	0
	4 - A4095 W	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Q (PCU)	Max LOS
1 - B4100	0.78	12.57	3.6	B
2 - A4095 E	0.76	8.60	3.1	A
3 - Banbury Road	0.58	10.23	1.4	B
4 - A4095 W	0.77	16.09	3.2	C

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - B4100	1030	799	1324	0.778	1017	3.3	11.264	B
2 - A4095 E	1315	507	1738	0.757	1303	3.0	8.066	A
3 - Banbury Road	482	1429	843	0.572	477	1.3	9.702	A
4 - A4095 W	732	1126	963	0.760	720	3.0	14.227	B

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 - B4100	1030	810	1316	0.782	1029	3.5	12.479	B
2 - A4095 E	1315	514	1734	0.759	1315	3.1	8.578	A
3 - Banbury Road	482	1443	834	0.578	482	1.3	10.208	B
4 - A4095 W	732	1137	956	0.766	731	3.1	15.949	C

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 - B4100	1030	811	1316	0.783	1030	3.5	12.542	B
2 - A4095 E	1315	514	1733	0.759	1315	3.1	8.594	A
3 - Banbury Road	482	1443	834	0.578	482	1.4	10.223	B
4 - A4095 W	732	1137	955	0.766	732	3.2	16.040	C

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 - B4100	1030	811	1316	0.783	1030	3.5	12.560	B
2 - A4095 E	1315	514	1733	0.759	1315	3.1	8.598	A
3 - Banbury Road	482	1443	834	0.578	482	1.4	10.227	B
4 - A4095 W	732	1137	955	0.766	732	3.2	16.068	C

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 - B4100	1030	811	1316	0.783	1030	3.6	12.569	B
2 - A4095 E	1315	514	1733	0.759	1315	3.1	8.601	A
3 - Banbury Road	482	1443	834	0.578	482	1.4	10.227	B
4 - A4095 W	732	1137	955	0.766	732	3.2	16.079	C

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 - B4100	1030	811	1316	0.783	1030	3.6	12.572	B
2 - A4095 E	1315	514	1733	0.759	1315	3.1	8.602	A
3 - Banbury Road	482	1443	834	0.578	482	1.4	10.229	B
4 - A4095 W	732	1137	955	0.766	732	3.2	16.088	C

2026EAST, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	1 - B4100 - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4	8.68	A

Junction Network

Driving side	Lighting	Res Cap (%)	First arm reaching threshold	Network delay (s)	Network LOS
Left	Normal/unknown	16	1 - B4100	8.68	A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)
D5	2026EAST	AM	FLAT	07:45	09:15	90	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Av. Demand (PCU/hr)	Scaling Factor (%)
1 - B4100		✓	1200	100.000
2 - A4095 E		✓	1245	100.000
3 - Banbury Road		✓	420	100.000
4 - A4095 W		✓	464	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1 - B4100	2 - A4095 E	3 - Banbury Road	4 - A4095 W
From	1 - B4100	0	630	395	175
	2 - A4095 E	619	0	77	549
	3 - Banbury Road	275	92	0	53
	4 - A4095 W	74	371	19	0

Vehicle Mix

HV %s

		To			
		1 - B4100	2 - A4095 E	3 - Banbury Road	4 - A4095 W
From	1 - B4100	0	0	0	0
	2 - A4095 E	0	0	0	0
	3 - Banbury Road	0	0	0	0
	4 - A4095 W	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Q (PCU)	Max LOS
1 - B4100	0.78	10.48	3.5	B
2 - A4095 E	0.74	8.29	2.8	A
3 - Banbury Road	0.47	7.52	0.9	A
4 - A4095 W	0.44	6.11	0.8	A

Main Results for each time segment
07:45 - 08:00

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 - B4100	1200	479	1546	0.776	1187	3.3	9.704	A
2 - A4095 E	1245	583	1684	0.739	1234	2.7	7.822	A
3 - Banbury Road	420	1331	907	0.463	417	0.9	7.300	A
4 - A4095 W	464	978	1059	0.438	461	0.8	5.990	A

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 - B4100	1200	482	1543	0.778	1200	3.4	10.442	B
2 - A4095 E	1245	589	1679	0.741	1245	2.8	8.268	A
3 - Banbury Road	420	1343	899	0.467	420	0.9	7.514	A
4 - A4095 W	464	986	1054	0.440	464	0.8	6.104	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 - B4100	1200	482	1543	0.778	1200	3.4	10.463	B
2 - A4095 E	1245	589	1679	0.741	1245	2.8	8.280	A
3 - Banbury Road	420	1343	899	0.467	420	0.9	7.519	A
4 - A4095 W	464	986	1054	0.440	464	0.8	6.105	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 - B4100	1200	482	1543	0.778	1200	3.4	10.472	B
2 - A4095 E	1245	589	1679	0.741	1245	2.8	8.282	A
3 - Banbury Road	420	1343	899	0.467	420	0.9	7.520	A
4 - A4095 W	464	986	1054	0.440	464	0.8	6.105	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 - B4100	1200	482	1543	0.778	1200	3.5	10.476	B
2 - A4095 E	1245	589	1679	0.741	1245	2.8	8.284	A
3 - Banbury Road	420	1343	899	0.467	420	0.9	7.520	A
4 - A4095 W	464	986	1054	0.440	464	0.8	6.105	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 - B4100	1200	482	1543	0.778	1200	3.5	10.478	B
2 - A4095 E	1245	589	1679	0.741	1245	2.8	8.285	A
3 - Banbury Road	420	1343	899	0.467	420	0.9	7.520	A
4 - A4095 W	464	986	1054	0.440	464	0.8	6.105	A

2026EAST, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	1 - B4100 - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4	10.69	B

Junction Network

Driving side	Lighting	Res Cap (%)	First arm reaching threshold	Network delay (s)	Network LOS
Left	Normal/unknown	9	4 - A4095 W	10.69	B

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)
D6	2026EAST	PM	FLAT	16:45	18:15	90	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Av. Demand (PCU/hr)	Scaling Factor (%)
1 - B4100		✓	986	100.000
2 - A4095 E		✓	1308	100.000
3 - Banbury Road		✓	480	100.000
4 - A4095 W		✓	729	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1 - B4100	2 - A4095 E	3 - Banbury Road	4 - A4095 W
From	1 - B4100	0	537	257	192
	2 - A4095 E	696	2	77	533
	3 - Banbury Road	274	156	0	50
	4 - A4095 W	76	609	44	0

Vehicle Mix

HV %s

		To			
		1 - B4100	2 - A4095 E	3 - Banbury Road	4 - A4095 W
From	1 - B4100	0	0	0	0
	2 - A4095 E	0	0	0	0
	3 - Banbury Road	0	0	0	0
	4 - A4095 W	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Q (PCU)	Max LOS
1 - B4100	0.75	10.90	3.0	B
2 - A4095 E	0.75	8.17	3.0	A
3 - Banbury Road	0.57	9.81	1.3	A
4 - A4095 W	0.76	15.48	3.1	C

Main Results for each time segment
16:45 - 17:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - B4100	986	799	1324	0.745	975	2.8	10.010	B
2 - A4095 E	1308	487	1753	0.746	1297	2.8	7.716	A
3 - Banbury Road	480	1410	855	0.561	475	1.2	9.354	A
4 - A4095 W	729	1117	968	0.753	718	2.9	13.805	B

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 - B4100	986	810	1316	0.749	986	2.9	10.851	B
2 - A4095 E	1308	493	1749	0.748	1308	2.9	8.154	A
3 - Banbury Road	480	1423	847	0.567	480	1.3	9.796	A
4 - A4095 W	729	1128	961	0.758	728	3.0	15.362	C

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 - B4100	986	811	1316	0.749	986	2.9	10.886	B
2 - A4095 E	1308	493	1748	0.748	1308	2.9	8.164	A
3 - Banbury Road	480	1423	847	0.567	480	1.3	9.807	A
4 - A4095 W	729	1128	961	0.758	729	3.1	15.439	C

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 - B4100	986	811	1316	0.749	986	2.9	10.894	B
2 - A4095 E	1308	493	1748	0.748	1308	2.9	8.168	A
3 - Banbury Road	480	1423	847	0.567	480	1.3	9.810	A
4 - A4095 W	729	1128	961	0.758	729	3.1	15.462	C

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 - B4100	986	811	1316	0.749	986	3.0	10.899	B
2 - A4095 E	1308	493	1748	0.748	1308	2.9	8.170	A
3 - Banbury Road	480	1423	847	0.567	480	1.3	9.811	A
4 - A4095 W	729	1128	961	0.758	729	3.1	15.471	C

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 - B4100	986	811	1316	0.749	986	3.0	10.902	B
2 - A4095 E	1308	493	1748	0.748	1308	3.0	8.172	A
3 - Banbury Road	480	1423	847	0.567	480	1.3	9.813	A
4 - A4095 W	729	1128	961	0.758	729	3.1	15.478	C

2026DES, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	1 - B4100 - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4	9.72	A

Junction Network

Driving side	Lighting	Res Cap (%)	First arm reaching threshold	Network delay (s)	Network LOS
Left	Normal/unknown	14	1 - B4100	9.72	A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)
D7	2026DES	AM	FLAT	07:45	09:15	90	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Av. Demand (PCU/hr)	Scaling Factor (%)
1 - B4100		✓	1230	100.000
2 - A4095 E		✓	1293	100.000
3 - Banbury Road		✓	438	100.000
4 - A4095 W		✓	491	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1 - B4100	2 - A4095 E	3 - Banbury Road	4 - A4095 W
From	1 - B4100	0	647	400	183
	2 - A4095 E	667	0	77	549
	3 - Banbury Road	293	92	0	53
	4 - A4095 W	101	371	19	0

Vehicle Mix

HV %s

		To			
		1 - B4100	2 - A4095 E	3 - Banbury Road	4 - A4095 W
From	1 - B4100	0	0	0	0
	2 - A4095 E	0	0	0	0
	3 - Banbury Road	0	0	0	0
	4 - A4095 W	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Q (PCU)	Max LOS
1 - B4100	0.80	11.48	3.9	B
2 - A4095 E	0.77	9.54	3.4	A
3 - Banbury Road	0.51	8.48	1.0	A
4 - A4095 W	0.49	6.93	0.9	A

Main Results for each time segment
07:45 - 08:00

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 - B4100	1230	478	1546	0.796	1215	3.7	10.468	B
2 - A4095 E	1293	595	1675	0.772	1280	3.2	8.844	A
3 - Banbury Road	438	1385	872	0.502	434	1.0	8.154	A
4 - A4095 W	491	1042	1017	0.483	487	0.9	6.749	A

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 - B4100	1230	482	1543	0.797	1229	3.8	11.423	B
2 - A4095 E	1293	602	1670	0.774	1293	3.3	9.510	A
3 - Banbury Road	438	1399	863	0.508	438	1.0	8.472	A
4 - A4095 W	491	1052	1011	0.486	491	0.9	6.924	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 - B4100	1230	482	1543	0.797	1230	3.8	11.456	B
2 - A4095 E	1293	602	1670	0.774	1293	3.4	9.531	A
3 - Banbury Road	438	1399	862	0.508	438	1.0	8.479	A
4 - A4095 W	491	1052	1011	0.486	491	0.9	6.926	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 - B4100	1230	482	1543	0.797	1230	3.9	11.468	B
2 - A4095 E	1293	602	1670	0.774	1293	3.4	9.538	A
3 - Banbury Road	438	1399	862	0.508	438	1.0	8.482	A
4 - A4095 W	491	1052	1011	0.486	491	0.9	6.926	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 - B4100	1230	482	1543	0.797	1230	3.9	11.472	B
2 - A4095 E	1293	602	1670	0.774	1293	3.4	9.540	A
3 - Banbury Road	438	1399	862	0.508	438	1.0	8.482	A
4 - A4095 W	491	1052	1011	0.486	491	0.9	6.926	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 - B4100	1230	482	1543	0.797	1230	3.9	11.477	B
2 - A4095 E	1293	602	1670	0.774	1293	3.4	9.542	A
3 - Banbury Road	438	1399	862	0.508	438	1.0	8.482	A
4 - A4095 W	491	1052	1011	0.486	491	0.9	6.926	A

2026DES, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	1 - B4100 - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4	12.86	B

Junction Network

Driving side	Lighting	Res Cap (%)	First arm reaching threshold	Network delay (s)	Network LOS
Left	Normal/unknown	7	4 - A4095 W	12.86	B

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)
D8	2026DES	PM	FLAT	16:45	18:15	90	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Av. Demand (PCU/hr)	Scaling Factor (%)
1 - B4100		✓	1085	100.000
2 - A4095 E		✓	1323	100.000
3 - Banbury Road		✓	484	100.000
4 - A4095 W		✓	736	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1 - B4100	2 - A4095 E	3 - Banbury Road	4 - A4095 W
From	1 - B4100	0	588	276	221
	2 - A4095 E	711	2	77	533
	3 - Banbury Road	278	156	0	50
	4 - A4095 W	83	609	44	0

Vehicle Mix

HV %s

		To			
		1 - B4100	2 - A4095 E	3 - Banbury Road	4 - A4095 W
From	1 - B4100	0	0	0	0
	2 - A4095 E	0	0	0	0
	3 - Banbury Road	0	0	0	0
	4 - A4095 W	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Q (PCU)	Max LOS
1 - B4100	0.82	15.54	4.6	C
2 - A4095 E	0.77	9.20	3.4	A
3 - Banbury Road	0.59	10.76	1.4	B
4 - A4095 W	0.78	16.88	3.4	C

Main Results for each time segment
16:45 - 17:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - B4100	1085	798	1325	0.819	1068	4.2	13.286	B
2 - A4095 E	1323	533	1720	0.769	1310	3.2	8.539	A
3 - Banbury Road	484	1452	828	0.584	479	1.4	10.141	B
4 - A4095 W	736	1135	957	0.769	724	3.1	14.757	B

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 - B4100	1085	810	1316	0.824	1084	4.4	15.320	C
2 - A4095 E	1323	540	1714	0.772	1323	3.3	9.169	A
3 - Banbury Road	484	1466	819	0.591	484	1.4	10.737	B
4 - A4095 W	736	1147	949	0.775	735	3.3	16.701	C

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 - B4100	1085	811	1316	0.824	1085	4.5	15.465	C
2 - A4095 E	1323	541	1714	0.772	1323	3.3	9.191	A
3 - Banbury Road	484	1467	818	0.591	484	1.4	10.756	B
4 - A4095 W	736	1147	949	0.776	736	3.4	16.817	C

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 - B4100	1085	811	1316	0.824	1085	4.6	15.508	C
2 - A4095 E	1323	541	1714	0.772	1323	3.3	9.198	A
3 - Banbury Road	484	1467	818	0.591	484	1.4	10.759	B
4 - A4095 W	736	1147	949	0.776	736	3.4	16.849	C

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 - B4100	1085	811	1316	0.824	1085	4.6	15.532	C
2 - A4095 E	1323	541	1714	0.772	1323	3.4	9.203	A
3 - Banbury Road	484	1467	818	0.591	484	1.4	10.763	B
4 - A4095 W	736	1147	949	0.776	736	3.4	16.865	C

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 - B4100	1085	811	1316	0.824	1085	4.6	15.541	C
2 - A4095 E	1323	541	1714	0.772	1323	3.4	9.203	A
3 - Banbury Road	484	1467	818	0.591	484	1.4	10.764	B
4 - A4095 W	736	1147	949	0.776	736	3.4	16.876	C

Appendix O
M40 Junction 10 Merge Diverge Appraisals

- 3.12.1 Where the flows are in the region indicated by the * symbol in Figure 3.12b and Layout E option 2 is to be used, an extended auxiliary lane should be provided instead of a taper merge.
- 3.12.2 A merge layout that offers a higher level of capacity than the worst case peak flow may be provided, e.g. Layout C instead of Layout A.
- NOTE* A merge layout that offers less capacity than the worst case peak flow cannot be used e.g. a Layout C instead of Layout F.
- 3.13 For 3 lane merges onto the main carriageway, Layout G or H (see Figures 3.14i to 3.14k) shall be used based on the number of downstream lanes to be provided.
- 3.14 Merge layouts shall be as shown in Figures 3.14a to 3.14k below.

Figure 3.14a Layout A option 1 - taper merge

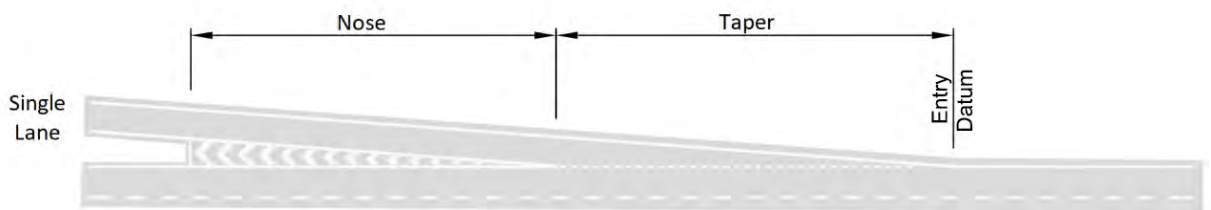


Figure 3.14b Layout A option 2 - 2 lane taper merge

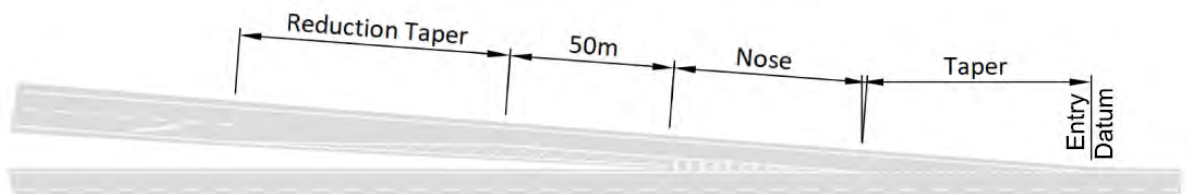


Figure 3.14c Layout B - parallel merge

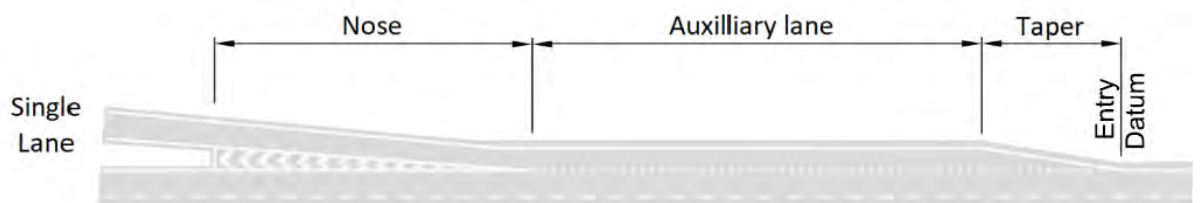


Figure 3.14d Layout C - ghost island merge

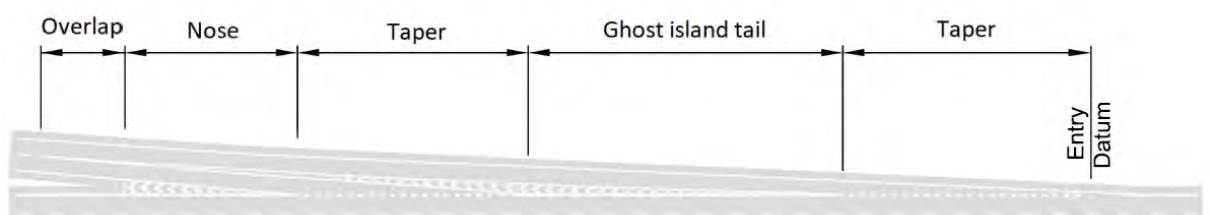


Figure 3.14e Layout D - lane gain

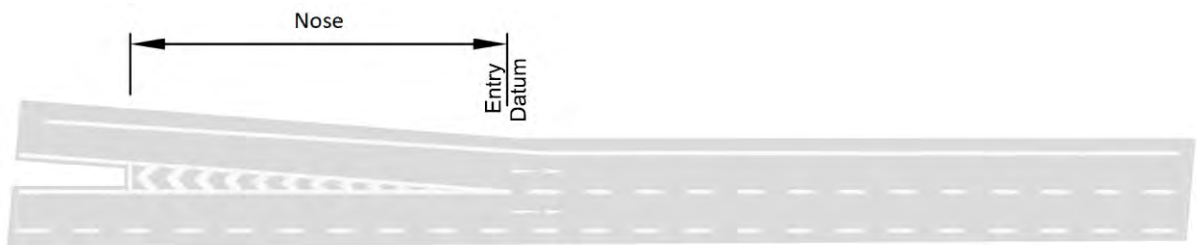


Figure 3.14f Layout E Option 1 - lane gain with ghost island offside merge

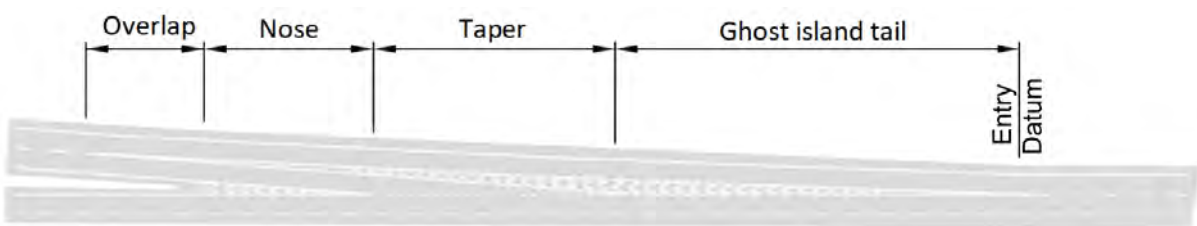


Figure 3.14g Layout E Option 2 - lane gain with ghost island nearside merge

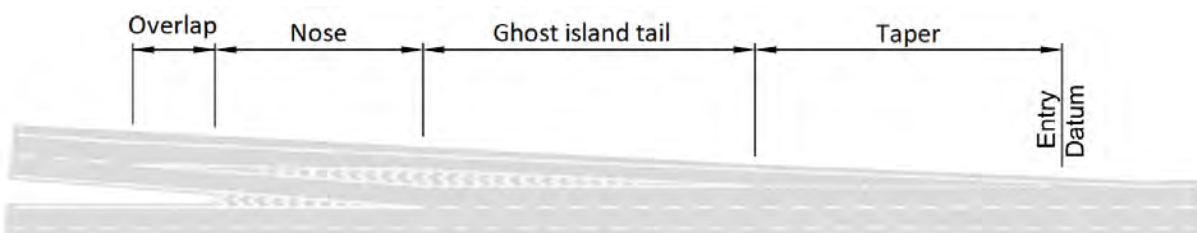
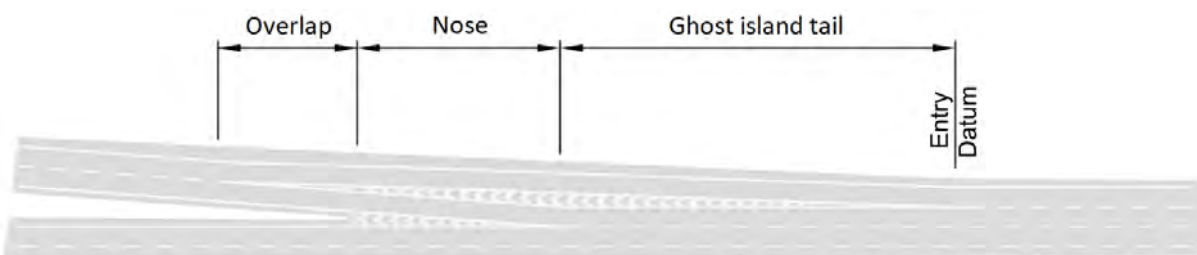


Figure 3.14h Layout F - 2 lane gain with ghost island



- 3.28 A parallel diverge (Layout A option 2) shall be used instead of a taper diverge (Layout A option 1) if one or more of the following apply:
 - 1) the mainline horizontal radius is less than the desirable minimum in a right hand curve direction;
 - 2) the mainline is on an uphill or downhill gradient of 3% or steeper for longer than 1.5 km prior to the start of the taper.
- 3.29 Diverge Layouts B option 2 and D option 2 shall only be used when modifying an existing diverge.
- NOTE For the construction of new junctions and new slip roads at existing junctions, Layouts B option 2 and D option 2 are not used.
- 3.30 Diverge layouts shall be as shown in Figures 3.30a to 3.30j.

Figure 3.30a Layout A option 1 - taper diverge

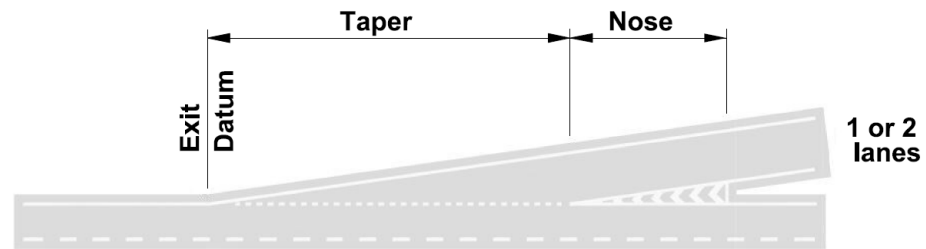


Figure 3.30b Layout A option 2 - Single lane auxillary diverge

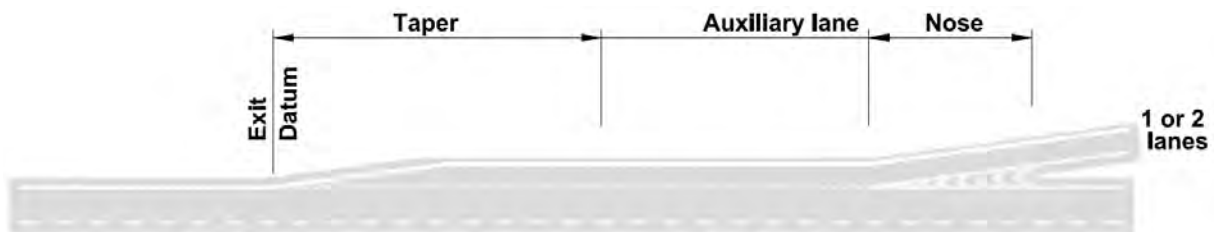


Figure 3.30c Layout B option 1 - ghost island diverge

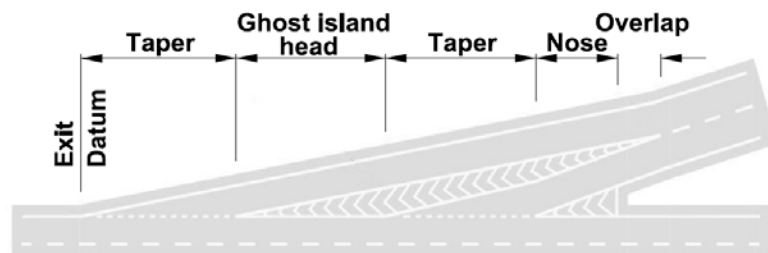


Figure 3.30d Layout B option 2 - Two lane auxillary diverge

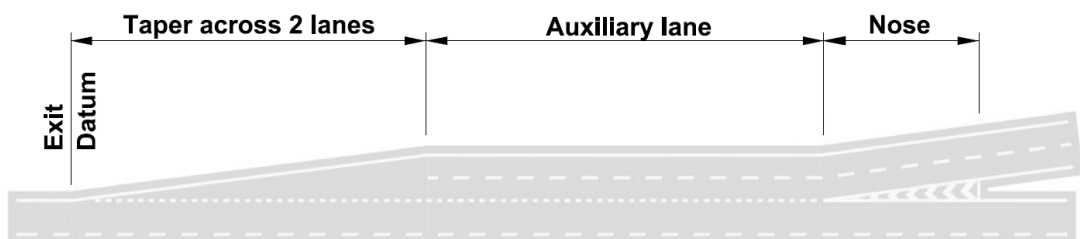


Figure 3.30e Layout C - lane drop

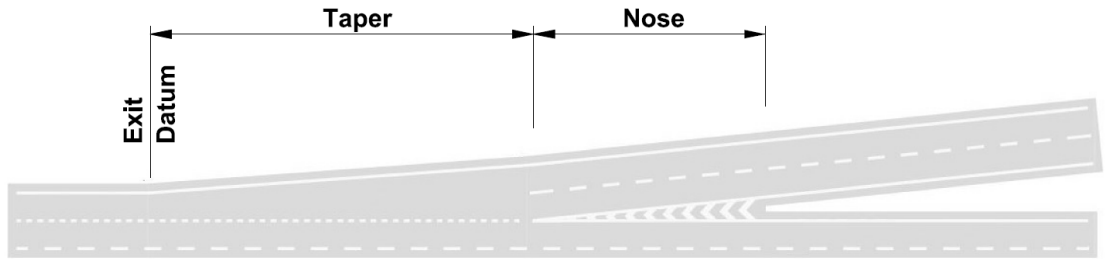


Figure 3.30f Layout D option 1 - ghost island lane drop

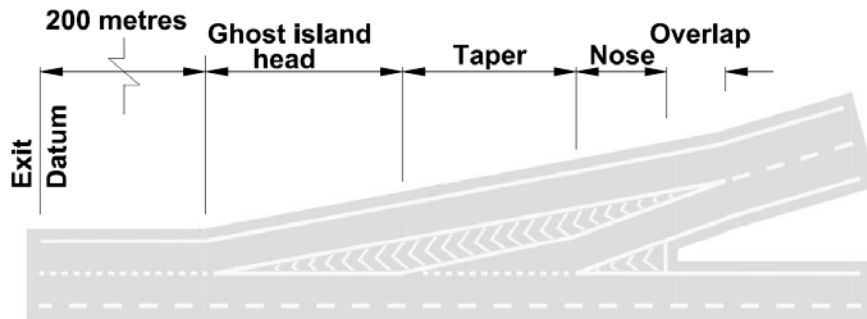


Figure 3.30g Layout D option 2 - auxilliary lane lane drop

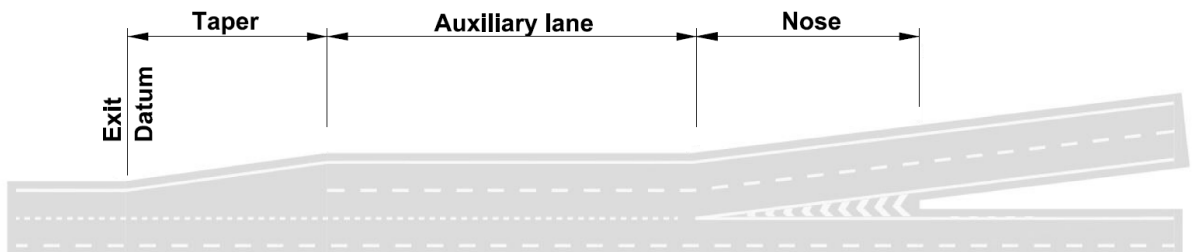
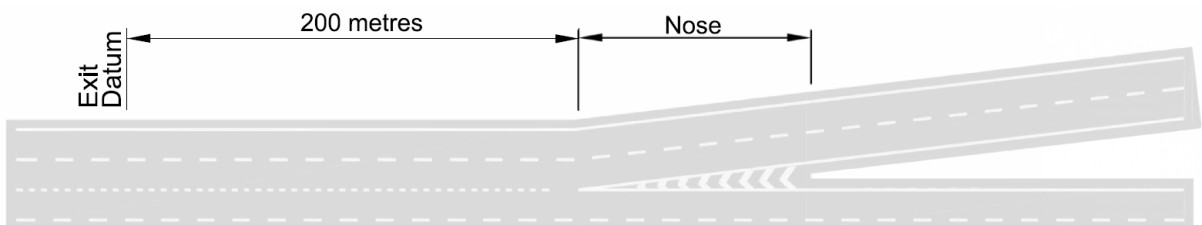
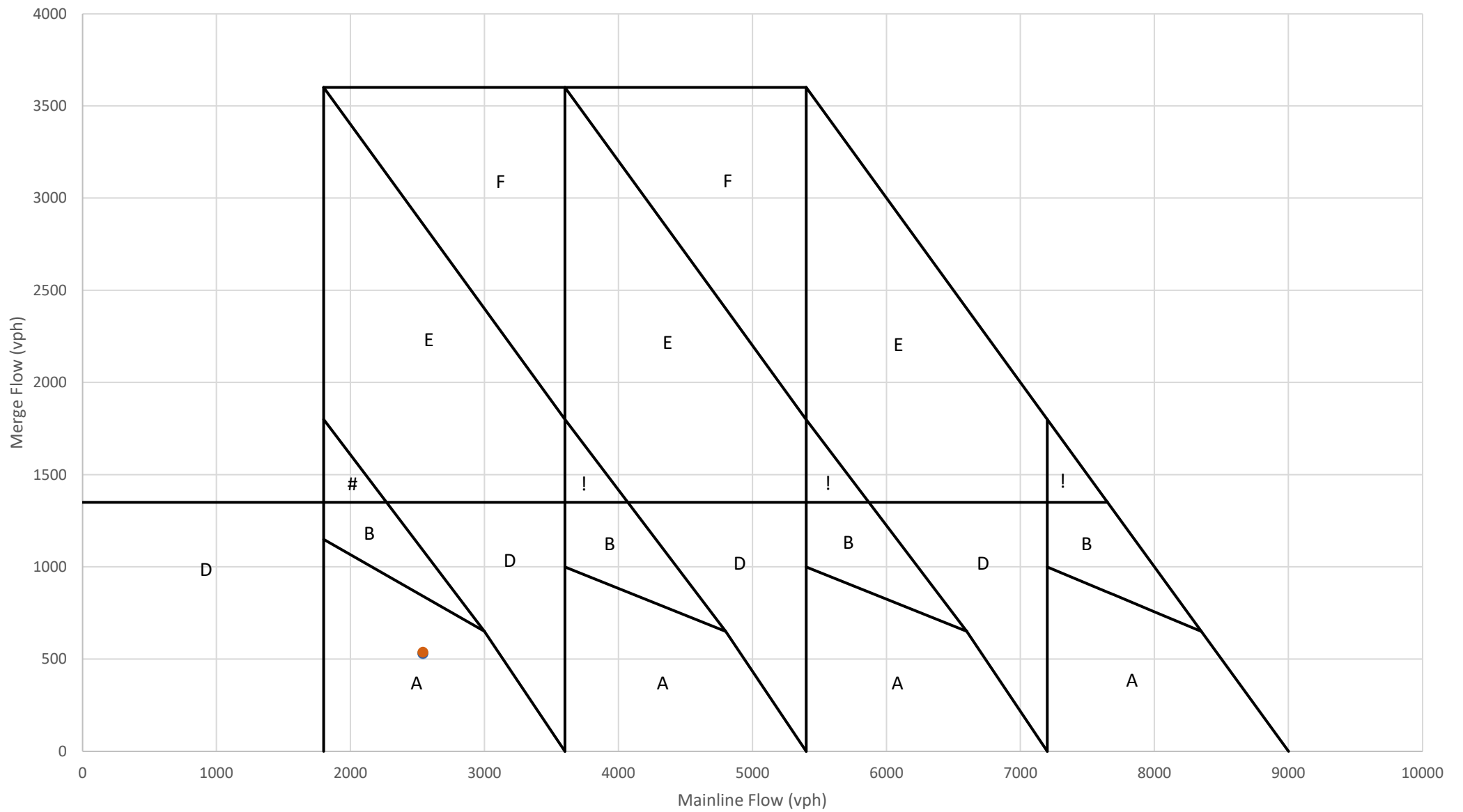


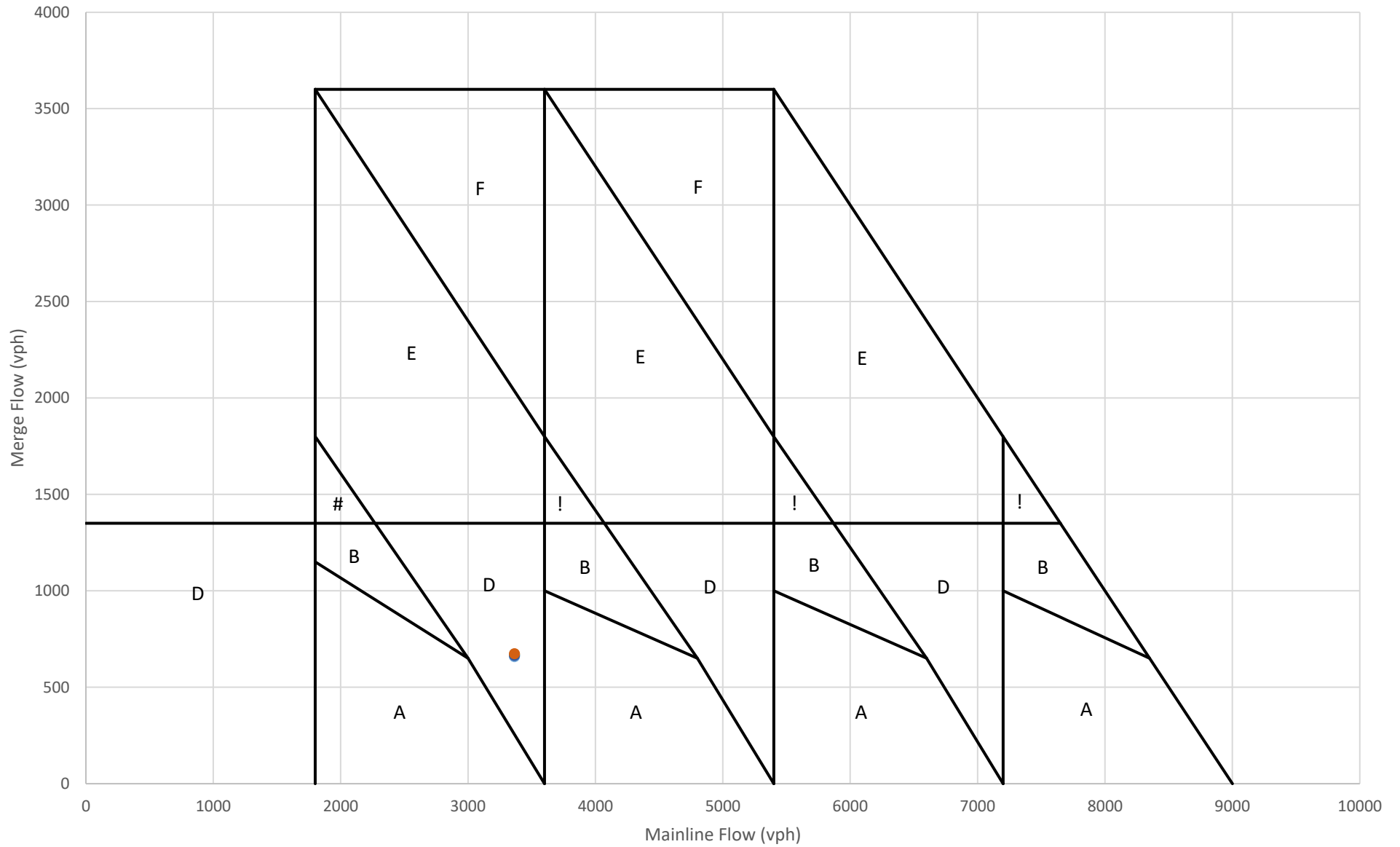
Figure 3.30h Layout E - 2 lane drop



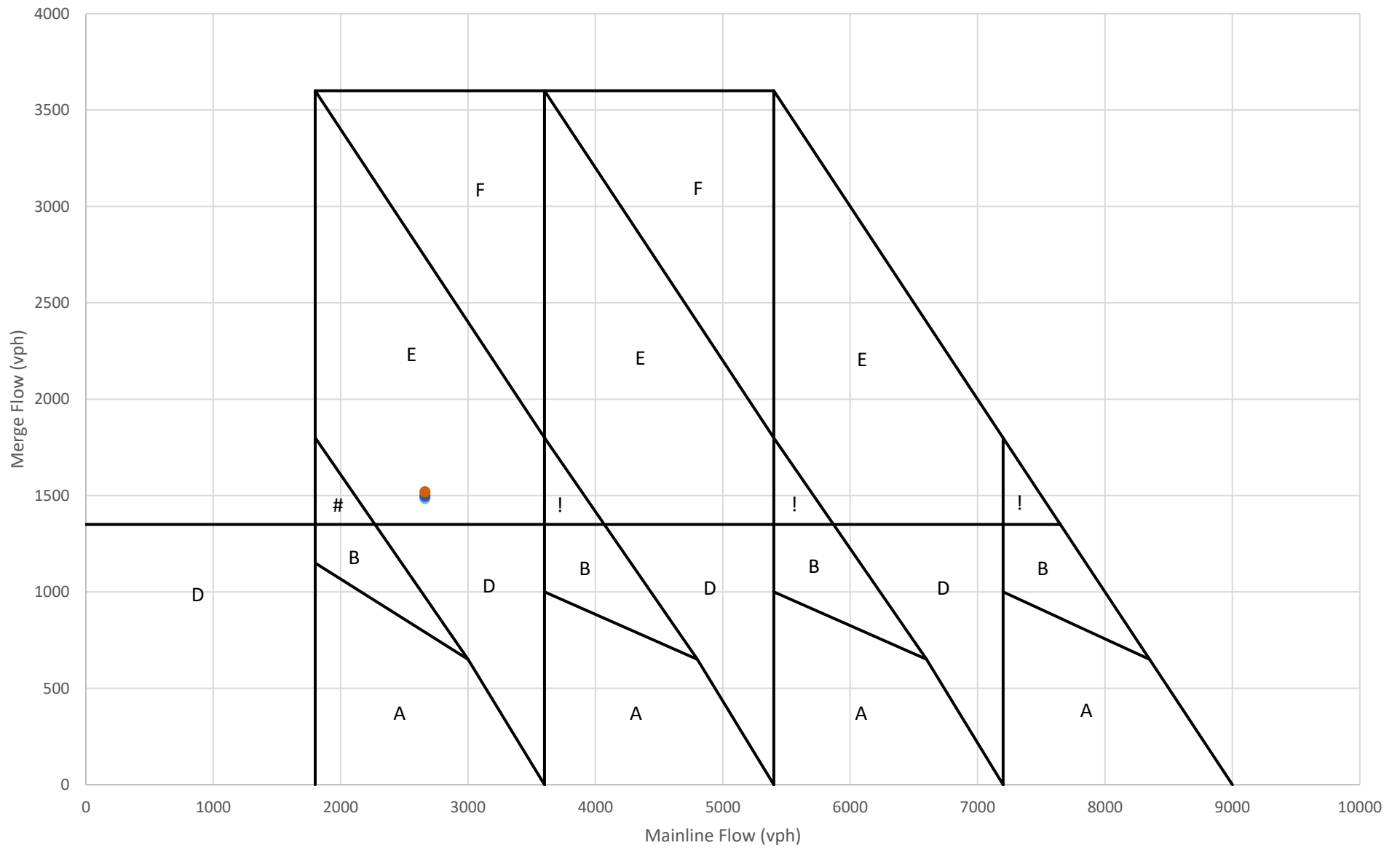
M40 Junction 10 Northbound Merge AM (2025)



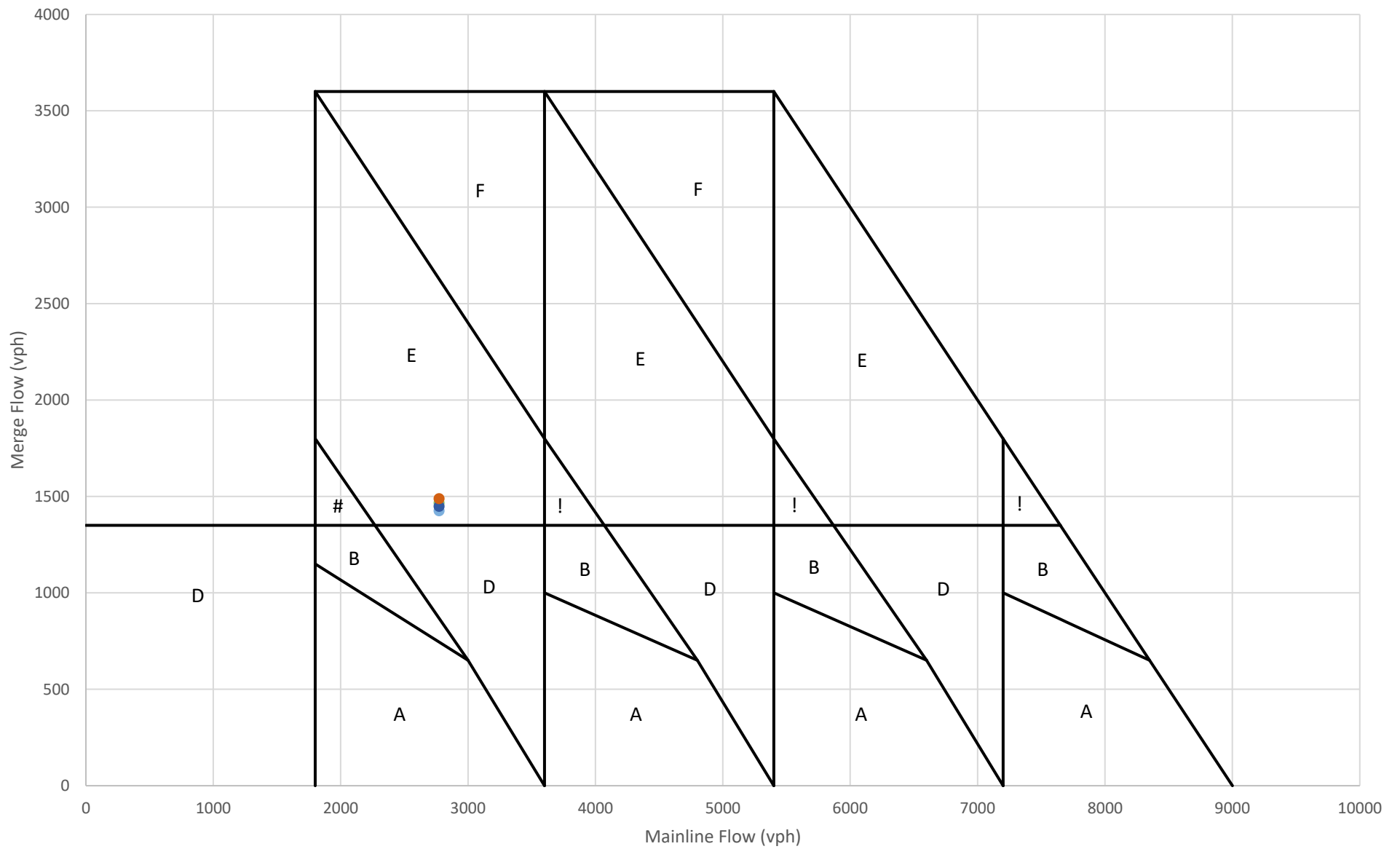
M40 Junction 10 Northbound Merge PM (2025)



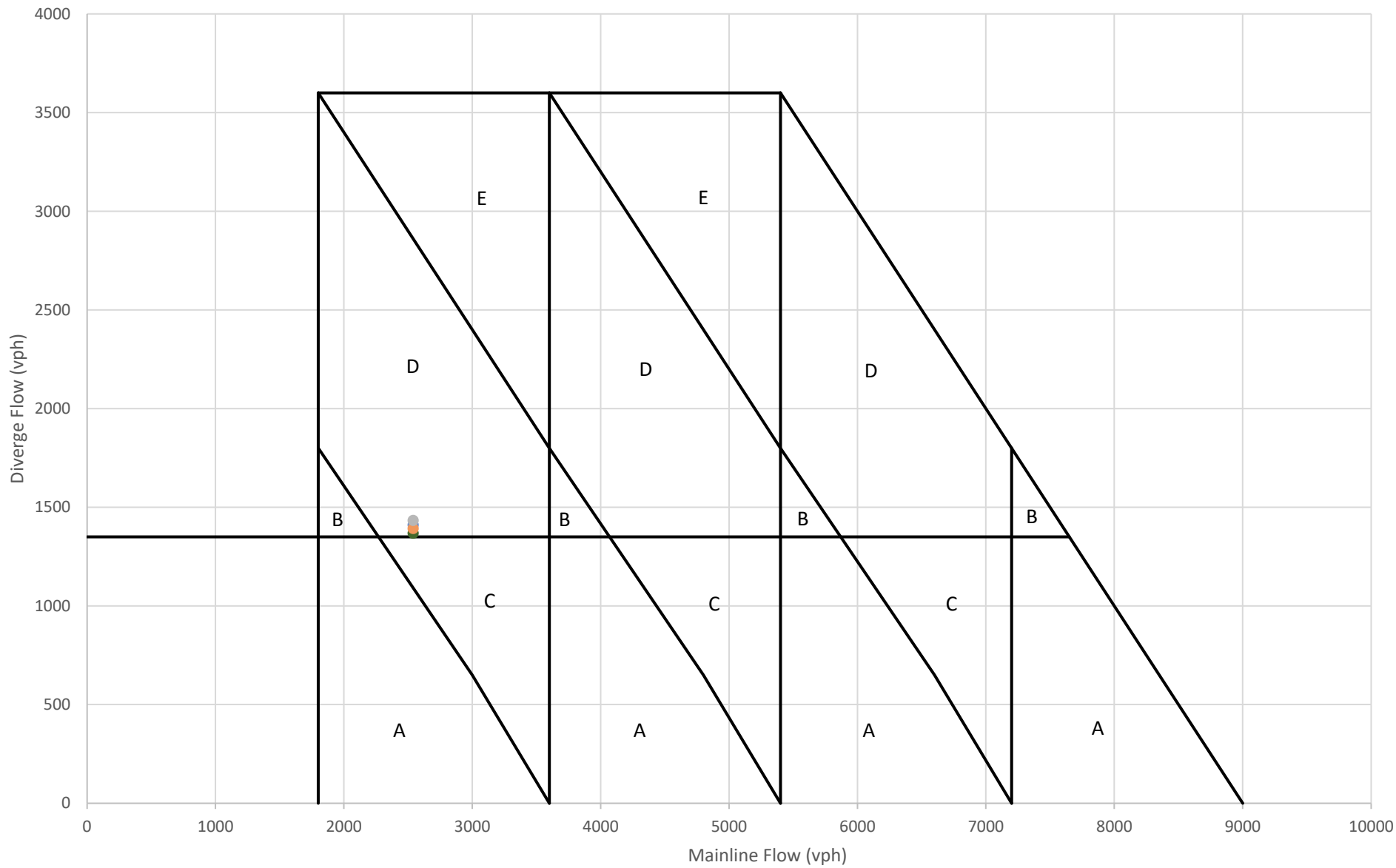
M40 Junction 10 Southbound Merge AM (2025)



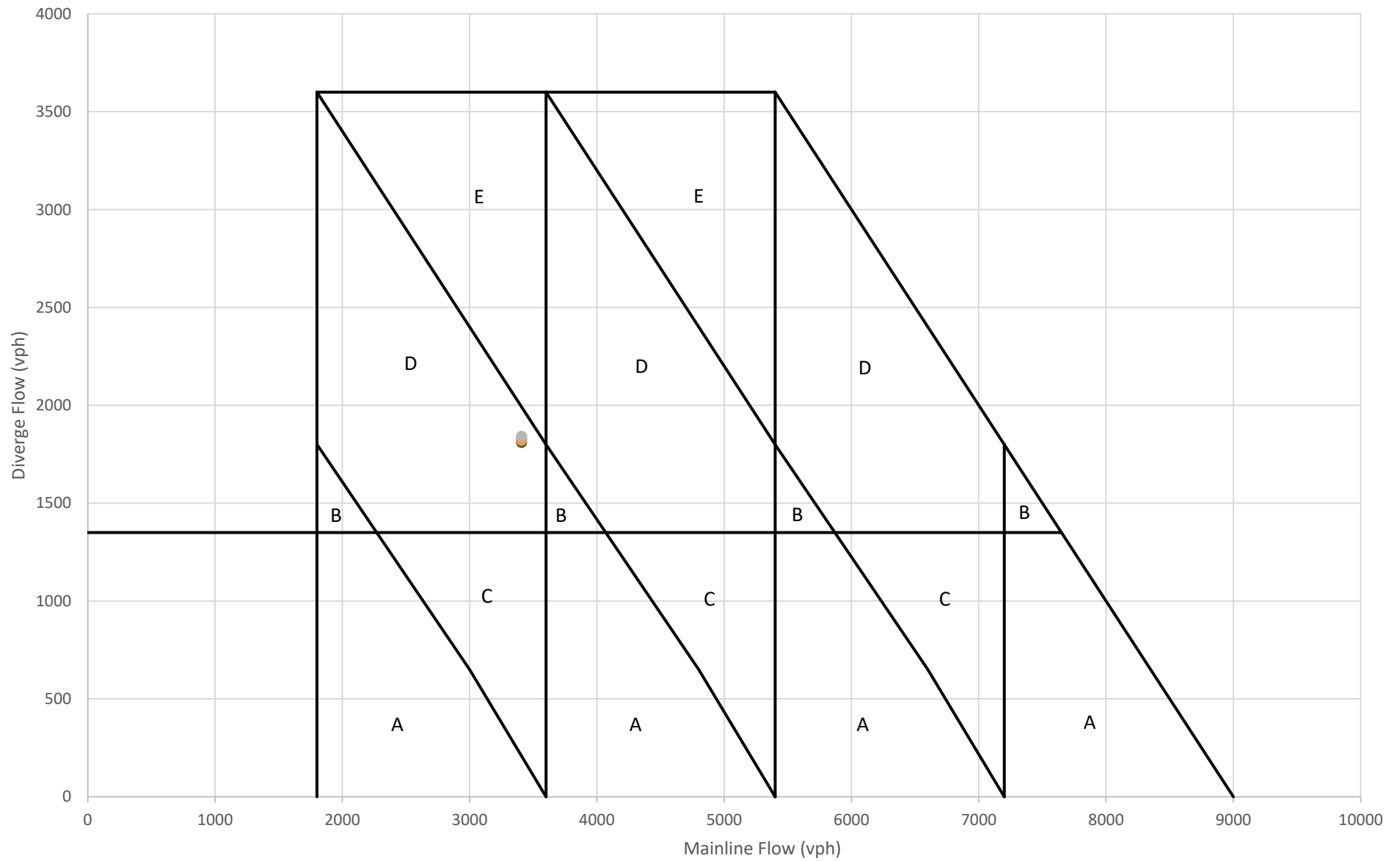
M40 Junction 10 Southbound Merge PM (2025)



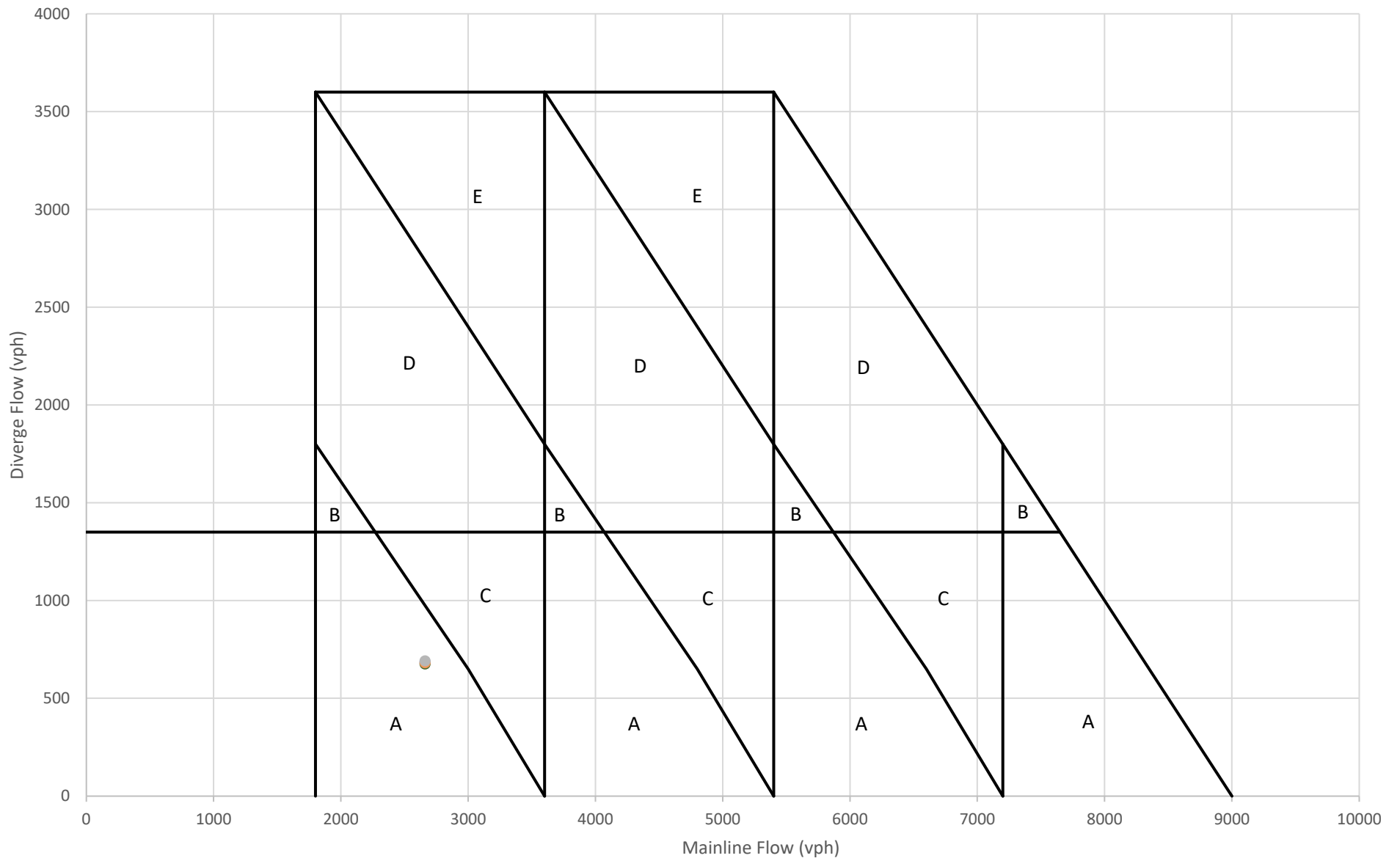
M40 Junction 10 Northbound Diverge AM (2025)



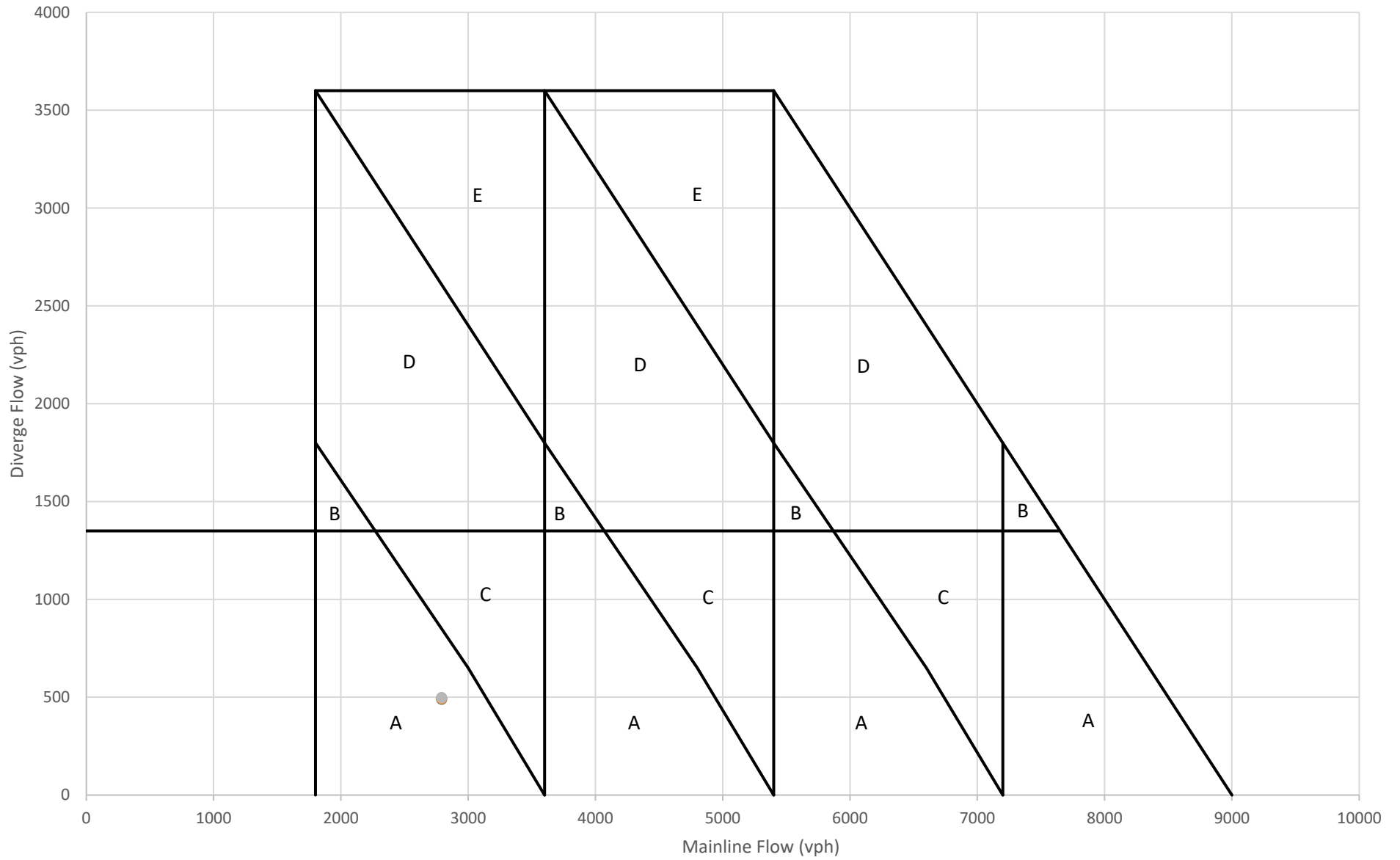
M40 Junction 10 Northbound Diverge PM (2025)



M40 Junction 10 Southbound Diverge AM (2025)



M40 Junction 10 Southbound Diverge PM (2025)





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