



Norwich Western Link

Transport Assessment - Appendix 11 – Junction Model Results

Sub Appendix 11k – Junction 14 The Street/ Weston Road/ Field Road crossroads (Ringland)

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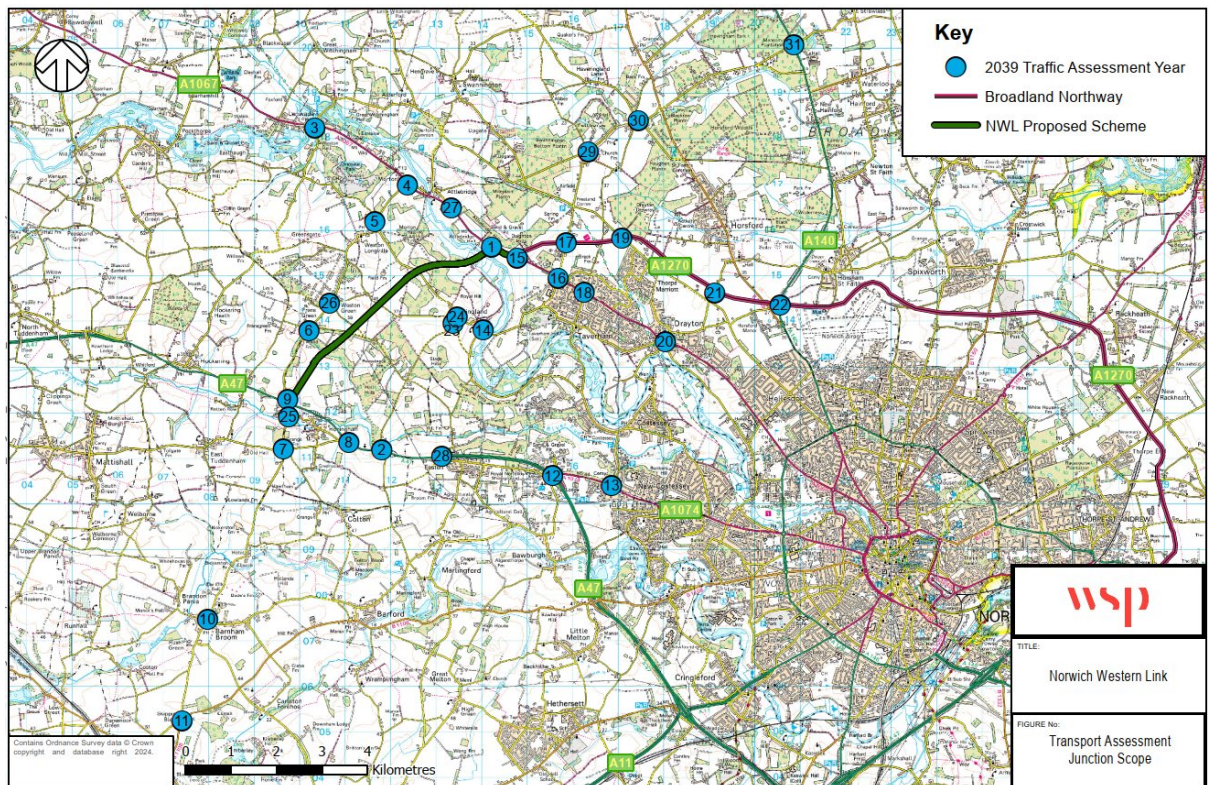
1 Junction Model Results

1.1.1 Junctions 10 modelling software output file that shows the junction capacity results for Junction 14 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:

- 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).



J14 – The Street/ Weston Road/ Field Road crossroads (Ringland) Results

<h1>Junctions 10</h1>
<h2>PICADY 10 - Priority Intersection Module</h2>
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Filename: J14.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)\J14

Report generation date: 29/01/2024 17:21:53

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- »2029DM, AM
 - »2029DM, PM
 - »2029DS, AM
 - »2029DS, PM
 - »2029DS_Mitigation, AM
 - »2029DS_Mitigation, PM
 - »2039DM, AM
 - »2039DM, PM
 - »2039DS, AM
 - »2039DS, PM
 - »2039DS_Mitigation, AM
 - »2039DS_Mitigation, PM

Summary of junction performance

	AM					PM				
	Set ID	Queue (PCU)	Delay (s)	RFC	LOS	Set ID	Queue (PCU)	Delay (s)	RFC	LOS
2029DM										
Stream B-C	D1	0.3	6.03	0.25	A	D2	0.6	7.51	0.39	A
Stream B-A		0.0	9.29	0.00	A		0.0	8.44	0.00	A
Stream C-AB		0.5	8.28	0.32	A		0.1	6.25	0.09	A
2029DS										
Stream B-C	D3	0.0	4.74	0.04	A	D4	0.0	4.72	0.03	A
Stream B-A		0.0	8.04	0.00	A		0.0	8.10	0.00	A
Stream C-AB		0.0	5.75	0.02	A		0.0	5.81	0.02	A
2029DS_Mitigation										
Stream B-C	D5	0.0	4.79	0.02	A	D6	0.0	4.71	0.01	A
Stream B-A		0.0	7.90	0.01	A		0.0	8.12	0.00	A
Stream C-AB		0.0	5.66	0.01	A		0.0	5.91	0.02	A
2039DM										
Stream B-C	D7	0.7	7.56	0.40	A	D8	1.2	9.93	0.54	A
Stream B-A		0.0	9.63	0.00	A		0.0	9.02	0.00	A
Stream C-AB		0.6	8.93	0.37	A		0.2	6.66	0.15	A
2039DS										
Stream B-C	D9	0.0	4.74	0.04	A	D10	0.0	4.73	0.04	A
Stream B-A		0.0	8.04	0.00	A		0.0	8.10	0.00	A
Stream C-AB		0.0	5.74	0.02	A		0.0	5.80	0.02	A
2039DS_Mitigation										
Stream B-C	D11	0.0	4.79	0.02	A	D12	0.0	4.71	0.01	A
Stream B-A		0.0	7.89	0.01	A		0.0	8.12	0.00	A
Stream C-AB		0.0	5.68	0.01	A		0.0	5.89	0.02	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.

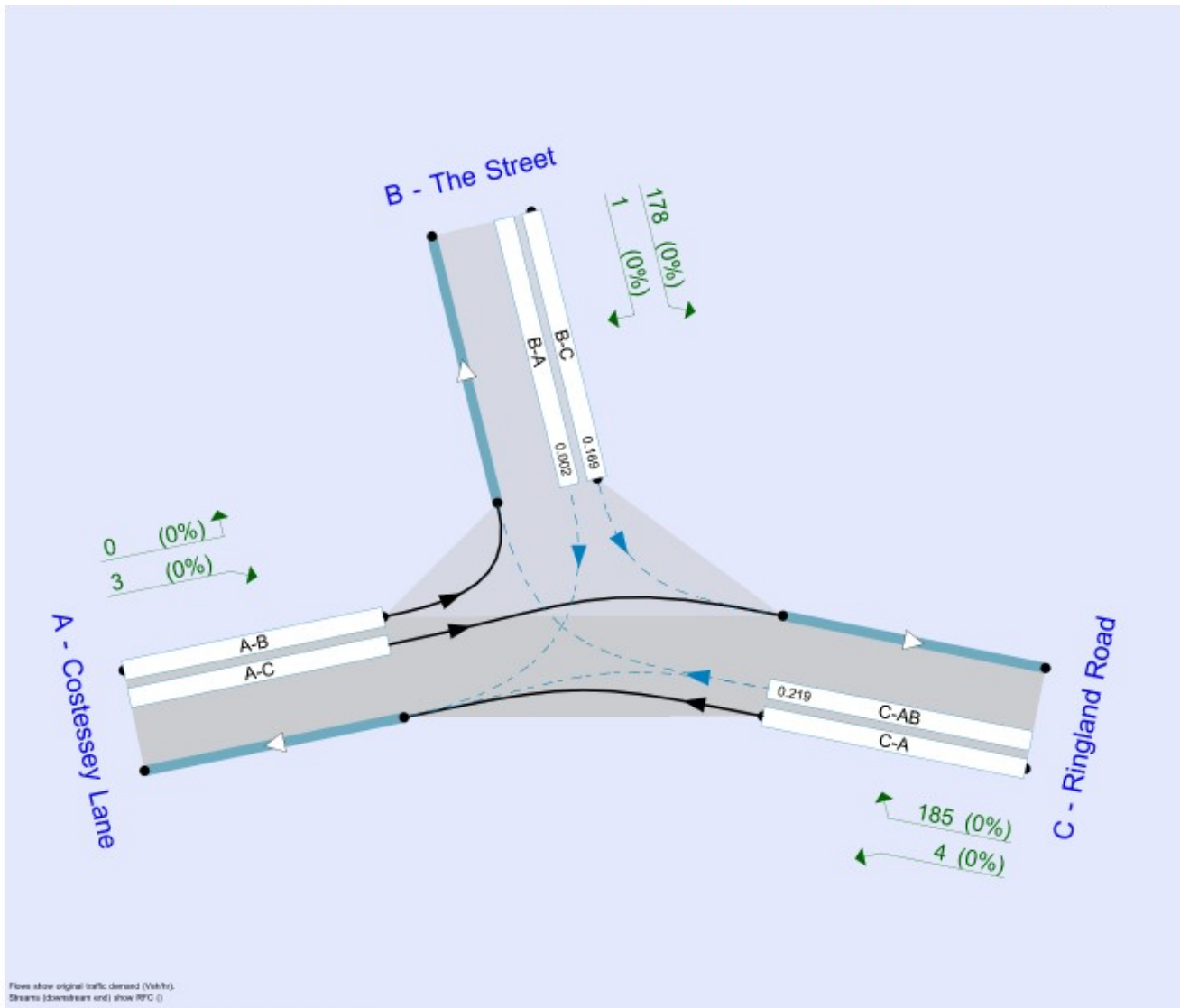
File summary

File Description

Title	Ringland Road/ Costessey Lane/ The Street
Location	52.679329, 1.165035
Site number	14
Date	22/03/2023
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	CORP\INAA02374
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



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 segment length (min)	Run automatically
D1	2029DM	AM	ONE HOUR	07:15	08:45	15	✓
D2	2029DM	PM	ONE HOUR	16:45	18:15	15	✓
D3	2029DS	AM	ONE HOUR	07:15	08:45	15	✓
D4	2029DS	PM	ONE HOUR	16:45	18:15	15	✓
D5	2029DS_Mitigation	AM	ONE HOUR	07:15	08:45	15	✓
D6	2029DS_Mitigation	PM	ONE HOUR	16:45	18:15	15	✓
D7	2039DM	AM	ONE HOUR	07:15	08:45	15	✓
D8	2039DM	PM	ONE HOUR	16:45	18:15	15	✓
D9	2039DS	AM	ONE HOUR	07:15	08:45	15	✓
D10	2039DS	PM	ONE HOUR	16:45	18:15	15	✓
D11	2039DS_Mitigation	AM	ONE HOUR	07:15	08:45	15	✓
D12	2039DS_Mitigation	PM	ONE HOUR	16:45	18:15	15	✓

Analysis Set Details

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

2029DM, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Minor arm visibility to right	B - The Street - Minor arm geometry	Visibility to right expected to have two components if the arm has two lanes, or two lanes in a flared section.
Warning	Major arm width	C - Ringland Road - Major arm geometry	For two-way major roads, please interpret results with caution if the total major carriageway width is less than 6m.
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
J14	Ringland Road/ Costessey Lane/ The Street	T-Junction	Two-way	Two-way	Two-way		7.12	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	7.12	A

Arms

Arms

Arm	Name	Description	Arm type
A	Costessey Lane		Major
B	The Street		Minor
C	Ringland Road		Major

Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Has right-turn storage	Visibility for right turn (m)	Blocks?	Blocking queue (PCU)
C - Ringland Road	5.40			108.8	✓	0.00

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

Minor Arm Geometry

Arm	Minor arm type	Width at give-way (m)	Width at 5m (m)	Width at 10m (m)	Width at 15m (m)	Width at 20m (m)	Estimate flare length	Flare length (PCU)	Visibility to left (m)	Visibility to right (m)
B - The Street	One lane plus flare	10.00	7.40	5.80	5.30	4.70	✓	3.00	31	66

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Stream	Intercept (PCU/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
B-A	452	0.085	0.214	0.134	0.305
B-C	794	0.125	0.316	-	-
C-B	637	0.253	0.253	-	-

The slopes and intercepts shown above include custom intercept adjustments only.

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

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

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	2029DM	AM	ONE HOUR	07:15	08:45	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 - Costessey Lane		ONE HOUR	✓	3	100.000
B - The Street		ONE HOUR	✓	179	100.000
C - Ringland Road		ONE HOUR	✓	189	100.000

Origin-Destination Data

Demand (Veh/hr)

From	To			
	A - Costessey Lane	B - The Street	C - Ringland Road	
A - Costessey Lane	0	0.11	3	
B - The Street	1	0	178	
C - Ringland Road	4	185	0	

Proportions

From	To			
	A - Costessey Lane	B - The Street	C - Ringland Road	
A - Costessey Lane	0.00	0.03	0.97	
B - The Street	0.01	0.00	0.99	
C - Ringland Road	0.02	0.98	0.00	

Vehicle Mix

Heavy Vehicle Percentages

From	To			
	A - Costessey Lane	B - The Street	C - Ringland Road	
A - Costessey Lane	0	0	0	
B - The Street	0	0	0	
C - Ringland Road	0	0	0	

Average PCU Per Veh

From	To			
	A - Costessey Lane	B - The Street	C - Ringland Road	
A - Costessey Lane	1.000	1.000	1.000	
B - The Street	1.000	1.000	1.000	
C - Ringland Road	1.000	1.000	1.000	

Detailed Demand Data

Demand for each time segment

Time Segment	Arm	Demand (Veh/hr)	Demand in PCU (PCU/hr)
07:15-07:30	A - Costessey Lane	0	0
	B - The Street	135	135
	C - Ringland Road	143	143
07:30-07:45	A - Costessey Lane	0	0
	B - The Street	161	161
	C - Ringland Road	170	170
07:45-08:00	A - Costessey Lane	0	0
	B - The Street	198	198
	C - Ringland Road	209	209
08:00-08:15	A - Costessey Lane	0	0
	B - The Street	198	198
	C - Ringland Road	209	209
08:15-08:30	A - Costessey Lane	0	0
	B - The Street	161	161
	C - Ringland Road	170	170
08:30-08:45	A - Costessey Lane	0	0
	B - The Street	135	135
	C - Ringland Road	143	143

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-C	0.25	6.03	0.3	A	164	245
B-A	0.00	9.29	0.0	A	1	2
C-AB	0.32	8.28	0.5	A	171	256
C-A					3	4
A-B					0	0
A-C					0	0

Main Results for each time segment

07:15 - 07:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	134	34	794	0.169	133	0.0	0.2	5.446	A
B-A	0.83	0.21	409	0.002	0.83	0.0	0.0	8.812	A
C-AB	140	35	639	0.219	139	0.0	0.3	7.180	A
C-A	3	0.65			3				
A-B	0	0			0				
A-C	0	0			0				

07:30 - 07:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	160	40	793	0.202	160	0.2	0.3	5.682	A
B-A	1.00	0.25	401	0.002	0.99	0.0	0.0	9.009	A
C-AB	167	42	640	0.262	167	0.3	0.4	7.614	A
C-A	3	0.73			3				
A-B	0	0			0				
A-C	0	0			0				

07:45 - 08:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	196	49	793	0.247	196	0.3	0.3	6.024	A
B-A	1	0.31	389	0.003	1	0.0	0.0	9.290	A
C-AB	205	51	640	0.321	205	0.4	0.5	8.261	A
C-A	3	0.82			3				
A-B	0	0			0				
A-C	0	0			0				

08:00 - 08:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	196	49	793	0.247	196	0.3	0.3	6.029	A
B-A	1	0.31	389	0.003	1	0.0	0.0	9.293	A
C-AB	205	51	640	0.321	205	0.5	0.5	8.278	A
C-A	3	0.82			3				
A-B	0	0			0				
A-C	0	0			0				

08:15 - 08:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	160	40	793	0.202	161	0.3	0.3	5.690	A
B-A	1.00	0.25	400	0.002	1.00	0.0	0.0	9.016	A
C-AB	167	42	640	0.262	168	0.5	0.4	7.640	A
C-A	3	0.73			3				
A-B	0	0			0				
A-C	0	0			0				

08:30 - 08:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	134	34	794	0.169	134	0.3	0.2	5.465	A
B-A	0.83	0.21	409	0.002	0.84	0.0	0.0	8.822	A
C-AB	140	35	639	0.219	140	0.4	0.3	7.220	A
C-A	3	0.65			3				
A-B	0	0			0				
A-C	0	0			0				

2029DM, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Minor arm visibility to right	B - The Street - Minor arm geometry	Visibility to right expected to have two components if the arm has two lanes, or two lanes in a flared section.
Warning	Major arm width	C - Ringland Road - Major arm geometry	For two-way major roads, please interpret results with caution if the total major carriageway width is less than 6m.
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
J14	Ringland Road/ Costessey Lane/ The Street	T-Junction	Two-way	Two-way	Two-way		7.02	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	7.02	A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D2	2029DM	PM	ONE HOUR	16:45	18:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A - Costessey Lane		ONE HOUR	✓	12	100.000
B - The Street		ONE HOUR	✓	283	100.000
C - Ringland Road		ONE HOUR	✓	57	100.000

Origin-Destination Data

Demand (Veh/hr)

From	To		
	A - Costessey Lane	B - The Street	C - Ringland Road
A - Costessey Lane	0	3	9
B - The Street	0.23	0	283
C - Ringland Road	2	54	0

Proportions

From	To		
	A - Costessey Lane	B - The Street	C - Ringland Road
A - Costessey Lane	0.00	0.22	0.78
B - The Street	0.00	0.00	1.00
C - Ringland Road	0.04	0.96	0.00

Vehicle Mix

Heavy Vehicle Percentages

From	To			
	A - Costessey Lane	B - The Street	C - Ringland Road	
A - Costessey Lane	0	0	0	
B - The Street	0	0	0	
C - Ringland Road	0	0	0	

Average PCU Per Veh

From	To			
	A - Costessey Lane	B - The Street	C - Ringland Road	
A - Costessey Lane	1.000	1.000	1.000	
B - The Street	1.000	1.000	1.000	
C - Ringland Road	1.000	1.000	1.000	

Detailed Demand Data

Demand for each time segment

Time Segment	Arm	Demand (Veh/hr)	Demand in PCU (PCU/hr)
16:45-17:00	A - Costessey Lane	9	9
	B - The Street	213	213
	C - Ringland Road	43	43
17:00-17:15	A - Costessey Lane	11	11
	B - The Street	255	255
	C - Ringland Road	51	51
17:15-17:30	A - Costessey Lane	13	13
	B - The Street	312	312
	C - Ringland Road	62	62
17:30-17:45	A - Costessey Lane	13	13
	B - The Street	312	312
	C - Ringland Road	62	62
17:45-18:00	A - Costessey Lane	11	11
	B - The Street	255	255
	C - Ringland Road	51	51
18:00-18:15	A - Costessey Lane	9	9
	B - The Street	213	213
	C - Ringland Road	43	43

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-C	0.39	7.51	0.6	A	260	389
B-A	0.00	8.44	0.0	A	0.21	0.32
C-AB	0.09	6.25	0.1	A	50	75
C-A					2	3
A-B					2	4
A-C					8	13

Main Results for each time segment

16:45 - 17:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	213	53	792	0.269	212	0.0	0.4	6.189	A
B-A	0.17	0.04	437	0.000	0.17	0.0	0.0	8.238	A
C-AB	41	10	636	0.064	41	0.0	0.1	6.043	A
C-A	2	0.44			2				
A-B	2	0.48			2				
A-C	7	2			7				

17:00 - 17:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	254	64	791	0.321	254	0.4	0.5	6.692	A
B-A	0.21	0.05	433	0.000	0.21	0.0	0.0	8.310	A
C-AB	49	12	636	0.077	49	0.1	0.1	6.132	A
C-A	2	0.51			2				
A-B	2	0.57			2				
A-C	8	2			8				

17:15 - 17:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	311	78	791	0.394	311	0.5	0.6	7.491	A
B-A	0.25	0.06	427	0.001	0.25	0.0	0.0	8.439	A
C-AB	60	15	636	0.094	60	0.1	0.1	6.253	A
C-A	2	0.62			2				
A-B	3	0.70			3				
A-C	10	3			10				

17:30 - 17:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	311	78	791	0.394	311	0.6	0.6	7.512	A
B-A	0.25	0.06	427	0.001	0.25	0.0	0.0	8.440	A
C-AB	60	15	636	0.094	60	0.1	0.1	6.253	A
C-A	2	0.62			2				
A-B	3	0.70			3				
A-C	10	3			10				

17:45 - 18:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	254	64	791	0.321	255	0.6	0.5	6.722	A
B-A	0.21	0.05	433	0.000	0.21	0.0	0.0	8.312	A
C-AB	49	12	636	0.077	49	0.1	0.1	6.136	A
C-A	2	0.51			2				
A-B	2	0.57			2				
A-C	8	2			8				

18:00 - 18:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	213	53	792	0.269	213	0.5	0.4	6.228	A
B-A	0.17	0.04	437	0.000	0.17	0.0	0.0	8.240	A
C-AB	41	10	636	0.064	41	0.1	0.1	6.052	A
C-A	2	0.44			2				
A-B	2	0.48			2				
A-C	7	2			7				

2029DS, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Minor arm visibility to right	B - The Street - Minor arm geometry	Visibility to right expected to have two components if the arm has two lanes, or two lanes in a flared section.
Warning	Major arm width	C - Ringland Road - Major arm geometry	For two-way major roads, please interpret results with caution if the total major carriageway width is less than 6m.
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
J14	Ringland Road/ Costessey Lane/ The Street	T-Junction	Two-way	Two-way	Two-way		4.66	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	4.66	A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D3	2029DS	AM	ONE HOUR	07:15	08:45	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 - Costessey Lane		ONE HOUR	✓	3	100.000
B - The Street		ONE HOUR	✓	30	100.000
C - Ringland Road		ONE HOUR	✓	17	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		A - Costessey Lane	B - The Street	C - Ringland Road
From	A - Costessey Lane	0	0.11	3
	B - The Street	0.98	0	29
	C - Ringland Road	4	13	0

Proportions

		To		
		A - Costessey Lane	B - The Street	C - Ringland Road
From	A - Costessey Lane	0.00	0.03	0.97
	B - The Street	0.03	0.00	0.97
	C - Ringland Road	0.25	0.75	0.00

Vehicle Mix

Heavy Vehicle Percentages

From	To			
	A - Costessey Lane	B - The Street	C - Ringland Road	
A - Costessey Lane	0	0	0	
B - The Street	0	0	0	
C - Ringland Road	0	0	0	

Average PCU Per Veh

From	To			
	A - Costessey Lane	B - The Street	C - Ringland Road	
A - Costessey Lane	1.000	1.000	1.000	
B - The Street	1.000	1.000	1.000	
C - Ringland Road	1.000	1.000	1.000	

Detailed Demand Data

Demand for each time segment

Time Segment	Arm	Demand (Veh/hr)	Demand in PCU (PCU/hr)
07:15-07:30	A - Costessey Lane	0	0
	B - The Street	23	23
	C - Ringland Road	13	13
07:30-07:45	A - Costessey Lane	0	0
	B - The Street	27	27
	C - Ringland Road	15	15
07:45-08:00	A - Costessey Lane	0	0
	B - The Street	33	33
	C - Ringland Road	19	19
08:00-08:15	A - Costessey Lane	0	0
	B - The Street	33	33
	C - Ringland Road	19	19
08:15-08:30	A - Costessey Lane	0	0
	B - The Street	27	27
	C - Ringland Road	15	15
08:30-08:45	A - Costessey Lane	0	0
	B - The Street	23	23
	C - Ringland Road	13	13

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-C	0.04	4.74	0.0	A	27	40
B-A	0.00	8.04	0.0	A	0.90	1
C-AB	0.02	5.75	0.0	A	12	18
C-A					4	6
A-B					0	0
A-C					0	0

Main Results for each time segment

07:15 - 07:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	22	5	792	0.028	22	0.0	0.0	4.673	A
B-A	0.74	0.18	450	0.002	0.73	0.0	0.0	8.008	A
C-AB	10	2	639	0.015	10	0.0	0.0	5.719	A
C-A	3	0.80			3				
A-B	0	0			0				
A-C	0	0			0				

07:30 - 07:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	26	7	792	0.033	26	0.0	0.0	4.699	A
B-A	0.88	0.22	450	0.002	0.88	0.0	0.0	8.022	A
C-AB	12	3	639	0.018	12	0.0	0.0	5.732	A
C-A	4	0.95			4				
A-B	0	0			0				
A-C	0	0			0				

07:45 - 08:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	32	8	792	0.040	32	0.0	0.0	4.736	A
B-A	1	0.27	449	0.002	1	0.0	0.0	8.042	A
C-AB	14	4	640	0.022	14	0.0	0.0	5.751	A
C-A	5	1			5				
A-B	0	0			0				
A-C	0	0			0				

08:00 - 08:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	32	8	792	0.040	32	0.0	0.0	4.736	A
B-A	1	0.27	449	0.002	1	0.0	0.0	8.042	A
C-AB	14	4	640	0.022	14	0.0	0.0	5.751	A
C-A	5	1			5				
A-B	0	0			0				
A-C	0	0			0				

08:15 - 08:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	26	7	792	0.033	26	0.0	0.0	4.700	A
B-A	0.88	0.22	450	0.002	0.88	0.0	0.0	8.024	A
C-AB	12	3	639	0.018	12	0.0	0.0	5.735	A
C-A	4	0.95			4				
A-B	0	0			0				
A-C	0	0			0				

08:30 - 08:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	22	5	792	0.028	22	0.0	0.0	4.674	A
B-A	0.74	0.18	450	0.002	0.74	0.0	0.0	8.008	A
C-AB	10	2	639	0.015	10	0.0	0.0	5.721	A
C-A	3	0.80			3				
A-B	0	0			0				
A-C	0	0			0				

2029DS, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Minor arm visibility to right	B - The Street - Minor arm geometry	Visibility to right expected to have two components if the arm has two lanes, or two lanes in a flared section.
Warning	Major arm width	C - Ringland Road - Major arm geometry	For two-way major roads, please interpret results with caution if the total major carriageway width is less than 6m.
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
J14	Ringland Road/ Costessey Lane/ The Street	T-Junction	Two-way	Two-way	Two-way		3.73	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	3.73	A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D4	2029DS	PM	ONE HOUR	16:45	18:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A - Costessey Lane		ONE HOUR	✓	12	100.000
B - The Street		ONE HOUR	✓	25	100.000
C - Ringland Road		ONE HOUR	✓	17	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		A - Costessey Lane	B - The Street	C - Ringland Road
From	A - Costessey Lane	0	3	9
	B - The Street	0.22	0	25
	C - Ringland Road	3	14	0

Proportions

		To		
		A - Costessey Lane	B - The Street	C - Ringland Road
From	A - Costessey Lane	0.00	0.22	0.78
	B - The Street	0.01	0.00	0.99
	C - Ringland Road	0.16	0.84	0.00

Vehicle Mix

Heavy Vehicle Percentages

From	To			
	A - Costessey Lane	B - The Street	C - Ringland Road	
A - Costessey Lane	0	0	0	
B - The Street	0	0	0	
C - Ringland Road	0	0	0	

Average PCU Per Veh

From	To			
	A - Costessey Lane	B - The Street	C - Ringland Road	
A - Costessey Lane	1.000	1.000	1.000	
B - The Street	1.000	1.000	1.000	
C - Ringland Road	1.000	1.000	1.000	

Detailed Demand Data

Demand for each time segment

Time Segment	Arm	Demand (Veh/hr)	Demand in PCU (PCU/hr)
16:45-17:00	A - Costessey Lane	9	9
	B - The Street	19	19
	C - Ringland Road	13	13
17:00-17:15	A - Costessey Lane	11	11
	B - The Street	22	22
	C - Ringland Road	15	15
17:15-17:30	A - Costessey Lane	13	13
	B - The Street	27	27
	C - Ringland Road	18	18
17:30-17:45	A - Costessey Lane	13	13
	B - The Street	27	27
	C - Ringland Road	18	18
17:45-18:00	A - Costessey Lane	11	11
	B - The Street	22	22
	C - Ringland Road	15	15
18:00-18:15	A - Costessey Lane	9	9
	B - The Street	19	19
	C - Ringland Road	13	13

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-C	0.03	4.72	0.0	A	23	34
B-A	0.00	8.10	0.0	A	0.20	0.30
C-AB	0.02	5.81	0.0	A	13	19
C-A					2	4
A-B					2	4
A-C					9	13

Main Results for each time segment

16:45 - 17:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	18	5	791	0.023	18	0.0	0.0	4.657	A
B-A	0.16	0.04	447	0.000	0.16	0.0	0.0	8.050	A
C-AB	11	3	636	0.017	10	0.0	0.0	5.755	A
C-A	2	0.49			2				
A-B	2	0.49			2				
A-C	7	2			7				

17:00 - 17:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	22	6	791	0.028	22	0.0	0.0	4.682	A
B-A	0.19	0.05	446	0.000	0.19	0.0	0.0	8.069	A
C-AB	13	3	636	0.020	13	0.0	0.0	5.775	A
C-A	2	0.59			2				
A-B	2	0.58			2				
A-C	8	2			8				

17:15 - 17:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	27	7	790	0.034	27	0.0	0.0	4.717	A
B-A	0.24	0.06	445	0.001	0.24	0.0	0.0	8.095	A
C-AB	15	4	636	0.024	15	0.0	0.0	5.804	A
C-A	3	0.72			3				
A-B	3	0.72			3				
A-C	10	3			10				

17:30 - 17:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	27	7	790	0.034	27	0.0	0.0	4.717	A
B-A	0.24	0.06	445	0.001	0.24	0.0	0.0	8.095	A
C-AB	15	4	636	0.024	15	0.0	0.0	5.807	A
C-A	3	0.72			3				
A-B	3	0.72			3				
A-C	10	3			10				

17:45 - 18:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	22	6	791	0.028	22	0.0	0.0	4.683	A
B-A	0.19	0.05	446	0.000	0.20	0.0	0.0	8.071	A
C-AB	13	3	636	0.020	13	0.0	0.0	5.776	A
C-A	2	0.59			2				
A-B	2	0.58			2				
A-C	8	2			8				

18:00 - 18:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	18	5	791	0.023	19	0.0	0.0	4.660	A
B-A	0.16	0.04	447	0.000	0.16	0.0	0.0	8.052	A
C-AB	11	3	636	0.017	11	0.0	0.0	5.755	A
C-A	2	0.49			2				
A-B	2	0.49			2				
A-C	7	2			7				

2029DS_Mitigation, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Minor arm visibility to right	B - The Street - Minor arm geometry	Visibility to right expected to have two components if the arm has two lanes, or two lanes in a flared section.
Warning	Major arm width	C - Ringland Road - Major arm geometry	For two-way major roads, please interpret results with caution if the total major carriageway width is less than 8m.
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
J14	Ringland Road/ Costessey Lane/ The Street	T-Junction	Two-way	Two-way	Two-way		1.98	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	1.98	A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D5	2029DS_Mitigation	AM	ONE HOUR	07:15	08:45	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 - Costessey Lane		ONE HOUR	✓	23	100.000
B - The Street		ONE HOUR	✓	18	100.000
C - Ringland Road		ONE HOUR	✓	17	100.000

Origin-Destination Data

Demand (Veh/hr)

From	To		
	A - Costessey Lane	B - The Street	C - Ringland Road
A - Costessey Lane	0	5	18
B - The Street	3	0	15
C - Ringland Road	13	4	0

Proportions

From	To		
	A - Costessey Lane	B - The Street	C - Ringland Road
A - Costessey Lane	0.00	0.23	0.77
B - The Street	0.16	0.00	0.84
C - Ringland Road	0.78	0.22	0.00

Vehicle Mix

Heavy Vehicle Percentages

From	To			
	A - Costessey Lane	B - The Street	C - Ringland Road	
A - Costessey Lane	0	0	0	
B - The Street	0	0	0	
C - Ringland Road	0	0	0	

Average PCU Per Veh

From	To			
	A - Costessey Lane	B - The Street	C - Ringland Road	
A - Costessey Lane	1.000	1.000	1.000	
B - The Street	1.000	1.000	1.000	
C - Ringland Road	1.000	1.000	1.000	

Detailed Demand Data

Demand for each time segment

Time Segment	Arm	Demand (Veh/hr)	Demand in PCU (PCU/hr)
07:15-07:30	A - Costessey Lane	17	17
	B - The Street	13	13
	C - Ringland Road	13	13
07:30-07:45	A - Costessey Lane	21	21
	B - The Street	16	16
	C - Ringland Road	15	15
07:45-08:00	A - Costessey Lane	26	26
	B - The Street	19	19
	C - Ringland Road	18	18
08:00-08:15	A - Costessey Lane	26	26
	B - The Street	19	19
	C - Ringland Road	18	18
08:15-08:30	A - Costessey Lane	21	21
	B - The Street	16	16
	C - Ringland Road	15	15
08:30-08:45	A - Costessey Lane	17	17
	B - The Street	13	13
	C - Ringland Road	13	13

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-C	0.02	4.79	0.0	A	13	20
B-A	0.01	7.90	0.0	A	3	4
C-AB	0.01	5.66	0.0	A	3	5
C-A					12	18
A-B					5	7
A-C					16	25

Main Results for each time segment

07:15 - 07:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	11	3	770	0.014	11	0.0	0.0	4.744	A
B-A	2	0.63	461	0.005	2	0.0	0.0	7.838	A
C-AB	3	0.69	639	0.004	3	0.0	0.0	5.658	A
C-A	10	2			10				
A-B	4	1			4				
A-C	13	3			13				

07:30 - 07:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	13	3	769	0.017	13	0.0	0.0	4.765	A
B-A	3	0.63	460	0.005	3	0.0	0.0	7.863	A
C-AB	3	0.83	639	0.005	3	0.0	0.0	5.659	A
C-A	12	3			12				
A-B	5	1			5				
A-C	16	4			16				

07:45 - 08:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	16	4	767	0.021	16	0.0	0.0	4.793	A
B-A	3	0.77	459	0.007	3	0.0	0.0	7.898	A
C-AB	4	1	640	0.006	4	0.0	0.0	5.661	A
C-A	14	4			14				
A-B	6	1			6				
A-C	20	5			20				

08:00 - 08:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	16	4	767	0.021	16	0.0	0.0	4.793	A
B-A	3	0.77	459	0.007	3	0.0	0.0	7.898	A
C-AB	4	1	640	0.006	4	0.0	0.0	5.663	A
C-A	14	4			14				
A-B	6	1			6				
A-C	20	5			20				

08:15 - 08:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	13	3	769	0.017	13	0.0	0.0	4.767	A
B-A	3	0.63	460	0.005	3	0.0	0.0	7.864	A
C-AB	3	0.83	639	0.005	3	0.0	0.0	5.661	A
C-A	12	3			12				
A-B	5	1			5				
A-C	16	4			16				

08:30 - 08:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	11	3	770	0.014	11	0.0	0.0	4.745	A
B-A	2	0.53	461	0.005	2	0.0	0.0	7.837	A
C-AB	3	0.69	639	0.004	3	0.0	0.0	5.660	A
C-A	10	2			10				
A-B	4	1			4				
A-C	13	3			13				

2029DS_Mitigation, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Minor arm visibility to right	B - The Street - Minor arm geometry	Visibility to right expected to have two components if the arm has two lanes, or two lanes in a flared section.
Warning	Major arm width	C - Ringland Road - Major arm geometry	For two-way major roads, please interpret results with caution if the total major carriageway width is less than 8m.
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
J14	Ringland Road/ Costessey Lane/ The Street	T-Junction	Two-way	Two-way	Two-way		1.68	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	1.68	A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D6	2029DS_Mitigation	PM	ONE HOUR	16:45	18:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A - Costessey Lane		ONE HOUR	✓	51	100.000
B - The Street		ONE HOUR	✓	9	100.000
C - Ringland Road		ONE HOUR	✓	17	100.000

Origin-Destination Data

Demand (Veh/hr)

From	To		
	A - Costessey Lane	B - The Street	C - Ringland Road
A - Costessey Lane	0	25	26
B - The Street	0.82	0	9
C - Ringland Road	3	14	0

Proportions

From	To		
	A - Costessey Lane	B - The Street	C - Ringland Road
A - Costessey Lane	0.00	0.48	0.52
B - The Street	0.09	0.00	0.91
C - Ringland Road	0.18	0.82	0.00

Vehicle Mix

Heavy Vehicle Percentages

From	To			
	A - Costessey Lane	B - The Street	C - Ringland Road	
A - Costessey Lane	0	0	0	
B - The Street	0	0	0	
C - Ringland Road	0	0	0	

Average PCU Per Veh

From	To			
	A - Costessey Lane	B - The Street	C - Ringland Road	
A - Costessey Lane	1.000	1.000	1.000	
B - The Street	1.000	1.000	1.000	
C - Ringland Road	1.000	1.000	1.000	

Detailed Demand Data

Demand for each time segment

Time Segment	Arm	Demand (Veh/hr)	Demand in PCU (PCU/hr)
16:45-17:00	A - Costessey Lane	39	39
	B - The Street	7	7
	C - Ringland Road	13	13
17:00-17:15	A - Costessey Lane	46	46
	B - The Street	9	9
	C - Ringland Road	15	15
17:15-17:30	A - Costessey Lane	57	57
	B - The Street	10	10
	C - Ringland Road	19	19
17:30-17:45	A - Costessey Lane	57	57
	B - The Street	10	10
	C - Ringland Road	19	19
17:45-18:00	A - Costessey Lane	46	46
	B - The Street	9	9
	C - Ringland Road	15	15
18:00-18:15	A - Costessey Lane	39	39
	B - The Street	7	7
	C - Ringland Road	13	13

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-C	0.01	4.71	0.0	A	8	12
B-A	0.00	8.12	0.0	A	0.75	1
C-AB	0.02	5.91	0.0	A	13	19
C-A					3	4
A-B					23	34
A-C					24	36

Main Results for each time segment

16:45 - 17:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	7	2	778	0.008	8	0.0	0.0	4.685	A
B-A	0.82	0.15	448	0.001	0.81	0.0	0.0	8.039	A
C-AB	11	3	629	0.017	11	0.0	0.0	5.824	A
C-A	2	0.68			2				
A-B	19	5			19				
A-C	20	5			20				

17:00 - 17:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	8	2	776	0.010	8	0.0	0.0	4.684	A
B-A	0.74	0.18	447	0.002	0.74	0.0	0.0	8.074	A
C-AB	13	3	627	0.020	13	0.0	0.0	5.859	A
C-A	3	0.69			3				
A-B	22	6			22				
A-C	24	6			24				

17:15 - 17:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	10	2	774	0.012	10	0.0	0.0	4.709	A
B-A	0.90	0.23	444	0.002	0.90	0.0	0.0	8.124	A
C-AB	16	4	625	0.025	16	0.0	0.0	5.907	A
C-A	3	0.84			3				
A-B	27	7			27				
A-C	29	7			29				

17:30 - 17:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	10	2	774	0.012	10	0.0	0.0	4.709	A
B-A	0.90	0.23	444	0.002	0.90	0.0	0.0	8.124	A
C-AB	16	4	625	0.025	16	0.0	0.0	5.907	A
C-A	3	0.84			3				
A-B	27	7			27				
A-C	29	7			29				

17:45 - 18:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	8	2	776	0.010	8	0.0	0.0	4.686	A
B-A	0.74	0.18	447	0.002	0.74	0.0	0.0	8.074	A
C-AB	13	3	627	0.020	13	0.0	0.0	5.859	A
C-A	3	0.69			3				
A-B	22	6			22				
A-C	24	6			24				

18:00 - 18:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	7	2	778	0.008	7	0.0	0.0	4.886	A
B-A	0.62	0.15	448	0.001	0.62	0.0	0.0	8.039	A
C-AB	11	3	629	0.017	11	0.0	0.0	5.824	A
C-A	2	0.58			2				
A-B	19	5			19				
A-C	20	5			20				

2039DM, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Minor arm visibility to right	B - The Street - Minor arm geometry	Visibility to right expected to have two components if the arm has two lanes, or two lanes in a flared section.
Warning	Major arm width	C - Ringland Road - Major arm geometry	For two-way major roads, please interpret results with caution if the total major carriageway width is less than 8m.
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
J14	Ringland Road/ Costessey Lane/ The Street	T-Junction	Two-way	Two-way	Two-way		8.10	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	8.10	A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D7	2039DM	AM	ONE HOUR	07:15	08:45	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 - Costessey Lane		ONE HOUR	✓	4	100.000
B - The Street		ONE HOUR	✓	289	100.000
C - Ringland Road		ONE HOUR	✓	218	100.000

Origin-Destination Data

Demand (Veh/hr)

From	To			
	A - Costessey Lane	B - The Street	C - Ringland Road	
A - Costessey Lane	0	0.08	4	
B - The Street	1	0	288	
C - Ringland Road	5	214	0	

Proportions

From	To			
	A - Costessey Lane	B - The Street	C - Ringland Road	
A - Costessey Lane	0.00	0.02	0.98	
B - The Street	0.00	0.00	1.00	
C - Ringland Road	0.02	0.98	0.00	

Vehicle Mix

Heavy Vehicle Percentages

From	To			
	A - Costessey Lane	B - The Street	C - Ringland Road	
A - Costessey Lane	0	0	0	
B - The Street	0	0	0	
C - Ringland Road	0	0	0	

Average PCU Per Veh

From	To			
	A - Costessey Lane	B - The Street	C - Ringland Road	
A - Costessey Lane	1.000	1.000	1.000	
B - The Street	1.000	1.000	1.000	
C - Ringland Road	1.000	1.000	1.000	

Detailed Demand Data

Demand for each time segment

Time Segment	Arm	Demand (Veh/hr)	Demand in PCU (PCU/hr)
07:15-07:30	A - Costessey Lane	0	0
	B - The Street	218	218
	C - Ringland Road	164	164
07:30-07:45	A - Costessey Lane	0	0
	B - The Street	280	280
	C - Ringland Road	196	196
07:45-08:00	A - Costessey Lane	0	0
	B - The Street	319	319
	C - Ringland Road	240	240
08:00-08:15	A - Costessey Lane	0	0
	B - The Street	319	319
	C - Ringland Road	240	240
08:15-08:30	A - Costessey Lane	0	0
	B - The Street	280	280
	C - Ringland Road	196	196
08:30-08:45	A - Costessey Lane	0	0
	B - The Street	218	218
	C - Ringland Road	164	164

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-C	0.40	7.56	0.7	A	265	397
B-A	0.00	9.63	0.0	A	1	2
C-AB	0.37	8.93	0.6	A	197	296
C-A					3	4
A-B					0	0
A-C					0	0

Main Results for each time segment

07:15 - 07:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	217	54	794	0.274	216	0.0	0.4	6.210	A
B-A	0.82	0.21	402	0.002	0.82	0.0	0.0	8.971	A
C-AB	162	40	639	0.253	160	0.0	0.3	7.497	A
C-A	3	0.64			3				
A-B	0	0			0				
A-C	0	0			0				

07:30 - 07:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	259	65	794	0.327	259	0.4	0.5	6.725	A
B-A	0.98	0.25	391	0.003	0.98	0.0	0.0	9.226	A
C-AB	193	48	640	0.302	193	0.3	0.4	8.053	A
C-A	3	0.71			3				
A-B	0	0			0				
A-C	0	0			0				

07:45 - 08:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	317	79	793	0.400	317	0.5	0.7	7.541	A
B-A	1	0.30	375	0.003	1	0.0	0.0	9.623	A
C-AB	237	59	640	0.370	237	0.4	0.6	8.904	A
C-A	3	0.79			3				
A-B	0	0			0				
A-C	0	0			0				

08:00 - 08:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	317	79	793	0.400	317	0.7	0.7	7.562	A
B-A	1	0.30	375	0.003	1	0.0	0.0	9.629	A
C-AB	237	59	640	0.370	237	0.6	0.6	8.930	A
C-A	3	0.79			3				
A-B	0	0			0				
A-C	0	0			0				

08:15 - 08:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	259	65	794	0.327	260	0.7	0.5	6.755	A
B-A	0.98	0.25	391	0.003	0.99	0.0	0.0	9.234	A
C-AB	193	48	640	0.302	194	0.6	0.4	8.089	A
C-A	3	0.71			3				
A-B	0	0			0				
A-C	0	0			0				

08:30 - 08:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	217	54	794	0.274	218	0.5	0.4	6.252	A
B-A	0.82	0.21	401	0.002	0.83	0.0	0.0	8.986	A
C-AB	162	40	639	0.253	162	0.4	0.3	7.554	A
C-A	3	0.64			3				
A-B	0	0			0				
A-C	0	0			0				

2039DM, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Minor arm visibility to right	B - The Street - Minor arm geometry	Visibility to right expected to have two components if the arm has two lanes, or two lanes in a flared section.
Warning	Major arm width	C - Ringland Road - Major arm geometry	For two-way major roads, please interpret results with caution if the total major carriageway width is less than 6m.
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
J14	Ringland Road/ Costessey Lane/ The Street	T-Junction	Two-way	Two-way	Two-way		9.05	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	9.05	A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D8	2039DM	PM	ONE HOUR	16:45	18:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A - Costessey Lane		ONE HOUR	✓	12	100.000
B - The Street		ONE HOUR	✓	389	100.000
C - Ringland Road		ONE HOUR	✓	88	100.000

Origin-Destination Data

Demand (Veh/hr)

From	To		
	A - Costessey Lane	B - The Street	C - Ringland Road
A - Costessey Lane	0	2	10
B - The Street	0.22	0	389
C - Ringland Road	3	88	0

Proportions

From	To		
	A - Costessey Lane	B - The Street	C - Ringland Road
A - Costessey Lane	0.00	0.20	0.80
B - The Street	0.00	0.00	1.00
C - Ringland Road	0.03	0.97	0.00

Vehicle Mix

Heavy Vehicle Percentages

From	To			
	A - Costessey Lane	B - The Street	C - Ringland Road	
A - Costessey Lane	0	0	0	
B - The Street	0	0	0	
C - Ringland Road	0	0	0	

Average PCU Per Veh

From	To			
	A - Costessey Lane	B - The Street	C - Ringland Road	
A - Costessey Lane	1.000	1.000	1.000	
B - The Street	1.000	1.000	1.000	
C - Ringland Road	1.000	1.000	1.000	

Detailed Demand Data

Demand for each time segment

Time Segment	Arm	Demand (Veh/hr)	Demand in PCU (PCU/hr)
16:45-17:00	A - Costessey Lane	9	9
	B - The Street	293	293
	C - Ringland Road	66	66
17:00-17:15	A - Costessey Lane	11	11
	B - The Street	350	350
	C - Ringland Road	79	79
17:15-17:30	A - Costessey Lane	14	14
	B - The Street	428	428
	C - Ringland Road	97	97
17:30-17:45	A - Costessey Lane	14	14
	B - The Street	428	428
	C - Ringland Road	97	97
17:45-18:00	A - Costessey Lane	11	11
	B - The Street	350	350
	C - Ringland Road	79	79
18:00-18:15	A - Costessey Lane	9	9
	B - The Street	293	293
	C - Ringland Road	66	66

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-C	0.54	9.93	1.2	A	357	535
B-A	0.00	9.02	0.0	A	0.20	0.30
C-AB	0.15	6.66	0.2	A	79	118
C-A					2	3
A-B					2	3
A-C					9	14

Main Results for each time segment

16:45 - 17:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	293	73	792	0.370	290	0.0	0.8	7.148	A
B-A	0.16	0.04	427	0.000	0.16	0.0	0.0	8.425	A
C-AB	65	18	636	0.102	64	0.0	0.1	6.298	A
C-A	2	0.45			2				
A-B	2	0.46			2				
A-C	8	2			8				

17:00 - 17:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	349	87	791	0.442	349	0.6	0.8	8.121	A
B-A	0.19	0.05	419	0.000	0.19	0.0	0.0	8.603	A
C-AB	77	19	636	0.122	77	0.1	0.1	6.446	A
C-A	2	0.52			2				
A-B	2	0.55			2				
A-C	9	2			9				

17:15 - 17:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	428	107	790	0.541	426	0.8	1.2	9.850	A
B-A	0.24	0.06	400	0.001	0.24	0.0	0.0	9.007	A
C-AB	95	24	635	0.149	95	0.1	0.2	6.655	A
C-A	2	0.62			2				
A-B	3	0.68			3				
A-C	11	3			11				

17:30 - 17:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	428	107	790	0.541	428	1.2	1.2	9.928	A
B-A	0.24	0.06	400	0.001	0.24	0.0	0.0	9.016	A
C-AB	95	24	635	0.149	95	0.2	0.2	6.657	A
C-A	2	0.62			2				
A-B	3	0.68			3				
A-C	11	3			11				

17:45 - 18:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	349	87	791	0.442	351	1.2	0.8	8.205	A
B-A	0.19	0.05	418	0.000	0.20	0.0	0.0	8.611	A
C-AB	77	19	636	0.122	77	0.2	0.1	6.452	A
C-A	2	0.52			2				
A-B	2	0.55			2				
A-C	9	2			9				

18:00 - 18:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	293	73	792	0.370	293	0.8	0.8	7.240	A
B-A	0.16	0.04	427	0.000	0.16	0.0	0.0	8.434	A
C-AB	65	16	636	0.102	65	0.1	0.1	6.304	A
C-A	2	0.45			2				
A-B	2	0.46			2				
A-C	8	2			8				

2039DS, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Minor arm visibility to right	B - The Street - Minor arm geometry	Visibility to right expected to have two components if the arm has two lanes, or two lanes in a flared section.
Warning	Major arm width	C - Ringland Road - Major arm geometry	For two-way major roads, please interpret results with caution if the total major carriageway width is less than 6m.
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
J14	Ringland Road/ Costessey Lane/ The Street	T-Junction	Two-way	Two-way	Two-way		4.62	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	4.62	A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D9	2039DS	AM	ONE HOUR	07:15	08:45	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 - Costessey Lane		ONE HOUR	✓	4	100.000
B - The Street		ONE HOUR	✓	30	100.000
C - Ringland Road		ONE HOUR	✓	16	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		A - Costessey Lane	B - The Street	C - Ringland Road
From	A - Costessey Lane	0	0.10	4
	B - The Street	1	0	29
	C - Ringland Road	4	12	0

Proportions

		To		
		A - Costessey Lane	B - The Street	C - Ringland Road
From	A - Costessey Lane	0.00	0.03	0.97
	B - The Street	0.03	0.00	0.97
	C - Ringland Road	0.28	0.72	0.00

Vehicle Mix

Heavy Vehicle Percentages

		To		
From		A - Costessey Lane	B - The Street	C - Ringland Road
	A - Costessey Lane	0	0	0
	B - The Street	0	0	0
	C - Ringland Road	0	0	0

Average PCU Per Veh

		To		
From		A - Costessey Lane	B - The Street	C - Ringland Road
	A - Costessey Lane	1.000	1.000	1.000
	B - The Street	1.000	1.000	1.000
	C - Ringland Road	1.000	1.000	1.000

Detailed Demand Data

Demand for each time segment

Time Segment	Arm	Demand (Veh/hr)	Demand in PCU (PCU/hr)
07:15-07:30	A - Costessey Lane	0	0
	B - The Street	23	23
	C - Ringland Road	12	12
07:30-07:45	A - Costessey Lane	0	0
	B - The Street	27	27
	C - Ringland Road	14	14
07:45-08:00	A - Costessey Lane	0	0
	B - The Street	34	34
	C - Ringland Road	18	18
08:00-08:15	A - Costessey Lane	0	0
	B - The Street	34	34
	C - Ringland Road	18	18
08:15-08:30	A - Costessey Lane	0	0
	B - The Street	27	27
	C - Ringland Road	14	14
08:30-08:45	A - Costessey Lane	0	0
	B - The Street	23	23
	C - Ringland Road	12	12

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-C	0.04	4.74	0.0	A	27	41
B-A	0.00	8.04	0.0	A	0.94	1
C-AB	0.02	5.74	0.0	A	11	16
C-A					4	6
A-B					0	0
A-C					0	0

Main Results for each time segment

07:15 - 07:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	22	8	792	0.028	22	0.0	0.0	4.676	A
B-A	0.77	0.19	451	0.002	0.76	0.0	0.0	8.003	A
C-AB	9	2	639	0.014	9	0.0	0.0	5.710	A
C-A	3	0.83			3				
A-B	0	0			0				
A-C	0	0			0				

07:30 - 07:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	26	7	792	0.033	26	0.0	0.0	4.703	A
B-A	0.92	0.23	450	0.002	0.92	0.0	0.0	8.017	A
C-AB	11	3	640	0.016	11	0.0	0.0	5.722	A
C-A	4	0.99			4				
A-B	0	0			0				
A-C	0	0			0				

07:45 - 08:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	32	8	792	0.041	32	0.0	0.0	4.740	A
B-A	1	0.28	449	0.003	1	0.0	0.0	8.036	A
C-AB	13	3	640	0.020	13	0.0	0.0	5.738	A
C-A	5	1			5				
A-B	0	0			0				
A-C	0	0			0				

08:00 - 08:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	32	8	792	0.041	32	0.0	0.0	4.740	A
B-A	1	0.28	449	0.003	1	0.0	0.0	8.036	A
C-AB	13	3	640	0.020	13	0.0	0.0	5.741	A
C-A	5	1			5				
A-B	0	0			0				
A-C	0	0			0				

08:15 - 08:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	26	7	792	0.033	27	0.0	0.0	4.705	A
B-A	0.92	0.23	450	0.002	0.92	0.0	0.0	8.017	A
C-AB	11	3	640	0.016	11	0.0	0.0	5.724	A
C-A	4	0.99			4				
A-B	0	0			0				
A-C	0	0			0				

08:30 - 08:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	22	6	792	0.028	22	0.0	0.0	4.676	A
B-A	0.77	0.19	451	0.002	0.77	0.0	0.0	8.004	A
C-AB	9	2	639	0.014	9	0.0	0.0	5.710	A
C-A	3	0.83			3				
A-B	0	0			0				
A-C	0	0			0				

2039DS, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Minor arm visibility to right	B - The Street - Minor arm geometry	Visibility to right expected to have two components if the arm has two lanes, or two lanes in a flared section.
Warning	Major arm width	C - Ringland Road - Major arm geometry	For two-way major roads, please interpret results with caution if the total major carriageway width is less than 8m.
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
J14	Ringland Road/ Costessey Lane/ The Street	T-Junction	Two-way	Two-way	Two-way		3.68	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	3.68	A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D10	2039DS	PM	ONE HOUR	16:45	18:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A - Costessey Lane		ONE HOUR	✓	12	100.000
B - The Street		ONE HOUR	✓	26	100.000
C - Ringland Road		ONE HOUR	✓	16	100.000

Origin-Destination Data

Demand (Veh/hr)

From	To		
	A - Costessey Lane	B - The Street	C - Ringland Road
A - Costessey Lane	0	3	10
B - The Street	0.22	0	26
C - Ringland Road	3	13	0

Proportions

From	To		
	A - Costessey Lane	B - The Street	C - Ringland Road
A - Costessey Lane	0.00	0.20	0.80
B - The Street	0.01	0.00	0.99
C - Ringland Road	0.18	0.82	0.00

Vehicle Mix

Heavy Vehicle Percentages

From	To			
	A - Costessey Lane	B - The Street	C - Ringland Road	
A - Costessey Lane	0	0	0	
B - The Street	0	0	0	
C - Ringland Road	0	0	0	

Average PCU Per Veh

From	To			
	A - Costessey Lane	B - The Street	C - Ringland Road	
A - Costessey Lane	1.000	1.000	1.000	
B - The Street	1.000	1.000	1.000	
C - Ringland Road	1.000	1.000	1.000	

Detailed Demand Data

Demand for each time segment

Time Segment	Arm	Demand (Veh/hr)	Demand in PCU (PCU/hr)
16:45-17:00	A - Costessey Lane	9	9
	B - The Street	20	20
	C - Ringland Road	12	12
17:00-17:15	A - Costessey Lane	11	11
	B - The Street	24	24
	C - Ringland Road	15	15
17:15-17:30	A - Costessey Lane	14	14
	B - The Street	29	29
	C - Ringland Road	18	18
17:30-17:45	A - Costessey Lane	14	14
	B - The Street	29	29
	C - Ringland Road	18	18
17:45-18:00	A - Costessey Lane	11	11
	B - The Street	24	24
	C - Ringland Road	15	15
18:00-18:15	A - Costessey Lane	9	9
	B - The Street	20	20
	C - Ringland Road	12	12

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-C	0.04	4.73	0.0	A	24	36
B-A	0.00	8.10	0.0	A	0.20	0.30
C-AB	0.02	5.80	0.0	A	12	18
C-A					3	4
A-B					2	3
A-C					9	14

Main Results for each time segment

16:45 - 17:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	20	5	791	0.025	20	0.0	0.0	4.666	A
B-A	0.17	0.04	447	0.000	0.16	0.0	0.0	8.050	A
C-AB	10	3	636	0.018	10	0.0	0.0	5.750	A
C-A	2	0.55			2				
A-B	2	0.47			2				
A-C	8	2			8				

17:00 - 17:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	24	6	791	0.030	24	0.0	0.0	4.692	A
B-A	0.20	0.05	446	0.000	0.20	0.0	0.0	8.069	A
C-AB	12	3	636	0.019	12	0.0	0.0	5.770	A
C-A	3	0.66			3				
A-B	2	0.56			2				
A-C	9	2			9				

17:15 - 17:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	29	7	790	0.037	29	0.0	0.0	4.729	A
B-A	0.24	0.06	445	0.001	0.24	0.0	0.0	8.095	A
C-AB	15	4	636	0.023	15	0.0	0.0	5.798	A
C-A	3	0.80			3				
A-B	3	0.69			3				
A-C	11	3			11				

17:30 - 17:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	29	7	790	0.037	29	0.0	0.0	4.729	A
B-A	0.24	0.06	445	0.001	0.24	0.0	0.0	8.095	A
C-AB	15	4	636	0.023	15	0.0	0.0	5.800	A
C-A	3	0.80			3				
A-B	3	0.69			3				
A-C	11	3			11				

17:45 - 18:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	24	6	791	0.030	24	0.0	0.0	4.693	A
B-A	0.20	0.05	446	0.000	0.20	0.0	0.0	8.071	A
C-AB	12	3	636	0.019	12	0.0	0.0	5.773	A
C-A	3	0.66			3				
A-B	2	0.56			2				
A-C	9	2			9				

18:00 - 18:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	20	5	791	0.025	20	0.0	0.0	4.668	A
B-A	0.17	0.04	447	0.000	0.17	0.0	0.0	8.052	A
C-AB	10	3	636	0.016	10	0.0	0.0	5.750	A
C-A	2	0.55			2				
A-B	2	0.47			2				
A-C	8	2			8				

2039DS_Mitigation, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Minor arm visibility to right	B - The Street - Minor arm geometry	Visibility to right expected to have two components if the arm has two lanes, or two lanes in a flared section.
Warning	Major arm width	C - Ringland Road - Major arm geometry	For two-way major roads, please interpret results with caution if the total major carriageway width is less than 6m.
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
J14	Ringland Road/ Costessey Lane/ The Street	T-Junction	Two-way	Two-way	Two-way		2.01	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	2.01	A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D11	2039DS_Mitigation	AM	ONE HOUR	07:15	08:45	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 - Costessey Lane		ONE HOUR	✓	24	100.000
B - The Street		ONE HOUR	✓	17	100.000
C - Ringland Road		ONE HOUR	✓	14	100.000

Origin-Destination Data

Demand (Veh/hr)

From	To		
	A - Costessey Lane	B - The Street	C - Ringland Road
A - Costessey Lane	0	5	19
B - The Street	3	0	14
C - Ringland Road	10	4	0

Proportions

From	To		
	A - Costessey Lane	B - The Street	C - Ringland Road
A - Costessey Lane	0.00	0.22	0.78
B - The Street	0.16	0.00	0.84
C - Ringland Road	0.74	0.26	0.00

Vehicle Mix

Heavy Vehicle Percentages

From	To			
	A - Costessey Lane	B - The Street	C - Ringland Road	
A - Costessey Lane	0	0	0	
B - The Street	0	0	0	
C - Ringland Road	0	0	0	

Average PCU Per Veh

From	To			
	A - Costessey Lane	B - The Street	C - Ringland Road	
A - Costessey Lane	1.000	1.000	1.000	
B - The Street	1.000	1.000	1.000	
C - Ringland Road	1.000	1.000	1.000	

Detailed Demand Data

Demand for each time segment

Time Segment	Arm	Demand (Veh/hr)	Demand in PCU (PCU/hr)
07:15-07:30	A - Costessey Lane	18	18
	B - The Street	13	13
	C - Ringland Road	11	11
07:30-07:45	A - Costessey Lane	22	22
	B - The Street	15	15
	C - Ringland Road	13	13
07:45-08:00	A - Costessey Lane	26	26
	B - The Street	19	19
	C - Ringland Road	16	16
08:00-08:15	A - Costessey Lane	26	26
	B - The Street	19	19
	C - Ringland Road	16	16
08:15-08:30	A - Costessey Lane	22	22
	B - The Street	15	15
	C - Ringland Road	13	13
08:30-08:45	A - Costessey Lane	18	18
	B - The Street	13	13
	C - Ringland Road	11	11

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-C	0.02	4.79	0.0	A	13	20
B-A	0.01	7.89	0.0	A	3	4
C-AB	0.01	5.68	0.0	A	3	5
C-A					10	14
A-B					5	7
A-C					17	26

Main Results for each time segment

07:15 - 07:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	11	3	789	0.014	11	0.0	0.0	4.745	A
B-A	2	0.52	462	0.004	2	0.0	0.0	7.829	A
C-AB	3	0.70	638	0.004	3	0.0	0.0	5.671	A
C-A	8	2			8				
A-B	4	0.99			4				
A-C	14	4			14				

07:30 - 07:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	13	3	788	0.017	13	0.0	0.0	4.766	A
B-A	2	0.62	461	0.005	2	0.0	0.0	7.853	A
C-AB	3	0.84	638	0.005	3	0.0	0.0	5.675	A
C-A	9	2			9				
A-B	5	1			5				
A-C	17	4			17				

07:45 - 08:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	16	4	786	0.020	16	0.0	0.0	4.794	A
B-A	3	0.76	459	0.007	3	0.0	0.0	7.888	A
C-AB	4	1	638	0.006	4	0.0	0.0	5.680	A
C-A	11	3			11				
A-B	6	1			6				
A-C	21	5			21				

08:00 - 08:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	16	4	786	0.020	16	0.0	0.0	4.794	A
B-A	3	0.76	459	0.007	3	0.0	0.0	7.887	A
C-AB	4	1	638	0.006	4	0.0	0.0	5.680	A
C-A	11	3			11				
A-B	6	1			6				
A-C	21	5			21				

08:15 - 08:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	13	3	788	0.017	13	0.0	0.0	4.766	A
B-A	2	0.62	461	0.005	2	0.0	0.0	7.854	A
C-AB	3	0.84	638	0.005	3	0.0	0.0	5.675	A
C-A	9	2			9				
A-B	5	1			5				
A-C	17	4			17				

08:30 - 08:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	11	3	769	0.014	11	0.0	0.0	4.748	A
B-A	2	0.52	462	0.004	2	0.0	0.0	7.828	A
C-AB	3	0.70	638	0.004	3	0.0	0.0	5.673	A
C-A	8	2			8				
A-B	4	0.99			4				
A-C	14	4			14				

2039DS_Mitigation, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Minor arm visibility to right	B - The Street - Minor arm geometry	Visibility to right expected to have two components if the arm has two lanes, or two lanes in a flared section.
Warning	Major arm width	C - Ringland Road - Major arm geometry	For two-way major roads, please interpret results with caution if the total major carriageway width is less than 6m.
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
J14	Ringland Road/ Costessey Lane/ The Street	T-Junction	Two-way	Two-way	Two-way		1.64	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	1.64	A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D12	2039DS_Mitigation	PM	ONE HOUR	16:45	18:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A - Costessey Lane		ONE HOUR	✓	50	100.000
B - The Street		ONE HOUR	✓	10	100.000
C - Ringland Road		ONE HOUR	✓	16	100.000

Origin-Destination Data

Demand (Veh/hr)

From	To		
	A - Costessey Lane	B - The Street	C - Ringland Road
A - Costessey Lane	0	23	27
B - The Street	0.81	0	9
C - Ringland Road	3	13	0

Proportions

From	To		
	A - Costessey Lane	B - The Street	C - Ringland Road
A - Costessey Lane	0.00	0.46	0.54
B - The Street	0.08	0.00	0.92
C - Ringland Road	0.20	0.80	0.00

Vehicle Mix

Heavy Vehicle Percentages

From	To			
	A - Costessey Lane	B - The Street	C - Ringland Road	
A - Costessey Lane	0	0	0	
B - The Street	0	0	0	
C - Ringland Road	0	0	0	

Average PCU Per Veh

From	To			
	A - Costessey Lane	B - The Street	C - Ringland Road	
A - Costessey Lane	1.000	1.000	1.000	
B - The Street	1.000	1.000	1.000	
C - Ringland Road	1.000	1.000	1.000	

Detailed Demand Data

Demand for each time segment

Time Segment	Arm	Demand (Veh/hr)	Demand in PCU (PCU/hr)
16:45-17:00	A - Costessey Lane	38	38
	B - The Street	7	7
	C - Ringland Road	12	12
17:00-17:15	A - Costessey Lane	45	45
	B - The Street	9	9
	C - Ringland Road	15	15
17:15-17:30	A - Costessey Lane	56	56
	B - The Street	11	11
	C - Ringland Road	18	18
17:30-17:45	A - Costessey Lane	56	56
	B - The Street	11	11
	C - Ringland Road	18	18
17:45-18:00	A - Costessey Lane	45	45
	B - The Street	9	9
	C - Ringland Road	15	15
18:00-18:15	A - Costessey Lane	38	38
	B - The Street	7	7
	C - Ringland Road	12	12

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-C	0.01	4.71	0.0	A	8	12
B-A	0.00	8.12	0.0	A	0.75	1
C-AB	0.02	5.89	0.0	A	12	18
C-A					3	5
A-B					21	32
A-C					25	37

Main Results for each time segment

16:45 - 17:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	7	2	778	0.009	7	0.0	0.0	4.685	A
B-A	0.61	0.15	448	0.001	0.61	0.0	0.0	8.039	A
C-AB	10	2	629	0.016	10	0.0	0.0	5.814	A
C-A	2	0.62			2				
A-B	18	4			18				
A-C	20	5			20				

17:00 - 17:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	8	2	777	0.010	8	0.0	0.0	4.683	A
B-A	0.73	0.18	447	0.002	0.73	0.0	0.0	8.073	A
C-AB	12	3	627	0.019	12	0.0	0.0	5.847	A
C-A	3	0.74			3				
A-B	21	5			21				
A-C	24	6			24				

17:15 - 17:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	10	2	774	0.013	10	0.0	0.0	4.708	A
B-A	0.90	0.22	444	0.002	0.89	0.0	0.0	8.122	A
C-AB	15	4	625	0.023	14	0.0	0.0	5.893	A
C-A	4	0.90			4				
A-B	26	6			26				
A-C	30	7			30				

17:30 - 17:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	10	2	774	0.013	10	0.0	0.0	4.708	A
B-A	0.90	0.22	444	0.002	0.90	0.0	0.0	8.122	A
C-AB	15	4	625	0.023	15	0.0	0.0	5.893	A
C-A	4	0.90			4				
A-B	26	6			26				
A-C	30	7			30				

17:45 - 18:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	8	2	777	0.010	8	0.0	0.0	4.685	A
B-A	0.73	0.18	447	0.002	0.73	0.0	0.0	8.075	A
C-AB	12	3	627	0.019	12	0.0	0.0	5.847	A
C-A	3	0.74			3				
A-B	21	5			21				
A-C	24	6			24				

18:00 - 18:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	7	2	778	0.009	7	0.0	0.0	4.665	A
B-A	0.61	0.15	448	0.001	0.61	0.0	0.0	8.039	A
C-AB	10	2	629	0.016	10	0.0	0.0	5.816	A
C-A	2	0.62			2				
A-B	18	4			18				
A-C	20	5			20				