Norwich Western Link

Transport Assessment - Appendix 11 – Junction Model Results

Sub Appendix 11r – Junction 21 A1270 Broadland Northway/ Brewery Lane/ Drayton Lane roundabout

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Contents

Figures

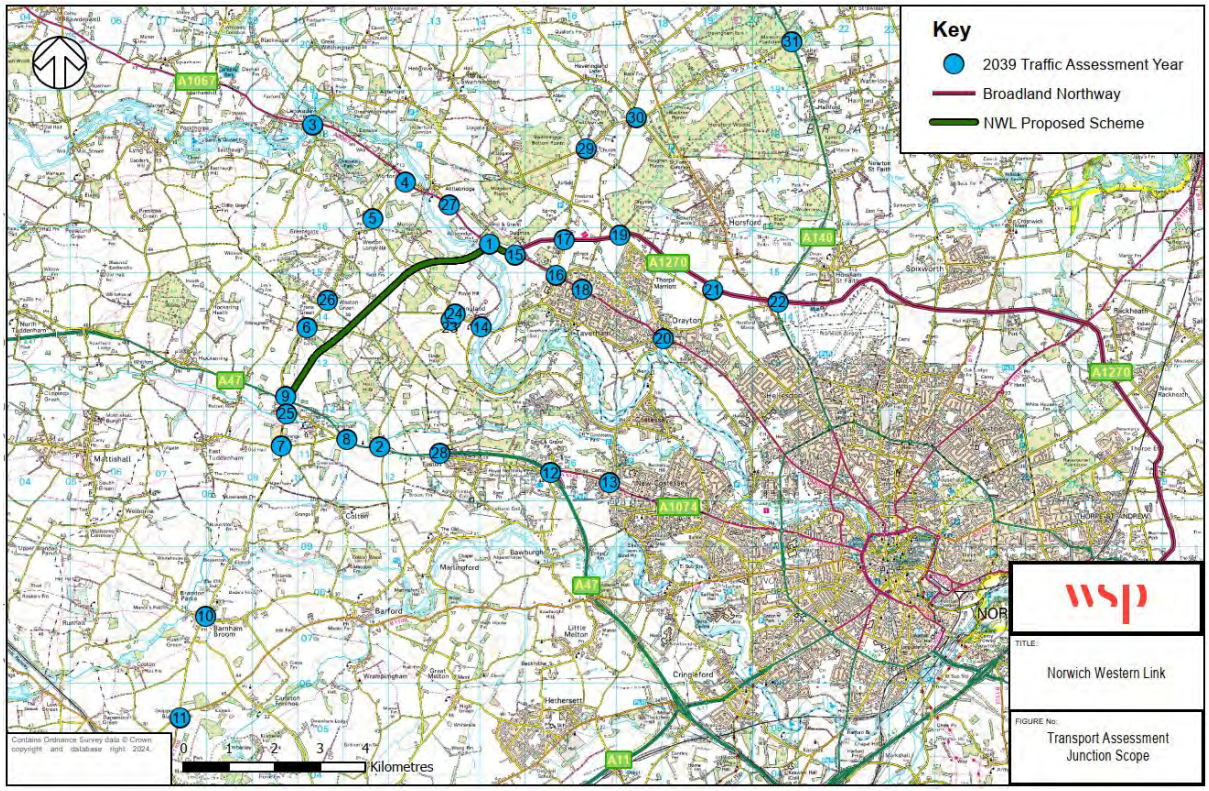
1 Junction Model Results

1.1.1 Junctions 10 modelling software output file that shows the junction capacity results for Junction 21 of the TA.

1.1.2 We have included a summary of key information shown in this document in an accessible format. However, some users may not be able to access all technical details. If you require this document in a more accessible format please contact norwichwesternlink@norfolk.gov.uk

1.1.3 The TA scope map is shown below as a location plan.

Figure 1-1 Junction Assessment Scope



1.1.4 The model results are presented for 2029 and 2039 future assessment years for AM and PM peak hours, taking 7.30-8.30am and AM peak and 5pm-6pm as PM peak.

1.1.5 The scenarios tested are as follows with and without the NCC emerging mitigation scheme shown in **Appendix 10** (Document Reference 4.01.10):

- Do Minimum – the baseline future situation with committed developments and planned highway improvements but without the Proposed Scheme.
- Do Something - the baseline future situation with the Proposed Scheme.
- Do Something + Mitigation - the baseline future situation with the Proposed Scheme added plus a package of traffic mitigation measures in the wider network (north of A1067 and south of A47 plus Honingham Lane closure).

J21 – A1270 Broadland Northway/ Brewery Lane/ Drayton Lane roundabout Results

Junctions 10

ARCADY 10 - Roundabout Module

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

Filename: J21_OS_Base Geometry_240122_FP.j10
Path: \\corp.pbwan.net\IN\IN_Projects\70118686-70061370-Norwich Western Link 2019 20\04 Record of Issue\4A Internal WSP Doc Registers\20240129_Model Reports (wo 2044)\J21\Flat Profile
Report generation date: 30/01/2024 14:34:57

Summary of junction performance

	AM					PM				
	Set ID	Queue (PCU)	Delay (s)	RFC	LOS	Set ID	Queue (PCU)	Delay (s)	RFC	LOS
	2029DM									
A - Brewery Lane	D1	86.4	509.98	1.15	F	D2	1.3	10.26	0.56	B
B - Broadland Northway (E)		1.1	2.79	0.50	A		1.3	2.95	0.56	A
C - Drayton Lane (S)		51.3	233.72	1.05	F		175.6	815.09	1.25	F
D - Broadland Northway (W)		1.2	3.50	0.55	A		0.6	2.46	0.39	A
	2029DS									
A - Brewery Lane	D3	158.7	1095.27	1.34	F	D4	1.6	13.39	0.62	B
B - Broadland Northway (E)		1.3	3.23	0.57	A		1.4	3.18	0.58	A
C - Drayton Lane (S)		102.5	502.95	1.15	F		124.6	629.66	1.19	F
D - Broadland Northway (W)		2.0	4.56	0.66	A		0.9	2.87	0.48	A
	2029DS_Mitigation									
A - Brewery Lane	D5	133.3	1020.25	1.32	F	D6	1.5	13.96	0.59	B
B - Broadland Northway (E)		1.6	3.54	0.61	A		1.8	3.61	0.64	A
C - Drayton Lane (S)		163.9	836.97	1.26	F		195.8	1067.58	1.33	F
D - Broadland Northway (W)		2.4	4.96	0.70	A		1.2	3.34	0.55	A
	2039DM									
A - Brewery Lane	D7	407.9	3087.39	1.98	F	D8	1.7	12.43	0.62	B
B - Broadland Northway (E)		0.9	2.50	0.46	A		2.0	3.89	0.66	A
C - Drayton Lane (S)		210.9	903.70	1.28	F		305.2	1639.23	1.52	F
D - Broadland Northway (W)		2.0	4.65	0.66	A		0.8	2.63	0.43	A
	2039DS									
A - Brewery Lane	D9	502.5	5014.79	2.59	F	D10	2.6	19.91	0.72	C
B - Broadland Northway (E)		1.1	2.78	0.51	A		2.5	4.68	0.71	A
C - Drayton Lane (S)		232.8	1104.85	1.34	F		286.1	1783.01	1.56	F
D - Broadland Northway (W)		3.6	6.89	0.78	A		1.2	3.25	0.55	A
	2039DS_Mitigation									
A - Brewery Lane	D11	554.7	7218.21	3.30	F	D12	2.0	18.63	0.67	C
B - Broadland Northway (E)		1.1	2.80	0.52	A		3.3	5.66	0.76	A
C - Drayton Lane (S)		218.3	1042.14	1.32	F		371.8	2589.31	1.82	F
D - Broadland Northway (W)		5.3	9.37	0.84	A		1.6	3.80	0.61	A

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

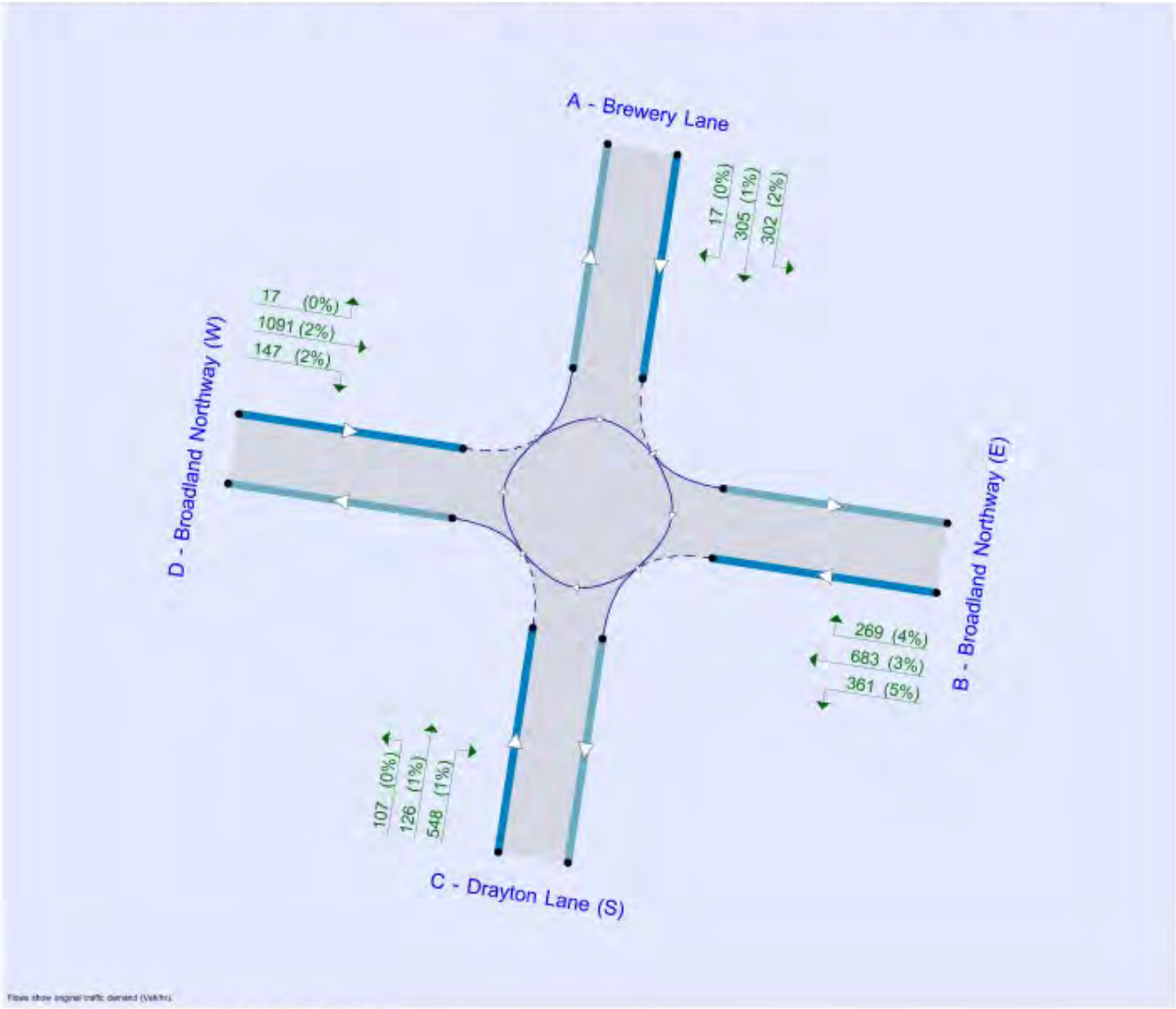
File summary

File Description

Title	Broadland Northway/ Drayton Lane
Location	52.686663808552474, 1.241000484536698
Site number	J21
Date	21/03/2023
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	CORP\INVN01911
Description	

Units

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



The junction diagram reflects the last run of Junctions.

Analysis Options

Vehicle length (m)	Calculate Queue Percentiles	Calculate detailed queueing delay	Show lane queues in feet / metres	Show all PICADY stream intercepts	Calculate residual capacity	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)	Use iterations with HCM roundabouts	Max number of iterations for roundabouts
5.75						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 period length (min)	Time segment length (min)	Run automatically
D1	2029DM	AM	FLAT	07:15	08:15	60	15	✓
D2	2029DM	PM	FLAT	16:45	17:45	60	15	✓
D3	2029DS	AM	FLAT	07:15	08:15	60	15	✓
D4	2029DS	PM	FLAT	16:45	17:45	60	15	✓
D5	2029DS_Mitigation	AM	FLAT	07:15	08:15	60	15	✓
D6	2029DS_Mitigation	PM	FLAT	16:45	17:45	60	15	✓
D7	2039DM	AM	FLAT	07:15	08:15	60	15	✓
D8	2039DM	PM	FLAT	16:45	17:45	60	15	✓
D9	2039DS	AM	FLAT	07:15	08:15	60	15	✓
D10	2039DS	PM	FLAT	16:45	17:45	60	15	✓
D11	2039DS_Mitigation	AM	FLAT	07:15	08:15	60	15	✓
D12	2039DS_Mitigation	PM	FLAT	16:45	17:45	60	15	✓

Analysis Set Details

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

2029DM, 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
J21	Broadland Northway/ Drayton Lane	Standard Roundabout		A, B, C, D	126.50	F

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	126.50	F

Arms

Arms

Arm	Name	Description	No give-way line
A	Brewery Lane		
B	Broadland Northway (E)		
C	Drayton Lane (S)		
D	Broadland Northway (W)		

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
A - Brewery Lane	4.94	6.99	7.5	19.0	90.0	41.0		
B - Broadland Northway (E)	8.07	10.30	12.7	18.1	90.0	18.0		
C - Drayton Lane (S)	3.53	6.45	17.3	17.9	90.0	40.0		
D - Broadland Northway (W)	8.21	10.59	13.2	21.0	90.0	34.0		

Slope / Intercept / Capacity

Arm Intercept Adjustments

Arm	Type	Reason	Direct intercept adjustment (PCU/hr)
A - Brewery Lane	Direct		-390
B - Broadland Northway (E)	None		
C - Drayton Lane (S)	Direct		-400
D - Broadland Northway (W)	None		

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
A - Brewery Lane	0.455	1384
B - Broadland Northway (E)	0.646	2983
C - Drayton Lane (S)	0.430	1178
D - Broadland Northway (W)	0.626	2911

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)	Run automatically
D1	2029DM	AM	FLAT	07:15	08:15	60	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 (Veh/hr)	Scaling Factor (%)
A - Brewery Lane		FLAT	✓	624	100.000
B - Broadland Northway (E)		FLAT	✓	1313	100.000
C - Drayton Lane (S)		FLAT	✓	780	100.000
D - Broadland Northway (W)		FLAT	✓	1256	100.000

Origin-Destination Data

Demand (Veh/hr)

		To			
		A - Brewery Lane	B - Broadland Northway (E)	C - Drayton Lane (S)	D - Broadland Northway (W)
From	A - Brewery Lane	0	302	305	17
	B - Broadland Northway (E)	269	0	361	683
	C - Drayton Lane (S)	126	548	0	107
	D - Broadland Northway (W)	17	1091	147	0

Proportions

		To		
		A - Brewery Lane	B - Broadland Northway (E)	D
From	A - Brewery Lane	0.00	0.48	
	B - Broadland Northway (E)	0.20	0.00	
	C - Drayton Lane (S)	0.16	0.70	
	D - Broadland Northway (W)	0.01	0.87	

Vehicle Mix

Heavy Vehicle Percentages

		To			
		A - Brewery Lane	B - Broadland Northway (E)	C - Drayton Lane (S)	D - Broadland Northway (W)
From	A - Brewery Lane	0	2	1	0
	B - Broadland Northway (E)	4	0	5	3
	C - Drayton Lane (S)	1	1	0	0
	D - Broadland Northway (W)	0	2	2	0

Average PCU Per Veh

		To		
		A - Brewery Lane	B - Broadland Northway (E)	D
From	A - Brewery Lane	1.000	1.018	
	B - Broadland Northway (E)	1.036	1.000	
	C - Drayton Lane (S)	1.008	1.008	
	D - Broadland Northway (W)	1.000	1.023	

Detailed Demand Data

Demand for each time segment

Time Segment	Arm	Demand (Veh/hr)	Demand in PCU (PCU/hr)
07:15-07:30	A - Brewery Lane	624	632
	B - Broadland Northway (E)	1313	1363
	C - Drayton Lane (S)	780	786
	D - Broadland Northway (W)	1256	1284
07:30-07:45	A - Brewery Lane	624	632
	B - Broadland Northway (E)	1313	1363
	C - Drayton Lane (S)	780	786
	D - Broadland Northway (W)	1256	1284
07:45-08:00	A - Brewery Lane	624	632
	B - Broadland Northway (E)	1313	1363
	C - Drayton Lane (S)	780	786
	D - Broadland Northway (W)	1256	1284
08:00-08:15	A - Brewery Lane	624	632
	B - Broadland Northway (E)	1313	1363
	C - Drayton Lane (S)	780	786
	D - Broadland Northway (W)	1256	1284

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)
A - Brewery Lane	1.15	509.98	86.4	F	632	632
B - Broadland Northway (E)	0.50	2.79	1.1	A	1363	1363
C - Drayton Lane (S)	1.05	233.72	51.3	F	786	786
D - Broadland Northway (W)	0.55	3.50	1.2	A	1284	1284

Main Results for each time segment

07:15 - 07:30

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
A - Brewery Lane	632	158	1762	562	1.125	538	409	0.0	23.4	94.276	F
B - Broadland Northway (E)	1363	341	427	2707	0.504	1359	1874	0.0	1.0	2.764	A
C - Drayton Lane (S)	786	196	994	750	1.048	711	791	0.0	18.6	61.574	F
D - Broadland Northway (W)	1284	321	892	2353	0.546	1280	813	0.0	1.2	3.414	A

07:30 - 07:45

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
A - Brewery Lane	632	158	1786	551	1.148	548	415	23.4	44.5	238.892	F
B - Broadland Northway (E)	1363	341	432	2704	0.504	1363	1902	1.0	1.1	2.787	A
C - Drayton Lane (S)	786	196	998	748	1.050	739	798	18.6	30.3	132.815	F
D - Broadland Northway (W)	1284	321	917	2338	0.549	1284	820	1.2	1.2	3.494	A

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
A - Brewery Lane	632	158	1789	549	1.151	548	415	44.5	65.4	373.849	F
B - Broadland Northway (E)	1363	341	432	2704	0.504	1363	1905	1.1	1.1	2.787	A
C - Drayton Lane (S)	786	196	998	748	1.050	743	798	30.3	41.0	184.675	F
D - Broadland Northway (W)	1284	321	920	2336	0.550	1284	820	1.2	1.2	3.501	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
A - Brewery Lane	632	158	1791	549	1.152	548	415	65.4	86.4	509.981	F
B - Broadland Northway (E)	1363	341	432	2704	0.504	1363	1907	1.1	1.1	2.787	A
C - Drayton Lane (S)	786	196	998	748	1.050	745	798	41.0	51.3	233.719	F
D - Broadland Northway (W)	1284	321	922	2335	0.550	1284	820	1.2	1.2	3.505	A

2029DM, 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
J21	Broadland Northway/ Drayton Lane	Standard Roundabout		A, B, C, D	188.63	F

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	188.63	F

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically
D2	2029DM	PM	FLAT	16:45	17:45	60	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 (Veh/hr)	Scaling Factor (%)
A - Brewery Lane		FLAT	✓	453	100.000
B - Broadland Northway (E)		FLAT	✓	1533	100.000
C - Drayton Lane (S)		FLAT	✓	858	100.000
D - Broadland Northway (W)		FLAT	✓	936	100.000

Origin-Destination Data

Demand (Veh/hr)

		To			
		A - Brewery Lane	B - Broadland Northway (E)	C - Drayton Lane (S)	D - Broadland Northway (W)
From	A - Brewery Lane	0	289	143	21
	B - Broadland Northway (E)	281	0	439	813
	C - Drayton Lane (S)	253	387	0	218
	D - Broadland Northway (W)	32	789	115	0

Proportions

		To		
		A - Brewery Lane	B - Broadland Northway (E)	D
From	A - Brewery Lane	0.00	0.64	
	B - Broadland Northway (E)	0.18	0.00	
	C - Drayton Lane (S)	0.29	0.45	
	D - Broadland Northway (W)	0.03	0.84	

Vehicle Mix

Heavy Vehicle Percentages

		To			
		A - Brewery Lane	B - Broadland Northway (E)	C - Drayton Lane (S)	D - Broadland Northway (W)
From	A - Brewery Lane	0	0	1	0
	B - Broadland Northway (E)	2	0	0	2
	C - Drayton Lane (S)	0	0	0	0
	D - Broadland Northway (W)	0	1	1	0

Average PCU Per Veh

		To		
		A - Brewery Lane	B - Broadland Northway (E)	D
From	A - Brewery Lane	1.000	1.003	
	B - Broadland Northway (E)	1.025	1.000	
	C - Drayton Lane (S)	1.004	1.000	
	D - Broadland Northway (W)	1.000	1.005	

Detailed Demand Data

Demand for each time segment

Time Segment	Arm	Demand (Veh/hr)	Demand in PCU (PCU/hr)
16:45-17:00	A - Brewery Lane	453	456
	B - Broadland Northway (E)	1533	1559
	C - Drayton Lane (S)	858	859
	D - Broadland Northway (W)	936	941
17:00-17:15	A - Brewery Lane	453	456
	B - Broadland Northway (E)	1533	1559
	C - Drayton Lane (S)	858	859
	D - Broadland Northway (W)	936	941
17:15-17:30	A - Brewery Lane	453	456
	B - Broadland Northway (E)	1533	1559
	C - Drayton Lane (S)	858	859
	D - Broadland Northway (W)	936	941
17:30-17:45	A - Brewery Lane	453	456
	B - Broadland Northway (E)	1533	1559
	C - Drayton Lane (S)	858	859
	D - Broadland Northway (W)	936	941

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)
A - Brewery Lane	0.56	10.26	1.3	B	456	456
B - Broadland Northway (E)	0.56	2.95	1.3	A	1559	1559
C - Drayton Lane (S)	1.25	815.09	175.6	F	859	859
D - Broadland Northway (W)	0.39	2.46	0.6	A	941	941

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
A - Brewery Lane	456	114	1210	813	0.561	451	518	0.0	1.3	9.882	A
B - Broadland Northway (E)	1559	390	280	2802	0.556	1554	1381	0.0	1.3	2.919	A
C - Drayton Lane (S)	859	215	1136	689	1.247	674	697	0.0	46.3	134.177	F
D - Broadland Northway (W)	941	235	790	2417	0.389	938	1020	0.0	0.6	2.443	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
A - Brewery Lane	456	114	1218	809	0.563	456	523	1.3	1.3	10.248	B
B - Broadland Northway (E)	1559	390	282	2801	0.557	1559	1392	1.3	1.3	2.945	A
C - Drayton Lane (S)	859	215	1140	687	1.250	687	701	46.3	89.4	366.650	F
D - Broadland Northway (W)	941	235	800	2411	0.390	941	1026	0.6	0.6	2.461	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
A - Brewery Lane	456	114	1218	809	0.564	456	523	1.3	1.3	10.254	B
B - Broadland Northway (E)	1559	390	282	2801	0.557	1559	1392	1.3	1.3	2.946	A
C - Drayton Lane (S)	859	215	1140	687	1.250	687	701	89.4	132.5	590.492	F
D - Broadland Northway (W)	941	235	800	2411	0.390	941	1027	0.6	0.6	2.462	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
A - Brewery Lane	456	114	1218	809	0.564	456	523	1.3	1.3	10.257	B
B - Broadland Northway (E)	1559	390	282	2801	0.557	1559	1392	1.3	1.3	2.946	A
C - Drayton Lane (S)	859	215	1140	687	1.250	687	701	132.5	175.6	815.090	F
D - Broadland Northway (W)	941	235	801	2411	0.390	941	1027	0.6	0.6	2.462	A

2029DS, 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
J21	Broadland Northway/ Drayton Lane	Standard Roundabout		A, B, C, D	238.46	F

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	238.46	F

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically
D3	2029DS	AM	FLAT	07:15	08:15	60	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 (Veh/hr)	Scaling Factor (%)
A - Brewery Lane		FLAT	✓	612	100.000
B - Broadland Northway (E)		FLAT	✓	1450	100.000
C - Drayton Lane (S)		FLAT	✓	743	100.000
D - Broadland Northway (W)		FLAT	✓	1555	100.000

Origin-Destination Data

Demand (Veh/hr)

		To			
		A - Brewery Lane	B - Broadland Northway (E)	C - Drayton Lane (S)	D - Broadland Northway (W)
From	A - Brewery Lane	0	294	280	37
	B - Broadland Northway (E)	266	0	314	869
	C - Drayton Lane (S)	124	449	0	171
	D - Broadland Northway (W)	20	1301	233	0

Proportions

		To		
		A - Brewery Lane	B - Broadland Northway (E)	D
From	A - Brewery Lane	0.00	0.48	
	B - Broadland Northway (E)	0.18	0.00	
	C - Drayton Lane (S)	0.17	0.60	
	D - Broadland Northway (W)	0.01	0.84	

Vehicle Mix

Heavy Vehicle Percentages

		To			
		A - Brewery Lane	B - Broadland Northway (E)	C - Drayton Lane (S)	D - Broadland Northway (W)
From	A - Brewery Lane	0	2	1	0
	B - Broadland Northway (E)	4	0	6	3
	C - Drayton Lane (S)	1	1	0	4
	D - Broadland Northway (W)	0	3	6	0

Average PCU Per Veh

		To		
		A - Brewery Lane	B - Broadland Northway (E)	D
From	A - Brewery Lane	1.000	1.018	
	B - Broadland Northway (E)	1.036	1.000	
	C - Drayton Lane (S)	1.009	1.012	
	D - Broadland Northway (W)	1.000	1.029	

Detailed Demand Data

Demand for each time segment

Time Segment	Arm	Demand (Veh/hr)	Demand in PCU (PCU/hr)
07:15-07:30	A - Brewery Lane	612	619
	B - Broadland Northway (E)	1450	1508
	C - Drayton Lane (S)	743	757
	D - Broadland Northway (W)	1555	1607
07:30-07:45	A - Brewery Lane	612	619
	B - Broadland Northway (E)	1450	1508
	C - Drayton Lane (S)	743	757
	D - Broadland Northway (W)	1555	1607
07:45-08:00	A - Brewery Lane	612	619
	B - Broadland Northway (E)	1450	1508
	C - Drayton Lane (S)	743	757
	D - Broadland Northway (W)	1555	1607
08:00-08:15	A - Brewery Lane	612	619
	B - Broadland Northway (E)	1450	1508
	C - Drayton Lane (S)	743	757
	D - Broadland Northway (W)	1555	1607

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)
A - Brewery Lane	1.34	1095.27	158.7	F	619	619
B - Broadland Northway (E)	0.57	3.23	1.3	A	1508	1508
C - Drayton Lane (S)	1.15	502.95	102.5	F	757	757
D - Broadland Northway (W)	0.66	4.56	2.0	A	1607	1607

Main Results for each time segment

07:15 - 07:30

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
A - Brewery Lane	619	155	1963	470	1.317	459	401	0.0	40.1	171.517	F
B - Broadland Northway (E)	1508	377	484	2670	0.565	1503	1938	0.0	1.3	3.194	A
C - Drayton Lane (S)	757	189	1198	662	1.143	640	789	0.0	29.2	95.839	F
D - Broadland Northway (W)	1607	402	764	2433	0.661	1599	1074	0.0	2.0	4.423	A

07:30 - 07:45

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
A - Brewery Lane	619	155	1982	462	1.341	461	405	40.1	79.6	481.815	F
B - Broadland Northway (E)	1508	377	487	2669	0.565	1508	1957	1.3	1.3	3.227	A
C - Drayton Lane (S)	757	189	1202	660	1.146	658	792	29.2	53.9	240.901	F
D - Broadland Northway (W)	1607	402	779	2424	0.663	1607	1081	2.0	2.0	4.555	A

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
A - Brewery Lane	619	155	1983	461	1.342	461	405	79.6	119.2	787.881	F
B - Broadland Northway (E)	1508	377	487	2669	0.565	1508	1957	1.3	1.3	3.227	A
C - Drayton Lane (S)	757	189	1202	660	1.146	659	792	53.9	78.3	371.908	F
D - Broadland Northway (W)	1607	402	780	2423	0.663	1607	1081	2.0	2.0	4.560	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
A - Brewery Lane	619	155	1983	461	1.343	461	405	119.2	158.7	1095.267	F
B - Broadland Northway (E)	1508	377	486	2669	0.565	1508	1958	1.3	1.3	3.227	A
C - Drayton Lane (S)	757	189	1202	660	1.146	660	792	78.3	102.5	502.946	F
D - Broadland Northway (W)	1607	402	781	2423	0.663	1607	1082	2.0	2.0	4.561	A

2029DS, 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
J21	Broadland Northway/ Drayton Lane	Standard Roundabout		A, B, C, D	123.07	F

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	123.07	F

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)	Run automatically
D4	2029DS	PM	FLAT	16:45	17:45	60	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 (Veh/hr)	Scaling Factor (%)
A - Brewery Lane		FLAT	✓	437	100.000
B - Broadland Northway (E)		FLAT	✓	1592	100.000
C - Drayton Lane (S)		FLAT	✓	753	100.000
D - Broadland Northway (W)		FLAT	✓	1157	100.000

Origin-Destination Data

Demand (Veh/hr)

		To			
		A - Brewery Lane	B - Broadland Northway (E)	C - Drayton Lane (S)	D - Broadland Northway (W)
From	A - Brewery Lane	0	258	142	37
	B - Broadland Northway (E)	263	0	399	930
	C - Drayton Lane (S)	226	362	0	165
	D - Broadland Northway (W)	37	975	145	0

Proportions

		To		
		A - Brewery Lane	B - Broadland Northway (E)	D
From	A - Brewery Lane	0.00	0.59	
	B - Broadland Northway (E)	0.17	0.00	
	C - Drayton Lane (S)	0.30	0.48	
	D - Broadland Northway (W)	0.03	0.84	

Vehicle Mix

Heavy Vehicle Percentages

		To			
		A - Brewery Lane	B - Broadland Northway (E)	C - Drayton Lane (S)	D - Broadland Northway (W)
From	A - Brewery Lane	0	0	1	0
	B - Broadland Northway (E)	3	0	0	2
	C - Drayton Lane (S)	0	0	0	1
	D - Broadland Northway (W)	0	1	1	0

Average PCU Per Veh

		To		
		A - Brewery Lane	B - Broadland Northway (E)	D
From	A - Brewery Lane	1.000	1.004	
	B - Broadland Northway (E)	1.027	1.000	
	C - Drayton Lane (S)	1.004	1.000	
	D - Broadland Northway (W)	1.000	1.010	

Detailed Demand Data

Demand for each time segment

Time Segment	Arm	Demand (Veh/hr)	Demand in PCU (PCU/hr)
16:45-17:00	A - Brewery Lane	437	440
	B - Broadland Northway (E)	1592	1621
	C - Drayton Lane (S)	753	756
	D - Broadland Northway (W)	1157	1168
17:00-17:15	A - Brewery Lane	437	440
	B - Broadland Northway (E)	1592	1621
	C - Drayton Lane (S)	753	756
	D - Broadland Northway (W)	1157	1168
17:15-17:30	A - Brewery Lane	437	440
	B - Broadland Northway (E)	1592	1621
	C - Drayton Lane (S)	753	756
	D - Broadland Northway (W)	1157	1168
17:30-17:45	A - Brewery Lane	437	440
	B - Broadland Northway (E)	1592	1621
	C - Drayton Lane (S)	753	756
	D - Broadland Northway (W)	1157	1168

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)
A - Brewery Lane	0.62	13.39	1.6	B	440	440
B - Broadland Northway (E)	0.58	3.18	1.4	A	1621	1621
C - Drayton Lane (S)	1.19	629.66	124.6	F	756	756
D - Broadland Northway (W)	0.48	2.87	0.9	A	1168	1168

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
A - Brewery Lane	440	110	1424	716	0.615	434	492	0.0	1.6	12.606	B
B - Broadland Northway (E)	1621	405	324	2774	0.584	1615	1534	0.0	1.4	3.149	A
C - Drayton Lane (S)	756	189	1254	638	1.185	620	685	0.0	34.0	111.702	F
D - Broadland Northway (W)	1168	292	752	2441	0.479	1164	1122	0.0	0.9	2.838	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
A - Brewery Lane	440	110	1435	711	0.619	440	498	1.6	1.6	13.357	B
B - Broadland Northway (E)	1621	405	327	2772	0.585	1621	1548	1.4	1.4	3.184	A
C - Drayton Lane (S)	756	189	1259	636	1.189	635	689	34.0	64.4	292.011	F
D - Broadland Northway (W)	1168	292	764	2433	0.480	1168	1129	0.9	0.9	2.871	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
A - Brewery Lane	440	110	1435	711	0.619	440	498	1.6	1.6	13.385	B
B - Broadland Northway (E)	1621	405	327	2772	0.585	1621	1548	1.4	1.4	3.184	A
C - Drayton Lane (S)	756	189	1259	636	1.189	635	689	64.4	94.5	460.587	F
D - Broadland Northway (W)	1168	292	765	2433	0.480	1168	1129	0.9	0.9	2.872	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
A - Brewery Lane	440	110	1435	710	0.619	440	498	1.6	1.6	13.393	B
B - Broadland Northway (E)	1621	405	327	2772	0.585	1621	1548	1.4	1.4	3.184	A
C - Drayton Lane (S)	756	189	1259	636	1.189	636	689	94.5	124.6	629.664	F
D - Broadland Northway (W)	1168	292	765	2433	0.480	1168	1129	0.9	0.9	2.873	A

2029DS_Mitigation, 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
J21	Broadland Northway/ Drayton Lane	Standard Roundabout		A, B, C, D	263.14	F

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	263.14	F

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)	Run automatically
D5	2029DS_Mitigation	AM	FLAT	07:15	08:15	60	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 (Veh/hr)	Scaling Factor (%)
A - Brewery Lane		FLAT	✓	541	100.000
B - Broadland Northway (E)		FLAT	✓	1569	100.000
C - Drayton Lane (S)		FLAT	✓	772	100.000
D - Broadland Northway (W)		FLAT	✓	1669	100.000

Origin-Destination Data

Demand (Veh/hr)

		To			
		A - Brewery Lane	B - Broadland Northway (E)	C - Drayton Lane (S)	D - Broadland Northway (W)
From	A - Brewery Lane	0	241	261	39
	B - Broadland Northway (E)	222	0	354	993
	C - Drayton Lane (S)	120	476	0	175
	D - Broadland Northway (W)	22	1420	227	0

Proportions

		To		
		A - Brewery Lane	B - Broadland Northway (E)	D
From	A - Brewery Lane	0.00	0.44	
	B - Broadland Northway (E)	0.14	0.00	
	C - Drayton Lane (S)	0.16	0.62	
	D - Broadland Northway (W)	0.01	0.85	

Vehicle Mix

Heavy Vehicle Percentages

		To			
		A - Brewery Lane	B - Broadland Northway (E)	C - Drayton Lane (S)	D - Broadland Northway (W)
From	A - Brewery Lane	0	2	1	0
	B - Broadland Northway (E)	4	0	5	3
	C - Drayton Lane (S)	1	1	0	4
	D - Broadland Northway (W)	0	3	5	0

Average PCU Per Veh

		To		
		A - Brewery Lane	B - Broadland Northway (E)	D
From	A - Brewery Lane	1.000	1.022	
	B - Broadland Northway (E)	1.043	1.000	
	C - Drayton Lane (S)	1.009	1.011	
	D - Broadland Northway (W)	1.000	1.028	

Detailed Demand Data

Demand for each time segment

Time Segment	Arm	Demand (Veh/hr)	Demand in PCU (PCU/hr)
07:15-07:30	A - Brewery Lane	541	549
	B - Broadland Northway (E)	1569	1628
	C - Drayton Lane (S)	772	786
	D - Broadland Northway (W)	1669	1719
07:30-07:45	A - Brewery Lane	541	549
	B - Broadland Northway (E)	1569	1628
	C - Drayton Lane (S)	772	786
	D - Broadland Northway (W)	1669	1719
07:45-08:00	A - Brewery Lane	541	549
	B - Broadland Northway (E)	1569	1628
	C - Drayton Lane (S)	772	786
	D - Broadland Northway (W)	1669	1719
08:00-08:15	A - Brewery Lane	541	549
	B - Broadland Northway (E)	1569	1628
	C - Drayton Lane (S)	772	786
	D - Broadland Northway (W)	1669	1719

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)
A - Brewery Lane	1.32	1020.25	133.3	F	549	549
B - Broadland Northway (E)	0.61	3.54	1.6	A	1628	1628
C - Drayton Lane (S)	1.26	836.97	163.9	F	786	786
D - Broadland Northway (W)	0.70	4.96	2.4	A	1719	1719

Main Results for each time segment

07:15 - 07:30

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
A - Brewery Lane	549	137	2064	425	1.293	412	347	0.0	34.2	164.648	F
B - Broadland Northway (E)	1628	407	464	2683	0.607	1621	2012	0.0	1.6	3.495	A
C - Drayton Lane (S)	786	196	1279	627	1.252	613	806	0.0	43.2	138.480	F
D - Broadland Northway (W)	1719	430	701	2473	0.695	1710	1191	0.0	2.3	4.805	A

07:30 - 07:45

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
A - Brewery Lane	549	137	2080	417	1.316	417	350	34.2	67.2	454.113	F
B - Broadland Northway (E)	1628	407	467	2681	0.607	1628	2029	1.6	1.6	3.544	A
C - Drayton Lane (S)	786	196	1284	625	1.257	624	811	43.2	83.5	377.098	F
D - Broadland Northway (W)	1719	430	711	2467	0.697	1719	1198	2.3	2.3	4.958	A

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
A - Brewery Lane	549	137	2080	417	1.316	417	350	67.2	100.3	738.635	F
B - Broadland Northway (E)	1628	407	468	2681	0.607	1628	2029	1.6	1.6	3.544	A
C - Drayton Lane (S)	786	196	1285	625	1.257	625	811	83.5	123.7	606.639	F
D - Broadland Northway (W)	1719	430	711	2467	0.697	1719	1198	2.3	2.4	4.962	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
A - Brewery Lane	549	137	2080	417	1.316	417	350	100.3	133.3	1020.251	F
B - Broadland Northway (E)	1628	407	468	2681	0.607	1628	2029	1.6	1.6	3.545	A
C - Drayton Lane (S)	786	196	1285	625	1.257	625	811	123.7	163.9	836.967	F
D - Broadland Northway (W)	1719	430	711	2466	0.697	1719	1198	2.4	2.4	4.962	A

2029DS_Mitigation, 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
J21	Broadland Northway/ Drayton Lane	Standard Roundabout		A, B, C, D	198.01	F

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	198.01	F

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)	Run automatically
D6	2029DS_Mitigation	PM	FLAT	16:45	17:45	60	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 (Veh/hr)	Scaling Factor (%)
A - Brewery Lane		FLAT	✓	377	100.000
B - Broadland Northway (E)		FLAT	✓	1738	100.000
C - Drayton Lane (S)		FLAT	✓	774	100.000
D - Broadland Northway (W)		FLAT	✓	1335	100.000

Origin-Destination Data

Demand (Veh/hr)

		To			
		A - Brewery Lane	B - Broadland Northway (E)	C - Drayton Lane (S)	D - Broadland Northway (W)
From	A - Brewery Lane	0	210	130	37
	B - Broadland Northway (E)	299	0	423	1016
	C - Drayton Lane (S)	231	374	0	169
	D - Broadland Northway (W)	37	1153	145	0

Proportions

		To		
		A - Brewery Lane	B - Broadland Northway (E)	D
From	A - Brewery Lane	0.00	0.56	
	B - Broadland Northway (E)	0.17	0.00	
	C - Drayton Lane (S)	0.30	0.48	
	D - Broadland Northway (W)	0.03	0.86	

Vehicle Mix

Heavy Vehicle Percentages

		To			
		A - Brewery Lane	B - Broadland Northway (E)	C - Drayton Lane (S)	D - Broadland Northway (W)
From	A - Brewery Lane	0	0	2	0
	B - Broadland Northway (E)	2	0	0	2
	C - Drayton Lane (S)	0	0	0	1
	D - Broadland Northway (W)	0	1	1	0

Average PCU Per Veh

		To		
		A - Brewery Lane	B - Broadland Northway (E)	D
From	A - Brewery Lane	1.000	1.005	
	B - Broadland Northway (E)	1.023	1.000	
	C - Drayton Lane (S)	1.004	1.000	
	D - Broadland Northway (W)	1.000	1.010	

Detailed Demand Data

Demand for each time segment

Time Segment	Arm	Demand (Veh/hr)	Demand in PCU (PCU/hr)
16:45-17:00	A - Brewery Lane	377	380
	B - Broadland Northway (E)	1738	1767
	C - Drayton Lane (S)	774	777
	D - Broadland Northway (W)	1335	1347
17:00-17:15	A - Brewery Lane	377	380
	B - Broadland Northway (E)	1738	1767
	C - Drayton Lane (S)	774	777
	D - Broadland Northway (W)	1335	1347
17:15-17:30	A - Brewery Lane	377	380
	B - Broadland Northway (E)	1738	1767
	C - Drayton Lane (S)	774	777
	D - Broadland Northway (W)	1335	1347
17:30-17:45	A - Brewery Lane	377	380
	B - Broadland Northway (E)	1738	1767
	C - Drayton Lane (S)	774	777
	D - Broadland Northway (W)	1335	1347

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)
A - Brewery Lane	0.59	13.96	1.5	B	380	380
B - Broadland Northway (E)	0.64	3.61	1.8	A	1767	1767
C - Drayton Lane (S)	1.33	1067.58	195.8	F	777	777
D - Broadland Northway (W)	0.55	3.34	1.2	A	1347	1347

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
A - Brewery Lane	380	95	1582	644	0.590	374	513	0.0	1.4	13.208	B
B - Broadland Northway (E)	1767	442	312	2781	0.635	1760	1644	0.0	1.8	3.559	A
C - Drayton Lane (S)	777	194	1375	586	1.326	575	697	0.0	50.6	169.342	F
D - Broadland Northway (W)	1347	337	753	2440	0.552	1342	1197	0.0	1.2	3.292	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
A - Brewery Lane	380	95	1591	640	0.594	380	517	1.4	1.4	13.938	B
B - Broadland Northway (E)	1767	442	315	2779	0.636	1767	1656	1.8	1.8	3.614	A
C - Drayton Lane (S)	777	194	1381	584	1.331	583	701	50.6	99.0	473.280	F
D - Broadland Northway (W)	1347	337	761	2435	0.553	1347	1203	1.2	1.2	3.336	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
A - Brewery Lane	380	95	1591	640	0.594	380	517	1.4	1.5	13.958	B
B - Broadland Northway (E)	1767	442	315	2779	0.636	1767	1656	1.8	1.8	3.614	A
C - Drayton Lane (S)	777	194	1381	584	1.331	583	701	99.0	147.4	770.001	F
D - Broadland Northway (W)	1347	337	761	2435	0.553	1347	1203	1.2	1.2	3.336	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
A - Brewery Lane	380	95	1591	640	0.594	380	517	1.5	1.5	13.961	B
B - Broadland Northway (E)	1767	442	315	2779	0.636	1767	1656	1.8	1.8	3.614	A
C - Drayton Lane (S)	777	194	1381	584	1.332	583	701	147.4	195.8	1067.577	F
D - Broadland Northway (W)	1347	337	761	2435	0.553	1347	1203	1.2	1.2	3.336	A

2039DM, 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
J21	Broadland Northway/ Drayton Lane	Standard Roundabout		A, B, C, D	741.18	F

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	741.18	F

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)	Run automatically
D7	2039DM	AM	FLAT	07:15	08:15	60	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 (Veh/hr)	Scaling Factor (%)
A - Brewery Lane		FLAT	✓	813	100.000
B - Broadland Northway (E)		FLAT	✓	1236	100.000
C - Drayton Lane (S)		FLAT	✓	944	100.000
D - Broadland Northway (W)		FLAT	✓	1526	100.000

Origin-Destination Data

Demand (Veh/hr)

		To			
		A - Brewery Lane	B - Broadland Northway (E)	C - Drayton Lane (S)	D - Broadland Northway (W)
From	A - Brewery Lane	0	410	392	12
	B - Broadland Northway (E)	254	0	258	724
	C - Drayton Lane (S)	125	679	0	141
	D - Broadland Northway (W)	14	1381	132	0

Proportions

		To		
		A - Brewery Lane	B - Broadland Northway (E)	D
From	A - Brewery Lane	0.00	0.50	
	B - Broadland Northway (E)	0.21	0.00	
	C - Drayton Lane (S)	0.13	0.72	
	D - Broadland Northway (W)	0.01	0.90	

Vehicle Mix

Heavy Vehicle Percentages

		To			
		A - Brewery Lane	B - Broadland Northway (E)	C - Drayton Lane (S)	D - Broadland Northway (W)
From	A - Brewery Lane	0	3	1	0
	B - Broadland Northway (E)	4	0	6	2
	C - Drayton Lane (S)	1	1	0	1
	D - Broadland Northway (W)	0	2	1	0

Average PCU Per Veh

		To		
		A - Brewery Lane	B - Broadland Northway (E)	D
From	A - Brewery Lane	1.000	1.025	
	B - Broadland Northway (E)	1.041	1.000	
	C - Drayton Lane (S)	1.009	1.006	
	D - Broadland Northway (W)	1.000	1.023	

Detailed Demand Data

Demand for each time segment

Time Segment	Arm	Demand (Veh/hr)	Demand in PCU (PCU/hr)
07:15-07:30	A - Brewery Lane	813	826
	B - Broadland Northway (E)	1236	1278
	C - Drayton Lane (S)	944	950
	D - Broadland Northway (W)	1526	1559
07:30-07:45	A - Brewery Lane	813	826
	B - Broadland Northway (E)	1236	1278
	C - Drayton Lane (S)	944	950
	D - Broadland Northway (W)	1526	1559
07:45-08:00	A - Brewery Lane	813	826
	B - Broadland Northway (E)	1236	1278
	C - Drayton Lane (S)	944	950
	D - Broadland Northway (W)	1526	1559
08:00-08:15	A - Brewery Lane	813	826
	B - Broadland Northway (E)	1236	1278
	C - Drayton Lane (S)	944	950
	D - Broadland Northway (W)	1526	1559

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)
A - Brewery Lane	1.98	3087.39	407.9	F	826	826
B - Broadland Northway (E)	0.46	2.50	0.9	A	1278	1278
C - Drayton Lane (S)	1.28	903.70	210.9	F	950	950
D - Broadland Northway (W)	0.66	4.65	2.0	A	1559	1559

Main Results for each time segment

07:15 - 07:30

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
A - Brewery Lane	826	207	2063	425	1.944	421	374	0.0	101.4	446.053	F
B - Broadland Northway (E)	1278	320	340	2763	0.463	1274	2144	0.0	0.9	2.493	A
C - Drayton Lane (S)	950	238	1008	744	1.278	731	606	0.0	55.0	144.955	F
D - Broadland Northway (W)	1559	390	886	2357	0.662	1552	853	0.0	2.0	4.523	A

07:30 - 07:45

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
A - Brewery Lane	826	207	2079	418	1.978	417	377	101.4	203.5	1326.252	F
B - Broadland Northway (E)	1278	320	339	2764	0.462	1278	2157	0.9	0.9	2.503	A
C - Drayton Lane (S)	950	238	1011	743	1.280	742	606	55.0	107.0	402.578	F
D - Broadland Northway (W)	1559	390	896	2351	0.663	1559	857	2.0	2.0	4.646	A

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
A - Brewery Lane	826	207	2079	417	1.979	417	377	203.5	305.7	2206.461	F
B - Broadland Northway (E)	1278	320	339	2764	0.462	1278	2158	0.9	0.9	2.503	A
C - Drayton Lane (S)	950	238	1011	743	1.280	743	606	107.0	159.0	652.761	F
D - Broadland Northway (W)	1559	390	897	2350	0.663	1559	857	2.0	2.0	4.649	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
A - Brewery Lane	826	207	2079	417	1.979	417	377	305.7	407.9	3087.390	F
B - Broadland Northway (E)	1278	320	339	2764	0.462	1278	2158	0.9	0.9	2.503	A
C - Drayton Lane (S)	950	238	1011	743	1.280	743	606	159.0	210.9	903.698	F
D - Broadland Northway (W)	1559	390	897	2350	0.663	1559	857	2.0	2.0	4.649	A

2039DM, 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
J21	Broadland Northway/ Drayton Lane	Standard Roundabout		A, B, C, D	347.88	F

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	347.88	F

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically
D8	2039DM	PM	FLAT	16:45	17:45	60	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 (Veh/hr)	Scaling Factor (%)
A - Brewery Lane		FLAT	✓	482	100.000
B - Broadland Northway (E)		FLAT	✓	1792	100.000
C - Drayton Lane (S)		FLAT	✓	893	100.000
D - Broadland Northway (W)		FLAT	✓	1052	100.000

Origin-Destination Data

Demand (Veh/hr)

		To			
		A - Brewery Lane	B - Broadland Northway (E)	C - Drayton Lane (S)	D - Broadland Northway (W)
From	A - Brewery Lane	0	284	177	21
	B - Broadland Northway (E)	339	0	475	978
	C - Drayton Lane (S)	232	401	0	260
	D - Broadland Northway (W)	31	880	142	0

Proportions

		To		
		A - Brewery Lane	B - Broadland Northway (E)	D
From	A - Brewery Lane	0.00	0.59	
	B - Broadland Northway (E)	0.19	0.00	
	C - Drayton Lane (S)	0.26	0.45	
	D - Broadland Northway (W)	0.03	0.84	

Vehicle Mix

Heavy Vehicle Percentages

		To			
		A - Brewery Lane	B - Broadland Northway (E)	C - Drayton Lane (S)	D - Broadland Northway (W)
From	A - Brewery Lane	0	0	2	0
	B - Broadland Northway (E)	2	0	0	2
	C - Drayton Lane (S)	0	0	0	0
	D - Broadland Northway (W)	0	1	1	0

Average PCU Per Veh

		To		
		A - Brewery Lane	B - Broadland Northway (E)	D
From	A - Brewery Lane	1.000	1.001	
	B - Broadland Northway (E)	1.021	1.000	
	C - Drayton Lane (S)	1.004	1.000	
	D - Broadland Northway (W)	1.000	1.005	

Detailed Demand Data

Demand for each time segment

Time Segment	Arm	Demand (Veh/hr)	Demand in PCU (PCU/hr)
16:45-17:00	A - Brewery Lane	482	485
	B - Broadland Northway (E)	1792	1821
	C - Drayton Lane (S)	893	894
	D - Broadland Northway (W)	1052	1058
17:00-17:15	A - Brewery Lane	482	485
	B - Broadland Northway (E)	1792	1821
	C - Drayton Lane (S)	893	894
	D - Broadland Northway (W)	1052	1058
17:15-17:30	A - Brewery Lane	482	485
	B - Broadland Northway (E)	1792	1821
	C - Drayton Lane (S)	893	894
	D - Broadland Northway (W)	1052	1058
17:30-17:45	A - Brewery Lane	482	485
	B - Broadland Northway (E)	1792	1821
	C - Drayton Lane (S)	893	894
	D - Broadland Northway (W)	1052	1058

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)
A - Brewery Lane	0.62	12.43	1.7	B	485	485
B - Broadland Northway (E)	0.66	3.89	2.0	A	1821	1821
C - Drayton Lane (S)	1.52	1639.23	305.2	F	894	894
D - Broadland Northway (W)	0.43	2.63	0.8	A	1058	1058

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
A - Brewery Lane	485	121	1286	778	0.623	478	527	0.0	1.6	11.838	B
B - Broadland Northway (E)	1821	455	340	2763	0.659	1813	1424	0.0	1.9	3.819	A
C - Drayton Lane (S)	894	223	1361	592	1.509	585	793	0.0	77.2	246.529	F
D - Broadland Northway (W)	1058	264	759	2436	0.434	1055	1186	0.0	0.8	2.614	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
A - Brewery Lane	485	121	1292	776	0.625	485	530	1.6	1.6	12.414	B
B - Broadland Northway (E)	1821	455	343	2761	0.659	1821	1433	1.9	2.0	3.887	A
C - Drayton Lane (S)	894	223	1367	590	1.515	590	797	77.2	153.3	713.377	F
D - Broadland Northway (W)	1058	264	764	2433	0.435	1058	1192	0.8	0.8	2.630	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
A - Brewery Lane	485	121	1292	776	0.625	485	530	1.6	1.7	12.427	B
B - Broadland Northway (E)	1821	455	343	2761	0.659	1821	1433	2.0	2.0	3.888	A
C - Drayton Lane (S)	894	223	1367	590	1.515	590	797	153.3	229.3	1175.938	F
D - Broadland Northway (W)	1058	264	764	2433	0.435	1058	1192	0.8	0.8	2.630	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
A - Brewery Lane	485	121	1292	776	0.625	485	530	1.7	1.7	12.432	B
B - Broadland Northway (E)	1821	455	343	2761	0.659	1821	1433	2.0	2.0	3.888	A
C - Drayton Lane (S)	894	223	1367	590	1.515	590	797	229.3	305.2	1639.230	F
D - Broadland Northway (W)	1058	264	764	2433	0.435	1058	1192	0.8	0.8	2.630	A

2039DS, 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
J21	Broadland Northway/ Drayton Lane	Standard Roundabout		A, B, C, D	1018.39	F

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	1018.39	F

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically
D9	2039DS	AM	FLAT	07:15	08:15	60	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 (Veh/hr)	Scaling Factor (%)
A - Brewery Lane		FLAT	✓	811	100.000
B - Broadland Northway (E)		FLAT	✓	1370	100.000
C - Drayton Lane (S)		FLAT	✓	885	100.000
D - Broadland Northway (W)		FLAT	✓	1845	100.000

Origin-Destination Data

Demand (Veh/hr)

		To			
		A - Brewery Lane	B - Broadland Northway (E)	C - Drayton Lane (S)	D - Broadland Northway (W)
From	A - Brewery Lane	0	399	383	29
	B - Broadland Northway (E)	237	0	234	899
	C - Drayton Lane (S)	122	576	0	188
	D - Broadland Northway (W)	24	1642	179	0

Proportions

		To		
		A - Brewery Lane	B - Broadland Northway (E)	D
From	A - Brewery Lane	0.00	0.49	
	B - Broadland Northway (E)	0.17	0.00	
	C - Drayton Lane (S)	0.14	0.65	
	D - Broadland Northway (W)	0.01	0.89	

Vehicle Mix

Heavy Vehicle Percentages

		To			
		A - Brewery Lane	B - Broadland Northway (E)	C - Drayton Lane (S)	D - Broadland Northway (W)
From	A - Brewery Lane	0	2	1	0
	B - Broadland Northway (E)	4	0	6	3
	C - Drayton Lane (S)	1	1	0	4
	D - Broadland Northway (W)	0	3	3	0

Average PCU Per Veh

		To		
		A - Brewery Lane	B - Broadland Northway (E)	D
From	A - Brewery Lane	1.000	1.019	
	B - Broadland Northway (E)	1.043	1.000	
	C - Drayton Lane (S)	1.009	1.009	
	D - Broadland Northway (W)	1.000	1.026	

Detailed Demand Data

Demand for each time segment

Time Segment	Arm	Demand (Veh/hr)	Demand in PCU (PCU/hr)
07:15-07:30	A - Brewery Lane	811	820
	B - Broadland Northway (E)	1370	1419
	C - Drayton Lane (S)	885	900
	D - Broadland Northway (W)	1845	1893
07:30-07:45	A - Brewery Lane	811	820
	B - Broadland Northway (E)	1370	1419
	C - Drayton Lane (S)	885	900
	D - Broadland Northway (W)	1845	1893
07:45-08:00	A - Brewery Lane	811	820
	B - Broadland Northway (E)	1370	1419
	C - Drayton Lane (S)	885	900
	D - Broadland Northway (W)	1845	1893
08:00-08:15	A - Brewery Lane	811	820
	B - Broadland Northway (E)	1370	1419
	C - Drayton Lane (S)	885	900
	D - Broadland Northway (W)	1845	1893

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)
A - Brewery Lane	2.59	5014.79	502.5	F	820	820
B - Broadland Northway (E)	0.51	2.78	1.1	A	1419	1419
C - Drayton Lane (S)	1.34	1104.85	232.8	F	900	900
D - Broadland Northway (W)	0.78	6.89	3.6	A	1893	1893

Main Results for each time segment

07:15 - 07:30

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
A - Brewery Lane	820	205	2282	325	2.522	323	360	0.0	124.4	714.986	F
B - Broadland Northway (E)	1419	355	346	2760	0.514	1415	2259	0.0	1.1	2.765	A
C - Drayton Lane (S)	900	225	1178	671	1.341	660	583	0.0	60.0	173.200	F
D - Broadland Northway (W)	1893	473	763	2434	0.778	1879	1075	0.0	3.5	6.503	A

07:30 - 07:45

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
A - Brewery Lane	820	205	2301	316	2.592	316	363	124.4	250.4	2145.842	F
B - Broadland Northway (E)	1419	355	344	2761	0.514	1419	2274	1.1	1.1	2.780	A
C - Drayton Lane (S)	900	225	1181	669	1.344	669	582	60.0	117.6	487.922	F
D - Broadland Northway (W)	1893	473	771	2429	0.779	1893	1079	3.5	3.6	6.877	A

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
A - Brewery Lane	820	205	2302	316	2.594	316	363	250.4	376.4	3580.499	F
B - Broadland Northway (E)	1419	355	344	2761	0.514	1419	2274	1.1	1.1	2.779	A
C - Drayton Lane (S)	900	225	1181	669	1.344	669	582	117.6	175.2	795.994	F
D - Broadland Northway (W)	1893	473	771	2429	0.779	1893	1079	3.6	3.6	6.886	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
A - Brewery Lane	820	205	2302	316	2.594	316	363	376.4	502.5	5014.793	F
B - Broadland Northway (E)	1419	355	344	2761	0.514	1419	2274	1.1	1.1	2.779	A
C - Drayton Lane (S)	900	225	1181	669	1.344	669	582	175.2	232.8	1104.850	F
D - Broadland Northway (W)	1893	473	771	2429	0.779	1893	1079	3.6	3.6	6.889	A

2039DS, 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
J21	Broadland Northway/ Drayton Lane	Standard Roundabout		A, B, C, D	314.62	F

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	314.62	F

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)	Run automatically
D10	2039DS	PM	FLAT	16:45	17:45	60	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 (Veh/hr)	Scaling Factor (%)
A - Brewery Lane		FLAT	✓	474	100.000
B - Broadland Northway (E)		FLAT	✓	1907	100.000
C - Drayton Lane (S)		FLAT	✓	790	100.000
D - Broadland Northway (W)		FLAT	✓	1343	100.000

Origin-Destination Data

Demand (Veh/hr)

		To			
		A - Brewery Lane	B - Broadland Northway (E)	C - Drayton Lane (S)	D - Broadland Northway (W)
From	A - Brewery Lane	0	266	166	42
	B - Broadland Northway (E)	298	0	427	1182
	C - Drayton Lane (S)	239	367	0	185
	D - Broadland Northway (W)	40	1113	190	0

Proportions

		To		
		A - Brewery Lane	B - Broadland Northway (E)	D
From	A - Brewery Lane	0.00	0.56	
	B - Broadland Northway (E)	0.16	0.00	
	C - Drayton Lane (S)	0.30	0.46	
	D - Broadland Northway (W)	0.03	0.83	

Vehicle Mix

Heavy Vehicle Percentages

		To			
		A - Brewery Lane	B - Broadland Northway (E)	C - Drayton Lane (S)	D - Broadland Northway (W)
From	A - Brewery Lane	0	0	1	0
	B - Broadland Northway (E)	2	0	0	2
	C - Drayton Lane (S)	0	0	0	1
	D - Broadland Northway (W)	0	1	1	0

Average PCU Per Veh

		To		
		A - Brewery Lane	B - Broadland Northway (E)	D
From	A - Brewery Lane	1.000	1.001	
	B - Broadland Northway (E)	1.023	1.000	
	C - Drayton Lane (S)	1.004	1.000	
	D - Broadland Northway (W)	1.000	1.013	

Detailed Demand Data

Demand for each time segment

Time Segment	Arm	Demand (Veh/hr)	Demand in PCU (PCU/hr)
16:45-17:00	A - Brewery Lane	474	476
	B - Broadland Northway (E)	1907	1942
	C - Drayton Lane (S)	790	793
	D - Broadland Northway (W)	1343	1358
17:00-17:15	A - Brewery Lane	474	476
	B - Broadland Northway (E)	1907	1942
	C - Drayton Lane (S)	790	793
	D - Broadland Northway (W)	1343	1358
17:15-17:30	A - Brewery Lane	474	476
	B - Broadland Northway (E)	1907	1942
	C - Drayton Lane (S)	790	793
	D - Broadland Northway (W)	1343	1358
17:30-17:45	A - Brewery Lane	474	476
	B - Broadland Northway (E)	1907	1942
	C - Drayton Lane (S)	790	793
	D - Broadland Northway (W)	1343	1358

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)
A - Brewery Lane	0.72	19.91	2.6	C	476	476
B - Broadland Northway (E)	0.71	4.68	2.5	A	1942	1942
C - Drayton Lane (S)	1.56	1783.01	288.1	F	793	793
D - Broadland Northway (W)	0.55	3.25	1.2	A	1358	1358

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
A - Brewery Lane	476	119	1546	660	0.721	466	496	0.0	2.4	17.891	C
B - Broadland Northway (E)	1942	485	395	2727	0.712	1932	1617	0.0	2.5	4.552	A
C - Drayton Lane (S)	793	198	1548	512	1.550	505	779	0.0	72.1	267.173	F
D - Broadland Northway (W)	1358	340	690	2480	0.548	1353	1363	0.0	1.2	3.218	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
A - Brewery Lane	476	119	1552	657	0.724	476	499	2.4	2.5	19.799	C
B - Broadland Northway (E)	1942	485	400	2724	0.713	1942	1628	2.5	2.5	4.679	A
C - Drayton Lane (S)	793	198	1556	508	1.561	508	785	72.1	143.5	774.791	F
D - Broadland Northway (W)	1358	340	694	2477	0.548	1358	1371	1.2	1.2	3.250	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
A - Brewery Lane	476	119	1552	657	0.724	476	499	2.5	2.6	19.884	C
B - Broadland Northway (E)	1942	485	400	2724	0.713	1942	1628	2.5	2.5	4.682	A
C - Drayton Lane (S)	793	198	1556	508	1.561	508	786	143.5	214.8	1278.504	F
D - Broadland Northway (W)	1358	340	694	2477	0.548	1358	1371	1.2	1.2	3.251	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
A - Brewery Lane	476	119	1553	657	0.724	476	499	2.6	2.6	19.915	C
B - Broadland Northway (E)	1942	485	400	2724	0.713	1942	1628	2.5	2.5	4.682	A
C - Drayton Lane (S)	793	198	1556	508	1.561	508	786	214.8	286.1	1783.014	F
D - Broadland Northway (W)	1358	340	694	2477	0.548	1358	1371	1.2	1.2	3.251	A

2039DS_Mitigation, 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
J21	Broadland Northway/ Drayton Lane	Standard Roundabout		A, B, C, D	1297.34	F

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	1297.34	F

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)	Run automatically
D11	2039DS_Mitigation	AM	FLAT	07:15	08:15	60	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 (Veh/hr)	Scaling Factor (%)
A - Brewery Lane		FLAT	✓	791	100.000
B - Broadland Northway (E)		FLAT	✓	1369	100.000
C - Drayton Lane (S)		FLAT	✓	865	100.000
D - Broadland Northway (W)		FLAT	✓	2022	100.000

Origin-Destination Data

Demand (Veh/hr)

		To			
		A - Brewery Lane	B - Broadland Northway (E)	C - Drayton Lane (S)	D - Broadland Northway (W)
From	A - Brewery Lane	0	344	384	63
	B - Broadland Northway (E)	183	0	234	953
	C - Drayton Lane (S)	127	546	0	192
	D - Broadland Northway (W)	28	1777	217	0

Proportions

		To		
		A - Brewery Lane	B - Broadland Northway (E)	D
From	A - Brewery Lane	0.00	0.43	
	B - Broadland Northway (E)	0.13	0.00	
	C - Drayton Lane (S)	0.15	0.63	
	D - Broadland Northway (W)	0.01	0.88	

Vehicle Mix

Heavy Vehicle Percentages

		To			
		A - Brewery Lane	B - Broadland Northway (E)	C - Drayton Lane (S)	D - Broadland Northway (W)
From	A - Brewery Lane	0	2	1	1
	B - Broadland Northway (E)	6	0	6	3
	C - Drayton Lane (S)	1	1	0	5
	D - Broadland Northway (W)	0	3	3	0

Average PCU Per Veh

		To		
		A - Brewery Lane	B - Broadland Northway (E)	D
From	A - Brewery Lane	1.000	1.018	
	B - Broadland Northway (E)	1.056	1.000	
	C - Drayton Lane (S)	1.014	1.008	
	D - Broadland Northway (W)	1.000	1.027	

Detailed Demand Data

Demand for each time segment

Time Segment	Arm	Demand (Veh/hr)	Demand in PCU (PCU/hr)
07:15-07:30	A - Brewery Lane	791	800
	B - Broadland Northway (E)	1369	1419
	C - Drayton Lane (S)	865	881
	D - Broadland Northway (W)	2022	2076
07:30-07:45	A - Brewery Lane	791	800
	B - Broadland Northway (E)	1369	1419
	C - Drayton Lane (S)	865	881
	D - Broadland Northway (W)	2022	2076
07:45-08:00	A - Brewery Lane	791	800
	B - Broadland Northway (E)	1369	1419
	C - Drayton Lane (S)	865	881
	D - Broadland Northway (W)	2022	2076
08:00-08:15	A - Brewery Lane	791	800
	B - Broadland Northway (E)	1369	1419
	C - Drayton Lane (S)	865	881
	D - Broadland Northway (W)	2022	2076

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)
A - Brewery Lane	3.30	7218.21	554.7	F	800	800
B - Broadland Northway (E)	0.52	2.80	1.1	A	1419	1419
C - Drayton Lane (S)	1.32	1042.14	218.3	F	881	881
D - Broadland Northway (W)	0.84	9.37	5.3	A	2076	2076

Main Results for each time segment

07:15 - 07:30

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
A - Brewery Lane	800	200	2438	254	3.144	253	316	0.0	136.8	1017.650	F
B - Broadland Northway (E)	1419	355	364	2748	0.516	1414	2326	0.0	1.1	2.788	A
C - Drayton Lane (S)	881	220	1186	667	1.321	655	592	0.0	58.5	165.082	F
D - Broadland Northway (W)	2076	519	697	2475	0.839	2056	1144	0.0	5.0	8.452	A

07:30 - 07:45

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
A - Brewery Lane	800	200	2463	243	3.294	243	318	136.8	276.0	3080.692	F
B - Broadland Northway (E)	1419	355	361	2750	0.516	1419	2345	1.1	1.1	2.801	A
C - Drayton Lane (S)	881	220	1189	666	1.324	666	590	55.5	110.5	462.001	F
D - Broadland Northway (W)	2076	519	706	2470	0.841	2075	1149	5.0	5.2	9.325	A

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
A - Brewery Lane	800	200	2464	243	3.298	243	318	276.0	415.4	5149.432	F
B - Broadland Northway (E)	1419	355	361	2750	0.516	1419	2346	1.1	1.1	2.801	A
C - Drayton Lane (S)	881	220	1189	666	1.324	666	590	110.5	164.4	751.673	F
D - Broadland Northway (W)	2076	519	706	2470	0.841	2076	1149	5.2	5.3	9.361	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
A - Brewery Lane	800	200	2464	242	3.299	242	318	415.4	554.7	7218.213	F
B - Broadland Northway (E)	1419	355	361	2750	0.516	1419	2346	1.1	1.1	2.801	A
C - Drayton Lane (S)	881	220	1189	666	1.324	666	590	164.4	218.3	1042.138	F
D - Broadland Northway (W)	2076	519	706	2470	0.841	2076	1149	5.3	5.3	9.371	A

2039DS_Mitigation, 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
J21	Broadland Northway/ Drayton Lane	Standard Roundabout		A, B, C, D	447.88	F

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	447.88	F

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically
D12	2039DS_Mitigation	PM	FLAT	16:45	17:45	60	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 (Veh/hr)	Scaling Factor (%)
A - Brewery Lane		FLAT	✓	390	100.000
B - Broadland Northway (E)		FLAT	✓	2053	100.000
C - Drayton Lane (S)		FLAT	✓	823	100.000
D - Broadland Northway (W)		FLAT	✓	1508	100.000

Origin-Destination Data

Demand (Veh/hr)

		To			
		A - Brewery Lane	B - Broadland Northway (E)	C - Drayton Lane (S)	D - Broadland Northway (W)
From	A - Brewery Lane	0	199	150	42
	B - Broadland Northway (E)	335	0	446	1272
	C - Drayton Lane (S)	224	403	0	196
	D - Broadland Northway (W)	38	1277	192	0

Proportions

		To		
		A - Brewery Lane	B - Broadland Northway (E)	D
From	A - Brewery Lane	0.00	0.51	
	B - Broadland Northway (E)	0.16	0.00	
	C - Drayton Lane (S)	0.27	0.49	
	D - Broadland Northway (W)	0.03	0.85	

Vehicle Mix

Heavy Vehicle Percentages

		To			
		A - Brewery Lane	B - Broadland Northway (E)	C - Drayton Lane (S)	D - Broadland Northway (W)
From	A - Brewery Lane	0	0	1	0
	B - Broadland Northway (E)	2	0	0	2
	C - Drayton Lane (S)	0	0	0	1
	D - Broadland Northway (W)	0	1	1	0

Average PCU Per Veh

		To		
		A - Brewery Lane	B - Broadland Northway (E)	D
From	A - Brewery Lane	1.000	1.002	
	B - Broadland Northway (E)	1.021	1.000	
	C - Drayton Lane (S)	1.004	1.000	
	D - Broadland Northway (W)	1.000	1.012	

Detailed Demand Data

Demand for each time segment

Time Segment	Arm	Demand (Veh/hr)	Demand in PCU (PCU/hr)
16:45-17:00	A - Brewery Lane	390	393
	B - Broadland Northway (E)	2053	2086
	C - Drayton Lane (S)	823	826
	D - Broadland Northway (W)	1508	1524
17:00-17:15	A - Brewery Lane	390	393
	B - Broadland Northway (E)	2053	2086
	C - Drayton Lane (S)	823	826
	D - Broadland Northway (W)	1508	1524
17:15-17:30	A - Brewery Lane	390	393
	B - Broadland Northway (E)	2053	2086
	C - Drayton Lane (S)	823	826
	D - Broadland Northway (W)	1508	1524
17:30-17:45	A - Brewery Lane	390	393
	B - Broadland Northway (E)	2053	2086
	C - Drayton Lane (S)	823	826
	D - Broadland Northway (W)	1508	1524

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)
A - Brewery Lane	0.67	18.63	2.0	C	393	393
B - Broadland Northway (E)	0.76	5.66	3.3	A	2086	2086
C - Drayton Lane (S)	1.82	2589.31	371.8	F	826	826
D - Broadland Northway (W)	0.61	3.80	1.6	A	1524	1524

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
A - Brewery Lane	393	98	1701	590	0.666	385	502	0.0	1.9	17.137	C
B - Broadland Northway (E)	2086	522	382	2736	0.763	2074	1704	0.0	3.2	5.426	A
C - Drayton Lane (S)	826	206	1672	459	1.800	454	785	0.0	93.0	379.158	F
D - Broadland Northway (W)	1524	381	685	2483	0.614	1518	1440	0.0	1.6	3.748	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
A - Brewery Lane	393	98	1707	587	0.669	392	504	1.9	2.0	18.568	C
B - Broadland Northway (E)	2086	522	387	2733	0.763	2086	1713	3.2	3.2	5.653	A
C - Drayton Lane (S)	826	206	1682	454	1.819	454	791	93.0	185.9	1117.009	F
D - Broadland Northway (W)	1524	381	687	2481	0.614	1524	1449	1.6	1.6	3.801	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
A - Brewery Lane	393	98	1707	587	0.669	393	504	2.0	2.0	18.618	C
B - Broadland Northway (E)	2086	522	387	2733	0.763	2086	1713	3.2	3.2	5.656	A
C - Drayton Lane (S)	826	206	1682	454	1.819	454	791	185.9	278.9	1852.816	F
D - Broadland Northway (W)	1524	381	687	2481	0.614	1524	1449	1.6	1.6	3.801	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
A - Brewery Lane	393	98	1707	587	0.669	393	504	2.0	2.0	18.634	C
B - Broadland Northway (E)	2086	522	387	2733	0.763	2086	1713	3.2	3.3	5.658	A
C - Drayton Lane (S)	826	206	1682	454	1.819	454	791	278.9	371.8	2589.309	F
D - Broadland Northway (W)	1524	381	687	2481	0.614	1524	1449	1.6	1.6	3.801	A

Junctions 10

ARCADY 10 - Roundabout Module

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

Filename: J21_OS_Mitigation-alt_240122_FP.j10
Path: \\corp.pbwan.net\IN\IN_Projects\70118686-70061370-Norwich Western Link 2019 20\04 Record of Issue\4A Internal WSP Doc Registers\20240129_Model Reports (wo 2044)\J21\Flat Profile
Report generation date: 30/01/2024 14:36:57

Summary of junction performance

	AM					PM				
	Set ID	Queue (PCU)	Delay (s)	RFC	LOS	Set ID	Queue (PCU)	Delay (s)	RFC	LOS
	2029DM									
A - Brewery Lane	D1	0.6	3.61	0.38	A	D2	0.3	2.40	0.23	A
B - Broadland Northway (E)		1.1	2.85	0.51	A		1.3	2.95	0.56	A
C - Drayton Lane (S)		0.6	2.79	0.38	A		0.8	3.16	0.43	A
D - Broadland Northway (W)		1.3	3.58	0.56	A		0.7	2.60	0.40	A
	2029DS									
A - Brewery Lane	D3	0.7	4.10	0.41	A	D4	0.3	2.58	0.24	A
B - Broadland Northway (E)		1.4	3.38	0.58	A		1.4	3.18	0.58	A
C - Drayton Lane (S)		0.6	3.06	0.39	A		0.6	3.08	0.39	A
D - Broadland Northway (W)		2.2	4.84	0.68	A		1.0	3.01	0.49	A
	2029DS_Mitigation									
A - Brewery Lane	D5	0.6	4.17	0.39	A	D6	0.3	2.70	0.22	A
B - Broadland Northway (E)		1.7	3.71	0.62	A		1.8	3.61	0.64	A
C - Drayton Lane (S)		0.7	3.27	0.41	A		0.7	3.36	0.42	A
D - Broadland Northway (W)		2.6	5.53	0.72	A		1.4	3.65	0.58	A
	2039DM									
A - Brewery Lane	D7	1.5	6.44	0.59	A	D8	0.3	2.59	0.26	A
B - Broadland Northway (E)		1.0	2.74	0.49	A		2.0	3.89	0.66	A
C - Drayton Lane (S)		0.9	3.22	0.46	A		0.9	3.72	0.48	A
D - Broadland Northway (W)		2.3	5.41	0.70	A		0.9	2.92	0.46	A
	2039DS									
A - Brewery Lane	D9	1.9	8.31	0.65	A	D10	0.4	2.89	0.28	A
B - Broadland Northway (E)		1.2	3.17	0.55	A		2.5	4.68	0.71	A
C - Drayton Lane (S)		0.9	3.44	0.46	A		0.8	3.78	0.45	A
D - Broadland Northway (W)		4.5	8.72	0.82	A		1.4	3.70	0.58	A
	2039DS_Mitigation									
A - Brewery Lane	D11	2.2	9.88	0.68	A	D12	0.3	3.00	0.25	A
B - Broadland Northway (E)		1.3	3.30	0.56	A		3.3	5.66	0.76	A
C - Drayton Lane (S)		0.8	3.46	0.45	A		1.0	4.27	0.49	A
D - Broadland Northway (W)		7.2	12.69	0.88	B		2.0	4.66	0.66	A

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

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

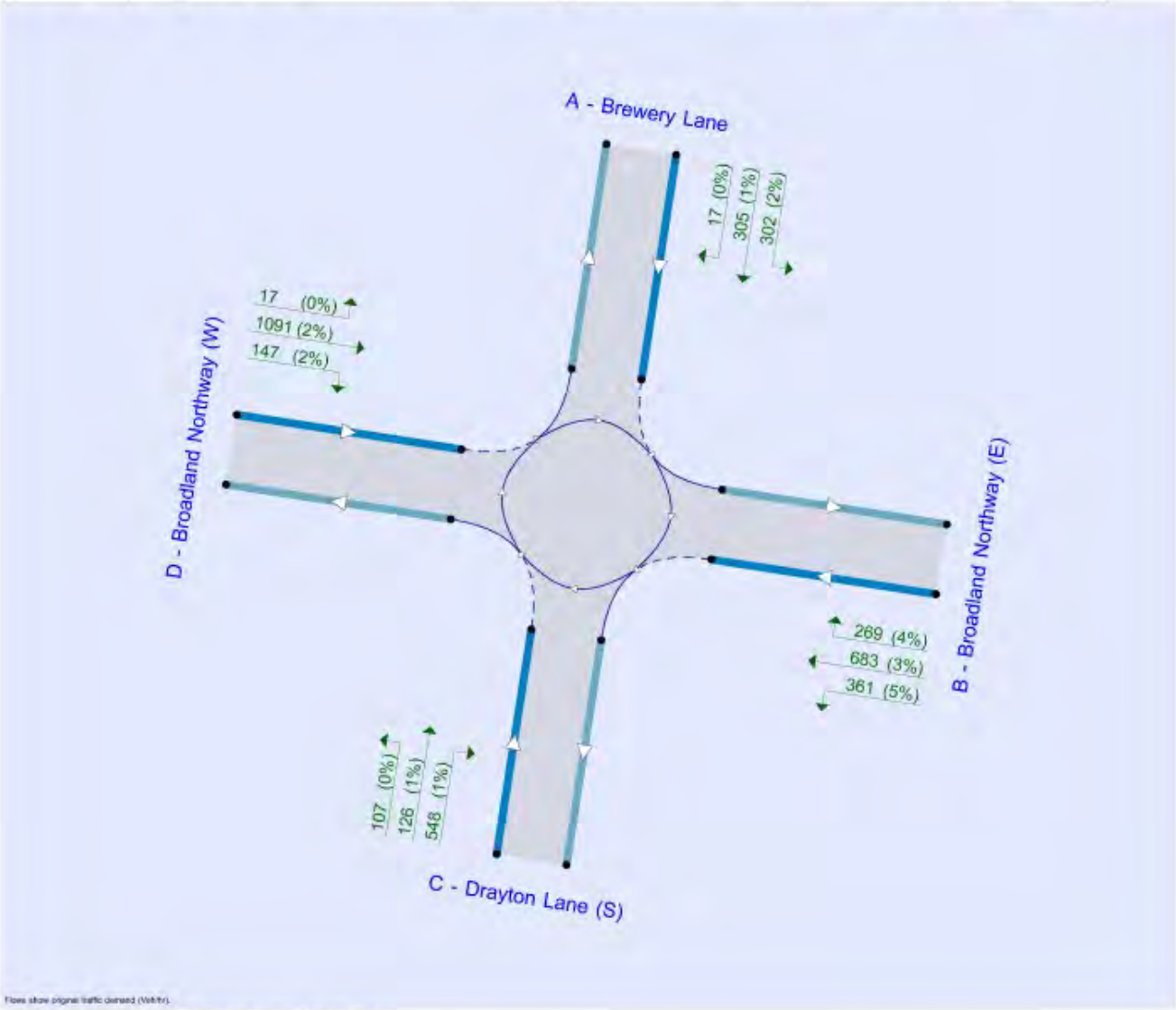
File summary

File Description

Title	Broadland Northway/ Drayton Lane
Location	52.686663808552474, 1.241000484536698
Site number	J21
Date	21/03/2023
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	CORP\INVN01911
Description	The junction is assesed for the scheme layout for Drayton lane and Brewery lane drawings. (70041922-GA-04.dwg- scheme drawing of Drayton Lane) and (70041922-GA-03.dwg- scheme drawing of Brewery lane)

Units

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



The junction diagram reflects the last run of Junctions.

Analysis Options

Vehicle length (m)	Calculate Queue Percentiles	Calculate detailed queueing delay	Show lane queues in feet / metres	Show all PICADY stream intercepts	Calculate residual capacity	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)	Use iterations with HCM roundabouts	Max number of iterations for roundabouts
5.75						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 period length (min)	Time segment length (min)	Run automatically
D1	2029DM	AM	FLAT	07:15	08:15	60	15	✓
D2	2029DM	PM	FLAT	16:45	17:45	60	15	✓
D3	2029DS	AM	FLAT	07:15	08:15	60	15	✓
D4	2029DS	PM	FLAT	16:45	17:45	60	15	✓
D5	2029DS_Mitigation	AM	FLAT	07:15	08:15	60	15	✓
D6	2029DS_Mitigation	PM	FLAT	16:45	17:45	60	15	✓
D7	2039DM	AM	FLAT	07:15	08:15	60	15	✓
D8	2039DM	PM	FLAT	16:45	17:45	60	15	✓
D9	2039DS	AM	FLAT	07:15	08:15	60	15	✓
D10	2039DS	PM	FLAT	16:45	17:45	60	15	✓
D11	2039DS_Mitigation	AM	FLAT	07:15	08:15	60	15	✓
D12	2039DS_Mitigation	PM	FLAT	16:45	17:45	60	15	✓

Analysis Set Details

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

2029DM, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	A - Brewery Lane - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	C - Drayton Lane (S) - 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
J21	Broadland Northway/ Drayton Lane	Standard Roundabout		A, B, C, D	3.19	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	3.19	A

Arms

Arms

Arm	Name	Description	No give-way line
A	Brewery Lane		
B	Broadland Northway (E)		
C	Drayton Lane (S)		
D	Broadland Northway (W)		

Roundabout Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	l' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Entry only	Exit only
A - Brewery Lane	3.25	10.80	72.3	30.0	90.0	29.0		
B - Broadland Northway (E)	8.07	10.30	12.7	18.1	90.0	18.0		
C - Drayton Lane (S)	3.25	11.06	53.4	40.0	90.0	26.9		
D - Broadland Northway (W)	8.21	10.59	13.2	21.0	90.0	34.0		

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
A - Brewery Lane	0.610	2753
B - Broadland Northway (E)	0.646	2983
C - Drayton Lane (S)	0.604	2688
D - Broadland Northway (W)	0.626	2911

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)	Run automatically
D1	2029DM	AM	FLAT	07:15	08:15	60	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 (Veh/hr)	Scaling Factor (%)
A - Brewery Lane		FLAT	✓	624	100.000
B - Broadland Northway (E)		FLAT	✓	1313	100.000
C - Drayton Lane (S)		FLAT	✓	780	100.000
D - Broadland Northway (W)		FLAT	✓	1256	100.000

Origin-Destination Data

Demand (Veh/hr)

		To			
		A - Brewery Lane	B - Broadland Northway (E)	C - Drayton Lane (S)	D - Broadland Northway (W)
From	A - Brewery Lane	0	302	305	17
	B - Broadland Northway (E)	269	0	361	683
	C - Drayton Lane (S)	126	548	0	107
	D - Broadland Northway (W)	17	1091	147	0

Proportions

		To		
		A - Brewery Lane	B - Broadland Northway (E)	D
From	A - Brewery Lane	0.00	0.48	
	B - Broadland Northway (E)	0.20	0.00	
	C - Drayton Lane (S)	0.16	0.70	
	D - Broadland Northway (W)	0.01	0.87	

Vehicle Mix

Heavy Vehicle Percentages

		To			
		A - Brewery Lane	B - Broadland Northway (E)	C - Drayton Lane (S)	D - Broadland Northway (W)
From	A - Brewery Lane	0	2	1	0
	B - Broadland Northway (E)	4	0	5	3
	C - Drayton Lane (S)	1	1	0	0
	D - Broadland Northway (W)	0	2	2	0

Average PCU Per Veh

		To		
		A - Brewery Lane	B - Broadland Northway (E)	D
From	A - Brewery Lane	1.000	1.018	
	B - Broadland Northway (E)	1.036	1.000	
	C - Drayton Lane (S)	1.008	1.008	
	D - Broadland Northway (W)	1.000	1.023	

Detailed Demand Data

Demand for each time segment

Time Segment	Arm	Demand (Veh/hr)	Demand in PCU (PCU/hr)
07:15-07:30	A - Brewery Lane	624	632
	B - Broadland Northway (E)	1313	1363
	C - Drayton Lane (S)	780	786
	D - Broadland Northway (W)	1256	1284
07:30-07:45	A - Brewery Lane	624	632
	B - Broadland Northway (E)	1313	1363
	C - Drayton Lane (S)	780	786
	D - Broadland Northway (W)	1256	1284
07:45-08:00	A - Brewery Lane	624	632
	B - Broadland Northway (E)	1313	1363
	C - Drayton Lane (S)	780	786
	D - Broadland Northway (W)	1256	1284
08:00-08:15	A - Brewery Lane	624	632
	B - Broadland Northway (E)	1313	1363
	C - Drayton Lane (S)	780	786
	D - Broadland Northway (W)	1256	1284

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)
A - Brewery Lane	0.38	3.61	0.6	A	632	632
B - Broadland Northway (E)	0.51	2.85	1.1	A	1363	1363
C - Drayton Lane (S)	0.38	2.79	0.6	A	786	786
D - Broadland Northway (W)	0.56	3.58	1.3	A	1284	1284

Main Results for each time segment

07:15 - 07:30

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
A - Brewery Lane	632	158	1813	1647	0.384	630	421	0.0	0.6	3.577	A
B - Broadland Northway (E)	1363	341	474	2677	0.509	1359	1969	0.0	1.1	2.826	A
C - Drayton Lane (S)	786	196	997	2086	0.377	783	836	0.0	0.6	2.778	A
D - Broadland Northway (W)	1284	321	954	2314	0.555	1279	826	0.0	1.3	3.540	A

07:30 - 07:45

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
A - Brewery Lane	632	158	1819	1643	0.385	632	422	0.6	0.6	3.608	A
B - Broadland Northway (E)	1363	341	475	2676	0.509	1363	1976	1.1	1.1	2.846	A
C - Drayton Lane (S)	786	196	1000	2084	0.377	786	839	0.6	0.6	2.791	A
D - Broadland Northway (W)	1284	321	957	2313	0.555	1284	828	1.3	1.3	3.580	A

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
A - Brewery Lane	632	158	1819	1643	0.385	632	422	0.6	0.6	3.608	A
B - Broadland Northway (E)	1363	341	475	2676	0.509	1363	1976	1.1	1.1	2.846	A
C - Drayton Lane (S)	786	196	1000	2084	0.377	786	839	0.6	0.6	2.791	A
D - Broadland Northway (W)	1284	321	957	2313	0.555	1284	828	1.3	1.3	3.580	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
A - Brewery Lane	632	158	1819	1643	0.385	632	422	0.6	0.6	3.608	A
B - Broadland Northway (E)	1363	341	475	2676	0.509	1363	1976	1.1	1.1	2.846	A
C - Drayton Lane (S)	786	196	1000	2084	0.377	786	839	0.6	0.6	2.791	A
D - Broadland Northway (W)	1284	321	957	2313	0.555	1284	828	1.3	1.3	3.580	A

2029DM, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	A - Brewery Lane - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	C - Drayton Lane (S) - 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
J21	Broadland Northway/ Drayton Lane	Standard Roundabout		A, B, C, D	2.85	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	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 period length (min)	Time segment length (min)	Run automatically
D2	2029DM	PM	FLAT	16:45	17:45	60	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 (Veh/hr)	Scaling Factor (%)
A - Brewery Lane		FLAT	✓	453	100.000
B - Broadland Northway (E)		FLAT	✓	1533	100.000
C - Drayton Lane (S)		FLAT	✓	858	100.000
D - Broadland Northway (W)		FLAT	✓	936	100.000

Origin-Destination Data

Demand (Veh/hr)

		To			
		A - Brewery Lane	B - Broadland Northway (E)	C - Drayton Lane (S)	D - Broadland Northway (W)
From	A - Brewery Lane	0	289	143	21
	B - Broadland Northway (E)	281	0	439	813
	C - Drayton Lane (S)	253	387	0	218
	D - Broadland Northway (W)	32	789	115	0

Proportions

		To		
		A - Brewery Lane	B - Broadland Northway (E)	D
From	A - Brewery Lane	0.00	0.64	
	B - Broadland Northway (E)	0.18	0.00	
	C - Drayton Lane (S)	0.29	0.45	
	D - Broadland Northway (W)	0.03	0.84	

Vehicle Mix

Heavy Vehicle Percentages

		To			
		A - Brewery Lane	B - Broadland Northway (E)	C - Drayton Lane (S)	D - Broadland Northway (W)
From	A - Brewery Lane	0	0	1	0
	B - Broadland Northway (E)	2	0	0	2
	C - Drayton Lane (S)	0	0	0	0
	D - Broadland Northway (W)	0	1	1	0

Average PCU Per Veh

		To		
		A - Brewery Lane	B - Broadland Northway (E)	D
From	A - Brewery Lane	1.000	1.003	
	B - Broadland Northway (E)	1.025	1.000	
	C - Drayton Lane (S)	1.004	1.000	
	D - Broadland Northway (W)	1.000	1.005	

Detailed Demand Data

Demand for each time segment

Time Segment	Arm	Demand (Veh/hr)	Demand in PCU (PCU/hr)
16:45-17:00	A - Brewery Lane	453	456
	B - Broadland Northway (E)	1533	1559
	C - Drayton Lane (S)	858	859
	D - Broadland Northway (W)	936	941
17:00-17:15	A - Brewery Lane	453	456
	B - Broadland Northway (E)	1533	1559
	C - Drayton Lane (S)	858	859
	D - Broadland Northway (W)	936	941
17:15-17:30	A - Brewery Lane	453	456
	B - Broadland Northway (E)	1533	1559
	C - Drayton Lane (S)	858	859
	D - Broadland Northway (W)	936	941
17:30-17:45	A - Brewery Lane	453	456
	B - Broadland Northway (E)	1533	1559
	C - Drayton Lane (S)	858	859
	D - Broadland Northway (W)	936	941

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)
A - Brewery Lane	0.23	2.40	0.3	A	456	456
B - Broadland Northway (E)	0.56	2.95	1.3	A	1559	1559
C - Drayton Lane (S)	0.43	3.16	0.8	A	859	859
D - Broadland Northway (W)	0.40	2.60	0.7	A	941	941

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
A - Brewery Lane	456	114	1292	1965	0.232	455	572	0.0	0.3	2.397	A
B - Broadland Northway (E)	1559	390	281	2801	0.556	1554	1466	0.0	1.3	2.921	A
C - Drayton Lane (S)	859	215	1136	2001	0.429	856	698	0.0	0.7	3.141	A
D - Broadland Northway (W)	941	235	926	2332	0.403	938	1067	0.0	0.7	2.592	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
A - Brewery Lane	456	114	1296	1962	0.232	456	574	0.3	0.3	2.405	A
B - Broadland Northway (E)	1559	390	282	2801	0.557	1559	1470	1.3	1.3	2.946	A
C - Drayton Lane (S)	859	215	1140	1999	0.430	859	701	0.7	0.8	3.162	A
D - Broadland Northway (W)	941	235	929	2330	0.404	941	1070	0.7	0.7	2.604	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
A - Brewery Lane	456	114	1296	1962	0.232	456	574	0.3	0.3	2.405	A
B - Broadland Northway (E)	1559	390	282	2801	0.557	1559	1470	1.3	1.3	2.946	A
C - Drayton Lane (S)	859	215	1140	1999	0.430	859	701	0.8	0.8	3.162	A
D - Broadland Northway (W)	941	235	929	2330	0.404	941	1070	0.7	0.7	2.604	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
A - Brewery Lane	456	114	1296	1962	0.232	456	574	0.3	0.3	2.405	A
B - Broadland Northway (E)	1559	390	282	2801	0.557	1559	1470	1.3	1.3	2.946	A
C - Drayton Lane (S)	859	215	1140	1999	0.430	859	701	0.8	0.8	3.162	A
D - Broadland Northway (W)	941	235	929	2330	0.404	941	1070	0.7	0.7	2.604	A

2029DS, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	A - Brewery Lane - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	C - Drayton Lane (S) - 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
J21	Broadland Northway/ Drayton Lane	Standard Roundabout		A, B, C, D	3.95	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	3.95	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)	Run automatically
D3	2029DS	AM	FLAT	07:15	08:15	60	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 (Veh/hr)	Scaling Factor (%)
A - Brewery Lane		FLAT	✓	612	100.000
B - Broadland Northway (E)		FLAT	✓	1450	100.000
C - Drayton Lane (S)		FLAT	✓	743	100.000
D - Broadland Northway (W)		FLAT	✓	1555	100.000

Origin-Destination Data

Demand (Veh/hr)

		To			
		A - Brewery Lane	B - Broadland Northway (E)	C - Drayton Lane (S)	D - Broadland Northway (W)
From	A - Brewery Lane	0	294	280	37
	B - Broadland Northway (E)	266	0	314	869
	C - Drayton Lane (S)	124	449	0	171
	D - Broadland Northway (W)	20	1301	233	0

Proportions

		To		
		A - Brewery Lane	B - Broadland Northway (E)	D
From	A - Brewery Lane	0.00	0.48	
	B - Broadland Northway (E)	0.18	0.00	
	C - Drayton Lane (S)	0.17	0.60	
	D - Broadland Northway (W)	0.01	0.84	

Vehicle Mix

Heavy Vehicle Percentages

		To			
		A - Brewery Lane	B - Broadland Northway (E)	C - Drayton Lane (S)	D - Broadland Northway (W)
From	A - Brewery Lane	0	2	1	0
	B - Broadland Northway (E)	4	0	6	3
	C - Drayton Lane (S)	1	1	0	4
	D - Broadland Northway (W)	0	3	6	0

Average PCU Per Veh

		To		
		A - Brewery Lane	B - Broadland Northway (E)	D
From	A - Brewery Lane	1.000	1.018	
	B - Broadland Northway (E)	1.036	1.000	
	C - Drayton Lane (S)	1.009	1.012	
	D - Broadland Northway (W)	1.000	1.029	

Detailed Demand Data

Demand for each time segment

Time Segment	Arm	Demand (Veh/hr)	Demand in PCU (PCU/hr)
07:15-07:30	A - Brewery Lane	612	619
	B - Broadland Northway (E)	1450	1508
	C - Drayton Lane (S)	743	757
	D - Broadland Northway (W)	1555	1607
07:30-07:45	A - Brewery Lane	612	619
	B - Broadland Northway (E)	1450	1508
	C - Drayton Lane (S)	743	757
	D - Broadland Northway (W)	1555	1607
07:45-08:00	A - Brewery Lane	612	619
	B - Broadland Northway (E)	1450	1508
	C - Drayton Lane (S)	743	757
	D - Broadland Northway (W)	1555	1607
08:00-08:15	A - Brewery Lane	612	619
	B - Broadland Northway (E)	1450	1508
	C - Drayton Lane (S)	743	757
	D - Broadland Northway (W)	1555	1607

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)
A - Brewery Lane	0.41	4.10	0.7	A	619	619
B - Broadland Northway (E)	0.58	3.38	1.4	A	1508	1508
C - Drayton Lane (S)	0.39	3.06	0.6	A	757	757
D - Broadland Northway (W)	0.68	4.84	2.2	A	1607	1607

Main Results for each time segment

07:15 - 07:30

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
A - Brewery Lane	619	155	2031	1514	0.409	617	419	0.0	0.7	4.048	A
B - Broadland Northway (E)	1508	377	565	2618	0.576	1503	2082	0.0	1.4	3.343	A
C - Drayton Lane (S)	757	189	1207	1959	0.386	754	881	0.0	0.6	3.038	A
D - Broadland Northway (W)	1607	402	852	2378	0.676	1599	1110	0.0	2.1	4.723	A

07:30 - 07:45

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
A - Brewery Lane	619	155	2041	1508	0.411	619	421	0.7	0.7	4.099	A
B - Broadland Northway (E)	1508	377	568	2616	0.577	1508	2092	1.4	1.4	3.380	A
C - Drayton Lane (S)	757	189	1212	1956	0.387	757	864	0.6	0.6	3.057	A
D - Broadland Northway (W)	1607	402	855	2377	0.676	1607	1114	2.1	2.1	4.834	A

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
A - Brewery Lane	619	155	2041	1508	0.411	619	421	0.7	0.7	4.100	A
B - Broadland Northway (E)	1508	377	568	2616	0.577	1508	2092	1.4	1.4	3.380	A
C - Drayton Lane (S)	757	189	1212	1956	0.387	757	864	0.6	0.6	3.057	A
D - Broadland Northway (W)	1607	402	855	2377	0.676	1607	1114	2.1	2.1	4.836	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
A - Brewery Lane	619	155	2041	1508	0.411	619	421	0.7	0.7	4.100	A
B - Broadland Northway (E)	1508	377	568	2616	0.577	1508	2092	1.4	1.4	3.380	A
C - Drayton Lane (S)	757	189	1212	1956	0.387	757	864	0.6	0.6	3.057	A
D - Broadland Northway (W)	1607	402	855	2377	0.676	1607	1114	2.1	2.2	4.836	A

2029DS, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	A - Brewery Lane - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	C - Drayton Lane (S) - 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
J21	Broadland Northway/ Drayton Lane	Standard Roundabout		A, B, C, D	3.05	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	3.05	A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically
D4	2029DS	PM	FLAT	16:45	17:45	60	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 (Veh/hr)	Scaling Factor (%)
A - Brewery Lane		FLAT	✓	437	100.000
B - Broadland Northway (E)		FLAT	✓	1592	100.000
C - Drayton Lane (S)		FLAT	✓	753	100.000
D - Broadland Northway (W)		FLAT	✓	1157	100.000

Origin-Destination Data

Demand (Veh/hr)

		To			
		A - Brewery Lane	B - Broadland Northway (E)	C - Drayton Lane (S)	D - Broadland Northway (W)
From	A - Brewery Lane	0	258	142	37
	B - Broadland Northway (E)	263	0	399	930
	C - Drayton Lane (S)	226	362	0	165
	D - Broadland Northway (W)	37	975	145	0

Proportions

		To		
		A - Brewery Lane	B - Broadland Northway (E)	D
From	A - Brewery Lane	0.00	0.59	
	B - Broadland Northway (E)	0.17	0.00	
	C - Drayton Lane (S)	0.30	0.48	
	D - Broadland Northway (W)	0.03	0.84	

Vehicle Mix

Heavy Vehicle Percentages

		To			
		A - Brewery Lane	B - Broadland Northway (E)	C - Drayton Lane (S)	D - Broadland Northway (W)
From	A - Brewery Lane	0	0	1	0
	B - Broadland Northway (E)	3	0	0	2
	C - Drayton Lane (S)	0	0	0	1
	D - Broadland Northway (W)	0	1	1	0

Average PCU Per Veh

		To		
		A - Brewery Lane	B - Broadland Northway (E)	D
From	A - Brewery Lane	1.000	1.004	
	B - Broadland Northway (E)	1.027	1.000	
	C - Drayton Lane (S)	1.004	1.000	
	D - Broadland Northway (W)	1.000	1.010	

Detailed Demand Data

Demand for each time segment

Time Segment	Arm	Demand (Veh/hr)	Demand in PCU (PCU/hr)
16:45-17:00	A - Brewery Lane	437	440
	B - Broadland Northway (E)	1592	1621
	C - Drayton Lane (S)	753	756
	D - Broadland Northway (W)	1157	1168
17:00-17:15	A - Brewery Lane	437	440
	B - Broadland Northway (E)	1592	1621
	C - Drayton Lane (S)	753	756
	D - Broadland Northway (W)	1157	1168
17:15-17:30	A - Brewery Lane	437	440
	B - Broadland Northway (E)	1592	1621
	C - Drayton Lane (S)	753	756
	D - Broadland Northway (W)	1157	1168
17:30-17:45	A - Brewery Lane	437	440
	B - Broadland Northway (E)	1592	1621
	C - Drayton Lane (S)	753	756
	D - Broadland Northway (W)	1157	1168

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)
A - Brewery Lane	0.24	2.58	0.3	A	440	440
B - Broadland Northway (E)	0.58	3.18	1.4	A	1621	1621
C - Drayton Lane (S)	0.39	3.08	0.6	A	756	756
D - Broadland Northway (W)	0.49	3.01	1.0	A	1168	1168

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
A - Brewery Lane	440	110	1488	1845	0.238	439	532	0.0	0.3	2.574	A
B - Broadland Northway (E)	1621	405	326	2772	0.585	1615	1601	0.0	1.4	3.153	A
C - Drayton Lane (S)	756	189	1255	1930	0.392	753	687	0.0	0.6	3.065	A
D - Broadland Northway (W)	1168	292	856	2376	0.492	1164	1152	0.0	1.0	2.989	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
A - Brewery Lane	440	110	1493	1842	0.239	440	534	0.3	0.3	2.584	A
B - Broadland Northway (E)	1621	405	327	2772	0.585	1621	1606	1.4	1.4	3.184	A
C - Drayton Lane (S)	756	189	1259	1927	0.392	756	689	0.6	0.6	3.084	A
D - Broadland Northway (W)	1168	292	859	2374	0.492	1168	1156	1.0	1.0	3.012	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
A - Brewery Lane	440	110	1493	1842	0.239	440	534	0.3	0.3	2.584	A
B - Broadland Northway (E)	1621	405	327	2772	0.585	1621	1606	1.4	1.4	3.184	A
C - Drayton Lane (S)	756	189	1259	1927	0.392	756	689	0.6	0.6	3.084	A
D - Broadland Northway (W)	1168	292	859	2374	0.492	1168	1156	1.0	1.0	3.012	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
A - Brewery Lane	440	110	1493	1842	0.239	440	534	0.3	0.3	2.584	A
B - Broadland Northway (E)	1621	405	327	2772	0.585	1621	1606	1.4	1.4	3.184	A
C - Drayton Lane (S)	756	189	1259	1927	0.392	756	689	0.6	0.6	3.084	A
D - Broadland Northway (W)	1168	292	859	2374	0.492	1168	1156	1.0	1.0	3.012	A

2029DS_Mitigation, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	A - Brewery Lane - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	C - Drayton Lane (S) - 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
J21	Broadland Northway/ Drayton Lane	Standard Roundabout		A, B, C, D	4.36	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	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 period length (min)	Time segment length (min)	Run automatically
D5	2029DS_Mitigation	AM	FLAT	07:15	08:15	60	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 (Veh/hr)	Scaling Factor (%)
A - Brewery Lane		FLAT	✓	541	100.000
B - Broadland Northway (E)		FLAT	✓	1569	100.000
C - Drayton Lane (S)		FLAT	✓	772	100.000
D - Broadland Northway (W)		FLAT	✓	1669	100.000

Origin-Destination Data

Demand (Veh/hr)

		To			
		A - Brewery Lane	B - Broadland Northway (E)	C - Drayton Lane (S)	D - Broadland Northway (W)
From	A - Brewery Lane	0	241	261	39
	B - Broadland Northway (E)	222	0	354	993
	C - Drayton Lane (S)	120	476	0	175
	D - Broadland Northway (W)	22	1420	227	0

Proportions

		To		
		A - Brewery Lane	B - Broadland Northway (E)	D
From	A - Brewery Lane	0.00	0.44	
	B - Broadland Northway (E)	0.14	0.00	
	C - Drayton Lane (S)	0.16	0.62	
	D - Broadland Northway (W)	0.01	0.85	

Vehicle Mix

Heavy Vehicle Percentages

		To			
		A - Brewery Lane	B - Broadland Northway (E)	C - Drayton Lane (S)	D - Broadland Northway (W)
From	A - Brewery Lane	0	2	1	0
	B - Broadland Northway (E)	4	0	5	3
	C - Drayton Lane (S)	1	1	0	4
	D - Broadland Northway (W)	0	3	5	0

Average PCU Per Veh

		To		
		A - Brewery Lane	B - Broadland Northway (E)	D
From	A - Brewery Lane	1.000	1.022	
	B - Broadland Northway (E)	1.043	1.000	
	C - Drayton Lane (S)	1.009	1.011	
	D - Broadland Northway (W)	1.000	1.028	

Detailed Demand Data

Demand for each time segment

Time Segment	Arm	Demand (Veh/hr)	Demand in PCU (PCU/hr)
07:15-07:30	A - Brewery Lane	541	549
	B - Broadland Northway (E)	1569	1628
	C - Drayton Lane (S)	772	786
	D - Broadland Northway (W)	1669	1719
07:30-07:45	A - Brewery Lane	541	549
	B - Broadland Northway (E)	1569	1628
	C - Drayton Lane (S)	772	786
	D - Broadland Northway (W)	1669	1719
07:45-08:00	A - Brewery Lane	541	549
	B - Broadland Northway (E)	1569	1628
	C - Drayton Lane (S)	772	786
	D - Broadland Northway (W)	1669	1719
08:00-08:15	A - Brewery Lane	541	549
	B - Broadland Northway (E)	1569	1628
	C - Drayton Lane (S)	772	786
	D - Broadland Northway (W)	1669	1719

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)
A - Brewery Lane	0.39	4.17	0.6	A	549	549
B - Broadland Northway (E)	0.62	3.71	1.7	A	1628	1628
C - Drayton Lane (S)	0.41	3.27	0.7	A	786	786
D - Broadland Northway (W)	0.72	5.53	2.6	A	1719	1719

Main Results for each time segment

07:15 - 07:30

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
A - Brewery Lane	549	137	2167	1431	0.384	546	374	0.0	0.6	4.113	A
B - Broadland Northway (E)	1628	407	538	2636	0.618	1621	2176	0.0	1.7	3.657	A
C - Drayton Lane (S)	786	196	1289	1909	0.411	783	870	0.0	0.7	3.244	A
D - Broadland Northway (W)	1719	430	831	2391	0.719	1709	1240	0.0	2.6	5.358	A

07:30 - 07:45

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
A - Brewery Lane	549	137	2179	1424	0.385	549	375	0.6	0.6	4.169	A
B - Broadland Northway (E)	1628	407	540	2634	0.618	1628	2187	1.7	1.7	3.710	A
C - Drayton Lane (S)	786	196	1294	1906	0.412	786	874	0.7	0.7	3.269	A
D - Broadland Northway (W)	1719	430	835	2389	0.720	1719	1245	2.6	2.6	5.531	A

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
A - Brewery Lane	549	137	2179	1424	0.385	549	375	0.6	0.6	4.169	A
B - Broadland Northway (E)	1628	407	540	2634	0.618	1628	2187	1.7	1.7	3.710	A
C - Drayton Lane (S)	786	196	1294	1906	0.412	786	874	0.7	0.7	3.269	A
D - Broadland Northway (W)	1719	430	835	2389	0.720	1719	1245	2.6	2.6	5.534	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
A - Brewery Lane	549	137	2179	1424	0.385	549	375	0.6	0.6	4.169	A
B - Broadland Northway (E)	1628	407	540	2634	0.618	1628	2187	1.7	1.7	3.710	A
C - Drayton Lane (S)	786	196	1294	1906	0.412	786	874	0.7	0.7	3.269	A
D - Broadland Northway (W)	1719	430	835	2389	0.720	1719	1245	2.6	2.6	5.534	A

2029DS_Mitigation, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	A - Brewery Lane - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	C - Drayton Lane (S) - 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
J21	Broadland Northway/ Drayton Lane	Standard Roundabout		A, B, C, D	3.50	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	3.50	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)	Run automatically
D6	2029DS_Mitigation	PM	FLAT	16:45	17:45	60	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 (Veh/hr)	Scaling Factor (%)
A - Brewery Lane		FLAT	✓	377	100.000
B - Broadland Northway (E)		FLAT	✓	1738	100.000
C - Drayton Lane (S)		FLAT	✓	774	100.000
D - Broadland Northway (W)		FLAT	✓	1335	100.000

Origin-Destination Data

Demand (Veh/hr)

		To			
		A - Brewery Lane	B - Broadland Northway (E)	C - Drayton Lane (S)	D - Broadland Northway (W)
From	A - Brewery Lane	0	210	130	37
	B - Broadland Northway (E)	299	0	423	1016
	C - Drayton Lane (S)	231	374	0	169
	D - Broadland Northway (W)	37	1153	145	0

Proportions

		To		
		A - Brewery Lane	B - Broadland Northway (E)	D
From	A - Brewery Lane	0.00	0.56	
	B - Broadland Northway (E)	0.17	0.00	
	C - Drayton Lane (S)	0.30	0.48	
	D - Broadland Northway (W)	0.03	0.86	

Vehicle Mix

Heavy Vehicle Percentages

		To			
		A - Brewery Lane	B - Broadland Northway (E)	C - Drayton Lane (S)	D - Broadland Northway (W)
From	A - Brewery Lane	0	0	2	0
	B - Broadland Northway (E)	2	0	0	2
	C - Drayton Lane (S)	0	0	0	1
	D - Broadland Northway (W)	0	1	1	0

Average PCU Per Veh

		To		
		A - Brewery Lane	B - Broadland Northway (E)	D
From	A - Brewery Lane	1.000	1.005	
	B - Broadland Northway (E)	1.023	1.000	
	C - Drayton Lane (S)	1.004	1.000	
	D - Broadland Northway (W)	1.000	1.010	

Detailed Demand Data

Demand for each time segment

Time Segment	Arm	Demand (Veh/hr)	Demand in PCU (PCU/hr)
16:45-17:00	A - Brewery Lane	377	380
	B - Broadland Northway (E)	1738	1767
	C - Drayton Lane (S)	774	777
	D - Broadland Northway (W)	1335	1347
17:00-17:15	A - Brewery Lane	377	380
	B - Broadland Northway (E)	1738	1767
	C - Drayton Lane (S)	774	777
	D - Broadland Northway (W)	1335	1347
17:15-17:30	A - Brewery Lane	377	380
	B - Broadland Northway (E)	1738	1767
	C - Drayton Lane (S)	774	777
	D - Broadland Northway (W)	1335	1347
17:30-17:45	A - Brewery Lane	377	380
	B - Broadland Northway (E)	1738	1767
	C - Drayton Lane (S)	774	777
	D - Broadland Northway (W)	1335	1347

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)
A - Brewery Lane	0.22	2.70	0.3	A	380	380
B - Broadland Northway (E)	0.64	3.61	1.8	A	1767	1767
C - Drayton Lane (S)	0.42	3.36	0.7	A	777	777
D - Broadland Northway (W)	0.58	3.65	1.4	A	1347	1347

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
A - Brewery Lane	380	95	1677	1730	0.220	379	573	0.0	0.3	2.683	A
B - Broadland Northway (E)	1767	442	314	2780	0.636	1760	1742	0.0	1.8	3.563	A
C - Drayton Lane (S)	777	194	1376	1857	0.418	774	698	0.0	0.7	3.329	A
D - Broadland Northway (W)	1347	337	909	2343	0.575	1342	1241	0.0	1.4	3.609	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
A - Brewery Lane	380	95	1684	1726	0.220	380	575	0.3	0.3	2.695	A
B - Broadland Northway (E)	1767	442	315	2779	0.636	1767	1749	1.8	1.8	3.614	A
C - Drayton Lane (S)	777	194	1381	1854	0.419	777	701	0.7	0.7	3.355	A
D - Broadland Northway (W)	1347	337	912	2341	0.575	1347	1246	1.4	1.4	3.653	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
A - Brewery Lane	380	95	1684	1726	0.220	380	575	0.3	0.3	2.695	A
B - Broadland Northway (E)	1767	442	315	2779	0.636	1767	1749	1.8	1.8	3.614	A
C - Drayton Lane (S)	777	194	1381	1854	0.419	777	701	0.7	0.7	3.355	A
D - Broadland Northway (W)	1347	337	912	2341	0.575	1347	1246	1.4	1.4	3.653	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
A - Brewery Lane	380	95	1684	1726	0.220	380	575	0.3	0.3	2.695	A
B - Broadland Northway (E)	1767	442	315	2779	0.636	1767	1749	1.8	1.8	3.614	A
C - Drayton Lane (S)	777	194	1381	1854	0.419	777	701	0.7	0.7	3.355	A
D - Broadland Northway (W)	1347	337	912	2341	0.575	1347	1246	1.4	1.4	3.653	A

2039DM, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	A - Brewery Lane - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	C - Drayton Lane (S) - 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
J21	Broadland Northway/ Drayton Lane	Standard Roundabout		A, B, C, D	4.40	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	4.40	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)	Run automatically
D7	2039DM	AM	FLAT	07:15	08:15	60	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 (Veh/hr)	Scaling Factor (%)
A - Brewery Lane		FLAT	✓	813	100.000
B - Broadland Northway (E)		FLAT	✓	1236	100.000
C - Drayton Lane (S)		FLAT	✓	944	100.000
D - Broadland Northway (W)		FLAT	✓	1526	100.000

Origin-Destination Data

Demand (Veh/hr)

		To			
		A - Brewery Lane	B - Broadland Northway (E)	C - Drayton Lane (S)	D - Broadland Northway (W)
From	A - Brewery Lane	0	410	392	12
	B - Broadland Northway (E)	254	0	258	724
	C - Drayton Lane (S)	125	679	0	141
	D - Broadland Northway (W)	14	1381	132	0

Proportions

		To		
		A - Brewery Lane	B - Broadland Northway (E)	D
From	A - Brewery Lane	0.00	0.50	
	B - Broadland Northway (E)	0.21	0.00	
	C - Drayton Lane (S)	0.13	0.72	
	D - Broadland Northway (W)	0.01	0.90	

Vehicle Mix

Heavy Vehicle Percentages

		To			
		A - Brewery Lane	B - Broadland Northway (E)	C - Drayton Lane (S)	D - Broadland Northway (W)
From	A - Brewery Lane	0	3	1	0
	B - Broadland Northway (E)	4	0	6	2
	C - Drayton Lane (S)	1	1	0	1
	D - Broadland Northway (W)	0	2	1	0

Average PCU Per Veh

		To		
		A - Brewery Lane	B - Broadland Northway (E)	D
From	A - Brewery Lane	1.000	1.025	
	B - Broadland Northway (E)	1.041	1.000	
	C - Drayton Lane (S)	1.009	1.006	
	D - Broadland Northway (W)	1.000	1.023	

Detailed Demand Data

Demand for each time segment

Time Segment	Arm	Demand (Veh/hr)	Demand in PCU (PCU/hr)
07:15-07:30	A - Brewery Lane	813	826
	B - Broadland Northway (E)	1236	1278
	C - Drayton Lane (S)	944	950
	D - Broadland Northway (W)	1526	1559
07:30-07:45	A - Brewery Lane	813	826
	B - Broadland Northway (E)	1236	1278
	C - Drayton Lane (S)	944	950
	D - Broadland Northway (W)	1526	1559
07:45-08:00	A - Brewery Lane	813	826
	B - Broadland Northway (E)	1236	1278
	C - Drayton Lane (S)	944	950
	D - Broadland Northway (W)	1526	1559
08:00-08:15	A - Brewery Lane	813	826
	B - Broadland Northway (E)	1236	1278
	C - Drayton Lane (S)	944	950
	D - Broadland Northway (W)	1526	1559

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)
A - Brewery Lane	0.59	6.44	1.5	A	826	826
B - Broadland Northway (E)	0.49	2.74	1.0	A	1278	1278
C - Drayton Lane (S)	0.46	3.22	0.9	A	950	950
D - Broadland Northway (W)	0.70	5.41	2.3	A	1559	1559

Main Results for each time segment

07:15 - 07:30

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
A - Brewery Lane	826	207	2217	1401	0.590	820	403	0.0	1.4	6.242	A
B - Broadland Northway (E)	1278	320	536	2636	0.485	1274	2501	0.0	1.0	2.723	A
C - Drayton Lane (S)	950	238	1014	2075	0.458	947	797	0.0	0.8	3.201	A
D - Broadland Northway (W)	1559	390	1070	2242	0.696	1550	891	0.0	2.3	5.251	A

07:30 - 07:45

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
A - Brewery Lane	826	207	2229	1394	0.593	826	404	1.4	1.5	6.439	A
B - Broadland Northway (E)	1278	320	540	2634	0.485	1278	2515	1.0	1.0	2.743	A
C - Drayton Lane (S)	950	238	1017	2074	0.458	950	801	0.8	0.8	3.224	A
D - Broadland Northway (W)	1559	390	1074	2240	0.696	1559	894	2.3	2.3	5.404	A

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
A - Brewery Lane	826	207	2229	1394	0.593	826	404	1.5	1.5	6.442	A
B - Broadland Northway (E)	1278	320	540	2634	0.485	1278	2515	1.0	1.0	2.743	A
C - Drayton Lane (S)	950	238	1017	2074	0.458	950	801	0.8	0.8	3.224	A
D - Broadland Northway (W)	1559	390	1074	2240	0.696	1559	894	2.3	2.3	5.406	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
A - Brewery Lane	826	207	2229	1394	0.593	826	404	1.5	1.5	6.442	A
B - Broadland Northway (E)	1278	320	540	2634	0.485	1278	2515	1.0	1.0	2.743	A
C - Drayton Lane (S)	950	238	1017	2074	0.458	950	801	0.8	0.9	3.224	A
D - Broadland Northway (W)	1559	390	1074	2240	0.696	1559	894	2.3	2.3	5.406	A

2039DM, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	A - Brewery Lane - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	C - Drayton Lane (S) - 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
J21	Broadland Northway/ Drayton Lane	Standard Roundabout		A, B, C, D	3.46	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	3.46	A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically
D8	2039DM	PM	FLAT	16:45	17:45	60	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 (Veh/hr)	Scaling Factor (%)
A - Brewery Lane		FLAT	✓	482	100.000
B - Broadland Northway (E)		FLAT	✓	1792	100.000
C - Drayton Lane (S)		FLAT	✓	893	100.000
D - Broadland Northway (W)		FLAT	✓	1052	100.000

Origin-Destination Data

Demand (Veh/hr)

		To			
		A - Brewery Lane	B - Broadland Northway (E)	C - Drayton Lane (S)	D - Broadland Northway (W)
From	A - Brewery Lane	0	284	177	21
	B - Broadland Northway (E)	339	0	475	978
	C - Drayton Lane (S)	232	401	0	260
	D - Broadland Northway (W)	31	880	142	0

Proportions

		To		
		A - Brewery Lane	B - Broadland Northway (E)	D
From	A - Brewery Lane	0.00	0.59	
	B - Broadland Northway (E)	0.19	0.00	
	C - Drayton Lane (S)	0.26	0.45	
	D - Broadland Northway (W)	0.03	0.84	

Vehicle Mix

Heavy Vehicle Percentages

		To			
		A - Brewery Lane	B - Broadland Northway (E)	C - Drayton Lane (S)	D - Broadland Northway (W)
From	A - Brewery Lane	0	0	2	0
	B - Broadland Northway (E)	2	0	0	2
	C - Drayton Lane (S)	0	0	0	0
	D - Broadland Northway (W)	0	1	1	0

Average PCU Per Veh

		To		
		A - Brewery Lane	B - Broadland Northway (E)	D
From	A - Brewery Lane	1.000	1.001	
	B - Broadland Northway (E)	1.021	1.000	
	C - Drayton Lane (S)	1.004	1.000	
	D - Broadland Northway (W)	1.000	1.005	

Detailed Demand Data

Demand for each time segment

Time Segment	Arm	Demand (Veh/hr)	Demand in PCU (PCU/hr)
16:45-17:00	A - Brewery Lane	482	485
	B - Broadland Northway (E)	1792	1821
	C - Drayton Lane (S)	893	894
	D - Broadland Northway (W)	1052	1058
17:00-17:15	A - Brewery Lane	482	485
	B - Broadland Northway (E)	1792	1821
	C - Drayton Lane (S)	893	894
	D - Broadland Northway (W)	1052	1058
17:15-17:30	A - Brewery Lane	482	485
	B - Broadland Northway (E)	1792	1821
	C - Drayton Lane (S)	893	894
	D - Broadland Northway (W)	1052	1058
17:30-17:45	A - Brewery Lane	482	485
	B - Broadland Northway (E)	1792	1821
	C - Drayton Lane (S)	893	894
	D - Broadland Northway (W)	1052	1058

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)
A - Brewery Lane	0.26	2.59	0.3	A	485	485
B - Broadland Northway (E)	0.66	3.89	2.0	A	1821	1821
C - Drayton Lane (S)	0.48	3.72	0.9	A	894	894
D - Broadland Northway (W)	0.46	2.92	0.9	A	1058	1058

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
A - Brewery Lane	485	121	1423	1885	0.257	483	607	0.0	0.3	2.582	A
B - Broadland Northway (E)	1821	455	342	2762	0.659	1813	1564	0.0	1.9	3.823	A
C - Drayton Lane (S)	894	223	1361	1866	0.479	890	794	0.0	0.9	3.680	A
D - Broadland Northway (W)	1058	264	976	2301	0.460	1054	1275	0.0	0.9	2.896	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
A - Brewery Lane	485	121	1428	1882	0.258	485	609	0.3	0.3	2.592	A
B - Broadland Northway (E)	1821	455	343	2761	0.659	1821	1569	1.9	2.0	3.888	A
C - Drayton Lane (S)	894	223	1367	1862	0.480	894	797	0.9	0.9	3.719	A
D - Broadland Northway (W)	1058	264	980	2299	0.460	1058	1281	0.9	0.9	2.916	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
A - Brewery Lane	485	121	1428	1882	0.258	485	609	0.3	0.3	2.592	A
B - Broadland Northway (E)	1821	455	343	2761	0.659	1821	1569	2.0	2.0	3.888	A
C - Drayton Lane (S)	894	223	1367	1862	0.480	894	797	0.9	0.9	3.719	A
D - Broadland Northway (W)	1058	264	980	2298	0.460	1058	1281	0.9	0.9	2.916	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
A - Brewery Lane	485	121	1428	1882	0.258	485	609	0.3	0.3	2.592	A
B - Broadland Northway (E)	1821	455	343	2761	0.659	1821	1569	2.0	2.0	3.888	A
C - Drayton Lane (S)	894	223	1367	1862	0.480	894	797	0.9	0.9	3.719	A
D - Broadland Northway (W)	1058	264	980	2298	0.460	1058	1281	0.9	0.9	2.916	A

2039DS, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	A - Brewery Lane - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	C - Drayton Lane (S) - 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
J21	Broadland Northway/ Drayton Lane	Standard Roundabout		A, B, C, D	6.14	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	6.14	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)	Run automatically
D9	2039DS	AM	FLAT	07:15	08:15	60	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 (Veh/hr)	Scaling Factor (%)
A - Brewery Lane		FLAT	✓	811	100.000
B - Broadland Northway (E)		FLAT	✓	1370	100.000
C - Drayton Lane (S)		FLAT	✓	885	100.000
D - Broadland Northway (W)		FLAT	✓	1845	100.000

Origin-Destination Data

Demand (Veh/hr)

		To			
		A - Brewery Lane	B - Broadland Northway (E)	C - Drayton Lane (S)	D - Broadland Northway (W)
From	A - Brewery Lane	0	399	383	29
	B - Broadland Northway (E)	237	0	234	899
	C - Drayton Lane (S)	122	576	0	188
	D - Broadland Northway (W)	24	1642	179	0

Proportions

		To		
		A - Brewery Lane	B - Broadland Northway (E)	D
From	A - Brewery Lane	0.00	0.49	
	B - Broadland Northway (E)	0.17	0.00	
	C - Drayton Lane (S)	0.14	0.65	
	D - Broadland Northway (W)	0.01	0.89	

Vehicle Mix

Heavy Vehicle Percentages

		To			
		A - Brewery Lane	B - Broadland Northway (E)	C - Drayton Lane (S)	D - Broadland Northway (W)
From	A - Brewery Lane	0	2	1	0
	B - Broadland Northway (E)	4	0	6	3
	C - Drayton Lane (S)	1	1	0	4
	D - Broadland Northway (W)	0	3	3	0

Average PCU Per Veh

		To		
		A - Brewery Lane	B - Broadland Northway (E)	D
From	A - Brewery Lane	1.000	1.019	
	B - Broadland Northway (E)	1.043	1.000	
	C - Drayton Lane (S)	1.009	1.009	
	D - Broadland Northway (W)	1.000	1.026	

Detailed Demand Data

Demand for each time segment

Time Segment	Arm	Demand (Veh/hr)	Demand in PCU (PCU/hr)
07:15-07:30	A - Brewery Lane	811	820
	B - Broadland Northway (E)	1370	1419
	C - Drayton Lane (S)	885	900
	D - Broadland Northway (W)	1845	1893
07:30-07:45	A - Brewery Lane	811	820
	B - Broadland Northway (E)	1370	1419
	C - Drayton Lane (S)	885	900
	D - Broadland Northway (W)	1845	1893
07:45-08:00	A - Brewery Lane	811	820
	B - Broadland Northway (E)	1370	1419
	C - Drayton Lane (S)	885	900
	D - Broadland Northway (W)	1845	1893
08:00-08:15	A - Brewery Lane	811	820
	B - Broadland Northway (E)	1370	1419
	C - Drayton Lane (S)	885	900
	D - Broadland Northway (W)	1845	1893

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)
A - Brewery Lane	0.65	8.31	1.9	A	820	820
B - Broadland Northway (E)	0.55	3.17	1.2	A	1419	1419
C - Drayton Lane (S)	0.46	3.44	0.9	A	900	900
D - Broadland Northway (W)	0.82	8.72	4.5	A	1893	1893

Main Results for each time segment

07:15 - 07:30

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
A - Brewery Lane	820	205	2431	1270	0.646	813	392	0.0	1.8	7.853	A
B - Broadland Northway (E)	1419	355	593	2600	0.546	1414	2652	0.0	1.2	3.133	A
C - Drayton Lane (S)	900	225	1195	1966	0.458	896	812	0.0	0.9	3.408	A
D - Broadland Northway (W)	1893	473	948	2318	0.817	1876	1143	0.0	4.3	8.055	A

07:30 - 07:45

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
A - Brewery Lane	820	205	2450	1259	0.652	820	394	1.8	1.9	8.298	A
B - Broadland Northway (E)	1419	355	598	2597	0.547	1419	2672	1.2	1.2	3.167	A
C - Drayton Lane (S)	900	225	1199	1964	0.458	900	818	0.9	0.9	3.438	A
D - Broadland Northway (W)	1893	473	951	2316	0.817	1893	1147	4.3	4.5	8.693	A

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
A - Brewery Lane	820	205	2450	1258	0.652	820	394	1.9	1.9	8.312	A
B - Broadland Northway (E)	1419	355	598	2597	0.547	1419	2673	1.2	1.2	3.167	A
C - Drayton Lane (S)	900	225	1199	1964	0.458	900	818	0.9	0.9	3.438	A
D - Broadland Northway (W)	1893	473	951	2316	0.817	1893	1147	4.5	4.5	8.712	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
A - Brewery Lane	820	205	2450	1258	0.652	820	394	1.9	1.9	8.314	A
B - Broadland Northway (E)	1419	355	598	2597	0.547	1419	2673	1.2	1.2	3.167	A
C - Drayton Lane (S)	900	225	1199	1964	0.458	900	818	0.9	0.9	3.438	A
D - Broadland Northway (W)	1893	473	951	2316	0.817	1893	1147	4.5	4.5	8.717	A

2039DS, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	A - Brewery Lane - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	C - Drayton Lane (S) - 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
J21	Broadland Northway/ Drayton Lane	Standard Roundabout		A, B, C, D	4.05	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	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 period length (min)	Time segment length (min)	Run automatically
D10	2039DS	PM	FLAT	16:45	17:45	60	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 (Veh/hr)	Scaling Factor (%)
A - Brewery Lane		FLAT	✓	474	100.000
B - Broadland Northway (E)		FLAT	✓	1907	100.000
C - Drayton Lane (S)		FLAT	✓	790	100.000
D - Broadland Northway (W)		FLAT	✓	1343	100.000

Origin-Destination Data

Demand (Veh/hr)

		To			
		A - Brewery Lane	B - Broadland Northway (E)	C - Drayton Lane (S)	D - Broadland Northway (W)
From	A - Brewery Lane	0	266	166	42
	B - Broadland Northway (E)	298	0	427	1182
	C - Drayton Lane (S)	239	367	0	185
	D - Broadland Northway (W)	40	1113	190	0

Proportions

		To		
		A - Brewery Lane	B - Broadland Northway (E)	D
From	A - Brewery Lane	0.00	0.56	
	B - Broadland Northway (E)	0.16	0.00	
	C - Drayton Lane (S)	0.30	0.46	
	D - Broadland Northway (W)	0.03	0.83	

Vehicle Mix

Heavy Vehicle Percentages

		To			
		A - Brewery Lane	B - Broadland Northway (E)	C - Drayton Lane (S)	D - Broadland Northway (W)
From	A - Brewery Lane	0	0	1	0
	B - Broadland Northway (E)	2	0	0	2
	C - Drayton Lane (S)	0	0	0	1
	D - Broadland Northway (W)	0	1	1	0

Average PCU Per Veh

		To		
		A - Brewery Lane	B - Broadland Northway (E)	D
From	A - Brewery Lane	1.000	1.001	
	B - Broadland Northway (E)	1.023	1.000	
	C - Drayton Lane (S)	1.004	1.000	
	D - Broadland Northway (W)	1.000	1.013	

Detailed Demand Data

Demand for each time segment

Time Segment	Arm	Demand (Veh/hr)	Demand in PCU (PCU/hr)
16:45-17:00	A - Brewery Lane	474	476
	B - Broadland Northway (E)	1907	1942
	C - Drayton Lane (S)	790	793
	D - Broadland Northway (W)	1343	1358
17:00-17:15	A - Brewery Lane	474	476
	B - Broadland Northway (E)	1907	1942
	C - Drayton Lane (S)	790	793
	D - Broadland Northway (W)	1343	1358
17:15-17:30	A - Brewery Lane	474	476
	B - Broadland Northway (E)	1907	1942
	C - Drayton Lane (S)	790	793
	D - Broadland Northway (W)	1343	1358
17:30-17:45	A - Brewery Lane	474	476
	B - Broadland Northway (E)	1907	1942
	C - Drayton Lane (S)	790	793
	D - Broadland Northway (W)	1343	1358

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)
A - Brewery Lane	0.28	2.89	0.4	A	476	476
B - Broadland Northway (E)	0.71	4.68	2.5	A	1942	1942
C - Drayton Lane (S)	0.45	3.78	0.8	A	793	793
D - Broadland Northway (W)	0.58	3.70	1.4	A	1358	1358

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
A - Brewery Lane	476	119	1677	1730	0.275	474	583	0.0	0.4	2.878	A
B - Broadland Northway (E)	1942	485	399	2725	0.712	1932	1753	0.0	2.5	4.563	A
C - Drayton Lane (S)	793	198	1548	1753	0.453	790	782	0.0	0.8	3.742	A
D - Broadland Northway (W)	1358	340	908	2344	0.579	1352	1431	0.0	1.4	3.652	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
A - Brewery Lane	476	119	1684	1726	0.276	476	585	0.4	0.4	2.894	A
B - Broadland Northway (E)	1942	485	400	2724	0.713	1942	1760	2.5	2.5	4.680	A
C - Drayton Lane (S)	793	198	1556	1748	0.454	793	786	0.8	0.8	3.784	A
D - Broadland Northway (W)	1358	340	912	2341	0.580	1358	1438	1.4	1.4	3.701	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
A - Brewery Lane	476	119	1684	1726	0.276	476	585	0.4	0.4	2.894	A
B - Broadland Northway (E)	1942	485	400	2724	0.713	1942	1760	2.5	2.5	4.682	A
C - Drayton Lane (S)	793	198	1556	1748	0.454	793	786	0.8	0.8	3.784	A
D - Broadland Northway (W)	1358	340	912	2341	0.580	1358	1438	1.4	1.4	3.702	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
A - Brewery Lane	476	119	1684	1726	0.276	476	585	0.4	0.4	2.894	A
B - Broadland Northway (E)	1942	485	400	2724	0.713	1942	1760	2.5	2.5	4.682	A
C - Drayton Lane (S)	793	198	1556	1748	0.454	793	786	0.8	0.8	3.785	A
D - Broadland Northway (W)	1358	340	912	2341	0.580	1358	1438	1.4	1.4	3.702	A

2039DS_Mitigation, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	A - Brewery Lane - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	C - Drayton Lane (S) - 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
J21	Broadland Northway/ Drayton Lane	Standard Roundabout		A, B, C, D	8.11	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	8.11	A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically
D11	2039DS_Mitigation	AM	FLAT	07:15	08:15	60	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 (Veh/hr)	Scaling Factor (%)
A - Brewery Lane		FLAT	✓	791	100.000
B - Broadland Northway (E)		FLAT	✓	1369	100.000
C - Drayton Lane (S)		FLAT	✓	865	100.000
D - Broadland Northway (W)		FLAT	✓	2022	100.000

Origin-Destination Data

Demand (Veh/hr)

		To			
		A - Brewery Lane	B - Broadland Northway (E)	C - Drayton Lane (S)	D - Broadland Northway (W)
From	A - Brewery Lane	0	344	384	63
	B - Broadland Northway (E)	183	0	234	953
	C - Drayton Lane (S)	127	546	0	192
	D - Broadland Northway (W)	28	1777	217	0

Proportions

		To		
		A - Brewery Lane	B - Broadland Northway (E)	D
From	A - Brewery Lane	0.00	0.43	
	B - Broadland Northway (E)	0.13	0.00	
	C - Drayton Lane (S)	0.15	0.63	
	D - Broadland Northway (W)	0.01	0.88	

Vehicle Mix

Heavy Vehicle Percentages

		To			
		A - Brewery Lane	B - Broadland Northway (E)	C - Drayton Lane (S)	D - Broadland Northway (W)
From	A - Brewery Lane	0	2	1	1
	B - Broadland Northway (E)	6	0	6	3
	C - Drayton Lane (S)	1	1	0	5
	D - Broadland Northway (W)	0	3	3	0

Average PCU Per Veh

		To		
		A - Brewery Lane	B - Broadland Northway (E)	D
From	A - Brewery Lane	1.000	1.018	
	B - Broadland Northway (E)	1.056	1.000	
	C - Drayton Lane (S)	1.014	1.008	
	D - Broadland Northway (W)	1.000	1.027	

Detailed Demand Data

Demand for each time segment

Time Segment	Arm	Demand (Veh/hr)	Demand in PCU (PCU/hr)
07:15-07:30	A - Brewery Lane	791	800
	B - Broadland Northway (E)	1369	1419
	C - Drayton Lane (S)	865	881
	D - Broadland Northway (W)	2022	2076
07:30-07:45	A - Brewery Lane	791	800
	B - Broadland Northway (E)	1369	1419
	C - Drayton Lane (S)	865	881
	D - Broadland Northway (W)	2022	2076
07:45-08:00	A - Brewery Lane	791	800
	B - Broadland Northway (E)	1369	1419
	C - Drayton Lane (S)	865	881
	D - Broadland Northway (W)	2022	2076
08:00-08:15	A - Brewery Lane	791	800
	B - Broadland Northway (E)	1369	1419
	C - Drayton Lane (S)	865	881
	D - Broadland Northway (W)	2022	2076

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)
A - Brewery Lane	0.68	9.88	2.2	A	800	800
B - Broadland Northway (E)	0.56	3.30	1.3	A	1419	1419
C - Drayton Lane (S)	0.45	3.46	0.8	A	881	881
D - Broadland Northway (W)	0.88	12.69	7.2	B	2076	2076

Main Results for each time segment

07:15 - 07:30

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
A - Brewery Lane	800	200	2570	1185	0.675	792	348	0.0	2.0	9.075	A
B - Broadland Northway (E)	1419	355	667	2552	0.556	1414	2696	0.0	1.3	3.261	A
C - Drayton Lane (S)	881	220	1229	1946	0.453	878	851	0.0	0.8	3.428	A
D - Broadland Northway (W)	2076	519	869	2368	0.877	2050	1238	0.0	6.6	10.854	B

07:30 - 07:45

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
A - Brewery Lane	800	200	2597	1169	0.684	799	350	2.0	2.1	9.833	A
B - Broadland Northway (E)	1419	355	674	2548	0.557	1419	2723	1.3	1.3	3.302	A
C - Drayton Lane (S)	881	220	1234	1943	0.454	881	859	0.8	0.8	3.456	A
D - Broadland Northway (W)	2076	519	872	2366	0.878	2075	1243	6.6	7.0	12.551	B

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
A - Brewery Lane	800	200	2598	1168	0.685	800	350	2.1	2.2	9.869	A
B - Broadland Northway (E)	1419	355	674	2548	0.557	1419	2724	1.3	1.3	3.303	A
C - Drayton Lane (S)	881	220	1234	1943	0.454	881	859	0.8	0.8	3.456	A
D - Broadland Northway (W)	2076	519	872	2366	0.878	2076	1243	7.0	7.1	12.648	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
A - Brewery Lane	800	200	2598	1168	0.685	800	350	2.2	2.2	9.876	A
B - Broadland Northway (E)	1419	355	674	2548	0.557	1419	2724	1.3	1.3	3.303	A
C - Drayton Lane (S)	881	220	1234	1943	0.454	881	859	0.8	0.8	3.457	A
D - Broadland Northway (W)	2076	519	872	2366	0.878	2076	1243	7.1	7.2	12.686	B

2039DS_Mitigation, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	A - Brewery Lane - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	C - Drayton Lane (S) - 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
J21	Broadland Northway/ Drayton Lane	Standard Roundabout		A, B, C, D	4.89	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	4.89	A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically
D12	2039DS_Mitigation	PM	FLAT	16:45	17:45	60	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 (Veh/hr)	Scaling Factor (%)
A - Brewery Lane		FLAT	✓	390	100.000
B - Broadland Northway (E)		FLAT	✓	2053	100.000
C - Drayton Lane (S)		FLAT	✓	823	100.000
D - Broadland Northway (W)		FLAT	✓	1508	100.000

Origin-Destination Data

Demand (Veh/hr)

		To			
		A - Brewery Lane	B - Broadland Northway (E)	C - Drayton Lane (S)	D - Broadland Northway (W)
From	A - Brewery Lane	0	199	150	42
	B - Broadland Northway (E)	335	0	446	1272
	C - Drayton Lane (S)	224	403	0	196
	D - Broadland Northway (W)	38	1277	192	0

Proportions

		To		
		A - Brewery Lane	B - Broadland Northway (E)	D
From	A - Brewery Lane	0.00	0.51	
	B - Broadland Northway (E)	0.16	0.00	
	C - Drayton Lane (S)	0.27	0.49	
	D - Broadland Northway (W)	0.03	0.85	

Vehicle Mix

Heavy Vehicle Percentages

		To			
		A - Brewery Lane	B - Broadland Northway (E)	C - Drayton Lane (S)	D - Broadland Northway (W)
From	A - Brewery Lane	0	0	1	0
	B - Broadland Northway (E)	2	0	0	2
	C - Drayton Lane (S)	0	0	0	1
	D - Broadland Northway (W)	0	1	1	0

Average PCU Per Veh

		To		
		A - Brewery Lane	B - Broadland Northway (E)	D
From	A - Brewery Lane	1.000	1.002	
	B - Broadland Northway (E)	1.021	1.000	
	C - Drayton Lane (S)	1.004	1.000	
	D - Broadland Northway (W)	1.000	1.012	

Detailed Demand Data

Demand for each time segment

Time Segment	Arm	Demand (Veh/hr)	Demand in PCU (PCU/hr)
16:45-17:00	A - Brewery Lane	390	393
	B - Broadland Northway (E)	2053	2086
	C - Drayton Lane (S)	823	826
	D - Broadland Northway (W)	1508	1524
17:00-17:15	A - Brewery Lane	390	393
	B - Broadland Northway (E)	2053	2086
	C - Drayton Lane (S)	823	826
	D - Broadland Northway (W)	1508	1524
17:15-17:30	A - Brewery Lane	390	393
	B - Broadland Northway (E)	2053	2086
	C - Drayton Lane (S)	823	826
	D - Broadland Northway (W)	1508	1524
17:30-17:45	A - Brewery Lane	390	393
	B - Broadland Northway (E)	2053	2086
	C - Drayton Lane (S)	823	826
	D - Broadland Northway (W)	1508	1524

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)
A - Brewery Lane	0.25	3.00	0.3	A	393	393
B - Broadland Northway (E)	0.76	5.66	3.3	A	2086	2086
C - Drayton Lane (S)	0.49	4.27	1.0	A	826	826
D - Broadland Northway (W)	0.66	4.66	2.0	A	1524	1524

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
A - Brewery Lane	393	98	1879	1607	0.244	391	602	0.0	0.3	2.977	A
B - Broadland Northway (E)	2086	522	385	2734	0.763	2074	1885	0.0	3.2	5.441	A
C - Drayton Lane (S)	826	206	1672	1678	0.492	822	787	0.0	1.0	4.203	A
D - Broadland Northway (W)	1524	381	965	2308	0.661	1517	1529	0.0	1.9	4.558	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
A - Brewery Lane	393	98	1889	1601	0.245	393	606	0.3	0.3	2.996	A
B - Broadland Northway (E)	2086	522	387	2733	0.763	2086	1894	3.2	3.2	5.653	A
C - Drayton Lane (S)	826	206	1682	1672	0.494	826	791	1.0	1.0	4.269	A
D - Broadland Northway (W)	1524	381	970	2305	0.661	1524	1538	1.9	2.0	4.664	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
A - Brewery Lane	393	98	1889	1601	0.245	393	606	0.3	0.3	2.996	A
B - Broadland Northway (E)	2086	522	387	2733	0.763	2086	1894	3.2	3.3	5.656	A
C - Drayton Lane (S)	826	206	1682	1672	0.494	826	791	1.0	1.0	4.270	A
D - Broadland Northway (W)	1524	381	970	2305	0.661	1524	1538	2.0	2.0	4.664	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
A - Brewery Lane	393	98	1889	1601	0.245	393	606	0.3	0.3	2.996	A
B - Broadland Northway (E)	2086	522	387	2733	0.763	2086	1894	3.3	3.3	5.658	A
C - Drayton Lane (S)	826	206	1682	1672	0.494	826	791	1.0	1.0	4.270	A
D - Broadland Northway (W)	1524	381	970	2305	0.661	1524	1538	2.0	2.0	4.664	A