

Junctions 9				
PICADY 9 - Priority Intersection Module				
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Planning\Incoming\I\CRC\200821 - Junction and Mitigation Modelling BC Only\J8

Report generation date: 27/08/2020 14:19:21

- »2020 Base, AM
- »2020 Base, PM
- »2033 Base, AM
- »2033 Base, PM
- »2033 Base + CD + D, AM
- »2033 Base + CD + D, PM
- »2033 Base + CD + D with TP, AM
- »2033 Base + CD + D with TP, PM
- »2033 Base + CD + D - ST, AM
- »2033 Base + CD + D - ST, PM
- »2033 Base + CD + SP (ST), AM
- »2033 Base + CD + SP (ST), PM

Summary of junction performance

	AM					PM				
	Set ID	Queue (Veh)	Delay (s)	RFC	LOS	Set ID	Queue (Veh)	Delay (s)	RFC	LOS
	2020 Base									
Stream B-AC	D1	2.1	82.53	0.71	F	D2	0.3	39.25	0.24	E
Stream C-AB		0.0	8.63	0.01	A		0.0	9.19	0.00	A
	2033 Base									
Stream B-AC	D13	38.4	2753.04	2.87	F	D14	2.4	270.29	0.83	F
Stream C-AB		0.0	10.00	0.01	B		0.0	10.87	0.00	B
	2033 Base + CD + D									
Stream B-AC	D15	42.9	3071.16	3.08	F	D16	3.8	343.62	0.98	F
Stream C-AB		0.0	10.49	0.01	B		0.0	11.37	0.00	B
	2033 Base + CD + D with TP									
Stream B-AC	D17	42.2	3022.40	3.05	F	D18	3.5	328.85	0.95	F
Stream C-AB		0.0	10.41	0.01	B		0.0	11.26	0.00	B
	2033 Base + CD + D - ST									
Stream B-AC	D19	43.2	3092.00	3.08	F	D20	3.8	345.30	0.98	F
Stream C-AB		0.0	10.72	0.01	B		0.0	11.46	0.00	B
	2033 Base + CD + SP (ST)									
Stream B-AC	D21	38.5	2762.23	2.87	F	D22	2.4	270.90	0.83	F
Stream C-AB		0.0	10.21	0.01	B		0.0	10.96	0.00	B

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

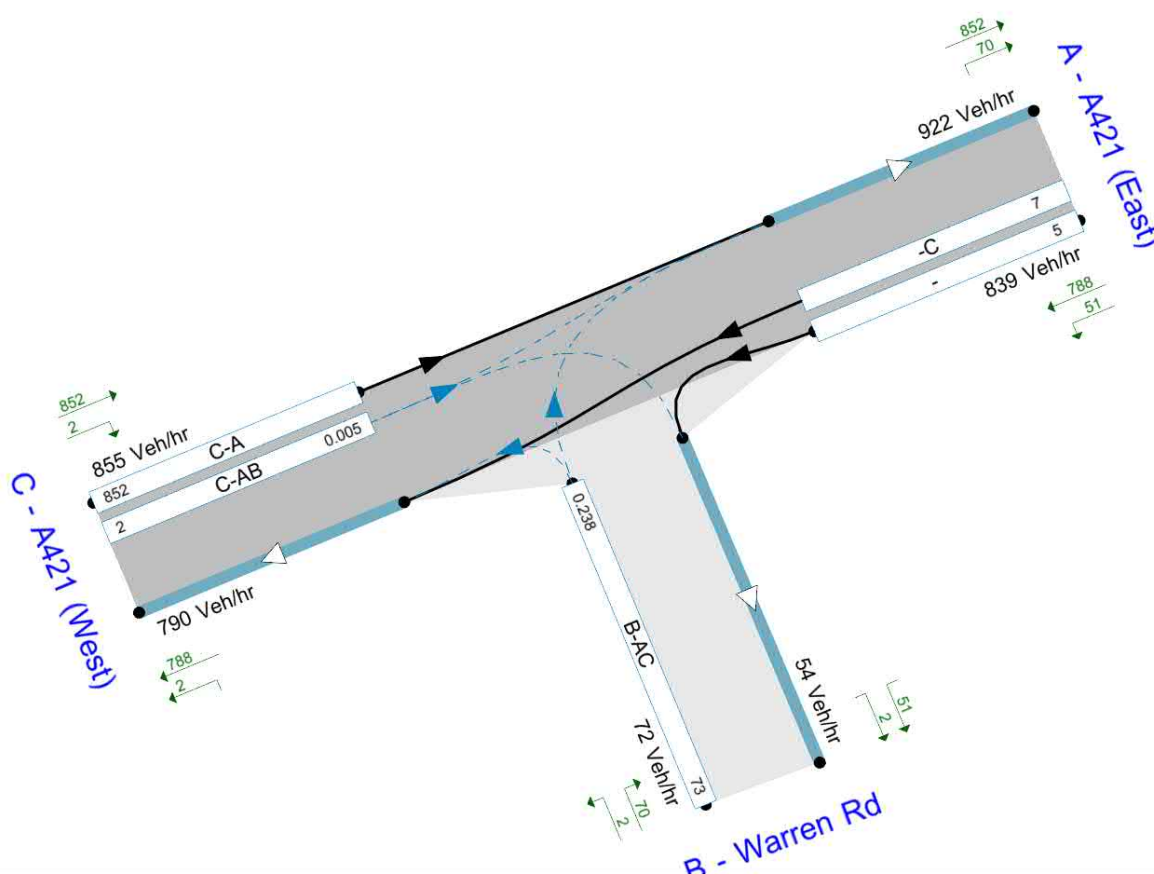
File summary

File Description

Title	Warren Road/ A421
Location	51°59'6.85"N, 0°50'10.28"W
Site number	8
Date	04/12/2015
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	fsuarez
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	Veh	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	Calculate residual capacity	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)
5.75				0.85	36.00	20.00

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	2020 Base	AM	ONE HOUR	07:30	09:00	15	✓
D2	2020 Base	PM	ONE HOUR	16:45	18:15	15	✓
D3	2026 Base	AM	ONE HOUR	07:30	09:00	15	✓
D4	2026 Base	PM	ONE HOUR	16:45	18:15	15	✓
D5	2026 Base + CD + D	AM	ONE HOUR	07:30	09:00	15	✓
D6	2026 Base + CD + D	PM	ONE HOUR	16:45	18:15	15	✓
D7	2026 Base + CD + D with TP	AM	ONE HOUR	07:30	09:00	15	✓
D8	2026 Base + CD + D with TP	PM	ONE HOUR	16:45	18:15	15	✓
D9	2026 Base + CD + D - ST	AM	ONE HOUR	07:30	09:00	15	✓
D10	2026 Base + CD + D - ST	PM	ONE HOUR	16:45	18:15	15	✓
D11	2026 Base + CD + SP (ST)	AM	ONE HOUR	07:30	09:00	15	✓
D12	2026 Base + CD + SP (ST)	PM	ONE HOUR	16:45	18:15	15	✓
D13	2033 Base	AM	ONE HOUR	07:30	09:00	15	✓
D14	2033 Base	PM	ONE HOUR	16:45	18:15	15	✓
D15	2033 Base + CD + D	AM	ONE HOUR	07:30	09:00	15	✓
D16	2033 Base + CD + D	PM	ONE HOUR	16:45	18:15	15	✓
D17	2033 Base + CD + D with TP	AM	ONE HOUR	07:30	09:00	15	✓
D18	2033 Base + CD + D with TP	PM	ONE HOUR	16:45	18:15	15	✓
D19	2033 Base + CD + D - ST	AM	ONE HOUR	07:30	09:00	15	✓
D20	2033 Base + CD + D - ST	PM	ONE HOUR	16:45	18:15	15	✓
D21	2033 Base + CD + SP (ST)	AM	ONE HOUR	07:30	09:00	15	✓
D22	2033 Base + CD + SP (ST)	PM	ONE HOUR	16:45	18:15	15	✓

Analysis Set Details

ID	Include in report	Use specific Demand Set(s)	Specific Demand Set(s)	Network flow scaling factor (%)	Network capacity scaling factor (%)
A1	✓	✓	D1,D2,D13,D14,D15,D16,D17,D18,D19,D20,D21,D22	100.000	100.000

2020 Base, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
J8	Warren Road/ A421	T-Junction	Two-way		3.32	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description	Arm type
A	A421 (East)		Major
B	Warren Rd		Minor
C	A421 (West)		Major

Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Has right turn bay	Width for right turn (m)	Visibility for right turn (m)	Blocks?	Blocking queue (PCU)
C - A421 (West)	6.25		✓	3.62	161.3	✓	9.25

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

Minor Arm Geometry

Arm	Minor arm type	Lane width (m)	Visibility to left (m)	Visibility to right (m)
B - Warren Rd	One lane	4.98	250	122

Slope / Intercept / Capacity

Stream Intercept Adjustments

Stream intercept adjustment	Use adjustment	Reason	Direct intercept adjustment (PCU/hr)
B-AC	✓		40

Priority Intersection Slopes and Intercepts

Stream	Intercept (Veh/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
B-A	749	0.135	0.341	0.215	0.487
B-C	840	0.127	0.322	-	-
C-B	771	0.295	0.295	-	-

The slopes and intercepts shown above do NOT include any corrections or adjustments.

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

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

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	2020 Base	AM	ONE HOUR	07:30	09:00	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 - A421 (East)		ONE HOUR	✓	1019	100.000
B - Warren Rd		ONE HOUR	✓	90	100.000
C - A421 (West)		ONE HOUR	✓	1047	100.000

Origin-Destination Data

Demand (Veh/hr)

	To			
		A - A421 (East)	B - Warren Rd	C - A421 (West)
	From			
	A - A421 (East)	0	63	956
	B - Warren Rd	87	0	3
	C - A421 (West)	1044	3	0

Proportions

	To			
		A - A421 (East)	B - Warren Rd	C - A421 (West)
	From			
	A - A421 (East)	0.00	0.06	0.94
	B - Warren Rd	0.97	0.00	0.03
	C - A421 (West)	1.00	0.00	0.00

Vehicle Mix

Heavy Vehicle Percentages

	To			
		A - A421 (East)	B - Warren Rd	C - A421 (West)
	From			
	A - A421 (East)	0	3	6
	B - Warren Rd	0	0	33
	C - A421 (West)	5	0	0

Average PCU Per Veh

	To			
		A - A421 (East)	B - Warren Rd	C - A421 (West)
	From			
	A - A421 (East)	1.000	1.032	1.058
	B - Warren Rd	1.000	1.000	1.333
	C - A421 (West)	1.053	1.000	1.000

Detailed Demand Data

Demand for each time segment

Arm	Time Segment	Demand (Veh/hr)	Demand in PCU (PCU/hr)
A - A421 (East)	07:30-07:45	767	810
	07:45-08:00	916	968
	08:00-08:15	1122	1185
	08:15-08:30	1122	1185
	08:30-08:45	916	968
	08:45-09:00	767	810
B - Warren Rd	07:30-07:45	68	69
	07:45-08:00	81	82
	08:00-08:15	99	100
	08:15-08:30	99	100
	08:30-08:45	81	82
	08:45-09:00	68	69
C - A421 (West)	07:30-07:45	788	830
	07:45-08:00	941	991
	08:00-08:15	1153	1214
	08:15-08:30	1153	1214
	08:30-08:45	941	991
	08:45-09:00	788	830

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
B-AC	0.71	82.53	2.1	F	83	124
C-AB	0.01	8.63	0.0	A	3	4
C-A					958	1437
A-B					58	87
A-C					877	1316

Main Results for each time segment

07:30 - 07:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	68	17	347	0.195	67	0.0	0.2	12.817	B
C-AB	2	0.56	531	0.004	2	0.0	0.0	6.805	A
C-A	786	196			786				
A-B	47	12			47				
A-C	720	180			720				

07:45 - 08:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	81	20	261	0.311	80	0.2	0.4	19.863	C
C-AB	3	0.67	485	0.006	3	0.0	0.0	7.467	A
C-A	939	235			939				
A-B	57	14			57				
A-C	859	215			859				

08:00 - 08:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	99	25	140	0.707	93	0.4	1.9	70.038	F
C-AB	3	0.83	421	0.008	3	0.0	0.0	8.628	A
C-A	1149	287			1149				
A-B	69	17			69				
A-C	1053	263			1053				

08:15 - 08:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	99	25	140	0.707	98	1.9	2.1	82.526	F
C-AB	3	0.83	421	0.008	3	0.0	0.0	8.628	A
C-A	1149	287			1149				
A-B	69	17			69				
A-C	1053	263			1053				

08:30 - 08:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	81	20	261	0.311	87	2.1	0.5	21.517	C
C-AB	3	0.67	485	0.006	3	0.0	0.0	7.467	A
C-A	939	235			939				
A-B	57	14			57				
A-C	859	215			859				

08:45 - 09:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	68	17	347	0.195	69	0.5	0.2	12.983	B
C-AB	2	0.56	531	0.004	2	0.0	0.0	6.805	A
C-A	786	196			786				
A-B	47	12			47				
A-C	720	180			720				

2020 Base, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
J8	Warren Road/ A421	T-Junction	Two-way		0.45	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D2	2020 Base	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 - A421 (East)		ONE HOUR	✓	1141	100.000
B - Warren Rd		ONE HOUR	✓	26	100.000
C - A421 (West)		ONE HOUR	✓	1057	100.000

Origin-Destination Data

Demand (Veh/hr)

	To			
		A - A421 (East)	B - Warren Rd	C - A421 (West)
	From			
	A - A421 (East)	0	88	1053
	B - Warren Rd	24	0	2
	C - A421 (West)	1056	1	0

Proportions

	To			
		A - A421 (East)	B - Warren Rd	C - A421 (West)
	From			
	A - A421 (East)	0.00	0.08	0.92
	B - Warren Rd	0.92	0.00	0.08
	C - A421 (West)	1.00	0.00	0.00

Vehicle Mix

Heavy Vehicle Percentages

	To			
		A - A421 (East)	B - Warren Rd	C - A421 (West)
	From			
	A - A421 (East)	0	0	2
	B - Warren Rd	0	0	0
	C - A421 (West)	3	0	0

Average PCU Per Veh

	To			
		A - A421 (East)	B - Warren Rd	C - A421 (West)
	From			
	A - A421 (East)	1.000	1.000	1.020
	B - Warren Rd	1.000	1.000	1.000
	C - A421 (West)	1.030	1.000	1.000

Detailed Demand Data

Demand for each time segment

Arm	Time Segment	Demand (Veh/hr)	Demand in PCU (PCU/hr)
A - A421 (East)	16:45-17:00	859	875
	17:00-17:15	1026	1045
	17:15-17:30	1256	1279
	17:30-17:45	1256	1279
	17:45-18:00	1026	1045
	18:00-18:15	859	875
B - Warren Rd	16:45-17:00	20	20
	17:00-17:15	23	23
	17:15-17:30	29	29
	17:30-17:45	29	29
	17:45-18:00	23	23
	18:00-18:15	20	20
C - A421 (West)	16:45-17:00	796	820
	17:00-17:15	950	979
	17:15-17:30	1164	1199
	17:30-17:45	1164	1199
	17:45-18:00	950	979
	18:00-18:15	796	820

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
B-AC	0.24	39.25	0.3	E	24	36
C-AB	0.00	9.19	0.0	A	0.92	1
C-A					969	1454
A-B					81	121
A-C					966	1449

Main Results for each time segment

16:45 - 17:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	20	5	340	0.058	19	0.0	0.1	11.232	B
C-AB	0.75	0.19	512	0.001	0.75	0.0	0.0	7.038	A
C-A	795	199			795				
A-B	66	17			66				
A-C	793	198			793				

17:00 - 17:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	23	6	249	0.094	23	0.1	0.1	15.956	C
C-AB	0.90	0.22	462	0.002	0.90	0.0	0.0	7.806	A
C-A	949	237			949				
A-B	79	20			79				
A-C	947	237			947				

17:15 - 17:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	29	7	120	0.238	28	0.1	0.3	38.662	E
C-AB	1	0.28	393	0.003	1	0.0	0.0	9.192	A
C-A	1163	291			1163				
A-B	97	24			97				
A-C	1159	290			1159				

17:30 - 17:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	29	7	120	0.238	29	0.3	0.3	39.251	E
C-AB	1	0.28	393	0.003	1	0.0	0.0	9.192	A
C-A	1163	291			1163				
A-B	97	24			97				
A-C	1159	290			1159				

17:45 - 18:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	23	6	249	0.094	24	0.3	0.1	16.089	C
C-AB	0.90	0.22	462	0.002	0.90	0.0	0.0	7.806	A
C-A	949	237			949				
A-B	79	20			79				
A-C	947	237			947				

18:00 - 18:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	20	5	340	0.058	20	0.1	0.1	11.260	B
C-AB	0.75	0.19	512	0.001	0.75	0.0	0.0	7.038	A
C-A	795	199			795				
A-B	66	17			66				
A-C	793	198			793				

2033 Base, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
J8	Warren Road/ A421	T-Junction	Two-way		109.48	F

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D13	2033 Base	AM	ONE HOUR	07:30	09:00	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 - A421 (East)		ONE HOUR	✓	1185	100.000
B - Warren Rd		ONE HOUR	✓	103	100.000
C - A421 (West)		ONE HOUR	✓	1206	100.000

Origin-Destination Data

Demand (Veh/hr)

	To			
		A - A421 (East)	B - Warren Rd	C - A421 (West)
	From			
	A - A421 (East)	0	72	1113
	B - Warren Rd	100	0	3
	C - A421 (West)	1203	3	0

Proportions

	To			
		A - A421 (East)	B - Warren Rd	C - A421 (West)
	From			
	A - A421 (East)	0.00	0.06	0.94
	B - Warren Rd	0.97	0.00	0.03
	C - A421 (West)	1.00	0.00	0.00

Vehicle Mix

Heavy Vehicle Percentages

	To			
		A - A421 (East)	B - Warren Rd	C - A421 (West)
	From			
	A - A421 (East)	0	3	6
	B - Warren Rd	0	0	33
	C - A421 (West)	5	0	0

Average PCU Per Veh

	To			
		A - A421 (East)	B - Warren Rd	C - A421 (West)
	From			
	A - A421 (East)	1.000	1.032	1.058
	B - Warren Rd	1.000	1.000	1.333
	C - A421 (West)	1.053	1.000	1.000

Detailed Demand Data

Demand for each time segment

Arm	Time Segment	Demand (Veh/hr)	Demand in PCU (PCU/hr)
A - A421 (East)	07:30-07:45	892	942
	07:45-08:00	1065	1125
	08:00-08:15	1305	1378
	08:15-08:30	1305	1378
	08:30-08:45	1065	1125
	08:45-09:00	892	942
B - Warren Rd	07:30-07:45	78	79
	07:45-08:00	93	94
	08:00-08:15	114	115
	08:15-08:30	114	115
	08:30-08:45	93	94
	08:45-09:00	78	79
C - A421 (West)	07:30-07:45	908	956
	07:45-08:00	1084	1141
	08:00-08:15	1328	1398
	08:15-08:30	1328	1398
	08:30-08:45	1084	1141
	08:45-09:00	908	956

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
B-AC	2.87	2753.04	38.4	F	95	142
C-AB	0.01	10.00	0.0	B	3	5
C-A					1104	1655
A-B					66	99
A-C					1021	1532

Main Results for each time segment

07:30 - 07:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	78	19	276	0.281	76	0.0	0.4	17.848	C
C-AB	3	0.65	492	0.005	3	0.0	0.0	7.349	A
C-A	905	226			905				
A-B	54	14			54				
A-C	838	209			838				

07:45 - 08:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	93	23	176	0.528	90	0.4	1.0	40.902	E
C-AB	3	0.77	438	0.007	3	0.0	0.0	8.270	A
C-A	1081	270			1081				
A-B	65	16			65				
A-C	1000	250			1000				

08:00 - 08:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	114	28	40	2.873	38	1.0	19.8	909.170	F
C-AB	4	0.95	364	0.010	4	0.0	0.0	10.002	B
C-A	1324	331			1324				
A-B	80	20			80				
A-C	1225	306			1225				

08:15 - 08:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	114	28	40	2.873	39	19.8	38.4	2753.044	F
C-AB	4	0.95	364	0.010	4	0.0	0.0	10.002	B
C-A	1324	331			1324				
A-B	80	20			80				
A-C	1225	306			1225				

08:30 - 08:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	93	23	176	0.528	171	38.4	18.7	548.704	F
C-AB	3	0.77	438	0.007	3	0.0	0.0	8.273	A
C-A	1081	270			1081				
A-B	65	16			65				
A-C	1000	250			1000				

08:45 - 09:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	78	19	276	0.281	151	18.7	0.4	50.155	F
C-AB	3	0.65	492	0.005	3	0.0	0.0	7.350	A
C-A	905	226			905				
A-B	54	14			54				
A-C	838	209			838				

2033 Base, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
J8	Warren Road/ A421	T-Junction	Two-way		3.07	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D14	2033 Base	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 - A421 (East)		ONE HOUR	✓	1323	100.000
B - Warren Rd		ONE HOUR	✓	30	100.000
C - A421 (West)		ONE HOUR	✓	1233	100.000

Origin-Destination Data

Demand (Veh/hr)

	To			
		A - A421 (East)	B - Warren Rd	C - A421 (West)
	From			
	A - A421 (East)	0	102	1222
	B - Warren Rd	28	0	2
	C - A421 (West)	1232	1	0

Proportions

	To			
		A - A421 (East)	B - Warren Rd	C - A421 (West)
	From			
	A - A421 (East)	0.00	0.08	0.92
	B - Warren Rd	0.92	0.00	0.08
	C - A421 (West)	1.00	0.00	0.00

Vehicle Mix

Heavy Vehicle Percentages

	To			
		A - A421 (East)	B - Warren Rd	C - A421 (West)
	From			
	A - A421 (East)	0	0	2
	B - Warren Rd	0	0	0
	C - A421 (West)	3	0	0

Average PCU Per Veh

	To			
		A - A421 (East)	B - Warren Rd	C - A421 (West)
	From			
	A - A421 (East)	1.000	1.000	1.020
	B - Warren Rd	1.000	1.000	1.000
	C - A421 (West)	1.030	1.000	1.000

Detailed Demand Data

Demand for each time segment

Arm	Time Segment	Demand (Veh/hr)	Demand in PCU (PCU/hr)
A - A421 (East)	16:45-17:00	996	1014
	17:00-17:15	1189	1211
	17:15-17:30	1457	1484
	17:30-17:45	1457	1484
	17:45-18:00	1189	1211
	18:00-18:15	996	1014
B - Warren Rd	16:45-17:00	23	23
	17:00-17:15	27	27
	17:15-17:30	33	33
	17:30-17:45	33	33
	17:45-18:00	27	27
	18:00-18:15	23	23
C - A421 (West)	16:45-17:00	929	957
	17:00-17:15	1109	1142
	17:15-17:30	1358	1399
	17:30-17:45	1358	1399
	17:45-18:00	1109	1142
	18:00-18:15	929	957

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
B-AC	0.83	270.29	2.4	F	28	41
C-AB	0.00	10.87	0.0	B	1	2
C-A					1131	1696
A-B					93	140
A-C					1121	1681

Main Results for each time segment

16:45 - 17:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	23	6	263	0.086	22	0.0	0.1	14.899	B
C-AB	0.87	0.22	471	0.002	0.86	0.0	0.0	7.657	A
C-A	928	232			928				
A-B	76	19			76				
A-C	920	230			920				

17:00 - 17:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	27	7	156	0.173	27	0.1	0.2	27.695	D
C-AB	1	0.26	413	0.003	1	0.0	0.0	8.742	A
C-A	1108	277			1108				
A-B	91	23			91				
A-C	1098	275			1098				

17:15 - 17:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	33	8	40	0.826	26	0.2	1.8	216.740	F
C-AB	1	0.32	332	0.004	1	0.0	0.0	10.870	B
C-A	1357	339			1357				
A-B	112	28			112				
A-C	1345	336			1345				

17:30 - 17:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	33	8	40	0.826	31	1.8	2.4	270.287	F
C-AB	1	0.32	332	0.004	1	0.0	0.0	10.870	B
C-A	1357	339			1357				
A-B	112	28			112				
A-C	1345	336			1345				

17:45 - 18:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	27	7	156	0.173	36	2.4	0.2	31.895	D
C-AB	1	0.26	413	0.003	1	0.0	0.0	8.744	A
C-A	1108	277			1108				
A-B	91	23			91				
A-C	1098	275			1098				

18:00 - 18:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	23	6	263	0.086	23	0.2	0.1	15.002	C
C-AB	0.87	0.22	471	0.002	0.87	0.0	0.0	7.660	A
C-A	928	232			928				
A-B	76	19			76				
A-C	920	230			920				

2033 Base + CD + D, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
J8	Warren Road/ A421	T-Junction	Two-way		126.17	F

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D15	2033 Base + CD + D	AM	ONE HOUR	07:30	09:00	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 - A421 (East)		ONE HOUR	✓	1233	100.000
B - Warren Rd		ONE HOUR	✓	111	100.000
C - A421 (West)		ONE HOUR	✓	1243	100.000

Origin-Destination Data

Demand (Veh/hr)

	To			
		A - A421 (East)	B - Warren Rd	C - A421 (West)
	From			
	A - A421 (East)	0	78	1155
	B - Warren Rd	107	0	3
	C - A421 (West)	1240	3	0

Proportions

	To			
		A - A421 (East)	B - Warren Rd	C - A421 (West)
	From			
	A - A421 (East)	0.00	0.06	0.94
	B - Warren Rd	0.97	0.00	0.03
	C - A421 (West)	1.00	0.00	0.00

Vehicle Mix

Heavy Vehicle Percentages

	To			
		A - A421 (East)	B - Warren Rd	C - A421 (West)
	From			
	A - A421 (East)	0	3	6
	B - Warren Rd	0	0	33
	C - A421 (West)	5	0	0

Average PCU Per Veh

	To			
		A - A421 (East)	B - Warren Rd	C - A421 (West)
	From			
	A - A421 (East)	1.000	1.032	1.058
	B - Warren Rd	1.000	1.000	1.333
	C - A421 (West)	1.053	1.000	1.000

Detailed Demand Data

Demand for each time segment

Arm	Time Segment	Demand (Veh/hr)	Demand in PCU (PCU/hr)
A - A421 (East)	07:30-07:45	929	980
	07:45-08:00	1109	1171
	08:00-08:15	1358	1434
	08:15-08:30	1358	1434
	08:30-08:45	1109	1171
	08:45-09:00	929	980
B - Warren Rd	07:30-07:45	83	84
	07:45-08:00	100	101
	08:00-08:15	122	123
	08:15-08:30	122	123
	08:30-08:45	100	101
	08:45-09:00	83	84
C - A421 (West)	07:30-07:45	936	985
	07:45-08:00	1118	1177
	08:00-08:15	1369	1441
	08:15-08:30	1369	1441
	08:30-08:45	1118	1177
	08:45-09:00	936	985

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
B-AC	3.08	3071.16	42.9	F	102	152
C-AB	0.01	10.49	0.0	B	3	5
C-A					1138	1707
A-B					72	108
A-C					1060	1590

Main Results for each time segment

07:30 - 07:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	83	21	258	0.323	81	0.0	0.5	20.225	C
C-AB	3	0.65	481	0.005	3	0.0	0.0	7.524	A
C-A	934	233			934				
A-B	59	15			59				
A-C	870	217			870				

07:45 - 08:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	100	25	153	0.649	95	0.5	1.6	58.098	F
C-AB	3	0.77	425	0.007	3	0.0	0.0	8.536	A
C-A	1115	279			1115				
A-B	70	18			70				
A-C	1038	260			1038				

08:00 - 08:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	122	30	40	3.079	39	1.6	22.3	994.460	F
C-AB	4	0.95	347	0.011	4	0.0	0.0	10.485	B
C-A	1365	341			1365				
A-B	86	22			86				
A-C	1272	318			1272				

08:15 - 08:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	122	30	40	3.079	40	22.3	42.9	3071.159	F
C-AB	4	0.95	347	0.011	4	0.0	0.0	10.485	B
C-A	1365	341			1365				
A-B	86	22			86				
A-C	1272	318			1272				

08:30 - 08:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	100	25	153	0.649	150	42.9	30.3	891.062	F
C-AB	3	0.77	425	0.007	3	0.0	0.0	8.538	A
C-A	1115	279			1115				
A-B	70	18			70				
A-C	1038	260			1038				

08:45 - 09:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	83	21	258	0.323	203	30.3	0.5	170.185	F
C-AB	3	0.65	481	0.005	3	0.0	0.0	7.527	A
C-A	934	233			934				
A-B	59	15			59				
A-C	870	217			870				

2033 Base + CD + D, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
J8	Warren Road/ A421	T-Junction	Two-way		4.46	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D16	2033 Base + CD + D	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 - A421 (East)		ONE HOUR	✓	1367	100.000
B - Warren Rd		ONE HOUR	✓	36	100.000
C - A421 (West)		ONE HOUR	✓	1278	100.000

Origin-Destination Data

Demand (Veh/hr)

	To			
		A - A421 (East)	B - Warren Rd	C - A421 (West)
	From			
	A - A421 (East)	0	109	1258
	B - Warren Rd	33	0	2
	C - A421 (West)	1277	1	0

Proportions

	To			
		A - A421 (East)	B - Warren Rd	C - A421 (West)
	From			
	A - A421 (East)	0.00	0.08	0.92
	B - Warren Rd	0.94	0.00	0.06
	C - A421 (West)	1.00	0.00	0.00

Vehicle Mix

Heavy Vehicle Percentages

	To			
		A - A421 (East)	B - Warren Rd	C - A421 (West)
	From			
	A - A421 (East)	0	0	2
	B - Warren Rd	0	0	0
	C - A421 (West)	3	0	0

Average PCU Per Veh

	To			
		A - A421 (East)	B - Warren Rd	C - A421 (West)
	From			
	A - A421 (East)	1.000	1.000	1.020
	B - Warren Rd	1.000	1.000	1.000
	C - A421 (West)	1.030	1.000	1.000

Detailed Demand Data

Demand for each time segment

Arm	Time Segment	Demand (Veh/hr)	Demand in PCU (PCU/hr)
A - A421 (East)	16:45-17:00	1029	1048
	17:00-17:15	1229	1251
	17:15-17:30	1505	1533
	17:30-17:45	1505	1533
	17:45-18:00	1229	1251
	18:00-18:15	1029	1048
B - Warren Rd	16:45-17:00	27	27
	17:00-17:15	32	32
	17:15-17:30	39	39
	17:30-17:45	39	39
	17:45-18:00	32	32
	18:00-18:15	27	27
C - A421 (West)	16:45-17:00	962	991
	17:00-17:15	1149	1183
	17:15-17:30	1407	1449
	17:30-17:45	1407	1449
	17:45-18:00	1149	1183
	18:00-18:15	962	991

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
B-AC	0.98	343.62	3.8	F	33	49
C-AB	0.00	11.37	0.0	B	1	2
C-A					1171	1757
A-B					100	150
A-C					1154	1731

Main Results for each time segment

16:45 - 17:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	27	7	244	0.110	26	0.0	0.1	16.513	C
C-AB	0.87	0.22	461	0.002	0.86	0.0	0.0	7.822	A
C-A	961	240			961				
A-B	82	21			82				
A-C	947	237			947				

17:00 - 17:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	32	8	133	0.240	31	0.1	0.3	35.119	E
C-AB	1	0.26	401	0.003	1	0.0	0.0	9.000	A
C-A	1148	287			1148				
A-B	98	25			98				
A-C	1131	283			1131				

17:15 - 17:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	39	10	40	0.980	30	0.3	2.6	262.384	F
C-AB	1	0.32	318	0.004	1	0.0	0.0	11.366	B
C-A	1406	351			1406				
A-B	120	30			120				
A-C	1385	346			1385				

17:30 - 17:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	39	10	40	0.980	34	2.6	3.8	343.618	F
C-AB	1	0.32	318	0.004	1	0.0	0.0	11.366	B
C-A	1406	351			1406				
A-B	120	30			120				
A-C	1385	346			1385				

17:45 - 18:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	32	8	133	0.240	46	3.8	0.3	47.091	E
C-AB	1	0.26	401	0.003	1	0.0	0.0	9.002	A
C-A	1148	287			1148				
A-B	98	25			98				
A-C	1131	283			1131				

18:00 - 18:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	27	7	244	0.110	28	0.3	0.1	16.711	C
C-AB	0.87	0.22	461	0.002	0.87	0.0	0.0	7.822	A
C-A	961	240			961				
A-B	82	21			82				
A-C	947	237			947				

2033 Base + CD + D with TP, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
J8	Warren Road/ A421	T-Junction	Two-way		123.65	F

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D17	2033 Base + CD + D with TP	AM	ONE HOUR	07:30	09:00	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 - A421 (East)		ONE HOUR	✓	1226	100.000
B - Warren Rd		ONE HOUR	✓	110	100.000
C - A421 (West)		ONE HOUR	✓	1238	100.000

Origin-Destination Data

Demand (Veh/hr)

	To			
		A - A421 (East)	B - Warren Rd	C - A421 (West)
	From			
	A - A421 (East)	0	77	1148
	B - Warren Rd	106	0	3
	C - A421 (West)	1234	3	0

Proportions

	To			
		A - A421 (East)	B - Warren Rd	C - A421 (West)
	From			
	A - A421 (East)	0.00	0.06	0.94
	B - Warren Rd	0.97	0.00	0.03
	C - A421 (West)	1.00	0.00	0.00

Vehicle Mix

Heavy Vehicle Percentages

	To			
		A - A421 (East)	B - Warren Rd	C - A421 (West)
	From			
	A - A421 (East)	0	3	6
	B - Warren Rd	0	0	33
	C - A421 (West)	5	0	0

Average PCU Per Veh

	To			
		A - A421 (East)	B - Warren Rd	C - A421 (West)
	From			
	A - A421 (East)	1.000	1.032	1.058
	B - Warren Rd	1.000	1.000	1.333
	C - A421 (West)	1.053	1.000	1.000

Detailed Demand Data

Demand for each time segment

Arm	Time Segment	Demand (Veh/hr)	Demand in PCU (PCU/hr)
A - A421 (East)	07:30-07:45	923	974
	07:45-08:00	1102	1164
	08:00-08:15	1350	1425
	08:15-08:30	1350	1425
	08:30-08:45	1102	1164
	08:45-09:00	923	974
B - Warren Rd	07:30-07:45	83	83
	07:45-08:00	99	100
	08:00-08:15	121	122
	08:15-08:30	121	122
	08:30-08:45	99	100
	08:45-09:00	83	83
C - A421 (West)	07:30-07:45	932	981
	07:45-08:00	1113	1171
	08:00-08:15	1363	1434
	08:15-08:30	1363	1434
	08:30-08:45	1113	1171
	08:45-09:00	932	981

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
B-AC	3.05	3022.40	42.2	F	101	151
C-AB	0.01	10.41	0.0	B	3	5
C-A					1133	1699
A-B					71	107
A-C					1054	1581

Main Results for each time segment

07:30 - 07:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	83	21	261	0.317	81	0.0	0.4	19.823	C
C-AB	3	0.65	483	0.005	3	0.0	0.0	7.496	A
C-A	929	232			929				
A-B	58	15			58				
A-C	865	216			865				

07:45 - 08:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	99	25	157	0.628	95	0.4	1.5	54.710	F
C-AB	3	0.77	427	0.007	3	0.0	0.0	8.493	A
C-A	1110	277			1110				
A-B	70	17			70				
A-C	1032	258			1032				

08:00 - 08:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	121	30	40	3.049	39	1.5	21.9	980.119	F
C-AB	4	0.95	350	0.011	4	0.0	0.0	10.406	B
C-A	1359	340			1359				
A-B	85	21			85				
A-C	1264	316			1264				

08:15 - 08:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	121	30	40	3.049	40	21.9	42.2	3022.403	F
C-AB	4	0.95	350	0.011	4	0.0	0.0	10.406	B
C-A	1359	340			1359				
A-B	85	21			85				
A-C	1264	316			1264				

08:30 - 08:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	99	25	157	0.628	153	42.2	28.6	862.127	F
C-AB	3	0.77	427	0.007	3	0.0	0.0	8.495	A
C-A	1110	277			1110				
A-B	70	17			70				
A-C	1032	258			1032				

08:45 - 09:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	83	21	261	0.317	195	28.6	0.5	144.049	F
C-AB	3	0.65	483	0.005	3	0.0	0.0	7.499	A
C-A	929	232			929				
A-B	58	15			58				
A-C	865	216			865				

2033 Base + CD + D with TP, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
J8	Warren Road/ A421	T-Junction	Two-way		4.17	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D18	2033 Base + CD + D with TP	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 - A421 (East)		ONE HOUR	✓	1358	100.000
B - Warren Rd		ONE HOUR	✓	35	100.000
C - A421 (West)		ONE HOUR	✓	1270	100.000

Origin-Destination Data

Demand (Veh/hr)

	To			
		A - A421 (East)	B - Warren Rd	C - A421 (West)
	From			
	A - A421 (East)	0	106	1251
	B - Warren Rd	32	0	2
	C - A421 (West)	1269	1	0

Proportions

	To			
		A - A421 (East)	B - Warren Rd	C - A421 (West)
	From			
	A - A421 (East)	0.00	0.08	0.92
	B - Warren Rd	0.93	0.00	0.07
	C - A421 (West)	1.00	0.00	0.00

Vehicle Mix

Heavy Vehicle Percentages

	To			
		A - A421 (East)	B - Warren Rd	C - A421 (West)
	From			
	A - A421 (East)	0	0	2
	B - Warren Rd	0	0	0
	C - A421 (West)	3	0	0

Average PCU Per Veh

	To			
		A - A421 (East)	B - Warren Rd	C - A421 (West)
	From			
	A - A421 (East)	1.000	1.000	1.020
	B - Warren Rd	1.000	1.000	1.000
	C - A421 (West)	1.030	1.000	1.000

Detailed Demand Data

Demand for each time segment

Arm	Time Segment	Demand (Veh/hr)	Demand in PCU (PCU/hr)
A - A421 (East)	16:45-17:00	1022	1041
	17:00-17:15	1221	1243
	17:15-17:30	1495	1522
	17:30-17:45	1495	1522
	17:45-18:00	1221	1243
	18:00-18:15	1022	1041
B - Warren Rd	16:45-17:00	26	26
	17:00-17:15	31	31
	17:15-17:30	38	38
	17:30-17:45	38	38
	17:45-18:00	31	31
	18:00-18:15	26	26
C - A421 (West)	16:45-17:00	956	985
	17:00-17:15	1142	1176
	17:15-17:30	1398	1440
	17:30-17:45	1398	1440
	17:45-18:00	1142	1176
	18:00-18:15	956	985

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
B-AC	0.95	328.85	3.5	F	32	48
C-AB	0.00	11.26	0.0	B	1	2
C-A					1164	1746
A-B					98	146
A-C					1148	1722

Main Results for each time segment

16:45 - 17:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	26	7	247	0.105	26	0.0	0.1	16.193	C
C-AB	0.87	0.22	463	0.002	0.86	0.0	0.0	7.787	A
C-A	955	239			955				
A-B	80	20			80				
A-C	942	236			942				

17:00 - 17:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	31	8	137	0.226	30	0.1	0.3	33.481	D
C-AB	1	0.26	403	0.003	1	0.0	0.0	8.945	A
C-A	1141	285			1141				
A-B	96	24			96				
A-C	1125	281			1125				

17:15 - 17:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	38	10	40	0.951	29	0.3	2.5	253.165	F
C-AB	1	0.32	321	0.004	1	0.0	0.0	11.259	B
C-A	1397	349			1397				
A-B	117	29			117				
A-C	1378	344			1378				

17:30 - 17:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	38	10	40	0.951	34	2.5	3.5	328.850	F
C-AB	1	0.32	321	0.004	1	0.0	0.0	11.259	B
C-A	1397	349			1397				
A-B	117	29			117				
A-C	1378	344			1378				

17:45 - 18:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	31	8	137	0.226	44	3.5	0.3	43.230	E
C-AB	1	0.26	403	0.003	1	0.0	0.0	8.947	A
C-A	1141	285			1141				
A-B	96	24			96				
A-C	1125	281			1125				

18:00 - 18:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	26	7	247	0.105	27	0.3	0.1	16.366	C
C-AB	0.87	0.22	463	0.002	0.87	0.0	0.0	7.787	A
C-A	955	239			955				
A-B	80	20			80				
A-C	942	236			942				

2033 Base + CD + D - ST, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
J8	Warren Road/ A421	T-Junction	Two-way		125.37	F

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D19	2033 Base + CD + D - ST	AM	ONE HOUR	07:30	09:00	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 - A421 (East)		ONE HOUR	✓	1255	100.000
B - Warren Rd		ONE HOUR	✓	111	100.000
C - A421 (West)		ONE HOUR	✓	1256	100.000

Origin-Destination Data

Demand (Veh/hr)

	To			
		A - A421 (East)	B - Warren Rd	C - A421 (West)
From	A - A421 (East)	0	78	1177
	B - Warren Rd	107	0	3
	C - A421 (West)	1253	3	0

Proportions

	To			
		A - A421 (East)	B - Warren Rd	C - A421 (West)
From	A - A421 (East)	0.00	0.06	0.94
	B - Warren Rd	0.97	0.00	0.03
	C - A421 (West)	1.00	0.00	0.00

Vehicle Mix

Heavy Vehicle Percentages

	To			
		A - A421 (East)	B - Warren Rd	C - A421 (West)
From	A - A421 (East)	0	3	6
	B - Warren Rd	0	0	33
	C - A421 (West)	5	0	0

Average PCU Per Veh

	To			
		A - A421 (East)	B - Warren Rd	C - A421 (West)
From	A - A421 (East)	1.000	1.032	1.058
	B - Warren Rd	1.000	1.000	1.333
	C - A421 (West)	1.053	1.000	1.000

Detailed Demand Data

Demand for each time segment

Arm	Time Segment	Demand (Veh/hr)	Demand in PCU (PCU/hr)
A - A421 (East)	07:30-07:45	945	998
	07:45-08:00	1128	1191
	08:00-08:15	1382	1459
	08:15-08:30	1382	1459
	08:30-08:45	1128	1191
	08:45-09:00	945	998
B - Warren Rd	07:30-07:45	83	84
	07:45-08:00	100	101
	08:00-08:15	122	123
	08:15-08:30	122	123
	08:30-08:45	100	101
	08:45-09:00	83	84
C - A421 (West)	07:30-07:45	946	995
	07:45-08:00	1129	1188
	08:00-08:15	1383	1455
	08:15-08:30	1383	1455
	08:30-08:45	1129	1188
	08:45-09:00	946	995

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
B-AC	3.08	3092.00	43.2	F	102	152
C-AB	0.01	10.72	0.0	B	3	5
C-A					1149	1724
A-B					72	108
A-C					1080	1620

Main Results for each time segment

07:30 - 07:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	83	21	250	0.334	81	0.0	0.5	21.159	C
C-AB	3	0.65	476	0.005	3	0.0	0.0	7.604	A
C-A	943	236			943				
A-B	59	15			59				
A-C	886	221			886				

07:45 - 08:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	100	25	144	0.693	94	0.5	1.8	67.017	F
C-AB	3	0.77	419	0.007	3	0.0	0.0	8.660	A
C-A	1126	281			1126				
A-B	70	18			70				
A-C	1058	264			1058				

08:00 - 08:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	122	30	40	3.079	39	1.8	22.6	1014.203	F
C-AB	4	0.95	340	0.011	4	0.0	0.0	10.717	B
C-A	1379	345			1379				
A-B	86	22			86				
A-C	1296	324			1296				

08:15 - 08:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	122	30	40	3.079	40	22.6	43.2	3092.005	F
C-AB	4	0.95	340	0.011	4	0.0	0.0	10.717	B
C-A	1379	345			1379				
A-B	86	22			86				
A-C	1296	324			1296				

08:30 - 08:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	100	25	144	0.693	140	43.2	32.9	945.973	F
C-AB	3	0.77	419	0.007	3	0.0	0.0	8.663	A
C-A	1126	281			1126				
A-B	70	18			70				
A-C	1058	264			1058				

08:45 - 09:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	83	21	250	0.334	213	32.9	0.6	218.926	F
C-AB	3	0.65	476	0.005	3	0.0	0.0	7.604	A
C-A	943	236			943				
A-B	59	15			59				
A-C	886	221			886				

2033 Base + CD + D - ST, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
J8	Warren Road/ A421	T-Junction	Two-way		4.45	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D20	2033 Base + CD + D - ST	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 - A421 (East)		ONE HOUR	✓	1375	100.000
B - Warren Rd		ONE HOUR	✓	36	100.000
C - A421 (West)		ONE HOUR	✓	1292	100.000

Origin-Destination Data

Demand (Veh/hr)

	To			
		A - A421 (East)	B - Warren Rd	C - A421 (West)
From	A - A421 (East)	0	109	1266
	B - Warren Rd	33	0	2
	C - A421 (West)	1291	1	0

Proportions

	To			
		A - A421 (East)	B - Warren Rd	C - A421 (West)
From	A - A421 (East)	0.00	0.08	0.92
	B - Warren Rd	0.94	0.00	0.06
	C - A421 (West)	1.00	0.00	0.00

Vehicle Mix

Heavy Vehicle Percentages

	To			
		A - A421 (East)	B - Warren Rd	C - A421 (West)
From	A - A421 (East)	0	0	2
	B - Warren Rd	0	0	0
	C - A421 (West)	3	0	0

Average PCU Per Veh

	To			
		A - A421 (East)	B - Warren Rd	C - A421 (West)
From	A - A421 (East)	1.000	1.000	1.020
	B - Warren Rd	1.000	1.000	1.000
	C - A421 (West)	1.030	1.000	1.000

Detailed Demand Data

Demand for each time segment

Arm	Time Segment	Demand (Veh/hr)	Demand in PCU (PCU/hr)
A - A421 (East)	16:45-17:00	1035	1054
	17:00-17:15	1236	1258
	17:15-17:30	1514	1541
	17:30-17:45	1514	1541
	17:45-18:00	1236	1258
	18:00-18:15	1035	1054
B - Warren Rd	16:45-17:00	27	27
	17:00-17:15	32	32
	17:15-17:30	39	39
	17:30-17:45	39	39
	17:45-18:00	32	32
	18:00-18:15	27	27
C - A421 (West)	16:45-17:00	973	1002
	17:00-17:15	1162	1197
	17:15-17:30	1423	1466
	17:30-17:45	1423	1466
	17:45-18:00	1162	1197
	18:00-18:15	973	1002

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
B-AC	0.98	345.30	3.8	F	33	49
C-AB	0.00	11.46	0.0	B	1	2
C-A					1185	1777
A-B					100	150
A-C					1161	1742

Main Results for each time segment

16:45 - 17:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	27	7	239	0.112	26	0.0	0.1	16.862	C
C-AB	0.87	0.22	459	0.002	0.86	0.0	0.0	7.852	A
C-A	972	243			972				
A-B	82	21			82				
A-C	953	238			953				

17:00 - 17:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	32	8	128	0.251	31	0.1	0.3	37.082	E
C-AB	1	0.26	399	0.003	1	0.0	0.0	9.048	A
C-A	1161	290			1161				
A-B	98	25			98				
A-C	1138	284			1138				

17:15 - 17:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	39	10	40	0.980	30	0.3	2.6	263.310	F
C-AB	1	0.32	315	0.004	1	0.0	0.0	11.460	B
C-A	1421	355			1421				
A-B	120	30			120				
A-C	1393	348			1393				

17:30 - 17:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	39	10	40	0.980	34	2.6	3.8	345.297	F
C-AB	1	0.32	315	0.004	1	0.0	0.0	11.460	B
C-A	1421	355			1421				
A-B	120	30			120				
A-C	1393	348			1393				

17:45 - 18:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	32	8	128	0.251	46	3.8	0.4	50.500	F
C-AB	1	0.26	399	0.003	1	0.0	0.0	9.050	A
C-A	1161	290			1161				
A-B	98	25			98				
A-C	1138	284			1138				

18:00 - 18:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	27	7	239	0.112	28	0.4	0.1	17.080	C
C-AB	0.87	0.22	459	0.002	0.87	0.0	0.0	7.854	A
C-A	972	243			972				
A-B	82	21			82				
A-C	953	238			953				

2033 Base + CD + SP (ST), AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
J8	Warren Road/ A421	T-Junction	Two-way		108.35	F

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D21	2033 Base + CD + SP (ST)	AM	ONE HOUR	07:30	09:00	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 - A421 (East)		ONE HOUR	✓	1207	100.000
B - Warren Rd		ONE HOUR	✓	103	100.000
C - A421 (West)		ONE HOUR	✓	1219	100.000

Origin-Destination Data

Demand (Veh/hr)

	To			
		A - A421 (East)	B - Warren Rd	C - A421 (West)
	From			
	A - A421 (East)	0	72	1134
	B - Warren Rd	100	0	3
	C - A421 (West)	1215	3	0

Proportions

	To			
		A - A421 (East)	B - Warren Rd	C - A421 (West)
	From			
	A - A421 (East)	0.00	0.06	0.94
	B - Warren Rd	0.97	0.00	0.03
	C - A421 (West)	1.00	0.00	0.00

Vehicle Mix

Heavy Vehicle Percentages

	To			
		A - A421 (East)	B - Warren Rd	C - A421 (West)
	From			
	A - A421 (East)	0	3	6
	B - Warren Rd	0	0	33
	C - A421 (West)	5	0	0

Average PCU Per Veh

	To			
		A - A421 (East)	B - Warren Rd	C - A421 (West)
	From			
	A - A421 (East)	1.000	1.032	1.058
	B - Warren Rd	1.000	1.000	1.333
	C - A421 (West)	1.053	1.000	1.000

Detailed Demand Data

Demand for each time segment

Arm	Time Segment	Demand (Veh/hr)	Demand in PCU (PCU/hr)
A - A421 (East)	07:30-07:45	908	959
	07:45-08:00	1085	1145
	08:00-08:15	1328	1403
	08:15-08:30	1328	1403
	08:30-08:45	1085	1145
	08:45-09:00	908	959
B - Warren Rd	07:30-07:45	78	79
	07:45-08:00	93	94
	08:00-08:15	114	115
	08:15-08:30	114	115
	08:30-08:45	93	94
	08:45-09:00	78	79
C - A421 (West)	07:30-07:45	917	966
	07:45-08:00	1096	1153
	08:00-08:15	1342	1412
	08:15-08:30	1342	1412
	08:30-08:45	1096	1153
	08:45-09:00	917	966

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
B-AC	2.87	2762.23	38.5	F	95	142
C-AB	0.01	10.21	0.0	B	3	5
C-A					1115	1673
A-B					66	99
A-C					1041	1561

Main Results for each time segment

07:30 - 07:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	78	19	268	0.290	76	0.0	0.4	18.574	C
C-AB	3	0.65	487	0.005	3	0.0	0.0	7.426	A
C-A	915	229			915				
A-B	54	14			54				
A-C	854	213			854				

07:45 - 08:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	93	23	166	0.558	90	0.4	1.1	45.528	E
C-AB	3	0.77	432	0.007	3	0.0	0.0	8.387	A
C-A	1092	273			1092				
A-B	65	16			65				
A-C	1020	255			1020				

08:00 - 08:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	114	28	40	2.873	38	1.1	19.9	918.968	F
C-AB	4	0.95	356	0.011	4	0.0	0.0	10.212	B
C-A	1338	334			1338				
A-B	80	20			80				
A-C	1249	312			1249				

08:15 - 08:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	114	28	40	2.873	39	19.9	38.5	2762.233	F
C-AB	4	0.95	356	0.011	4	0.0	0.0	10.212	B
C-A	1338	334			1338				
A-B	80	20			80				
A-C	1249	312			1249				

08:30 - 08:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	93	23	166	0.558	162	38.5	21.2	587.202	F
C-AB	3	0.77	432	0.007	3	0.0	0.0	8.389	A
C-A	1092	273			1092				
A-B	65	16			65				
A-C	1020	255			1020				

08:45 - 09:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	78	19	268	0.290	161	21.2	0.4	67.293	F
C-AB	3	0.65	487	0.005	3	0.0	0.0	7.426	A
C-A	915	229			915				
A-B	54	14			54				
A-C	854	213			854				

2033 Base + CD + SP (ST), PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
J8	Warren Road/ A421	T-Junction	Two-way		3.05	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D22	2033 Base + CD + SP (ST)	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 - A421 (East)		ONE HOUR	✓	1331	100.000
B - Warren Rd		ONE HOUR	✓	30	100.000
C - A421 (West)		ONE HOUR	✓	1248	100.000

Origin-Destination Data

Demand (Veh/hr)

	To			
		A - A421 (East)	B - Warren Rd	C - A421 (West)
	From	A - A421 (East)	B - Warren Rd	C - A421 (West)
		0	102	1229
		28	0	2

Proportions

	To			
		A - A421 (East)	B - Warren Rd	C - A421 (West)
	From	A - A421 (East)	B - Warren Rd	C - A421 (West)
		0.00	0.08	0.92
		0.92	0.00	0.08

Vehicle Mix

Heavy Vehicle Percentages

	To			
		A - A421 (East)	B - Warren Rd	C - A421 (West)
	From	A - A421 (East)	B - Warren Rd	C - A421 (West)
		0	0	2
		0	0	0

Average PCU Per Veh

	To			
		A - A421 (East)	B - Warren Rd	C - A421 (West)
	From	A - A421 (East)	B - Warren Rd	C - A421 (West)
		1.000	1.000	1.020
		1.000	1.000	1.000

Detailed Demand Data

Demand for each time segment

Arm	Time Segment	Demand (Veh/hr)	Demand in PCU (PCU/hr)
A - A421 (East)	16:45-17:00	1002	1020
	17:00-17:15	1196	1219
	17:15-17:30	1465	1492
	17:30-17:45	1465	1492
	17:45-18:00	1196	1219
	18:00-18:15	1002	1020
B - Warren Rd	16:45-17:00	23	23
	17:00-17:15	27	27
	17:15-17:30	33	33
	17:30-17:45	33	33
	17:45-18:00	27	27
	18:00-18:15	23	23
C - A421 (West)	16:45-17:00	939	968
	17:00-17:15	1122	1156
	17:15-17:30	1374	1416
	17:30-17:45	1374	1416
	17:45-18:00	1122	1156
	18:00-18:15	939	968

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
B-AC	0.83	270.90	2.4	F	28	41
C-AB	0.00	10.96	0.0	B	1	2
C-A					1144	1716
A-B					93	140
A-C					1128	1692

Main Results for each time segment

16:45 - 17:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	23	6	259	0.087	22	0.0	0.1	15.207	C
C-AB	0.87	0.22	469	0.002	0.86	0.0	0.0	7.686	A
C-A	939	235			939				
A-B	76	19			76				
A-C	926	231			926				

17:00 - 17:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	27	7	151	0.179	27	0.1	0.2	28.921	D
C-AB	1	0.26	411	0.003	1	0.0	0.0	8.787	A
C-A	1121	280			1121				
A-B	91	23			91				
A-C	1105	276			1105				

17:15 - 17:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	33	8	40	0.826	27	0.2	1.8	217.109	F
C-AB	1	0.32	330	0.004	1	0.0	0.0	10.956	B
C-A	1373	343			1373				
A-B	112	28			112				
A-C	1354	338			1354				

17:30 - 17:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	33	8	40	0.826	31	1.8	2.4	270.903	F
C-AB	1	0.32	330	0.004	1	0.0	0.0	10.956	B
C-A	1373	343			1373				
A-B	112	28			112				
A-C	1354	338			1354				

17:45 - 18:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	27	7	151	0.179	36	2.4	0.2	33.500	D
C-AB	1	0.26	411	0.003	1	0.0	0.0	8.789	A
C-A	1121	280			1121				
A-B	91	23			91				
A-C	1105	276			1105				

18:00 - 18:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	23	6	259	0.087	23	0.2	0.1	15.295	C
C-AB	0.87	0.22	469	0.002	0.87	0.0	0.0	7.686	A
C-A	939	235			939				
A-B	76	19			76				
A-C	926	231			926				

Junctions 9	
PICADY 9 - Priority Intersection Module	
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Filename: J9 - A421 Shucklow Hill Little Horwood Road.j9

Path: \\uk.wspgroup.com\central data\Projects\700694xx\70069442 - SWMK - 2020\03 WIP\TP Transport

Planning\Incoming\iCRC\200821 - Junction and Mitigation Modelling BC Only\J9

Report generation date: 15/09/2020 22:22:33

-
- »2020 Base, AM
 - »2020 Base, PM
 - »2033 Base, AM
 - »2033 Base, PM
 - »2033 Base + CD + D, AM
 - »2033 Base + CD + D, PM
 - »2033 Base + CD + D with TP, AM
 - »2033 Base + CD + D with TP, PM
 - »2033 Base + CD + D - ST, AM
 - »2033 Base + CD + D - ST, PM
 - »2033 Base + CD + SP (ST), AM
 - »2033 Base + CD + SP (ST), PM

Summary of junction performance

	AM					PM				
	Set ID	Queue (Veh)	Delay (s)	RFC	LOS	Set ID	Queue (Veh)	Delay (s)	RFC	LOS
	2020 Base									
Stream B-CD	D1	0.2	10.64	0.14	B	D2	0.1	9.47	0.09	A
Stream B-A		0.3	80.34	0.23	F		0.3	88.39	0.21	F
Stream AB-CD		0.1	10.87	0.11	B		0.1	9.79	0.08	A
Stream D-AB		0.1	10.48	0.11	B		0.1	9.77	0.10	A
Stream D-C		0.0	84.59	0.03	F		0.0	0.00	0.00	A
Stream CD-AB		0.1	10.43	0.11	B		0.1	10.00	0.08	A
	2033 Base									
Stream B-CD	D13	33.0	1460.65	999999999.00	F	D14	21.0	1406.66	999999999.00	F
Stream B-A		7.7	1547.11	999999999.00	F		6.5	1479.91	999999999.00	F
Stream AB-CD		0.3	12.13	0.25	B		0.2	11.49	0.16	B
Stream D-AB		24.1	1414.27	999999999.00	F		0.2	16.77	0.18	C
Stream D-C		0.6	1465.60	999999999.00	F		0.0	0.00	0.00	A
Stream CD-AB		0.3	11.69	0.22	B		0.1	11.88	0.11	B
	2033 Base + CD + D									
Stream B-CD	D15	33.0	1545.17	999999999.00	F	D16	21.0	1411.86	999999999.00	F
Stream B-A		7.8	1625.52	999999999.00	F		6.5	1513.04	999999999.00	F
Stream AB-CD		0.3	12.62	0.23	B		0.2	12.03	0.17	B
Stream D-AB		24.1	1417.14	999999999.00	F		0.2	17.69	0.19	C
Stream D-C		0.6	1545.21	999999999.00	F		0.0	0.00	0.00	A
Stream CD-AB		0.3	12.20	0.23	B		0.1	12.33	0.11	B
	2033 Base + CD + D with TP									
Stream B-CD	D17	33.0	1536.07	999999999.00	F	D18	21.0	1410.61	999999999.00	F
Stream B-A		7.8	1612.24	999999999.00	F		6.5	1506.02	999999999.00	F
Stream AB-CD		0.3	12.55	0.24	B		0.2	11.93	0.17	B
Stream D-AB		24.1	1416.59	999999999.00	F		0.2	17.52	0.19	C
Stream D-C		0.6	1526.62	999999999.00	F		0.0	0.00	0.00	A
Stream CD-AB		0.3	12.12	0.23	B		0.1	12.25	0.11	B
	2033 Base + CD + D - ST									
Stream B-CD	D19	33.0	1577.48	999999999.00	F	D20	21.1	1414.15	999999999.00	F
Stream B-A		7.8	1672.86	999999999.00	F		6.6	1524.81	999999999.00	F
Stream AB-CD		0.3	12.79	0.21	B		0.2	12.22	0.17	B
Stream D-AB		24.1	1419.05	999999999.00	F		0.2	18.01	0.19	C
Stream D-C		0.7	1621.38	999999999.00	F		0.0	0.00	0.00	A
Stream CD-AB		0.3	12.48	0.23	B		0.1	12.43	0.11	B
	2033 Base + CD + SP (ST)									
Stream B-CD	D21	33.0	1485.31	999999999.00	F	D22	21.0	1407.63	999999999.00	F
Stream B-A		7.8	1577.52	999999999.00	F		6.5	1487.26	999999999.00	F
Stream AB-CD		0.3	12.29	0.25	B		0.2	11.66	0.16	B
Stream D-AB		24.1	1415.15	999999999.00	F		0.2	17.06	0.19	C
Stream D-C		0.6	1488.72	999999999.00	F		0.0	0.00	0.00	A
Stream CD-AB		0.3	11.95	0.23	B		0.1	11.97	0.11	B

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	A421/ Shucklow Hill/ Little Horwood Rd
Location	51°59'1.51"N, 0°51'11.19"W
Site number	9
Date	04/12/2015
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	fsuarez
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	Veh	perHour	s	-Min	perMin

Analysis Options

Vehicle length (m)	Calculate Queue Percentiles	Calculate detailed queueing delay	Calculate residual capacity	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)
5.75				0.85	36.00	20.00

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	2020 Base	AM	ONE HOUR	07:30	09:00	15	✓
D2	2020 Base	PM	ONE HOUR	16:45	18:15	15	✓
D3	2026 Base	AM	ONE HOUR	07:30	09:00	15	✓
D4	2026 Base	PM	ONE HOUR	16:45	18:15	15	✓
D5	2026 Base + CD + D	AM	ONE HOUR	07:30	09:00	15	✓
D6	2026 Base + CD + D	PM	ONE HOUR	16:45	18:15	15	✓
D7	2026 Base + CD + D with TP	AM	ONE HOUR	07:30	09:00	15	✓
D8	2026 Base + CD + D with TP	PM	ONE HOUR	16:45	18:15	15	✓
D9	2026 Base + CD + D - ST	AM	ONE HOUR	07:30	09:00	15	✓
D10	2026 Base + CD + D - ST	PM	ONE HOUR	16:45	18:15	15	✓
D11	2026 Base + CD + SP (ST)	AM	ONE HOUR	07:30	09:00	15	✓
D12	2026 Base + CD + SP (ST)	PM	ONE HOUR	16:45	18:15	15	✓
D13	2033 Base	AM	ONE HOUR	07:30	09:00	15	✓
D14	2033 Base	PM	ONE HOUR	16:45	18:15	15	✓
D15	2033 Base + CD + D	AM	ONE HOUR	07:30	09:00	15	✓
D16	2033 Base + CD + D	PM	ONE HOUR	16:45	18:15	15	✓
D17	2033 Base + CD + D with TP	AM	ONE HOUR	07:30	09:00	15	✓
D18	2033 Base + CD + D with TP	PM	ONE HOUR	16:45	18:15	15	✓
D19	2033 Base + CD + D - ST	AM	ONE HOUR	07:30	09:00	15	✓
D20	2033 Base + CD + D - ST	PM	ONE HOUR	16:45	18:15	15	✓
D21	2033 Base + CD + SP (ST)	AM	ONE HOUR	07:30	09:00	15	✓
D22	2033 Base + CD + SP (ST)	PM	ONE HOUR	16:45	18:15	15	✓

Analysis Set Details

ID	Include in report	Use specific Demand Set(s)	Specific Demand Set(s)	Network flow scaling factor (%)	Network capacity scaling factor (%)
A1	✓	✓	D1,D2,D13,D14,D15,D16,D17,D18,D19,D20,D21,D22	100.000	100.000

2020 Base, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Major arm width	A - A421 (East) - Major arm geometry	For two-way major roads, please interpret results with caution if the total major carriageway width is less than 8m.

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
J9	A421/ Shucklow Hill/ Little Horwood Rd	Left-Right Stagger	Two-way		0.67	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description	Arm type
A	A421 (East)		Major
B	Shucklow Hill		Minor
C	A421 (West)		Major
D	Little Horwood Rd		Minor

Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Has right turn bay	Width for right turn (m)	Visibility for right turn (m)	Blocks?	Blocking queue (PCU)
A - A421 (East)	5.85		✓	3.48	177.9	✓	6.85
C - A421 (West)	6.15		✓	3.15	170.9	✓	8.00

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 - Shucklow Hill	One lane plus flare	10.00	10.00	6.80	5.70	5.40	✓	3.00	38	111
D - Little Horwood Rd	One lane plus flare	10.00	8.80	5.50	4.30	4.00	✓	2.00	41	74

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Stream	Intercept (Veh/hr)	Slope for A-B	Slope for A-C	Slope for A-D	Slope for B-C	Slope for B-D	Slope for C-A	Slope for C-B	Slope for C-D	Slope for D-A	Slope for D-B
AB-D	771	-	-	-	-	-	0.301	0.301	0.301	-	-
B-A	531	0.098	0.243	0.243	-	-	0.153	0.347	-	0.153	0.347
B-CD	821	0.125	0.316	0.316	-	-	-	-	-	-	-
CD-B	743	0.288	0.288	0.288	-	-	-	-	-	-	-
D-AB	782	-	-	-	-	-	0.305	0.305	0.121	-	-
D-C	533	-	0.155	0.353	0.155	0.353	0.247	0.247	0.098	-	-

The slopes and intercepts shown above do NOT include any corrections or adjustments.

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

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

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	2020 Base	AM	ONE HOUR	07:30	08:00	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 - A421 (East)		ONE HOUR	✓	971	100.000
B - Shucklow Hill		ONE HOUR	✓	64	100.000
C - A421 (West)		ONE HOUR	✓	1028	100.000
D - Little Horwood Rd		ONE HOUR	✓	39	100.000

Origin-Destination Data

Demand (Veh/hr)

	To				
		A - A421 (East)	B - Shucklow Hill	C - A421 (West)	D - Little Horwood Rd
From	A - A421 (East)	0	3	953	15
	B - Shucklow Hill	12	0	29	23
	C - A421 (West)	1008	20	0	2
	D - Little Horwood Rd	18	20	1	0

Proportions

	To				
		A - A421 (East)	B - Shucklow Hill	C - A421 (West)	D - Little Horwood Rd
From	A - A421 (East)	0.00	0.00	0.98	0.02
	B - Shucklow Hill	0.19	0.00	0.45	0.36
	C - A421 (West)	0.98	0.02	0.00	0.00
	D - Little Horwood Rd	0.46	0.51	0.03	0.00

Vehicle Mix

Heavy Vehicle Percentages

	To				
		A - A421 (East)	B - Shucklow Hill	C - A421 (West)	D - Little Horwood Rd
From	A - A421 (East)	0	0	6	13
	B - Shucklow Hill	0	0	10	9
	C - A421 (West)	5	10	0	50
	D - Little Horwood Rd	11	5	0	0

Average PCU Per Veh

	To				
		A - A421 (East)	B - Shucklow Hill	C - A421 (West)	D - Little Horwood Rd
From	A - A421 (East)	1.000	1.000	1.060	1.133
	B - Shucklow Hill	1.000	1.000	1.103	1.087
	C - A421 (West)	1.053	1.100	1.000	1.500
	D - Little Horwood Rd	1.111	1.050	1.000	1.000

Detailed Demand Data

Demand for each time segment

Time Segment	Arm	Demand (Veh/hr)	Demand in PCU (PCU/hr)
07:30-07:45	A - A421 (East)	731	775
	B - Shucklow Hill	48	52
	C - A421 (West)	774	816
	D - Little Horwood Rd	29	32
07:45-08:00	A - A421 (East)	873	926
	B - Shucklow Hill	58	62
	C - A421 (West)	924	975
	D - Little Horwood Rd	35	38
08:00-08:15	A - A421 (East)	1069	1134
	B - Shucklow Hill	70	76
	C - A421 (West)	1132	1194
	D - Little Horwood Rd	43	46
08:15-08:30	A - A421 (East)	1069	1134
	B - Shucklow Hill	70	76
	C - A421 (West)	1132	1194
	D - Little Horwood Rd	43	46
08:30-08:45	A - A421 (East)	873	926
	B - Shucklow Hill	58	62
	C - A421 (West)	924	975
	D - Little Horwood Rd	35	38
08:45-09:00	A - A421 (East)	731	775
	B - Shucklow Hill	48	52
	C - A421 (West)	774	816
	D - Little Horwood Rd	29	32

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
B-CD	0.14	10.64	0.2	B	48	72
B-A	0.23	80.34	0.3	F	11	17
A-B					3	4
A-C					874	1312
A-D					14	21
AB-CD	0.11	10.87	0.1	B	35	52
AB-C					901	1352
D-AB	0.11	10.48	0.1	B	35	52
D-C	0.03	84.59	0.0	F	0.92	1
C-D					2	3
C-A					923	1385
C-B					18	28
CD-AB	0.11	10.43	0.1	B	37	55
CD-A					940	1409

Main Results for each time segment

07:30 - 07:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-CD	39	10	520	0.075	39	0.0	0.1	7.472	A
B-A	9	2	208	0.044	9	0.0	0.0	18.107	C
A-B	2	0.58			2				
A-C	717	179			717				
A-D	11	3			11				
AB-CD	28	7	476	0.060	28	0.0	0.1	8.041	A
AB-C	739	185			739				
D-AB	29	7	494	0.058	28	0.0	0.1	7.726	A
D-C	0.75	0.19	199	0.004	0.74	0.0	0.0	18.199	C
C-D	2	0.38			2				
C-A	757	189			757				
C-B	15	4			15				
CD-AB	30	7	484	0.062	30	0.0	0.1	7.912	A
CD-A	771	193			771				

07:45 - 08:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-CD	47	12	473	0.099	47	0.1	0.1	8.433	A
B-A	11	3	145	0.075	11	0.0	0.1	26.838	D
A-B	3	0.67			3				
A-C	857	214			857				
A-D	13	3			13				
AB-CD	34	9	433	0.079	34	0.1	0.1	9.030	A
AB-C	883	221			883				
D-AB	34	9	449	0.076	34	0.1	0.1	8.672	A
D-C	0.90	0.22	133	0.007	0.89	0.0	0.0	27.146	D
C-D	2	0.45			2				
C-A	904	226			904				
C-B	18	4			18				
CD-AB	36	9	444	0.081	36	0.1	0.1	8.807	A
CD-A	921	230			921				

08:00 - 08:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-CD	57	14	398	0.144	57	0.1	0.2	10.563	B
B-A	13	3	58	0.228	12	0.1	0.3	78.185	F
A-B	3	0.83			3				
A-C	1049	262			1049				
A-D	17	4			17				
AB-CD	42	10	373	0.112	42	0.1	0.1	10.859	B
AB-C	1081	270			1081				
D-AB	42	10	385	0.109	42	0.1	0.1	10.467	B
D-C	1	0.28	44	0.025	1	0.0	0.0	84.126	F
C-D	2	0.55			2				
C-A	1108	277			1108				
C-B	22	6			22				
CD-AB	44	11	389	0.113	44	0.1	0.1	10.420	B
CD-A	1127	282			1127				

08:15 - 08:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-CD	57	14	396	0.145	57	0.2	0.2	10.638	B
B-A	13	3	58	0.228	13	0.3	0.3	80.337	F
A-B	3	0.83			3				
A-C	1049	262			1049				
A-D	17	4			17				
AB-CD	42	10	373	0.112	42	0.1	0.1	10.871	B
AB-C	1081	270			1081				
D-AB	42	10	385	0.109	42	0.1	0.1	10.480	B
D-C	1	0.28	44	0.025	1	0.0	0.0	84.590	F
C-D	2	0.55			2				
C-A	1108	277			1108				
C-B	22	6			22				
CD-AB	44	11	389	0.113	44	0.1	0.1	10.430	B
CD-A	1127	282			1127				

08:30 - 08:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-CD	47	12	472	0.099	47	0.2	0.1	8.482	A
B-A	11	3	145	0.074	12	0.3	0.1	27.152	D
A-B	3	0.67			3				
A-C	857	214			857				
A-D	13	3			13				
AB-CD	34	9	433	0.079	34	0.1	0.1	9.045	A
AB-C	883	221			883				
D-AB	34	9	449	0.076	34	0.1	0.1	8.684	A
D-C	0.90	0.22	133	0.007	0.97	0.0	0.0	27.218	D
C-D	2	0.45			2				
C-A	904	226			904				
C-B	18	4			18				
CD-AB	36	9	445	0.081	36	0.1	0.1	8.819	A
CD-A	921	230			921				

08:45 - 09:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-CD	39	10	520	0.075	39	0.1	0.1	7.496	A
B-A	9	2	207	0.044	9	0.1	0.0	18.169	C
A-B	2	0.56			2				
A-C	717	179			717				
A-D	11	3			11				
AB-CD	29	7	476	0.060	29	0.1	0.1	8.055	A
AB-C	739	185			739				
D-AB	29	7	494	0.058	29	0.1	0.1	7.738	A
D-C	0.75	0.19	198	0.004	0.77	0.0	0.0	18.227	C
C-D	2	0.38			2				
C-A	757	189			757				
C-B	15	4			15				
CD-AB	30	8	485	0.062	30	0.1	0.1	7.927	A
CD-A	771	193			771				

2020 Base, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Major arm width	A - A421 (East) - Major arm geometry	For two-way major roads, please interpret results with caution if the total major carriageway width is less than 8m.

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
J9	A421/ Shucklow Hill/ Little Horwood Rd	Left-Right Stagger	Two-way		0.49	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D2	2020 Base	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 - A421 (East)		ONE HOUR	✓	1052	100.000
B - Shucklow Hill		ONE HOUR	✓	43	100.000
C - A421 (West)		ONE HOUR	✓	1045	100.000
D - Little Horwood Rd		ONE HOUR	✓	38	100.000

Origin-Destination Data

Demand (Veh/hr)

	To			
	A - A421 (East)	B - Shucklow Hill	C - A421 (West)	D - Little Horwood Rd
From A - A421 (East)	0	5	1032	15
From B - Shucklow Hill	10	0	18	15
From C - A421 (West)	1030	14	0	1
From D - Little Horwood Rd	24	14	0	0

Proportions

	To			
	A - A421 (East)	B - Shucklow Hill	C - A421 (West)	D - Little Horwood Rd
From A - A421 (East)	0.00	0.00	0.98	0.01
From B - Shucklow Hill	0.23	0.00	0.42	0.35
From C - A421 (West)	0.99	0.01	0.00	0.00
From D - Little Horwood Rd	0.63	0.37	0.00	0.00

Vehicle Mix

Heavy Vehicle Percentages

	To				
From		A - A421 (East)	B - Shucklow Hill	C - A421 (West)	D - Little Horwood Rd
	A - A421 (East)	0	0	2	7
	B - Shucklow Hill	0	0	0	0
	C - A421 (West)	3	7	0	0
	D - Little Horwood Rd	4	0	0	0

Average PCU Per Veh

	To				
From		A - A421 (East)	B - Shucklow Hill	C - A421 (West)	D - Little Horwood Rd
	A - A421 (East)	1.000	1.000	1.020	1.070
	B - Shucklow Hill	1.000	1.000	1.000	1.000
	C - A421 (West)	1.030	1.070	1.000	1.000
	D - Little Horwood Rd	1.040	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 - A421 (East)	792	808
	B - Shucklow Hill	32	32
	C - A421 (West)	787	811
	D - Little Horwood Rd	29	29
17:00-17:15	A - A421 (East)	946	965
	B - Shucklow Hill	39	39
	C - A421 (West)	939	968
	D - Little Horwood Rd	34	35
17:15-17:30	A - A421 (East)	1158	1182
	B - Shucklow Hill	47	47
	C - A421 (West)	1151	1188
	D - Little Horwood Rd	42	43
17:30-17:45	A - A421 (East)	1158	1182
	B - Shucklow Hill	47	47
	C - A421 (West)	1151	1188
	D - Little Horwood Rd	42	43
17:45-18:00	A - A421 (East)	946	965
	B - Shucklow Hill	39	39
	C - A421 (West)	939	968
	D - Little Horwood Rd	34	35
18:00-18:15	A - A421 (East)	792	808
	B - Shucklow Hill	32	32
	C - A421 (West)	787	811
	D - Little Horwood Rd	29	29

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
B-CD	0.09	9.47	0.1	A	30	45
B-A	0.21	88.39	0.3	F	9	14
A-B					5	7
A-C					947	1420
A-D					14	21
AB-CD	0.08	9.79	0.1	A	28	41
AB-C					963	1445
D-AB	0.10	9.77	0.1	A	35	52
D-C	0.00	0.00	0.0	A	0	0
C-D					0.92	1
C-A					945	1418
C-B					13	19
CD-AB	0.08	10.00	0.1	A	26	39
CD-A					967	1451

Main Results for each time segment

16:45 - 17:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-CD	25	6	555	0.045	25	0.0	0.0	6.786	A
B-A	8	2	205	0.037	7	0.0	0.0	18.167	C
A-B	4	0.94			4				
A-C	777	194			777				
A-D	11	3			11				
AB-CD	23	6	510	0.044	22	0.0	0.0	7.387	A
AB-C	790	198			790				
D-AB	29	7	522	0.055	28	0.0	0.1	7.293	A
D-C	0	0	199	0.000	0	0.0	0.0	0.000	A
C-D	0.75	0.19			0.75				
C-A	775	194			775				
C-B	11	3			11				
CD-AB	21	5	494	0.042	21	0.0	0.0	7.605	A
CD-A	793	198			793				

17:00 - 17:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-CD	30	7	503	0.059	30	0.0	0.1	7.608	A
B-A	9	2	141	0.064	9	0.0	0.1	27.262	D
A-B	4	1			4				
A-C	928	232			928				
A-D	13	3			13				
AB-CD	27	7	464	0.058	27	0.0	0.1	8.238	A
AB-C	944	236			944				
D-AB	34	9	475	0.072	34	0.1	0.1	8.164	A
D-C	0	0	134	0.000	0	0.0	0.0	0.000	A
C-D	0.90	0.22			0.90				
C-A	926	231			926				
C-B	13	3			13				
CD-AB	25	6	451	0.056	25	0.0	0.1	8.455	A
CD-A	947	237			947				

17:15 - 17:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-CD	36	9	419	0.087	36	0.1	0.1	9.402	A
B-A	11	3	52	0.214	10	0.1	0.2	88.062	F
A-B	6	1			6				
A-C	1136	284			1136				
A-D	17	4			17				
AB-CD	33	8	401	0.082	33	0.1	0.1	9.785	A
AB-C	1156	289			1156				
D-AB	42	10	410	0.102	42	0.1	0.1	9.759	A
D-C	0	0	45	0.000	0	0.0	0.0	0.000	A
C-D	1	0.28			1				
C-A	1134	284			1134				
C-B	15	4			15				
CD-AB	31	8	391	0.079	31	0.1	0.1	9.989	A
CD-A	1160	290			1160				

17:30 - 17:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-CD	36	9	417	0.087	36	0.1	0.1	9.466	A
B-A	11	3	52	0.214	11	0.2	0.3	88.391	F
A-B	6	1			6				
A-C	1136	284			1136				
A-D	17	4			17				
AB-CD	33	8	401	0.082	33	0.1	0.1	9.792	A
AB-C	1156	289			1156				
D-AB	42	10	410	0.102	42	0.1	0.1	9.769	A
D-C	0	0	45	0.000	0	0.0	0.0	0.000	A
C-D	1	0.28			1				
C-A	1134	284			1134				
C-B	15	4			15				
CD-AB	31	8	391	0.079	31	0.1	0.1	9.996	A
CD-A	1160	290			1160				

17:45 - 18:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-CD	30	7	501	0.059	30	0.1	0.1	7.651	A
B-A	9	2	141	0.064	10	0.3	0.1	27.529	D
A-B	4	1			4				
A-C	928	232			928				
A-D	13	3			13				
AB-CD	27	7	464	0.058	27	0.1	0.1	8.246	A
AB-C	944	236			944				
D-AB	34	9	475	0.072	34	0.1	0.1	8.172	A
D-C	0	0	134	0.000	0	0.0	0.0	0.000	A
C-D	0.90	0.22			0.90				
C-A	926	231			926				
C-B	13	3			13				
CD-AB	25	6	451	0.056	25	0.1	0.1	8.461	A
CD-A	948	237			948				

18:00 - 18:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-CD	25	6	554	0.045	25	0.1	0.0	6.802	A
B-A	8	2	205	0.037	8	0.1	0.0	18.211	C
A-B	4	0.94			4				
A-C	777	194			777				
A-D	11	3			11				
AB-CD	23	6	510	0.044	23	0.1	0.0	7.392	A
AB-C	791	198			791				
D-AB	29	7	522	0.055	29	0.1	0.1	7.301	A
D-C	0	0	199	0.000	0	0.0	0.0	0.000	A
C-D	0.75	0.19			0.75				
C-A	775	194			775				
C-B	11	3			11				
CD-AB	21	5	494	0.043	21	0.1	0.0	7.613	A
CD-A	794	198			794				

2033 Base, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Major arm width	A - A421 (East) - Major arm geometry	For two-way major roads, please interpret results with caution if the total major carriageway width is less than 8m.

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
J9	A421/ Shucklow Hill/ Little Horwood Rd	Left-Right Stagger	Two-way		36.35	E

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D13	2033 Base	AM	ONE HOUR	07:30	09:00	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 - A421 (East)		ONE HOUR	✓	1130	100.000
B - Shucklow Hill		ONE HOUR	✓	73	100.000
C - A421 (West)		ONE HOUR	✓	1184	100.000
D - Little Horwood Rd		ONE HOUR	✓	45	100.000

Origin-Destination Data

Demand (Veh/hr)

	To			
	A - A421 (East)	B - Shucklow Hill	C - A421 (West)	D - Little Horwood Rd
From A - A421 (East)	0	3	1109	17
From B - Shucklow Hill	14	0	33	26
From C - A421 (West)	1159	23	0	2
From D - Little Horwood Rd	21	23	1	0

Proportions

	To			
	A - A421 (East)	B - Shucklow Hill	C - A421 (West)	D - Little Horwood Rd
From A - A421 (East)	0.00	0.00	0.98	0.02
From B - Shucklow Hill	0.19	0.00	0.45	0.36
From C - A421 (West)	0.98	0.02	0.00	0.00
From D - Little Horwood Rd	0.46	0.51	0.03	0.00

Vehicle Mix

Heavy Vehicle Percentages

	To				
From		A - A421 (East)	B - Shucklow Hill	C - A421 (West)	D - Little Horwood Rd
	A - A421 (East)	0	0	6	13
	B - Shucklow Hill	0	0	10	9
	C - A421 (West)	5	10	0	50
	D - Little Horwood Rd	11	5	0	0

Average PCU Per Veh

	To				
From		A - A421 (East)	B - Shucklow Hill	C - A421 (West)	D - Little Horwood Rd
	A - A421 (East)	1.000	1.000	1.057	1.133
	B - Shucklow Hill	1.000	1.000	1.103	1.087
	C - A421 (West)	1.053	1.100	1.000	1.500
	D - Little Horwood Rd	1.111	1.050	1.000	1.000

Detailed Demand Data

Demand for each time segment

Time Segment	Arm	Demand (Veh/hr)	Demand in PCU (PCU/hr)
07:30-07:45	A - A421 (East)	851	900
	B - Shucklow Hill	55	60
	C - A421 (West)	892	940
	D - Little Horwood Rd	34	36
07:45-08:00	A - A421 (East)	1016	1074
	B - Shucklow Hill	66	71
	C - A421 (West)	1065	1123
	D - Little Horwood Rd	40	43
08:00-08:15	A - A421 (East)	1244	1316
	B - Shucklow Hill	81	87
	C - A421 (West)	1304	1375
	D - Little Horwood Rd	49	53
08:15-08:30	A - A421 (East)	1244	1316
	B - Shucklow Hill	81	87
	C - A421 (West)	1304	1375
	D - Little Horwood Rd	49	53
08:30-08:45	A - A421 (East)	1016	1074
	B - Shucklow Hill	66	71
	C - A421 (West)	1065	1123
	D - Little Horwood Rd	40	43
08:45-09:00	A - A421 (East)	851	900
	B - Shucklow Hill	55	60
	C - A421 (West)	892	940
	D - Little Horwood Rd	34	36

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
B-CD	999999999.00	1480.65	33.0	F	55	82
B-A	999999999.00	1547.11	7.7	F	13	19
A-B					3	5
A-C					1018	1527
A-D					16	24
AB-CD	0.25	12.13	0.3	B	40	60
AB-C					1048	1573
D-AB	999999999.00	1414.27	24.1	F	40	60
D-C	999999999.00	1465.60	0.6	F	1	2
C-D					2	3
C-A					1064	1595
C-B					21	32
CD-AB	0.22	11.69	0.3	B	42	63
CD-A					1082	1624

Main Results for each time segment

07:30 - 07:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-CD	45	11	482	0.093	44	0.0	0.1	8.220	A
B-A	10	3	157	0.066	10	0.0	0.1	24.472	C
A-B	3	0.65			3				
A-C	835	209			835				
A-D	13	3			13				
AB-CD	33	8	442	0.074	32	0.0	0.1	8.782	A
AB-C	860	215			860				
D-AB	33	8	459	0.072	33	0.0	0.1	8.437	A
D-C	0.86	0.22	147	0.006	0.84	0.0	0.0	24.646	C
C-D	2	0.43			2				
C-A	873	218			873				
C-B	17	4			17				
CD-AB	34	9	451	0.076	34	0.0	0.1	8.625	A
CD-A	888	222			888				

07:45 - 08:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-CD	54	13	423	0.127	53	0.1	0.1	9.733	A
B-A	12	3	84	0.147	12	0.1	0.2	49.610	E
A-B	3	0.77			3				
A-C	997	249			997				
A-D	15	4			15				
AB-CD	39	10	392	0.100	39	0.1	0.1	10.186	B
AB-C	1027	257			1027				
D-AB	39	10	407	0.096	39	0.1	0.1	9.793	A
D-C	1	0.26	72	0.014	1.00	0.0	0.0	50.843	F
C-D	2	0.52			2				
C-A	1042	260			1042				
C-B	21	5			21				
CD-AB	41	10	405	0.102	41	0.1	0.1	9.887	A
CD-A	1060	265			1060				

08:00 - 08:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-CD	66	16	0	999999999.000	0	0.1	16.6	1460.654	F
B-A	15	4	0	999999999.000	0	0.2	4.0	1547.112	F
A-B	4	0.95			4				
A-C	1221	305			1221				
A-D	19	5			19				
AB-CD	19	5	316	0.060	19	0.1	0.1	11.934	B
AB-C	1221	305			1221				
D-AB	48	12	0	999999999.000	0	0.1	12.1	1414.267	F
D-C	1	0.32	0	999999999.000	0	0.0	0.3	1465.596	F
C-D	3	0.63			3				
C-A	1276	319			1276				
C-B	25	6			25				
CD-AB	25	6	333	0.076	25	0.1	0.1	11.526	B
CD-A	1276	319			1276				

08:15 - 08:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-CD	66	16	0	999999999.000	0	16.6	33.0	-11057.817	?
B-A	15	4	0	999999999.000	0	4.0	7.7	-9431.841	?
A-B	4	0.95			4				
A-C	1221	305			1221				
A-D	19	5			19				
AB-CD	19	5	316	0.060	19	0.1	0.1	12.132	B
AB-C	1221	305			1221				
D-AB	48	12	0	999999999.000	0	12.1	24.1	-23552.509	?
D-C	1	0.32	0	999999999.000	0	0.3	0.6	596.744	F
C-D	3	0.63			3				
C-A	1276	319			1276				
C-B	25	6			25				
CD-AB	25	6	333	0.076	25	0.1	0.1	11.692	B
CD-A	1276	319			1276				

08:30 - 08:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-CD	54	13	304	0.176	185	33.0	0.2	90.301	F
B-A	12	3	56	0.222	42	7.7	0.4	307.674	F
A-B	3	0.77			3				
A-C	997	249			997				
A-D	15	4			15				
AB-CD	97	24	398	0.245	96	0.1	0.3	12.042	B
AB-C	1100	275			1100				
D-AB	39	10	398	0.098	135	24.1	0.1	20.451	C
D-C	1	0.26	36	0.028	3	0.6	0.0	114.110	F
C-D	2	0.52			2				
C-A	1042	260			1042				
C-B	21	5			21				
CD-AB	92	23	410	0.224	91	0.1	0.3	11.356	B
CD-A	1106	276			1106				

08:45 - 09:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-CD	45	11	479	0.094	45	0.2	0.1	8.306	A
B-A	10	3	157	0.068	12	0.4	0.1	24.942	C
A-B	3	0.65			3				
A-C	835	209			835				
A-D	13	3			13				
AB-CD	33	8	442	0.075	34	0.3	0.1	8.774	A
AB-C	860	215			860				
D-AB	33	8	459	0.072	33	0.1	0.1	8.458	A
D-C	0.86	0.22	146	0.006	0.97	0.0	0.0	24.814	C
C-D	2	0.43			2				
C-A	873	218			873				
C-B	17	4			17				
CD-AB	35	9	452	0.077	35	0.3	0.1	8.580	A
CD-A	888	222			888				

2033 Base, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Major arm width	A - A421 (East) - Major arm geometry	For two-way major roads, please interpret results with caution if the total major carriageway width is less than 8m.

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
J9	A421/ Shucklow Hill/ Little Horwood Rd	Left-Right Stagger	Two-way		13.95	B

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D14	2033 Base	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 - A421 (East)		ONE HOUR	✓	1220	100.000
B - Shucklow Hill		ONE HOUR	✓	50	100.000
C - A421 (West)		ONE HOUR	✓	1220	100.000
D - Little Horwood Rd		ONE HOUR	✓	44	100.000

Origin-Destination Data

Demand (Veh/hr)

	To				
From		A - A421 (East)	B - Shucklow Hill	C - A421 (West)	D - Little Horwood Rd
	A - A421 (East)	0	6	1197	17
	B - Shucklow Hill	12	0	21	17
	C - A421 (West)	1202	16	0	1
	D - Little Horwood Rd	28	16	0	0

Proportions

	To				
From		A - A421 (East)	B - Shucklow Hill	C - A421 (West)	D - Little Horwood Rd
	A - A421 (East)	0.00	0.00	0.98	0.01
	B - Shucklow Hill	0.23	0.00	0.42	0.35
	C - A421 (West)	0.99	0.01	0.00	0.00
	D - Little Horwood Rd	0.63	0.37	0.00	0.00

Vehicle Mix

Heavy Vehicle Percentages

	To				
From		A - A421 (East)	B - Shucklow Hill	C - A421 (West)	D - Little Horwood Rd
	A - A421 (East)	0	0	2	7
	B - Shucklow Hill	0	0	0	0
	C - A421 (West)	3	7	0	0
	D - Little Horwood Rd	4	0	0	0

Average PCU Per Veh

	To				
From		A - A421 (East)	B - Shucklow Hill	C - A421 (West)	D - Little Horwood Rd
	A - A421 (East)	1.000	1.000	1.019	1.067
	B - Shucklow Hill	1.000	1.000	1.000	1.000
	C - A421 (West)	1.031	1.071	1.000	1.000
	D - Little Horwood Rd	1.042	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 - A421 (East)	919	937
	B - Shucklow Hill	37	37
	C - A421 (West)	918	947
	D - Little Horwood Rd	33	34
17:00-17:15	A - A421 (East)	1097	1119
	B - Shucklow Hill	45	45
	C - A421 (West)	1096	1131
	D - Little Horwood Rd	39	40
17:15-17:30	A - A421 (East)	1344	1371
	B - Shucklow Hill	55	55
	C - A421 (West)	1343	1385
	D - Little Horwood Rd	48	50
17:30-17:45	A - A421 (East)	1344	1371
	B - Shucklow Hill	55	55
	C - A421 (West)	1343	1385
	D - Little Horwood Rd	48	50
17:45-18:00	A - A421 (East)	1097	1119
	B - Shucklow Hill	45	45
	C - A421 (West)	1096	1131
	D - Little Horwood Rd	39	40
18:00-18:15	A - A421 (East)	919	937
	B - Shucklow Hill	37	37
	C - A421 (West)	918	947
	D - Little Horwood Rd	33	34

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
B-CD	999999999.00	1406.66	21.0	F	35	52
B-A	999999999.00	1479.91	6.5	F	11	16
A-B					5	8
A-C					1099	1648
A-D					16	24
AB-CD	0.16	11.49	0.2	B	32	48
AB-C					1118	1677
D-AB	0.18	16.77	0.2	C	40	60
D-C	0.00	0.00	0.0	A	0	0
C-D					1	2
C-A					1103	1655
C-B					15	22
CD-AB	0.11	11.88	0.1	B	30	44
CD-A					1129	1693

Main Results for each time segment

16:45 - 17:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-CD	29	7	513	0.056	28	0.0	0.1	7.433	A
B-A	9	2	151	0.057	8	0.0	0.1	25.159	D
A-B	4	1			4				
A-C	901	225			901				
A-D	13	3			13				
AB-CD	26	6	471	0.055	26	0.0	0.1	8.087	A
AB-C	917	229			917				
D-AB	33	8	481	0.069	33	0.0	0.1	8.031	A
D-C	0	0	144	0.000	0	0.0	0.0	0.000	A
C-D	0.87	0.22			0.87				
C-A	905	226			905				
C-B	12	3			12				
CD-AB	24	6	458	0.053	24	0.0	0.1	8.286	A
CD-A	926	231			926				

17:00 - 17:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-CD	34	9	447	0.077	34	0.1	0.1	8.719	A
B-A	10	3	76	0.136	10	0.1	0.1	54.123	F
A-B	5	1			5				
A-C	1076	269			1076				
A-D	16	4			16				
AB-CD	31	8	417	0.075	31	0.1	0.1	9.320	A
AB-C	1095	274			1095				
D-AB	39	10	426	0.093	39	0.1	0.1	9.303	A
D-C	0	0	69	0.000	0	0.0	0.0	0.000	A
C-D	1	0.26			1				
C-A	1081	270			1081				
C-B	15	4			15				
CD-AB	29	7	408	0.071	29	0.1	0.1	9.493	A
CD-A	1106	276			1106				

17:15 - 17:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-CD	42	10	0	999999999.000	0	0.1	10.6	1406.665	F
B-A	13	3	0	999999999.000	0	0.1	3.3	1479.911	F
A-B	6	2			6				
A-C	1318	330			1318				
A-D	19	5			19				
AB-CD	19	5	333	0.057	19	0.1	0.1	11.257	B
AB-C	1318	330			1318				
D-AB	48	12	263	0.184	48	0.1	0.2	16.694	C
D-C	0	0	0	0.000	0	0.0	0.0	0.000	A
C-D	1	0.32			1				
C-A	1324	331			1324				
C-B	18	4			18				
CD-AB	35	9	339	0.105	35	0.1	0.1	11.858	B
CD-A	1354	338			1354				

17:30 - 17:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-CD	42	10	0	999999999.000	0	10.6	21.0	-27687.338	?
B-A	13	3	0	999999999.000	0	3.3	6.5	-19522.590	?
A-B	6	2			6				
A-C	1318	330			1318				
A-D	19	5			19				
AB-CD	19	5	332	0.057	19	0.1	0.1	11.485	B
AB-C	1318	330			1318				
D-AB	48	12	263	0.184	48	0.2	0.2	16.767	C
D-C	0	0	0	0.000	0	0.0	0.0	0.000	A
C-D	1	0.32			1				
C-A	1324	331			1324				
C-B	18	4			18				
CD-AB	36	9	339	0.105	36	0.1	0.1	11.876	B
CD-A	1354	339			1354				

17:45 - 18:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-CD	34	9	402	0.085	118	21.0	0.1	17.418	C
B-A	10	3	76	0.137	36	6.5	0.2	130.930	F
A-B	5	1			5				
A-C	1076	269			1076				
A-D	16	4			16				
AB-CD	69	17	425	0.163	69	0.1	0.2	10.228	B
AB-C	1141	285			1141				
D-AB	39	10	426	0.093	40	0.2	0.1	9.331	A
D-C	0	0	48	0.000	0	0.0	0.0	0.000	A
C-D	1	0.26			1				
C-A	1081	270			1081				
C-B	15	4			15				
CD-AB	29	7	408	0.072	29	0.1	0.1	9.507	A
CD-A	1106	277			1106				

18:00 - 18:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-CD	29	7	511	0.056	29	0.1	0.1	7.472	A
B-A	9	2	152	0.057	9	0.2	0.1	25.361	D
A-B	4	1			4				
A-C	901	225			901				
A-D	13	3			13				
AB-CD	26	7	471	0.056	27	0.2	0.1	8.007	A
AB-C	917	229			917				
D-AB	33	8	481	0.069	33	0.1	0.1	8.044	A
D-C	0	0	144	0.000	0	0.0	0.0	0.000	A
C-D	0.87	0.22			0.87				
C-A	905	226			905				
C-B	12	3			12				
CD-AB	24	6	458	0.053	24	0.1	0.1	8.299	A
CD-A	926	232			926				

2033 Base + CD + D, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Major arm width	A - A421 (East) - Major arm geometry	For two-way major roads, please interpret results with caution if the total major carriageway width is less than 6m.
Last Run	Last Run	Stream B-CD	Capacity of Minor Stream B-CD has been reduced in timesegment(s) 4 due to traffic queuing at the center of the junction.
Last Run	Last Run	Stream D-AB	Capacity of Minor Stream D-AB has been reduced in timesegment(s) 4 due to traffic queuing at the center of the junction.

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
J9	A421/ Shucklow Hill/ Little Horwood Rd	Left-Right Stagger	Two-way		38.50	E

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D15	2033 Base + CD + D	AM	ONE HOUR	07:30	09:00	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 - A421 (East)		ONE HOUR	✓	1172	100.000
B - Shucklow Hill		ONE HOUR	✓	73	100.000
C - A421 (West)		ONE HOUR	✓	1222	100.000
D - Little Horwood Rd		ONE HOUR	✓	45	100.000

Origin-Destination Data

Demand (Veh/hr)

		To			
		A - A421 (East)	B - Shucklow Hill	C - A421 (West)	D - Little Horwood Rd
From	A - A421 (East)	0	3	1152	17
	B - Shucklow Hill	14	0	33	26
	C - A421 (West)	1196	23	0	2
	D - Little Horwood Rd	21	23	1	0

Proportions

		To			
		A - A421 (East)	B - Shucklow Hill	C - A421 (West)	D - Little Horwood Rd
From	A - A421 (East)	0.00	0.00	0.98	0.01
	B - Shucklow Hill	0.19	0.00	0.45	0.36
	C - A421 (West)	0.98	0.02	0.00	0.00
	D - Little Horwood Rd	0.46	0.51	0.03	0.00

Vehicle Mix

Heavy Vehicle Percentages

	To				
From		A - A421 (East)	B - Shucklow Hill	C - A421 (West)	D - Little Horwood Rd
	A - A421 (East)	0	0	6	13
	B - Shucklow Hill	0	0	10	9
	C - A421 (West)	5	10	0	50
	D - Little Horwood Rd	11	5	0	0

Average PCU Per Veh

	To				
From		A - A421 (East)	B - Shucklow Hill	C - A421 (West)	D - Little Horwood Rd
	A - A421 (East)	1.000	1.000	1.057	1.133
	B - Shucklow Hill	1.000	1.000	1.103	1.087
	C - A421 (West)	1.053	1.100	1.000	1.500
	D - Little Horwood Rd	1.111	1.050	1.000	1.000

Detailed Demand Data

Demand for each time segment

Time Segment	Arm	Demand (Veh/hr)	Demand in PCU (PCU/hr)
07:30-07:45	A - A421 (East)	883	933
	B - Shucklow Hill	55	60
	C - A421 (West)	920	970
	D - Little Horwood Rd	34	36
07:45-08:00	A - A421 (East)	1054	1115
	B - Shucklow Hill	66	71
	C - A421 (West)	1098	1158
	D - Little Horwood Rd	40	43
08:00-08:15	A - A421 (East)	1291	1365
	B - Shucklow Hill	81	87
	C - A421 (West)	1345	1418
	D - Little Horwood Rd	49	53
08:15-08:30	A - A421 (East)	1291	1365
	B - Shucklow Hill	81	87
	C - A421 (West)	1345	1418
	D - Little Horwood Rd	49	53
08:30-08:45	A - A421 (East)	1054	1115
	B - Shucklow Hill	66	71
	C - A421 (West)	1098	1158
	D - Little Horwood Rd	40	43
08:45-09:00	A - A421 (East)	883	933
	B - Shucklow Hill	55	60
	C - A421 (West)	920	970
	D - Little Horwood Rd	34	36

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
B-CD	999999999.00	1545.17	33.0	F	55	82
B-A	999999999.00	1625.52	7.8	F	13	19
A-B					3	5
A-C					1057	1585
A-D					16	24
AB-CD	0.23	12.62	0.3	B	40	60
AB-C					1087	1631
D-AB	999999999.00	1417.14	24.1	F	40	60
D-C	999999999.00	1545.21	0.6	F	1	2
C-D					2	3
C-A					1098	1647
C-B					21	32
CD-AB	0.23	12.20	0.3	B	42	63
CD-A					1117	1675

Main Results for each time segment

07:30 - 07:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-CD	45	11	472	0.095	44	0.0	0.1	8.417	A
B-A	10	3	144	0.072	10	0.0	0.1	26.774	D
A-B	3	0.65			3				
A-C	867	217			867				
A-D	13	3			13				
AB-CD	33	8	434	0.075	32	0.0	0.1	8.957	A
AB-C	892	223			892				
D-AB	33	8	450	0.073	33	0.0	0.1	8.607	A
D-C	0.86	0.22	134	0.006	0.84	0.0	0.0	26.960	D
C-D	2	0.43			2				
C-A	901	225			901				
C-B	17	4			17				
CD-AB	34	9	442	0.078	34	0.0	0.1	8.806	A
CD-A	916	229			916				

07:45 - 08:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-CD	54	13	408	0.131	53	0.1	0.1	10.137	B
B-A	12	3	69	0.179	12	0.1	0.2	62.450	F
A-B	3	0.77			3				
A-C	1035	259			1035				
A-D	15	4			15				
AB-CD	39	10	383	0.102	39	0.1	0.1	10.471	B
AB-C	1065	266			1065				
D-AB	39	10	396	0.099	39	0.1	0.1	10.076	B
D-C	1	0.26	57	0.018	0.99	0.0	0.0	64.448	F
C-D	2	0.52			2				
C-A	1076	269			1076				
C-B	21	5			21				
CD-AB	41	10	394	0.104	41	0.1	0.1	10.187	B
CD-A	1094	274			1094				

08:00 - 08:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-CD	66	16	0	999999999.000	0	0.1	16.6	1545.171	F
B-A	15	4	0	999999999.000	0	0.2	4.0	1625.519	F
A-B	4	0.95			4				
A-C	1268	317			1268				
A-D	19	5			19				
AB-CD	19	5	304	0.062	19	0.1	0.1	12.412	B
AB-C	1268	317			1268				
D-AB	48	12	0	999999999.000	0	0.1	12.1	1417.142	F
D-C	1	0.32	0	999999999.000	0	0.0	0.3	1545.208	F
C-D	3	0.63			3				
C-A	1317	329			1317				
C-B	25	6			25				
CD-AB	25	6	320	0.079	25	0.1	0.1	12.023	B
CD-A	1317	329			1317				

08:15 - 08:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-CD	66	16	0	999999999.000	0	16.6	33.0	-4817.430	?
B-A	15	4	0	999999999.000	0	4.0	7.8	-5688.090	?
A-B	4	0.95			4				
A-C	1268	317			1268				
A-D	19	5			19				
AB-CD	19	5	304	0.062	19	0.1	0.1	12.621	B
AB-C	1268	317			1268				
D-AB	48	12	0	999999999.000	0	12.1	24.1	-22363.848	?
D-C	1	0.32	0	999999999.000	0	0.3	0.6	697.653	F
C-D	3	0.63			3				
C-A	1317	329			1317				
C-B	25	6			25				
CD-AB	25	6	320	0.079	25	0.1	0.1	12.200	B
CD-A	1317	329			1317				

08:30 - 08:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-CD	54	13	173	0.311	168	33.0	4.5	404.320	F
B-A	12	3	40	0.308	36	7.8	1.9	467.798	F
A-B	3	0.77			3				
A-C	1035	259			1035				
A-D	15	4			15				
AB-CD	90	22	386	0.232	89	0.1	0.3	12.149	B
AB-C	1129	282			1129				
D-AB	39	10	381	0.103	135	24.1	0.1	22.488	C
D-C	1	0.26	22	0.048	3	0.6	0.1	206.783	F
C-D	2	0.52			2				
C-A	1076	269			1076				
C-B	21	5			21				
CD-AB	92	23	399	0.230	91	0.1	0.3	11.754	B
CD-A	1140	285			1140				

08:45 - 09:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-CD	45	11	463	0.097	62	4.5	0.1	9.393	A
B-A	10	3	145	0.072	18	1.9	0.1	29.828	D
A-B	3	0.65			3				
A-C	867	217			867				
A-D	13	3			13				
AB-CD	41	10	435	0.093	41	0.3	0.1	9.112	A
AB-C	902	225			902				
D-AB	33	8	450	0.073	33	0.1	0.1	8.630	A
D-C	0.86	0.22	129	0.007	1	0.1	0.0	28.159	D
C-D	2	0.43			2				
C-A	901	225			901				
C-B	17	4			17				
CD-AB	35	9	443	0.078	35	0.3	0.1	8.771	A
CD-A	916	229			916				

2033 Base + CD + D, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Major arm width	A - A421 (East) - Major arm geometry	For two-way major roads, please interpret results with caution if the total major carriageway width is less than 8m.

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
J9	A421/ Shucklow Hill/ Little Horwood Rd	Left-Right Stagger	Two-way		13.64	B

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D16	2033 Base + CD + D	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 - A421 (East)		ONE HOUR	✓	1257	100.000
B - Shucklow Hill		ONE HOUR	✓	50	100.000
C - A421 (West)		ONE HOUR	✓	1264	100.000
D - Little Horwood Rd		ONE HOUR	✓	44	100.000

Origin-Destination Data

Demand (Veh/hr)

	To				
From		A - A421 (East)	B - Shucklow Hill	C - A421 (West)	D - Little Horwood Rd
	A - A421 (East)	0	6	1234	17
	B - Shucklow Hill	12	0	21	17
	C - A421 (West)	1247	16	0	1
	D - Little Horwood Rd	28	16	0	0

Proportions

	To				
From		A - A421 (East)	B - Shucklow Hill	C - A421 (West)	D - Little Horwood Rd
	A - A421 (East)	0.00	0.00	0.98	0.01
	B - Shucklow Hill	0.23	0.00	0.42	0.35
	C - A421 (West)	0.99	0.01	0.00	0.00
	D - Little Horwood Rd	0.63	0.37	0.00	0.00

Vehicle Mix

Heavy Vehicle Percentages

	To				
From		A - A421 (East)	B - Shucklow Hill	C - A421 (West)	D - Little Horwood Rd
	A - A421 (East)	0	0	2	7
	B - Shucklow Hill	0	0	0	0
	C - A421 (West)	3	7	0	0
	D - Little Horwood Rd	4	0	0	0

Average PCU Per Veh

	To				
From		A - A421 (East)	B - Shucklow Hill	C - A421 (West)	D - Little Horwood Rd
	A - A421 (East)	1.000	1.000	1.019	1.067
	B - Shucklow Hill	1.000	1.000	1.000	1.000
	C - A421 (West)	1.031	1.071	1.000	1.000
	D - Little Horwood Rd	1.042	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 - A421 (East)	946	965
	B - Shucklow Hill	37	37
	C - A421 (West)	951	982
	D - Little Horwood Rd	33	34
17:00-17:15	A - A421 (East)	1130	1152
	B - Shucklow Hill	45	45
	C - A421 (West)	1136	1172
	D - Little Horwood Rd	39	40
17:15-17:30	A - A421 (East)	1384	1411
	B - Shucklow Hill	55	55
	C - A421 (West)	1392	1435
	D - Little Horwood Rd	48	50
17:30-17:45	A - A421 (East)	1384	1411
	B - Shucklow Hill	55	55
	C - A421 (West)	1392	1435
	D - Little Horwood Rd	48	50
17:45-18:00	A - A421 (East)	1130	1152
	B - Shucklow Hill	45	45
	C - A421 (West)	1136	1172
	D - Little Horwood Rd	39	40
18:00-18:15	A - A421 (East)	946	965
	B - Shucklow Hill	37	37
	C - A421 (West)	951	982
	D - Little Horwood Rd	33	34

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
B-CD	999999999.00	1411.88	21.0	F	35	52
B-A	999999999.00	1513.04	6.5	F	11	16
A-B					5	8
A-C					1132	1698
A-D					16	24
AB-CD	0.17	12.03	0.2	B	32	48
AB-C					1151	1726
D-AB	0.19	17.69	0.2	C	40	60
D-C	0.00	0.00	0.0	A	0	0
C-D					1	2
C-A					1144	1716
C-B					15	22
CD-AB	0.11	12.33	0.1	B	30	44
CD-A					1169	1754

Main Results for each time segment

16:45 - 17:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-CD	29	7	503	0.057	28	0.0	0.1	7.577	A
B-A	9	2	139	0.062	8	0.0	0.1	27.482	D
A-B	4	1			4				
A-C	929	232			929				
A-D	13	3			13				
AB-CD	26	6	461	0.056	26	0.0	0.1	8.273	A
AB-C	944	236			944				
D-AB	33	8	471	0.070	33	0.0	0.1	8.218	A
D-C	0	0	132	0.000	0	0.0	0.0	0.000	A
C-D	0.87	0.22			0.87				
C-A	938	235			938				
C-B	12	3			12				
CD-AB	24	6	451	0.054	24	0.0	0.1	8.435	A
CD-A	959	240			959				

17:00 - 17:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-CD	34	9	433	0.079	34	0.1	0.1	9.021	A
B-A	10	3	62	0.168	10	0.1	0.2	68.911	F
A-B	5	1			5				
A-C	1109	277			1109				
A-D	16	4			16				
AB-CD	31	8	405	0.077	31	0.1	0.1	9.617	A
AB-C	1128	282			1128				
D-AB	39	10	414	0.095	39	0.1	0.1	9.606	A
D-C	0	0	54	0.000	0	0.0	0.0	0.000	A
C-D	1	0.26			1				
C-A	1121	280			1121				
C-B	15	4			15				
CD-AB	29	7	399	0.073	29	0.1	0.1	9.727	A
CD-A	1145	286			1145				

17:15 - 17:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-CD	42	10	0	999999999.000	0	0.1	10.6	1411.857	F
B-A	13	3	0	999999999.000	0	0.2	3.4	1513.041	F
A-B	6	2			6				
A-C	1358	340			1358				
A-D	19	5			19				
AB-CD	19	5	318	0.080	19	0.1	0.1	11.788	B
AB-C	1358	340			1358				
D-AB	48	12	252	0.192	48	0.1	0.2	17.605	C
D-C	0	0	0	0.000	0	0.0	0.0	0.000	A
C-D	1	0.32			1				
C-A	1372	343			1372				
C-B	18	4			18				
CD-AB	35	9	327	0.108	35	0.1	0.1	12.314	B
CD-A	1403	351			1403				

17:30 - 17:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-CD	42	10	0	999999999.000	0	10.6	21.0	-24891.090	?
B-A	13	3	0	999999999.000	0	3.4	6.5	-14621.673	?
A-B	6	2			6				
A-C	1358	340			1358				
A-D	19	5			19				
AB-CD	19	5	318	0.080	19	0.1	0.1	12.029	B
AB-C	1358	340			1358				
D-AB	48	12	252	0.192	48	0.2	0.2	17.687	C
D-C	0	0	0	0.000	0	0.0	0.0	0.000	A
C-D	1	0.32			1				
C-A	1372	343			1372				
C-B	18	4			18				
CD-AB	36	9	328	0.109	36	0.1	0.1	12.332	B
CD-A	1403	351			1403				

17:45 - 18:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-CD	34	9	368	0.093	118	21.0	0.1	20.638	C
B-A	10	3	61	0.169	36	6.5	0.2	200.944	F
A-B	5	1			5				
A-C	1109	277			1109				
A-D	16	4			16				
AB-CD	69	17	413	0.168	69	0.1	0.2	10.589	B
AB-C	1173	293			1173				
D-AB	39	10	414	0.095	40	0.2	0.1	9.640	A
D-C	0	0	33	0.000	0	0.0	0.0	0.000	A
C-D	1	0.26			1				
C-A	1121	280			1121				
C-B	15	4			15				
CD-AB	29	7	399	0.073	29	0.1	0.1	9.746	A
CD-A	1146	286			1146				

18:00 - 18:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-CD	29	7	501	0.057	29	0.1	0.1	7.627	A
B-A	9	2	139	0.062	9	0.2	0.1	27.800	D
A-B	4	1			4				
A-C	929	232			929				
A-D	13	3			13				
AB-CD	26	7	461	0.057	27	0.2	0.1	8.192	A
AB-C	944	236			944				
D-AB	33	8	471	0.070	33	0.1	0.1	8.234	A
D-C	0	0	131	0.000	0	0.0	0.0	0.000	A
C-D	0.87	0.22			0.87				
C-A	938	235			938				
C-B	12	3			12				
CD-AB	24	6	451	0.054	24	0.1	0.1	8.448	A
CD-A	959	240			959				

2033 Base + CD + D with TP, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Major arm width	A - A421 (East) - Major arm geometry	For two-way major roads, please interpret results with caution if the total major carriageway width is less than 6m.
Last Run	Last Run	Stream B-CD	Capacity of Minor Stream B-CD has been reduced in timesegment(s) 4 due to traffic queuing at the center of the junction.
Last Run	Last Run	Stream D-AB	Capacity of Minor Stream D-AB has been reduced in timesegment(s) 4 due to traffic queuing at the center of the junction.

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
J9	A421/ Shucklow Hill/ Little Horwood Rd	Left-Right Stagger	Two-way		38.52	E

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D17	2033 Base + CD + D with TP	AM	ONE HOUR	07:30	09:00	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 - A421 (East)		ONE HOUR	✓	1166	100.000
B - Shucklow Hill		ONE HOUR	✓	73	100.000
C - A421 (West)		ONE HOUR	✓	1216	100.000
D - Little Horwood Rd		ONE HOUR	✓	45	100.000

Origin-Destination Data

Demand (Veh/hr)

	To				
		A - A421 (East)	B - Shucklow Hill	C - A421 (West)	D - Little Horwood Rd
From	A - A421 (East)	0	3	1145	17
	B - Shucklow Hill	14	0	33	26
	C - A421 (West)	1191	23	0	2
	D - Little Horwood Rd	21	23	1	0

Proportions

	To				
		A - A421 (East)	B - Shucklow Hill	C - A421 (West)	D - Little Horwood Rd
From	A - A421 (East)	0.00	0.00	0.98	0.01
	B - Shucklow Hill	0.19	0.00	0.45	0.36
	C - A421 (West)	0.98	0.02	0.00	0.00
	D - Little Horwood Rd	0.46	0.51	0.03	0.00

Vehicle Mix

Heavy Vehicle Percentages

	To				
From		A - A421 (East)	B - Shucklow Hill	C - A421 (West)	D - Little Horwood Rd
	A - A421 (East)	0	0	6	13
	B - Shucklow Hill	0	0	10	9
	C - A421 (West)	5	10	0	50
	D - Little Horwood Rd	11	5	0	0

Average PCU Per Veh

	To				
From		A - A421 (East)	B - Shucklow Hill	C - A421 (West)	D - Little Horwood Rd
	A - A421 (East)	1.000	1.000	1.057	1.133
	B - Shucklow Hill	1.000	1.000	1.103	1.087
	C - A421 (West)	1.053	1.100	1.000	1.500
	D - Little Horwood Rd	1.111	1.050	1.000	1.000

Detailed Demand Data

Demand for each time segment

Time Segment	Arm	Demand (Veh/hr)	Demand in PCU (PCU/hr)
07:30-07:45	A - A421 (East)	878	928
	B - Shucklow Hill	55	60
	C - A421 (West)	915	965
	D - Little Horwood Rd	34	36
07:45-08:00	A - A421 (East)	1048	1108
	B - Shucklow Hill	66	71
	C - A421 (West)	1093	1153
	D - Little Horwood Rd	40	43
08:00-08:15	A - A421 (East)	1283	1357
	B - Shucklow Hill	81	87
	C - A421 (West)	1339	1412
	D - Little Horwood Rd	49	53
08:15-08:30	A - A421 (East)	1283	1357
	B - Shucklow Hill	81	87
	C - A421 (West)	1339	1412
	D - Little Horwood Rd	49	53
08:30-08:45	A - A421 (East)	1048	1108
	B - Shucklow Hill	66	71
	C - A421 (West)	1093	1153
	D - Little Horwood Rd	40	43
08:45-09:00	A - A421 (East)	878	928
	B - Shucklow Hill	55	60
	C - A421 (West)	915	965
	D - Little Horwood Rd	34	36

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
B-CD	999999999.00	1536.07	33.0	F	55	82
B-A	999999999.00	1612.24	7.8	F	13	19
A-B					3	5
A-C					1051	1576
A-D					16	24
AB-CD	0.24	12.55	0.3	B	40	60
AB-C					1081	1622
D-AB	999999999.00	1416.59	24.1	F	40	60
D-C	999999999.00	1526.62	0.6	F	1	2
C-D					2	3
C-A					1093	1639
C-B					21	32
CD-AB	0.23	12.12	0.3	B	42	63
CD-A					1112	1667

Main Results for each time segment

07:30 - 07:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-CD	45	11	473	0.095	44	0.0	0.1	8.385	A
B-A	10	3	146	0.071	10	0.0	0.1	26.389	D
A-B	3	0.65			3				
A-C	862	215			862				
A-D	13	3			13				
AB-CD	33	8	435	0.075	32	0.0	0.1	8.924	A
AB-C	887	222			887				
D-AB	33	8	452	0.073	33	0.0	0.1	8.581	A
D-C	0.86	0.22	136	0.006	0.84	0.0	0.0	26.578	D
C-D	2	0.43			2				
C-A	897	224			897				
C-B	17	4			17				
CD-AB	34	9	444	0.077	34	0.0	0.1	8.776	A
CD-A	912	228			912				

07:45 - 08:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-CD	54	13	411	0.131	53	0.1	0.1	10.068	B
B-A	12	3	71	0.173	12	0.1	0.2	60.049	F
A-B	3	0.77			3				
A-C	1029	257			1029				
A-D	15	4			15				
AB-CD	39	10	384	0.102	39	0.1	0.1	10.427	B
AB-C	1059	265			1059				
D-AB	39	10	398	0.099	39	0.1	0.1	10.033	B
D-C	1	0.26	59	0.017	0.99	0.0	0.0	61.914	F
C-D	2	0.52			2				
C-A	1071	268			1071				
C-B	21	5			21				
CD-AB	41	10	396	0.104	41	0.1	0.1	10.138	B
CD-A	1089	272			1089				

08:00 - 08:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-CD	66	16	0	999999999.000	0	0.1	16.6	1536.067	F
B-A	15	4	0	999999999.000	0	0.2	4.0	1612.241	F
A-B	4	0.95			4				
A-C	1261	315			1261				
A-D	19	5			19				
AB-CD	19	5	306	0.062	19	0.1	0.1	12.341	B
AB-C	1261	315			1261				
D-AB	48	12	0	999999999.000	0	0.1	12.1	1416.590	F
D-C	1	0.32	0	999999999.000	0	0.0	0.3	1526.623	F
C-D	3	0.63			3				
C-A	1311	328			1311				
C-B	25	6			25				
CD-AB	25	6	322	0.078	25	0.1	0.1	11.944	B
CD-A	1311	328			1311				

08:15 - 08:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-CD	66	16	0	999999999.000	0	16.6	33.0	-5205.064	?
B-A	15	4	0	999999999.000	0	4.0	7.8	-6145.931	?
A-B	4	0.95			4				
A-C	1261	315			1261				
A-D	19	5			19				
AB-CD	19	5	306	0.062	19	0.1	0.1	12.545	B
AB-C	1261	315			1261				
D-AB	48	12	0	999999999.000	0	12.1	24.1	-22587.142	?
D-C	1	0.32	0	999999999.000	0	0.3	0.6	674.102	F
C-D	3	0.63			3				
C-A	1311	328			1311				
C-B	25	6			25				
CD-AB	25	6	322	0.078	25	0.1	0.1	12.116	B
CD-A	1311	328			1311				

08:30 - 08:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-CD	54	13	181	0.298	176	33.0	2.5	375.033	F
B-A	12	3	42	0.292	38	7.8	1.5	447.900	F
A-B	3	0.77			3				
A-C	1029	257			1029				
A-D	15	4			15				
AB-CD	93	23	388	0.240	92	0.1	0.3	12.228	B
AB-C	1127	282			1127				
D-AB	39	10	384	0.102	135	24.1	0.1	22.081	C
D-C	1	0.26	24	0.043	3	0.6	0.1	184.337	F
C-D	2	0.52			2				
C-A	1071	268			1071				
C-B	21	5			21				
CD-AB	92	23	401	0.229	91	0.1	0.3	11.689	B
CD-A	1135	284			1135				

08:45 - 09:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-CD	45	11	465	0.097	54	2.5	0.1	8.959	A
B-A	10	3	147	0.071	16	1.5	0.1	28.545	D
A-B	3	0.65			3				
A-C	862	215			862				
A-D	13	3			13				
AB-CD	37	9	436	0.085	38	0.3	0.1	9.007	A
AB-C	892	223			892				
D-AB	33	8	452	0.073	33	0.1	0.1	8.605	A
D-C	0.86	0.22	133	0.006	1	0.1	0.0	27.281	D
C-D	2	0.43			2				
C-A	897	224			897				
C-B	17	4			17				
CD-AB	35	9	444	0.078	35	0.3	0.1	8.742	A
CD-A	912	228			912				

2033 Base + CD + D with TP, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Major arm width	A - A421 (East) - Major arm geometry	For two-way major roads, please interpret results with caution if the total major carriageway width is less than 8m.

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
J9	A421/ Shucklow Hill/ Little Horwood Rd	Left-Right Stagger	Two-way		13.69	B

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D18	2033 Base + CD + D with TP	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 - A421 (East)		ONE HOUR	✓	1250	100.000
B - Shucklow Hill		ONE HOUR	✓	50	100.000
C - A421 (West)		ONE HOUR	✓	1256	100.000
D - Little Horwood Rd		ONE HOUR	✓	44	100.000

Origin-Destination Data

Demand (Veh/hr)

	To				
From		A - A421 (East)	B - Shucklow Hill	C - A421 (West)	D - Little Horwood Rd
	A - A421 (East)	0	6	1227	17
	B - Shucklow Hill	12	0	21	17
	C - A421 (West)	1239	16	0	1
	D - Little Horwood Rd	28	16	0	0

Proportions

	To				
From		A - A421 (East)	B - Shucklow Hill	C - A421 (West)	D - Little Horwood Rd
	A - A421 (East)	0.00	0.00	0.98	0.01
	B - Shucklow Hill	0.23	0.00	0.42	0.35
	C - A421 (West)	0.99	0.01	0.00	0.00
	D - Little Horwood Rd	0.63	0.37	0.00	0.00

Vehicle Mix

Heavy Vehicle Percentages

	To				
From		A - A421 (East)	B - Shucklow Hill	C - A421 (West)	D - Little Horwood Rd
	A - A421 (East)	0	0	2	7
	B - Shucklow Hill	0	0	0	0
	C - A421 (West)	3	7	0	0
	D - Little Horwood Rd	4	0	0	0

Average PCU Per Veh

	To				
From		A - A421 (East)	B - Shucklow Hill	C - A421 (West)	D - Little Horwood Rd
	A - A421 (East)	1.000	1.000	1.019	1.067
	B - Shucklow Hill	1.000	1.000	1.000	1.000
	C - A421 (West)	1.031	1.071	1.000	1.000
	D - Little Horwood Rd	1.042	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 - A421 (East)	941	960
	B - Shucklow Hill	37	37
	C - A421 (West)	946	975
	D - Little Horwood Rd	33	34
17:00-17:15	A - A421 (East)	1124	1146
	B - Shucklow Hill	45	45
	C - A421 (West)	1129	1165
	D - Little Horwood Rd	39	40
17:15-17:30	A - A421 (East)	1377	1404
	B - Shucklow Hill	55	55
	C - A421 (West)	1383	1427
	D - Little Horwood Rd	48	50
17:30-17:45	A - A421 (East)	1377	1404
	B - Shucklow Hill	55	55
	C - A421 (West)	1383	1427
	D - Little Horwood Rd	48	50
17:45-18:00	A - A421 (East)	1124	1146
	B - Shucklow Hill	45	45
	C - A421 (West)	1129	1165
	D - Little Horwood Rd	39	40
18:00-18:15	A - A421 (East)	941	960
	B - Shucklow Hill	37	37
	C - A421 (West)	946	975
	D - Little Horwood Rd	33	34

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
B-CD	999999999.00	1410.61	21.0	F	35	52
B-A	999999999.00	1506.02	6.5	F	11	16
A-B					5	8
A-C					1126	1689
A-D					16	24
AB-CD	0.17	11.93	0.2	B	32	48
AB-C					1145	1718
D-AB	0.19	17.52	0.2	C	40	60
D-C	0.00	0.00	0.0	A	0	0
C-D					1	2
C-A					1137	1705
C-B					15	22
CD-AB	0.11	12.25	0.1	B	30	44
CD-A					1162	1743

Main Results for each time segment

16:45 - 17:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-CD	29	7	505	0.057	28	0.0	0.1	7.551	A
B-A	9	2	141	0.061	8	0.0	0.1	27.045	D
A-B	4	1			4				
A-C	924	231			924				
A-D	13	3			13				
AB-CD	26	6	462	0.056	26	0.0	0.1	8.239	A
AB-C	939	235			939				
D-AB	33	8	472	0.070	33	0.0	0.1	8.184	A
D-C	0	0	134	0.000	0	0.0	0.0	0.000	A
C-D	0.87	0.22			0.87				
C-A	933	233			933				
C-B	12	3			12				
CD-AB	24	6	452	0.054	24	0.0	0.1	8.408	A
CD-A	953	238			953				

17:00 - 17:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-CD	34	9	436	0.079	34	0.1	0.1	8.963	A
B-A	10	3	64	0.161	10	0.1	0.2	65.753	F
A-B	5	1			5				
A-C	1103	276			1103				
A-D	16	4			16				
AB-CD	31	8	407	0.076	31	0.1	0.1	9.563	A
AB-C	1122	280			1122				
D-AB	39	10	416	0.095	39	0.1	0.1	9.551	A
D-C	0	0	56	0.000	0	0.0	0.0	0.000	A
C-D	1	0.26			1				
C-A	1114	278			1114				
C-B	15	4			15				
CD-AB	29	7	401	0.072	29	0.1	0.1	9.685	A
CD-A	1138	285			1138				

17:15 - 17:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-CD	42	10	0	999999999.000	0	0.1	10.6	1410.612	F
B-A	13	3	0	999999999.000	0	0.2	3.4	1506.024	F
A-B	6	2			6				
A-C	1351	338			1351				
A-D	19	5			19				
AB-CD	19	5	321	0.059	19	0.1	0.1	11.690	B
AB-C	1351	338			1351				
D-AB	48	12	254	0.190	48	0.1	0.2	17.438	C
D-C	0	0	0	0.000	0	0.0	0.0	0.000	A
C-D	1	0.32			1				
C-A	1364	341			1364				
C-B	18	4			18				
CD-AB	35	9	329	0.107	35	0.1	0.1	12.230	B
CD-A	1394	349			1394				

17:30 - 17:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-CD	42	10	0	999999999.000	0	10.6	21.0	-25519.297	?
B-A	13	3	0	999999999.000	0	3.4	6.5	-15474.138	?
A-B	6	2			6				
A-C	1351	338			1351				
A-D	19	5			19				
AB-CD	19	5	321	0.059	19	0.1	0.1	11.929	B
AB-C	1351	338			1351				
D-AB	48	12	254	0.190	48	0.2	0.2	17.516	C
D-C	0	0	0	0.000	0	0.0	0.0	0.000	A
C-D	1	0.32			1				
C-A	1364	341			1364				
C-B	18	4			18				
CD-AB	36	9	329	0.108	36	0.1	0.1	12.249	B
CD-A	1394	349			1394				

17:45 - 18:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-CD	34	9	376	0.091	118	21.0	0.1	19.822	C
B-A	10	3	64	0.163	36	6.5	0.2	185.096	F
A-B	5	1			5				
A-C	1103	276			1103				
A-D	16	4			16				
AB-CD	69	17	415	0.167	69	0.1	0.2	10.523	B
AB-C	1168	292			1168				
D-AB	39	10	416	0.095	40	0.2	0.1	9.584	A
D-C	0	0	36	0.000	0	0.0	0.0	0.000	A
C-D	1	0.26			1				
C-A	1114	278			1114				
C-B	15	4			15				
CD-AB	29	7	401	0.073	29	0.1	0.1	9.701	A
CD-A	1139	285			1139				

18:00 - 18:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-CD	29	7	503	0.057	29	0.1	0.1	7.601	A
B-A	9	2	142	0.061	9	0.2	0.1	27.333	D
A-B	4	1			4				
A-C	924	231			924				
A-D	13	3			13				
AB-CD	26	7	463	0.057	27	0.2	0.1	8.159	A
AB-C	940	235			940				
D-AB	33	8	472	0.070	33	0.1	0.1	8.198	A
D-C	0	0	133	0.000	0	0.0	0.0	0.000	A
C-D	0.87	0.22			0.87				
C-A	933	233			933				
C-B	12	3			12				
CD-AB	24	6	452	0.054	24	0.1	0.1	8.420	A
CD-A	954	238			954				

2033 Base + CD + D - ST, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Major arm width	A - A421 (East) - Major arm geometry	For two-way major roads, please interpret results with caution if the total major carriageway width is less than 6m.
Last Run	Last Run	Stream B-CD	Capacity of Minor Stream B-CD has been reduced in timesegment(s) 4 due to traffic queuing at the center of the junction.
Last Run	Last Run	Stream D-AB	Capacity of Minor Stream D-AB has been reduced in timesegment(s) 4 due to traffic queuing at the center of the junction.

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
J9	A421/ Shucklow Hill/ Little Horwood Rd	Left-Right Stagger	Two-way		38.58	E

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D19	2033 Base + CD + D - ST	AM	ONE HOUR	07:30	09:00	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 - A421 (East)		ONE HOUR	✓	1194	100.000
B - Shucklow Hill		ONE HOUR	✓	73	100.000
C - A421 (West)		ONE HOUR	✓	1234	100.000
D - Little Horwood Rd		ONE HOUR	✓	45	100.000

Origin-Destination Data

Demand (Veh/hr)

	To			
	A - A421 (East)	B - Shucklow Hill	C - A421 (West)	D - Little Horwood Rd
From A - A421 (East)	0	3	1173	17
From B - Shucklow Hill	14	0	33	26
From C - A421 (West)	1209	23	0	2
From D - Little Horwood Rd	21	23	1	0

Proportions

	To			
	A - A421 (East)	B - Shucklow Hill	C - A421 (West)	D - Little Horwood Rd
From A - A421 (East)	0.00	0.00	0.98	0.01
From B - Shucklow Hill	0.19	0.00	0.45	0.36
From C - A421 (West)	0.98	0.02	0.00	0.00
From D - Little Horwood Rd	0.46	0.51	0.03	0.00

Vehicle Mix

Heavy Vehicle Percentages

	To				
From		A - A421 (East)	B - Shucklow Hill	C - A421 (West)	D - Little Horwood Rd
	A - A421 (East)	0	0	6	13
	B - Shucklow Hill	0	0	10	9
	C - A421 (West)	5	10	0	50
	D - Little Horwood Rd	11	5	0	0

Average PCU Per Veh

	To				
From		A - A421 (East)	B - Shucklow Hill	C - A421 (West)	D - Little Horwood Rd
	A - A421 (East)	1.000	1.000	1.057	1.133
	B - Shucklow Hill	1.000	1.000	1.103	1.087
	C - A421 (West)	1.053	1.100	1.000	1.500
	D - Little Horwood Rd	1.111	1.050	1.000	1.000

Detailed Demand Data

Demand for each time segment

Time Segment	Arm	Demand (Veh/hr)	Demand in PCU (PCU/hr)
07:30-07:45	A - A421 (East)	899	951
	B - Shucklow Hill	55	60
	C - A421 (West)	929	980
	D - Little Horwood Rd	34	36
07:45-08:00	A - A421 (East)	1073	1135
	B - Shucklow Hill	66	71
	C - A421 (West)	1109	1170
	D - Little Horwood Rd	40	43
08:00-08:15	A - A421 (East)	1314	1390
	B - Shucklow Hill	81	87
	C - A421 (West)	1359	1433
	D - Little Horwood Rd	49	53
08:15-08:30	A - A421 (East)	1314	1390
	B - Shucklow Hill	81	87
	C - A421 (West)	1359	1433
	D - Little Horwood Rd	49	53
08:30-08:45	A - A421 (East)	1073	1135
	B - Shucklow Hill	66	71
	C - A421 (West)	1109	1170
	D - Little Horwood Rd	40	43
08:45-09:00	A - A421 (East)	899	951
	B - Shucklow Hill	55	60
	C - A421 (West)	929	980
	D - Little Horwood Rd	34	36

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
B-CD	999999999.00	1577.48	33.0	F	55	82
B-A	999999999.00	1672.86	7.8	F	13	19
A-B					3	5
A-C					1077	1615
A-D					16	24
AB-CD	0.21	12.79	0.3	B	40	60
AB-C					1107	1661
D-AB	999999999.00	1419.05	24.1	F	40	60
D-C	999999999.00	1621.38	0.7	F	1	2
C-D					2	3
C-A					1109	1664
C-B					21	32
CD-AB	0.23	12.48	0.3	B	42	63
CD-A					1128	1692

Main Results for each time segment

07:30 - 07:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-CD	45	11	467	0.096	44	0.0	0.1	8.519	A
B-A	10	3	139	0.075	10	0.0	0.1	27.929	D
A-B	3	0.65			3				
A-C	883	221			883				
A-D	13	3			13				
AB-CD	33	8	431	0.076	32	0.0	0.1	9.018	A
AB-C	908	227			908				
D-AB	33	8	448	0.073	33	0.0	0.1	8.666	A
D-C	0.86	0.22	129	0.007	0.84	0.0	0.0	28.028	D
C-D	2	0.43			2				
C-A	910	228			910				
C-B	17	4			17				
CD-AB	34	9	438	0.079	34	0.0	0.1	8.906	A
CD-A	926	231			926				

07:45 - 08:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-CD	54	13	401	0.134	53	0.1	0.2	10.366	B
B-A	12	3	62	0.199	12	0.1	0.2	70.574	F
A-B	3	0.77			3				
A-C	1055	264			1055				
A-D	15	4			15				
AB-CD	39	10	379	0.103	39	0.1	0.1	10.573	B
AB-C	1084	271			1084				
D-AB	39	10	393	0.100	39	0.1	0.1	10.178	B
D-C	1	0.26	51	0.020	0.98	0.0	0.0	72.339	F
C-D	2	0.52			2				
C-A	1087	272			1087				
C-B	21	5			21				
CD-AB	41	10	389	0.106	41	0.1	0.1	10.349	B
CD-A	1105	276			1105				

08:00 - 08:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-CD	66	16	0	999999999.000	0	0.2	16.6	1577.475	F
B-A	15	4	0	999999999.000	0	0.2	4.0	1672.862	F
A-B	4	0.95			4				
A-C	1292	323			1292				
A-D	19	5			19				
AB-CD	19	5	300	0.063	19	0.1	0.1	12.585	B
AB-C	1292	323			1292				
D-AB	48	12	0	999999999.000	0	0.1	12.1	1419.045	F
D-C	1	0.32	0	999999999.000	0	0.0	0.3	1621.380	F
C-D	3	0.63			3				
C-A	1331	333			1331				
C-B	25	6			25				
CD-AB	25	6	314	0.080	25	0.1	0.1	12.297	B
CD-A	1331	333			1331				

08:15 - 08:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-CD	66	16	0	999999999.000	0	16.6	33.0	-3699.605	?
B-A	15	4	0	999999999.000	0	4.0	7.8	-4370.185	?
A-B	4	0.95			4				
A-C	1292	323			1292				
A-D	19	5			19				
AB-CD	19	5	300	0.063	19	0.1	0.1	12.794	B
AB-C	1292	323			1292				
D-AB	48	12	0	999999999.000	0	12.1	24.1	-21609.867	?
D-C	1	0.32	0	999999999.000	0	0.3	0.7	794.169	F
C-D	3	0.63			3				
C-A	1331	333			1331				
C-B	25	6			25				
CD-AB	25	6	314	0.080	25	0.1	0.1	12.475	B
CD-A	1331	333			1331				

08:30 - 08:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-CD	54	13	148	0.382	144	33.0	10.4	481.409	F
B-A	12	3	35	0.356	31	7.8	3.2	843.753	F
A-B	3	0.77			3				
A-C	1055	264			1055				
A-D	15	4			15				
AB-CD	79	20	383	0.207	78	0.1	0.3	11.894	B
AB-C	1135	284			1135				
D-AB	39	10	371	0.106	135	24.1	0.1	23.950	C
D-C	1	0.26	16	0.066	3	0.7	0.1	302.849	F
C-D	2	0.52			2				
C-A	1087	272			1087				
C-B	21	5			21				
CD-AB	92	23	394	0.233	91	0.1	0.3	11.966	B
CD-A	1151	288			1151				

08:45 - 09:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-CD	45	11	454	0.099	86	10.4	0.1	10.962	B
B-A	10	3	139	0.075	23	3.2	0.1	34.185	D
A-B	3	0.65			3				
A-C	883	221			883				
A-D	13	3			13				
AB-CD	51	13	434	0.118	52	0.3	0.1	9.416	A
AB-C	931	233			931				
D-AB	33	8	447	0.073	33	0.1	0.1	8.694	A
D-C	0.86	0.22	118	0.007	1	0.1	0.0	30.967	D
C-D	2	0.43			2				
C-A	910	228			910				
C-B	17	4			17				
CD-AB	35	9	438	0.079	35	0.3	0.1	8.871	A
CD-A	926	231			926				

2033 Base + CD + D - ST, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Major arm width	A - A421 (East) - Major arm geometry	For two-way major roads, please interpret results with caution if the total major carriageway width is less than 8m.

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
J9	A421/ Shucklow Hill/ Little Horwood Rd	Left-Right Stagger	Two-way		13.57	B

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D20	2033 Base + CD + D - ST	PM	ONE HOUR	18:45	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 - A421 (East)		ONE HOUR	✓	1264	100.000
B - Shucklow Hill		ONE HOUR	✓	50	100.000
C - A421 (West)		ONE HOUR	✓	1278	100.000
D - Little Horwood Rd		ONE HOUR	✓	44	100.000

Origin-Destination Data

Demand (Veh/hr)

	To				
From		A - A421 (East)	B - Shucklow Hill	C - A421 (West)	D - Little Horwood Rd
	A - A421 (East)	0	6	1241	17
	B - Shucklow Hill	12	0	21	17
	C - A421 (West)	1261	16	0	1
	D - Little Horwood Rd	28	16	0	0

Proportions

	To				
From		A - A421 (East)	B - Shucklow Hill	C - A421 (West)	D - Little Horwood Rd
	A - A421 (East)	0.00	0.00	0.98	0.01
	B - Shucklow Hill	0.23	0.00	0.42	0.35
	C - A421 (West)	0.99	0.01	0.00	0.00
	D - Little Horwood Rd	0.63	0.37	0.00	0.00

Vehicle Mix

Heavy Vehicle Percentages

	To				
From		A - A421 (East)	B - Shucklow Hill	C - A421 (West)	D - Little Horwood Rd
	A - A421 (East)	0	0	2	7
	B - Shucklow Hill	0	0	0	0
	C - A421 (West)	3	7	0	0
	D - Little Horwood Rd	4	0	0	0

Average PCU Per Veh

	To				
From		A - A421 (East)	B - Shucklow Hill	C - A421 (West)	D - Little Horwood Rd
	A - A421 (East)	1.000	1.000	1.019	1.067
	B - Shucklow Hill	1.000	1.000	1.000	1.000
	C - A421 (West)	1.031	1.071	1.000	1.000
	D - Little Horwood Rd	1.042	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 - A421 (East)	952	971
	B - Shucklow Hill	37	37
	C - A421 (West)	982	993
	D - Little Horwood Rd	33	34
17:00-17:15	A - A421 (East)	1137	1159
	B - Shucklow Hill	45	45
	C - A421 (West)	1149	1185
	D - Little Horwood Rd	39	40
17:15-17:30	A - A421 (East)	1392	1420
	B - Shucklow Hill	55	55
	C - A421 (West)	1407	1452
	D - Little Horwood Rd	48	50
17:30-17:45	A - A421 (East)	1392	1420
	B - Shucklow Hill	55	55
	C - A421 (West)	1407	1452
	D - Little Horwood Rd	48	50
17:45-18:00	A - A421 (East)	1137	1159
	B - Shucklow Hill	45	45
	C - A421 (West)	1149	1185
	D - Little Horwood Rd	39	40
18:00-18:15	A - A421 (East)	952	971
	B - Shucklow Hill	37	37
	C - A421 (West)	982	993
	D - Little Horwood Rd	33	34

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
B-CD	999999999.00	1414.15	21.1	F	35	52
B-A	999999999.00	1524.81	6.6	F	11	16
A-B					5	8
A-C					1139	1709
A-D					16	24
AB-CD	0.17	12.22	0.2	B	32	48
AB-C					1158	1737
D-AB	0.19	18.01	0.2	C	40	60
D-C	0.00	0.00	0.0	A	0	0
C-D					1	2
C-A					1157	1736
C-B					15	22
CD-AB	0.11	12.43	0.1	B	30	44
CD-A					1182	1774

Main Results for each time segment

16:45 - 17:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-CD	29	7	501	0.057	28	0.0	0.1	7.609	A
B-A	9	2	136	0.064	8	0.0	0.1	28.168	D
A-B	4	1			4				
A-C	935	234			935				
A-D	13	3			13				
AB-CD	26	6	457	0.057	26	0.0	0.1	8.335	A
AB-C	950	238			950				
D-AB	33	8	467	0.071	33	0.0	0.1	8.280	A
D-C	0	0	128	0.000	0	0.0	0.0	0.000	A
C-D	0.87	0.22			0.87				
C-A	949	237			949				
C-B	12	3			12				
CD-AB	24	6	449	0.054	24	0.0	0.1	8.467	A
CD-A	970	242			970				

17:00 - 17:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-CD	34	9	430	0.080	34	0.1	0.1	9.099	A
B-A	10	3	58	0.179	10	0.1	0.2	74.229	F
A-B	5	1			5				
A-C	1116	279			1116				
A-D	16	4			16				
AB-CD	31	8	401	0.077	31	0.1	0.1	9.718	A
AB-C	1135	284			1135				
D-AB	39	10	410	0.096	39	0.1	0.1	9.709	A
D-C	0	0	49	0.000	0	0.0	0.0	0.000	A
C-D	1	0.26			1				
C-A	1134	283			1134				
C-B	15	4			15				
CD-AB	29	7	397	0.073	29	0.1	0.1	9.779	A
CD-A	1158	290			1158				

17:15 - 17:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-CD	42	10	0	999999999.000	0	0.1	10.6	1414.155	F
B-A	13	3	0	999999999.000	0	0.2	3.4	1524.814	F
A-B	6	2			6				
A-C	1367	342			1367				
A-D	19	5			19				
AB-CD	19	5	314	0.061	19	0.1	0.1	11.972	B
AB-C	1367	342			1367				
D-AB	48	12	248	0.195	48	0.1	0.2	17.921	C
D-C	0	0	0	0.000	0	0.0	0.0	0.000	A
C-D	1	0.32			1				
C-A	1388	347			1388				
C-B	18	4			18				
CD-AB	35	9	325	0.109	35	0.1	0.1	12.411	B
CD-A	1419	355			1419				

17:30 - 17:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-CD	42	10	0	999999999.000	0	10.6	21.1	-23792.564	?
B-A	13	3	0	999999999.000	0	3.4	6.6	-13355.632	?
A-B	6	2			6				
A-C	1367	342			1367				
A-D	19	5			19				
AB-CD	19	5	314	0.061	19	0.1	0.1	12.217	B
AB-C	1367	342			1367				
D-AB	48	12	248	0.195	48	0.2	0.2	18.011	C
D-C	0	0	0	0.000	0	0.0	0.0	0.000	A
C-D	1	0.32			1				
C-A	1388	347			1388				
C-B	18	4			18				
CD-AB	36	9	325	0.109	36	0.1	0.1	12.435	B
CD-A	1419	355			1419				

17:45 - 18:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-CD	34	9	355	0.098	118	21.1	0.1	22.231	C
B-A	10	3	57	0.181	38	6.6	0.3	228.487	F
A-B	5	1			5				
A-C	1116	279			1116				
A-D	16	4			16				
AB-CD	89	17	409	0.169	89	0.1	0.2	10.712	B
AB-C	1180	295			1180				
D-AB	39	10	410	0.098	40	0.2	0.1	9.744	A
D-C	0	0	29	0.000	0	0.0	0.0	0.000	A
C-D	1	0.26			1				
C-A	1134	283			1134				
C-B	15	4			15				
CD-AB	29	7	397	0.074	29	0.1	0.1	9.798	A
CD-A	1159	290			1159				

18:00 - 18:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-CD	29	7	499	0.058	29	0.1	0.1	7.668	A
B-A	9	2	136	0.064	9	0.3	0.1	28.537	D
A-B	4	1			4				
A-C	935	234			935				
A-D	13	3			13				
AB-CD	28	7	458	0.057	27	0.2	0.1	8.253	A
AB-C	950	238			950				
D-AB	33	8	467	0.071	33	0.1	0.1	8.297	A
D-C	0	0	128	0.000	0	0.0	0.0	0.000	A
C-D	0.87	0.22			0.87				
C-A	949	237			949				
C-B	12	3			12				
CD-AB	24	6	449	0.054	24	0.1	0.1	8.481	A
CD-A	970	243			970				

2033 Base + CD + SP (ST), AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Major arm width	A - A421 (East) - Major arm geometry	For two-way major roads, please interpret results with caution if the total major carriageway width is less than 8m.
Last Run	Last Run	Stream B-CD	Capacity of Minor Stream B-CD has been reduced in timesegment(s) 4 due to traffic queuing at the center of the junction.
Last Run	Last Run	Stream D-AB	Capacity of Minor Stream D-AB has been reduced in timesegment(s) 4 due to traffic queuing at the center of the junction.

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
J9	A421/ Shucklow Hill/ Little Horwood Rd	Left-Right Stagger	Two-way		36.26	E

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D21	2033 Base + CD + SP (ST)	AM	ONE HOUR	07:30	09:00	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 - A421 (East)		ONE HOUR	✓	1152	100.000
B - Shucklow Hill		ONE HOUR	✓	73	100.000
C - A421 (West)		ONE HOUR	✓	1197	100.000
D - Little Horwood Rd		ONE HOUR	✓	45	100.000

Origin-Destination Data

Demand (Veh/hr)

	To				
		A - A421 (East)	B - Shucklow Hill	C - A421 (West)	D - Little Horwood Rd
From	A - A421 (East)	0	3	1131	17
	B - Shucklow Hill	14	0	33	26
	C - A421 (West)	1172	23	0	2
	D - Little Horwood Rd	21	23	1	0

Proportions

	To				
		A - A421 (East)	B - Shucklow Hill	C - A421 (West)	D - Little Horwood Rd
From	A - A421 (East)	0.00	0.00	0.98	0.01
	B - Shucklow Hill	0.19	0.00	0.45	0.36
	C - A421 (West)	0.98	0.02	0.00	0.00
	D - Little Horwood Rd	0.46	0.51	0.03	0.00

Vehicle Mix

Heavy Vehicle Percentages

	To				
From		A - A421 (East)	B - Shucklow Hill	C - A421 (West)	D - Little Horwood Rd
	A - A421 (East)	0	0	6	13
	B - Shucklow Hill	0	0	10	9
	C - A421 (West)	5	10	0	50
	D - Little Horwood Rd	11	5	0	0

Average PCU Per Veh

	To				
From		A - A421 (East)	B - Shucklow Hill	C - A421 (West)	D - Little Horwood Rd
	A - A421 (East)	1.000	1.000	1.057	1.133
	B - Shucklow Hill	1.000	1.000	1.103	1.087
	C - A421 (West)	1.053	1.100	1.000	1.500
	D - Little Horwood Rd	1.111	1.050	1.000	1.000

Detailed Demand Data

Demand for each time segment

Time Segment	Arm	Demand (Veh/hr)	Demand in PCU (PCU/hr)
07:30-07:45	A - A421 (East)	887	917
	B - Shucklow Hill	55	60
	C - A421 (West)	901	950
	D - Little Horwood Rd	34	36
07:45-08:00	A - A421 (East)	1035	1095
	B - Shucklow Hill	66	71
	C - A421 (West)	1076	1135
	D - Little Horwood Rd	40	43
08:00-08:15	A - A421 (East)	1268	1341
	B - Shucklow Hill	81	87
	C - A421 (West)	1318	1389
	D - Little Horwood Rd	49	53
08:15-08:30	A - A421 (East)	1268	1341
	B - Shucklow Hill	81	87
	C - A421 (West)	1318	1389
	D - Little Horwood Rd	49	53
08:30-08:45	A - A421 (East)	1035	1095
	B - Shucklow Hill	66	71
	C - A421 (West)	1076	1135
	D - Little Horwood Rd	40	43
08:45-09:00	A - A421 (East)	887	917
	B - Shucklow Hill	55	60
	C - A421 (West)	901	950
	D - Little Horwood Rd	34	36

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
B-CD	999999999.00	1485.31	33.0	F	55	82
B-A	999999999.00	1577.52	7.8	F	13	19
A-B					3	5
A-C					1038	1557
A-D					16	24
AB-CD	0.25	12.29	0.3	B	40	60
AB-C					1068	1602
D-AB	999999999.00	1415.15	24.1	F	40	60
D-C	999999999.00	1488.72	0.6	F	1	2
C-D					2	3
C-A					1075	1613
C-B					21	32
CD-AB	0.23	11.95	0.3	B	42	63
CD-A					1094	1641

Main Results for each time segment

07:30 - 07:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-CD	45	11	477	0.094	44	0.0	0.1	8.318	A
B-A	10	3	151	0.069	10	0.0	0.1	25.443	D
A-B	3	0.65			3				
A-C	851	213			851				
A-D	13	3			13				
AB-CD	33	8	439	0.074	32	0.0	0.1	8.847	A
AB-C	876	219			876				
D-AB	33	8	456	0.072	33	0.0	0.1	8.494	A
D-C	0.86	0.22	142	0.006	0.84	0.0	0.0	25.541	D
C-D	2	0.43			2				
C-A	882	221			882				
C-B	17	4			17				
CD-AB	34	9	447	0.077	34	0.0	0.1	8.707	A
CD-A	897	224			897				

07:45 - 08:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-CD	54	13	416	0.129	53	0.1	0.1	9.925	A
B-A	12	3	77	0.160	12	0.1	0.2	54.650	F
A-B	3	0.77			3				
A-C	1017	254			1017				
A-D	15	4			15				
AB-CD	39	10	389	0.101	39	0.1	0.1	10.280	B
AB-C	1046	262			1046				
D-AB	39	10	403	0.097	39	0.1	0.1	9.887	A
D-C	1	0.26	66	0.016	0.99	0.0	0.0	55.644	F
C-D	2	0.52			2				
C-A	1053	263			1053				
C-B	21	5			21				
CD-AB	41	10	400	0.103	41	0.1	0.1	10.038	B
CD-A	1072	268			1072				

08:00 - 08:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-CD	66	16	0	999999999.000	0	0.1	16.6	1485.311	F
B-A	15	4	0	999999999.000	0	0.2	4.0	1577.519	F
A-B	4	0.95			4				
A-C	1245	311			1245				
A-D	19	5			19				
AB-CD	19	5	312	0.061	19	0.1	0.1	12.092	B
AB-C	1245	311			1245				
D-AB	48	12	0	999999999.000	0	0.1	12.1	1415.151	F
D-C	1	0.32	0	999999999.000	0	0.0	0.3	1488.722	F
C-D	3	0.63			3				
C-A	1290	322			1290				
C-B	25	6			25				
CD-AB	25	6	327	0.077	25	0.1	0.1	11.775	B
CD-A	1290	322			1290				

08:15 - 08:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-CD	66	16	0	999999999.000	0	16.6	33.0	-8392.264	?
B-A	15	4	0	999999999.000	0	4.0	7.8	-7648.452	?
A-B	4	0.95			4				
A-C	1245	311			1245				
A-D	19	5			19				
AB-CD	19	5	312	0.061	19	0.1	0.1	12.292	B
AB-C	1245	311			1245				
D-AB	48	12	0	999999999.000	0	12.1	24.1	-23177.219	?
D-C	1	0.32	0	999999999.000	0	0.3	0.6	626.062	F
C-D	3	0.63			3				
C-A	1290	322			1290				
C-B	25	6			25				
CD-AB	25	6	327	0.077	25	0.1	0.1	11.945	B
CD-A	1290	322			1290				

08:30 - 08:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-CD	54	13	249	0.215	184	33.0	0.3	175.540	F
B-A	12	3	49	0.255	41	7.8	0.6	398.900	F
A-B	3	0.77			3				
A-C	1017	254			1017				
A-D	15	4			15				
AB-CD	97	24	393	0.247	96	0.1	0.3	12.187	B
AB-C	1119	280			1119				
D-AB	39	10	393	0.100	135	24.1	0.1	21.057	C
D-C	1	0.26	30	0.034	3	0.6	0.0	140.036	F
C-D	2	0.52			2				
C-A	1053	263			1053				
C-B	21	5			21				
CD-AB	92	23	405	0.227	91	0.1	0.3	11.554	B
CD-A	1117	279			1117				

08:45 - 09:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-CD	45	11	473	0.095	46	0.3	0.1	8.442	A
B-A	10	3	152	0.068	12	0.6	0.1	26.161	D
A-B	3	0.65			3				
A-C	851	213			851				
A-D	13	3			13				
AB-CD	33	8	440	0.075	34	0.3	0.1	8.835	A
AB-C	877	219			877				
D-AB	33	8	456	0.072	33	0.1	0.1	8.513	A
D-C	0.86	0.22	141	0.006	1.00	0.0	0.0	25.747	D
C-D	2	0.43			2				
C-A	882	221			882				
C-B	17	4			17				
CD-AB	35	9	447	0.077	35	0.3	0.1	8.676	A
CD-A	898	224			898				

2033 Base + CD + SP (ST), PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Major arm width	A - A421 (East) - Major arm geometry	For two-way major roads, please interpret results with caution if the total major carriageway width is less than 8m.

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
J9	A421/ Shucklow Hill/ Little Horwood Rd	Left-Right Stagger	Two-way		13.88	B

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D22	2033 Base + CD + SP (ST)	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 - A421 (East)		ONE HOUR	✓	1228	100.000
B - Shucklow Hill		ONE HOUR	✓	50	100.000
C - A421 (West)		ONE HOUR	✓	1234	100.000
D - Little Horwood Rd		ONE HOUR	✓	44	100.000

Origin-Destination Data

Demand (Veh/hr)

	To				
From		A - A421 (East)	B - Shucklow Hill	C - A421 (West)	D - Little Horwood Rd
	A - A421 (East)	0	6	1205	17
	B - Shucklow Hill	12	0	21	17
	C - A421 (West)	1217	16	0	1
	D - Little Horwood Rd	28	16	0	0

Proportions

	To				
From		A - A421 (East)	B - Shucklow Hill	C - A421 (West)	D - Little Horwood Rd
	A - A421 (East)	0.00	0.00	0.98	0.01
	B - Shucklow Hill	0.23	0.00	0.42	0.35
	C - A421 (West)	0.99	0.01	0.00	0.00
	D - Little Horwood Rd	0.63	0.37	0.00	0.00

Vehicle Mix

Heavy Vehicle Percentages

	To				
From		A - A421 (East)	B - Shucklow Hill	C - A421 (West)	D - Little Horwood Rd
	A - A421 (East)	0	0	2	7
	B - Shucklow Hill	0	0	0	0
	C - A421 (West)	3	7	0	0
	D - Little Horwood Rd	4	0	0	0

Average PCU Per Veh

	To				
From		A - A421 (East)	B - Shucklow Hill	C - A421 (West)	D - Little Horwood Rd
	A - A421 (East)	1.000	1.000	1.019	1.087
	B - Shucklow Hill	1.000	1.000	1.000	1.000
	C - A421 (West)	1.031	1.071	1.000	1.000
	D - Little Horwood Rd	1.042	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 - A421 (East)	925	943
	B - Shucklow Hill	37	37
	C - A421 (West)	929	958
	D - Little Horwood Rd	33	34
17:00-17:15	A - A421 (East)	1104	1128
	B - Shucklow Hill	45	45
	C - A421 (West)	1109	1144
	D - Little Horwood Rd	39	40
17:15-17:30	A - A421 (East)	1352	1379
	B - Shucklow Hill	55	55
	C - A421 (West)	1359	1402
	D - Little Horwood Rd	48	50
17:30-17:45	A - A421 (East)	1352	1379
	B - Shucklow Hill	55	55
	C - A421 (West)	1359	1402
	D - Little Horwood Rd	48	50
17:45-18:00	A - A421 (East)	1104	1128
	B - Shucklow Hill	45	45
	C - A421 (West)	1109	1144
	D - Little Horwood Rd	39	40
18:00-18:15	A - A421 (East)	925	943
	B - Shucklow Hill	37	37
	C - A421 (West)	929	958
	D - Little Horwood Rd	33	34

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
B-CD	999999999.00	1407.63	21.0	F	35	52
B-A	999999999.00	1487.26	6.5	F	11	16
A-B					5	8
A-C					1106	1659
A-D					16	24
AB-CD	0.16	11.66	0.2	B	32	48
AB-C					1125	1687
D-AB	0.19	17.06	0.2	C	40	60
D-C	0.00	0.00	0.0	A	0	0
C-D					1	2
C-A					1116	1675
C-B					15	22
CD-AB	0.11	11.97	0.1	B	30	44
CD-A					1142	1713

Main Results for each time segment

16:45 - 17:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-CD	29	7	511	0.056	28	0.0	0.1	7.463	A
B-A	9	2	148	0.059	8	0.0	0.1	25.732	D
A-B	4	1			4				
A-C	907	227			907				
A-D	13	3			13				
AB-CD	26	6	467	0.056	26	0.0	0.1	8.147	A
AB-C	923	231			923				
D-AB	33	8	477	0.069	33	0.0	0.1	8.091	A
D-C	0	0	141	0.000	0	0.0	0.0	0.000	A
C-D	0.87	0.22			0.87				
C-A	916	229			916				
C-B	12	3			12				
CD-AB	24	6	457	0.053	24	0.0	0.1	8.317	A
CD-A	937	234			937				

17:00 - 17:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-CD	34	9	444	0.077	34	0.1	0.1	8.783	A
B-A	10	3	72	0.143	10	0.1	0.2	57.380	F
A-B	5	1			5				
A-C	1083	271			1083				
A-D	16	4			16				
AB-CD	31	8	413	0.075	31	0.1	0.1	9.415	A
AB-C	1102	276			1102				
D-AB	39	10	422	0.093	39	0.1	0.1	9.400	A
D-C	0	0	64	0.000	0	0.0	0.0	0.000	A
C-D	1	0.26			1				
C-A	1094	273			1094				
C-B	15	4			15				
CD-AB	29	7	406	0.071	29	0.1	0.1	9.542	A
CD-A	1119	280			1119				

17:15 - 17:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-CD	42	10	0	000000000.000	0	0.1	10.6	1407.634	F
B-A	13	3	0	000000000.000	0	0.2	3.3	1487.283	F
A-B	6	2			6				
A-C	1327	332			1327				
A-D	19	5			19				
AB-CD	19	5	328	0.058	19	0.1	0.1	11.426	B
AB-C	1327	332			1327				
D-AB	48	12	259	0.186	48	0.1	0.2	16.981	C
D-C	0	0	0	0.000	0	0.0	0.0	0.000	A
C-D	1	0.32			1				
C-A	1340	335			1340				
C-B	18	4			18				
CD-AB	35	9	336	0.105	35	0.1	0.1	11.953	B
CD-A	1370	342			1370				

17:30 - 17:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-CD	42	10	0	000000000.000	0	10.6	21.0	-27126.146	?
B-A	13	3	0	000000000.000	0	3.3	6.5	-18215.690	?
A-B	6	2			6				
A-C	1327	332			1327				
A-D	19	5			19				
AB-CD	19	5	328	0.058	19	0.1	0.1	11.657	B
AB-C	1327	332			1327				
D-AB	48	12	259	0.186	48	0.2	0.2	17.057	C
D-C	0	0	0	0.000	0	0.0	0.0	0.000	A
C-D	1	0.32			1				

Junctions 9	
ARCADY 9 - Roundabout Module	
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Filename: J10 - A421 Nash Rd Windsor Rd_ST.j9

Path: \\uk.wspgroup.com\central data\Projects\700694xx\70069442 - SWMK - 2020\03 WIP\TP Transport Planning\Incoming\iCRC\200821 - Junction and Mitigation Modelling BC Only\J10

Report generation date: 25/08/2020 17:19:02

-
- »2020 Base, AM
 - »2020 Base, PM
 - »2033 Base, AM
 - »2033 Base, PM
 - »2033 Base + CD + D, AM
 - »2033 Base + CD + D, PM
 - »2033 Base + CD + D with TP, AM
 - »2033 Base + CD + D with TP, PM
 - »2033 Base + CD + D - ST, AM
 - »2033 Base + CD + D - ST, PM
 - »2033 Base + CD + SP (ST), AM
 - »2033 Base + CD + SP (ST), PM

Summary of junction performance

	AM					PM				
	Set ID	Queue (Veh)	Delay (s)	RFC	LOS	Set ID	Queue (Veh)	Delay (s)	RFC	LOS
	2020 Base									
A - A421 (East)	D1	7.1	25.28	0.89	D	D2	9.6	31.71	0.92	D
B - B4033 Nash Road		4.5	45.54	0.84	E		1.4	19.54	0.59	C
C - A421 (West)		10.5	44.52	0.94	E		11.1	42.61	0.94	E
D - Winslow Rd		0.2	5.82	0.14	A		0.2	5.66	0.14	A
	2023 Base									
A - A421 (East)	D13	40.4	109.35	1.04	F	D14	60.9	148.06	1.08	F
B - B4033 Nash Road		28.0	222.00	1.12	F		3.0	36.52	0.76	E
C - A421 (West)		51.9	164.85	1.08	F		70.2	197.48	1.11	F
D - Winslow Rd		0.2	6.34	0.17	A		0.2	6.22	0.17	A
	2023 Base + CD + D									
A - A421 (East)	D15	59.8	151.62	1.08	F	D16	79.4	189.45	1.11	F
B - B4033 Nash Road		33.8	288.19	1.15	F		3.3	39.46	0.78	E
C - A421 (West)		67.0	220.00	1.12	F		92.9	287.43	1.16	F
D - Winslow Rd		0.2	6.37	0.17	A		0.2	6.25	0.17	A
	2023 Base + CD + D with TP									
A - A421 (East)	D17	56.5	144.49	1.07	F	D18	76.0	179.72	1.10	F
B - B4033 Nash Road		33.0	278.98	1.14	F		3.2	38.91	0.78	E
C - A421 (West)		64.6	209.77	1.11	F		88.8	271.01	1.15	F
D - Winslow Rd		0.2	6.36	0.17	A		0.2	6.24	0.17	A
	2023 Base + CD + D - ST									
A - A421 (East)	D19	70.8	175.59	1.10	F	D20	83.5	203.12	1.12	F
B - B4033 Nash Road		35.7	311.13	1.16	F		3.3	40.30	0.79	E
C - A421 (West)		72.5	243.92	1.13	F		100.9	318.94	1.17	F
D - Winslow Rd		0.2	6.38	0.17	A		0.2	6.26	0.17	A
	2023 Base + CD + SP (ST)									
A - A421 (East)	D21	49.9	130.11	1.06	F	D22	64.7	156.04	1.08	F
B - B4033 Nash Road		30.2	250.55	1.13	F		3.0	37.30	0.77	E
C - A421 (West)		56.8	178.02	1.10	F		77.6	226.40	1.13	F
D - Winslow Rd		0.2	6.35	0.17	A		0.2	6.23	0.17	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	A421 Nash Road/ Winslow Road
Location	51°58'59.42"N, 0°52'6.64"W
Site number	10
Date	07/04/2020
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	fsuarez
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	Veh	perHour	s	-Min	perMin

Analysis Options

Vehicle length (m)	Calculate Queue Percentiles	Calculate detailed queueing delay	Calculate residual capacity	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)
5.75				0.85	36.00	20.00

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	2020 Base	AM	ONE HOUR	07:30	09:00	15	✓
D2	2020 Base	PM	ONE HOUR	16:45	18:15	15	✓
D3	2026 Base	AM	ONE HOUR	07:30	09:00	15	✓
D4	2026 Base	PM	ONE HOUR	16:45	18:15	15	✓
D5	2026 Base + CD + D	AM	ONE HOUR	07:30	09:00	15	✓
D6	2026 Base + CD + D	PM	ONE HOUR	16:45	18:15	15	✓
D7	2026 Base + CD + D with TP	AM	ONE HOUR	07:30	09:00	15	✓
D8	2026 Base + CD + D with TP	PM	ONE HOUR	16:45	18:15	15	✓
D9	2026 Base + CD + D - ST	AM	ONE HOUR	07:30	09:00	15	✓
D10	2026 Base + CD + D - ST	PM	ONE HOUR	16:45	18:15	15	✓
D11	2026 Base + CD + SP (ST)	AM	ONE HOUR	07:30	09:00	15	✓
D12	2026 Base + CD + SP (ST)	PM	ONE HOUR	16:45	18:15	15	✓
D13	2033 Base	AM	ONE HOUR	07:30	09:00	15	✓
D14	2033 Base	PM	ONE HOUR	16:45	18:15	15	✓
D15	2033 Base + CD + D	AM	ONE HOUR	07:30	09:00	15	✓
D16	2033 Base + CD + D	PM	ONE HOUR	16:45	18:15	15	✓
D17	2033 Base + CD + D with TP	AM	ONE HOUR	07:30	09:00	15	✓
D18	2033 Base + CD + D with TP	PM	ONE HOUR	16:45	18:15	15	✓
D19	2033 Base + CD + D - ST	AM	ONE HOUR	07:30	09:00	15	✓
D20	2033 Base + CD + D - ST	PM	ONE HOUR	16:45	18:15	15	✓
D21	2033 Base + CD + SP (ST)	AM	ONE HOUR	07:30	09:00	15	✓
D22	2033 Base + CD + SP (ST)	PM	ONE HOUR	16:45	18:15	15	✓

Analysis Set Details

ID	Include in report	Use specific Demand Set(s)	Specific Demand Set(s)	Network flow scaling factor (%)	Network capacity scaling factor (%)
A1	✓	✓	D1,D2,D13,D14,D15,D16,D17,D18,D19,D20,D21,D22	100.000	100.000

2020 Base, 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
J10	A421 Nash Road/ Winslow Road	Standard Roundabout		A, B, C, D	34.70	D

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description
A	A421 (East)	
B	B4033 Nash Road	
C	A421 (West)	
D	Winslow Rd	

Roundabout Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	I' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Exit only
A - A421 (East)	3.80	8.30	6.0	28.6	50.1	43.0	
B - B4033 Nash Road	3.40	6.60	18.3	13.9	50.1	45.0	
C - A421 (West)	3.80	7.20	8.9	21.6	50.1	40.0	
D - Winslow Rd	3.40	7.20	6.7	20.1	50.1	42.0	

Slope / Intercept / Capacity

Arm Intercept Adjustments

Arm	Type	Reason	Direct intercept adjustment (PCU/hr)
A - A421 (East)	Direct		-150
B - B4033 Nash Road	Direct		-500
C - A421 (West)	Direct		-330
D - Winslow Rd	None		

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
A - A421 (East)	0.563	1355
B - B4033 Nash Road	0.555	1030
C - A421 (West)	0.574	1235
D - Winslow Rd	0.536	1380

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

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	2020 Base	AM	ONE HOUR	07:30	09:00	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 - A421 (East)		ONE HOUR	✓	977	100.000
B - B4033 Nash Road		ONE HOUR	✓	345	100.000
C - A421 (West)		ONE HOUR	✓	827	100.000
D - Winslow Rd		ONE HOUR	✓	91	100.000

Origin-Destination Data

Demand (Veh/hr)

	To				
		A - A421 (East)	B - B4033 Nash Road	C - A421 (West)	D - Winslow Rd
From	A - A421 (East)	2	129	835	11
	B - B4033 Nash Road	203	0	50	92
	C - A421 (West)	785	26	1	15
	D - Winslow Rd	7	56	28	0

Proportions

	To				
		A - A421 (East)	B - B4033 Nash Road	C - A421 (West)	D - Winslow Rd
From	A - A421 (East)	0.00	0.13	0.85	0.01
	B - B4033 Nash Road	0.59	0.00	0.14	0.27
	C - A421 (West)	0.95	0.03	0.00	0.02
	D - Winslow Rd	0.08	0.62	0.31	0.00

Vehicle Mix

Heavy Vehicle Percentages

	To				
		A - A421 (East)	B - B4033 Nash Road	C - A421 (West)	D - Winslow Rd
From	A - A421 (East)	0	5	6	9
	B - B4033 Nash Road	3	0	4	2
	C - A421 (West)	7	8	0	0
	D - Winslow Rd	14	5	0	0

Average PCU Per Veh

	To				
		A - A421 (East)	B - B4033 Nash Road	C - A421 (West)	D - Winslow Rd
From	A - A421 (East)	1.000	1.054	1.061	1.091
	B - B4033 Nash Road	1.025	1.000	1.040	1.022
	C - A421 (West)	1.066	1.077	1.000	1.000
	D - Winslow Rd	1.143	1.054	1.000	1.000

Detailed Demand Data

Demand for each time segment

Time Segment	Arm	Demand (Veh/hr)	Demand in PCU (PCU/hr)
07:30-07:45	A - A421 (East)	736	780
	B - B4033 Nash Road	260	267
	C - A421 (West)	623	663
	D - Winslow Rd	69	72
07:45-08:00	A - A421 (East)	878	931
	B - B4033 Nash Road	310	318
	C - A421 (West)	743	792
	D - Winslow Rd	82	85
08:00-08:15	A - A421 (East)	1076	1141
	B - B4033 Nash Road	380	390
	C - A421 (West)	911	970
	D - Winslow Rd	100	105
08:15-08:30	A - A421 (East)	1076	1141
	B - B4033 Nash Road	380	390
	C - A421 (West)	911	970
	D - Winslow Rd	100	105
08:30-08:45	A - A421 (East)	878	931
	B - B4033 Nash Road	310	318
	C - A421 (West)	743	792
	D - Winslow Rd	82	85
08:45-09:00	A - A421 (East)	736	780
	B - B4033 Nash Road	260	267
	C - A421 (West)	623	663
	D - Winslow Rd	69	72

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
A - A421 (East)	0.89	25.28	7.1	D	897	1345
B - B4033 Nash Road	0.84	45.54	4.5	E	317	475
C - A421 (West)	0.94	44.52	10.5	E	759	1138
D - Winslow Rd	0.14	5.82	0.2	A	84	125

Main Results for each time segment

07:30 - 07:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - A421 (East)	736	184	83	1232	0.597	730	743	0.0	1.5	7.087	A
B - B4033 Nash Road	260	65	655	629	0.413	257	158	0.0	0.7	9.612	A
C - A421 (West)	623	156	229	1033	0.603	617	683	0.0	1.5	8.537	A
D - Winslow Rd	69	17	758	910	0.075	68	88	0.0	0.1	4.278	A

07:45 - 08:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - A421 (East)	878	220	100	1223	0.718	874	890	1.5	2.5	10.205	B
B - B4033 Nash Road	310	78	785	554	0.559	308	189	0.7	1.2	14.480	B
C - A421 (West)	743	186	275	1008	0.738	739	818	1.5	2.7	13.153	B
D - Winslow Rd	82	20	908	828	0.099	82	105	0.1	0.1	4.822	A

08:00 - 08:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - A421 (East)	1076	269	121	1211	0.888	1059	1068	2.5	6.6	21.688	C
B - B4033 Nash Road	380	95	951	459	0.827	369	229	1.2	3.9	36.460	E
C - A421 (West)	911	228	330	977	0.932	886	991	2.7	8.8	33.022	D
D - Winslow Rd	100	25	1090	730	0.137	100	126	0.1	0.2	5.713	A

08:15 - 08:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - A421 (East)	1076	269	122	1211	0.889	1073	1090	6.6	7.1	25.280	D
B - B4033 Nash Road	380	95	964	452	0.840	377	232	3.9	4.5	45.536	E
C - A421 (West)	911	228	337	973	0.936	903	1004	8.8	10.5	44.525	E
D - Winslow Rd	100	25	1111	718	0.140	100	129	0.2	0.2	5.825	A

08:30 - 08:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - A421 (East)	878	220	101	1222	0.719	896	932	7.1	2.7	11.602	B
B - B4033 Nash Road	310	78	804	543	0.571	323	193	4.5	1.4	17.127	C
C - A421 (West)	743	186	288	1001	0.743	773	839	10.5	3.1	17.649	C
D - Winslow Rd	82	20	951	805	0.102	82	110	0.2	0.1	4.978	A

08:45 - 09:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - A421 (East)	736	184	84	1232	0.597	740	758	2.7	1.5	7.389	A
B - B4033 Nash Road	260	65	664	624	0.417	262	160	1.4	0.7	10.036	B
C - A421 (West)	623	156	234	1030	0.604	629	692	3.1	1.6	9.095	A
D - Winslow Rd	69	17	773	902	0.076	69	90	0.1	0.1	4.323	A

2020 Base, 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
J10	A421 Nash Road/ Winslow Road	Standard Roundabout		A, B, C, D	33.73	D

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D2	2020 Base	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 - A421 (East)		ONE HOUR	✓	1057	100.000
B - B4033 Nash Road		ONE HOUR	✓	242	100.000
C - A421 (West)		ONE HOUR	✓	910	100.000
D - Winslow Rd		ONE HOUR	✓	95	100.000

Origin-Destination Data

Demand (Veh/hr)

	To				
From		A - A421 (East)	B - B4033 Nash Road	C - A421 (West)	D - Winslow Rd
	A - A421 (East)	2	158	886	11
	B - B4033 Nash Road	148	0	49	45
	C - A421 (West)	866	29	0	15
	D - Winslow Rd	11	56	28	0

Proportions

	To				
From		A - A421 (East)	B - B4033 Nash Road	C - A421 (West)	D - Winslow Rd
	A - A421 (East)	0.00	0.15	0.84	0.01
	B - B4033 Nash Road	0.61	0.00	0.20	0.19
	C - A421 (West)	0.95	0.03	0.00	0.02
	D - Winslow Rd	0.12	0.59	0.29	0.00

Vehicle Mix

Heavy Vehicle Percentages

From	To				
		A - A421 (East)	B - B4033 Nash Road	C - A421 (West)	D - Winslow Rd
	A - A421 (East)	0	0	2	0
	B - B4033 Nash Road	1	0	2	2
	C - A421 (West)	4	0	0	0
	D - Winslow Rd	9	0	0	0

Average PCU Per Veh

From	To				
		A - A421 (East)	B - B4033 Nash Road	C - A421 (West)	D - Winslow Rd
	A - A421 (East)	1.000	1.000	1.020	1.000
	B - B4033 Nash Road	1.007	1.000	1.020	1.022
	C - A421 (West)	1.035	1.000	1.000	1.000
	D - Winslow Rd	1.091	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 - A421 (East)	796	809
	B - B4033 Nash Road	182	184
	C - A421 (West)	685	708
	D - Winslow Rd	72	72
17:00-17:15	A - A421 (East)	950	966
	B - B4033 Nash Road	218	220
	C - A421 (West)	818	845
	D - Winslow Rd	85	86
17:15-17:30	A - A421 (East)	1164	1183
	B - B4033 Nash Road	266	270
	C - A421 (West)	1002	1035
	D - Winslow Rd	105	106
17:30-17:45	A - A421 (East)	1164	1183
	B - B4033 Nash Road	266	270
	C - A421 (West)	1002	1035
	D - Winslow Rd	105	106
17:45-18:00	A - A421 (East)	950	966
	B - B4033 Nash Road	218	220
	C - A421 (West)	818	845
	D - Winslow Rd	85	86
18:00-18:15	A - A421 (East)	796	809
	B - B4033 Nash Road	182	184
	C - A421 (West)	685	708
	D - Winslow Rd	72	72

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
A - A421 (East)	0.92	31.71	9.6	D	970	1455
B - B4033 Nash Road	0.59	19.54	1.4	C	222	333
C - A421 (West)	0.94	42.61	11.1	E	835	1253
D - Winslow Rd	0.14	5.66	0.2	A	87	131

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - A421 (East)	796	199	85	1286	0.619	789	766	0.0	1.6	7.160	A
B - B4033 Nash Road	182	46	692	631	0.289	181	182	0.0	0.4	7.965	A
C - A421 (West)	685	171	154	1109	0.618	679	719	0.0	1.6	8.252	A
D - Winslow Rd	72	18	780	940	0.076	71	53	0.0	0.1	4.144	A

17:00 - 17:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - A421 (East)	950	238	101	1277	0.744	945	918	1.6	2.8	10.705	B
B - B4033 Nash Road	218	54	829	555	0.392	217	218	0.4	0.6	10.622	B
C - A421 (West)	818	205	184	1092	0.749	813	861	1.6	2.8	12.681	B
D - Winslow Rd	85	21	934	855	0.100	85	64	0.1	0.1	4.674	A

17:15 - 17:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - A421 (East)	1164	291	123	1265	0.920	1141	1104	2.8	8.5	25.376	D
B - B4033 Nash Road	266	67	1001	459	0.581	264	263	0.6	1.3	18.219	C
C - A421 (West)	1002	250	224	1069	0.937	976	1041	2.8	9.4	31.933	D
D - Winslow Rd	105	26	1123	752	0.139	104	77	0.1	0.2	5.556	A

17:30 - 17:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - A421 (East)	1164	291	124	1264	0.921	1159	1124	8.5	9.6	31.706	D
B - B4033 Nash Road	266	67	1017	450	0.592	266	267	1.3	1.4	19.538	C
C - A421 (West)	1002	250	226	1068	0.938	995	1056	9.4	11.1	42.614	E
D - Winslow Rd	105	26	1144	741	0.141	105	78	0.2	0.2	5.656	A

17:45 - 18:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - A421 (East)	950	238	103	1276	0.745	976	955	9.6	3.1	12.960	B
B - B4033 Nash Road	218	54	856	540	0.403	220	223	1.4	0.7	11.370	B
C - A421 (West)	818	205	188	1090	0.751	850	888	11.1	3.2	16.704	C
D - Winslow Rd	85	21	972	834	0.102	86	65	0.2	0.1	4.810	A

18:00 - 18:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - A421 (East)	796	199	85	1286	0.619	801	780	3.1	1.7	7.519	A
B - B4033 Nash Road	182	46	703	625	0.291	183	184	0.7	0.4	8.164	A
C - A421 (West)	685	171	156	1108	0.618	691	730	3.2	1.7	8.766	A
D - Winslow Rd	72	18	793	932	0.077	72	54	0.1	0.1	4.185	A

2033 Base, 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
J10	A421 Nash Road/ Winslow Road	Standard Roundabout		A, B, C, D	142.58	F

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D13	2033 Base	AM	ONE HOUR	07:30	09:00	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 - A421 (East)		ONE HOUR	✓	1136	100.000
B - B4033 Nash Road		ONE HOUR	✓	396	100.000
C - A421 (West)		ONE HOUR	✓	953	100.000
D - Winslow Rd		ONE HOUR	✓	104	100.000

Origin-Destination Data

Demand (Veh/hr)

	To				
From		A - A421 (East)	B - B4033 Nash Road	C - A421 (West)	D - Winslow Rd
	A - A421 (East)	2	149	972	13
	B - B4033 Nash Road	233	0	57	106
	C - A421 (West)	905	30	1	17
	D - Winslow Rd	8	64	32	0

Proportions

	To				
From		A - A421 (East)	B - B4033 Nash Road	C - A421 (West)	D - Winslow Rd
	A - A421 (East)	0.00	0.13	0.86	0.01
	B - B4033 Nash Road	0.59	0.00	0.14	0.27
	C - A421 (West)	0.95	0.03	0.00	0.02
	D - Winslow Rd	0.08	0.62	0.31	0.00

Vehicle Mix

Heavy Vehicle Percentages

	To				
		A - A421 (East)	B - B4033 Nash Road	C - A421 (West)	D - Winslow Rd
From	A - A421 (East)	0	5	6	9
	B - B4033 Nash Road	2	0	4	2
	C - A421 (West)	7	8	0	0
	D - Winslow Rd	14	5	0	0

Average PCU Per Veh

	To				
		A - A421 (East)	B - B4033 Nash Road	C - A421 (West)	D - Winslow Rd
From	A - A421 (East)	1.000	1.054	1.061	1.091
	B - B4033 Nash Road	1.025	1.000	1.040	1.022
	C - A421 (West)	1.066	1.077	1.000	1.000
	D - Winslow Rd	1.143	1.054	1.000	1.000

Detailed Demand Data

Demand for each time segment

Time Segment	Arm	Demand (Veh/hr)	Demand in PCU (PCU/hr)
07:30-07:45	A - A421 (East)	855	907
	B - B4033 Nash Road	298	306
	C - A421 (West)	718	764
	D - Winslow Rd	79	82
07:45-08:00	A - A421 (East)	1021	1083
	B - B4033 Nash Road	356	365
	C - A421 (West)	857	913
	D - Winslow Rd	94	98
08:00-08:15	A - A421 (East)	1251	1326
	B - B4033 Nash Road	436	447
	C - A421 (West)	1050	1118
	D - Winslow Rd	115	120
08:15-08:30	A - A421 (East)	1251	1326
	B - B4033 Nash Road	436	447
	C - A421 (West)	1050	1118
	D - Winslow Rd	115	120
08:30-08:45	A - A421 (East)	1021	1083
	B - B4033 Nash Road	356	365
	C - A421 (West)	857	913
	D - Winslow Rd	94	98
08:45-09:00	A - A421 (East)	855	907
	B - B4033 Nash Road	298	306
	C - A421 (West)	718	764
	D - Winslow Rd	79	82

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
A - A421 (East)	1.04	109.35	40.4	F	1043	1564
B - B4033 Nash Road	1.12	222.00	28.0	F	363	545
C - A421 (West)	1.08	164.85	51.9	F	875	1312
D - Winslow Rd	0.17	6.34	0.2	A	96	144

Main Results for each time segment

07:30 - 07:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - A421 (East)	855	214	95	1225	0.698	846	853	0.0	2.2	9.296	A
B - B4033 Nash Road	298	75	760	569	0.524	294	181	0.0	1.1	12.912	B
C - A421 (West)	718	179	262	1014	0.707	708	792	0.0	2.3	11.447	B
D - Winslow Rd	79	20	870	849	0.093	78	100	0.0	0.1	4.668	A

07:45 - 08:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - A421 (East)	1021	255	114	1215	0.841	1011	1017	2.2	4.7	16.880	C
B - B4033 Nash Road	356	89	909	484	0.736	350	217	1.1	2.5	25.902	D
C - A421 (West)	857	214	313	987	0.869	844	946	2.3	5.5	23.338	C
D - Winslow Rd	94	23	1037	759	0.124	94	120	0.1	0.1	5.412	A

08:00 - 08:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - A421 (East)	1251	313	137	1202	1.040	1169	1139	4.7	25.3	58.434	F
B - B4033 Nash Road	436	109	1052	402	1.086	384	253	2.5	15.6	107.869	F
C - A421 (West)	1050	262	343	970	1.082	950	1092	5.5	30.4	81.844	F
D - Winslow Rd	115	29	1161	691	0.166	115	132	0.1	0.2	6.242	A

08:15 - 08:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - A421 (East)	1251	313	137	1202	1.041	1191	1153	25.3	40.4	109.348	F
B - B4033 Nash Road	436	109	1071	391	1.116	386	257	15.6	28.0	222.005	F
C - A421 (West)	1050	262	346	968	1.084	963	1111	30.4	51.9	164.853	F
D - Winslow Rd	115	29	1176	683	0.168	115	134	0.2	0.2	6.335	A

08:30 - 08:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - A421 (East)	1021	255	117	1213	0.842	1156	1141	40.4	6.8	70.610	F
B - B4033 Nash Road	356	89	1034	412	0.865	397	239	28.0	17.7	207.608	F
C - A421 (West)	857	214	355	963	0.890	945	1077	51.9	29.9	158.615	F
D - Winslow Rd	94	23	1164	690	0.136	94	136	0.2	0.2	6.045	A

08:45 - 09:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - A421 (East)	855	214	100	1223	0.699	873	1006	6.8	2.4	10.768	B
B - B4033 Nash Road	298	75	784	555	0.537	364	189	17.7	1.2	25.813	D
C - A421 (West)	718	179	323	981	0.731	825	825	29.9	3.0	37.107	E
D - Winslow Rd	79	20	1027	764	0.103	79	122	0.2	0.1	5.251	A

2033 Base, 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
J10	A421 Nash Road/ Winslow Road	Standard Roundabout		A, B, C, D	150.58	F

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D14	2033 Base	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 - A421 (East)		ONE HOUR	✓	1226	100.000
B - B4033 Nash Road		ONE HOUR	✓	280	100.000
C - A421 (West)		ONE HOUR	✓	1062	100.000
D - Winslow Rd		ONE HOUR	✓	110	100.000

Origin-Destination Data

Demand (Veh/hr)

	To			
	A - A421 (East)	B - B4033 Nash Road	C - A421 (West)	D - Winslow Rd
From				
	A - A421 (East)	2	183	1028
	B - B4033 Nash Road	172	0	57
	C - A421 (West)	1012	33	0
	D - Winslow Rd	13	65	32

Proportions

	To			
	A - A421 (East)	B - B4033 Nash Road	C - A421 (West)	D - Winslow Rd
From				
	A - A421 (East)	0.00	0.15	0.84
	B - B4033 Nash Road	0.61	0.00	0.19
	C - A421 (West)	0.95	0.03	0.02
	D - Winslow Rd	0.12	0.59	0.29

Vehicle Mix

Heavy Vehicle Percentages

	To				
		A - A421 (East)	B - B4033 Nash Road	C - A421 (West)	D - Winslow Rd
From	A - A421 (East)	0	0	2	0
	B - B4033 Nash Road	1	0	2	2
	C - A421 (West)	3	0	0	0
	D - Winslow Rd	9	0	0	0

Average PCU Per Veh

	To				
		A - A421 (East)	B - B4033 Nash Road	C - A421 (West)	D - Winslow Rd
From	A - A421 (East)	1.000	1.000	1.023	1.000
	B - B4033 Nash Road	1.007	1.000	1.020	1.022
	C - A421 (West)	1.035	1.000	1.000	1.000
	D - Winslow Rd	1.091	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 - A421 (East)	923	940
	B - B4033 Nash Road	211	213
	C - A421 (West)	800	826
	D - Winslow Rd	83	83
17:00-17:15	A - A421 (East)	1102	1123
	B - B4033 Nash Road	252	255
	C - A421 (West)	955	987
	D - Winslow Rd	99	100
17:15-17:30	A - A421 (East)	1350	1375
	B - B4033 Nash Road	308	312
	C - A421 (West)	1170	1208
	D - Winslow Rd	121	122
17:30-17:45	A - A421 (East)	1350	1375
	B - B4033 Nash Road	308	312
	C - A421 (West)	1170	1208
	D - Winslow Rd	121	122
17:45-18:00	A - A421 (East)	1102	1123
	B - B4033 Nash Road	252	255
	C - A421 (West)	955	987
	D - Winslow Rd	99	100
18:00-18:15	A - A421 (East)	923	940
	B - B4033 Nash Road	211	213
	C - A421 (West)	800	826
	D - Winslow Rd	83	83

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
A - A421 (East)	1.08	148.06	60.9	F	1125	1687
B - B4033 Nash Road	0.76	36.52	3.0	E	257	385
C - A421 (West)	1.11	197.48	70.2	F	975	1462
D - Winslow Rd	0.17	6.22	0.2	A	101	151

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - A421 (East)	923	231	97	1276	0.723	913	891	0.0	2.5	9.659	A
B - B4033 Nash Road	211	53	801	569	0.370	209	209	0.0	0.6	9.916	A
C - A421 (West)	800	200	178	1096	0.730	790	832	0.0	2.6	11.395	B
D - Winslow Rd	83	21	906	871	0.095	82	61	0.0	0.1	4.563	A

17:00 - 17:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - A421 (East)	1102	276	117	1266	0.871	1089	1061	2.5	5.8	19.041	C
B - B4033 Nash Road	252	63	956	483	0.521	250	250	0.6	1.1	15.331	C
C - A421 (West)	955	239	213	1076	0.887	940	993	2.6	6.4	24.000	C
D - Winslow Rd	99	25	1080	776	0.127	98	73	0.1	0.1	5.311	A

17:15 - 17:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - A421 (East)	1350	337	139	1253	1.077	1231	1189	5.8	35.4	72.156	F
B - B4033 Nash Road	308	77	1083	411	0.750	302	287	1.1	2.6	31.269	D
C - A421 (West)	1170	292	256	1052	1.112	1037	1129	6.4	39.5	92.395	F
D - Winslow Rd	121	30	1208	706	0.171	120	86	0.1	0.2	6.142	A

17:30 - 17:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - A421 (East)	1350	337	140	1253	1.077	1248	1201	35.4	60.9	148.065	F
B - B4033 Nash Road	308	77	1098	403	0.765	307	290	2.6	3.0	36.517	E
C - A421 (West)	1170	292	260	1050	1.114	1047	1144	39.5	70.2	197.477	F
D - Winslow Rd	121	30	1220	699	0.173	121	87	0.2	0.2	6.219	A

17:45 - 18:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - A421 (East)	1102	276	121	1263	0.872	1243	1178	60.9	25.6	128.783	F
B - B4033 Nash Road	252	63	1087	409	0.615	257	277	3.0	1.7	24.337	C
C - A421 (West)	955	239	220	1072	0.891	1057	1124	70.2	44.7	197.250	F
D - Winslow Rd	99	25	1200	710	0.139	99	78	0.2	0.2	5.886	A

18:00 - 18:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - A421 (East)	923	231	104	1273	0.725	1014	1063	25.6	2.8	18.917	C
B - B4033 Nash Road	211	53	888	521	0.405	215	230	1.7	0.7	11.912	B
C - A421 (West)	800	200	184	1092	0.732	967	919	44.7	3.0	56.315	F
D - Winslow Rd	83	21	1084	773	0.107	83	66	0.2	0.1	5.214	A

2033 Base + CD + D, 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
J10	A421 Nash Road/ Winslow Road	Standard Roundabout		A, B, C, D	191.48	F

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D15	2033 Base + CD + D	AM	ONE HOUR	07:30	09:00	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 - A421 (East)		ONE HOUR	✓	1178	100.000
B - B4033 Nash Road		ONE HOUR	✓	404	100.000
C - A421 (West)		ONE HOUR	✓	982	100.000
D - Winslow Rd		ONE HOUR	✓	104	100.000

Origin-Destination Data

Demand (Veh/hr)

	To				
From		A - A421 (East)	B - B4033 Nash Road	C - A421 (West)	D - Winslow Rd
	A - A421 (East)	2	156	1008	13
	B - B4033 Nash Road	242	0	57	106
	C - A421 (West)	934	30	1	17
	D - Winslow Rd	8	64	32	0

Proportions

	To				
From		A - A421 (East)	B - B4033 Nash Road	C - A421 (West)	D - Winslow Rd
	A - A421 (East)	0.00	0.13	0.86	0.01
	B - B4033 Nash Road	0.60	0.00	0.14	0.26
	C - A421 (West)	0.95	0.03	0.00	0.02
	D - Winslow Rd	0.08	0.62	0.31	0.00

Vehicle Mix

Heavy Vehicle Percentages

From	To				
		A - A421 (East)	B - B4033 Nash Road	C - A421 (West)	D - Winslow Rd
	A - A421 (East)	0	5	6	9
	B - B4033 Nash Road	2	0	4	2
	C - A421 (West)	7	8	0	0
	D - Winslow Rd	14	5	0	0

Average PCU Per Veh

From	To				
		A - A421 (East)	B - B4033 Nash Road	C - A421 (West)	D - Winslow Rd
	A - A421 (East)	1.000	1.054	1.061	1.091
	B - B4033 Nash Road	1.025	1.000	1.040	1.022
	C - A421 (West)	1.066	1.077	1.000	1.000
	D - Winslow Rd	1.143	1.054	1.000	1.000

Detailed Demand Data

Demand for each time segment

Time Segment	Arm	Demand (Veh/hr)	Demand in PCU (PCU/hr)
07:30-07:45	A - A421 (East)	887	941
	B - B4033 Nash Road	304	312
	C - A421 (West)	739	788
	D - Winslow Rd	79	82
07:45-08:00	A - A421 (East)	1059	1123
	B - B4033 Nash Road	364	373
	C - A421 (West)	883	941
	D - Winslow Rd	94	98
08:00-08:15	A - A421 (East)	1297	1376
	B - B4033 Nash Road	445	457
	C - A421 (West)	1081	1152
	D - Winslow Rd	115	120
08:15-08:30	A - A421 (East)	1297	1376
	B - B4033 Nash Road	445	457
	C - A421 (West)	1081	1152
	D - Winslow Rd	115	120
08:30-08:45	A - A421 (East)	1059	1123
	B - B4033 Nash Road	364	373
	C - A421 (West)	883	941
	D - Winslow Rd	94	98
08:45-09:00	A - A421 (East)	887	941
	B - B4033 Nash Road	304	312
	C - A421 (West)	739	788
	D - Winslow Rd	79	82

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
A - A421 (East)	1.08	151.62	59.8	F	1081	1622
B - B4033 Nash Road	1.15	288.19	33.8	F	371	557
C - A421 (West)	1.12	220.00	67.0	F	901	1352
D - Winslow Rd	0.17	6.37	0.2	A	96	144

Main Results for each time segment

07:30 - 07:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - A421 (East)	887	222	95	1225	0.724	877	880	0.0	2.5	10.068	B
B - B4033 Nash Road	304	76	786	554	0.550	300	186	0.0	1.2	13.922	B
C - A421 (West)	739	185	268	1011	0.731	729	817	0.0	2.6	12.353	B
D - Winslow Rd	79	20	897	835	0.094	78	100	0.0	0.1	4.757	A

07:45 - 08:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - A421 (East)	1059	265	114	1215	0.872	1046	1045	2.5	5.8	19.877	C
B - B4033 Nash Road	364	91	938	467	0.778	356	222	1.2	3.1	30.558	D
C - A421 (West)	883	221	319	983	0.898	866	975	2.6	6.8	27.393	D
D - Winslow Rd	94	23	1066	743	0.126	94	119	0.1	0.1	5.541	A

08:00 - 08:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - A421 (East)	1297	324	136	1203	1.079	1181	1149	5.8	34.8	74.101	F
B - B4033 Nash Road	445	111	1062	396	1.124	383	256	3.1	18.7	125.663	F
C - A421 (West)	1081	270	343	970	1.115	956	1101	6.8	38.1	97.894	F
D - Winslow Rd	115	29	1170	686	0.167	115	129	0.1	0.2	6.295	A

08:15 - 08:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - A421 (East)	1297	324	137	1202	1.079	1198	1160	34.8	59.8	151.616	F
B - B4033 Nash Road	445	111	1076	388	1.148	385	258	18.7	33.8	264.520	F
C - A421 (West)	1081	270	346	968	1.117	966	1115	38.1	67.0	205.851	F
D - Winslow Rd	115	29	1181	680	0.169	115	130	0.2	0.2	6.367	A

08:30 - 08:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - A421 (East)	1059	265	117	1213	0.873	1193	1146	59.8	26.4	133.404	F
B - B4033 Nash Road	364	91	1065	394	0.924	382	245	33.8	29.1	288.191	F
C - A421 (West)	883	221	343	970	0.911	955	1105	67.0	48.9	220.001	F
D - Winslow Rd	94	23	1169	687	0.137	94	129	0.2	0.2	6.077	A

08:45 - 09:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - A421 (East)	887	222	102	1222	0.726	981	1127	26.4	2.8	20.889	C
B - B4033 Nash Road	304	76	877	502	0.607	414	206	29.1	1.7	79.476	F
C - A421 (West)	739	185	368	956	0.773	917	923	48.9	4.4	102.220	F
D - Winslow Rd	79	20	1150	698	0.113	79	135	0.2	0.1	5.820	A

2033 Base + CD + D, 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
J10	A421 Nash Road/ Winslow Road	Standard Roundabout		A, B, C, D	206.29	F

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D16	2033 Base + CD + D	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 - A421 (East)		ONE HOUR	✓	1262	100.000
B - B4033 Nash Road		ONE HOUR	✓	287	100.000
C - A421 (West)		ONE HOUR	✓	1100	100.000
D - Winslow Rd		ONE HOUR	✓	110	100.000

Origin-Destination Data

Demand (Veh/hr)

	To				
From		A - A421 (East)	B - B4033 Nash Road	C - A421 (West)	D - Winslow Rd
	A - A421 (East)	2	190	1057	13
	B - B4033 Nash Road	178	0	57	52
	C - A421 (West)	1049	33	0	17
	D - Winslow Rd	13	65	32	0

Proportions

	To				
From		A - A421 (East)	B - B4033 Nash Road	C - A421 (West)	D - Winslow Rd
	A - A421 (East)	0.00	0.15	0.84	0.01
	B - B4033 Nash Road	0.62	0.00	0.20	0.18
	C - A421 (West)	0.95	0.03	0.00	0.02
	D - Winslow Rd	0.12	0.59	0.29	0.00

Vehicle Mix

Heavy Vehicle Percentages

	To				
		A - A421 (East)	B - B4033 Nash Road	C - A421 (West)	D - Winslow Rd
From	A - A421 (East)	0	0	2	0
	B - B4033 Nash Road	1	0	2	2
	C - A421 (West)	3	0	0	0
	D - Winslow Rd	9	0	0	0

Average PCU Per Veh

	To				
		A - A421 (East)	B - B4033 Nash Road	C - A421 (West)	D - Winslow Rd
From	A - A421 (East)	1.000	1.000	1.023	1.000
	B - B4033 Nash Road	1.007	1.000	1.020	1.022
	C - A421 (West)	1.035	1.000	1.000	1.000
	D - Winslow Rd	1.091	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 - A421 (East)	950	968
	B - B4033 Nash Road	216	218
	C - A421 (West)	828	856
	D - Winslow Rd	83	83
17:00-17:15	A - A421 (East)	1135	1156
	B - B4033 Nash Road	258	261
	C - A421 (West)	989	1022
	D - Winslow Rd	99	100
17:15-17:30	A - A421 (East)	1390	1416
	B - B4033 Nash Road	316	319
	C - A421 (West)	1211	1251
	D - Winslow Rd	121	122
17:30-17:45	A - A421 (East)	1390	1416
	B - B4033 Nash Road	316	319
	C - A421 (West)	1211	1251
	D - Winslow Rd	121	122
17:45-18:00	A - A421 (East)	1135	1156
	B - B4033 Nash Road	258	261
	C - A421 (West)	989	1022
	D - Winslow Rd	99	100
18:00-18:15	A - A421 (East)	950	968
	B - B4033 Nash Road	216	218
	C - A421 (West)	828	856
	D - Winslow Rd	83	83

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
A - A421 (East)	1.11	189.45	79.4	F	1158	1737
B - B4033 Nash Road	0.78	39.46	3.3	E	263	394
C - A421 (West)	1.16	287.43	92.9	F	1010	1514
D - Winslow Rd	0.17	6.25	0.2	A	101	151

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - A421 (East)	950	238	97	1276	0.744	939	923	0.0	2.8	10.358	B
B - B4033 Nash Road	216	54	822	558	0.387	213	214	0.0	0.6	10.385	B
C - A421 (West)	828	207	182	1093	0.758	816	853	0.0	2.9	12.523	B
D - Winslow Rd	83	21	938	853	0.097	82	61	0.0	0.1	4.666	A

17:00 - 17:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - A421 (East)	1135	284	116	1266	0.896	1118	1095	2.8	7.0	22.078	C
B - B4033 Nash Road	258	64	979	470	0.548	255	255	0.6	1.2	16.617	C
C - A421 (West)	989	247	218	1073	0.922	968	1016	2.9	8.3	29.373	D
D - Winslow Rd	99	25	1113	758	0.130	98	73	0.1	0.1	5.458	A

17:15 - 17:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - A421 (East)	1390	347	138	1254	1.108	1239	1199	7.0	44.7	86.663	F
B - B4033 Nash Road	316	79	1088	409	0.772	309	289	1.2	2.9	33.814	D
C - A421 (West)	1211	303	262	1048	1.155	1040	1134	8.3	51.2	115.294	F
D - Winslow Rd	121	30	1217	701	0.172	120	85	0.1	0.2	6.195	A

17:30 - 17:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - A421 (East)	1390	347	138	1254	1.108	1251	1208	44.7	79.4	186.768	F
B - B4033 Nash Road	316	79	1098	403	0.783	314	291	2.9	3.3	39.463	E
C - A421 (West)	1211	303	267	1046	1.158	1044	1146	51.2	92.9	255.974	F
D - Winslow Rd	121	30	1226	697	0.173	121	86	0.2	0.2	6.249	A

17:45 - 18:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - A421 (East)	1135	284	119	1264	0.898	1248	1186	79.4	50.9	189.451	F
B - B4033 Nash Road	258	64	1090	408	0.632	263	278	3.3	1.8	25.841	D
C - A421 (West)	989	247	226	1069	0.925	1057	1127	92.9	75.9	287.430	F
D - Winslow Rd	99	25	1207	707	0.139	99	77	0.2	0.2	5.923	A

18:00 - 18:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - A421 (East)	950	238	106	1272	0.747	1141	1173	50.9	3.3	55.964	F
B - B4033 Nash Road	216	54	994	461	0.468	219	253	1.8	0.9	15.096	C
C - A421 (West)	828	207	190	1089	0.760	1075	1023	75.9	14.2	155.810	F
D - Winslow Rd	83	21	1197	712	0.116	83	68	0.2	0.1	5.723	A

2033 Base + CD + D with TP, 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
J10	A421 Nash Road/ Winslow Road	Standard Roundabout		A, B, C, D	183.18	F

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D17	2033 Base + CD + D with TP	AM	ONE HOUR	07:30	09:00	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 - A421 (East)		ONE HOUR	✓	1172	100.000
B - B4033 Nash Road		ONE HOUR	✓	403	100.000
C - A421 (West)		ONE HOUR	✓	978	100.000
D - Winslow Rd		ONE HOUR	✓	104	100.000

Origin-Destination Data

Demand (Veh/hr)

From	To			
		A - A421 (East)	B - B4033 Nash Road	C - A421 (West)
				D - Winslow Rd
	A - A421 (East)	2	155	1002
	B - B4033 Nash Road	240	0	57
	C - A421 (West)	930	30	1
	D - Winslow Rd	8	64	32

Proportions

From	To			
		A - A421 (East)	B - B4033 Nash Road	C - A421 (West)
				D - Winslow Rd
	A - A421 (East)	0.00	0.13	0.86
	B - B4033 Nash Road	0.60	0.00	0.14
	C - A421 (West)	0.95	0.03	0.00
	D - Winslow Rd	0.08	0.62	0.31

Vehicle Mix

Heavy Vehicle Percentages

From	To				
		A - A421 (East)	B - B4033 Nash Road	C - A421 (West)	D - Winslow Rd
	A - A421 (East)	0	5	6	9
	B - B4033 Nash Road	2	0	4	2
	C - A421 (West)	7	8	0	0
	D - Winslow Rd	14	5	0	0

Average PCU Per Veh

From	To				
		A - A421 (East)	B - B4033 Nash Road	C - A421 (West)	D - Winslow Rd
	A - A421 (East)	1.000	1.054	1.061	1.091
	B - B4033 Nash Road	1.025	1.000	1.040	1.022
	C - A421 (West)	1.066	1.077	1.000	1.000
	D - Winslow Rd	1.143	1.054	1.000	1.000

Detailed Demand Data

Demand for each time segment

Time Segment	Arm	Demand (Veh/hr)	Demand in PCU (PCU/hr)
07:30-07:45	A - A421 (East)	882	935
	B - B4033 Nash Road	304	311
	C - A421 (West)	736	784
	D - Winslow Rd	79	82
07:45-08:00	A - A421 (East)	1053	1117
	B - B4033 Nash Road	362	372
	C - A421 (West)	879	936
	D - Winslow Rd	94	98
08:00-08:15	A - A421 (East)	1290	1368
	B - B4033 Nash Road	444	456
	C - A421 (West)	1077	1147
	D - Winslow Rd	115	120
08:15-08:30	A - A421 (East)	1290	1368
	B - B4033 Nash Road	444	456
	C - A421 (West)	1077	1147
	D - Winslow Rd	115	120
08:30-08:45	A - A421 (East)	1053	1117
	B - B4033 Nash Road	362	372
	C - A421 (West)	879	936
	D - Winslow Rd	94	98
08:45-09:00	A - A421 (East)	882	935
	B - B4033 Nash Road	304	311
	C - A421 (West)	736	784
	D - Winslow Rd	79	82

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
A - A421 (East)	1.07	144.49	56.5	F	1075	1613
B - B4033 Nash Road	1.14	278.98	33.0	F	370	555
C - A421 (West)	1.11	209.77	64.6	F	897	1346
D - Winslow Rd	0.17	6.36	0.2	A	96	144

Main Results for each time segment

07:30 - 07:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - A421 (East)	882	221	95	1225	0.720	872	876	0.0	2.5	9.939	A
B - B4033 Nash Road	304	76	782	556	0.546	299	185	0.0	1.2	13.754	B
C - A421 (West)	736	184	268	1012	0.728	726	813	0.0	2.5	12.210	B
D - Winslow Rd	79	20	893	837	0.094	78	100	0.0	0.1	4.744	A

07:45 - 08:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - A421 (East)	1053	263	114	1215	0.867	1041	1041	2.5	5.6	19.347	C
B - B4033 Nash Road	362	91	933	470	0.772	355	221	1.2	3.0	29.758	D
C - A421 (West)	879	220	318	984	0.894	863	970	2.5	6.6	26.726	D
D - Winslow Rd	94	23	1061	745	0.126	94	119	0.1	0.1	5.522	A

08:00 - 08:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - A421 (East)	1290	323	136	1203	1.073	1180	1148	5.6	33.2	71.453	F
B - B4033 Nash Road	444	111	1060	397	1.119	383	256	3.0	18.3	122.975	F
C - A421 (West)	1077	269	343	970	1.110	955	1100	6.6	36.9	95.344	F
D - Winslow Rd	115	29	1169	687	0.167	115	130	0.1	0.2	6.288	A

08:15 - 08:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - A421 (East)	1290	323	137	1202	1.073	1197	1159	33.2	56.5	144.490	F
B - B4033 Nash Road	444	111	1075	388	1.143	385	258	18.3	33.0	258.554	F
C - A421 (West)	1077	269	346	968	1.112	965	1115	36.9	64.6	199.387	F
D - Winslow Rd	115	29	1180	681	0.169	115	131	0.2	0.2	6.363	A

08:30 - 08:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - A421 (East)	1053	263	117	1213	0.868	1192	1145	56.5	21.9	122.374	F
B - B4033 Nash Road	362	91	1065	394	0.920	383	244	33.0	27.9	278.983	F
C - A421 (West)	879	220	343	970	0.907	955	1104	64.6	45.7	209.768	F
D - Winslow Rd	94	23	1168	687	0.137	94	130	0.2	0.2	6.070	A

08:45 - 09:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - A421 (East)	882	221	101	1222	0.722	959	1110	21.9	2.7	17.601	C
B - B4033 Nash Road	304	76	857	513	0.592	409	203	27.9	1.6	66.669	F
C - A421 (West)	736	184	363	959	0.768	903	903	45.7	4.0	89.547	F
D - Winslow Rd	79	20	1132	707	0.111	79	133	0.2	0.1	5.730	A

2033 Base + CD + D with TP, 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
J10	A421 Nash Road/ Winslow Road	Standard Roundabout		A, B, C, D	195.11	F

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D18	2033 Base + CD + D with TP	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 - A421 (East)		ONE HOUR	✓	1256	100.000
B - B4033 Nash Road		ONE HOUR	✓	285	100.000
C - A421 (West)		ONE HOUR	✓	1094	100.000
D - Winslow Rd		ONE HOUR	✓	110	100.000

Origin-Destination Data

Demand (Veh/hr)

	To				
From		A - A421 (East)	B - B4033 Nash Road	C - A421 (West)	D - Winslow Rd
	A - A421 (East)	2	188	1052	13
	B - B4033 Nash Road	177	0	57	52
	C - A421 (West)	1043	33	0	17
	D - Winslow Rd	13	65	32	0

Proportions

	To				
From		A - A421 (East)	B - B4033 Nash Road	C - A421 (West)	D - Winslow Rd
	A - A421 (East)	0.00	0.15	0.84	0.01
	B - B4033 Nash Road	0.62	0.00	0.20	0.18
	C - A421 (West)	0.95	0.03	0.00	0.02
	D - Winslow Rd	0.12	0.59	0.29	0.00

Vehicle Mix

Heavy Vehicle Percentages

	To				
		A - A421 (East)	B - B4033 Nash Road	C - A421 (West)	D - Winslow Rd
From	A - A421 (East)	0	0	2	0
	B - B4033 Nash Road	1	0	2	2
	C - A421 (West)	3	0	0	0
	D - Winslow Rd	9	0	0	0

Average PCU Per Veh

	To				
		A - A421 (East)	B - B4033 Nash Road	C - A421 (West)	D - Winslow Rd
From	A - A421 (East)	1.000	1.000	1.023	1.000
	B - B4033 Nash Road	1.007	1.000	1.020	1.022
	C - A421 (West)	1.035	1.000	1.000	1.000
	D - Winslow Rd	1.091	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 - A421 (East)	945	963
	B - B4033 Nash Road	215	217
	C - A421 (West)	823	850
	D - Winslow Rd	83	83
17:00-17:15	A - A421 (East)	1129	1150
	B - B4033 Nash Road	257	260
	C - A421 (West)	983	1016
	D - Winslow Rd	99	100
17:15-17:30	A - A421 (East)	1383	1409
	B - B4033 Nash Road	314	318
	C - A421 (West)	1204	1244
	D - Winslow Rd	121	122
17:30-17:45	A - A421 (East)	1383	1409
	B - B4033 Nash Road	314	318
	C - A421 (West)	1204	1244
	D - Winslow Rd	121	122
17:45-18:00	A - A421 (East)	1129	1150
	B - B4033 Nash Road	257	260
	C - A421 (West)	983	1016
	D - Winslow Rd	99	100
18:00-18:15	A - A421 (East)	945	963
	B - B4033 Nash Road	215	217
	C - A421 (West)	823	850
	D - Winslow Rd	83	83

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
A - A421 (East)	1.10	179.72	76.0	F	1152	1728
B - B4033 Nash Road	0.78	38.91	3.2	E	262	393
C - A421 (West)	1.15	271.01	88.8	F	1003	1505
D - Winslow Rd	0.17	6.24	0.2	A	101	151

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - A421 (East)	945	236	97	1276	0.741	934	917	0.0	2.7	10.230	B
B - B4033 Nash Road	215	54	818	560	0.384	212	214	0.0	0.6	10.298	B
C - A421 (West)	823	206	181	1094	0.753	812	849	0.0	2.9	12.311	B
D - Winslow Rd	83	21	932	856	0.096	82	61	0.0	0.1	4.647	A

17:00 - 17:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - A421 (East)	1129	282	116	1266	0.892	1113	1089	2.7	6.8	21.494	C
B - B4033 Nash Road	257	64	975	472	0.543	254	254	0.6	1.1	16.375	C
C - A421 (West)	983	246	217	1074	0.916	963	1012	2.9	7.9	28.309	D
D - Winslow Rd	99	25	1107	761	0.130	98	73	0.1	0.1	5.432	A

17:15 - 17:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - A421 (East)	1383	346	138	1254	1.103	1238	1198	6.8	43.0	83.989	F
B - B4033 Nash Road	314	79	1087	409	0.768	307	289	1.1	2.9	33.347	D
C - A421 (West)	1204	301	261	1049	1.148	1039	1133	7.9	49.1	110.996	F
D - Winslow Rd	121	30	1216	702	0.172	120	85	0.1	0.2	6.187	A

17:30 - 17:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - A421 (East)	1383	346	139	1253	1.103	1251	1207	43.0	76.0	179.720	F
B - B4033 Nash Road	314	79	1098	403	0.780	313	291	2.9	3.2	38.914	E
C - A421 (West)	1204	301	266	1046	1.151	1045	1145	49.1	88.8	245.250	F
D - Winslow Rd	121	30	1225	697	0.173	121	86	0.2	0.2	6.244	A

17:45 - 18:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - A421 (East)	1129	282	120	1264	0.893	1248	1185	76.0	46.3	178.370	F
B - B4033 Nash Road	257	64	1089	408	0.629	262	278	3.2	1.8	25.563	D
C - A421 (West)	983	246	225	1069	0.919	1057	1126	88.8	70.2	271.009	F
D - Winslow Rd	99	25	1205	707	0.139	99	77	0.2	0.2	5.919	A

18:00 - 18:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - A421 (East)	945	236	106	1272	0.743	1118	1172	46.3	3.2	46.176	E
B - B4033 Nash Road	215	54	975	472	0.455	219	249	1.8	0.9	14.408	B
C - A421 (West)	823	206	189	1090	0.755	1074	1005	70.2	7.4	136.154	F
D - Winslow Rd	83	21	1195	713	0.116	83	68	0.2	0.1	5.718	A

2033 Base + CD + D - ST, 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
J10	A421 Nash Road/ Winslow Road	Standard Roundabout		A, B, C, D	214.24	F

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D19	2033 Base + CD + D - ST	AM	ONE HOUR	07:30	09:00	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 - A421 (East)		ONE HOUR	✓	1200	100.000
B - B4033 Nash Road		ONE HOUR	✓	407	100.000
C - A421 (West)		ONE HOUR	✓	992	100.000
D - Winslow Rd		ONE HOUR	✓	104	100.000

Origin-Destination Data

Demand (Veh/hr)

	To				
From		A - A421 (East)	B - B4033 Nash Road	C - A421 (West)	D - Winslow Rd
	A - A421 (East)	2	159	1026	13
	B - B4033 Nash Road	244	0	57	106
	C - A421 (West)	944	30	1	17
	D - Winslow Rd	8	64	32	0

Proportions

	To				
From		A - A421 (East)	B - B4033 Nash Road	C - A421 (West)	D - Winslow Rd
	A - A421 (East)	0.00	0.13	0.86	0.01
	B - B4033 Nash Road	0.60	0.00	0.14	0.26
	C - A421 (West)	0.95	0.03	0.00	0.02
	D - Winslow Rd	0.08	0.62	0.31	0.00

Vehicle Mix

Heavy Vehicle Percentages

From	To				
		A - A421 (East)	B - B4033 Nash Road	C - A421 (West)	D - Winslow Rd
	A - A421 (East)	0	5	6	9
	B - B4033 Nash Road	2	0	4	2
	C - A421 (West)	7	8	0	0
	D - Winslow Rd	14	5	0	0

Average PCU Per Veh

From	To				
		A - A421 (East)	B - B4033 Nash Road	C - A421 (West)	D - Winslow Rd
	A - A421 (East)	1.000	1.054	1.061	1.091
	B - B4033 Nash Road	1.025	1.000	1.040	1.022
	C - A421 (West)	1.066	1.077	1.000	1.000
	D - Winslow Rd	1.143	1.054	1.000	1.000

Detailed Demand Data

Demand for each time segment

Time Segment	Arm	Demand (Veh/hr)	Demand in PCU (PCU/hr)
07:30-07:45	A - A421 (East)	903	958
	B - B4033 Nash Road	306	314
	C - A421 (West)	747	796
	D - Winslow Rd	79	82
07:45-08:00	A - A421 (East)	1079	1144
	B - B4033 Nash Road	366	375
	C - A421 (West)	892	950
	D - Winslow Rd	94	98
08:00-08:15	A - A421 (East)	1321	1401
	B - B4033 Nash Road	448	460
	C - A421 (West)	1093	1164
	D - Winslow Rd	115	120
08:15-08:30	A - A421 (East)	1321	1401
	B - B4033 Nash Road	448	460
	C - A421 (West)	1093	1164
	D - Winslow Rd	115	120
08:30-08:45	A - A421 (East)	1079	1144
	B - B4033 Nash Road	366	375
	C - A421 (West)	892	950
	D - Winslow Rd	94	98
08:45-09:00	A - A421 (East)	903	958
	B - B4033 Nash Road	306	314
	C - A421 (West)	747	796
	D - Winslow Rd	79	82

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
A - A421 (East)	1.10	175.59	70.8	F	1101	1652
B - B4033 Nash Road	1.16	311.13	35.7	F	373	560
C - A421 (West)	1.13	243.92	72.5	F	911	1366
D - Winslow Rd	0.17	6.38	0.2	A	96	144

Main Results for each time segment

07:30 - 07:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - A421 (East)	903	226	95	1225	0.737	893	889	0.0	2.7	10.510	B
B - B4033 Nash Road	306	77	799	546	0.561	301	188	0.0	1.2	14.426	B
C - A421 (West)	747	187	270	1010	0.740	736	831	0.0	2.7	12.694	B
D - Winslow Rd	79	20	906	830	0.095	78	100	0.0	0.1	4.788	A

07:45 - 08:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - A421 (East)	1079	270	114	1215	0.888	1063	1055	2.7	6.5	21.752	C
B - B4033 Nash Road	366	91	952	459	0.797	357	225	1.2	3.3	33.087	D
C - A421 (West)	892	223	320	982	0.908	874	990	2.7	7.3	28.996	D
D - Winslow Rd	94	23	1075	738	0.127	94	119	0.1	0.1	5.584	A

08:00 - 08:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - A421 (East)	1321	330	136	1203	1.098	1186	1152	6.5	40.3	83.080	F
B - B4033 Nash Road	448	112	1065	394	1.137	382	256	3.3	19.9	132.635	F
C - A421 (West)	1093	273	343	970	1.126	958	1104	7.3	40.9	103.884	F
D - Winslow Rd	115	29	1173	685	0.168	115	128	0.1	0.2	6.310	A

08:15 - 08:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - A421 (East)	1321	330	136	1203	1.099	1199	1161	40.3	70.8	175.593	F
B - B4033 Nash Road	448	112	1077	387	1.156	385	259	19.9	35.7	278.675	F
C - A421 (West)	1093	273	345	968	1.128	966	1116	40.9	72.5	220.953	F
D - Winslow Rd	115	29	1183	680	0.169	115	129	0.2	0.2	6.375	A

08:30 - 08:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - A421 (East)	1079	270	117	1213	0.889	1196	1149	70.8	41.4	170.901	F
B - B4033 Nash Road	366	91	1068	392	0.932	382	245	35.7	31.7	311.134	F
C - A421 (West)	892	223	343	970	0.920	957	1107	72.5	56.3	243.919	F
D - Winslow Rd	94	23	1171	686	0.137	94	128	0.2	0.2	6.085	A

08:45 - 09:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - A421 (East)	903	226	102	1222	0.740	1057	1151	41.4	3.1	40.495	E
B - B4033 Nash Road	306	77	942	464	0.659	424	216	31.7	2.4	127.630	F
C - A421 (West)	747	187	377	951	0.786	934	989	56.3	9.4	133.139	F
D - Winslow Rd	79	20	1174	685	0.115	79	137	0.2	0.1	5.945	A

2033 Base + CD + D - ST, 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
J10	A421 Nash Road/ Winslow Road	Standard Roundabout		A, B, C, D	225.57	F

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D20	2033 Base + CD + D - ST	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 - A421 (East)		ONE HOUR	✓	1270	100.000
B - B4033 Nash Road		ONE HOUR	✓	288	100.000
C - A421 (West)		ONE HOUR	✓	1113	100.000
D - Winslow Rd		ONE HOUR	✓	110	100.000

Origin-Destination Data

Demand (Veh/hr)

	To				
From		A - A421 (East)	B - B4033 Nash Road	C - A421 (West)	D - Winslow Rd
	A - A421 (East)	2	191	1064	13
	B - B4033 Nash Road	180	0	57	52
	C - A421 (West)	1062	33	0	17
	D - Winslow Rd	13	65	32	0

Proportions

	To				
From		A - A421 (East)	B - B4033 Nash Road	C - A421 (West)	D - Winslow Rd
	A - A421 (East)	0.00	0.15	0.84	0.01
	B - B4033 Nash Road	0.62	0.00	0.20	0.18
	C - A421 (West)	0.95	0.03	0.00	0.02
	D - Winslow Rd	0.12	0.59	0.29	0.00

Vehicle Mix

Heavy Vehicle Percentages

	To				
		A - A421 (East)	B - B4033 Nash Road	C - A421 (West)	D - Winslow Rd
From	A - A421 (East)	0	0	2	0
	B - B4033 Nash Road	1	0	2	2
	C - A421 (West)	3	0	0	0
	D - Winslow Rd	9	0	0	0

Average PCU Per Veh

	To				
		A - A421 (East)	B - B4033 Nash Road	C - A421 (West)	D - Winslow Rd
From	A - A421 (East)	1.000	1.000	1.023	1.000
	B - B4033 Nash Road	1.007	1.000	1.020	1.022
	C - A421 (West)	1.035	1.000	1.000	1.000
	D - Winslow Rd	1.091	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 - A421 (East)	956	974
	B - B4033 Nash Road	217	220
	C - A421 (West)	838	866
	D - Winslow Rd	83	83
17:00-17:15	A - A421 (East)	1142	1163
	B - B4033 Nash Road	259	262
	C - A421 (West)	1001	1034
	D - Winslow Rd	99	100
17:15-17:30	A - A421 (East)	1398	1425
	B - B4033 Nash Road	317	321
	C - A421 (West)	1226	1266
	D - Winslow Rd	121	122
17:30-17:45	A - A421 (East)	1398	1425
	B - B4033 Nash Road	317	321
	C - A421 (West)	1226	1266
	D - Winslow Rd	121	122
17:45-18:00	A - A421 (East)	1142	1163
	B - B4033 Nash Road	259	262
	C - A421 (West)	1001	1034
	D - Winslow Rd	99	100
18:00-18:15	A - A421 (East)	956	974
	B - B4033 Nash Road	217	220
	C - A421 (West)	838	866
	D - Winslow Rd	83	83

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
A - A421 (East)	1.12	203.12	83.5	F	1165	1748
B - B4033 Nash Road	0.79	40.30	3.3	E	264	397
C - A421 (West)	1.17	318.94	100.9	F	1021	1532
D - Winslow Rd	0.17	6.26	0.2	A	101	151

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - A421 (East)	956	239	97	1276	0.749	945	933	0.0	2.8	10.524	B
B - B4033 Nash Road	217	54	827	555	0.391	214	215	0.0	0.6	10.499	B
C - A421 (West)	838	209	183	1093	0.767	826	858	0.0	3.1	12.944	B
D - Winslow Rd	83	21	948	848	0.097	82	61	0.0	0.1	4.700	A

17:00 - 17:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - A421 (East)	1142	285	116	1266	0.902	1124	1105	2.8	7.3	22.830	C
B - B4033 Nash Road	259	65	984	467	0.555	257	256	0.6	1.2	16.943	C
C - A421 (West)	1001	250	220	1072	0.933	977	1021	3.1	9.1	31.530	D
D - Winslow Rd	99	25	1123	752	0.131	98	73	0.1	0.1	5.505	A

17:15 - 17:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - A421 (East)	1398	350	138	1254	1.115	1240	1202	7.3	46.8	89.994	F
B - B4033 Nash Road	317	79	1089	408	0.778	310	289	1.2	3.0	34.488	D
C - A421 (West)	1226	306	264	1048	1.170	1040	1136	9.1	55.5	123.736	F
D - Winslow Rd	121	30	1219	700	0.172	120	84	0.1	0.2	6.207	A

17:30 - 17:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - A421 (East)	1398	350	138	1254	1.115	1251	1209	46.8	83.5	195.475	F
B - B4033 Nash Road	317	79	1099	402	0.788	316	290	3.0	3.3	40.296	E
C - A421 (West)	1226	306	269	1045	1.173	1044	1146	55.5	100.9	276.647	F
D - Winslow Rd	121	30	1227	696	0.173	121	86	0.2	0.2	6.256	A

17:45 - 18:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - A421 (East)	1142	285	119	1264	0.903	1249	1188	83.5	56.6	203.122	F
B - B4033 Nash Road	259	65	1091	407	0.636	265	278	3.3	1.9	26.261	D
C - A421 (West)	1001	250	228	1068	0.937	1057	1128	100.9	86.7	318.942	F
D - Winslow Rd	99	25	1208	706	0.140	99	77	0.2	0.2	5.935	A

18:00 - 18:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - A421 (East)	956	239	105	1272	0.752	1169	1176	56.6	3.4	69.491	F
B - B4033 Nash Road	217	54	1017	448	0.484	220	257	1.9	1.0	16.054	C
C - A421 (West)	838	209	191	1088	0.770	1076	1047	86.7	27.2	194.179	F
D - Winslow Rd	83	21	1199	710	0.116	83	68	0.2	0.1	5.734	A

2033 Base + CD + SP (ST), 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
J10	A421 Nash Road/ Winslow Road	Standard Roundabout		A, B, C, D	160.74	F

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D21	2033 Base + CD + SP (ST)	AM	ONE HOUR	07:30	09:00	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 - A421 (East)		ONE HOUR	✓	1158	100.000
B - B4033 Nash Road		ONE HOUR	✓	398	100.000
C - A421 (West)		ONE HOUR	✓	963	100.000
D - Winslow Rd		ONE HOUR	✓	104	100.000

Origin-Destination Data

Demand (Veh/hr)

	To				
From		A - A421 (East)	B - B4033 Nash Road	C - A421 (West)	D - Winslow Rd
	A - A421 (East)	2	152	991	13
	B - B4033 Nash Road	235	0	57	106
	C - A421 (West)	915	30	1	17
	D - Winslow Rd	8	64	32	0

Proportions

	To				
From		A - A421 (East)	B - B4033 Nash Road	C - A421 (West)	D - Winslow Rd
	A - A421 (East)	0.00	0.13	0.86	0.01
	B - B4033 Nash Road	0.59	0.00	0.14	0.26
	C - A421 (West)	0.95	0.03	0.00	0.02
	D - Winslow Rd	0.08	0.62	0.31	0.00

Vehicle Mix

Heavy Vehicle Percentages

From	To				
		A - A421 (East)	B - B4033 Nash Road	C - A421 (West)	D - Winslow Rd
	A - A421 (East)	0	5	6	9
	B - B4033 Nash Road	2	0	4	2
	C - A421 (West)	7	8	0	0
	D - Winslow Rd	14	5	0	0

Average PCU Per Veh

From	To				
		A - A421 (East)	B - B4033 Nash Road	C - A421 (West)	D - Winslow Rd
	A - A421 (East)	1.000	1.054	1.061	1.091
	B - B4033 Nash Road	1.025	1.000	1.040	1.022
	C - A421 (West)	1.066	1.077	1.000	1.000
	D - Winslow Rd	1.143	1.054	1.000	1.000

Detailed Demand Data

Demand for each time segment

Time Segment	Arm	Demand (Veh/hr)	Demand in PCU (PCU/hr)
07:30-07:45	A - A421 (East)	872	924
	B - B4033 Nash Road	300	308
	C - A421 (West)	725	773
	D - Winslow Rd	79	82
07:45-08:00	A - A421 (East)	1041	1104
	B - B4033 Nash Road	358	367
	C - A421 (West)	866	923
	D - Winslow Rd	94	98
08:00-08:15	A - A421 (East)	1275	1352
	B - B4033 Nash Road	439	450
	C - A421 (West)	1061	1130
	D - Winslow Rd	115	120
08:15-08:30	A - A421 (East)	1275	1352
	B - B4033 Nash Road	439	450
	C - A421 (West)	1061	1130
	D - Winslow Rd	115	120
08:30-08:45	A - A421 (East)	1041	1104
	B - B4033 Nash Road	358	367
	C - A421 (West)	866	923
	D - Winslow Rd	94	98
08:45-09:00	A - A421 (East)	872	924
	B - B4033 Nash Road	300	308
	C - A421 (West)	725	773
	D - Winslow Rd	79	82

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
A - A421 (East)	1.06	130.11	49.9	F	1062	1593
B - B4033 Nash Road	1.13	250.55	30.2	F	366	548
C - A421 (West)	1.10	178.02	56.8	F	884	1326
D - Winslow Rd	0.17	6.35	0.2	A	96	144

Main Results for each time segment

07:30 - 07:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - A421 (East)	872	218	95	1225	0.711	862	862	0.0	2.4	9.675	A
B - B4033 Nash Road	300	75	774	561	0.535	295	183	0.0	1.1	13.349	B
C - A421 (West)	725	181	264	1013	0.716	716	805	0.0	2.4	11.742	B
D - Winslow Rd	79	20	879	844	0.093	78	100	0.0	0.1	4.697	A

07:45 - 08:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - A421 (East)	1041	260	114	1215	0.857	1029	1026	2.4	5.3	18.306	C
B - B4033 Nash Road	358	90	924	475	0.754	352	219	1.1	2.7	27.848	D
C - A421 (West)	866	217	314	986	0.879	852	961	2.4	5.9	24.613	C
D - Winslow Rd	94	23	1047	753	0.125	94	120	0.1	0.1	5.455	A

08:00 - 08:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - A421 (East)	1275	319	137	1202	1.060	1176	1142	5.3	30.0	66.123	F
B - B4033 Nash Road	439	110	1058	398	1.101	382	254	2.7	16.8	115.128	F
C - A421 (West)	1061	265	342	970	1.093	953	1098	5.9	32.9	86.974	F
D - Winslow Rd	115	29	1164	689	0.167	115	131	0.1	0.2	6.260	A

08:15 - 08:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - A421 (East)	1275	319	137	1202	1.060	1195	1155	30.0	49.9	130.106	F
B - B4033 Nash Road	439	110	1075	389	1.128	385	257	16.8	30.2	239.652	F
C - A421 (West)	1061	265	345	969	1.095	965	1115	32.9	56.8	178.020	F
D - Winslow Rd	115	29	1178	682	0.168	115	132	0.2	0.2	6.346	A

08:30 - 08:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - A421 (East)	1041	260	117	1213	0.858	1189	1141	49.9	12.8	100.483	F
B - B4033 Nash Road	358	90	1063	395	0.907	382	243	30.2	24.2	250.546	F
C - A421 (West)	866	217	343	970	0.893	953	1103	56.8	35.1	176.026	F
D - Winslow Rd	94	23	1165	689	0.136	94	131	0.2	0.2	6.051	A

08:45 - 09:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - A421 (East)	872	218	100	1222	0.713	912	1049	12.8	2.6	13.050	B
B - B4033 Nash Road	300	75	818	536	0.560	391	195	24.2	1.3	42.421	E
C - A421 (West)	725	181	347	968	0.749	852	863	35.1	3.3	52.981	F
D - Winslow Rd	79	20	1070	741	0.106	79	129	0.2	0.1	5.436	A

2033 Base + CD + SP (ST), 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
J10	A421 Nash Road/ Winslow Road	Standard Roundabout		A, B, C, D	166.07	F

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D22	2033 Base + CD + SP (ST)	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 - A421 (East)		ONE HOUR	✓	1234	100.000
B - B4033 Nash Road		ONE HOUR	✓	282	100.000
C - A421 (West)		ONE HOUR	✓	1075	100.000
D - Winslow Rd		ONE HOUR	✓	110	100.000

Origin-Destination Data

Demand (Veh/hr)

	To				
From		A - A421 (East)	B - B4033 Nash Road	C - A421 (West)	D - Winslow Rd
	A - A421 (East)	2	184	1035	13
	B - B4033 Nash Road	173	0	57	52
	C - A421 (West)	1025	33	0	17
	D - Winslow Rd	13	65	32	0

Proportions

	To				
From		A - A421 (East)	B - B4033 Nash Road	C - A421 (West)	D - Winslow Rd
	A - A421 (East)	0.00	0.15	0.84	0.01
	B - B4033 Nash Road	0.61	0.00	0.20	0.18
	C - A421 (West)	0.95	0.03	0.00	0.02
	D - Winslow Rd	0.12	0.59	0.29	0.00

Vehicle Mix

Heavy Vehicle Percentages

	To				
		A - A421 (East)	B - B4033 Nash Road	C - A421 (West)	D - Winslow Rd
From	A - A421 (East)	0	0	2	0
	B - B4033 Nash Road	1	0	2	2
	C - A421 (West)	3	0	0	0
	D - Winslow Rd	9	0	0	0

Average PCU Per Veh

	To				
		A - A421 (East)	B - B4033 Nash Road	C - A421 (West)	D - Winslow Rd
From	A - A421 (East)	1.000	1.000	1.023	1.000
	B - B4033 Nash Road	1.007	1.000	1.020	1.022
	C - A421 (West)	1.035	1.000	1.000	1.000
	D - Winslow Rd	1.091	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 - A421 (East)	929	946
	B - B4033 Nash Road	212	215
	C - A421 (West)	810	836
	D - Winslow Rd	83	83
17:00-17:15	A - A421 (East)	1109	1130
	B - B4033 Nash Road	253	256
	C - A421 (West)	967	999
	D - Winslow Rd	99	100
17:15-17:30	A - A421 (East)	1358	1384
	B - B4033 Nash Road	310	314
	C - A421 (West)	1184	1223
	D - Winslow Rd	121	122
17:30-17:45	A - A421 (East)	1358	1384
	B - B4033 Nash Road	310	314
	C - A421 (West)	1184	1223
	D - Winslow Rd	121	122
17:45-18:00	A - A421 (East)	1109	1130
	B - B4033 Nash Road	253	256
	C - A421 (West)	967	999
	D - Winslow Rd	99	100
18:00-18:15	A - A421 (East)	929	946
	B - B4033 Nash Road	212	215
	C - A421 (West)	810	836
	D - Winslow Rd	83	83

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
A - A421 (East)	1.08	156.04	64.7	F	1132	1698
B - B4033 Nash Road	0.77	37.30	3.0	E	258	388
C - A421 (West)	1.13	226.40	77.6	F	987	1480
D - Winslow Rd	0.17	6.23	0.2	A	101	151

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - A421 (East)	929	232	97	1276	0.728	919	901	0.0	2.6	9.802	A
B - B4033 Nash Road	212	53	806	567	0.374	210	210	0.0	0.6	10.023	B
C - A421 (West)	810	202	179	1095	0.739	799	837	0.0	2.7	11.749	B
D - Winslow Rd	83	21	917	865	0.095	82	61	0.0	0.1	4.596	A

17:00 - 17:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - A421 (East)	1109	277	117	1266	0.876	1095	1073	2.6	6.0	19.638	C
B - B4033 Nash Road	253	63	961	480	0.528	251	251	0.6	1.1	15.617	C
C - A421 (West)	967	242	214	1076	0.899	950	998	2.7	7.0	25.617	D
D - Winslow Rd	99	25	1091	770	0.128	98	73	0.1	0.1	5.359	A

17:15 - 17:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - A421 (East)	1358	340	139	1253	1.084	1233	1193	6.0	37.3	75.119	F
B - B4033 Nash Road	310	77	1085	410	0.756	303	287	1.1	2.7	31.919	D
C - A421 (West)	1184	296	257	1051	1.126	1039	1131	7.0	43.3	99.616	F
D - Winslow Rd	121	30	1211	705	0.171	120	85	0.1	0.2	6.160	A

17:30 - 17:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - A421 (East)	1358	340	139	1253	1.084	1249	1203	37.3	64.7	156.044	F
B - B4033 Nash Road	310	77	1098	403	0.770	309	290	2.7	3.0	37.300	E
C - A421 (West)	1184	296	262	1049	1.129	1047	1145	43.3	77.6	216.278	F
D - Winslow Rd	121	30	1222	699	0.173	121	87	0.2	0.2	6.228	A

17:45 - 18:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - A421 (East)	1109	277	120	1264	0.878	1244	1180	64.7	30.9	141.212	F
B - B4033 Nash Road	253	63	1088	408	0.620	258	276	3.0	1.7	24.739	C
C - A421 (West)	967	242	222	1071	0.902	1058	1125	77.6	54.8	226.400	F
D - Winslow Rd	99	25	1202	709	0.139	99	77	0.2	0.2	5.898	A

18:00 - 18:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - A421 (East)	929	232	105	1272	0.730	1041	1112	30.9	2.9	23.320	C
B - B4033 Nash Road	212	53	910	508	0.417	216	235	1.7	0.7	12.481	B
C - A421 (West)	810	202	185	1092	0.742	1016	941	54.8	3.3	85.244	F
D - Winslow Rd	83	21	1134	746	0.111	83	67	0.2	0.1	5.430	A

Junctions 9	
PICADY 9 - Priority Intersection Module	
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Filename: J11 - Stock Lane Coddimore Lane Shenley Road.j9

Path: \\uk.wspgroup.com\central data\Projects\700694xx\70069442 - SWMK - 2020\03 WIP\TP Transport Planning\Incoming\iCRC\200821 - Junction and Mitigation Modelling BC Only\J11

Report generation date: 15/09/2020 22:30:12

-
- »2020 Base, AM
 - »2020 Base, PM
 - »2033 Base, AM
 - »2033 Base, PM
 - »2033 Base + CD + D, AM
 - »2033 Base + CD + D, PM
 - »2033 Base + CD + D with TP, AM
 - »2033 Base + CD + D with TP, PM
 - »2033 Base + CD + D - ST, AM
 - »2033 Base + CD + D - ST, PM
 - »2033 Base + CD + SP (ST), AM
 - »2033 Base + CD + SP (ST), PM

Summary of junction performance

	AM					PM				
	Set ID	Queue (Veh)	Delay (s)	RFC	LOS	Set ID	Queue (Veh)	Delay (s)	RFC	LOS
	2020 Base									
Stream B-C	D1	0.1	6.03	0.09	A	D2	0.2	6.49	0.16	A
Stream B-A		0.2	7.98	0.14	A		0.2	8.00	0.13	A
Stream C-AB		0.1	6.40	0.05	A		0.1	6.12	0.07	A
	2033 Base									
Stream B-C	D13	0.1	6.24	0.11	A	D14	0.2	6.79	0.18	A
Stream B-A		0.2	8.37	0.16	A		0.2	8.35	0.16	A
Stream C-AB		0.1	6.45	0.06	A		0.1	6.18	0.08	A
	2033 Base + CD + D									
Stream B-C	D15	0.1	6.24	0.11	A	D16	0.2	6.79	0.18	A
Stream B-A		0.2	8.37	0.16	A		0.2	8.35	0.16	A
Stream C-AB		0.1	6.45	0.06	A		0.1	6.18	0.08	A
	2033 Base + CD + D with TP									
Stream B-C	D17	0.1	6.24	0.11	A	D18	0.2	6.79	0.18	A
Stream B-A		0.2	8.37	0.16	A		0.2	8.35	0.16	A
Stream C-AB		0.1	6.45	0.06	A		0.1	6.18	0.08	A
	2033 Base + CD + D - ST									
Stream B-C	D19	0.1	6.24	0.11	A	D20	0.2	6.79	0.18	A
Stream B-A		0.2	8.37	0.16	A		0.2	8.35	0.16	A
Stream C-AB		0.1	6.45	0.06	A		0.1	6.18	0.08	A
	2033 Base + CD + SP (ST)									
Stream B-C	D21	0.1	6.24	0.11	A	D22	0.2	6.79	0.18	A
Stream B-A		0.2	8.37	0.16	A		0.2	8.35	0.16	A
Stream C-AB		0.1	6.45	0.06	A		0.1	6.18	0.08	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	Stock Lane/ Coddimore Lane/ Shenley Road
Location	51°59'50.35"N, 0°49'20.59"W
Site number	11
Date	04/12/2015
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	fsuarez
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	Veh	perHour	s	-Min	perMin

Analysis Options

Vehicle length (m)	Calculate Queue Percentiles	Calculate detailed queueing delay	Calculate residual capacity	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)
5.75				0.85	36.00	20.00

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	2020 Base	AM	ONE HOUR	07:30	09:00	15	✓
D2	2020 Base	PM	ONE HOUR	16:45	18:15	15	✓
D3	2026 Base	AM	ONE HOUR	07:30	09:00	15	✓
D4	2026 Base	PM	ONE HOUR	16:45	18:15	15	✓
D5	2026 Base + CD + D	AM	ONE HOUR	07:30	09:00	15	✓
D6	2026 Base + CD + D	PM	ONE HOUR	16:45	18:15	15	✓
D7	2026 Base + CD + D with TP	AM	ONE HOUR	07:30	09:00	15	✓
D8	2026 Base + CD + D with TP	PM	ONE HOUR	16:45	18:15	15	✓
D9	2026 Base + CD + D - ST	AM	ONE HOUR	07:30	09:00	15	✓
D10	2026 Base + CD + D - ST	PM	ONE HOUR	16:45	18:15	15	✓
D11	2026 Base + CD + SP (ST)	AM	ONE HOUR	07:30	09:00	15	✓
D12	2026 Base + CD + SP (ST)	PM	ONE HOUR	16:45	18:15	15	✓
D13	2033 Base	AM	ONE HOUR	07:30	09:00	15	✓
D14	2033 Base	PM	ONE HOUR	16:45	18:15	15	✓
D15	2033 Base + CD + D	AM	ONE HOUR	07:30	09:00	15	✓
D16	2033 Base + CD + D	PM	ONE HOUR	16:45	18:15	15	✓
D17	2033 Base + CD + D with TP	AM	ONE HOUR	07:30	09:00	15	✓
D18	2033 Base + CD + D with TP	PM	ONE HOUR	16:45	18:15	15	✓
D19	2033 Base + CD + D - ST	AM	ONE HOUR	07:30	09:00	15	✓
D20	2033 Base + CD + D - ST	PM	ONE HOUR	16:45	18:15	15	✓
D21	2033 Base + CD + SP (ST)	AM	ONE HOUR	07:30	09:00	15	✓
D22	2033 Base + CD + SP (ST)	PM	ONE HOUR	16:45	18:15	15	✓

Analysis Set Details

ID	Include in report	Use specific Demand Set(s)	Specific Demand Set(s)	Network flow scaling factor (%)	Network capacity scaling factor (%)
A1	✓	✓	D1,D2,D13,D14,D15,D16,D17,D18,D19,D20,D21,D22	100.000	100.000

2020 Base, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Major arm width	C - Coddemor Ln - Major arm geometry	For two-way major roads, please interpret results with caution if the total major carriageway width is less than 8m.

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
J11	Stock Lane/ Coddemor Lane/ Shenley Road	T-Junction	Two-way		2.55	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description	Arm type
A	Stock Lane		Major
B	Shenley Rd		Minor
C	Coddemor Ln		Major

Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Has right turn bay	Visibility for right turn (m)	Blocks?	Blocking queue (PCU)
C - Coddemor Ln	5.10			75.2	✓	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 - Shenley Rd	One lane plus flare	10.00	5.60	3.30	2.40	2.40	✓	1.00	33	96

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Stream	Intercept (Veh/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
B-A	590	0.112	0.282	0.178	0.403
B-C	738	0.118	0.297	-	-
C-B	618	0.249	0.249	-	-

The slopes and intercepts shown above do NOT include any corrections or adjustments.

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

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

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	2020 Base	AM	ONE HOUR	07:30	08:00	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 - Stock Lane		ONE HOUR	✓	192	100.000
B - Shenley Rd		ONE HOUR	✓	121	100.000
C - Coddemor Ln		ONE HOUR	✓	93	100.000

Origin-Destination Data

Demand (Veh/hr)

	To			
		A - Stock Lane	B - Shenley Rd	C - Coddemor Ln
From	A - Stock Lane	0	104	88
	B - Shenley Rd	88	0	55
	C - Coddemor Ln	88	25	0

Proportions

	To			
		A - Stock Lane	B - Shenley Rd	C - Coddemor Ln
From	A - Stock Lane	0.00	0.54	0.46
	B - Shenley Rd	0.55	0.00	0.45
	C - Coddemor Ln	0.73	0.27	0.00

Vehicle Mix

Heavy Vehicle Percentages

	To			
		A - Stock Lane	B - Shenley Rd	C - Coddemor Ln
From	A - Stock Lane	0	1	1
	B - Shenley Rd	0	0	2
	C - Coddemor Ln	3	4	0

Average PCU Per Veh

	To			
		A - Stock Lane	B - Shenley Rd	C - Coddemor Ln
From	A - Stock Lane	1.000	1.010	1.011
	B - Shenley Rd	1.000	1.000	1.018
	C - Coddemor Ln	1.029	1.040	1.000

Detailed Demand Data

Demand for each time segment

Time Segment	Arm	Demand (Veh/hr)	Demand in PCU (PCU/hr)
07:30-07:45	A - Stock Lane	145	146
	B - Shenley Rd	91	92
	C - Coddemor Ln	70	72
07:45-08:00	A - Stock Lane	173	174
	B - Shenley Rd	109	110
	C - Coddemor Ln	84	86
08:00-08:15	A - Stock Lane	211	214
	B - Shenley Rd	133	134
	C - Coddemor Ln	102	106
08:15-08:30	A - Stock Lane	211	214
	B - Shenley Rd	133	134
	C - Coddemor Ln	102	106
08:30-08:45	A - Stock Lane	173	174
	B - Shenley Rd	109	110
	C - Coddemor Ln	84	86
08:45-09:00	A - Stock Lane	145	146
	B - Shenley Rd	91	92
	C - Coddemor Ln	70	72

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
B-C	0.09	6.03	0.1	A	50	78
B-A	0.14	7.98	0.2	A	61	91
C-AB	0.05	6.40	0.1	A	26	39
C-A					60	89
A-B					95	143
A-C					81	121

Main Results for each time segment

07:30 - 07:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	41	10	680	0.061	41	0.0	0.1	5.629	A
B-A	50	12	545	0.091	49	0.0	0.1	7.256	A
C-AB	21	5	594	0.035	20	0.0	0.0	6.278	A
C-A	49	12			49				
A-B	78	20			78				
A-C	66	17			66				

07:45 - 08:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	49	12	671	0.074	49	0.1	0.1	5.793	A
B-A	59	15	536	0.111	59	0.1	0.1	7.547	A
C-AB	25	6	594	0.042	25	0.0	0.1	6.328	A
C-A	59	15			59				
A-B	93	23			93				
A-C	79	20			79				

08:00 - 08:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	61	15	658	0.092	60	0.1	0.1	6.028	A
B-A	73	18	524	0.139	73	0.1	0.2	7.976	A
C-AB	32	8	594	0.053	31	0.1	0.1	6.396	A
C-A	71	18			71				
A-B	115	29			115				
A-C	97	24			97				

08:15 - 08:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	61	15	658	0.092	61	0.1	0.1	6.029	A
B-A	73	18	524	0.139	73	0.2	0.2	7.981	A
C-AB	32	8	594	0.053	32	0.1	0.1	6.396	A
C-A	71	18			71				
A-B	115	29			115				
A-C	97	24			97				

08:30 - 08:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	49	12	671	0.074	50	0.1	0.1	5.798	A
B-A	59	15	536	0.111	59	0.2	0.1	7.554	A
C-AB	25	6	594	0.042	25	0.1	0.1	6.331	A
C-A	59	15			59				
A-B	93	23			93				
A-C	79	20			79				

08:45 - 09:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	41	10	680	0.061	41	0.1	0.1	5.640	A
B-A	50	12	545	0.091	50	0.1	0.1	7.273	A
C-AB	21	5	594	0.035	21	0.1	0.0	6.281	A
C-A	49	12			49				
A-B	78	20			78				
A-C	66	17			66				

2020 Base, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Major arm width	C - Coddemor Ln - Major arm geometry	For two-way major roads, please interpret results with caution if the total major carriageway width is less than 6m.

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
J11	Stock Lane/ Coddemor Lane/ Shenley Road	T-Junction	Two-way		3.80	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D2	2020 Base	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 - Stock Lane		ONE HOUR	✓	104	100.000
B - Shenley Rd		ONE HOUR	✓	156	100.000
C - Coddemor Ln		ONE HOUR	✓	92	100.000

Origin-Destination Data

Demand (Veh/hr)

	To			
		A - Stock Lane	B - Shenley Rd	C - Coddemor Ln
From	A - Stock Lane	0	51	53
	B - Shenley Rd	63	0	93
	C - Coddemor Ln	57	35	0

Proportions

	To			
		A - Stock Lane	B - Shenley Rd	C - Coddemor Ln
From	A - Stock Lane	0.00	0.49	0.51
	B - Shenley Rd	0.40	0.00	0.60
	C - Coddemor Ln	0.62	0.38	0.00

Vehicle Mix

Heavy Vehicle Percentages

	To			
		A - Stock Lane	B - Shenley Rd	C - Coddemor Ln
From	A - Stock Lane	0	0	0
	B - Shenley Rd	0	0	0
	C - Coddemor Ln	2	0	0

Average PCU Per Veh

	To			
		A - Stock Lane	B - Shenley Rd	C - Coddemor Ln
From	A - Stock Lane	1.000	1.000	1.000
	B - Shenley Rd	1.000	1.000	1.000
	C - Coddemor Ln	1.018	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 - Stock Lane	78	78
	B - Shenley Rd	117	117
	C - Coddemor Ln	69	70
17:00-17:15	A - Stock Lane	93	93
	B - Shenley Rd	140	140
	C - Coddemor Ln	83	84
17:15-17:30	A - Stock Lane	115	115
	B - Shenley Rd	172	172
	C - Coddemor Ln	101	102
17:30-17:45	A - Stock Lane	115	115
	B - Shenley Rd	172	172
	C - Coddemor Ln	101	102
17:45-18:00	A - Stock Lane	93	93
	B - Shenley Rd	140	140
	C - Coddemor Ln	83	84
18:00-18:15	A - Stock Lane	78	78
	B - Shenley Rd	117	117
	C - Coddemor Ln	69	70

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
B-C	0.16	6.49	0.2	A	85	128
B-A	0.13	8.00	0.2	A	58	87
C-AB	0.07	6.12	0.1	A	35	53
C-A					49	74
A-B					47	70
A-C					49	73

Main Results for each time segment

16:45 - 17:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	70	18	673	0.104	70	0.0	0.1	5.963	A
B-A	47	12	536	0.088	47	0.0	0.1	7.360	A
C-AB	28	7	626	0.045	28	0.0	0.1	6.015	A
C-A	41	10			41				
A-B	38	10			38				
A-C	40	10			40				

17:00 - 17:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	84	21	666	0.126	83	0.1	0.1	6.178	A
B-A	57	14	529	0.107	57	0.1	0.1	7.612	A
C-AB	34	9	628	0.055	34	0.1	0.1	6.059	A
C-A	48	12			48				
A-B	46	11			46				
A-C	48	12			48				

17:15 - 17:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	102	26	657	0.156	102	0.1	0.2	6.491	A
B-A	69	17	520	0.134	69	0.1	0.2	7.992	A
C-AB	43	11	631	0.068	43	0.1	0.1	6.119	A
C-A	58	15			58				
A-B	56	14			56				
A-C	58	15			58				

17:30 - 17:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	102	26	657	0.156	102	0.2	0.2	6.494	A
B-A	69	17	519	0.134	69	0.2	0.2	7.997	A
C-AB	43	11	631	0.068	43	0.1	0.1	6.121	A
C-A	58	15			58				
A-B	56	14			56				
A-C	58	15			58				

17:45 - 18:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	84	21	666	0.126	84	0.2	0.1	6.183	A
B-A	57	14	529	0.107	57	0.2	0.1	7.620	A
C-AB	34	9	628	0.055	34	0.1	0.1	6.062	A
C-A	48	12			48				
A-B	46	11			46				
A-C	48	12			48				

18:00 - 18:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	70	18	673	0.104	70	0.1	0.1	5.977	A
B-A	47	12	536	0.088	48	0.1	0.1	7.371	A
C-AB	28	7	626	0.045	28	0.1	0.1	6.022	A
C-A	41	10			41				
A-B	38	10			38				
A-C	40	10			40				

2033 Base, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Major arm width	C - Coddemor Ln - Major arm geometry	For two-way major roads, please interpret results with caution if the total major carriageway width is less than 6m.

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
J11	Stock Lane/ Coddemor Lane/ Shenley Road	T-Junction	Two-way		2.65	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D13	2033 Base	AM	ONE HOUR	07:30	09:00	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 - Stock Lane		ONE HOUR	✓	220	100.000
B - Shenley Rd		ONE HOUR	✓	139	100.000
C - Coddemor Ln		ONE HOUR	✓	107	100.000

Origin-Destination Data

Demand (Veh/hr)

	To			
		A - Stock Lane	B - Shenley Rd	C - Coddemor Ln
From	A - Stock Lane	0	119	101
	B - Shenley Rd	76	0	63
	C - Coddemor Ln	78	29	0

Proportions

	To			
		A - Stock Lane	B - Shenley Rd	C - Coddemor Ln
From	A - Stock Lane	0.00	0.54	0.46
	B - Shenley Rd	0.55	0.00	0.45
	C - Coddemor Ln	0.73	0.27	0.00

Vehicle Mix

Heavy Vehicle Percentages

	To			
		A - Stock Lane	B - Shenley Rd	C - Coddemor Ln
From	A - Stock Lane	0	1	1
	B - Shenley Rd	0	0	2
	C - Coddemor Ln	3	4	0

Average PCU Per Veh

	To			
		A - Stock Lane	B - Shenley Rd	C - Coddemor Ln
From	A - Stock Lane	1.000	1.010	1.011
	B - Shenley Rd	1.000	1.000	1.018
	C - Coddemor Ln	1.029	1.040	1.000

Detailed Demand Data

Demand for each time segment

Time Segment	Arm	Demand (Veh/hr)	Demand in PCU (PCU/hr)
07:30-07:45	A - Stock Lane	168	168
	B - Shenley Rd	104	105
	C - Coddemor Ln	80	83
07:45-08:00	A - Stock Lane	198	200
	B - Shenley Rd	125	128
	C - Coddemor Ln	96	99
08:00-08:15	A - Stock Lane	242	245
	B - Shenley Rd	153	154
	C - Coddemor Ln	117	121
08:15-08:30	A - Stock Lane	242	245
	B - Shenley Rd	153	154
	C - Coddemor Ln	117	121
08:30-08:45	A - Stock Lane	198	200
	B - Shenley Rd	125	128
	C - Coddemor Ln	96	99
08:45-09:00	A - Stock Lane	168	168
	B - Shenley Rd	104	105
	C - Coddemor Ln	80	83

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
B-C	0.11	6.24	0.1	A	58	87
B-A	0.16	8.37	0.2	A	69	104
C-AB	0.06	6.45	0.1	A	30	45
C-A					68	102
A-B					109	164
A-C					93	139

Main Results for each time segment

07:30 - 07:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	47	12	673	0.071	47	0.0	0.1	5.748	A
B-A	57	14	538	0.106	57	0.0	0.1	7.467	A
C-AB	24	6	594	0.040	24	0.0	0.0	6.313	A
C-A	56	14			56				
A-B	90	22			90				
A-C	76	19			76				

07:45 - 08:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	57	14	662	0.086	57	0.1	0.1	5.945	A
B-A	68	17	528	0.129	68	0.1	0.1	7.824	A
C-AB	29	7	594	0.049	29	0.0	0.1	6.372	A
C-A	67	17			67				
A-B	107	27			107				
A-C	91	23			91				

08:00 - 08:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	69	17	647	0.107	69	0.1	0.1	6.237	A
B-A	83	21	514	0.162	83	0.1	0.2	8.359	A
C-AB	37	9	595	0.062	37	0.1	0.1	6.453	A
C-A	81	20			81				
A-B	131	33			131				
A-C	111	28			111				

08:15 - 08:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	69	17	646	0.107	69	0.1	0.1	6.238	A
B-A	83	21	514	0.162	83	0.2	0.2	8.366	A
C-AB	37	9	595	0.062	37	0.1	0.1	6.453	A
C-A	81	20			81				
A-B	131	33			131				
A-C	111	28			111				

08:30 - 08:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	57	14	662	0.086	57	0.1	0.1	5.951	A
B-A	68	17	528	0.129	68	0.2	0.1	7.833	A
C-AB	29	7	594	0.049	29	0.1	0.1	6.373	A
C-A	67	17			67				
A-B	107	27			107				
A-C	91	23			91				

08:45 - 09:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	47	12	673	0.071	48	0.1	0.1	5.759	A
B-A	57	14	538	0.106	57	0.1	0.1	7.483	A
C-AB	24	6	594	0.040	24	0.1	0.1	6.317	A
C-A	56	14			56				
A-B	90	22			90				
A-C	76	19			76				

2033 Base, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Major arm width	C - Coddemor Ln - Major arm geometry	For two-way major roads, please interpret results with caution if the total major carriageway width is less than 8m.

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
J11	Stock Lane/ Coddemor Lane/ Shenley Road	T-Junction	Two-way		3.96	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D14	2033 Base	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 - Stock Lane		ONE HOUR	✓	120	100.000
B - Shenley Rd		ONE HOUR	✓	180	100.000
C - Coddemor Ln		ONE HOUR	✓	106	100.000

Origin-Destination Data

Demand (Veh/hr)

	To			
		A - Stock Lane	B - Shenley Rd	C - Coddemor Ln
From	A - Stock Lane	0	59	61
	B - Shenley Rd	73	0	107
	C - Coddemor Ln	66	40	0

Proportions

	To			
		A - Stock Lane	B - Shenley Rd	C - Coddemor Ln
From	A - Stock Lane	0.00	0.49	0.51
	B - Shenley Rd	0.40	0.00	0.60
	C - Coddemor Ln	0.62	0.38	0.00

Vehicle Mix

Heavy Vehicle Percentages

	To			
		A - Stock Lane	B - Shenley Rd	C - Coddemor Ln
From	A - Stock Lane	0	0	0
	B - Shenley Rd	0	0	0
	C - Coddemor Ln	2	0	0

Average PCU Per Veh

	To			
		A - Stock Lane	B - Shenley Rd	C - Coddemor Ln
From	A - Stock Lane	1.000	1.000	1.000
	B - Shenley Rd	1.000	1.000	1.000
	C - Coddemor Ln	1.018	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 - Stock Lane	90	90
	B - Shenley Rd	136	136
	C - Coddemor Ln	80	81
17:00-17:15	A - Stock Lane	108	108
	B - Shenley Rd	162	162
	C - Coddemor Ln	95	96
17:15-17:30	A - Stock Lane	132	132
	B - Shenley Rd	198	198
	C - Coddemor Ln	117	118
17:30-17:45	A - Stock Lane	132	132
	B - Shenley Rd	198	198
	C - Coddemor Ln	117	118
17:45-18:00	A - Stock Lane	108	108
	B - Shenley Rd	162	162
	C - Coddemor Ln	95	96
18:00-18:15	A - Stock Lane	90	90
	B - Shenley Rd	136	136
	C - Coddemor Ln	80	81

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
B-C	0.18	6.79	0.2	A	98	148
B-A	0.16	8.35	0.2	A	67	100
C-AB	0.08	6.18	0.1	A	41	62
C-A					56	84
A-B					54	81
A-C					56	84

Main Results for each time segment

16:45 - 17:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	81	20	668	0.121	80	0.0	0.1	6.123	A
B-A	55	14	531	0.103	54	0.0	0.1	7.549	A
C-AB	33	8	628	0.053	33	0.0	0.1	6.048	A
C-A	47	12			47				
A-B	44	11			44				
A-C	46	12			46				

17:00 - 17:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	96	24	660	0.146	96	0.1	0.2	6.388	A
B-A	65	16	523	0.125	65	0.1	0.1	7.869	A
C-AB	40	10	630	0.084	40	0.1	0.1	6.100	A
C-A	55	14			55				
A-B	53	13			53				
A-C	55	14			55				

17:15 - 17:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	118	30	648	0.182	118	0.2	0.2	6.783	A
B-A	80	20	511	0.157	80	0.1	0.2	8.348	A
C-AB	50	13	633	0.079	50	0.1	0.1	6.174	A
C-A	67	17			67				
A-B	65	16			65				
A-C	67	17			67				

17:30 - 17:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	118	30	648	0.182	118	0.2	0.2	6.791	A
B-A	80	20	511	0.157	80	0.2	0.2	8.355	A
C-AB	50	13	633	0.079	50	0.1	0.1	6.178	A
C-A	67	17			67				
A-B	65	16			65				
A-C	67	17			67				

17:45 - 18:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	96	24	660	0.146	97	0.2	0.2	6.399	A
B-A	65	16	523	0.125	66	0.2	0.1	7.880	A
C-AB	40	10	630	0.084	40	0.1	0.1	6.107	A
C-A	55	14			55				
A-B	53	13			53				
A-C	55	14			55				

18:00 - 18:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	81	20	667	0.121	81	0.2	0.1	6.138	A
B-A	55	14	531	0.103	55	0.1	0.1	7.569	A
C-AB	33	8	628	0.053	33	0.1	0.1	6.056	A
C-A	47	12			47				
A-B	44	11			44				
A-C	46	12			46				

2033 Base + CD + D, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Major arm width	C - Coddemor Ln - Major arm geometry	For two-way major roads, please interpret results with caution if the total major carriageway width is less than 6m.

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
J11	Stock Lane/ Coddemor Lane/ Shenley Road	T-Junction	Two-way		2.65	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D15	2033 Base + CD + D	AM	ONE HOUR	07:30	09:00	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 - Stock Lane		ONE HOUR	✓	220	100.000
B - Shenley Rd		ONE HOUR	✓	139	100.000
C - Coddemor Ln		ONE HOUR	✓	107	100.000

Origin-Destination Data

Demand (Veh/hr)

	To			
		A - Stock Lane	B - Shenley Rd	C - Coddemor Ln
From	A - Stock Lane	0	119	101
	B - Shenley Rd	76	0	63
	C - Coddemor Ln	78	29	0

Proportions

	To			
		A - Stock Lane	B - Shenley Rd	C - Coddemor Ln
From	A - Stock Lane	0.00	0.54	0.46
	B - Shenley Rd	0.55	0.00	0.45
	C - Coddemor Ln	0.73	0.27	0.00

Vehicle Mix

Heavy Vehicle Percentages

	To			
		A - Stock Lane	B - Shenley Rd	C - Coddemor Ln
From	A - Stock Lane	0	1	1
	B - Shenley Rd	0	0	2
	C - Coddemor Ln	3	4	0

Average PCU Per Veh

	To			
		A - Stock Lane	B - Shenley Rd	C - Coddemor Ln
From	A - Stock Lane	1.000	1.010	1.011
	B - Shenley Rd	1.000	1.000	1.018
	C - Coddemor Ln	1.029	1.040	1.000

Detailed Demand Data

Demand for each time segment

Time Segment	Arm	Demand (Veh/hr)	Demand in PCU (PCU/hr)
07:30-07:45	A - Stock Lane	168	168
	B - Shenley Rd	104	105
	C - Coddemor Ln	80	83
07:45-08:00	A - Stock Lane	198	200
	B - Shenley Rd	125	128
	C - Coddemor Ln	96	99
08:00-08:15	A - Stock Lane	242	245
	B - Shenley Rd	153	154
	C - Coddemor Ln	117	121
08:15-08:30	A - Stock Lane	242	245
	B - Shenley Rd	153	154
	C - Coddemor Ln	117	121
08:30-08:45	A - Stock Lane	198	200
	B - Shenley Rd	125	128
	C - Coddemor Ln	96	99
08:45-09:00	A - Stock Lane	168	168
	B - Shenley Rd	104	105
	C - Coddemor Ln	80	83

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
B-C	0.11	6.24	0.1	A	58	87
B-A	0.16	8.37	0.2	A	69	104
C-AB	0.06	6.45	0.1	A	30	45
C-A					68	102
A-B					109	164
A-C					93	139

Main Results for each time segment

07:30 - 07:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	47	12	673	0.071	47	0.0	0.1	5.748	A
B-A	57	14	538	0.106	57	0.0	0.1	7.467	A
C-AB	24	6	594	0.040	24	0.0	0.0	6.313	A
C-A	56	14			56				
A-B	90	22			90				
A-C	76	19			76				

07:45 - 08:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	57	14	662	0.086	57	0.1	0.1	5.945	A
B-A	68	17	528	0.129	68	0.1	0.1	7.824	A
C-AB	29	7	594	0.049	29	0.0	0.1	6.372	A
C-A	67	17			67				
A-B	107	27			107				
A-C	91	23			91				

08:00 - 08:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	69	17	647	0.107	69	0.1	0.1	6.237	A
B-A	83	21	514	0.162	83	0.1	0.2	8.359	A
C-AB	37	9	595	0.062	37	0.1	0.1	6.453	A
C-A	81	20			81				
A-B	131	33			131				
A-C	111	28			111				

08:15 - 08:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	69	17	646	0.107	69	0.1	0.1	6.238	A
B-A	83	21	514	0.162	83	0.2	0.2	8.366	A
C-AB	37	9	595	0.062	37	0.1	0.1	6.453	A
C-A	81	20			81				
A-B	131	33			131				
A-C	111	28			111				

08:30 - 08:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	57	14	662	0.086	57	0.1	0.1	5.951	A
B-A	68	17	528	0.129	68	0.2	0.1	7.833	A
C-AB	29	7	594	0.049	29	0.1	0.1	6.373	A
C-A	67	17			67				
A-B	107	27			107				
A-C	91	23			91				

08:45 - 09:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	47	12	673	0.071	48	0.1	0.1	5.759	A
B-A	57	14	538	0.106	57	0.1	0.1	7.483	A
C-AB	24	6	594	0.040	24	0.1	0.1	6.317	A
C-A	56	14			56				
A-B	90	22			90				
A-C	76	19			76				

2033 Base + CD + D, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Major arm width	C - Coddemor Ln - Major arm geometry	For two-way major roads, please interpret results with caution if the total major carriageway width is less than 6m.

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
J11	Stock Lane/ Coddemor Lane/ Shenley Road	T-Junction	Two-way		3.96	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D16	2033 Base + CD + D	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 - Stock Lane		ONE HOUR	✓	120	100.000
B - Shenley Rd		ONE HOUR	✓	180	100.000
C - Coddemor Ln		ONE HOUR	✓	106	100.000

Origin-Destination Data

Demand (Veh/hr)

	To			
		A - Stock Lane	B - Shenley Rd	C - Coddemor Ln
From	A - Stock Lane	0	59	61
	B - Shenley Rd	73	0	107
	C - Coddemor Ln	66	40	0

Proportions

	To			
		A - Stock Lane	B - Shenley Rd	C - Coddemor Ln
From	A - Stock Lane	0.00	0.49	0.51
	B - Shenley Rd	0.40	0.00	0.60
	C - Coddemor Ln	0.62	0.38	0.00

Vehicle Mix

Heavy Vehicle Percentages

	To			
		A - Stock Lane	B - Shenley Rd	C - Coddemor Ln
From	A - Stock Lane	0	0	0
	B - Shenley Rd	0	0	0
	C - Coddemor Ln	2	0	0

Average PCU Per Veh

	To			
		A - Stock Lane	B - Shenley Rd	C - Coddemor Ln
From	A - Stock Lane	1.000	1.000	1.000
	B - Shenley Rd	1.000	1.000	1.000
	C - Coddemor Ln	1.018	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 - Stock Lane	90	90
	B - Shenley Rd	136	136
	C - Coddemor Ln	80	81
17:00-17:15	A - Stock Lane	108	108
	B - Shenley Rd	162	162
	C - Coddemor Ln	95	96
17:15-17:30	A - Stock Lane	132	132
	B - Shenley Rd	198	198
	C - Coddemor Ln	117	118
17:30-17:45	A - Stock Lane	132	132
	B - Shenley Rd	198	198
	C - Coddemor Ln	117	118
17:45-18:00	A - Stock Lane	108	108
	B - Shenley Rd	162	162
	C - Coddemor Ln	95	96
18:00-18:15	A - Stock Lane	90	90
	B - Shenley Rd	136	136
	C - Coddemor Ln	80	81

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
B-C	0.18	6.79	0.2	A	98	148
B-A	0.16	8.35	0.2	A	67	100
C-AB	0.08	6.18	0.1	A	41	62
C-A					56	84
A-B					54	81
A-C					56	84

Main Results for each time segment

16:45 - 17:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	81	20	668	0.121	80	0.0	0.1	6.123	A
B-A	55	14	531	0.103	54	0.0	0.1	7.549	A
C-AB	33	8	628	0.053	33	0.0	0.1	6.048	A
C-A	47	12			47				
A-B	44	11			44				
A-C	46	12			46				

17:00 - 17:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	96	24	660	0.146	96	0.1	0.2	6.388	A
B-A	65	16	523	0.125	65	0.1	0.1	7.869	A
C-AB	40	10	630	0.064	40	0.1	0.1	6.100	A
C-A	55	14			55				
A-B	53	13			53				
A-C	55	14			55				

17:15 - 17:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	118	30	648	0.182	118	0.2	0.2	6.783	A
B-A	80	20	511	0.157	80	0.1	0.2	8.348	A
C-AB	50	13	633	0.079	50	0.1	0.1	6.174	A
C-A	67	17			67				
A-B	65	16			65				
A-C	67	17			67				

17:30 - 17:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	118	30	648	0.182	118	0.2	0.2	6.791	A
B-A	80	20	511	0.157	80	0.2	0.2	8.355	A
C-AB	50	13	633	0.079	50	0.1	0.1	6.178	A
C-A	67	17			67				
A-B	65	16			65				
A-C	67	17			67				

17:45 - 18:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	96	24	660	0.146	97	0.2	0.2	6.399	A
B-A	65	16	523	0.125	66	0.2	0.1	7.880	A
C-AB	40	10	630	0.064	40	0.1	0.1	6.107	A
C-A	55	14			55				
A-B	53	13			53				
A-C	55	14			55				

18:00 - 18:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	81	20	667	0.121	81	0.2	0.1	6.138	A
B-A	55	14	531	0.103	55	0.1	0.1	7.569	A
C-AB	33	8	628	0.053	33	0.1	0.1	6.056	A
C-A	47	12			47				
A-B	44	11			44				
A-C	46	12			46				

2033 Base + CD + D with TP, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Major arm width	C - Coddemor Ln - Major arm geometry	For two-way major roads, please interpret results with caution if the total major carriageway width is less than 8m.

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
J11	Stock Lane/ Coddemor Lane/ Shenley Road	T-Junction	Two-way		2.65	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D17	2033 Base + CD + D with TP	AM	ONE HOUR	07:30	09:00	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 - Stock Lane		ONE HOUR	✓	220	100.000
B - Shenley Rd		ONE HOUR	✓	139	100.000
C - Coddemor Ln		ONE HOUR	✓	107	100.000

Origin-Destination Data

Demand (Veh/hr)

From	To			
		A - Stock Lane	B - Shenley Rd	C - Coddemor Ln
	A - Stock Lane	0	119	101
	B - Shenley Rd	78	0	63
	C - Coddemor Ln	78	29	0

Proportions

From	To			
		A - Stock Lane	B - Shenley Rd	C - Coddemor Ln
	A - Stock Lane	0.00	0.54	0.46
	B - Shenley Rd	0.55	0.00	0.45
	C - Coddemor Ln	0.73	0.27	0.00

Vehicle Mix

Heavy Vehicle Percentages

From	To			
		A - Stock Lane	B - Shenley Rd	C - Coddemor Ln
	A - Stock Lane	0	1	1
	B - Shenley Rd	0	0	2
	C - Coddemor Ln	3	4	0

Average PCU Per Veh

From	To			
		A - Stock Lane	B - Shenley Rd	C - Coddemor Ln
	A - Stock Lane	1.000	1.010	1.011
	B - Shenley Rd	1.000	1.000	1.018
	C - Coddemor Ln	1.029	1.040	1.000

Detailed Demand Data

Demand for each time segment

Time Segment	Arm	Demand (Veh/hr)	Demand in PCU (PCU/hr)
07:30-07:45	A - Stock Lane	166	168
	B - Shenley Rd	104	105
	C - Coddemor Ln	80	83
07:45-08:00	A - Stock Lane	198	200
	B - Shenley Rd	125	126
	C - Coddemor Ln	96	99
08:00-08:15	A - Stock Lane	242	245
	B - Shenley Rd	153	154
	C - Coddemor Ln	117	121
08:15-08:30	A - Stock Lane	242	245
	B - Shenley Rd	153	154
	C - Coddemor Ln	117	121
08:30-08:45	A - Stock Lane	198	200
	B - Shenley Rd	125	126
	C - Coddemor Ln	96	99
08:45-09:00	A - Stock Lane	166	168
	B - Shenley Rd	104	105
	C - Coddemor Ln	80	83

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
B-C	0.11	6.24	0.1	A	58	87
B-A	0.16	8.37	0.2	A	69	104
C-AB	0.06	6.45	0.1	A	30	45
C-A					68	102
A-B					109	164
A-C					93	139

Main Results for each time segment

07:30 - 07:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	47	12	673	0.071	47	0.0	0.1	5.748	A
B-A	57	14	538	0.106	57	0.0	0.1	7.467	A
C-AB	24	6	594	0.040	24	0.0	0.0	6.313	A
C-A	58	14			58				
A-B	90	22			90				
A-C	76	19			76				

07:45 - 08:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	57	14	662	0.086	57	0.1	0.1	5.945	A
B-A	68	17	528	0.129	68	0.1	0.1	7.824	A
C-AB	29	7	594	0.049	29	0.0	0.1	6.372	A
C-A	67	17			67				
A-B	107	27			107				
A-C	91	23			91				

08:00 - 08:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	69	17	647	0.107	69	0.1	0.1	6.237	A
B-A	83	21	514	0.162	83	0.1	0.2	8.359	A
C-AB	37	9	595	0.062	37	0.1	0.1	6.453	A
C-A	81	20			81				
A-B	131	33			131				
A-C	111	28			111				

08:15 - 08:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	69	17	646	0.107	69	0.1	0.1	6.238	A
B-A	83	21	514	0.162	83	0.2	0.2	8.366	A
C-AB	37	9	595	0.062	37	0.1	0.1	6.453	A
C-A	81	20			81				
A-B	131	33			131				
A-C	111	28			111				

08:30 - 08:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	57	14	662	0.086	57	0.1	0.1	5.951	A
B-A	68	17	528	0.129	68	0.2	0.1	7.833	A
C-AB	29	7	594	0.049	29	0.1	0.1	6.373	A
C-A	67	17			67				
A-B	107	27			107				
A-C	91	23			91				

08:45 - 09:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	47	12	673	0.071	48	0.1	0.1	5.759	A
B-A	57	14	538	0.106	57	0.1	0.1	7.483	A
C-AB	24	6	594	0.040	24	0.1	0.1	6.317	A
C-A	56	14			56				
A-B	90	22			90				
A-C	76	19			76				

2033 Base + CD + D with TP, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Major arm width	C - Coddemor Ln - Major arm geometry	For two-way major roads, please interpret results with caution if the total major carriageway width is less than 8m.

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
J11	Stock Lane/ Coddemor Lane/ Shenley Road	T-Junction	Two-way		3.96	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D18	2033 Base + CD + D with TP	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 - Stock Lane		ONE HOUR	✓	120	100.000
B - Shenley Rd		ONE HOUR	✓	180	100.000
C - Coddemor Ln		ONE HOUR	✓	106	100.000

Origin-Destination Data

Demand (Veh/hr)

From	To			
		A - Stock Lane	B - Shenley Rd	C - Coddemor Ln
	A - Stock Lane	0	59	61
	B - Shenley Rd	73	0	107
	C - Coddemor Ln	66	40	0

Proportions

From	To			
		A - Stock Lane	B - Shenley Rd	C - Coddemor Ln
	A - Stock Lane	0.00	0.49	0.51
	B - Shenley Rd	0.40	0.00	0.60
	C - Coddemor Ln	0.62	0.38	0.00

Vehicle Mix

Heavy Vehicle Percentages

From	To			
		A - Stock Lane	B - Shenley Rd	C - Coddemor Ln
	A - Stock Lane	0	0	0
	B - Shenley Rd	0	0	0
	C - Coddemor Ln	2	0	0

Average PCU Per Veh

From	To			
		A - Stock Lane	B - Shenley Rd	C - Coddemor Ln
	A - Stock Lane	1.000	1.000	1.000
	B - Shenley Rd	1.000	1.000	1.000
	C - Coddemor Ln	1.018	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 - Stock Lane	90	90
	B - Shenley Rd	136	136
	C - Coddemor Ln	80	81
17:00-17:15	A - Stock Lane	108	108
	B - Shenley Rd	162	162
	C - Coddemor Ln	95	96
17:15-17:30	A - Stock Lane	132	132
	B - Shenley Rd	198	198
	C - Coddemor Ln	117	118
17:30-17:45	A - Stock Lane	132	132
	B - Shenley Rd	198	198
	C - Coddemor Ln	117	118
17:45-18:00	A - Stock Lane	108	108
	B - Shenley Rd	162	162
	C - Coddemor Ln	95	96
18:00-18:15	A - Stock Lane	90	90
	B - Shenley Rd	136	136
	C - Coddemor Ln	80	81

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
B-C	0.18	6.79	0.2	A	98	148
B-A	0.16	8.35	0.2	A	67	100
C-AB	0.08	6.18	0.1	A	41	62
C-A					56	84
AB					54	81
AC					56	84

Main Results for each time segment

16:45 - 17:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	81	20	668	0.121	80	0.0	0.1	6.123	A
B-A	55	14	531	0.103	54	0.0	0.1	7.549	A
C-AB	33	8	628	0.053	33	0.0	0.1	6.048	A
C-A	47	12			47				
AB	44	11			44				
AC	46	12			46				

17:00 - 17:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	96	24	660	0.146	96	0.1	0.2	6.388	A
B-A	65	16	523	0.125	65	0.1	0.1	7.869	A
C-AB	40	10	630	0.084	40	0.1	0.1	6.100	A
C-A	55	14			55				
A-B	53	13			53				
A-C	55	14			55				

17:15 - 17:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	118	30	648	0.182	118	0.2	0.2	6.783	A
B-A	80	20	511	0.157	80	0.1	0.2	8.348	A
C-AB	50	13	633	0.079	50	0.1	0.1	6.174	A
C-A	67	17			67				
A-B	65	16			65				
A-C	67	17			67				

17:30 - 17:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	118	30	648	0.182	118	0.2	0.2	6.791	A
B-A	80	20	511	0.157	80	0.2	0.2	8.355	A
C-AB	50	13	633	0.079	50	0.1	0.1	6.178	A
C-A	67	17			67				
A-B	65	16			65				
A-C	67	17			67				

17:45 - 18:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	96	24	660	0.146	97	0.2	0.2	6.399	A
B-A	65	16	523	0.125	66	0.2	0.1	7.880	A
C-AB	40	10	630	0.084	40	0.1	0.1	6.107	A
C-A	55	14			55				
A-B	53	13			53				
A-C	55	14			55				

18:00 - 18:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	81	20	667	0.121	81	0.2	0.1	6.138	A
B-A	55	14	531	0.103	55	0.1	0.1	7.569	A
C-AB	33	8	628	0.053	33	0.1	0.1	6.056	A
C-A	47	12			47				
A-B	44	11			44				
A-C	46	12			46				

2033 Base + CD + D - ST, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Major arm width	C - Coddemor Ln - Major arm geometry	For two-way major roads, please interpret results with caution if the total major carriageway width is less than 8m.

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
J11	Stock Lane/ Coddemor Lane/ Shenley Road	T-Junction	Two-way		2.65	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D19	2033 Base + CD + D - ST	AM	ONE HOUR	07:30	08:00	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 - Stock Lane		ONE HOUR	✓	220	100.000
B - Shenley Rd		ONE HOUR	✓	139	100.000
C - Coddemor Ln		ONE HOUR	✓	107	100.000

Origin-Destination Data

Demand (Veh/hr)

From	To			
		A - Stock Lane	B - Shenley Rd	C - Coddemor Ln
	A - Stock Lane	0	119	101
	B - Shenley Rd	78	0	63
	C - Coddemor Ln	78	29	0

Proportions

From	To			
		A - Stock Lane	B - Shenley Rd	C - Coddemor Ln
	A - Stock Lane	0.00	0.54	0.46
	B - Shenley Rd	0.55	0.00	0.45
	C - Coddemor Ln	0.73	0.27	0.00

Vehicle Mix

Heavy Vehicle Percentages

From	To			
		A - Stock Lane	B - Shenley Rd	C - Coddemor Ln
	A - Stock Lane	0	1	1
	B - Shenley Rd	0	0	2
	C - Coddemor Ln	3	4	0

Average PCU Per Veh

From	To			
		A - Stock Lane	B - Shenley Rd	C - Coddemor Ln
	A - Stock Lane	1.000	1.010	1.011
	B - Shenley Rd	1.000	1.000	1.018
	C - Coddemor Ln	1.029	1.040	1.000

Detailed Demand Data

Demand for each time segment

Time Segment	Arm	Demand (Veh/hr)	Demand in PCU (PCU/hr)
07:30-07:45	A - Stock Lane	166	168
	B - Shenley Rd	104	105
	C - Coddemor Ln	80	83
07:45-08:00	A - Stock Lane	198	200
	B - Shenley Rd	125	128
	C - Coddemor Ln	96	99
08:00-08:15	A - Stock Lane	242	245
	B - Shenley Rd	153	154
	C - Coddemor Ln	117	121
08:15-08:30	A - Stock Lane	242	245
	B - Shenley Rd	153	154
	C - Coddemor Ln	117	121
08:30-08:45	A - Stock Lane	198	200
	B - Shenley Rd	125	128
	C - Coddemor Ln	96	99
08:45-09:00	A - Stock Lane	166	168
	B - Shenley Rd	104	105
	C - Coddemor Ln	80	83

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
B-C	0.11	6.24	0.1	A	58	87
B-A	0.16	8.37	0.2	A	69	104
C-AB	0.06	6.45	0.1	A	30	45
C-A					68	102
AB					109	164
AC					93	139

Main Results for each time segment

07:30 - 07:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	47	12	673	0.071	47	0.0	0.1	5.748	A
B-A	57	14	538	0.106	57	0.0	0.1	7.467	A
C-AB	24	6	594	0.040	24	0.0	0.0	6.313	A
C-A	58	14			58				
AB	90	22			90				
AC	76	19			76				

07:45 - 08:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	57	14	662	0.086	57	0.1	0.1	5.945	A
B-A	68	17	528	0.129	68	0.1	0.1	7.824	A
C-AB	29	7	594	0.049	29	0.0	0.1	6.372	A
C-A	67	17			67				
A-B	107	27			107				
A-C	91	23			91				

08:00 - 08:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	69	17	647	0.107	69	0.1	0.1	6.237	A
B-A	83	21	514	0.162	83	0.1	0.2	8.359	A
C-AB	37	9	595	0.062	37	0.1	0.1	6.453	A
C-A	81	20			81				
A-B	131	33			131				
A-C	111	28			111				

08:15 - 08:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	69	17	646	0.107	69	0.1	0.1	6.238	A
B-A	83	21	514	0.162	83	0.2	0.2	8.366	A
C-AB	37	9	595	0.062	37	0.1	0.1	6.453	A
C-A	81	20			81				
A-B	131	33			131				
A-C	111	28			111				

08:30 - 08:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	57	14	662	0.086	57	0.1	0.1	5.951	A
B-A	68	17	528	0.129	68	0.2	0.1	7.833	A
C-AB	29	7	594	0.049	29	0.1	0.1	6.373	A
C-A	67	17			67				
A-B	107	27			107				
A-C	91	23			91				

08:45 - 09:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	47	12	673	0.071	48	0.1	0.1	5.759	A
B-A	57	14	538	0.106	57	0.1	0.1	7.483	A
C-AB	24	6	594	0.040	24	0.1	0.1	6.317	A
C-A	56	14			56				
A-B	90	22			90				
A-C	76	19			76				

2033 Base + CD + D - ST, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Major arm width	C - Coddemor Ln - Major arm geometry	For two-way major roads, please interpret results with caution if the total major carriageway width is less than 8m.

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
J11	Stock Lane/ Coddemor Lane/ Shenley Road	T-Junction	Two-way		3.96	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D20	2033 Base + CD + D - ST	PM	ONE HOUR	18:45	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 - Stock Lane		ONE HOUR	✓	120	100.000
B - Shenley Rd		ONE HOUR	✓	180	100.000
C - Coddemor Ln		ONE HOUR	✓	106	100.000

Origin-Destination Data

Demand (Veh/hr)

	To			
		A - Stock Lane	B - Shenley Rd	C - Coddemor Ln
From	A - Stock Lane	0	59	61
	B - Shenley Rd	73	0	107
	C - Coddemor Ln	66	40	0

Proportions

	To			
		A - Stock Lane	B - Shenley Rd	C - Coddemor Ln
From	A - Stock Lane	0.00	0.49	0.51
	B - Shenley Rd	0.40	0.00	0.60
	C - Coddemor Ln	0.62	0.38	0.00

Vehicle Mix

Heavy Vehicle Percentages

	To			
		A - Stock Lane	B - Shenley Rd	C - Coddemor Ln
From	A - Stock Lane	0	0	0
	B - Shenley Rd	0	0	0
	C - Coddemor Ln	2	0	0

Average PCU Per Veh

	To			
		A - Stock Lane	B - Shenley Rd	C - Coddemor Ln
From	A - Stock Lane	1.000	1.000	1.000
	B - Shenley Rd	1.000	1.000	1.000
	C - Coddemor Ln	1.018	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 - Stock Lane	90	90
	B - Shenley Rd	136	136
	C - Coddemor Ln	80	81
17:00-17:15	A - Stock Lane	108	108
	B - Shenley Rd	162	162
	C - Coddemor Ln	95	96
17:15-17:30	A - Stock Lane	132	132
	B - Shenley Rd	198	198
	C - Coddemor Ln	117	118
17:30-17:45	A - Stock Lane	132	132
	B - Shenley Rd	198	198
	C - Coddemor Ln	117	118
17:45-18:00	A - Stock Lane	108	108
	B - Shenley Rd	162	162
	C - Coddemor Ln	95	96
18:00-18:15	A - Stock Lane	90	90
	B - Shenley Rd	136	136
	C - Coddemor Ln	80	81

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
B-C	0.18	6.79	0.2	A	98	148
B-A	0.16	8.35	0.2	A	67	100
C-AB	0.08	6.18	0.1	A	41	62
C-A					56	84
AB					54	81
AC					56	84

Main Results for each time segment

16:45 - 17:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	81	20	668	0.121	80	0.0	0.1	6.123	A
B-A	55	14	531	0.103	54	0.0	0.1	7.549	A
C-AB	33	8	628	0.053	33	0.0	0.1	6.048	A
C-A	47	12			47				
AB	44	11			44				
AC	46	12			46				

17:00 - 17:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	96	24	660	0.146	96	0.1	0.2	6.388	A
B-A	65	16	523	0.125	65	0.1	0.1	7.869	A
C-AB	40	10	630	0.084	40	0.1	0.1	6.100	A
C-A	55	14			55				
A-B	53	13			53				
A-C	55	14			55				

17:15 - 17:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	118	30	648	0.182	118	0.2	0.2	6.783	A
B-A	80	20	511	0.157	80	0.1	0.2	8.348	A
C-AB	50	13	633	0.079	50	0.1	0.1	6.174	A
C-A	67	17			67				
A-B	65	16			65				
A-C	67	17			67				

17:30 - 17:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	118	30	648	0.182	118	0.2	0.2	6.791	A
B-A	80	20	511	0.157	80	0.2	0.2	8.355	A
C-AB	50	13	633	0.079	50	0.1	0.1	6.178	A
C-A	67	17			67				
A-B	65	16			65				
A-C	67	17			67				

17:45 - 18:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	96	24	660	0.146	97	0.2	0.2	6.399	A
B-A	65	16	523	0.125	66	0.2	0.1	7.880	A
C-AB	40	10	630	0.084	40	0.1	0.1	6.107	A
C-A	55	14			55				
A-B	53	13			53				
A-C	55	14			55				

18:00 - 18:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	81	20	667	0.121	81	0.2	0.1	6.138	A
B-A	55	14	531	0.103	55	0.1	0.1	7.569	A
C-AB	33	8	628	0.053	33	0.1	0.1	6.056	A
C-A	47	12			47				
A-B	44	11			44				
A-C	46	12			46				

2033 Base + CD + SP (ST), AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Major arm width	C - Coddimor Ln - Major arm geometry	For two-way major roads, please interpret results with caution if the total major carriageway width is less than 8m.

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
J11	Stock Lane/ Coddimoor Lane/ Shenley Road	T-Junction	Two-way		2.65	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D21	2033 Base + CD + SP (ST)	AM	ONE HOUR	07:30	08:00	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 - Stock Lane		ONE HOUR	✓	220	100.000
B - Shenley Rd		ONE HOUR	✓	139	100.000
C - Coddimor Ln		ONE HOUR	✓	107	100.000

Origin-Destination Data

Demand (Veh/hr)

From	To			
		A - Stock Lane	B - Shenley Rd	C - Coddimor Ln
	A - Stock Lane	0	119	101
	B - Shenley Rd	78	0	63
	C - Coddimor Ln	78	29	0

Proportions

From	To			
		A - Stock Lane	B - Shenley Rd	C - Coddimor Ln
	A - Stock Lane	0.00	0.54	0.46
	B - Shenley Rd	0.55	0.00	0.45
	C - Coddimor Ln	0.73	0.27	0.00

Vehicle Mix

Heavy Vehicle Percentages

From	To			
		A - Stock Lane	B - Shenley Rd	C - Coddimor Ln
	A - Stock Lane	0	1	1
	B - Shenley Rd	0	0	2
	C - Coddimor Ln	3	4	0

Average PCU Per Veh

From	To			
		A - Stock Lane	B - Shenley Rd	C - Coddimor Ln
	A - Stock Lane	1.000	1.010	1.011
	B - Shenley Rd	1.000	1.000	1.018
	C - Coddimor Ln	1.029	1.040	1.000

Detailed Demand Data

Demand for each time segment

Time Segment	Arm	Demand (Veh/hr)	Demand in PCU (PCU/hr)
07:30-07:45	A - Stock Lane	168	168
	B - Shenley Rd	104	105
	C - Coddemor Ln	80	83
07:45-08:00	A - Stock Lane	198	200
	B - Shenley Rd	125	128
	C - Coddemor Ln	96	99
08:00-08:15	A - Stock Lane	242	245
	B - Shenley Rd	153	154
	C - Coddemor Ln	117	121
08:15-08:30	A - Stock Lane	242	245
	B - Shenley Rd	153	154
	C - Coddemor Ln	117	121
08:30-08:45	A - Stock Lane	198	200
	B - Shenley Rd	125	128
	C - Coddemor Ln	96	99
08:45-09:00	A - Stock Lane	168	168
	B - Shenley Rd	104	105
	C - Coddemor Ln	80	83

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
B-C	0.11	6.24	0.1	A	58	87
B-A	0.16	8.37	0.2	A	69	104
C-AB	0.06	6.45	0.1	A	30	45
C-A					68	102
A-B					109	164
A-C					93	139

Main Results for each time segment

07:30 - 07:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	47	12	673	0.071	47	0.0	0.1	5.748	A
B-A	57	14	538	0.106	57	0.0	0.1	7.467	A
C-AB	24	6	594	0.040	24	0.0	0.0	6.313	A
C-A	58	14			58				
A-B	90	22			90				
A-C	76	19			76				

07:45 - 08:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	57	14	662	0.086	57	0.1	0.1	5.945	A
B-A	68	17	528	0.129	68	0.1	0.1	7.824	A
C-AB	29	7	594	0.049	29	0.0	0.1	6.372	A
C-A	67	17			67				
A-B	107	27			107				
A-C	91	23			91				

08:00 - 08:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	69	17	647	0.107	69	0.1	0.1	6.237	A
B-A	83	21	514	0.162	83	0.1	0.2	8.359	A
C-AB	37	9	595	0.062	37	0.1	0.1	6.453	A
C-A	81	20			81				
A-B	131	33			131				
A-C	111	28			111				

08:15 - 08:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	69	17	646	0.107	69	0.1	0.1	6.238	A
B-A	83	21	514	0.162	83	0.2	0.2	8.366	A
C-AB	37	9	595	0.062	37	0.1	0.1	6.453	A
C-A	81	20			81				
A-B	131	33			131				
A-C	111	28			111				

08:30 - 08:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	57	14	662	0.086	57	0.1	0.1	5.951	A
B-A	68	17	528	0.129	68	0.2	0.1	7.833	A
C-AB	29	7	594	0.049	29	0.1	0.1	6.373	A
C-A	67	17			67				
A-B	107	27			107				
A-C	91	23			91				

08:45 - 09:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	47	12	673	0.071	48	0.1	0.1	5.759	A
B-A	57	14	538	0.106	57	0.1	0.1	7.483	A
C-AB	24	6	594	0.040	24	0.1	0.1	6.317	A
C-A	56	14			56				
A-B	90	22			90				
A-C	76	19			76				

2033 Base + CD + SP (ST), PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Major arm width	C - Coddimor Ln - Major arm geometry	For two-way major roads, please interpret results with caution if the total major carriageway width is less than 6m.

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
J11	Stock Lane/ Coddimor Lane/ Shenley Road	T-Junction	Two-way		3.96	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D22	2033 Base + CD + SP (ST)	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 - Stock Lane		ONE HOUR	✓	120	100.000
B - Shenley Rd		ONE HOUR	✓	180	100.000
C - Coddimor Ln		ONE HOUR	✓	106	100.000

Origin-Destination Data

Demand (Veh/hr)

	To			
		A - Stock Lane	B - Shenley Rd	C - Coddimor Ln
From	A - Stock Lane	0	59	61
	B - Shenley Rd	73	0	107
	C - Coddimor Ln	66	40	0

Proportions

	To			
		A - Stock Lane	B - Shenley Rd	C - Coddimor Ln
From	A - Stock Lane	0.00	0.49	0.51
	B - Shenley Rd	0.40	0.00	0.60
	C - Coddimor Ln	0.62	0.38	0.00

Vehicle Mix

Heavy Vehicle Percentages

	To			
		A - Stock Lane	B - Shenley Rd	C - Coddimor Ln
From	A - Stock Lane	0	0	0
	B - Shenley Rd	0	0	0
	C - Coddimor Ln	2	0	0

Average PCU Per Veh

	To			
		A - Stock Lane	B - Shenley Rd	C - Coddimor Ln
From	A - Stock Lane	1.000	1.000	1.000
	B - Shenley Rd	1.000	1.000	1.000
	C - Coddimor Ln	1.018	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 - Stock Lane	90	90
	B - Shenley Rd	136	136
	C - Coddemor Ln	80	81
17:00-17:15	A - Stock Lane	108	108
	B - Shenley Rd	162	162
	C - Coddemor Ln	95	96
17:15-17:30	A - Stock Lane	132	132
	B - Shenley Rd	198	198
	C - Coddemor Ln	117	118
17:30-17:45	A - Stock Lane	132	132
	B - Shenley Rd	198	198
	C - Coddemor Ln	117	118
17:45-18:00	A - Stock Lane	108	108
	B - Shenley Rd	162	162
	C - Coddemor Ln	95	96
18:00-18:15	A - Stock Lane	90	90
	B - Shenley Rd	136	136
	C - Coddemor Ln	80	81

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
B-C	0.18	6.79	0.2	A	98	148
B-A	0.16	8.35	0.2	A	67	100
C-AB	0.08	6.18	0.1	A	41	62
C-A					56	84
AB					54	81
AC					56	84

Main Results for each time segment

16:45 - 17:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	81	20	668	0.121	80	0.0	0.1	6.123	A
B-A	55	14	531	0.103	54	0.0	0.1	7.549	A
C-AB	33	8	628	0.053	33	0.0	0.1	6.048	A
C-A	47	12			47				
AB	44	11			44				
AC	46	12			46				

17:00 - 17:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	96	24	660	0.146	96	0.1	0.2	6.388	A
B-A	65	16	523	0.125	65	0.1	0.1	7.869	A
C-AB	40	10	630	0.084	40	0.1	0.1	6.100	A
C-A	55	14			55				
A-B	53	13			53				
A-C	55	14			55				

17:15 - 17:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	118	30	648	0.182	118	0.2	0.2	6.783	A
B-A	80	20	511	0.157	80	0.1	0.2	8.348	A
C-AB	50	13	633	0.079	50	0.1	0.1	6.174	A
C-A	67	17			67				
A-B	65	16			65				
A-C	67	17			67				

17:30 - 17:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	118	30	648	0.182	118	0.2	0.2	6.791	A
B-A	80	20	511	0.157	80	0.2	0.2	8.355	A
C-AB	50	13	633	0.079	50	0.1	0.1	6.178	A
C-A	67	17			67				
A-B	65	16			65				
A-C	67	17			67				

17:45 - 18:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	96	24	660	0.146	97	0.2	0.2	6.399	A
B-A	65	16	523	0.125	66	0.2	0.1	7.880	A
C-AB	40	10	630	0.084	40	0.1	0.1	6.107	A
C-A	55	14			55				
A-B	53	13			53				
A-C	55	14			55				

18:00 - 18:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	81	20	667	0.121	81	0.2	0.1	6.138	A
B-A	55	14	531	0.103	55	0.1	0.1	7.569	A
C-AB	33	8	628	0.053	33	0.1	0.1	6.056	A
C-A	47	12			47				
A-B	44	11			44				
A-C	46	12			46				

Junctions 9

ARCADY 9 - Roundabout Module

Version: 9.5.1.7462

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Filename: J3 - Bletchley Road Stoke Road Drayton Road Whaddon Road.j9

Path: \\uk.wspgroup.com\central data\Projects\700694xx\70069442 - SWMK - 2020\03 WIP\TP Transport Planning\Incoming

Report generation date: 15/09/2020 22:14:42

- »2033 Base + CD + D, AM
- »2033 Base + CD + D, PM
- »2033 Base + CD + D with TP, AM
- »2033 Base + CD + D with TP, PM
- »2033 Base + CD + D - ST, AM
- »2033 Base + CD + D - ST, PM

Summary of junction performance

	AM					PM				
	Set ID	Queue (Veh)	Delay (s)	RFC	LOS	Set ID	Queue (Veh)	Delay (s)	RFC	LOS
2033 Base + CD + D										
A - Bletchley Rd	D13	0.7	8.82	0.40	A	D14	0.6	8.30	0.38	A
B - Stoke Rd		2.7	18.70	0.73	C		2.5	18.21	0.72	C
C - Drayton Rd		0.4	7.92	0.31	A		0.3	7.05	0.22	A
D - Whaddon Rd		1.5	11.94	0.60	B		1.2	9.85	0.54	A
2033 Base + CD + D with TP										
A - Bletchley Rd	D15	0.6	8.70	0.39	A	D16	0.6	8.20	0.37	A
B - Stoke Rd		2.5	18.09	0.73	C		2.3	17.38	0.71	C
C - Drayton Rd		0.4	7.83	0.31	A		0.3	6.94	0.22	A
D - Whaddon Rd		1.4	11.58	0.59	B		1.1	9.63	0.53	A
2033 Base + CD + D - ST										
A - Bletchley Rd	D17	0.7	9.06	0.40	A	D18	0.6	8.38	0.38	A
B - Stoke Rd		2.8	19.42	0.74	C		2.7	19.41	0.74	C
C - Drayton Rd		0.5	8.03	0.32	A		0.3	7.18	0.23	A
D - Whaddon Rd		1.6	12.68	0.63	B		1.2	10.03	0.55	B

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.

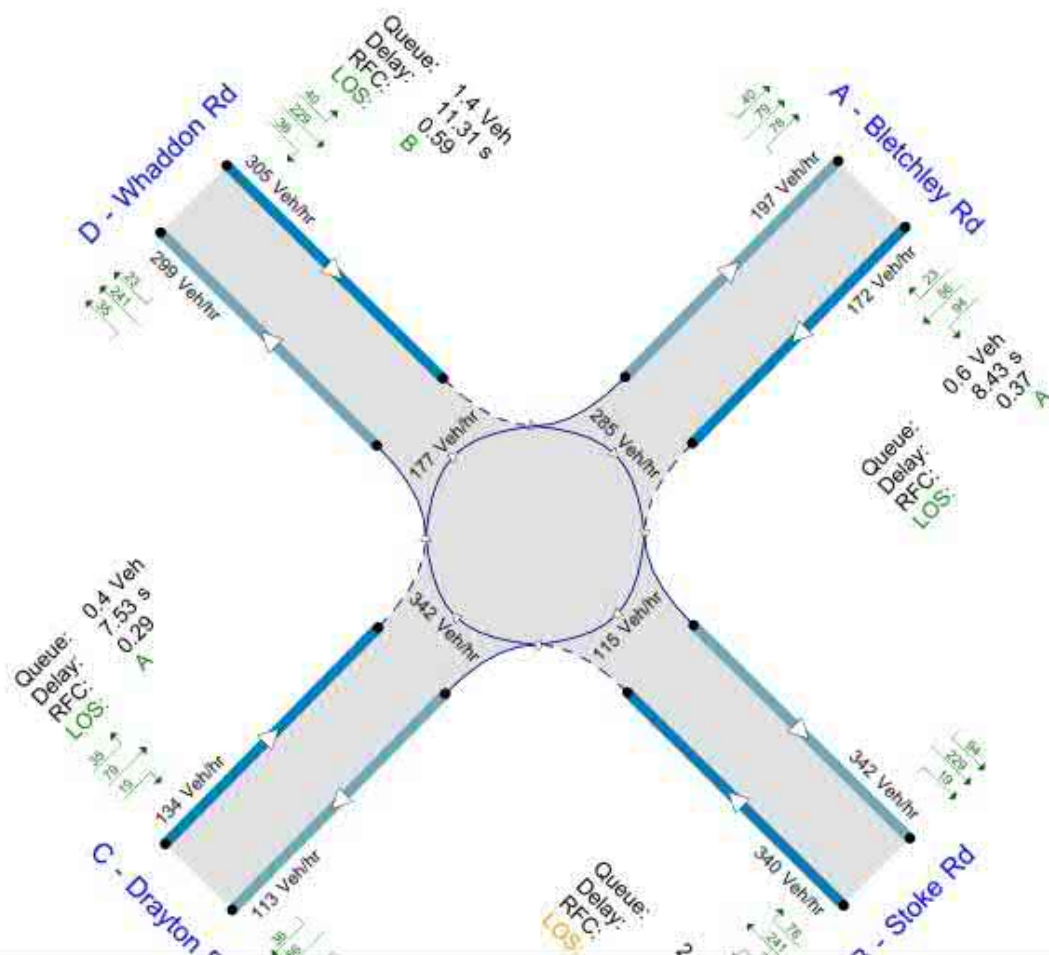
File summary

File Description

Title	Bletchley Road/ Stoke Road/ Drayton Road/ Whaddon Road
Location	51°58'28.41"N, 0°45'57.62"W
Site number	3
Date	04/12/2015
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	fsuarez
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	Veh	perHour	s	-Min	perMin



The junction diagram reflects the last run of Junctions.

Analysis Options

Mini-roundabout model	Vehicle length (m)	Calculate Queue Percentiles	Calculate detailed queueing delay	Calculate residual capacity	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)
JUNCTIONS 9	5.75				0.85	36.00	20.00

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	2020 Base	AM	ONE HOUR	07:30	09:00	15	✓
D2	2020 Base	PM	ONE HOUR	16:45	18:15	15	✓
D3	2026 Base	AM	ONE HOUR	07:30	09:00	15	✓
D4	2026 Base	PM	ONE HOUR	16:45	18:15	15	✓
D5	2026 Base + CD + D	AM	ONE HOUR	07:30	09:00	15	✓
D6	2026 Base + CD + D	PM	ONE HOUR	16:45	18:15	15	✓
D7	2026 Base + CD + D with TP	AM	ONE HOUR	07:30	09:00	15	✓
D8	2026 Base + CD + D with TP	PM	ONE HOUR	16:45	18:15	15	✓
D9	2026 Base + CD + D - ST	AM	ONE HOUR	07:30	09:00	15	✓
D10	2026 Base + CD + D - ST	PM	ONE HOUR	16:45	18:15	15	✓
D11	2033 Base	AM	ONE HOUR	07:30	09:00	15	✓
D12	2033 Base	PM	ONE HOUR	16:45	18:15	15	✓
D13	2033 Base + CD + D	AM	ONE HOUR	07:30	09:00	15	✓
D14	2033 Base + CD + D	PM	ONE HOUR	16:45	18:15	15	✓
D15	2033 Base + CD + D with TP	AM	ONE HOUR	07:30	09:00	15	✓
D16	2033 Base + CD + D with TP	PM	ONE HOUR	16:45	18:15	15	✓
D17	2033 Base + CD + D - ST	AM	ONE HOUR	07:30	09:00	15	✓
D18	2033 Base + CD + D - ST	PM	ONE HOUR	16:45	18:15	15	✓

Analysis Set Details

ID	Include in report	Use specific Demand Set(s)	Specific Demand Set(s)	Network flow scaling factor (%)	Network capacity scaling factor (%)
A1	✓	✓	D13,D14,D15,D16,D17,D18	100.000	100.000

2033 Base + CD + D, 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
J3	Bletchley Road/ Stoke Road/ Drayton Road/ Whaddon Road	Mini-roundabout		A, B, C, D	13.23	B

Junction Network Options

Driving side	Lighting	Road surface	In London
Left	Normal/unknown	Normal/unknown	

Arms

Arms

Arm	Name	Description
A	Bletchley Rd	
B	Stoke Rd	
C	Drayton Rd	
D	Whaddon Rd	

Mini Roundabout Geometry

Arm	Approach road half-width (m)	Minimum approach road half-width (m)	Entry width (m)	Effective flare length (m)	Distance to next arm (m)	Entry corner kerb line distance (m)	Gradient over 50m (%)	Kerbed central island
A - Bletchley Rd	3.50	3.50	3.50	0.0	9.30	3.60	0.0	
B - Stoke Rd	3.00	3.00	3.30	3.3	9.10	3.20	0.0	
C - Drayton Rd	3.10	3.10	4.00	5.5	13.40	9.08	0.0	
D - Whaddon Rd	3.50	3.50	3.50	0.0	9.90	3.60	0.0	

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
A - Bletchley Rd	0.809	957
B - Stoke Rd	0.599	839
C - Drayton Rd	0.617	1002
D - Whaddon Rd	0.609	953

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

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D13	2033 Base + CD + D	AM	ONE HOUR	07:30	09:00	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 - Bletchley Rd		ONE HOUR	✓	244	100.000
B - Stoke Rd		ONE HOUR	✓	479	100.000
C - Drayton Rd		ONE HOUR	✓	187	100.000
D - Whaddon Rd		ONE HOUR	✓	415	100.000

Origin-Destination Data

Demand (Veh/hr)

		To			
		A - Bletchley Rd	B - Stoke Rd	C - Drayton Rd	D - Whaddon Rd
From	A - Bletchley Rd	0	133	79	32
	B - Stoke Rd	111	0	30	338
	C - Drayton Rd	112	28	0	47
	D - Whaddon Rd	58	311	47	0

Proportions

		To			
		A - Bletchley Rd	B - Stoke Rd	C - Drayton Rd	D - Whaddon Rd
From	A - Bletchley Rd	0.00	0.54	0.32	0.13
	B - Stoke Rd	0.23	0.00	0.06	0.71
	C - Drayton Rd	0.60	0.15	0.00	0.25
	D - Whaddon Rd	0.14	0.75	0.11	0.00

Vehicle Mix

Heavy Vehicle Percentages

		To			
		A - Bletchley Rd	B - Stoke Rd	C - Drayton Rd	D - Whaddon Rd
From	A - Bletchley Rd	0	2	1	4
	B - Stoke Rd	2	0	0	2
	C - Drayton Rd	1	0	0	3
	D - Whaddon Rd	0	3	11	0

Average PCU Per Veh

		To			
		A - Bletchley Rd	B - Stoke Rd	C - Drayton Rd	D - Whaddon Rd
From	A - Bletchley Rd	1.000	1.017	1.014	1.038
	B - Stoke Rd	1.021	1.000	1.000	1.015
	C - Drayton Rd	1.010	1.000	1.000	1.033
	D - Whaddon Rd	1.000	1.028	1.107	1.000

Detailed Demand Data

Demand for each time segment

Arm	Time Segment	Demand (Veh/hr)	Demand in PCU (PCU/hr)
A - Bletchley Rd	07:30-07:45	184	187
	07:45-08:00	220	224
	08:00-08:15	269	274
	08:15-08:30	269	274
	08:30-08:45	220	224
	08:45-09:00	184	187
B - Stoke Rd	07:30-07:45	360	366
	07:45-08:00	430	437
	08:00-08:15	527	535
	08:15-08:30	527	535
	08:30-08:45	430	437
	08:45-09:00	360	366
C - Drayton Rd	07:30-07:45	141	143
	07:45-08:00	168	170
	08:00-08:15	205	208
	08:15-08:30	205	208
	08:30-08:45	168	170
	08:45-09:00	141	143
D - Whaddon Rd	07:30-07:45	312	322
	07:45-08:00	373	385
	08:00-08:15	457	471
	08:15-08:30	457	471
	08:30-08:45	373	385
	08:45-09:00	312	322

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
A - Bletchley Rd	0.40	8.82	0.7	A	224	336
B - Stoke Rd	0.73	18.70	2.7	C	439	659
C - Drayton Rd	0.31	7.92	0.4	A	171	257
D - Whaddon Rd	0.60	11.94	1.5	B	381	571

Main Results for each time segment

07:30 - 07:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - Bletchley Rd	184	46	288	761	0.242	183	209	0.0	0.3	6.206	A
B - Stoke Rd	360	90	119	753	0.479	357	353	0.0	0.9	9.011	A
C - Drayton Rd	141	35	358	766	0.184	140	117	0.0	0.2	5.743	A
D - Whaddon Rd	312	78	188	811	0.385	310	311	0.0	0.6	7.149	A

07:45 - 08:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - Bletchley Rd	220	55	346	726	0.303	219	251	0.3	0.4	7.102	A
B - Stoke Rd	430	108	142	738	0.583	428	423	0.9	1.4	11.552	B
C - Drayton Rd	168	42	431	721	0.233	167	140	0.2	0.3	6.502	A
D - Whaddon Rd	373	93	225	789	0.473	372	373	0.6	0.9	8.617	A

08:00 - 08:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - Bletchley Rd	269	67	423	678	0.397	268	308	0.4	0.6	8.760	A
B - Stoke Rd	527	132	174	719	0.733	522	517	1.4	2.6	17.881	C
C - Drayton Rd	205	51	525	663	0.310	205	171	0.3	0.4	7.858	A
D - Whaddon Rd	457	114	275	759	0.602	454	455	0.9	1.5	11.736	B

08:15 - 08:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - Bletchley Rd	269	67	425	677	0.397	269	308	0.6	0.7	8.824	A
B - Stoke Rd	527	132	175	718	0.734	527	519	2.6	2.7	18.698	C
C - Drayton Rd	205	51	529	660	0.311	205	172	0.4	0.4	7.923	A
D - Whaddon Rd	457	114	276	758	0.603	457	468	1.5	1.5	11.940	B

08:30 - 08:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - Bletchley Rd	220	55	349	724	0.303	220	253	0.7	0.4	7.164	A
B - Stoke Rd	430	108	143	738	0.583	435	426	2.7	1.4	12.088	B
C - Drayton Rd	168	42	437	717	0.234	168	141	0.4	0.3	6.568	A
D - Whaddon Rd	373	93	227	787	0.474	375	378	1.5	0.9	8.785	A

08:45 - 09:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - Bletchley Rd	184	46	292	759	0.242	184	212	0.4	0.3	6.268	A
B - Stoke Rd	360	90	120	752	0.479	362	356	1.4	0.9	9.285	A
C - Drayton Rd	141	35	364	762	0.184	141	118	0.3	0.2	5.796	A
D - Whaddon Rd	312	78	190	810	0.386	313	315	0.9	0.6	7.272	A

2033 Base + CD + D, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Mini-roundabout		Mini-roundabout appears to have unbalanced flows and may behave like a priority junction; treat results with caution. See User Guide for details. [Arms B and D have 69% of the total flow for the roundabout for one or more time segments]

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
J3	Bletchley Road/ Stoke Road/ Drayton Road/ Whaddon Road	Mini-roundabout		A, B, C, D	12.36	B

Junction Network Options

Driving side	Lighting	Road surface	In London
Left	Normal/unknown	Normal/unknown	

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D14	2033 Base + CD + D	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 - Bletchley Rd		ONE HOUR	✓	239	100.000
B - Stoke Rd		ONE HOUR	✓	466	100.000
C - Drayton Rd		ONE HOUR	✓	133	100.000
D - Whaddon Rd		ONE HOUR	✓	305	100.000

Origin-Destination Data

Demand (Veh/hr)

		To			
		A - Bletchley Rd	B - Stoke Rd	C - Drayton Rd	D - Whaddon Rd
From	A - Bletchley Rd	0	81	92	66
	B - Stoke Rd	123	0	31	301
	C - Drayton Rd	72	15	0	47
	D - Whaddon Rd	42	316	37	0

Proportions

		To			
		A - Bletchley Rd	B - Stoke Rd	C - Drayton Rd	D - Whaddon Rd
From	A - Bletchley Rd	0.00	0.34	0.39	0.28
	B - Stoke Rd	0.27	0.00	0.07	0.66
	C - Drayton Rd	0.54	0.11	0.00	0.35
	D - Whaddon Rd	0.11	0.80	0.09	0.00

Vehicle Mix

Heavy Vehicle Percentages

	To				
From		A - Bletchley Rd	B - Stoke Rd	C - Drayton Rd	D - Whaddon Rd
	A - Bletchley Rd	0	3	0	2
	B - Stoke Rd	1	0	0	2
	C - Drayton Rd	2	0	0	0
	D - Whaddon Rd	0	2	0	0

Average PCU Per Veh

	To				
From		A - Bletchley Rd	B - Stoke Rd	C - Drayton Rd	D - Whaddon Rd
	A - Bletchley Rd	1.000	1.029	1.000	1.018
	B - Stoke Rd	1.009	1.000	1.000	1.019
	C - Drayton Rd	1.016	1.000	1.000	1.000
	D - Whaddon Rd	1.000	1.017	1.000	1.000

Detailed Demand Data

Demand for each time segment

Arm	Time Segment	Demand (Veh/hr)	Demand in PCU (PCU/hr)
A - Bletchley Rd	16:45-17:00	180	182
	17:00-17:15	215	218
	17:15-17:30	283	287
	17:30-17:45	283	287
	17:45-18:00	215	218
	18:00-18:15	180	182
B - Stoke Rd	16:45-17:00	343	348
	17:00-17:15	410	416
	17:15-17:30	502	510
	17:30-17:45	502	510
	17:45-18:00	410	416
	18:00-18:15	343	348
C - Drayton Rd	16:45-17:00	100	101
	17:00-17:15	120	121
	17:15-17:30	147	148
	17:30-17:45	147	148
	17:45-18:00	120	121
	18:00-18:15	100	101
D - Whaddon Rd	16:45-17:00	297	301
	17:00-17:15	355	360
	17:15-17:30	435	440
	17:30-17:45	435	440
	17:45-18:00	355	360
	18:00-18:15	297	301

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
A - Bletchley Rd	0.38	8.30	0.6	A	219	329
B - Stoke Rd	0.72	18.21	2.5	C	418	628
C - Drayton Rd	0.22	7.05	0.3	A	122	183
D - Whaddon Rd	0.54	9.85	1.2	A	382	543

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Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - Bletchley Rd	180	45	275	776	0.232	179	177	0.0	0.3	6.012	A
B - Stoke Rd	343	88	148	740	0.464	340	308	0.0	0.9	8.932	A
C - Drayton Rd	100	25	368	766	0.131	100	120	0.0	0.1	5.401	A
D - Whaddon Rd	297	74	157	845	0.352	295	309	0.0	0.5	6.520	A

17:00 - 17:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - Bletchley Rd	215	54	330	743	0.289	214	212	0.3	0.4	6.807	A
B - Stoke Rd	410	102	175	722	0.568	408	369	0.9	1.3	11.397	B
C - Drayton Rd	120	30	438	720	0.166	120	144	0.1	0.2	5.994	A
D - Whaddon Rd	355	89	188	828	0.430	354	371	0.5	0.7	7.612	A

17:15 - 17:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - Bletchley Rd	263	66	404	698	0.377	262	259	0.4	0.6	8.250	A
B - Stoke Rd	502	128	215	699	0.718	498	451	1.3	2.4	17.482	C
C - Drayton Rd	147	37	538	680	0.222	146	176	0.2	0.3	7.004	A
D - Whaddon Rd	435	109	230	801	0.543	433	452	0.7	1.2	9.741	A

17:30 - 17:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - Bletchley Rd	263	66	405	697	0.377	263	260	0.6	0.6	8.296	A
B - Stoke Rd	502	128	215	699	0.719	502	453	2.4	2.5	18.207	C
C - Drayton Rd	147	37	540	657	0.223	147	177	0.3	0.3	7.047	A
D - Whaddon Rd	435	109	231	800	0.543	435	455	1.2	1.2	9.848	A

17:45 - 18:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - Bletchley Rd	215	54	333	741	0.290	216	214	0.6	0.4	6.858	A
B - Stoke Rd	410	102	178	722	0.568	414	372	2.5	1.4	11.878	B
C - Drayton Rd	120	30	445	716	0.167	120	145	0.3	0.2	6.044	A
D - Whaddon Rd	355	89	190	825	0.430	357	375	1.2	0.8	7.715	A

18:00 - 18:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - Bletchley Rd	180	45	278	774	0.232	180	179	0.4	0.3	6.062	A
B - Stoke Rd	343	88	148	739	0.465	345	311	1.4	0.9	9.187	A
C - Drayton Rd	100	25	371	762	0.132	101	122	0.2	0.2	5.442	A
D - Whaddon Rd	297	74	159	844	0.352	298	313	0.8	0.5	6.807	A

2033 Base + CD + D with TP, 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
J3	Bletchley Road/ Stoke Road/ Drayton Road/ Whaddon Road	Mini-roundabout		A, B, C, D	12.86	B

Junction Network Options

Driving side	Lighting	Road surface	In London
Left	Normal/unknown	Normal/unknown	

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D15	2033 Base + CD + D with TP	AM	ONE HOUR	07:30	09:00	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 - Bletchley Rd		ONE HOUR	✓	244	100.000
B - Stoke Rd		ONE HOUR	✓	474	100.000
C - Drayton Rd		ONE HOUR	✓	185	100.000
D - Whaddon Rd		ONE HOUR	✓	407	100.000

Origin-Destination Data

Demand (Veh/hr)

		To			
		A - Bletchley Rd	B - Stoke Rd	C - Drayton Rd	D - Whaddon Rd
From	A - Bletchley Rd	0	133	79	32
	B - Stoke Rd	111	0	30	333
	C - Drayton Rd	112	28	0	45
	D - Whaddon Rd	56	305	45	0

Proportions

		To			
		A - Bletchley Rd	B - Stoke Rd	C - Drayton Rd	D - Whaddon Rd
From	A - Bletchley Rd	0.00	0.54	0.32	0.13
	B - Stoke Rd	0.23	0.00	0.06	0.70
	C - Drayton Rd	0.61	0.15	0.00	0.24
	D - Whaddon Rd	0.14	0.75	0.11	0.00

Vehicle Mix

Heavy Vehicle Percentages

From	To				
		A - Bletchley Rd	B - Stoke Rd	C - Drayton Rd	D - Whaddon Rd
	A - Bletchley Rd	0	2	1	4
	B - Stoke Rd	2	0	0	2
	C - Drayton Rd	1	0	0	3
	D - Whaddon Rd	0	3	11	0

Average PCU Per Veh

From	To				
		A - Bletchley Rd	B - Stoke Rd	C - Drayton Rd	D - Whaddon Rd
	A - Bletchley Rd	1.000	1.017	1.014	1.036
	B - Stoke Rd	1.021	1.000	1.000	1.015
	C - Drayton Rd	1.010	1.000	1.000	1.033
	D - Whaddon Rd	1.000	1.026	1.107	1.000

Detailed Demand Data

Demand for each time segment

Arm	Time Segment	Demand (Veh/hr)	Demand in PCU (PCU/hr)
A - Bletchley Rd	07:30-07:45	184	187
	07:45-08:00	220	224
	08:00-08:15	269	274
	08:15-08:30	269	274
	08:30-08:45	220	224
	08:45-09:00	184	187
B - Stoke Rd	07:30-07:45	357	362
	07:45-08:00	426	433
	08:00-08:15	522	530
	08:15-08:30	522	530
	08:30-08:45	426	433
	08:45-09:00	357	362
C - Drayton Rd	07:30-07:45	139	141
	07:45-08:00	166	169
	08:00-08:15	204	206
	08:15-08:30	204	206
	08:30-08:45	166	169
	08:45-09:00	139	141
D - Whaddon Rd	07:30-07:45	306	316
	07:45-08:00	365	377
	08:00-08:15	448	462
	08:15-08:30	448	462
	08:30-08:45	365	377
	08:45-09:00	306	316

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
A - Bletchley Rd	0.39	8.70	0.6	A	224	338
B - Stoke Rd	0.73	18.09	2.5	C	435	652
C - Drayton Rd	0.31	7.83	0.4	A	170	254
D - Whaddon Rd	0.59	11.58	1.4	B	373	560

Main Results for each time segment

07:30 - 07:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - Bletchley Rd	184	46	282	766	0.240	183	209	0.0	0.3	6.167	A
B - Stoke Rd	357	89	117	754	0.473	353	348	0.0	0.9	8.913	A
C - Drayton Rd	139	35	355	768	0.181	138	115	0.0	0.2	5.710	A
D - Whaddon Rd	306	77	188	811	0.377	304	306	0.0	0.6	7.060	A

07:45 - 08:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - Bletchley Rd	220	55	339	730	0.301	219	251	0.3	0.4	7.037	A
B - Stoke Rd	426	107	140	739	0.576	424	418	0.9	1.3	11.359	B
C - Drayton Rd	166	42	426	724	0.230	166	138	0.2	0.3	6.452	A
D - Whaddon Rd	365	91	225	789	0.463	364	367	0.6	0.8	8.463	A

08:00 - 08:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - Bletchley Rd	269	67	414	684	0.393	268	306	0.4	0.6	8.643	A
B - Stoke Rd	522	130	172	720	0.725	517	510	1.3	2.5	17.354	C
C - Drayton Rd	204	51	520	666	0.306	203	169	0.3	0.4	7.772	A
D - Whaddon Rd	448	112	275	759	0.590	445	448	0.8	1.4	11.400	B

08:15 - 08:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - Bletchley Rd	269	67	416	683	0.394	269	308	0.6	0.6	8.701	A
B - Stoke Rd	522	130	172	720	0.725	521	513	2.5	2.5	18.085	C
C - Drayton Rd	204	51	524	663	0.307	204	170	0.4	0.4	7.833	A
D - Whaddon Rd	448	112	276	758	0.590	447	451	1.4	1.4	11.581	B

08:30 - 08:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - Bletchley Rd	220	55	342	729	0.301	220	253	0.6	0.4	7.098	A
B - Stoke Rd	426	107	141	739	0.577	431	421	2.5	1.4	11.850	B
C - Drayton Rd	166	42	432	720	0.231	167	139	0.4	0.3	6.514	A
D - Whaddon Rd	365	91	227	788	0.464	368	372	1.4	0.9	8.616	A

08:45 - 09:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - Bletchley Rd	184	46	285	763	0.241	184	211	0.4	0.3	6.222	A
B - Stoke Rd	357	89	118	753	0.474	359	352	1.4	0.9	9.173	A
C - Drayton Rd	139	35	360	764	0.182	140	117	0.3	0.2	5.762	A
D - Whaddon Rd	306	77	190	810	0.378	307	310	0.9	0.6	7.176	A

2033 Base + CD + D with TP, 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
J3	Bletchley Road/ Stoke Road/ Drayton Road/ Whaddon Road	Mini-roundabout		A, B, C, D	11.95	B

Junction Network Options

Driving side	Lighting	Road surface	In London
Left	Normal/unknown	Normal/unknown	

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D16	2033 Base + CD + D with TP	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 - Bletchley Rd		ONE HOUR	✓	239	100.000
B - Stoke Rd		ONE HOUR	✓	449	100.000
C - Drayton Rd		ONE HOUR	✓	131	100.000
D - Whaddon Rd		ONE HOUR	✓	387	100.000

Origin-Destination Data

Demand (Veh/hr)

		To			
		A - Bletchley Rd	B - Stoke Rd	C - Drayton Rd	D - Whaddon Rd
From	A - Bletchley Rd	0	81	92	66
	B - Stoke Rd	123	0	31	294
	C - Drayton Rd	72	15	0	44
	D - Whaddon Rd	42	310	35	0

Proportions

		To			
		A - Bletchley Rd	B - Stoke Rd	C - Drayton Rd	D - Whaddon Rd
From	A - Bletchley Rd	0.00	0.34	0.39	0.28
	B - Stoke Rd	0.28	0.00	0.07	0.66
	C - Drayton Rd	0.55	0.11	0.00	0.34
	D - Whaddon Rd	0.11	0.80	0.09	0.00

Vehicle Mix

Heavy Vehicle Percentages

From	To				
		A - Bletchley Rd	B - Stoke Rd	C - Drayton Rd	D - Whaddon Rd
	A - Bletchley Rd	0	3	0	2
	B - Stoke Rd	1	0	0	2
	C - Drayton Rd	2	0	0	0
	D - Whaddon Rd	0	2	0	0

Average PCU Per Veh

From	To				
		A - Bletchley Rd	B - Stoke Rd	C - Drayton Rd	D - Whaddon Rd
	A - Bletchley Rd	1.000	1.029	1.000	1.018
	B - Stoke Rd	1.009	1.000	1.000	1.019
	C - Drayton Rd	1.016	1.000	1.000	1.000
	D - Whaddon Rd	1.000	1.017	1.000	1.000

Detailed Demand Data

Demand for each time segment

Arm	Time Segment	Demand (Veh/hr)	Demand in PCU (PCU/hr)
A - Bletchley Rd	16:45-17:00	180	182
	17:00-17:15	215	218
	17:15-17:30	283	287
	17:30-17:45	283	287
	17:45-18:00	215	218
	18:00-18:15	180	182
B - Stoke Rd	16:45-17:00	338	343
	17:00-17:15	403	409
	17:15-17:30	494	501
	17:30-17:45	494	501
	17:45-18:00	403	409
	18:00-18:15	338	343
C - Drayton Rd	16:45-17:00	98	99
	17:00-17:15	118	119
	17:15-17:30	144	145
	17:30-17:45	144	145
	17:45-18:00	118	119
	18:00-18:15	98	99
D - Whaddon Rd	16:45-17:00	291	295
	17:00-17:15	348	353
	17:15-17:30	426	432
	17:30-17:45	426	432
	17:45-18:00	348	353
	18:00-18:15	291	295

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
A - Bletchley Rd	0.37	8.20	0.6	A	219	329
B - Stoke Rd	0.71	17.38	2.3	C	412	618
C - Drayton Rd	0.22	6.94	0.3	A	120	180
D - Whaddon Rd	0.53	9.63	1.1	A	355	533

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - Bletchley Rd	180	45	270	780	0.231	179	177	0.0	0.3	5.977	A
B - Stoke Rd	338	84	145	741	0.456	334	303	0.0	0.8	8.795	A
C - Drayton Rd	98	25	360	769	0.128	98	119	0.0	0.1	5.359	A
D - Whaddon Rd	291	73	157	845	0.345	289	301	0.0	0.5	6.456	A

17:00 - 17:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - Bletchley Rd	215	54	323	747	0.288	214	212	0.3	0.4	6.751	A
B - Stoke Rd	403	101	174	723	0.557	402	364	0.8	1.2	11.130	B
C - Drayton Rd	118	29	433	724	0.162	117	143	0.1	0.2	5.933	A
D - Whaddon Rd	348	87	188	826	0.421	347	362	0.5	0.7	7.507	A

17:15 - 17:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - Bletchley Rd	263	66	398	703	0.374	262	259	0.4	0.6	8.157	A
B - Stoke Rd	494	123	212	700	0.705	490	445	1.2	2.3	16.766	C
C - Drayton Rd	144	36	528	665	0.217	144	174	0.2	0.3	6.903	A
D - Whaddon Rd	426	107	230	801	0.532	425	442	0.7	1.1	9.533	A

17:30 - 17:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - Bletchley Rd	263	66	397	702	0.375	263	260	0.6	0.6	8.200	A
B - Stoke Rd	494	123	213	700	0.706	494	447	2.3	2.3	17.385	C
C - Drayton Rd	144	36	532	662	0.217	144	175	0.3	0.3	6.943	A
D - Whaddon Rd	426	107	231	800	0.533	426	445	1.1	1.1	9.630	A

17:45 - 18:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - Bletchley Rd	215	54	326	745	0.288	215	214	0.6	0.4	6.804	A
B - Stoke Rd	403	101	175	723	0.558	407	366	2.3	1.3	11.557	B
C - Drayton Rd	118	29	438	720	0.163	118	144	0.3	0.2	5.979	A
D - Whaddon Rd	348	87	190	825	0.422	350	366	1.1	0.7	7.601	A

18:00 - 18:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - Bletchley Rd	180	45	272	778	0.231	180	179	0.4	0.3	6.026	A
B - Stoke Rd	338	84	146	740	0.457	340	306	1.3	0.9	9.034	A
C - Drayton Rd	98	25	366	766	0.129	99	120	0.2	0.1	5.397	A
D - Whaddon Rd	291	73	159	844	0.345	292	306	0.7	0.5	6.537	A

2033 Base + CD + D - ST, 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
J3	Bletchley Road/ Stoke Road/ Drayton Road/ Whaddon Road	Mini-roundabout		A, B, C, D	13.78	B

Junction Network Options

Driving side	Lighting	Road surface	In London
Left	Normal/unknown	Normal/unknown	

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D17	2033 Base + CD + D - ST	AM	ONE HOUR	07:30	08:00	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 - Bletchley Rd		ONE HOUR	✓	244	100.000
B - Stoke Rd		ONE HOUR	✓	483	100.000
C - Drayton Rd		ONE HOUR	✓	189	100.000
D - Whaddon Rd		ONE HOUR	✓	431	100.000

Origin-Destination Data

Demand (Veh/hr)

		To			
		A - Bletchley Rd	B - Stoke Rd	C - Drayton Rd	D - Whaddon Rd
From	A - Bletchley Rd	0	133	79	32
	B - Stoke Rd	111	0	30	342
	C - Drayton Rd	112	28	0	49
	D - Whaddon Rd	56	323	51	0

Proportions

		To			
		A - Bletchley Rd	B - Stoke Rd	C - Drayton Rd	D - Whaddon Rd
From	A - Bletchley Rd	0.00	0.54	0.32	0.13
	B - Stoke Rd	0.23	0.00	0.06	0.71
	C - Drayton Rd	0.59	0.15	0.00	0.26
	D - Whaddon Rd	0.13	0.75	0.12	0.00

Vehicle Mix

Heavy Vehicle Percentages

	To				
From		A - Bletchley Rd	B - Stoke Rd	C - Drayton Rd	D - Whaddon Rd
	A - Bletchley Rd	0	2	1	4
	B - Stoke Rd	2	0	0	2
	C - Drayton Rd	1	0	0	3
	D - Whaddon Rd	0	3	11	0

Average PCU Per Veh

	To				
From		A - Bletchley Rd	B - Stoke Rd	C - Drayton Rd	D - Whaddon Rd
	A - Bletchley Rd	1.000	1.017	1.014	1.036
	B - Stoke Rd	1.021	1.000	1.000	1.015
	C - Drayton Rd	1.010	1.000	1.000	1.033
	D - Whaddon Rd	1.000	1.026	1.107	1.000

Detailed Demand Data

Demand for each time segment

Arm	Time Segment	Demand (Veh/hr)	Demand in PCU (PCU/hr)
A - Bletchley Rd	07:30-07:45	184	187
	07:45-08:00	220	224
	08:00-08:15	289	274
	08:15-08:30	289	274
	08:30-08:45	220	224
	08:45-09:00	184	187
B - Stoke Rd	07:30-07:45	383	389
	07:45-08:00	434	441
	08:00-08:15	532	540
	08:15-08:30	532	540
	08:30-08:45	434	441
	08:45-09:00	383	389
C - Drayton Rd	07:30-07:45	143	145
	07:45-08:00	170	173
	08:00-08:15	208	212
	08:15-08:30	208	212
	08:30-08:45	170	173
	08:45-09:00	143	145
D - Whaddon Rd	07:30-07:45	324	335
	07:45-08:00	387	400
	08:00-08:15	474	490
	08:15-08:30	474	490
	08:30-08:45	387	400
	08:45-09:00	324	335

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
A - Bletchley Rd	0.40	9.06	0.7	A	224	336
B - Stoke Rd	0.74	19.42	2.8	C	443	665
C - Drayton Rd	0.32	8.03	0.5	A	174	261
D - Whaddon Rd	0.63	12.68	1.6	B	395	593

Main Results for each time segment

07:30 - 07:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - Bletchley Rd	184	46	300	754	0.244	183	209	0.0	0.3	6.286	A
B - Stoke Rd	383	91	121	751	0.484	380	362	0.0	0.9	9.120	A
C - Drayton Rd	143	36	362	783	0.187	142	119	0.0	0.2	5.781	A
D - Whaddon Rd	324	81	188	811	0.400	322	316	0.0	0.7	7.320	A

07:45 - 08:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - Bletchley Rd	220	55	380	717	0.306	219	251	0.3	0.4	7.227	A
B - Stoke Rd	434	109	146	736	0.590	432	434	0.9	1.4	11.768	B
C - Drayton Rd	170	43	434	718	0.237	170	143	0.2	0.3	6.558	A
D - Whaddon Rd	387	97	225	788	0.491	386	379	0.7	0.9	8.920	A

08:00 - 08:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - Bletchley Rd	269	67	440	667	0.403	268	306	0.4	0.7	8.993	A
B - Stoke Rd	532	133	178	716	0.742	526	630	1.4	2.7	18.492	C
C - Drayton Rd	208	52	529	660	0.316	208	175	0.3	0.5	7.958	A
D - Whaddon Rd	474	119	275	758	0.625	471	462	0.9	1.6	12.426	B

08:15 - 08:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - Bletchley Rd	269	67	442	666	0.404	269	308	0.7	0.7	9.064	A
B - Stoke Rd	532	133	179	716	0.743	531	633	2.7	2.8	19.415	C
C - Drayton Rd	208	52	534	657	0.317	208	178	0.5	0.5	8.029	A
D - Whaddon Rd	474	119	276	758	0.626	474	468	1.6	1.6	12.679	B

08:30 - 08:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - Bletchley Rd	220	55	384	715	0.307	221	253	0.7	0.4	7.295	A
B - Stoke Rd	434	109	147	735	0.590	439	438	2.8	1.5	12.359	B
C - Drayton Rd	170	43	441	714	0.238	171	145	0.5	0.3	6.630	A
D - Whaddon Rd	387	97	227	787	0.492	390	384	1.6	1.0	9.124	A

08:45 - 09:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - Bletchley Rd	184	46	304	752	0.245	184	212	0.4	0.3	6.348	A
B - Stoke Rd	383	91	123	750	0.484	388	366	1.5	1.0	9.409	A
C - Drayton Rd	143	36	367	760	0.188	143	121	0.3	0.2	5.839	A
D - Whaddon Rd	324	81	190	809	0.401	325	320	1.0	0.7	7.457	A

2033 Base + CD + D - ST, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Mini-roundabout		Mini-roundabout appears to have unbalanced flows and may behave like a priority junction; treat results with caution. See User Guide for details. [Arms B and D have 69% of the total flow for the roundabout for one or more time segments]

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
J3	Bletchley Road/ Stoke Road/ Drayton Road/ Whaddon Road	Mini-roundabout		A, B, C, D	12.93	B

Junction Network Options

Driving side	Lighting	Road surface	In London
Left	Normal/unknown	Normal/unknown	

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D18	2033 Base + CD + D - ST	PM	ONE HOUR	18:45	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 - Bletchley Rd		ONE HOUR	✓	239	100.000
B - Stoke Rd		ONE HOUR	✓	467	100.000
C - Drayton Rd		ONE HOUR	✓	135	100.000
D - Whaddon Rd		ONE HOUR	✓	401	100.000

Origin-Destination Data

Demand (Veh/hr)

		To			
		A - Bletchley Rd	B - Stoke Rd	C - Drayton Rd	D - Whaddon Rd
From	A - Bletchley Rd	0	81	92	66
	B - Stoke Rd	123	0	31	312
	C - Drayton Rd	72	15	0	49
	D - Whaddon Rd	42	321	39	0

Proportions

		To			
		A - Bletchley Rd	B - Stoke Rd	C - Drayton Rd	D - Whaddon Rd
From	A - Bletchley Rd	0.00	0.34	0.39	0.28
	B - Stoke Rd	0.26	0.00	0.07	0.67
	C - Drayton Rd	0.53	0.11	0.00	0.36
	D - Whaddon Rd	0.10	0.80	0.10	0.00

Vehicle Mix

Heavy Vehicle Percentages

From	To				
		A - Bletchley Rd	B - Stoke Rd	C - Drayton Rd	D - Whaddon Rd
	A - Bletchley Rd	0	3	0	2
	B - Stoke Rd	1	0	0	2
	C - Drayton Rd	2	0	0	0
	D - Whaddon Rd	0	2	0	0

Average PCU Per Veh

From	To				
		A - Bletchley Rd	B - Stoke Rd	C - Drayton Rd	D - Whaddon Rd
	A - Bletchley Rd	1.000	1.029	1.000	1.018
	B - Stoke Rd	1.009	1.000	1.000	1.019
	C - Drayton Rd	1.016	1.000	1.000	1.000
	D - Whaddon Rd	1.000	1.017	1.000	1.000

Detailed Demand Data

Demand for each time segment

Arm	Time Segment	Demand (Veh/hr)	Demand in PCU (PCU/hr)
A - Bletchley Rd	16:45-17:00	180	182
	17:00-17:15	215	218
	17:15-17:30	283	287
	17:30-17:45	283	287
	17:45-18:00	215	218
	18:00-18:15	180	182
B - Stoke Rd	16:45-17:00	351	357
	17:00-17:15	420	428
	17:15-17:30	514	521
	17:30-17:45	514	521
	17:45-18:00	420	428
	18:00-18:15	351	357
C - Drayton Rd	16:45-17:00	102	103
	17:00-17:15	121	123
	17:15-17:30	149	150
	17:30-17:45	149	150
	17:45-18:00	121	123
	18:00-18:15	102	103
D - Whaddon Rd	16:45-17:00	302	308
	17:00-17:15	380	385
	17:15-17:30	441	447
	17:30-17:45	441	447
	17:45-18:00	380	385
	18:00-18:15	302	308

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
A - Bletchley Rd	0.38	8.38	0.6	A	219	329
B - Stoke Rd	0.74	19.41	2.7	C	428	642
C - Drayton Rd	0.23	7.18	0.3	A	124	188
D - Whaddon Rd	0.55	10.03	1.2	B	388	552

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - Bletchley Rd	180	45	280	773	0.233	179	177	0.0	0.3	6.041	A
B - Stoke Rd	351	88	147	739	0.475	348	311	0.0	0.9	9.119	A
C - Drayton Rd	102	25	374	761	0.134	101	121	0.0	0.2	5.452	A
D - Whaddon Rd	302	75	157	845	0.357	300	318	0.0	0.5	6.573	A

17:00 - 17:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - Bletchley Rd	215	54	336	739	0.290	214	212	0.3	0.4	6.851	A
B - Stoke Rd	420	105	177	722	0.581	418	374	0.9	1.3	11.769	B
C - Drayton Rd	121	30	449	714	0.170	121	145	0.2	0.2	6.070	A
D - Whaddon Rd	360	90	188	826	0.436	360	382	0.5	0.8	7.702	A

17:15 - 17:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - Bletchley Rd	263	66	411	694	0.379	262	259	0.4	0.6	8.328	A
B - Stoke Rd	514	128	216	698	0.736	509	457	1.3	2.6	18.517	C
C - Drayton Rd	149	37	547	653	0.228	148	178	0.2	0.3	7.129	A
D - Whaddon Rd	441	110	230	801	0.551	440	466	0.8	1.2	9.918	A

17:30 - 17:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - Bletchley Rd	263	66	412	693	0.380	263	260	0.6	0.6	8.376	A
B - Stoke Rd	514	128	217	698	0.736	513	459	2.6	2.7	19.412	C
C - Drayton Rd	149	37	552	650	0.229	149	178	0.3	0.3	7.177	A
D - Whaddon Rd	441	110	231	800	0.552	441	469	1.2	1.2	10.034	B

17:45 - 18:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - Bletchley Rd	215	54	338	738	0.291	216	214	0.6	0.4	6.904	A
B - Stoke Rd	420	105	178	721	0.582	425	376	2.7	1.4	12.337	B
C - Drayton Rd	121	30	456	710	0.171	122	147	0.3	0.2	6.123	A
D - Whaddon Rd	360	90	190	825	0.437	362	387	1.2	0.8	7.811	A

18:00 - 18:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - Bletchley Rd	180	45	283	772	0.233	180	179	0.4	0.3	6.094	A
B - Stoke Rd	351	88	149	738	0.476	353	314	1.4	0.9	9.402	A
C - Drayton Rd	102	25	379	757	0.134	102	122	0.2	0.2	5.495	A
D - Whaddon Rd	302	75	159	844	0.358	303	323	0.8	0.6	6.662	A

Junctions 9	
ARCADY 9 - Roundabout Module	
Version: 9.5.1.7462 © Copyright TRL Limited, 2019	
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Filename: J6 - Bottledump Roundabout_LS.j9

Path: \\uk.wspgroup.com\central data\Projects\700694xx\70069442 - SWMK - 2020\03 WIP\TP Transport Planning\Incoming\CRC\200821 - Junction and Mitigation Modelling BC Only\Miti\J6 - Bottledump Roundabout

Report generation date: 25/08/2020 16:12:08

- »2033 Base + CD + D, AM
- »2033 Base + CD + D, PM
- »2033 Base + CD + D with TP, AM
- »2033 Base + CD + D with TP, PM
- »2033 Base + CD + D - ST, AM
- »2033 Base + CD + D - ST, PM

Summary of junction performance

	AM					PM				
	Set ID	Queue (Veh)	Delay (s)	RFC	LOS	Set ID	Queue (Veh)	Delay (s)	RFC	LOS
	[Lane Simulation] - 2033 Base + CD + D									
A - Standing Way (E)	D15	22.5	48.43		E	D16	74.3	142.04		F
B - Whaddon Road		3.6	19.76		C		1.8	12.90		B
C - Standing Way (W)		0.9	12.69		B		1.2	15.59		C
	[Lane Simulation] - 2033 Base + CD + D with TP									
A - Standing Way (E)	D17	22.4	49.20		E	D18	77.1	146.65		F
B - Whaddon Road		3.4	18.90		C		1.7	12.83		B
C - Standing Way (W)		0.7	12.77		B		1.2	14.73		B
	[Lane Simulation] - 2033 Base + CD + D - ST									
A - Standing Way (E)	D19	12.0	29.44		D	D20	54.8	112.10		F
B - Whaddon Road		3.1	16.64		C		2.1	13.30		B
C - Standing Way (W)		1.1	14.65		B		1.5	16.27		C

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. Arm and junction delays are averages for all movements, including movements with zero delay.

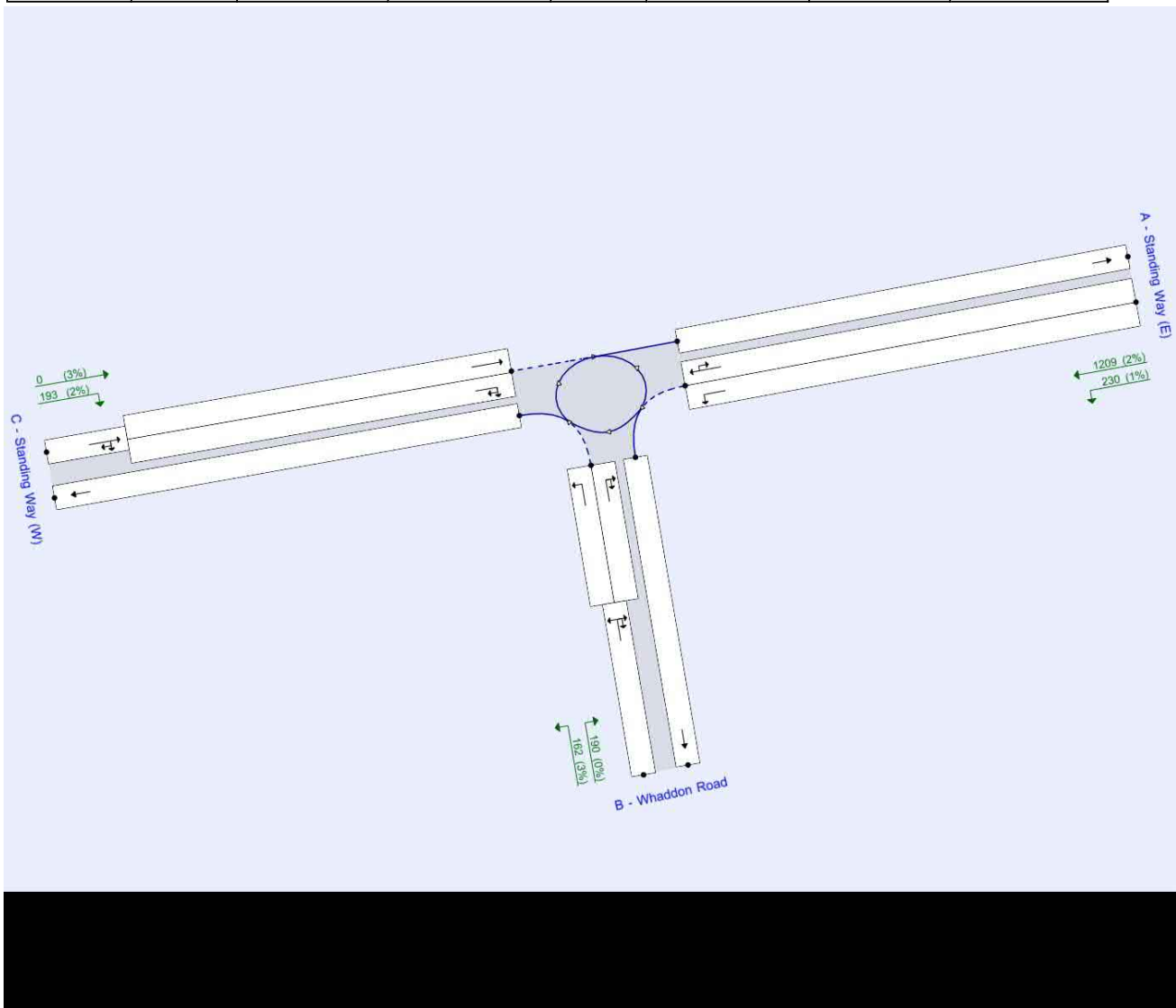
File summary

File Description

Title	Bottledump Roundabout
Location	51°59'11.04"N, 0°48'13.16"W
Site number	6
Date	09/04/2020
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	Veh	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	Calculate residual capacity	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)
5.75				0.85	36.00	20.00

Lane Simulation options

Criteria type	Stop criteria (%)	Stop criteria time (s)	Stop criteria number of trials	Random seed	Results refresh speed (s)	Individual vehicle animation number of trials	Average animation capture interval (s)	Use quick response	Do flow sampling	Suppress automatic lane creation	Last run random seed	Last run number of trials	Last run time taken (s)
Delay	1.00	100000	100000	-1	3	1	60	✓			262571112	143	10.26

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	2020 Base	AM	ONE HOUR	07:30	09:00	15	✓
D2	2020 Base	PM	ONE HOUR	16:45	18:15	15	✓
D3	2026 Base	AM	ONE HOUR	07:30	09:00	15	✓
D4	2026 Base	PM	ONE HOUR	16:45	18:15	15	✓
D5	2026 Base + CD + D	AM	ONE HOUR	07:30	09:00	15	✓
D6	2026 Base + CD + D	PM	ONE HOUR	16:45	18:15	15	✓
D7	2026 Base + CD + D with TP	AM	ONE HOUR	07:30	09:00	15	✓
D8	2026 Base + CD + D with TP	PM	ONE HOUR	16:45	18:15	15	✓
D9	2026 Base + CD + D - ST	AM	ONE HOUR	07:30	09:00	15	✓
D10	2026 Base + CD + D - ST	PM	ONE HOUR	16:45	18:15	15	✓
D11	2026 Base + CD + SP (ST)	AM	ONE HOUR	07:30	09:00	15	✓
D12	2026 Base + CD + SP (ST)	PM	ONE HOUR	16:45	18:15	15	✓
D13	2033 Base	AM	ONE HOUR	07:30	09:00	15	✓
D14	2033 Base	PM	ONE HOUR	16:45	18:15	15	✓
D15	2033 Base + CD + D	AM	ONE HOUR	07:30	09:00	15	✓
D16	2033 Base + CD + D	PM	ONE HOUR	16:45	18:15	15	✓
D17	2033 Base + CD + D with TP	AM	ONE HOUR	07:30	09:00	15	✓
D18	2033 Base + CD + D with TP	PM	ONE HOUR	16:45	18:15	15	✓
D19	2033 Base + CD + D - ST	AM	ONE HOUR	07:30	09:00	15	✓
D20	2033 Base + CD + D - ST	PM	ONE HOUR	16:45	18:15	15	✓
D21	2033 Base + CD + SP (ST)	AM	ONE HOUR	07:30	09:00	15	✓
D22	2033 Base + CD + SP (ST)	PM	ONE HOUR	16:45	18:15	15	✓

Analysis Set Details

ID	Use Lane Simulation	Include in report	Use specific Demand Set (s)	Specific Demand Set(s)	Network flow scaling factor (%)	Network capacity scaling factor (%)
A1	✓	✓	✓	D15,D16,D17,D18,D19,D20	100.000	100.000

2033 Base + CD + D, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Lane Simulation	A1 - [Lane Simulation]	This analysis set uses Lane Simulation mode. This is provided as an investigative tool and the user should apply judgement when interpreting the results.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
J6	Bottledump Roundabout	Standard Roundabout		A, B, C	37.59	E

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description
A	Standing Way (E)	
B	Whaddon Road	
C	Standing Way (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)	Exit only
A - Standing Way (E)	7.50	7.50	0.0	37.2	50.9	27.0	
B - Whaddon Road	3.50	8.20	17.3	50.0	50.9	14.5	
C - Standing Way (W)	2.98	4.21	13.2	32.4	50.9	42.0	

Slope / Intercept / Capacity

Arm Intercept Adjustments

Arm	Type	Reason	Direct intercept adjustment (PCU/hr)
A - Standing Way (E)	Direct		150
B - Whaddon Road	None		
C - Standing Way (W)	None		

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
A - Standing Way (E)	0.736	2498
B - Whaddon Road	0.680	1974
C - Standing Way (W)	0.497	1163

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

Lane Simulation: Arm options

Arm	Lane capacity source	Traffic considering secondary lanes (%)
A - Standing Way (E)	Apportion from lane geometry	10.00
B - Whaddon Road	Evenly split	10.00
C - Standing Way (W)	Evenly split	10.00

Lanes

Arm	Side	Lane level	Lane	Destination arms	Has limited storage	Storage (PCU)	Has bottleneck	Minimum capacity (PCU/hr)	Maximum capacity (PCU/hr)	Signalised
A - Standing Way (E)	Entry	1	1	B		Infinity		0	99999	
			2	A, C		Infinity		0	99999	
	Exit	1	1			Infinity				
B - Whaddon Road	Entry	1	1	C	✓	4.00		0	99999	
			2	A, B	✓	5.00		0	99999	
		2	1	(A, B, C)		Infinity				
	Exit	1	1			Infinity				
C - Standing Way (W)	Entry	1	1	A	✓	14.00		0	99999	
			2	B, C	✓	14.00		0	99999	
		2	1	(A, B, C)		Infinity				
	Exit	1	1			Infinity				

Entry Lane Geometry

Arm	Side	Lane level	Lane	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)
A - Standing Way (E)	Entry	1	1	3.00	3.00	0.0	38.0	56.3	29.0
			2	3.75	4.00	1.0	40.0	56.3	27.0

Entry Lane slope and intercept

Arm	Side	Lane level	Lane	Final slope	Final intercept (PCU/hr)
A - Standing Way (E)	Entry	1	1	0.319	1083
			2	0.417	1415
B - Whaddon Road	Entry	1	1	0.340	987
			2	0.340	987
C - Standing Way (W)	Entry	1	1	0.248	581
			2	0.248	581

Summary of Entry Lane allowed movements

Arm	Lane Level	Lane	Destination arm		
			Standing Way (E)	Whaddon Road	Standing Way (W)
A - Standing Way (E)	1	1		✓	
		2	✓		✓
B - Whaddon Road	1	1			✓
		2	✓	✓	
	2	1	✓	✓	✓
C - Standing Way (W)	1	1	✓		
		2		✓	✓
	2	1	✓	✓	✓

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D15	2033 Base + CD + D	AM	ONE HOUR	07:30	09:00	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 - Standing Way (E)		ONE HOUR	✓	1331	100.000
B - Whaddon Road		ONE HOUR	✓	581	100.000
C - Standing Way (W)		ONE HOUR	✓	174	100.000

Origin-Destination Data

Demand (Veh/hr)

	To			
		A - Standing Way (E)	B - Whaddon Road	C - Standing Way (W)
From	A - Standing Way (E)	3	223	1104
	B - Whaddon Road	320	0	261
	C - Standing Way (W)	0	174	0

Proportions

	To			
		A - Standing Way (E)	B - Whaddon Road	C - Standing Way (W)
From	A - Standing Way (E)	0.00	0.17	0.83
	B - Whaddon Road	0.55	0.00	0.45
	C - Standing Way (W)	0.00	1.00	0.00

Vehicle Mix

Heavy Vehicle Percentages

	To			
		A - Standing Way (E)	B - Whaddon Road	C - Standing Way (W)
From	A - Standing Way (E)	33	2	6
	B - Whaddon Road	2	0	3
	C - Standing Way (W)	4	6	0

Average PCU Per Veh

	To			
		A - Standing Way (E)	B - Whaddon Road	C - Standing Way (W)
From	A - Standing Way (E)	1.333	1.022	1.057
	B - Whaddon Road	1.022	1.000	1.026
	C - Standing Way (W)	1.042	1.056	1.000

Detailed Demand Data

Demand for each time segment

Arm	Time Segment	Demand (Veh/hr)	Demand in PCU (PCU/hr)
A - Standing Way (E)	07:30-07:45	1002	1054
	07:45-08:00	1197	1258
	08:00-08:15	1466	1541
	08:15-08:30	1466	1541
	08:30-08:45	1197	1258
	08:45-09:00	1002	1054
B - Whaddon Road	07:30-07:45	437	448
	07:45-08:00	522	535
	08:00-08:15	640	655
	08:15-08:30	640	655
	08:30-08:45	522	535
	08:45-09:00	437	448
C - Standing Way (W)	07:30-07:45	131	138
	07:45-08:00	156	165
	08:00-08:15	192	202
	08:15-08:30	192	202
	08:30-08:45	156	165
	08:45-09:00	131	138

Results

Results Summary for whole modelled period

Arm	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
A - Standing Way (E)	48.43	22.5	E	1222	1833
B - Whaddon Road	19.76	3.6	C	534	800
C - Standing Way (W)	12.69	0.9	B	159	239

Main Results for each time segment

07:30 - 07:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Throughput (Veh/hr)	Average throughput (PCU/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - Standing Way (E)	993	248	131	998	1044	248	0.0	1.9	7.389	A
B - Whaddon Road	449	112	829	446	445	301	0.0	1.2	7.969	A
C - Standing Way (W)	133	33	248	131	136	1027	0.0	0.4	9.759	A

07:45 - 08:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Throughput (Veh/hr)	Average throughput (PCU/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - Standing Way (E)	1211	303	155	1198	1245	284	1.9	4.7	11.980	B
B - Whaddon Road	509	127	1002	514	525	351	1.2	1.5	10.247	B
C - Standing Way (W)	154	39	284	155	162	1232	0.4	0.4	10.812	B

08:00 - 08:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Throughput (Veh/hr)	Average throughput (PCU/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - Standing Way (E)	1468	367	190	1430	1496	366	4.7	15.9	30.165	D
B - Whaddon Road	646	162	1186	647	649	433	1.5	3.5	18.505	C
C - Standing Way (W)	193	48	366	190	198	1468	0.4	0.8	12.655	B

08:15 - 08:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Throughput (Veh/hr)	Average throughput (PCU/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - Standing Way (E)	1468	367	191	1447	1522	355	15.9	22.2	48.425	E
B - Whaddon Road	641	160	1201	642	658	436	3.5	3.5	19.760	C
C - Standing Way (W)	192	48	355	191	201	1488	0.8	0.8	12.685	B

08:30 - 08:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Throughput (Veh/hr)	Average throughput (PCU/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - Standing Way (E)	1174	293	153	1195	1319	291	22.2	4.6	26.186	D
B - Whaddon Road	519	130	999	524	540	349	3.5	1.6	12.728	B
C - Standing Way (W)	152	38	291	153	164	1232	0.8	0.5	11.192	B

08:45 - 09:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Throughput (Veh/hr)	Average throughput (PCU/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - Standing Way (E)	1016	254	133	1016	1071	244	4.6	2.1	8.142	A
B - Whaddon Road	437	109	842	438	445	306	1.6	0.8	8.229	A
C - Standing Way (W)	131	33	244	133	138	1037	0.5	0.3	9.730	A

Lane Results

Lane Level notation: Lane Level 1 is always closest to the junction.

Lanes: Main Results for each time segment

07:30 - 07:45

Arm	Side	Lane level	Lane	Destination arms	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Average throughput (PCU/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - Standing Way (E)	Entry	1	1	B	168	1018	0.165	169	173	0.0	0.2	4.286	A
			2	A, C	825	1291	0.640	829	871	0.0	1.7	8.021	A
	Exit	1	1		248			248	249	0.0	0.0	0.000	A
B - Whaddon Road	Entry	1	1	C	201	675	0.299	200	199	0.0	0.5	7.396	A
			2	A, B	248	678	0.366	246	246	0.0	0.7	8.295	A
		2	1	(A, B, C)	449			449	450	0.0	0.0	0.069	A
	Exit	1	1		301			301	309	0.0	0.0	0.000	A
C - Standing Way (W)	Entry	1	1	A	0	518	0.000	0	0	0.0	0.0	0.000	A
			2	B, C	133	492	0.270	131	136	0.0	0.4	9.759	A
		2	1	(A, B, C)	133			133	138	0.0	0.0	0.000	A
	Exit	1	1		1027			1027	1067	0.0	0.0	0.000	A

07:45 - 08:00

Arm	Side	Lane level	Lane	Destination arms	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Average throughput (PCU/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - Standing Way (E)	Entry	1	1	B	197	1009	0.195	196	201	0.2	0.2	4.383	A
			2	A, C	1014	1273	0.796	1002	1043	1.7	4.5	13.484	B
	Exit	1	1		284			284	292	0.0	0.0	0.000	A
B - Whaddon Road	Entry	1	1	C	233	613	0.380	234	237	0.5	0.6	9.060	A
			2	A, B	277	612	0.452	281	287	0.7	0.8	10.375	B
		2	1	(A, B, C)	509			510	526	0.0	0.1	0.467	A
	Exit	1	1		351			351	364	0.0	0.0	0.000	A
C - Standing Way (W)	Entry	1	1	A	0	509	0.000	0	0	0.0	0.0	0.000	A
			2	B, C	154	480	0.322	155	162	0.4	0.4	10.812	B
		2	1	(A, B, C)	154			154	162	0.0	0.0	0.000	A
	Exit	1	1		1232			1232	1277	0.0	0.0	0.000	A

08:00 - 08:15

Arm	Side	Lane level	Lane	Destination arms	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Average throughput (PCU/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - Standing Way (E)	Entry	1	1	B	245	991	0.247	243	253	0.2	0.4	4.868	A
			2	A, C	1223	1258	0.973	1186	1243	4.5	15.5	35.312	E
	Exit	1	1		366			366	365	0.0	0.0	0.000	A
B - Whaddon Road	Entry	1	1	C	286	544	0.525	285	289	0.6	1.0	12.457	B
			2	A, B	359	549	0.654	362	360	0.8	1.5	16.191	C
		2	1	(A, B, C)	646			645	654	0.1	1.0	3.930	A
	Exit	1	1		433			433	451	0.0	0.0	0.000	A
C - Standing Way (W)	Entry	1	1	A	0	488	0.000	0	0	0.0	0.0	0.000	A
			2	B, C	193	464	0.415	190	198	0.4	0.8	12.655	B
		2	1	(A, B, C)	193			193	199	0.0	0.0	0.000	A
	Exit	1	1		1468			1468	1527	0.0	0.0	0.000	A

08:15 - 08:30

Arm	Side	Lane level	Lane	Destination arms	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Average throughput (PCU/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - Standing Way (E)	Entry	1	1	B	245	999	0.245	246	253	0.4	0.3	5.101	A
			2	A, C	1223	1260	0.973	1201	1269	15.5	21.9	57.179	F
	Exit	1	1		355			355	365	0.0	0.0	0.000	A
B - Whaddon Road	Entry	1	1	C	291	542	0.537	291	298	1.0	1.2	12.900	B
			2	A, B	351	545	0.644	351	360	1.5	1.6	17.385	C
		2	1	(A, B, C)	641			642	659	1.0	0.7	4.401	A
	Exit	1	1		436			436	454	0.0	0.0	0.000	A
C - Standing Way (W)	Entry	1	1	A	0	491	0.000	0	0	0.0	0.0	0.000	A
			2	B, C	192	466	0.412	191	201	0.8	0.8	12.685	B
		2	1	(A, B, C)	192			192	201	0.0	0.0	0.000	A
	Exit	1	1		1488			1488	1562	0.0	0.0	0.000	A

08:30 - 08:45

Arm	Side	Lane level	Lane	Destination arms	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Average throughput (PCU/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - Standing Way (E)	Entry	1	1	B	196	1008	0.194	196	199	0.3	0.2	4.288	A
			2	A, C	978	1273	0.768	999	1120	21.9	4.3	30.498	D
	Exit	1	1		291			291	303	0.0	0.0	0.000	A
B - Whaddon Road	Entry	1	1	C	233	611	0.381	235	241	1.2	0.5	10.372	B
			2	A, B	287	613	0.468	289	299	1.6	1.0	12.677	B
		2	1	(A, B, C)	519			520	534	0.7	0.1	1.140	A
	Exit	1	1		349			349	364	0.0	0.0	0.000	A
C - Standing Way (W)	Entry	1	1	A	0	507	0.000	0	0	0.0	0.0	0.000	A
			2	B, C	152	481	0.317	153	164	0.8	0.5	11.192	B
		2	1	(A, B, C)	152			152	163	0.0	0.0	0.000	A
	Exit	1	1		1232			1232	1356	0.0	0.0	0.000	A

08:45 - 09:00

Arm	Side	Lane level	Lane	Destination arms	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Average throughput (PCU/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - Standing Way (E)	Entry	1	1	B	174	1022	0.171	174	176	0.2	0.2	4.359	A
			2	A, C	842	1283	0.655	842	895	4.3	1.9	8.925	A
	Exit	1	1		244			244	246	0.0	0.0	0.000	A
B - Whaddon Road	Entry	1	1	C	197	666	0.296	198	202	0.5	0.3	7.535	A
			2	A, B	240	670	0.358	241	243	1.0	0.4	8.551	A
		2	1	(A, B, C)	437			437	442	0.1	0.0	0.146	A
	Exit	1	1		306			306	314	0.0	0.0	0.000	A
C - Standing Way (W)	Entry	1	1	A	0	519	0.000	0	0	0.0	0.0	0.000	A
			2	B, C	131	496	0.266	133	138	0.5	0.3	9.730	A
		2	1	(A, B, C)	131			131	137	0.0	0.0	0.000	A
	Exit	1	1		1037			1037	1093	0.0	0.0	0.000	A

2033 Base + CD + D, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Lane Simulation	A1 - [Lane Simulation]	This analysis set uses Lane Simulation mode. This is provided as an investigative tool and the user should apply judgement when interpreting the results.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
J6	Bottledump Roundabout	Standard Roundabout		A, B, C	102.11	F

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D16	2033 Base + CD + D	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 - Standing Way (E)		ONE HOUR	✓	1510	100.000
B - Whaddon Road		ONE HOUR	✓	441	100.000
C - Standing Way (W)		ONE HOUR	✓	243	100.000

Origin-Destination Data

Demand (Veh/hr)

	To			
		A - Standing Way (E)	B - Whaddon Road	C - Standing Way (W)
From	A - Standing Way (E)	2	230	1278
	B - Whaddon Road	249	0	193
	C - Standing Way (W)	0	243	0

Proportions

	To			
		A - Standing Way (E)	B - Whaddon Road	C - Standing Way (W)
From	A - Standing Way (E)	0.00	0.15	0.85
	B - Whaddon Road	0.56	0.00	0.44
	C - Standing Way (W)	0.00	1.00	0.00

Vehicle Mix

Heavy Vehicle Percentages

From	To			
		A - Standing Way (E)	B - Whaddon Road	C - Standing Way (W)
	A - Standing Way (E)	50	1	2
	B - Whaddon Road	0	0	3
	C - Standing Way (W)	3	2	0

Average PCU Per Veh

From	To			
		A - Standing Way (E)	B - Whaddon Road	C - Standing Way (W)
	A - Standing Way (E)	1.500	1.010	1.018
	B - Whaddon Road	1.000	1.000	1.031
	C - Standing Way (W)	1.025	1.019	1.000

Detailed Demand Data

Demand for each time segment

Arm	Time Segment	Demand (Veh/hr)	Demand in PCU (PCU/hr)
A - Standing Way (E)	16:45-17:00	1137	1157
	17:00-17:15	1358	1382
	17:15-17:30	1663	1692
	17:30-17:45	1663	1692
	17:45-18:00	1358	1382
	18:00-18:15	1137	1157
B - Whaddon Road	16:45-17:00	332	337
	17:00-17:15	397	402
	17:15-17:30	486	493
	17:30-17:45	486	493
	17:45-18:00	397	402
	18:00-18:15	332	337
C - Standing Way (W)	16:45-17:00	183	187
	17:00-17:15	219	223
	17:15-17:30	268	273
	17:30-17:45	268	273
	17:45-18:00	219	223
	18:00-18:15	183	187

Results

Results Summary for whole modelled period

Arm	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
A - Standing Way (E)	142.04	74.3	F	1386	2079
B - Whaddon Road	12.90	1.8	B	404	607
C - Standing Way (W)	15.59	1.2	C	224	337

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Throughput (Veh/hr)	Average throughput (PCU/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - Standing Way (E)	1152	288	187	1149	1158	188	0.0	3.2	9.664	A
B - Whaddon Road	332	83	975	333	338	361	0.0	0.6	7.607	A
C - Standing Way (W)	188	47	188	187	187	1120	0.0	0.7	11.015	B

17:00 - 17:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Throughput (Veh/hr)	Average throughput (PCU/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - Standing Way (E)	1348	337	217	1352	1353	227	3.2	7.4	17.858	C
B - Whaddon Road	395	99	1142	395	402	428	0.6	1.0	9.152	A
C - Standing Way (W)	217	54	227	217	223	1310	0.7	0.8	12.370	B

17:15 - 17:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Throughput (Veh/hr)	Average throughput (PCU/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - Standing Way (E)	1653	413	273	1544	1540	277	7.4	43.5	66.748	F
B - Whaddon Road	490	122	1289	489	489	527	1.0	1.6	12.365	B
C - Standing Way (W)	270	68	277	273	273	1500	0.8	1.1	15.590	C

17:30 - 17:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Throughput (Veh/hr)	Average throughput (PCU/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - Standing Way (E)	1665	416	270	1534	1555	271	43.5	74.2	142.039	F
B - Whaddon Road	483	121	1281	483	488	523	1.6	1.7	12.901	B
C - Standing Way (W)	269	67	271	270	272	1493	1.1	1.1	15.473	C

17:45 - 18:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Throughput (Veh/hr)	Average throughput (PCU/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - Standing Way (E)	1352	338	219	1477	1509	228	74.2	43.8	141.725	F
B - Whaddon Road	394	99	1269	397	407	427	1.7	1.1	10.842	B
C - Standing Way (W)	220	55	228	219	224	1438	1.1	0.8	12.671	B

18:00 - 18:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Throughput (Veh/hr)	Average throughput (PCU/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - Standing Way (E)	1149	287	181	1217	1312	187	43.8	6.6	48.651	E
B - Whaddon Road	334	83	1041	332	339	357	1.1	0.9	8.841	A
C - Standing Way (W)	182	45	187	181	189	1187	0.8	0.6	11.057	B

Lane Results

Lane Level notation: Lane Level 1 is always closest to the junction.

Lanes: Main Results for each time segment

16:45 - 17:00

Arm	Side	Lane level	Lane	Destination arms	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Average throughput (PCU/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - Standing Way (E)	Entry	1	1	B	174	1011	0.172	174	175	0.0	0.2	4.315	A
			2	A, C	978	1311	0.746	975	983	0.0	3.0	10.616	B
	Exit	1	1		188			188	191	0.0	0.0	0.000	A
B - Whaddon Road	Entry	1	1	C	146	629	0.231	146	149	0.0	0.2	7.333	A
			2	A, B	186	649	0.287	187	189	0.0	0.4	7.779	A
		2	1	(A, B, C)	332			332	340	0.0	0.0	0.022	A
	Exit	1	1		361			361	362	0.0	0.0	0.000	A
C - Standing Way (W)	Entry	1	1	A	0	534	0.000	0	0	0.0	0.0	0.000	A
			2	B, C	188	525	0.359	187	187	0.0	0.7	11.015	B
		2	1	(A, B, C)	188			188	190	0.0	0.0	0.000	A
	Exit	1	1		1120			1120	1130	0.0	0.0	0.000	A

17:00 - 17:15

Arm	Side	Lane level	Lane	Destination arms	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Average throughput (PCU/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - Standing Way (E)	Entry	1	1	B	210	1002	0.209	210	210	0.2	0.2	4.474	A
			2	A, C	1139	1299	0.877	1142	1143	3.0	7.2	20.303	C
	Exit	1	1		227			227	228	0.0	0.0	0.000	A
B - Whaddon Road	Entry	1	1	C	171	576	0.296	171	177	0.2	0.4	8.724	A
			2	A, B	224	592	0.378	225	225	0.4	0.5	9.303	A
		2	1	(A, B, C)	395			395	403	0.0	0.0	0.098	A
	Exit	1	1		428			428	433	0.0	0.0	0.000	A
C - Standing Way (W)	Entry	1	1	A	0	525	0.000	0	0	0.0	0.0	0.000	A
			2	B, C	217	514	0.423	217	223	0.7	0.8	12.370	B
		2	1	(A, B, C)	217			217	223	0.0	0.0	0.000	A
	Exit	1	1		1310			1310	1317	0.0	0.0	0.000	A

17:15 - 17:30

Arm	Side	Lane level	Lane	Destination arms	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Average throughput (PCU/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - Standing Way (E)	Entry	1	1	B	256	985	0.260	255	255	0.2	0.4	4.966	A
			2	A, C	1396	1274	1.096	1289	1285	7.2	43.1	77.866	F
	Exit	1	1		277			277	275	0.0	0.0	0.000	A
B - Whaddon Road	Entry	1	1	C	214	523	0.409	214	218	0.4	0.6	10.728	B
			2	A, B	276	540	0.510	275	271	0.5	1.0	12.600	B
		2	1	(A, B, C)	490			490	491	0.0	0.1	0.582	A
	Exit	1	1		527			527	528	0.0	0.0	0.000	A
C - Standing Way (W)	Entry	1	1	A	0	512	0.000	0	0	0.0	0.0	0.000	A
			2	B, C	270	503	0.538	273	273	0.8	1.1	15.590	C
		2	1	(A, B, C)	270			270	274	0.0	0.0	0.000	A
	Exit	1	1		1500			1500	1499	0.0	0.0	0.000	A

17:30 - 17:45

Arm	Side	Lane level	Lane	Destination arms	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Average throughput (PCU/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - Standing Way (E)	Entry	1	1	B	253	984	0.257	253	256	0.4	0.3	4.969	A
			2	A, C	1412	1274	1.106	1281	1299	43.1	74.0	166.903	F
	Exit	1	1		271			271	273	0.0	0.0	0.000	A
B - Whaddon Road	Entry	1	1	C	214	526	0.406	214	219	0.6	0.7	11.190	B
			2	A, B	270	543	0.497	268	270	1.0	1.0	12.968	B
		2	1	(A, B, C)	483			483	489	0.1	0.1	0.707	A
	Exit	1	1		523			523	528	0.0	0.0	0.000	A
C - Standing Way (W)	Entry	1	1	A	0	514	0.000	0	0	0.0	0.0	0.000	A
			2	B, C	269	504	0.532	270	272	1.1	1.1	15.411	C
		2	1	(A, B, C)	269			269	272	0.0	0.0	0.031	A
	Exit	1	1		1493			1493	1514	0.0	0.0	0.000	A

17:45 - 18:00

Arm	Side	Lane level	Lane	Destination arms	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Average throughput (PCU/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - Standing Way (E)	Entry	1	1	B	208	1000	0.208	208	209	0.3	0.3	4.493	A
			2	A, C	1144	1298	0.881	1269	1300	74.0	43.5	166.359	F
	Exit	1	1		228			228	229	0.0	0.0	0.000	A
B - Whaddon Road	Entry	1	1	C	170	531	0.320	171	182	0.7	0.5	10.022	B
			2	A, B	224	548	0.410	226	226	1.0	0.6	11.142	B
		2	1	(A, B, C)	394			394	405	0.1	0.0	0.207	A
	Exit	1	1		427			427	433	0.0	0.0	0.000	A
C - Standing Way (W)	Entry	1	1	A	0	524	0.000	0	0	0.0	0.0	0.000	A
			2	B, C	220	517	0.425	219	224	1.1	0.8	12.684	B
		2	1	(A, B, C)	220			220	223	0.0	0.0	0.027	A
	Exit	1	1		1438			1438	1478	0.0	0.0	0.000	A

18:00 - 18:15

Arm	Side	Lane level	Lane	Destination arms	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Average throughput (PCU/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - Standing Way (E)	Entry	1	1	B	176	1014	0.173	176	176	0.3	0.2	4.354	A
			2	A, C	973	1311	0.742	1041	1136	43.5	6.4	56.752	F
	Exit	1	1		187			187	192	0.0	0.0	0.000	A
B - Whaddon Road	Entry	1	1	C	149	610	0.244	148	150	0.5	0.5	8.608	A
			2	A, B	185	626	0.295	184	189	0.6	0.4	8.924	A
		2	1	(A, B, C)	334			334	338	0.0	0.0	0.055	A
	Exit	1	1		357			357	366	0.0	0.0	0.000	A
C - Standing Way (W)	Entry	1	1	A	0	535	0.000	0	0	0.0	0.0	0.000	A
			2	B, C	182	523	0.347	181	189	0.8	0.6	11.057	B
		2	1	(A, B, C)	182			182	188	0.0	0.0	0.000	A
	Exit	1	1		1187			1187	1283	0.0	0.0	0.000	A

2033 Base + CD + D with TP, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Lane Simulation	A1 - [Lane Simulation]	This analysis set uses Lane Simulation mode. This is provided as an investigative tool and the user should apply judgement when interpreting the results.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
J6	Bottledump Roundabout	Standard Roundabout		A, B, C	38.10	E

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D17	2033 Base + CD + D with TP	AM	ONE HOUR	07:30	09:00	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 - Standing Way (E)		ONE HOUR	✓	1327	100.000
B - Whaddon Road		ONE HOUR	✓	557	100.000
C - Standing Way (W)		ONE HOUR	✓	166	100.000

Origin-Destination Data

Demand (Veh/hr)

	To			
		A - Standing Way (E)	B - Whaddon Road	C - Standing Way (W)
From	A - Standing Way (E)	3	223	1100
	B - Whaddon Road	303	0	254
	C - Standing Way (W)	0	166	0

Proportions

	To			
		A - Standing Way (E)	B - Whaddon Road	C - Standing Way (W)
From	A - Standing Way (E)	0.00	0.17	0.83
	B - Whaddon Road	0.54	0.00	0.46
	C - Standing Way (W)	0.00	1.00	0.00

Vehicle Mix

Heavy Vehicle Percentages

From	To			
		A - Standing Way (E)	B - Whaddon Road	C - Standing Way (W)
	A - Standing Way (E)	33	2	6
	B - Whaddon Road	2	0	3
	C - Standing Way (W)	4	6	0

Average PCU Per Veh

From	To			
		A - Standing Way (E)	B - Whaddon Road	C - Standing Way (W)
	A - Standing Way (E)	1.333	1.022	1.057
	B - Whaddon Road	1.022	1.000	1.026
	C - Standing Way (W)	1.042	1.056	1.000

Detailed Demand Data

Demand for each time segment

Arm	Time Segment	Demand (Veh/hr)	Demand in PCU (PCU/hr)
A - Standing Way (E)	07:30-07:45	999	1051
	07:45-08:00	1193	1255
	08:00-08:15	1461	1537
	08:15-08:30	1461	1537
	08:30-08:45	1193	1255
	08:45-09:00	999	1051
B - Whaddon Road	07:30-07:45	419	429
	07:45-08:00	500	512
	08:00-08:15	613	628
	08:15-08:30	613	628
	08:30-08:45	500	512
	08:45-09:00	419	429
C - Standing Way (W)	07:30-07:45	125	132
	07:45-08:00	150	158
	08:00-08:15	183	193
	08:15-08:30	183	193
	08:30-08:45	150	158
	08:45-09:00	125	132

Results

Results Summary for whole modelled period

Arm	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
A - Standing Way (E)	49.20	22.4	E	1213	1819
B - Whaddon Road	18.90	3.4	C	514	770
C - Standing Way (W)	12.77	0.7	B	152	228

Main Results for each time segment

07:30 - 07:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Throughput (Veh/hr)	Average throughput (PCU/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - Standing Way (E)	987	247	119	995	1040	233	0.0	1.9	7.267	A
B - Whaddon Road	424	106	834	424	429	280	0.0	1.1	8.034	A
C - Standing Way (W)	121	30	233	119	130	1025	0.0	0.4	9.845	A

07:45 - 08:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Throughput (Veh/hr)	Average throughput (PCU/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - Standing Way (E)	1169	292	153	1175	1239	275	1.9	3.2	11.198	B
B - Whaddon Road	505	126	978	509	512	350	1.1	1.3	10.049	B
C - Standing Way (W)	152	38	275	153	159	1211	0.4	0.3	10.463	B

08:00 - 08:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Throughput (Veh/hr)	Average throughput (PCU/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - Standing Way (E)	1470	367	185	1428	1481	332	3.2	17.5	29.605	D
B - Whaddon Road	615	154	1191	613	623	422	1.3	3.0	16.043	C
C - Standing Way (W)	185	46	332	185	196	1471	0.3	0.7	12.260	B

08:15 - 08:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Throughput (Veh/hr)	Average throughput (PCU/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - Standing Way (E)	1483	371	181	1468	1525	331	17.5	22.2	49.198	E
B - Whaddon Road	614	153	1222	607	624	427	3.0	3.5	18.905	C
C - Standing Way (W)	182	45	331	181	191	1498	0.7	0.7	12.771	B

08:30 - 08:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Throughput (Veh/hr)	Average throughput (PCU/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - Standing Way (E)	1173	293	146	1201	1331	275	22.2	4.8	25.551	D
B - Whaddon Road	498	125	1002	497	515	346	3.5	1.6	12.333	B
C - Standing Way (W)	145	36	275	146	156	1224	0.7	0.4	11.097	B

08:45 - 09:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Throughput (Veh/hr)	Average throughput (PCU/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - Standing Way (E)	995	249	126	991	1067	237	4.8	2.3	8.041	A
B - Whaddon Road	425	106	819	426	437	299	1.6	0.9	8.326	A
C - Standing Way (W)	127	32	237	126	132	1008	0.4	0.3	9.728	A

Lane Results

Lane Level notation: Lane Level 1 is always closest to the junction.

Lanes: Main Results for each time segment

07:30 - 07:45

Arm	Side	Lane level	Lane	Destination arms	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Average throughput (PCU/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - Standing Way (E)	Entry	1	1	B	162	1019	0.159	161	168	0.0	0.2	4.165	A
			2	A, C	826	1292	0.639	834	872	0.0	1.7	7.884	A
	Exit	1	1		233			233	235	0.0	0.0	0.000	A
B - Whaddon Road	Entry	1	1	C	193	668	0.289	193	197	0.0	0.5	7.659	A
			2	A, B	231	677	0.341	231	231	0.0	0.6	8.185	A
		2	1	(A, B, C)	424			424	433	0.0	0.0	0.092	A
	Exit	1	1		280			280	299	0.0	0.0	0.000	A
C - Standing Way (W)	Entry	1	1	A	0	522	0.000	0	0	0.0	0.0	0.000	A
			2	B, C	121	494	0.245	119	130	0.0	0.4	9.845	A
		2	1	(A, B, C)	121			121	132	0.0	0.0	0.000	A
	Exit	1	1		1025			1025	1066	0.0	0.0	0.000	A

07:45 - 08:00

Arm	Side	Lane level	Lane	Destination arms	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Average throughput (PCU/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - Standing Way (E)	Entry	1	1	B	196	1009	0.194	197	206	0.2	0.2	4.323	A
			2	A, C	973	1278	0.762	978	1034	1.7	3.0	12.603	B
	Exit	1	1		275			275	279	0.0	0.0	0.000	A
B - Whaddon Road	Entry	1	1	C	237	621	0.381	237	237	0.5	0.6	9.456	A
			2	A, B	269	624	0.430	271	275	0.6	0.7	9.873	A
		2	1	(A, B, C)	505			505	513	0.0	0.0	0.366	A
	Exit	1	1		350			350	365	0.0	0.0	0.000	A
C - Standing Way (W)	Entry	1	1	A	0	511	0.000	0	0	0.0	0.0	0.000	A
			2	B, C	152	486	0.312	153	159	0.4	0.3	10.463	B
		2	1	(A, B, C)	152			152	159	0.0	0.0	0.000	A
	Exit	1	1		1211			1211	1266	0.0	0.0	0.000	A

08:00 - 08:15

Arm	Side	Lane level	Lane	Destination arms	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Average throughput (PCU/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - Standing Way (E)	Entry	1	1	B	239	1000	0.239	237	248	0.2	0.5	4.697	A
			2	A, C	1231	1262	0.974	1191	1233	3.0	17.0	34.584	D
	Exit	1	1		332			332	343	0.0	0.0	0.000	A
B - Whaddon Road	Entry	1	1	C	284	545	0.521	284	285	0.6	1.0	11.708	B
			2	A, B	332	550	0.606	329	338	0.7	1.5	14.603	B
		2	1	(A, B, C)	615			616	627	0.0	0.5	2.725	A
	Exit	1	1		422			422	444	0.0	0.0	0.000	A
C - Standing Way (W)	Entry	1	1	A	0	497	0.000	0	0	0.0	0.0	0.000	A
			2	B, C	185	470	0.394	185	196	0.3	0.7	12.260	B
		2	1	(A, B, C)	185			185	197	0.0	0.0	0.000	A
	Exit	1	1		1471			1471	1512	0.0	0.0	0.000	A

08:15 - 08:30

Arm	Side	Lane level	Lane	Destination arms	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Average throughput (PCU/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - Standing Way (E)	Entry	1	1	B	247	1003	0.247	246	252	0.5	0.4	4.938	A
			2	A, C	1236	1265	0.976	1222	1273	17.0	21.8	58.092	F
	Exit	1	1		331			331	347	0.0	0.0	0.000	A
B - Whaddon Road	Entry	1	1	C	279	539	0.517	280	283	1.0	0.9	12.630	B
			2	A, B	332	538	0.618	327	341	1.5	1.7	16.907	C
		2	1	(A, B, C)	614			611	624	0.5	0.8	3.911	A
	Exit	1	1		427			427	443	0.0	0.0	0.000	A
C - Standing Way (W)	Entry	1	1	A	0	497	0.000	0	0	0.0	0.0	0.000	A
			2	B, C	182	470	0.386	181	191	0.7	0.7	12.771	B
		2	1	(A, B, C)	182			182	191	0.0	0.0	0.000	A
	Exit	1	1		1498			1498	1550	0.0	0.0	0.000	A

08:30 - 08:45

Arm	Side	Lane level	Lane	Destination arms	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Average throughput (PCU/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - Standing Way (E)	Entry	1	1	B	200	1011	0.198	199	209	0.4	0.3	4.615	A
			2	A, C	973	1272	0.765	1002	1122	21.8	4.6	29.852	D
	Exit	1	1		275			275	284	0.0	0.0	0.000	A
B - Whaddon Road	Entry	1	1	C	228	606	0.376	226	237	0.9	0.7	10.856	B
			2	A, B	271	613	0.443	271	279	1.7	0.8	12.006	B
		2	1	(A, B, C)	498			499	511	0.8	0.0	0.939	A
	Exit	1	1		346			346	365	0.0	0.0	0.000	A
C - Standing Way (W)	Entry	1	1	A	0	511	0.000	0	0	0.0	0.0	0.000	A
			2	B, C	145	486	0.299	146	156	0.7	0.4	11.097	B
		2	1	(A, B, C)	145			145	155	0.0	0.0	0.000	A
	Exit	1	1		1224			1224	1354	0.0	0.0	0.000	A

08:45 - 09:00

Arm	Side	Lane level	Lane	Destination arms	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Average throughput (PCU/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - Standing Way (E)	Entry	1	1	B	173	1018	0.170	173	176	0.3	0.3	4.413	A
			2	A, C	822	1281	0.641	819	890	4.6	2.0	8.797	A
	Exit	1	1		237			237	243	0.0	0.0	0.000	A
B - Whaddon Road	Entry	1	1	C	191	671	0.284	191	197	0.7	0.4	7.899	A
			2	A, B	234	677	0.346	235	240	0.8	0.5	8.402	A
		2	1	(A, B, C)	425			425	434	0.0	0.0	0.154	A
	Exit	1	1		299			299	309	0.0	0.0	0.000	A
C - Standing Way (W)	Entry	1	1	A	0	521	0.000	0	0	0.0	0.0	0.000	A
			2	B, C	127	492	0.258	126	132	0.4	0.3	9.728	A
		2	1	(A, B, C)	127			127	132	0.0	0.0	0.000	A
	Exit	1	1		1008			1008	1084	0.0	0.0	0.000	A

2033 Base + CD + D with TP, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Lane Simulation	A1 - [Lane Simulation]	This analysis set uses Lane Simulation mode. This is provided as an investigative tool and the user should apply judgement when interpreting the results.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
J6	Bottledump Roundabout	Standard Roundabout		A, B, C	106.37	F

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D18	2033 Base + CD + D with TP	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 - Standing Way (E)		ONE HOUR	✓	1509	100.000
B - Whaddon Road		ONE HOUR	✓	423	100.000
C - Standing Way (W)		ONE HOUR	✓	233	100.000

Origin-Destination Data

Demand (Veh/hr)

	To			
		A - Standing Way (E)	B - Whaddon Road	C - Standing Way (W)
From	A - Standing Way (E)	2	230	1276
	B - Whaddon Road	239	0	185
	C - Standing Way (W)	0	233	0

Proportions

	To			
		A - Standing Way (E)	B - Whaddon Road	C - Standing Way (W)
From	A - Standing Way (E)	0.00	0.15	0.85
	B - Whaddon Road	0.56	0.00	0.44
	C - Standing Way (W)	0.00	1.00	0.00

Vehicle Mix

Heavy Vehicle Percentages

From	To			
		A - Standing Way (E)	B - Whaddon Road	C - Standing Way (W)
	A - Standing Way (E)	50	1	2
	B - Whaddon Road	0	0	3
	C - Standing Way (W)	3	2	0

Average PCU Per Veh

From	To			
		A - Standing Way (E)	B - Whaddon Road	C - Standing Way (W)
	A - Standing Way (E)	1.500	1.010	1.018
	B - Whaddon Road	1.000	1.000	1.031
	C - Standing Way (W)	1.025	1.019	1.000

Detailed Demand Data

Demand for each time segment

Arm	Time Segment	Demand (Veh/hr)	Demand in PCU (PCU/hr)
A - Standing Way (E)	16:45-17:00	1136	1156
	17:00-17:15	1356	1381
	17:15-17:30	1661	1691
	17:30-17:45	1661	1691
	17:45-18:00	1356	1381
	18:00-18:15	1136	1156
B - Whaddon Road	16:45-17:00	319	323
	17:00-17:15	380	386
	17:15-17:30	466	472
	17:30-17:45	466	472
	17:45-18:00	380	386
	18:00-18:15	319	323
C - Standing Way (W)	16:45-17:00	175	179
	17:00-17:15	210	213
	17:15-17:30	257	261
	17:30-17:45	257	261
	17:45-18:00	210	213
	18:00-18:15	175	179

Results

Results Summary for whole modelled period

Arm	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
A - Standing Way (E)	146.65	77.1	F	1383	2075
B - Whaddon Road	12.83	1.7	B	387	581
C - Standing Way (W)	14.73	1.2	B	215	322

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Throughput (Veh/hr)	Average throughput (PCU/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - Standing Way (E)	1148	287	174	1146	1155	179	0.0	3.0	9.431	A
B - Whaddon Road	315	79	972	315	324	348	0.0	0.7	7.498	A
C - Standing Way (W)	174	44	179	174	175	1108	0.0	0.5	10.308	B

17:00 - 17:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Throughput (Veh/hr)	Average throughput (PCU/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - Standing Way (E)	1353	338	210	1355	1364	217	3.0	8.2	19.748	C
B - Whaddon Road	384	96	1154	380	384	411	0.7	1.2	9.105	A
C - Standing Way (W)	209	52	217	210	214	1317	0.5	0.7	11.949	B

17:15 - 17:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Throughput (Veh/hr)	Average throughput (PCU/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - Standing Way (E)	1667	417	257	1544	1547	259	8.2	42.9	65.418	F
B - Whaddon Road	455	114	1286	453	464	515	1.2	1.7	11.874	B
C - Standing Way (W)	258	64	259	257	261	1480	0.7	1.2	14.731	B

17:30 - 17:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Throughput (Veh/hr)	Average throughput (PCU/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - Standing Way (E)	1656	414	257	1523	1548	266	42.9	76.9	146.651	F
B - Whaddon Road	469	117	1272	469	469	508	1.7	1.6	12.829	B
C - Standing Way (W)	258	65	266	257	262	1476	1.2	1.1	14.409	B

17:45 - 18:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Throughput (Veh/hr)	Average throughput (PCU/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - Standing Way (E)	1348	337	209	1459	1506	215	76.9	46.8	145.891	F
B - Whaddon Road	377	94	1254	377	386	414	1.6	1.1	10.800	B
C - Standing Way (W)	209	52	215	209	219	1416	1.1	0.6	11.688	B

18:00 - 18:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Throughput (Veh/hr)	Average throughput (PCU/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - Standing Way (E)	1128	282	179	1211	1317	185	46.8	6.9	53.342	F
B - Whaddon Road	324	81	1040	325	329	350	1.1	0.6	8.797	A
C - Standing Way (W)	179	45	185	179	183	1180	0.6	0.5	9.961	A

Lane Results

Lane Level notation: Lane Level 1 is always closest to the junction.

Lanes: Main Results for each time segment

16:45 - 17:00

Arm	Side	Lane level	Lane	Destination arms	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Average throughput (PCU/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - Standing Way (E)	Entry	1	1	B	174	1017	0.171	174	174	0.0	0.2	4.336	A
			2	A, C	975	1316	0.740	972	981	0.0	2.8	10.337	B
	Exit	1	1		179			179	183	0.0	0.0	0.000	A
B - Whaddon Road	Entry	1	1	C	138	633	0.218	137	143	0.0	0.3	7.377	A
			2	A, B	177	650	0.273	178	180	0.0	0.4	7.543	A
	Exit	1	1	(A, B, C)	315			315	327	0.0	0.0	0.027	A
C - Standing Way (W)	Entry	1	1		348			348	349	0.0	0.0	0.000	A
			1	A	0	537	0.000	0	0	0.0	0.0	0.000	A
			2	B, C	174	529	0.330	174	175	0.0	0.5	10.308	B
	Exit	1	1	(A, B, C)	174			174	177	0.0	0.0	0.000	A
					1108			1108	1122	0.0	0.0	0.000	A

17:00 - 17:15

Arm	Side	Lane level	Lane	Destination arms	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Average throughput (PCU/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - Standing Way (E)	Entry	1	1	B	202	1005	0.201	201	209	0.2	0.3	4.508	A
			2	A, C	1151	1299	0.885	1154	1156	2.8	7.9	22.485	C
	Exit	1	1		217			217	217	0.0	0.0	0.000	A
B - Whaddon Road	Entry	1	1	C	168	571	0.294	165	169	0.3	0.5	8.754	A
			2	A, B	216	587	0.368	215	215	0.4	0.6	9.200	A
		2	1	(A, B, C)	384			383	386	0.0	0.0	0.096	A
	Exit	1	1		411			411	422	0.0	0.0	0.000	A
C - Standing Way (W)	Entry	1	1	A	0	527	0.000	0	0	0.0	0.0	0.000	A
			2	B, C	209	517	0.403	210	214	0.5	0.7	11.949	B
		2	1	(A, B, C)	209			209	214	0.0	0.0	0.000	A
	Exit	1	1		1317			1317	1323	0.0	0.0	0.000	A

17:15 - 17:30

Arm	Side	Lane level	Lane	Destination arms	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Average throughput (PCU/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - Standing Way (E)	Entry	1	1	B	258	989	0.261	258	258	0.3	0.4	5.014	A
			2	A, C	1409	1281	1.099	1286	1289	7.9	42.5	76.412	F
	Exit	1	1		259			259	262	0.0	0.0	0.000	A
B - Whaddon Road	Entry	1	1	C	198	524	0.378	196	205	0.5	0.6	10.359	B
			2	A, B	256	542	0.472	256	259	0.6	0.9	12.276	B
		2	1	(A, B, C)	455			453	466	0.0	0.2	0.416	A
	Exit	1	1		515			515	519	0.0	0.0	0.000	A
C - Standing Way (W)	Entry	1	1	A	0	517	0.000	0	0	0.0	0.0	0.000	A
			2	B, C	258	507	0.508	257	261	0.7	1.2	14.731	B
		2	1	(A, B, C)	258			258	263	0.0	0.0	0.000	A
	Exit	1	1		1480			1480	1491	0.0	0.0	0.000	A

17:30 - 17:45

Arm	Side	Lane level	Lane	Destination arms	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Average throughput (PCU/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - Standing Way (E)	Entry	1	1	B	250	988	0.253	251	252	0.4	0.3	4.773	A
			2	A, C	1406	1281	1.097	1272	1296	42.5	76.6	171.810	F
	Exit	1	1		266			266	264	0.0	0.0	0.000	A
B - Whaddon Road	Entry	1	1	C	204	530	0.384	205	208	0.6	0.5	10.821	B
			2	A, B	265	546	0.485	264	261	0.9	1.0	13.252	B
		2	1	(A, B, C)	469			469	469	0.2	0.1	0.643	A
	Exit	1	1		508			508	515	0.0	0.0	0.000	A
C - Standing Way (W)	Entry	1	1	A	0	515	0.000	0	0	0.0	0.0	0.000	A
			2	B, C	258	505	0.511	257	262	1.2	1.1	14.409	B
		2	1	(A, B, C)	258			258	262	0.0	0.0	0.000	A
	Exit	1	1		1476			1476	1501	0.0	0.0	0.000	A

17:45 - 18:00

Arm	Side	Lane level	Lane	Destination arms	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Average throughput (PCU/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - Standing Way (E)	Entry	1	1	B	203	1005	0.202	205	208	0.3	0.2	4.457	A
			2	A, C	1145	1300	0.882	1254	1298	76.6	46.6	171.081	F
	Exit	1	1		215			215	219	0.0	0.0	0.000	A
B - Whaddon Road	Entry	1	1	C	164	538	0.305	163	170	0.5	0.5	9.733	A
			2	A, B	212	552	0.385	213	216	1.0	0.6	11.298	B
		2	1	(A, B, C)	377			377	385	0.1	0.0	0.193	A
	Exit	1	1		414			414	427	0.0	0.0	0.000	A
C - Standing Way (W)	Entry	1	1	A	0	528	0.000	0	0	0.0	0.0	0.000	A
			2	B, C	209	518	0.403	209	219	1.1	0.6	11.688	B
		2	1	(A, B, C)	209			209	216	0.0	0.0	0.000	A
	Exit	1	1		1416			1416	1465	0.0	0.0	0.000	A

18:00 - 18:15

Arm	Side	Lane level	Lane	Destination arms	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Average throughput (PCU/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - Standing Way (E)	Entry	1	1	B	171	1012	0.169	171	174	0.2	0.2	4.261	A
			2	A, C	957	1310	0.729	1040	1143	46.6	6.7	62.260	F
	Exit	1	1		185			185	185	0.0	0.0	0.000	A
B - Whaddon Road	Entry	1	1	C	143	609	0.234	143	147	0.5	0.3	8.611	A
			2	A, B	181	626	0.290	182	182	0.6	0.3	8.780	A
		2	1	(A, B, C)	324			324	327	0.0	0.0	0.091	A
	Exit	1	1		350			350	357	0.0	0.0	0.000	A
C - Standing Way (W)	Entry	1	1	A	0	535	0.000	0	0	0.0	0.0	0.000	A
			2	B, C	179	524	0.342	179	183	0.6	0.5	9.961	A
		2	1	(A, B, C)	179			179	183	0.0	0.0	0.000	A
	Exit	1	1		1180			1180	1286	0.0	0.0	0.000	A

2033 Base + CD + D - ST, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Lane Simulation	A1 - [Lane Simulation]	This analysis set uses Lane Simulation mode. This is provided as an investigative tool and the user should apply judgement when interpreting the results.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
J6	Bottledump Roundabout	Standard Roundabout		A, B, C	24.41	C

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D19	2033 Base + CD + D - ST	AM	ONE HOUR	07:30	09:00	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 - Standing Way (E)		ONE HOUR	✓	1261	100.000
B - Whaddon Road		ONE HOUR	✓	592	100.000
C - Standing Way (W)		ONE HOUR	✓	194	100.000

Origin-Destination Data

Demand (Veh/hr)

	To			
		A - Standing Way (E)	B - Whaddon Road	C - Standing Way (W)
From	A - Standing Way (E)	3	223	1035
	B - Whaddon Road	320	0	272
	C - Standing Way (W)	0	194	0

Proportions

	To			
		A - Standing Way (E)	B - Whaddon Road	C - Standing Way (W)
From	A - Standing Way (E)	0.00	0.18	0.82
	B - Whaddon Road	0.54	0.00	0.46
	C - Standing Way (W)	0.00	1.00	0.00

Vehicle Mix

Heavy Vehicle Percentages

From	To			
		A - Standing Way (E)	B - Whaddon Road	C - Standing Way (W)
	A - Standing Way (E)	33	2	6
	B - Whaddon Road	2	0	3
	C - Standing Way (W)	4	6	0

Average PCU Per Veh

From	To			
		A - Standing Way (E)	B - Whaddon Road	C - Standing Way (W)
	A - Standing Way (E)	1.333	1.022	1.057
	B - Whaddon Road	1.022	1.000	1.026
	C - Standing Way (W)	1.042	1.056	1.000

Detailed Demand Data

Demand for each time segment

Arm	Time Segment	Demand (Veh/hr)	Demand in PCU (PCU/hr)
A - Standing Way (E)	07:30-07:45	950	998
	07:45-08:00	1134	1192
	08:00-08:15	1389	1460
	08:15-08:30	1389	1460
	08:30-08:45	1134	1192
	08:45-09:00	950	998
B - Whaddon Road	07:30-07:45	445	456
	07:45-08:00	532	545
	08:00-08:15	651	667
	08:15-08:30	651	667
	08:30-08:45	532	545
	08:45-09:00	445	456
C - Standing Way (W)	07:30-07:45	146	154
	07:45-08:00	175	184
	08:00-08:15	214	226
	08:15-08:30	214	226
	08:30-08:45	175	184
	08:45-09:00	146	154

Results

Results Summary for whole modelled period

Arm	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
A - Standing Way (E)	29.44	12.0	D	1154	1732
B - Whaddon Road	16.64	3.1	C	536	804
C - Standing Way (W)	14.65	1.1	B	178	267

Main Results for each time segment

07:30 - 07:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Throughput (Veh/hr)	Average throughput (PCU/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - Standing Way (E)	940	235	148	938	995	233	0.0	2.0	6.755	A
B - Whaddon Road	434	109	772	436	451	314	0.0	0.9	7.760	A
C - Standing Way (W)	147	37	233	148	158	975	0.0	0.4	10.704	B

07:45 - 08:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Throughput (Veh/hr)	Average throughput (PCU/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - Standing Way (E)	1132	283	173	1135	1189	293	2.0	3.1	9.895	A
B - Whaddon Road	530	133	935	532	539	374	0.9	1.5	9.686	A
C - Standing Way (W)	176	44	293	173	180	1174	0.4	0.6	11.725	B

08:00 - 08:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Throughput (Veh/hr)	Average throughput (PCU/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - Standing Way (E)	1397	349	211	1384	1430	361	3.1	10.3	22.029	C
B - Whaddon Road	644	161	1133	653	661	462	1.5	3.1	15.865	C
C - Standing Way (W)	214	54	361	211	221	1425	0.6	1.1	14.178	B

08:15 - 08:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Throughput (Veh/hr)	Average throughput (PCU/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - Standing Way (E)	1379	345	210	1380	1460	354	10.3	11.8	29.438	D
B - Whaddon Road	647	162	1139	644	664	450	3.1	3.0	16.643	C
C - Standing Way (W)	209	52	354	210	226	1429	1.1	0.8	14.650	B

08:30 - 08:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Throughput (Veh/hr)	Average throughput (PCU/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - Standing Way (E)	1133	283	173	1139	1221	282	11.8	3.2	14.551	B
B - Whaddon Road	529	132	944	533	551	368	3.0	1.2	10.879	B
C - Standing Way (W)	175	44	282	173	184	1195	0.8	0.7	12.073	B

08:45 - 09:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Throughput (Veh/hr)	Average throughput (PCU/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - Standing Way (E)	945	236	145	943	1002	239	3.2	1.9	7.053	A
B - Whaddon Road	434	108	773	434	453	315	1.2	0.9	8.136	A
C - Standing Way (W)	147	37	239	145	156	967	0.7	0.5	10.599	B

Lane Results

Lane Level notation: Lane Level 1 is always closest to the junction.

Lanes: Main Results for each time segment

07:30 - 07:45

Arm	Side	Lane level	Lane	Destination arms	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Average throughput (PCU/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - Standing Way (E)	Entry	1	1	B	166	1010	0.165	166	172	0.0	0.2	4.499	A
			2	A, C	774	1279	0.605	772	823	0.0	1.8	7.241	A
	Exit	1	1		233			233	243	0.0	0.0	0.000	A
B - Whaddon Road	Entry	1	1	C	205	691	0.297	206	211	0.0	0.4	7.478	A
			2	A, B	229	694	0.330	230	240	0.0	0.4	7.792	A
		2	1	(A, B, C)	434			434	454	0.0	0.0	0.115	A
	Exit	1	1		314			314	330	0.0	0.0	0.000	A
C - Standing Way (W)	Entry	1	1	A	0	522	0.000	0	0	0.0	0.0	0.000	A
			2	B, C	147	493	0.299	148	158	0.0	0.4	10.704	B
		2	1	(A, B, C)	147			147	159	0.0	0.0	0.000	A
	Exit	1	1		975			975	1031	0.0	0.0	0.000	A

07:45 - 08:00

Arm	Side	Lane level	Lane	Destination arms	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Average throughput (PCU/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - Standing Way (E)	Entry	1	1	B	201	1003	0.201	201	205	0.2	0.3	4.514	A
			2	A, C	930	1265	0.736	935	983	1.8	2.9	11.057	B
	Exit	1	1		293			293	295	0.0	0.0	0.000	A
B - Whaddon Road	Entry	1	1	C	241	634	0.381	243	249	0.4	0.6	8.475	A
			2	A, B	288	640	0.449	289	290	0.4	0.8	9.975	A
		2	1	(A, B, C)	530			529	541	0.0	0.2	0.391	A
	Exit	1	1		374			374	386	0.0	0.0	0.000	A
C - Standing Way (W)	Entry	1	1	A	0	507	0.000	0	0	0.0	0.0	0.000	A
			2	B, C	176	484	0.364	173	180	0.4	0.6	11.725	B
		2	1	(A, B, C)	176			176	181	0.0	0.0	0.000	A
	Exit	1	1		1174			1174	1228	0.0	0.0	0.000	A

08:00 - 08:15

Arm	Side	Lane level	Lane	Destination arms	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Average throughput (PCU/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - Standing Way (E)	Entry	1	1	B	252	989	0.255	251	254	0.3	0.4	4.800	A
			2	A, C	1144	1250	0.914	1133	1176	2.9	9.9	25.788	D
	Exit	1	1		361			361	362	0.0	0.0	0.000	A
B - Whaddon Road	Entry	1	1	C	295	563	0.525	295	304	0.6	1.1	12.195	B
			2	A, B	353	565	0.624	358	357	0.8	1.6	14.268	B
		2	1	(A, B, C)	644			648	666	0.2	0.4	2.533	A
	Exit	1	1		462			462	475	0.0	0.0	0.000	A
C - Standing Way (W)	Entry	1	1	A	0	489	0.000	0	0	0.0	0.0	0.000	A
			2	B, C	214	462	0.463	211	221	0.6	1.1	14.178	B
		2	1	(A, B, C)	214			214	223	0.0	0.0	0.000	A
	Exit	1	1		1425			1425	1474	0.0	0.0	0.000	A

08:15 - 08:30

Arm	Side	Lane level	Lane	Destination arms	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Average throughput (PCU/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - Standing Way (E)	Entry	1	1	B	240	987	0.243	240	253	0.4	0.3	4.859	A
			2	A, C	1139	1250	0.912	1139	1207	9.9	11.5	34.730	D
	Exit	1	1		354			354	363	0.0	0.0	0.000	A
B - Whaddon Road	Entry	1	1	C	294	561	0.524	294	306	1.1	1.0	12.522	B
			2	A, B	352	566	0.623	350	358	1.6	1.6	14.826	B
		2	1	(A, B, C)	647			646	664	0.4	0.4	2.870	A
	Exit	1	1		450			450	479	0.0	0.0	0.000	A
C - Standing Way (W)	Entry	1	1	A	0	491	0.000	0	0	0.0	0.0	0.000	A
			2	B, C	209	466	0.448	210	226	1.1	0.8	14.650	B
		2	1	(A, B, C)	209			209	224	0.0	0.0	0.000	A
	Exit	1	1		1429			1429	1508	0.0	0.0	0.000	A

08:30 - 08:45

Arm	Side	Lane level	Lane	Destination arms	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Average throughput (PCU/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - Standing Way (E)	Entry	1	1	B	195	1001	0.194	195	203	0.3	0.2	4.541	A
			2	A, C	939	1263	0.743	944	1018	11.5	3.0	16.693	C
	Exit	1	1		282			282	295	0.0	0.0	0.000	A
B - Whaddon Road	Entry	1	1	C	252	631	0.398	253	260	1.0	0.5	9.616	A
			2	A, B	277	635	0.437	279	292	1.6	0.7	10.865	B
		2	1	(A, B, C)	529			529	545	0.4	0.0	0.641	A
	Exit	1	1		368			368	387	0.0	0.0	0.000	A
C - Standing Way (W)	Entry	1	1	A	0	510	0.000	0	0	0.0	0.0	0.000	A
			2	B, C	175	482	0.363	173	184	0.8	0.7	12.073	B
		2	1	(A, B, C)	175			175	184	0.0	0.0	0.000	A
	Exit	1	1		1195			1195	1274	0.0	0.0	0.000	A

08:45 - 09:00

Arm	Side	Lane level	Lane	Destination arms	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Average throughput (PCU/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - Standing Way (E)	Entry	1	1	B	170	1013	0.168	170	176	0.2	0.2	4.232	A
			2	A, C	775	1277	0.607	773	826	3.0	1.8	7.678	A
	Exit	1	1		239			239	251	0.0	0.0	0.000	A
B - Whaddon Road	Entry	1	1	C	197	690	0.285	197	206	0.5	0.4	7.430	A
			2	A, B	237	694	0.342	237	247	0.7	0.6	8.506	A
		2	1	(A, B, C)	434			434	452	0.0	0.0	0.119	A
	Exit	1	1		315			315	332	0.0	0.0	0.000	A
C - Standing Way (W)	Entry	1	1	A	0	520	0.000	0	0	0.0	0.0	0.000	A
			2	B, C	147	492	0.298	145	156	0.7	0.5	10.599	B
		2	1	(A, B, C)	147			147	156	0.0	0.0	0.000	A
	Exit	1	1		967			967	1029	0.0	0.0	0.000	A

2033 Base + CD + D - ST, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Lane Simulation	A1 - [Lane Simulation]	This analysis set uses Lane Simulation mode. This is provided as an investigative tool and the user should apply judgement when interpreting the results.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
J6	Bottledump Roundabout	Standard Roundabout		A, B, C	80.31	F

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D20	2033 Base + CD + D - ST	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 - Standing Way (E)		ONE HOUR	✓	1450	100.000
B - Whaddon Road		ONE HOUR	✓	456	100.000
C - Standing Way (W)		ONE HOUR	✓	251	100.000

Origin-Destination Data

Demand (Veh/hr)

	To			
		A - Standing Way (E)	B - Whaddon Road	C - Standing Way (W)
From	A - Standing Way (E)	2	230	1218
	B - Whaddon Road	249	0	207
	C - Standing Way (W)	0	251	0

Proportions

	To			
		A - Standing Way (E)	B - Whaddon Road	C - Standing Way (W)
From	A - Standing Way (E)	0.00	0.16	0.84
	B - Whaddon Road	0.55	0.00	0.45
	C - Standing Way (W)	0.00	1.00	0.00

Vehicle Mix

Heavy Vehicle Percentages

	To			
		A - Standing Way (E)	B - Whaddon Road	C - Standing Way (W)
From	A - Standing Way (E)	50	1	2
	B - Whaddon Road	0	0	3
	C - Standing Way (W)	3	2	0

Average PCU Per Veh

	To			
		A - Standing Way (E)	B - Whaddon Road	C - Standing Way (W)
From	A - Standing Way (E)	1.500	1.010	1.018
	B - Whaddon Road	1.000	1.000	1.031
	C - Standing Way (W)	1.025	1.019	1.000

Detailed Demand Data

Demand for each time segment

Arm	Time Segment	Demand (Veh/hr)	Demand in PCU (PCU/hr)
A - Standing Way (E)	16:45-17:00	1092	1111
	17:00-17:15	1303	1327
	17:15-17:30	1596	1625
	17:30-17:45	1596	1625
	17:45-18:00	1303	1327
	18:00-18:15	1092	1111
B - Whaddon Road	16:45-17:00	343	348
	17:00-17:15	410	416
	17:15-17:30	502	509
	17:30-17:45	502	509
	17:45-18:00	410	416
	18:00-18:15	343	348
C - Standing Way (W)	16:45-17:00	189	192
	17:00-17:15	225	230
	17:15-17:30	276	281
	17:30-17:45	276	281
	17:45-18:00	225	230
	18:00-18:15	189	192

Results

Results Summary for whole modelled period

Arm	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
A - Standing Way (E)	112.10	54.8	F	1340	2009
B - Whaddon Road	13.30	2.1	B	418	626
C - Standing Way (W)	16.27	1.5	C	229	344

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Throughput (Veh/hr)	Average throughput (PCU/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - Standing Way (E)	1088	272	187	1093	1105	185	0.0	2.4	8.463	A
B - Whaddon Road	337	84	919	337	345	361	0.0	0.8	7.519	A
C - Standing Way (W)	187	47	185	187	194	1071	0.0	0.5	10.699	B

17:00 - 17:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Throughput (Veh/hr)	Average throughput (PCU/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - Standing Way (E)	1316	329	223	1309	1311	226	2.4	6.4	14.791	B
B - Whaddon Road	406	102	1104	408	413	429	0.8	1.0	9.310	A
C - Standing Way (W)	223	56	226	223	228	1286	0.5	0.8	12.520	B

17:15 - 17:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Throughput (Veh/hr)	Average throughput (PCU/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - Standing Way (E)	1620	405	274	1501	1512	277	6.4	36.4	54.062	F
B - Whaddon Road	508	127	1252	507	507	523	1.0	1.8	12.173	B
C - Standing Way (W)	276	69	277	274	277	1482	0.8	1.2	15.127	C

17:30 - 17:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Throughput (Veh/hr)	Average throughput (PCU/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - Standing Way (E)	1588	397	276	1525	1549	273	36.4	54.8	112.100	F
B - Whaddon Road	499	125	1271	496	511	531	1.8	2.1	13.300	B
C - Standing Way (W)	275	69	273	276	281	1494	1.2	1.5	16.272	C

17:45 - 18:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Throughput (Veh/hr)	Average throughput (PCU/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - Standing Way (E)	1332	333	226	1431	1470	226	54.8	21.6	87.194	F
B - Whaddon Road	409	102	1216	409	419	441	2.1	1.2	11.059	B
C - Standing Way (W)	227	57	226	226	236	1399	1.5	0.9	12.770	B

18:00 - 18:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Throughput (Veh/hr)	Average throughput (PCU/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - Standing Way (E)	1094	273	189	1108	1187	192	21.6	2.8	20.576	C
B - Whaddon Road	345	86	928	346	353	369	1.2	0.8	8.455	A
C - Standing Way (W)	189	47	192	189	197	1081	0.9	0.6	10.850	B

Lane Results

Lane Level notation: Lane Level 1 is always closest to the junction.

Lanes: Main Results for each time segment

16:45 - 17:00

Arm	Side	Lane level	Lane	Destination arms	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Average throughput (PCU/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - Standing Way (E)	Entry	1	1	B	174	1012	0.172	174	176	0.0	0.2	4.416	A
			2	A, C	914	1309	0.698	919	930	0.0	2.2	9.232	A
	Exit	1	1		185			185	188	0.0	0.0	0.000	A
B - Whaddon Road	Entry	1	1	C	153	648	0.236	153	160	0.0	0.3	7.374	A
			2	A, B	184	668	0.276	184	185	0.0	0.5	7.527	A
		2	1	(A, B, C)	337			337	348	0.0	0.0	0.061	A
	Exit	1	1		361			361	370	0.0	0.0	0.000	A
C - Standing Way (W)	Entry	1	1	A	0	535	0.000	0	0	0.0	0.0	0.000	A
			2	B, C	187	527	0.354	187	194	0.0	0.5	10.699	B
		2	1	(A, B, C)	187			187	196	0.0	0.0	0.000	A
	Exit	1	1		1071			1071	1087	0.0	0.0	0.000	A

17:00 - 17:15

Arm	Side	Lane level	Lane	Destination arms	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Average throughput (PCU/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - Standing Way (E)	Entry	1	1	B	205	999	0.205	206	204	0.2	0.2	4.512	A
			2	A, C	1112	1295	0.857	1104	1107	2.2	6.1	16.674	C
	Exit	1	1		226			226	226	0.0	0.0	0.000	A
B - Whaddon Road	Entry	1	1	C	183	584	0.313	184	189	0.3	0.5	8.668	A
			2	A, B	223	605	0.368	224	224	0.5	0.5	9.435	A
		2	1	(A, B, C)	406			406	413	0.0	0.1	0.215	A
	Exit	1	1		429			429	432	0.0	0.0	0.000	A
C - Standing Way (W)	Entry	1	1	A	0	525	0.000	0	0	0.0	0.0	0.000	A
			2	B, C	223	514	0.434	223	228	0.5	0.8	12.519	B
		2	1	(A, B, C)	223			223	229	0.0	0.0	0.001	A
	Exit	1	1		1286			1286	1294	0.0	0.0	0.000	A

17:15 - 17:30

Arm	Side	Lane level	Lane	Destination arms	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Average throughput (PCU/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - Standing Way (E)	Entry	1	1	B	249	984	0.253	249	255	0.2	0.3	4.936	A
			2	A, C	1372	1274	1.077	1252	1257	6.1	36.1	63.237	F
	Exit	1	1		277			277	275	0.0	0.0	0.000	A
B - Whaddon Road	Entry	1	1	C	232	537	0.432	232	235	0.5	0.6	10.652	B
			2	A, B	275	553	0.498	275	272	0.5	1.0	12.082	B
		2	1	(A, B, C)	508			507	510	0.1	0.1	0.737	A
	Exit	1	1		523			523	532	0.0	0.0	0.000	A
C - Standing Way (W)	Entry	1	1	A	0	513	0.000	0	0	0.0	0.0	0.000	A
			2	B, C	276	505	0.546	274	277	0.8	1.2	15.090	C
		2	1	(A, B, C)	276			276	279	0.0	0.0	0.037	A
	Exit	1	1		1482			1482	1489	0.0	0.0	0.000	A

17:30 - 17:45

Arm	Side	Lane level	Lane	Destination arms	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Average throughput (PCU/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - Standing Way (E)	Entry	1	1	B	254	981	0.258	255	257	0.3	0.3	4.882	A
			2	A, C	1334	1273	1.047	1271	1291	36.1	54.5	132.461	F
	Exit	1	1		273			273	280	0.0	0.0	0.000	A
B - Whaddon Road	Entry	1	1	C	229	530	0.431	227	235	0.6	1.0	11.831	B
			2	A, B	271	547	0.495	270	276	1.0	0.9	13.004	B
		2	1	(A, B, C)	499			499	512	0.1	0.2	0.806	A
	Exit	1	1		531			531	539	0.0	0.0	0.000	A
C - Standing Way (W)	Entry	1	1	A	0	513	0.000	0	0	0.0	0.0	0.000	A
			2	B, C	275	503	0.546	276	281	1.2	1.5	16.272	C
		2	1	(A, B, C)	275			275	282	0.0	0.0	0.000	A
	Exit	1	1		1494			1494	1522	0.0	0.0	0.000	A

17:45 - 18:00

Arm	Side	Lane level	Lane	Destination arms	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Average throughput (PCU/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - Standing Way (E)	Entry	1	1	B	214	998	0.214	214	211	0.3	0.2	4.466	A
			2	A, C	1118	1294	0.865	1216	1259	54.5	21.4	102.820	F
	Exit	1	1		226			226	227	0.0	0.0	0.000	A
B - Whaddon Road	Entry	1	1	C	186	548	0.339	185	195	1.0	0.6	10.356	B
			2	A, B	223	566	0.394	224	224	0.9	0.6	10.983	B
		2	1	(A, B, C)	409			408	416	0.2	0.0	0.401	A
	Exit	1	1		441			441	448	0.0	0.0	0.000	A
C - Standing Way (W)	Entry	1	1	A	0	525	0.000	0	0	0.0	0.0	0.000	A
			2	B, C	227	516	0.440	226	236	1.5	0.9	12.770	B
		2	1	(A, B, C)	227			227	234	0.0	0.0	0.000	A
	Exit	1	1		1399			1399	1451	0.0	0.0	0.000	A

18:00 - 18:15

Arm	Side	Lane level	Lane	Destination arms	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Average throughput (PCU/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - Standing Way (E)	Entry	1	1	B	179	1009	0.178	180	179	0.2	0.2	4.281	A
			2	A, C	915	1313	0.697	928	1008	21.4	2.6	23.742	C
	Exit	1	1		192			192	194	0.0	0.0	0.000	A
B - Whaddon Road	Entry	1	1	C	155	646	0.241	155	162	0.6	0.4	8.191	A
			2	A, B	190	666	0.285	191	192	0.6	0.4	8.495	A
		2	1	(A, B, C)	345			345	352	0.0	0.0	0.098	A
	Exit	1	1		369			369	376	0.0	0.0	0.000	A
C - Standing Way (W)	Entry	1	1	A	0	533	0.000	0	0	0.0	0.0	0.000	A
			2	B, C	189	524	0.361	189	197	0.9	0.6	10.850	B
		2	1	(A, B, C)	189			189	196	0.0	0.0	0.000	A
	Exit	1	1		1081			1081	1167	0.0	0.0	0.000	A

Junctions 9									
ARCADY 9 - Roundabout Module									
Version: 9.5.1.7462 © Copyright TRL Limited, 2019									
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Filename: J7 - Whaddon Crossroads.j9

Path: \\uk.wspgroup.com\central data\Projects\700694xx\70069442 - SWMK - 2020\03 WIP\TP Transport Planning\Incoming\iCRC\200821 - Junction and Mitigation Modelling BC Only\Miti\J7 - Whaddon Crossroads

Report generation date: 25/08/2020 16:53:10

- »2033 Base + CD + D, AM
- »2033 Base + CD + D, PM
- »2033 Base + CD + D with TP, AM
- »2033 Base + CD + D with TP, PM
- »2033 Base + CD + D - ST, AM
- »2033 Base + CD + D - ST, PM

Summary of junction performance

	AM					PM				
	Set ID	Queue (Veh)	Delay (s)	RFC	LOS	Set ID	Queue (Veh)	Delay (s)	RFC	LOS
	2033 Base + CD + D									
A - Coddimor Ln	D13	1.5	31.64	0.61	D	D14	1.2	23.30	0.55	C
B - A421 (East)		10.2	25.48	0.92	D		18.4	42.61	0.97	E
C - Whaddon Rd		74.4	608.54	1.49	F		63.4	612.45	1.52	F
D - A421 (West)		17.4	44.51	0.97	E		8.8	23.31	0.91	C
	2033 Base + CD + D with TP									
A - Coddimor Ln	D15	1.4	31.16	0.60	D	D16	1.2	22.71	0.54	C
B - A421 (East)		9.5	23.83	0.92	C		16.9	39.59	0.96	E
C - Whaddon Rd		71.5	581.12	1.46	F		59.8	575.54	1.48	F
D - A421 (West)		16.6	42.75	0.97	E		8.4	22.26	0.91	C
	2033 Base + CD + D - ST									
A - Coddimor Ln	D17	1.5	32.30	0.61	D	D18	1.2	24.51	0.56	C
B - A421 (East)		12.9	31.64	0.94	D		20.6	46.72	0.98	E
C - Whaddon Rd		82.9	691.07	1.57	F		69.3	670.68	1.57	F
D - A421 (West)		18.8	47.44	0.98	E		9.7	25.42	0.92	D

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	Whaddon Crossroads
Location	51°59'6.32"N, 0°49'39.55"W
Site number	7
Date	04/07/2020
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	fsuarez
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	Veh	perHour	s	-Min	perMin

Analysis Options

Vehicle length (m)	Calculate Queue Percentiles	Calculate detailed queueing delay	Calculate residual capacity	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)
5.75				0.85	36.00	20.00

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	2020 Base	AM	ONE HOUR	07:30	09:00	15	✓
D2	2020 Base	PM	ONE HOUR	16:45	18:15	15	✓
D3	2026 Base	AM	ONE HOUR	07:30	09:00	15	✓
D4	2026 Base	PM	ONE HOUR	16:45	18:15	15	✓
D5	2026 Base + CD + D	AM	ONE HOUR	07:30	09:00	15	✓
D6	2026 Base + CD + D	PM	ONE HOUR	16:45	18:15	15	✓
D7	2026 Base + CD + D with TP	AM	ONE HOUR	07:30	09:00	15	✓
D8	2026 Base + CD + D with TP	PM	ONE HOUR	16:45	18:15	15	✓
D9	2026 Base + CD + D - ST	AM	ONE HOUR	07:30	09:00	15	✓
D10	2026 Base + CD + D - ST	PM	ONE HOUR	16:45	18:15	15	✓
D11	2033 Base	AM	ONE HOUR	07:30	09:00	15	✓
D12	2033 Base	PM	ONE HOUR	16:45	18:15	15	✓
D13	2033 Base + CD + D	AM	ONE HOUR	07:30	09:00	15	✓
D14	2033 Base + CD + D	PM	ONE HOUR	16:45	18:15	15	✓
D15	2033 Base + CD + D with TP	AM	ONE HOUR	07:30	09:00	15	✓
D16	2033 Base + CD + D with TP	PM	ONE HOUR	16:45	18:15	15	✓
D17	2033 Base + CD + D - ST	AM	ONE HOUR	07:30	09:00	15	✓
D18	2033 Base + CD + D - ST	PM	ONE HOUR	16:45	18:15	15	✓

Analysis Set Details

ID	Include in report	Use specific Demand Set(s)	Specific Demand Set(s)	Network flow scaling factor (%)	Network capacity scaling factor (%)
A1	✓	✓	D13,D14,D15,D16,D17,D18	100.000	100.000

2033 Base + CD + D, 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
J7	Whaddon Crossroads	Standard Roundabout		A, B, C, D	103.89	F

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description
A	Coddemor Ln	
B	A421 (East)	
C	Whaddon Rd	
D	A421 (West)	

Roundabout Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	I' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Exit only
A - Coddemor Ln	2.80	6.70	8.5	21.5	50.6	40.0	
B - A421 (East)	2.60	9.80	23.7	33.0	50.6	45.0	
C - Whaddon Rd	2.90	6.10	9.0	19.7	50.6	17.0	
D - A421 (West)	3.20	8.80	18.3	31.6	50.6	42.0	

Slope / Intercept / Capacity

Arm Intercept Adjustments

Arm	Type	Reason	Direct intercept adjustment (PCU/hr)
A - Coddemor Ln	Direct		-100
B - A421 (East)	None		
C - Whaddon Rd	Direct		-300
D - A421 (West)	None		

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
A - Coddemor Ln	0.519	1187
B - A421 (East)	0.621	1832
C - Whaddon Rd	0.560	1091
D - A421 (West)	0.615	1784

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

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D13	2033 Base + CD + D	AM	ONE HOUR	07:30	09:00	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 - Coddemor Ln		ONE HOUR	✓	158	100.000
B - A421 (East)		ONE HOUR	✓	1393	100.000
C - Whaddon Rd		ONE HOUR	✓	402	100.000
D - A421 (West)		ONE HOUR	✓	1347	100.000

Origin-Destination Data

Demand (Veh/hr)

	To				
		A - Coddemor Ln	B - A421 (East)	C - Whaddon Rd	D - A421 (West)
From	A - Coddemor Ln	0	53	55	50
	B - A421 (East)	32	0	238	1122
	C - Whaddon Rd	49	286	0	67
	D - A421 (West)	23	1305	19	0

Proportions

	To				
		A - Coddemor Ln	B - A421 (East)	C - Whaddon Rd	D - A421 (West)
From	A - Coddemor Ln	0.00	0.33	0.35	0.32
	B - A421 (East)	0.02	0.00	0.17	0.81
	C - Whaddon Rd	0.12	0.71	0.00	0.17
	D - A421 (West)	0.02	0.97	0.01	0.00

Vehicle Mix

Heavy Vehicle Percentages

	To				
		A - Coddemor Ln	B - A421 (East)	C - Whaddon Rd	D - A421 (West)
From	A - Coddemor Ln	0	0	0	2
	B - A421 (East)	0	0	1	6
	C - Whaddon Rd	2	3	0	5
	D - A421 (West)	5	4	12	0

Average PCU Per Veh

	To				
		A - Coddemor Ln	B - A421 (East)	C - Whaddon Rd	D - A421 (West)
From	A - Coddemor Ln	1.000	1.000	1.000	1.023
	B - A421 (East)	1.000	1.000	1.011	1.060
	C - Whaddon Rd	1.023	1.033	1.000	1.052
	D - A421 (West)	1.050	1.045	1.118	1.000

Detailed Demand Data

Demand for each time segment

Time Segment	Arm	Demand (Veh/hr)	Demand in PCU (PCU/hr)
07:30-07:45	A - Coddemor Ln	119	120
	B - A421 (East)	1049	1101
	C - Whaddon Rd	302	313
	D - A421 (West)	1014	1061
07:45-08:00	A - Coddemor Ln	142	143
	B - A421 (East)	1252	1315
	C - Whaddon Rd	361	374
	D - A421 (West)	1211	1267
08:00-08:15	A - Coddemor Ln	174	176
	B - A421 (East)	1533	1610
	C - Whaddon Rd	442	458
	D - A421 (West)	1483	1551
08:15-08:30	A - Coddemor Ln	174	176
	B - A421 (East)	1533	1610
	C - Whaddon Rd	442	458
	D - A421 (West)	1483	1551
08:30-08:45	A - Coddemor Ln	142	143
	B - A421 (East)	1252	1315
	C - Whaddon Rd	361	374
	D - A421 (West)	1211	1267
08:45-09:00	A - Coddemor Ln	119	120
	B - A421 (East)	1049	1101
	C - Whaddon Rd	302	313
	D - A421 (West)	1014	1061

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
A - Coddemor Ln	0.61	31.64	1.5	D	145	218
B - A421 (East)	0.92	25.48	10.2	D	1278	1917
C - Whaddon Rd	1.49	608.54	74.4	F	369	553
D - A421 (West)	0.97	44.51	17.4	E	1236	1854

Main Results for each time segment

07:30 - 07:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - Coddemor Ln	119	30	1201	532	0.224	118	78	0.0	0.3	8.673	A
B - A421 (East)	1049	262	93	1688	0.621	1042	1226	0.0	1.6	5.520	A
C - Whaddon Rd	302	76	901	539	0.561	298	234	0.0	1.2	14.639	B
D - A421 (West)	1014	254	272	1541	0.658	1007	927	0.0	1.9	6.654	A

07:45 - 08:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - Coddemor Ln	142	36	1433	408	0.349	141	92	0.3	0.5	13.473	B
B - A421 (East)	1252	313	112	1677	0.747	1247	1462	1.6	2.8	8.278	A
C - Whaddon Rd	361	90	1079	437	0.826	351	280	1.2	3.8	37.833	E
D - A421 (West)	1211	303	321	1511	0.802	1203	1108	1.9	3.8	11.429	B

08:00 - 08:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - Coddemor Ln	174	44	1634	299	0.583	171	97	0.5	1.3	27.562	D
B - A421 (East)	1533	383	135	1663	0.922	1508	1670	2.8	9.1	20.605	C
C - Whaddon Rd	442	111	1305	308	1.436	305	339	3.8	38.2	274.467	F
D - A421 (West)	1483	371	289	1531	0.969	1442	1320	3.8	14.2	31.247	D

08:15 - 08:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - Coddemor Ln	174	44	1657	286	0.609	174	97	1.3	1.5	31.644	D
B - A421 (East)	1533	383	137	1661	0.923	1529	1694	9.1	10.2	25.484	D
C - Whaddon Rd	442	111	1323	298	1.485	298	343	38.2	74.4	608.539	F
D - A421 (West)	1483	371	284	1534	0.967	1470	1337	14.2	17.4	44.506	E

08:30 - 08:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - Coddemor Ln	142	36	1535	353	0.403	145	102	1.5	0.7	17.603	C
B - A421 (East)	1252	313	115	1675	0.748	1281	1565	10.2	3.1	9.745	A
C - Whaddon Rd	361	90	1108	421	0.858	415	288	74.4	60.9	550.787	F
D - A421 (West)	1211	303	376	1478	0.820	1261	1147	17.4	4.9	19.581	C

08:45 - 09:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - Coddemor Ln	119	30	1379	437	0.273	120	106	0.7	0.4	11.413	B
B - A421 (East)	1049	262	95	1687	0.622	1054	1405	3.1	1.7	5.737	A
C - Whaddon Rd	302	76	912	533	0.568	524	237	60.9	5.5	236.783	F
D - A421 (West)	1014	254	462	1426	0.711	1024	975	4.9	2.5	9.160	A

2033 Base + CD + D, 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
J7	Whaddon Crossroads	Standard Roundabout		A, B, C, D	91.09	F

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D14	2033 Base + CD + D	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 - Coddemor Ln		ONE HOUR	✓	171	100.000
B - A421 (East)		ONE HOUR	✓	1483	100.000
C - Whaddon Rd		ONE HOUR	✓	338	100.000
D - A421 (West)		ONE HOUR	✓	1308	100.000

Origin-Destination Data

Demand (Veh/hr)

	To			
		A - Coddemor Ln	B - A421 (East)	C - Whaddon Rd
From	A - Coddemor Ln	0	32	53
	B - A421 (East)	24	1	210
	C - Whaddon Rd	51	251	0
	D - A421 (West)	31	1244	32

Proportions

	To			
		A - Coddemor Ln	B - A421 (East)	C - Whaddon Rd
From	A - Coddemor Ln	0.00	0.19	0.31
	B - A421 (East)	0.02	0.00	0.14
	C - Whaddon Rd	0.15	0.74	0.00
	D - A421 (West)	0.02	0.95	0.02

Vehicle Mix

Heavy Vehicle Percentages

From	To				
		A - Coddemor Ln	B - A421 (East)	C - Whaddon Rd	D - A421 (West)
	A - Coddemor Ln	0	0	0	0
	B - A421 (East)	5	0	1	2
	C - Whaddon Rd	0	0	0	0
	D - A421 (West)	0	3	4	0

Average PCU Per Veh

From	To				
		A - Coddemor Ln	B - A421 (East)	C - Whaddon Rd	D - A421 (West)
	A - Coddemor Ln	1.000	1.000	1.000	1.000
	B - A421 (East)	1.048	1.000	1.012	1.019
	C - Whaddon Rd	1.000	1.000	1.000	1.000
	D - A421 (West)	1.000	1.029	1.036	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 - Coddemor Ln	129	129
	B - A421 (East)	1117	1137
	C - Whaddon Rd	254	254
	D - A421 (West)	984	1013
17:00-17:15	A - Coddemor Ln	154	154
	B - A421 (East)	1333	1358
	C - Whaddon Rd	303	303
	D - A421 (West)	1175	1209
17:15-17:30	A - Coddemor Ln	188	188
	B - A421 (East)	1633	1663
	C - Whaddon Rd	372	372
	D - A421 (West)	1440	1481
17:30-17:45	A - Coddemor Ln	188	188
	B - A421 (East)	1633	1663
	C - Whaddon Rd	372	372
	D - A421 (West)	1440	1481
17:45-18:00	A - Coddemor Ln	154	154
	B - A421 (East)	1333	1358
	C - Whaddon Rd	303	303
	D - A421 (West)	1175	1209
18:00-18:15	A - Coddemor Ln	129	129
	B - A421 (East)	1117	1137
	C - Whaddon Rd	254	254
	D - A421 (West)	984	1013

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
A - Coddemor Ln	0.55	23.30	1.2	C	157	235
B - A421 (East)	0.97	42.61	18.4	E	1361	2041
C - Whaddon Rd	1.52	612.45	63.4	F	310	465
D - A421 (West)	0.91	23.31	8.8	C	1200	1800

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - Coddemor Ln	129	32	1142	579	0.222	127	79	0.0	0.3	7.945	A
B - A421 (East)	1117	279	128	1720	0.649	1109	1142	0.0	1.8	5.826	A
C - Whaddon Rd	254	64	1016	511	0.497	250	221	0.0	1.0	13.594	B
D - A421 (West)	984	246	243	1588	0.620	978	1024	0.0	1.6	5.841	A

17:00 - 17:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - Coddemor Ln	154	38	1364	461	0.333	153	94	0.3	0.5	11.630	B
B - A421 (East)	1333	333	153	1705	0.782	1327	1363	1.8	3.4	9.369	A
C - Whaddon Rd	303	76	1215	398	0.763	296	264	1.0	2.8	33.328	D
D - A421 (West)	1175	294	287	1561	0.753	1170	1224	1.6	2.9	9.080	A

17:15 - 17:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - Coddemor Ln	188	47	1576	347	0.542	186	98	0.5	1.1	21.930	C
B - A421 (East)	1633	408	185	1684	0.969	1588	1576	3.4	14.6	28.935	D
C - Whaddon Rd	372	93	1456	260	1.428	256	318	2.8	31.7	273.079	F
D - A421 (West)	1440	360	256	1580	0.911	1419	1456	2.9	8.2	20.078	C

17:30 - 17:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - Coddemor Ln	188	47	1586	342	0.550	188	98	1.1	1.2	23.304	C
B - A421 (East)	1633	408	188	1683	0.970	1618	1586	14.6	18.4	42.610	E
C - Whaddon Rd	372	93	1483	245	1.516	245	323	31.7	63.4	612.451	F
D - A421 (West)	1440	360	247	1586	0.908	1437	1481	8.2	8.8	23.306	C

17:45 - 18:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - Coddemor Ln	154	38	1436	423	0.363	156	105	1.2	0.6	13.585	B
B - A421 (East)	1333	333	156	1703	0.783	1392	1436	18.4	3.8	13.570	B
C - Whaddon Rd	303	76	1273	365	0.832	359	275	63.4	49.4	522.811	F
D - A421 (West)	1175	294	345	1527	0.770	1197	1287	8.8	3.5	11.534	B

18:00 - 18:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - Coddemor Ln	129	32	1300	497	0.259	129	109	0.6	0.4	9.820	A
B - A421 (East)	1117	279	129	1719	0.650	1124	1300	3.8	1.9	6.129	A
C - Whaddon Rd	254	64	1030	504	0.505	447	224	49.4	1.1	158.033	F
D - A421 (West)	984	246	419	1483	0.664	990	1058	3.5	2.0	7.396	A

2033 Base + CD + D with TP, 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
J7	Whaddon Crossroads	Standard Roundabout		A, B, C, D	99.31	F

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D15	2033 Base + CD + D with TP	AM	ONE HOUR	07:30	09:00	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 - Coddemor Ln		ONE HOUR	✓	158	100.000
B - A421 (East)		ONE HOUR	✓	1382	100.000
C - Whaddon Rd		ONE HOUR	✓	400	100.000
D - A421 (West)		ONE HOUR	✓	1341	100.000

Origin-Destination Data

Demand (Veh/hr)

	To				
From		A - Coddimor Ln	B - A421 (East)	C - Whaddon Rd	D - A421 (West)
	A - Coddimor Ln	0	53	55	50
	B - A421 (East)	32	0	236	1115
	C - Whaddon Rd	49	285	0	67
	D - A421 (West)	23	1298	19	0

Proportions

	To				
From		A - Coddimor Ln	B - A421 (East)	C - Whaddon Rd	D - A421 (West)
	A - Coddimor Ln	0.00	0.33	0.35	0.32
	B - A421 (East)	0.02	0.00	0.17	0.81
	C - Whaddon Rd	0.12	0.71	0.00	0.17
	D - A421 (West)	0.02	0.97	0.01	0.00

Vehicle Mix

Heavy Vehicle Percentages

From	To				
		A - Coddemor Ln	B - A421 (East)	C - Whaddon Rd	D - A421 (West)
	A - Coddemor Ln	0	0	0	2
	B - A421 (East)	0	0	1	6
	C - Whaddon Rd	2	3	0	5
	D - A421 (West)	5	4	12	0

Average PCU Per Veh

From	To				
		A - Coddemor Ln	B - A421 (East)	C - Whaddon Rd	D - A421 (West)
	A - Coddemor Ln	1.000	1.000	1.000	1.023
	B - A421 (East)	1.000	1.000	1.011	1.060
	C - Whaddon Rd	1.023	1.033	1.000	1.052
	D - A421 (West)	1.050	1.045	1.118	1.000

Detailed Demand Data

Demand for each time segment

Time Segment	Arm	Demand (Veh/hr)	Demand in PCU (PCU/hr)
07:30-07:45	A - Coddemor Ln	119	120
	B - A421 (East)	1041	1093
	C - Whaddon Rd	301	312
	D - A421 (West)	1009	1056
07:45-08:00	A - Coddemor Ln	142	143
	B - A421 (East)	1243	1305
	C - Whaddon Rd	360	373
	D - A421 (West)	1205	1261
08:00-08:15	A - Coddemor Ln	174	176
	B - A421 (East)	1522	1598
	C - Whaddon Rd	441	456
	D - A421 (West)	1476	1544
08:15-08:30	A - Coddemor Ln	174	176
	B - A421 (East)	1522	1598
	C - Whaddon Rd	441	456
	D - A421 (West)	1476	1544
08:30-08:45	A - Coddemor Ln	142	143
	B - A421 (East)	1243	1305
	C - Whaddon Rd	360	373
	D - A421 (West)	1205	1261
08:45-09:00	A - Coddemor Ln	119	120
	B - A421 (East)	1041	1093
	C - Whaddon Rd	301	312
	D - A421 (West)	1009	1056

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
A - Coddemor Ln	0.60	31.16	1.4	D	145	218
B - A421 (East)	0.92	23.83	9.5	C	1268	1902
C - Whaddon Rd	1.46	581.12	71.5	F	367	551
D - A421 (West)	0.97	42.75	16.6	E	1230	1845

Main Results for each time segment

07:30 - 07:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - Coddemor Ln	119	30	1195	535	0.223	118	78	0.0	0.3	8.608	A
B - A421 (East)	1041	260	93	1688	0.616	1034	1220	0.0	1.6	5.455	A
C - Whaddon Rd	301	75	896	542	0.556	297	232	0.0	1.2	14.404	B
D - A421 (West)	1009	252	271	1541	0.655	1002	921	0.0	1.9	6.588	A

07:45 - 08:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - Coddemor Ln	142	36	1426	411	0.346	141	92	0.3	0.5	13.302	B
B - A421 (East)	1243	311	112	1677	0.741	1238	1456	1.6	2.8	8.110	A
C - Whaddon Rd	360	90	1072	441	0.816	350	278	1.2	3.6	36.301	E
D - A421 (West)	1205	301	321	1511	0.797	1198	1101	1.9	3.7	11.219	B

08:00 - 08:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - Coddemor Ln	174	44	1631	301	0.580	171	97	0.5	1.3	27.206	D
B - A421 (East)	1522	380	135	1663	0.915	1499	1667	2.8	8.6	19.643	C
C - Whaddon Rd	441	110	1298	312	1.413	308	336	3.6	36.8	261.778	F
D - A421 (West)	1476	369	292	1529	0.965	1436	1314	3.7	13.6	30.389	D

08:15 - 08:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - Coddemor Ln	174	44	1654	288	0.605	174	98	1.3	1.4	31.158	D
B - A421 (East)	1522	380	137	1661	0.916	1518	1690	8.6	9.5	23.829	C
C - Whaddon Rd	441	110	1315	302	1.458	302	340	36.8	71.5	581.120	F
D - A421 (West)	1476	369	287	1532	0.964	1464	1330	13.6	16.6	42.754	E

08:30 - 08:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - Coddemor Ln	142	36	1529	356	0.400	145	103	1.4	0.7	17.333	C
B - A421 (East)	1243	311	115	1675	0.742	1269	1559	9.5	3.0	9.391	A
C - Whaddon Rd	360	90	1099	426	0.845	420	285	71.5	56.5	519.173	F
D - A421 (West)	1205	301	380	1475	0.817	1252	1139	16.6	4.8	18.806	C

08:45 - 09:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - Coddemor Ln	119	30	1371	442	0.270	120	106	0.7	0.4	11.252	B
B - A421 (East)	1041	260	95	1687	0.617	1046	1396	3.0	1.6	5.664	A
C - Whaddon Rd	301	75	906	536	0.562	520	235	56.5	1.8	204.157	F
D - A421 (West)	1009	252	458	1428	0.707	1019	968	4.8	2.5	8.990	A

2033 Base + CD + D with TP, 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
J7	Whaddon Crossroads	Standard Roundabout		A, B, C, D	85.38	F

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D16	2033 Base + CD + D with TP	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 - Coddemor Ln		ONE HOUR	✓	171	100.000
B - A421 (East)		ONE HOUR	✓	1474	100.000
C - Whaddon Rd		ONE HOUR	✓	334	100.000
D - A421 (West)		ONE HOUR	✓	1299	100.000

Origin-Destination Data

Demand (Veh/hr)

	To				
From		A - Coddimor Ln	B - A421 (East)	C - Whaddon Rd	D - A421 (West)
	A - Coddimor Ln	0	32	53	85
	B - A421 (East)	24	1	208	1240
	C - Whaddon Rd	51	248	0	36
	D - A421 (West)	31	1235	32	0

Proportions

	To				
From		A - Coddimor Ln	B - A421 (East)	C - Whaddon Rd	D - A421 (West)
	A - Coddimor Ln	0.00	0.19	0.31	0.50
	B - A421 (East)	0.02	0.00	0.14	0.84
	C - Whaddon Rd	0.15	0.74	0.00	0.11
	D - A421 (West)	0.02	0.95	0.02	0.00

Vehicle Mix

Heavy Vehicle Percentages

From	To				
		A - Coddemor Ln	B - A421 (East)	C - Whaddon Rd	D - A421 (West)
	A - Coddemor Ln	0	0	0	0
	B - A421 (East)	5	0	1	2
	C - Whaddon Rd	0	0	0	0
	D - A421 (West)	0	3	4	0

Average PCU Per Veh

From	To				
		A - Coddemor Ln	B - A421 (East)	C - Whaddon Rd	D - A421 (West)
	A - Coddemor Ln	1.000	1.000	1.000	1.000
	B - A421 (East)	1.048	1.000	1.012	1.019
	C - Whaddon Rd	1.000	1.000	1.000	1.000
	D - A421 (West)	1.000	1.029	1.036	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 - Coddemor Ln	129	129
	B - A421 (East)	1109	1130
	C - Whaddon Rd	252	252
	D - A421 (West)	978	1006
17:00-17:15	A - Coddemor Ln	154	154
	B - A421 (East)	1325	1349
	C - Whaddon Rd	300	300
	D - A421 (West)	1167	1201
17:15-17:30	A - Coddemor Ln	188	188
	B - A421 (East)	1623	1653
	C - Whaddon Rd	368	368
	D - A421 (West)	1430	1471
17:30-17:45	A - Coddemor Ln	188	188
	B - A421 (East)	1623	1653
	C - Whaddon Rd	368	368
	D - A421 (West)	1430	1471
17:45-18:00	A - Coddemor Ln	154	154
	B - A421 (East)	1325	1349
	C - Whaddon Rd	300	300
	D - A421 (West)	1167	1201
18:00-18:15	A - Coddemor Ln	129	129
	B - A421 (East)	1109	1130
	C - Whaddon Rd	252	252
	D - A421 (West)	978	1006

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
A - Coddemor Ln	0.54	22.71	1.2	C	157	235
B - A421 (East)	0.96	39.59	16.9	E	1352	2028
C - Whaddon Rd	1.48	575.54	59.8	F	307	460
D - A421 (West)	0.91	22.26	8.4	C	1192	1788

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - Coddemor Ln	129	32	1133	584	0.220	127	79	0.0	0.3	7.863	A
B - A421 (East)	1109	277	128	1720	0.645	1102	1133	0.0	1.8	5.763	A
C - Whaddon Rd	252	63	1010	515	0.489	248	219	0.0	0.9	13.320	B
D - A421 (West)	978	244	240	1590	0.615	971	1018	0.0	1.6	5.767	A

17:00 - 17:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - Coddemor Ln	154	38	1353	467	0.329	153	94	0.3	0.5	11.428	B
B - A421 (East)	1325	331	153	1705	0.777	1319	1353	1.8	3.3	9.177	A
C - Whaddon Rd	300	75	1209	401	0.748	294	262	0.9	2.6	31.633	D
D - A421 (West)	1167	292	285	1563	0.747	1162	1218	1.6	2.8	8.876	A

17:15 - 17:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - Coddemor Ln	188	47	1569	351	0.535	186	99	0.5	1.1	21.426	C
B - A421 (East)	1623	406	186	1684	0.963	1581	1569	3.3	13.7	27.593	D
C - Whaddon Rd	368	92	1451	263	1.397	259	316	2.6	29.9	256.653	F
D - A421 (West)	1430	357	258	1579	0.906	1410	1451	2.8	7.8	19.358	C

17:30 - 17:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - Coddemor Ln	188	47	1579	346	0.544	188	98	1.1	1.2	22.710	C
B - A421 (East)	1623	406	188	1683	0.964	1610	1579	13.7	16.9	39.585	E
C - Whaddon Rd	368	92	1476	249	1.480	248	321	29.9	59.8	575.536	F
D - A421 (West)	1430	357	249	1584	0.903	1428	1475	7.8	8.4	22.257	C

17:45 - 18:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - Coddemor Ln	154	38	1431	426	0.360	156	107	1.2	0.6	13.420	B
B - A421 (East)	1325	331	156	1703	0.778	1378	1431	16.9	3.7	12.727	B
C - Whaddon Rd	300	75	1261	372	0.808	365	272	59.8	43.6	478.426	F
D - A421 (West)	1167	292	350	1524	0.766	1187	1277	8.4	3.4	11.266	B

18:00 - 18:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - Coddemor Ln	129	32	1273	511	0.252	130	106	0.6	0.3	9.459	A
B - A421 (East)	1109	277	129	1719	0.645	1117	1273	3.7	1.9	6.051	A
C - Whaddon Rd	252	63	1024	507	0.496	422	222	43.6	1.1	117.086	F
D - A421 (West)	978	244	396	1497	0.653	984	1050	3.4	1.9	7.096	A

2033 Base + CD + D - ST, 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
J7	Whaddon Crossroads	Standard Roundabout		A, B, C, D	117.36	F

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D17	2033 Base + CD + D - ST	AM	ONE HOUR	07:30	09:00	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 - Coddemor Ln		ONE HOUR	✓	158	100.000
B - A421 (East)		ONE HOUR	✓	1424	100.000
C - Whaddon Rd		ONE HOUR	✓	406	100.000
D - A421 (West)		ONE HOUR	✓	1360	100.000

Origin-Destination Data

Demand (Veh/hr)

	To			
		A - Coddemor Ln	B - A421 (East)	C - Whaddon Rd
From				
	A - Coddemor Ln	0	53	55
	B - A421 (East)	32	0	248
	C - Whaddon Rd	49	290	0
	D - A421 (West)	23	1317	19

Proportions

	To			
		A - Coddemor Ln	B - A421 (East)	C - Whaddon Rd
From				
	A - Coddemor Ln	0.00	0.33	0.35
	B - A421 (East)	0.02	0.00	0.17
	C - Whaddon Rd	0.12	0.71	0.00
	D - A421 (West)	0.02	0.97	0.01

Vehicle Mix

Heavy Vehicle Percentages

From	To				
		A - Coddemor Ln	B - A421 (East)	C - Whaddon Rd	D - A421 (West)
	A - Coddemor Ln	0	0	0	2
	B - A421 (East)	0	0	1	6
	C - Whaddon Rd	2	3	0	5
	D - A421 (West)	5	4	12	0

Average PCU Per Veh

From	To				
		A - Coddemor Ln	B - A421 (East)	C - Whaddon Rd	D - A421 (West)
	A - Coddemor Ln	1.000	1.000	1.000	1.023
	B - A421 (East)	1.000	1.000	1.011	1.060
	C - Whaddon Rd	1.023	1.033	1.000	1.052
	D - A421 (West)	1.050	1.045	1.118	1.000

Detailed Demand Data

Demand for each time segment

Time Segment	Arm	Demand (Veh/hr)	Demand in PCU (PCU/hr)
07:30-07:45	A - Coddemor Ln	119	120
	B - A421 (East)	1072	1126
	C - Whaddon Rd	306	316
	D - A421 (West)	1024	1071
07:45-08:00	A - Coddemor Ln	142	143
	B - A421 (East)	1280	1344
	C - Whaddon Rd	365	378
	D - A421 (West)	1222	1279
08:00-08:15	A - Coddemor Ln	174	176
	B - A421 (East)	1568	1646
	C - Whaddon Rd	447	463
	D - A421 (West)	1497	1566
08:15-08:30	A - Coddemor Ln	174	176
	B - A421 (East)	1568	1646
	C - Whaddon Rd	447	463
	D - A421 (West)	1497	1566
08:30-08:45	A - Coddemor Ln	142	143
	B - A421 (East)	1280	1344
	C - Whaddon Rd	365	378
	D - A421 (West)	1222	1279
08:45-09:00	A - Coddemor Ln	119	120
	B - A421 (East)	1072	1126
	C - Whaddon Rd	306	316
	D - A421 (West)	1024	1071

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
A - Coddemor Ln	0.61	32.30	1.5	D	145	218
B - A421 (East)	0.94	31.64	12.9	D	1307	1960
C - Whaddon Rd	1.57	691.07	82.9	F	373	559
D - A421 (West)	0.98	47.44	18.8	E	1248	1872

Main Results for each time segment

07:30 - 07:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - Coddemor Ln	119	30	1214	525	0.227	118	78	0.0	0.3	8.812	A
B - A421 (East)	1072	268	93	1688	0.635	1065	1238	0.0	1.7	5.719	A
C - Whaddon Rd	306	76	917	530	0.577	300	241	0.0	1.3	15.379	C
D - A421 (West)	1024	256	275	1539	0.665	1016	942	0.0	1.9	6.789	A

07:45 - 08:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - Coddemor Ln	142	36	1446	401	0.355	141	92	0.3	0.5	13.832	B
B - A421 (East)	1280	320	112	1677	0.763	1275	1475	1.7	3.1	8.823	A
C - Whaddon Rd	365	91	1098	427	0.856	353	289	1.3	4.4	42.972	E
D - A421 (West)	1222	306	324	1510	0.810	1214	1127	1.9	4.0	11.864	B

08:00 - 08:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - Coddemor Ln	174	44	1639	296	0.589	171	95	0.5	1.3	28.113	D
B - A421 (East)	1568	392	135	1663	0.943	1536	1675	3.1	11.1	23.918	C
C - Whaddon Rd	447	112	1323	298	1.502	295	348	4.4	42.4	313.484	F
D - A421 (West)	1497	374	281	1535	0.975	1453	1336	4.0	15.1	32.742	D

08:15 - 08:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - Coddemor Ln	174	44	1661	284	0.614	174	95	1.3	1.5	32.299	D
B - A421 (East)	1568	392	137	1662	0.944	1561	1698	11.1	12.9	31.639	D
C - Whaddon Rd	447	112	1344	286	1.565	285	354	42.4	82.9	691.068	F
D - A421 (West)	1497	374	274	1540	0.972	1482	1355	15.1	18.8	47.445	E

08:30 - 08:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - Coddemor Ln	142	36	1542	349	0.408	145	100	1.5	0.7	17.945	C
B - A421 (East)	1280	320	115	1675	0.764	1318	1572	12.9	3.4	11.096	B
C - Whaddon Rd	365	91	1135	405	0.901	400	299	82.9	74.0	645.650	F
D - A421 (West)	1222	306	364	1485	0.823	1277	1171	18.8	5.1	20.843	C

08:45 - 09:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - Coddemor Ln	119	30	1385	434	0.275	120	104	0.7	0.4	11.526	B
B - A421 (East)	1072	268	95	1687	0.636	1079	1410	3.4	1.8	5.976	A
C - Whaddon Rd	306	76	929	523	0.585	516	245	74.0	21.5	338.744	F
D - A421 (West)	1024	256	456	1429	0.716	1034	989	5.1	2.6	9.316	A

2033 Base + CD + D - ST, 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
J7	Whaddon Crossroads	Standard Roundabout		A, B, C, D	100.50	F

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D18	2033 Base + CD + D - ST	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 - Coddemor Ln		ONE HOUR	✓	171	100.000
B - A421 (East)		ONE HOUR	✓	1495	100.000
C - Whaddon Rd		ONE HOUR	✓	345	100.000
D - A421 (West)		ONE HOUR	✓	1322	100.000

Origin-Destination Data

Demand (Veh/hr)

	To			
		A - Coddemor Ln	B - A421 (East)	C - Whaddon Rd
From				
	A - Coddemor Ln	0	32	53
	B - A421 (East)	24	1	214
	C - Whaddon Rd	51	259	0
	D - A421 (West)	31	1258	32

Proportions

	To			
		A - Coddemor Ln	B - A421 (East)	C - Whaddon Rd
From				
	A - Coddemor Ln	0.00	0.19	0.31
	B - A421 (East)	0.02	0.00	0.14
	C - Whaddon Rd	0.15	0.75	0.00
	D - A421 (West)	0.02	0.95	0.02

Vehicle Mix

Heavy Vehicle Percentages

From	To				
		A - Coddemor Ln	B - A421 (East)	C - Whaddon Rd	D - A421 (West)
	A - Coddemor Ln	0	0	0	0
	B - A421 (East)	5	0	1	2
	C - Whaddon Rd	0	0	0	0
	D - A421 (West)	0	3	4	0

Average PCU Per Veh

From	To				
		A - Coddemor Ln	B - A421 (East)	C - Whaddon Rd	D - A421 (West)
	A - Coddemor Ln	1.000	1.000	1.000	1.000
	B - A421 (East)	1.048	1.000	1.012	1.019
	C - Whaddon Rd	1.000	1.000	1.000	1.000
	D - A421 (West)	1.000	1.029	1.036	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 - Coddemor Ln	129	129
	B - A421 (East)	1125	1146
	C - Whaddon Rd	260	260
	D - A421 (West)	995	1024
17:00-17:15	A - Coddemor Ln	154	154
	B - A421 (East)	1344	1369
	C - Whaddon Rd	311	311
	D - A421 (West)	1188	1223
17:15-17:30	A - Coddemor Ln	188	188
	B - A421 (East)	1646	1676
	C - Whaddon Rd	380	380
	D - A421 (West)	1455	1497
17:30-17:45	A - Coddemor Ln	188	188
	B - A421 (East)	1646	1676
	C - Whaddon Rd	380	380
	D - A421 (West)	1455	1497
17:45-18:00	A - Coddemor Ln	154	154
	B - A421 (East)	1344	1369
	C - Whaddon Rd	311	311
	D - A421 (West)	1188	1223
18:00-18:15	A - Coddemor Ln	129	129
	B - A421 (East)	1125	1146
	C - Whaddon Rd	260	260
	D - A421 (West)	995	1024

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
A - Coddemor Ln	0.56	24.51	1.2	C	157	235
B - A421 (East)	0.98	46.72	20.6	E	1372	2057
C - Whaddon Rd	1.57	670.68	69.3	F	317	476
D - A421 (West)	0.92	25.42	9.7	D	1213	1820

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - Coddemor Ln	129	32	1158	571	0.225	127	79	0.0	0.3	8.099	A
B - A421 (East)	1125	281	127	1720	0.654	1118	1158	0.0	1.9	5.907	A
C - Whaddon Rd	260	65	1022	508	0.512	256	224	0.0	1.0	14.062	B
D - A421 (West)	995	249	248	1585	0.628	989	1029	0.0	1.7	5.975	A

17:00 - 17:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - Coddemor Ln	154	38	1382	451	0.340	153	94	0.3	0.5	12.014	B
B - A421 (East)	1344	336	153	1705	0.788	1337	1382	1.9	3.6	9.615	A
C - Whaddon Rd	311	78	1222	394	0.789	302	268	1.0	3.1	36.364	E
D - A421 (West)	1188	297	294	1558	0.763	1183	1231	1.7	3.1	9.455	A

17:15 - 17:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - Coddemor Ln	188	47	1590	340	0.553	185	97	0.5	1.2	22.913	C
B - A421 (East)	1646	411	185	1685	0.977	1596	1590	3.6	15.9	30.690	D
C - Whaddon Rd	380	95	1461	258	1.476	254	321	3.1	34.7	299.620	F
D - A421 (West)	1455	364	255	1581	0.921	1432	1460	3.1	8.9	21.458	C

17:30 - 17:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - Coddemor Ln	188	47	1601	334	0.563	188	96	1.2	1.2	24.514	C
B - A421 (East)	1646	411	188	1683	0.978	1627	1601	15.9	20.6	46.724	E
C - Whaddon Rd	380	95	1488	242	1.572	242	327	34.7	69.3	670.676	F
D - A421 (West)	1455	364	244	1587	0.917	1452	1486	8.9	9.7	25.417	D

17:45 - 18:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - Coddemor Ln	154	38	1449	416	0.369	156	103	1.2	0.6	13.958	B
B - A421 (East)	1344	336	156	1702	0.789	1410	1449	20.6	4.0	14.852	B
C - Whaddon Rd	311	78	1286	357	0.870	352	280	69.3	59.0	592.203	F
D - A421 (West)	1188	297	339	1530	0.777	1213	1299	9.7	3.7	12.104	B

18:00 - 18:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - Coddemor Ln	129	32	1345	474	0.272	129	114	0.6	0.4	10.488	B
B - A421 (East)	1125	281	129	1719	0.655	1133	1345	4.0	1.9	6.231	A
C - Whaddon Rd	260	65	1036	500	0.520	489	227	59.0	1.7	230.032	F
D - A421 (West)	995	249	458	1460	0.682	1001	1067	3.7	2.2	7.950	A

Junctions 9									
ARCADY 9 - Roundabout Module									
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Filename: J7 - Whaddon Crossroads_ST.j9

Path: \\uk.wspgroup.com\central data\Projects\700694xx\70069442 - SWMK - 2020\03 WIP\TP Transport

Planning\Analysis\Whaddon Crossroads\Mitigation

Report generation date: 11/09/2020 15:46:50

- »2033 Base + CD + D, AM
- »2033 Base + CD + D, PM
- »2033 Base + CD + D with TP, AM
- »2033 Base + CD + D with TP, PM
- »2033 Base + CD + D - ST, AM
- »2033 Base + CD + D - ST, PM

Summary of junction performance

	AM					PM				
	Set ID	Queue (Veh)	Delay (s)	RFC	LOS	Set ID	Queue (Veh)	Delay (s)	RFC	LOS
	2033 Base + CD + D									
A - Coddimor Ln	D13	1.9	41.85	0.68	E	D14	1.5	30.30	0.62	D
B - A421 (East)		10.2	25.40	0.92	D		18.4	42.49	0.97	E
C - Whaddon Rd		22.9	174.97	1.08	F		15.4	144.07	1.04	F
D - A421 (West)		27.5	66.41	1.00	F		12.2	32.42	0.94	D
	2033 Base + CD + D with TP									
A - Coddimor Ln	D15	1.9	41.19	0.67	E	D16	1.5	29.12	0.61	D
B - A421 (East)		9.5	23.76	0.92	C		16.9	39.48	0.96	E
C - Whaddon Rd		20.8	161.55	1.06	F		13.4	129.37	1.02	F
D - A421 (West)		25.9	63.38	1.00	F		11.3	30.35	0.93	D
	2033 Base + CD + D - ST									
A - Coddimor Ln	D17	1.9	42.73	0.68	E	D18	1.6	32.59	0.63	D
B - A421 (East)		12.9	31.53	0.94	D		20.5	46.56	0.98	E
C - Whaddon Rd		29.3	217.32	1.12	F		19.0	170.22	1.07	F
D - A421 (West)		30.3	71.74	1.01	F		13.9	36.51	0.95	E

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	Whaddon Crossroads
Location	51°59'6.32"N, 0°49'39.55"W
Site number	7
Date	04/07/2020
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	fsuarez
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	Veh	perHour	s	-Min	perMin

Analysis Options

Vehicle length (m)	Calculate Queue Percentiles	Calculate detailed queueing delay	Calculate residual capacity	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)
5.75				0.85	36.00	20.00

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	2020 Base	AM	ONE HOUR	07:30	09:00	15	✓
D2	2020 Base	PM	ONE HOUR	16:45	18:15	15	✓
D3	2026 Base	AM	ONE HOUR	07:30	09:00	15	✓
D4	2026 Base	PM	ONE HOUR	16:45	18:15	15	✓
D5	2026 Base + CD + D	AM	ONE HOUR	07:30	09:00	15	✓
D6	2026 Base + CD + D	PM	ONE HOUR	16:45	18:15	15	✓
D7	2026 Base + CD + D with TP	AM	ONE HOUR	07:30	09:00	15	✓
D8	2026 Base + CD + D with TP	PM	ONE HOUR	16:45	18:15	15	✓
D9	2026 Base + CD + D - ST	AM	ONE HOUR	07:30	09:00	15	✓
D10	2026 Base + CD + D - ST	PM	ONE HOUR	16:45	18:15	15	✓
D11	2033 Base	AM	ONE HOUR	07:30	09:00	15	✓
D12	2033 Base	PM	ONE HOUR	16:45	18:15	15	✓
D13	2033 Base + CD + D	AM	ONE HOUR	07:30	09:00	15	✓
D14	2033 Base + CD + D	PM	ONE HOUR	16:45	18:15	15	✓
D15	2033 Base + CD + D with TP	AM	ONE HOUR	07:30	09:00	15	✓
D16	2033 Base + CD + D with TP	PM	ONE HOUR	16:45	18:15	15	✓
D17	2033 Base + CD + D - ST	AM	ONE HOUR	07:30	09:00	15	✓
D18	2033 Base + CD + D - ST	PM	ONE HOUR	16:45	18:15	15	✓

Analysis Set Details

ID	Include in report	Use specific Demand Set(s)	Specific Demand Set(s)	Network flow scaling factor (%)	Network capacity scaling factor (%)
A1	✓	✓	D13,D14,D15,D16,D17,D18	100.000	100.000

2033 Base + CD + D, 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
J7	Whaddon Crossroads	Standard Roundabout		A, B, C, D	60.98	F

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description
A	Coddemor Ln	
B	A421 (East)	
C	Whaddon Rd	
D	A421 (West)	

Roundabout Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	I' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Exit only
A - Coddemor Ln	2.80	6.70	8.5	21.5	50.6	40.0	
B - A421 (East)	2.60	9.80	23.7	33.0	50.6	45.0	
C - Whaddon Rd	2.90	7.20	11.7	19.7	50.6	15.0	
D - A421 (West)	3.20	8.80	18.3	31.6	50.6	42.0	

Slope / Intercept / Capacity

Arm Intercept Adjustments

Arm	Type	Reason	Direct intercept adjustment (PCU/hr)
A - Coddemor Ln	Direct		-100
B - A421 (East)	None		
C - Whaddon Rd	Direct		-300
D - A421 (West)	None		

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
A - Coddemor Ln	0.519	1187
B - A421 (East)	0.621	1832
C - Whaddon Rd	0.593	1253
D - A421 (West)	0.615	1784

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

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D13	2033 Base + CD + D	AM	ONE HOUR	07:30	09:00	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 - Coddemor Ln		ONE HOUR	✓	158	100.000
B - A421 (East)		ONE HOUR	✓	1393	100.000
C - Whaddon Rd		ONE HOUR	✓	402	100.000
D - A421 (West)		ONE HOUR	✓	1347	100.000

Origin-Destination Data

Demand (Veh/hr)

	To				
		A - Coddemor Ln	B - A421 (East)	C - Whaddon Rd	D - A421 (West)
From	A - Coddemor Ln	0	53	55	50
	B - A421 (East)	32	0	238	1122
	C - Whaddon Rd	49	286	0	67
	D - A421 (West)	23	1305	19	0

Proportions

	To				
		A - Coddemor Ln	B - A421 (East)	C - Whaddon Rd	D - A421 (West)
From	A - Coddemor Ln	0.00	0.33	0.35	0.32
	B - A421 (East)	0.02	0.00	0.17	0.81
	C - Whaddon Rd	0.12	0.71	0.00	0.17
	D - A421 (West)	0.02	0.97	0.01	0.00

Vehicle Mix

Heavy Vehicle Percentages

	To				
		A - Coddemor Ln	B - A421 (East)	C - Whaddon Rd	D - A421 (West)
From	A - Coddemor Ln	0	0	0	2
	B - A421 (East)	0	0	1	6
	C - Whaddon Rd	2	3	0	5
	D - A421 (West)	5	4	12	0

Average PCU Per Veh

	To				
		A - Coddemor Ln	B - A421 (East)	C - Whaddon Rd	D - A421 (West)
From	A - Coddemor Ln	1.000	1.000	1.000	1.023
	B - A421 (East)	1.000	1.000	1.011	1.060
	C - Whaddon Rd	1.023	1.033	1.000	1.052
	D - A421 (West)	1.050	1.045	1.118	1.000

Detailed Demand Data

Demand for each time segment

Time Segment	Arm	Demand (Veh/hr)	Demand in PCU (PCU/hr)
07:30-07:45	A - Coddemor Ln	119	120
	B - A421 (East)	1049	1101
	C - Whaddon Rd	302	313
	D - A421 (West)	1014	1061
07:45-08:00	A - Coddemor Ln	142	143
	B - A421 (East)	1252	1315
	C - Whaddon Rd	361	374
	D - A421 (West)	1211	1267
08:00-08:15	A - Coddemor Ln	174	176
	B - A421 (East)	1533	1610
	C - Whaddon Rd	442	458
	D - A421 (West)	1483	1551
08:15-08:30	A - Coddemor Ln	174	176
	B - A421 (East)	1533	1610
	C - Whaddon Rd	442	458
	D - A421 (West)	1483	1551
08:30-08:45	A - Coddemor Ln	142	143
	B - A421 (East)	1252	1315
	C - Whaddon Rd	361	374
	D - A421 (West)	1211	1267
08:45-09:00	A - Coddemor Ln	119	120
	B - A421 (East)	1049	1101
	C - Whaddon Rd	302	313
	D - A421 (West)	1014	1061

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
A - Coddemor Ln	0.68	41.85	1.9	E	145	218
B - A421 (East)	0.92	25.40	10.2	D	1278	1917
C - Whaddon Rd	1.08	174.97	22.9	F	369	553
D - A421 (West)	1.00	66.41	27.5	F	1236	1854

Main Results for each time segment

07:30 - 07:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - Coddemor Ln	119	30	1202	531	0.224	118	78	0.0	0.3	8.686	A
B - A421 (East)	1049	262	93	1688	0.621	1042	1227	0.0	1.6	5.520	A
C - Whaddon Rd	302	76	901	665	0.455	299	234	0.0	0.8	9.749	A
D - A421 (West)	1014	254	274	1540	0.659	1007	927	0.0	1.9	6.662	A

07:45 - 08:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - Coddemor Ln	142	36	1437	405	0.351	141	93	0.3	0.5	13.595	B
B - A421 (East)	1252	313	112	1677	0.747	1247	1467	1.6	2.8	8.278	A
C - Whaddon Rd	361	90	1079	558	0.647	357	280	0.8	1.7	17.631	C
D - A421 (West)	1211	303	327	1507	0.803	1203	1109	1.9	3.8	11.542	B

08:00 - 08:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - Coddemor Ln	174	44	1680	274	0.635	170	108	0.5	1.6	33.277	D
B - A421 (East)	1533	383	134	1663	0.922	1508	1716	2.8	9.1	20.553	C
C - Whaddon Rd	442	111	1304	421	1.050	397	338	1.7	13.2	89.187	F
D - A421 (West)	1483	371	366	1484	0.999	1422	1335	3.8	19.1	39.294	E

08:15 - 08:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - Coddemor Ln	174	44	1712	257	0.678	173	109	1.6	1.9	41.845	E
B - A421 (East)	1533	383	136	1662	0.923	1529	1749	9.1	10.2	25.405	D
C - Whaddon Rd	442	111	1322	410	1.078	403	343	13.2	22.9	174.973	F
D - A421 (West)	1483	371	372	1480	1.002	1450	1354	19.1	27.5	66.409	F

08:30 - 08:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - Coddemor Ln	142	36	1593	321	0.443	147	106	1.9	0.8	21.066	C
B - A421 (East)	1252	313	117	1674	0.748	1280	1623	10.2	3.1	9.761	A
C - Whaddon Rd	361	90	1108	540	0.668	444	289	22.9	2.2	59.917	F
D - A421 (West)	1211	303	400	1463	0.828	1300	1152	27.5	5.4	29.745	D

08:45 - 09:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - Coddemor Ln	119	30	1229	517	0.231	121	80	0.8	0.3	9.143	A
B - A421 (East)	1049	262	96	1687	0.622	1054	1255	3.1	1.7	5.743	A
C - Whaddon Rd	302	76	912	659	0.459	308	238	2.2	0.9	10.418	B
D - A421 (West)	1014	254	281	1535	0.661	1028	939	5.4	2.0	7.273	A

2033 Base + CD + D, 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
J7	Whaddon Crossroads	Standard Roundabout		A, B, C, D	48.04	E

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D14	2033 Base + CD + D	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 - Coddemor Ln		ONE HOUR	✓	171	100.000
B - A421 (East)		ONE HOUR	✓	1483	100.000
C - Whaddon Rd		ONE HOUR	✓	338	100.000
D - A421 (West)		ONE HOUR	✓	1308	100.000

Origin-Destination Data

Demand (Veh/hr)

	To				
From		A - Coddimor Ln	B - A421 (East)	C - Whaddon Rd	D - A421 (West)
	A - Coddimor Ln	0	32	53	85
	B - A421 (East)	24	1	210	1248
	C - Whaddon Rd	51	251	0	36
	D - A421 (West)	31	1244	32	0

Proportions

	To				
From		A - Coddimor Ln	B - A421 (East)	C - Whaddon Rd	D - A421 (West)
	A - Coddimor Ln	0.00	0.19	0.31	0.50
	B - A421 (East)	0.02	0.00	0.14	0.84
	C - Whaddon Rd	0.15	0.74	0.00	0.11
	D - A421 (West)	0.02	0.95	0.02	0.00

Vehicle Mix

Heavy Vehicle Percentages

From	To				
		A - Coddemor Ln	B - A421 (East)	C - Whaddon Rd	D - A421 (West)
	A - Coddemor Ln	0	0	0	0
	B - A421 (East)	5	0	1	2
	C - Whaddon Rd	0	0	0	0
	D - A421 (West)	0	3	4	0

Average PCU Per Veh

From	To				
		A - Coddemor Ln	B - A421 (East)	C - Whaddon Rd	D - A421 (West)
	A - Coddemor Ln	1.000	1.000	1.000	1.000
	B - A421 (East)	1.048	1.000	1.012	1.019
	C - Whaddon Rd	1.000	1.000	1.000	1.000
	D - A421 (West)	1.000	1.029	1.036	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 - Coddemor Ln	129	129
	B - A421 (East)	1117	1137
	C - Whaddon Rd	254	254
	D - A421 (West)	984	1013
17:00-17:15	A - Coddemor Ln	154	154
	B - A421 (East)	1333	1358
	C - Whaddon Rd	303	303
	D - A421 (West)	1175	1209
17:15-17:30	A - Coddemor Ln	188	188
	B - A421 (East)	1633	1663
	C - Whaddon Rd	372	372
	D - A421 (West)	1440	1481
17:30-17:45	A - Coddemor Ln	188	188
	B - A421 (East)	1633	1663
	C - Whaddon Rd	372	372
	D - A421 (West)	1440	1481
17:45-18:00	A - Coddemor Ln	154	154
	B - A421 (East)	1333	1358
	C - Whaddon Rd	303	303
	D - A421 (West)	1175	1209
18:00-18:15	A - Coddemor Ln	129	129
	B - A421 (East)	1117	1137
	C - Whaddon Rd	254	254
	D - A421 (West)	984	1013

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
A - Coddemor Ln	0.62	30.30	1.5	D	157	235
B - A421 (East)	0.97	42.49	18.4	E	1361	2041
C - Whaddon Rd	1.04	144.07	15.4	F	310	465
D - A421 (West)	0.94	32.42	12.2	D	1200	1800

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - Coddemor Ln	129	32	1143	579	0.222	127	79	0.0	0.3	7.953	A
B - A421 (East)	1117	279	128	1720	0.649	1109	1143	0.0	1.8	5.826	A
C - Whaddon Rd	254	64	1016	640	0.397	252	221	0.0	0.6	9.215	A
D - A421 (West)	984	246	244	1587	0.620	978	1024	0.0	1.6	5.847	A

17:00 - 17:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - Coddemor Ln	154	38	1367	460	0.334	153	95	0.3	0.5	11.689	B
B - A421 (East)	1333	333	153	1705	0.782	1327	1367	1.8	3.4	9.369	A
C - Whaddon Rd	303	76	1215	519	0.584	301	264	0.6	1.3	16.256	C
D - A421 (West)	1175	294	292	1559	0.754	1170	1224	1.6	2.9	9.131	A

17:15 - 17:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - Coddemor Ln	188	47	1631	319	0.590	185	111	0.5	1.3	26.180	D
B - A421 (East)	1633	408	185	1685	0.969	1588	1631	3.4	14.6	28.861	D
C - Whaddon Rd	372	93	1456	374	0.993	341	317	1.3	9.0	76.530	F
D - A421 (West)	1440	360	332	1535	0.938	1410	1465	2.9	10.4	24.509	C

17:30 - 17:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - Coddemor Ln	188	47	1657	305	0.616	187	113	1.3	1.5	30.299	D
B - A421 (East)	1633	408	187	1683	0.970	1618	1657	14.6	18.4	42.486	E
C - Whaddon Rd	372	93	1482	358	1.038	346	323	9.0	15.4	144.073	F
D - A421 (West)	1440	360	337	1531	0.940	1433	1491	10.4	12.2	32.422	D

17:45 - 18:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - Coddemor Ln	154	38	1448	417	0.368	157	105	1.5	0.6	14.054	B
B - A421 (East)	1333	333	157	1702	0.783	1391	1448	18.4	3.8	13.588	B
C - Whaddon Rd	303	76	1273	484	0.626	358	276	15.4	1.8	39.054	E
D - A421 (West)	1175	294	344	1528	0.769	1210	1287	12.2	3.5	12.445	B

18:00 - 18:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - Coddemor Ln	129	32	1161	569	0.226	130	81	0.6	0.3	8.217	A
B - A421 (East)	1117	279	130	1719	0.650	1124	1161	3.8	1.9	6.131	A
C - Whaddon Rd	254	64	1030	631	0.403	259	224	1.8	0.7	9.771	A
D - A421 (West)	984	246	250	1584	0.622	992	1038	3.5	1.7	6.157	A

2033 Base + CD + D with TP, 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
J7	Whaddon Crossroads	Standard Roundabout		A, B, C, D	57.45	F

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D15	2033 Base + CD + D with TP	AM	ONE HOUR	07:30	09:00	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 - Coddemor Ln		ONE HOUR	✓	158	100.000
B - A421 (East)		ONE HOUR	✓	1382	100.000
C - Whaddon Rd		ONE HOUR	✓	400	100.000
D - A421 (West)		ONE HOUR	✓	1341	100.000

Origin-Destination Data

Demand (Veh/hr)

	To			
		A - Coddemor Ln	B - A421 (East)	C - Whaddon Rd
From	A - Coddemor Ln	0	53	55
	B - A421 (East)	32	0	236
	C - Whaddon Rd	49	285	0
	D - A421 (West)	23	1298	19

Proportions

	To			
		A - Coddemor Ln	B - A421 (East)	C - Whaddon Rd
From	A - Coddemor Ln	0.00	0.33	0.35
	B - A421 (East)	0.02	0.00	0.17
	C - Whaddon Rd	0.12	0.71	0.00
	D - A421 (West)	0.02	0.97	0.01

Vehicle Mix

Heavy Vehicle Percentages

From	To				
		A - Coddemor Ln	B - A421 (East)	C - Whaddon Rd	D - A421 (West)
	A - Coddemor Ln	0	0	0	2
	B - A421 (East)	0	0	1	6
	C - Whaddon Rd	2	3	0	5
	D - A421 (West)	5	4	12	0

Average PCU Per Veh

From	To				
		A - Coddemor Ln	B - A421 (East)	C - Whaddon Rd	D - A421 (West)
	A - Coddemor Ln	1.000	1.000	1.000	1.023
	B - A421 (East)	1.000	1.000	1.011	1.060
	C - Whaddon Rd	1.023	1.033	1.000	1.052
	D - A421 (West)	1.050	1.045	1.118	1.000

Detailed Demand Data

Demand for each time segment

Time Segment	Arm	Demand (Veh/hr)	Demand in PCU (PCU/hr)
07:30-07:45	A - Coddemor Ln	119	120
	B - A421 (East)	1041	1093
	C - Whaddon Rd	301	312
	D - A421 (West)	1009	1056
07:45-08:00	A - Coddemor Ln	142	143
	B - A421 (East)	1243	1305
	C - Whaddon Rd	360	373
	D - A421 (West)	1205	1261
08:00-08:15	A - Coddemor Ln	174	176
	B - A421 (East)	1522	1598
	C - Whaddon Rd	441	456
	D - A421 (West)	1476	1544
08:15-08:30	A - Coddemor Ln	174	176
	B - A421 (East)	1522	1598
	C - Whaddon Rd	441	456
	D - A421 (West)	1476	1544
08:30-08:45	A - Coddemor Ln	142	143
	B - A421 (East)	1243	1305
	C - Whaddon Rd	360	373
	D - A421 (West)	1205	1261
08:45-09:00	A - Coddemor Ln	119	120
	B - A421 (East)	1041	1093
	C - Whaddon Rd	301	312
	D - A421 (West)	1009	1056

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
A - Coddemor Ln	0.67	41.19	1.9	E	145	218
B - A421 (East)	0.92	23.76	9.5	C	1268	1902
C - Whaddon Rd	1.06	161.55	20.8	F	367	551
D - A421 (West)	1.00	63.38	25.9	F	1230	1845

Main Results for each time segment

07:30 - 07:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - Coddemor Ln	119	30	1197	535	0.223	118	78	0.0	0.3	8.621	A
B - A421 (East)	1041	260	93	1688	0.616	1034	1221	0.0	1.6	5.455	A
C - Whaddon Rd	301	75	896	669	0.451	298	232	0.0	0.8	9.636	A
D - A421 (West)	1009	252	273	1540	0.655	1002	921	0.0	1.9	6.598	A

07:45 - 08:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - Coddemor Ln	142	36	1430	409	0.348	141	93	0.3	0.5	13.412	B
B - A421 (East)	1243	311	112	1677	0.741	1238	1460	1.6	2.8	8.110	A
C - Whaddon Rd	360	90	1072	562	0.640	356	278	0.8	1.7	17.214	C
D - A421 (West)	1205	301	326	1508	0.799	1198	1102	1.9	3.8	11.321	B

08:00 - 08:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - Coddemor Ln	174	44	1677	276	0.631	170	108	0.5	1.6	32.770	D
B - A421 (East)	1522	380	134	1663	0.915	1499	1713	2.8	8.5	19.595	C
C - Whaddon Rd	441	110	1298	426	1.036	398	335	1.7	12.3	84.398	F
D - A421 (West)	1476	369	367	1483	0.995	1418	1329	3.8	18.3	38.042	E

08:15 - 08:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - Coddemor Ln	174	44	1710	258	0.674	173	110	1.6	1.9	41.192	E
B - A421 (East)	1522	380	136	1662	0.916	1518	1746	8.5	9.5	23.762	C
C - Whaddon Rd	441	110	1315	415	1.062	407	340	12.3	20.8	161.546	F
D - A421 (West)	1476	369	374	1479	0.998	1445	1347	18.3	25.9	63.383	F

08:30 - 08:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - Coddemor Ln	142	36	1576	331	0.430	147	105	1.9	0.8	19.971	C
B - A421 (East)	1243	311	117	1674	0.742	1268	1606	9.5	3.0	9.409	A
C - Whaddon Rd	360	90	1099	546	0.660	435	286	20.8	2.1	50.123	F
D - A421 (West)	1205	301	392	1468	0.821	1289	1142	25.9	5.1	26.727	D

08:45 - 09:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - Coddemor Ln	119	30	1222	521	0.229	121	80	0.8	0.3	9.046	A
B - A421 (East)	1041	260	96	1687	0.617	1046	1248	3.0	1.6	5.667	A
C - Whaddon Rd	301	75	906	662	0.455	307	235	2.1	0.9	10.257	B
D - A421 (West)	1009	252	280	1536	0.657	1022	933	5.1	2.0	7.163	A

2033 Base + CD + D with TP, 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
J7	Whaddon Crossroads	Standard Roundabout		A, B, C, D	44.29	E

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D16	2033 Base + CD + D with TP	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 - Coddemor Ln		ONE HOUR	✓	171	100.000
B - A421 (East)		ONE HOUR	✓	1474	100.000
C - Whaddon Rd		ONE HOUR	✓	334	100.000
D - A421 (West)		ONE HOUR	✓	1299	100.000

Origin-Destination Data

Demand (Veh/hr)

	To			
		A - Coddemor Ln	B - A421 (East)	C - Whaddon Rd
From	A - Coddemor Ln	0	32	53
	B - A421 (East)	24	1	208
	C - Whaddon Rd	51	248	0
	D - A421 (West)	31	1235	32

Proportions

	To			
		A - Coddemor Ln	B - A421 (East)	C - Whaddon Rd
From	A - Coddemor Ln	0.00	0.19	0.31
	B - A421 (East)	0.02	0.00	0.14
	C - Whaddon Rd	0.15	0.74	0.00
	D - A421 (West)	0.02	0.95	0.02

Vehicle Mix

Heavy Vehicle Percentages

From	To				
		A - Coddemor Ln	B - A421 (East)	C - Whaddon Rd	D - A421 (West)
	A - Coddemor Ln	0	0	0	0
	B - A421 (East)	5	0	1	2
	C - Whaddon Rd	0	0	0	0
	D - A421 (West)	0	3	4	0

Average PCU Per Veh

From	To				
		A - Coddemor Ln	B - A421 (East)	C - Whaddon Rd	D - A421 (West)
	A - Coddemor Ln	1.000	1.000	1.000	1.000
	B - A421 (East)	1.048	1.000	1.012	1.019
	C - Whaddon Rd	1.000	1.000	1.000	1.000
	D - A421 (West)	1.000	1.029	1.036	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 - Coddemor Ln	129	129
	B - A421 (East)	1109	1130
	C - Whaddon Rd	252	252
	D - A421 (West)	978	1006
17:00-17:15	A - Coddemor Ln	154	154
	B - A421 (East)	1325	1349
	C - Whaddon Rd	300	300
	D - A421 (West)	1167	1201
17:15-17:30	A - Coddemor Ln	188	188
	B - A421 (East)	1623	1653
	C - Whaddon Rd	368	368
	D - A421 (West)	1430	1471
17:30-17:45	A - Coddemor Ln	188	188
	B - A421 (East)	1623	1653
	C - Whaddon Rd	368	368
	D - A421 (West)	1430	1471
17:45-18:00	A - Coddemor Ln	154	154
	B - A421 (East)	1325	1349
	C - Whaddon Rd	300	300
	D - A421 (West)	1167	1201
18:00-18:15	A - Coddemor Ln	129	129
	B - A421 (East)	1109	1130
	C - Whaddon Rd	252	252
	D - A421 (West)	978	1006

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
A - Coddemor Ln	0.61	29.12	1.5	D	157	235
B - A421 (East)	0.96	39.48	16.9	E	1352	2028
C - Whaddon Rd	1.02	129.37	13.4	F	307	460
D - A421 (West)	0.93	30.35	11.3	D	1192	1788

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - Coddemor Ln	129	32	1133	584	0.220	127	79	0.0	0.3	7.871	A
B - A421 (East)	1109	277	128	1720	0.645	1102	1133	0.0	1.8	5.763	A
C - Whaddon Rd	252	63	1010	643	0.391	249	219	0.0	0.6	9.079	A
D - A421 (West)	978	244	241	1589	0.615	971	1018	0.0	1.6	5.773	A

17:00 - 17:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - Coddemor Ln	154	38	1356	465	0.330	153	95	0.3	0.5	11.484	B
B - A421 (East)	1325	331	153	1705	0.777	1319	1356	1.8	3.3	9.178	A
C - Whaddon Rd	300	75	1209	523	0.574	298	262	0.6	1.3	15.776	C
D - A421 (West)	1167	292	289	1561	0.748	1162	1218	1.6	2.9	8.921	A

17:15 - 17:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - Coddemor Ln	188	47	1622	324	0.581	185	111	0.5	1.3	25.343	D
B - A421 (East)	1623	406	185	1685	0.963	1581	1622	3.3	13.7	27.529	D
C - Whaddon Rd	368	92	1450	377	0.975	340	315	1.3	8.2	71.024	F
D - A421 (West)	1430	357	331	1535	0.931	1402	1460	2.9	9.8	23.372	C

17:30 - 17:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - Coddemor Ln	188	47	1648	310	0.607	187	113	1.3	1.5	29.117	D
B - A421 (East)	1623	406	187	1683	0.964	1610	1648	13.7	16.9	39.484	E
C - Whaddon Rd	368	92	1476	362	1.017	347	321	8.2	13.4	129.367	F
D - A421 (West)	1430	357	338	1531	0.934	1424	1486	9.8	11.3	30.350	D

17:45 - 18:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - Coddemor Ln	154	38	1429	427	0.360	157	104	1.5	0.6	13.501	B
B - A421 (East)	1325	331	157	1702	0.778	1377	1429	16.9	3.7	12.747	B
C - Whaddon Rd	300	75	1262	491	0.611	347	273	13.4	1.7	32.389	D
D - A421 (West)	1167	292	334	1534	0.761	1199	1275	11.3	3.3	11.705	B

18:00 - 18:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - Coddemor Ln	129	32	1151	574	0.224	130	81	0.6	0.3	8.116	A
B - A421 (East)	1109	277	130	1719	0.646	1117	1151	3.7	1.9	6.053	A
C - Whaddon Rd	252	63	1024	635	0.396	256	222	1.7	0.7	9.590	A
D - A421 (West)	978	244	247	1585	0.617	985	1032	3.3	1.6	6.059	A

2033 Base + CD + D - ST, 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
J7	Whaddon Crossroads	Standard Roundabout		A, B, C, D	70.72	F

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D17	2033 Base + CD + D - ST	AM	ONE HOUR	07:30	09:00	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 - Coddemor Ln		ONE HOUR	✓	158	100.000
B - A421 (East)		ONE HOUR	✓	1424	100.000
C - Whaddon Rd		ONE HOUR	✓	406	100.000
D - A421 (West)		ONE HOUR	✓	1360	100.000

Origin-Destination Data

Demand (Veh/hr)

	To			
		A - Coddemor Ln	B - A421 (East)	C - Whaddon Rd
From	A - Coddemor Ln	0	53	55
	B - A421 (East)	32	0	248
	C - Whaddon Rd	49	290	0
	D - A421 (West)	23	1317	19

Proportions

	To			
		A - Coddemor Ln	B - A421 (East)	C - Whaddon Rd
From	A - Coddemor Ln	0.00	0.33	0.35
	B - A421 (East)	0.02	0.00	0.17
	C - Whaddon Rd	0.12	0.71	0.00
	D - A421 (West)	0.02	0.97	0.01

Vehicle Mix

Heavy Vehicle Percentages

From	To				
		A - Coddemor Ln	B - A421 (East)	C - Whaddon Rd	D - A421 (West)
	A - Coddemor Ln	0	0	0	2
	B - A421 (East)	0	0	1	6
	C - Whaddon Rd	2	3	0	5
	D - A421 (West)	5	4	12	0

Average PCU Per Veh

From	To				
		A - Coddemor Ln	B - A421 (East)	C - Whaddon Rd	D - A421 (West)
	A - Coddemor Ln	1.000	1.000	1.000	1.023
	B - A421 (East)	1.000	1.000	1.011	1.060
	C - Whaddon Rd	1.023	1.033	1.000	1.052
	D - A421 (West)	1.050	1.045	1.118	1.000

Detailed Demand Data

Demand for each time segment

Time Segment	Arm	Demand (Veh/hr)	Demand in PCU (PCU/hr)
07:30-07:45	A - Coddemor Ln	119	120
	B - A421 (East)	1072	1126
	C - Whaddon Rd	306	316
	D - A421 (West)	1024	1071
07:45-08:00	A - Coddemor Ln	142	143
	B - A421 (East)	1280	1344
	C - Whaddon Rd	365	378
	D - A421 (West)	1222	1279
08:00-08:15	A - Coddemor Ln	174	176
	B - A421 (East)	1568	1646
	C - Whaddon Rd	447	463
	D - A421 (West)	1497	1566
08:15-08:30	A - Coddemor Ln	174	176
	B - A421 (East)	1568	1646
	C - Whaddon Rd	447	463
	D - A421 (West)	1497	1566
08:30-08:45	A - Coddemor Ln	142	143
	B - A421 (East)	1280	1344
	C - Whaddon Rd	365	378
	D - A421 (West)	1222	1279
08:45-09:00	A - Coddemor Ln	119	120
	B - A421 (East)	1072	1126
	C - Whaddon Rd	306	316
	D - A421 (West)	1024	1071

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
A - Coddemor Ln	0.68	42.73	1.9	E	145	218
B - A421 (East)	0.94	31.53	12.9	D	1307	1960
C - Whaddon Rd	1.12	217.32	29.3	F	373	559
D - A421 (West)	1.01	71.74	30.3	F	1248	1872

Main Results for each time segment

07:30 - 07:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - Coddemor Ln	119	30	1215	525	0.227	118	78	0.0	0.3	8.827	A
B - A421 (East)	1072	268	93	1688	0.635	1065	1240	0.0	1.7	5.719	A
C - Whaddon Rd	306	76	917	656	0.466	302	241	0.0	0.9	10.093	B
D - A421 (West)	1024	256	277	1538	0.666	1016	943	0.0	1.9	6.801	A

07:45 - 08:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - Coddemor Ln	142	36	1451	397	0.358	141	93	0.3	0.5	13.996	B
B - A421 (East)	1280	320	112	1677	0.763	1275	1481	1.7	3.1	8.823	A
C - Whaddon Rd	365	91	1097	547	0.668	361	289	0.9	1.9	18.976	C
D - A421 (West)	1222	306	331	1505	0.812	1214	1128	1.9	4.0	12.016	B

08:00 - 08:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - Coddemor Ln	174	44	1686	271	0.642	170	106	0.5	1.6	34.157	D
B - A421 (East)	1568	392	134	1664	0.943	1536	1722	3.1	11.0	23.848	C
C - Whaddon Rd	447	112	1323	410	1.089	391	348	1.9	15.9	104.089	F
D - A421 (West)	1497	374	362	1487	1.007	1430	1352	4.0	20.8	41.603	E

08:15 - 08:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - Coddemor Ln	174	44	1716	255	0.683	173	108	1.6	1.9	42.734	E
B - A421 (East)	1568	392	136	1662	0.943	1561	1752	11.0	12.9	31.526	D
C - Whaddon Rd	447	112	1344	398	1.125	393	353	15.9	29.3	217.317	F
D - A421 (West)	1497	374	364	1485	1.008	1459	1373	20.8	30.3	71.743	F

08:30 - 08:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - Coddemor Ln	142	36	1633	300	0.474	146	109	1.9	0.9	23.984	C
B - A421 (East)	1280	320	116	1674	0.765	1318	1663	12.9	3.4	11.105	B
C - Whaddon Rd	365	91	1135	524	0.697	471	300	29.3	2.7	102.077	F
D - A421 (West)	1222	306	424	1449	0.844	1319	1182	30.3	6.2	37.361	E

08:45 - 09:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - Coddemor Ln	119	30	1246	508	0.235	122	80	0.9	0.3	9.383	A
B - A421 (East)	1072	268	96	1687	0.636	1079	1272	3.4	1.8	5.982	A
C - Whaddon Rd	306	76	929	648	0.472	313	245	2.7	0.9	10.961	B
D - A421 (West)	1024	256	286	1532	0.668	1040	956	6.2	2.1	7.555	A

2033 Base + CD + D - ST, 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
J7	Whaddon Crossroads	Standard Roundabout		A, B, C, D	54.41	F

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D18	2033 Base + CD + D - ST	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 - Coddemor Ln		ONE HOUR	✓	171	100.000
B - A421 (East)		ONE HOUR	✓	1495	100.000
C - Whaddon Rd		ONE HOUR	✓	345	100.000
D - A421 (West)		ONE HOUR	✓	1322	100.000

Origin-Destination Data

Demand (Veh/hr)

	To			
		A - Coddemor Ln	B - A421 (East)	C - Whaddon Rd
From	A - Coddemor Ln	0	32	53
	B - A421 (East)	24	1	214
	C - Whaddon Rd	51	259	0
	D - A421 (West)	31	1258	32

Proportions

	To			
		A - Coddemor Ln	B - A421 (East)	C - Whaddon Rd
From	A - Coddemor Ln	0.00	0.19	0.31
	B - A421 (East)	0.02	0.00	0.14
	C - Whaddon Rd	0.15	0.75	0.00
	D - A421 (West)	0.02	0.95	0.02

Vehicle Mix

Heavy Vehicle Percentages

From	To				
		A - Coddemor Ln	B - A421 (East)	C - Whaddon Rd	D - A421 (West)
	A - Coddemor Ln	0	0	0	0
	B - A421 (East)	5	0	1	2
	C - Whaddon Rd	0	0	0	0
	D - A421 (West)	0	3	4	0

Average PCU Per Veh

From	To				
		A - Coddemor Ln	B - A421 (East)	C - Whaddon Rd	D - A421 (West)
	A - Coddemor Ln	1.000	1.000	1.000	1.000
	B - A421 (East)	1.048	1.000	1.012	1.019
	C - Whaddon Rd	1.000	1.000	1.000	1.000
	D - A421 (West)	1.000	1.029	1.036	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 - Coddemor Ln	129	129
	B - A421 (East)	1125	1146
	C - Whaddon Rd	260	260
	D - A421 (West)	995	1024
17:00-17:15	A - Coddemor Ln	154	154
	B - A421 (East)	1344	1369
	C - Whaddon Rd	311	311
	D - A421 (West)	1188	1223
17:15-17:30	A - Coddemor Ln	188	188
	B - A421 (East)	1646	1676
	C - Whaddon Rd	380	380
	D - A421 (West)	1455	1497
17:30-17:45	A - Coddemor Ln	188	188
	B - A421 (East)	1646	1676
	C - Whaddon Rd	380	380
	D - A421 (West)	1455	1497
17:45-18:00	A - Coddemor Ln	154	154
	B - A421 (East)	1344	1369
	C - Whaddon Rd	311	311
	D - A421 (West)	1188	1223
18:00-18:15	A - Coddemor Ln	129	129
	B - A421 (East)	1125	1146
	C - Whaddon Rd	260	260
	D - A421 (West)	995	1024

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
A - Coddemor Ln	0.63	32.59	1.6	D	157	235
B - A421 (East)	0.98	46.56	20.5	E	1372	2057
C - Whaddon Rd	1.07	170.22	19.0	F	317	476
D - A421 (West)	0.95	36.51	13.9	E	1213	1820

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - Coddemor Ln	129	32	1159	570	0.225	127	79	0.0	0.3	8.109	A
B - A421 (East)	1125	281	127	1720	0.654	1118	1159	0.0	1.9	5.907	A
C - Whaddon Rd	260	65	1022	636	0.409	257	224	0.0	0.7	9.436	A
D - A421 (West)	995	249	250	1584	0.628	989	1029	0.0	1.7	5.982	A

17:00 - 17:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - Coddemor Ln	154	38	1386	449	0.342	153	95	0.3	0.5	12.094	B
B - A421 (East)	1344	336	153	1705	0.788	1337	1386	1.9	3.6	9.615	A
C - Whaddon Rd	311	78	1222	515	0.603	307	268	0.7	1.4	17.073	C
D - A421 (West)	1188	297	298	1555	0.764	1183	1231	1.7	3.1	9.524	A

17:15 - 17:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - Coddemor Ln	188	47	1647	311	0.605	184	110	0.5	1.4	27.770	D
B - A421 (East)	1646	411	184	1685	0.977	1597	1647	3.6	15.8	30.597	D
C - Whaddon Rd	380	95	1460	371	1.024	344	320	1.4	10.6	85.926	F
D - A421 (West)	1455	364	335	1533	0.950	1422	1469	3.1	11.6	26.658	D

17:30 - 17:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - Coddemor Ln	188	47	1673	296	0.634	187	111	1.4	1.6	32.592	D
B - A421 (East)	1646	411	187	1683	0.978	1627	1673	15.8	20.5	46.558	E
C - Whaddon Rd	380	95	1488	355	1.072	347	326	10.6	19.0	170.219	F
D - A421 (West)	1455	364	338	1531	0.951	1446	1496	11.6	13.9	36.513	E

17:45 - 18:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - Coddemor Ln	154	38	1484	398	0.386	157	107	1.6	0.6	15.204	C
B - A421 (East)	1344	336	158	1702	0.790	1410	1484	20.5	4.0	14.868	B
C - Whaddon Rd	311	78	1287	476	0.652	378	281	19.0	2.1	55.850	F
D - A421 (West)	1188	297	363	1516	0.784	1229	1302	13.9	3.8	14.065	B

18:00 - 18:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - Coddemor Ln	129	32	1180	559	0.230	130	81	0.6	0.3	8.413	A
B - A421 (East)	1125	281	130	1719	0.655	1134	1180	4.0	1.9	6.235	A
C - Whaddon Rd	260	65	1036	627	0.415	265	227	2.1	0.7	10.086	B
D - A421 (West)	995	249	257	1579	0.630	1004	1045	3.8	1.7	6.339	A

Basic Results Summary

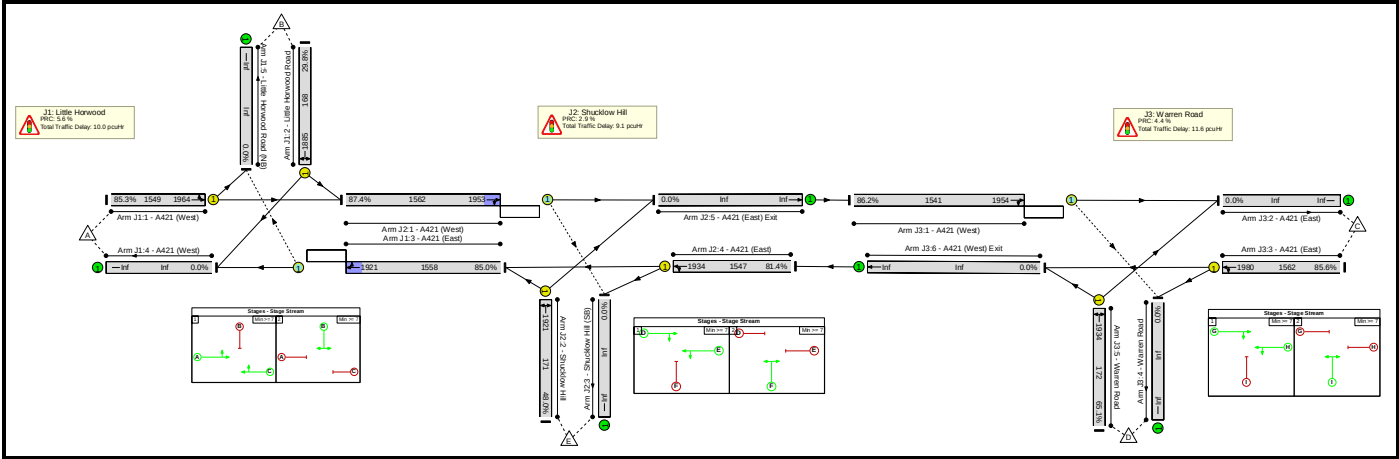
Basic Results Summary

User and Project Details

Project:	South West milton Keynes
Title:	Signalisation of Little Horwood Junction
Location:	
File name:	J8_J9 - Warren Road A421_A421 Shucklow Hill Little Horwood Road.lsg3x
Author:	
Company:	
Address:	
Notes:	

Scenario 1: '2033 Base + CD + D AM' (FG7: '2033 Base + CD + Dev AM', Plan 1: 'Network Control Plan 1')

Network Layout Diagram



Basic Results Summary

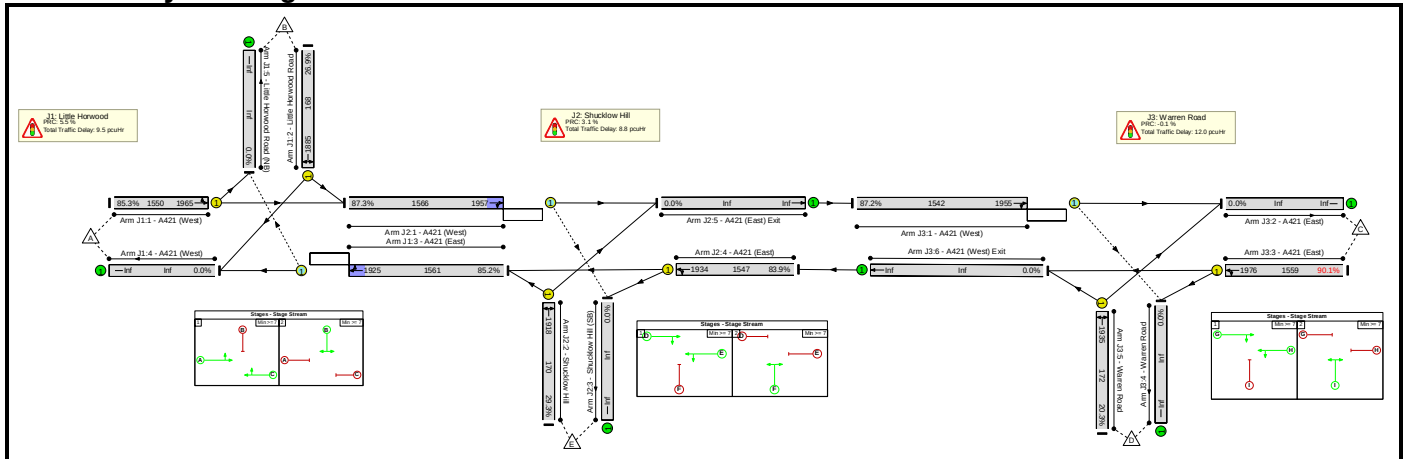
Network Results

Item	Lane Description	Lane Type	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Mean Max Queue (pcu)
Network: Signalisation of Little Horwood Junction	-	-	-		-	-	-	-	-	-	87.4%	11	0	92	30.6	-	-
J1: Little Horwood	-	-	-		-	-	-	-	-	-	85.3%	0	0	48	10.0	-	-
1/1	A421 (West) Ahead Left	U	A		1	70	-	1321	1964	1549	85.3%	-	-	-	5.1	13.8	24.1
2/1	Little Horwood Road Left Right	U	B		1	7	-	50	1885	168	29.8%	-	-	-	0.7	53.7	1.4
3/1	A421 (East) Ahead Right	O	C		1	72	-	1324	1921	1558	85.0%	0	0	48	4.1	11.3	7.8
J2: Shucklow Hill	-	-	-		-	-	-	-	-	-	87.4%	11	0	40	9.1	-	-
1/1	A421 (West) Right Ahead	O	D		1	71	-	1366	1953	1562	87.4%	11	0	40	4.7	12.5	7.7
2/1	Shucklow Hill Left Right	U	F		1	7	-	82	1921	171	48.0%	-	-	-	1.3	59.1	2.4
4/1	A421 (East) Ahead Left	U	E		1	71	-	1260	1934	1547	81.4%	-	-	-	3.0	8.7	13.0
J3: Warren Road	-	-	-		-	-	-	-	-	-	86.2%	0	0	4	11.6	-	-
1/1	A421 (West) Ahead Right	O	G		1	70	-	1329	1954	1541	86.2%	0	0	4	4.2	11.5	16.7
3/1	A421 (East) Left Ahead	U	H		1	70	-	1337	1980	1562	85.6%	-	-	-	5.2	14.0	24.4
5/1	Warren Road Right Left	U	I		1	7	-	112	1934	172	65.1%	-	-	-	2.1	68.8	3.6
		C1	Stream: 1 PRC for Signalled Lanes (%):				5.6	Total Delay for Signalled Lanes (pcuHr):				9.96	Cycle Time (s):		90		
		C1	Stream: 2 PRC for Signalled Lanes (%):				2.9	Total Delay for Signalled Lanes (pcuHr):				9.10	Cycle Time (s):		90		
		C1	Stream: 3 PRC for Signalled Lanes (%):				4.4	Total Delay for Signalled Lanes (pcuHr):				11.57	Cycle Time (s):		90		
			PRC Over All Lanes (%):				2.9	Total Delay Over All Lanes(pcuHr):				30.63					

Basic Results Summary

Scenario 2: '2033 Base + CD + D PM' (FG8: '2033 Base + CD + Dev PM', Plan 1: 'Network Control Plan 1')

Network Layout Diagram



Basic Results Summary

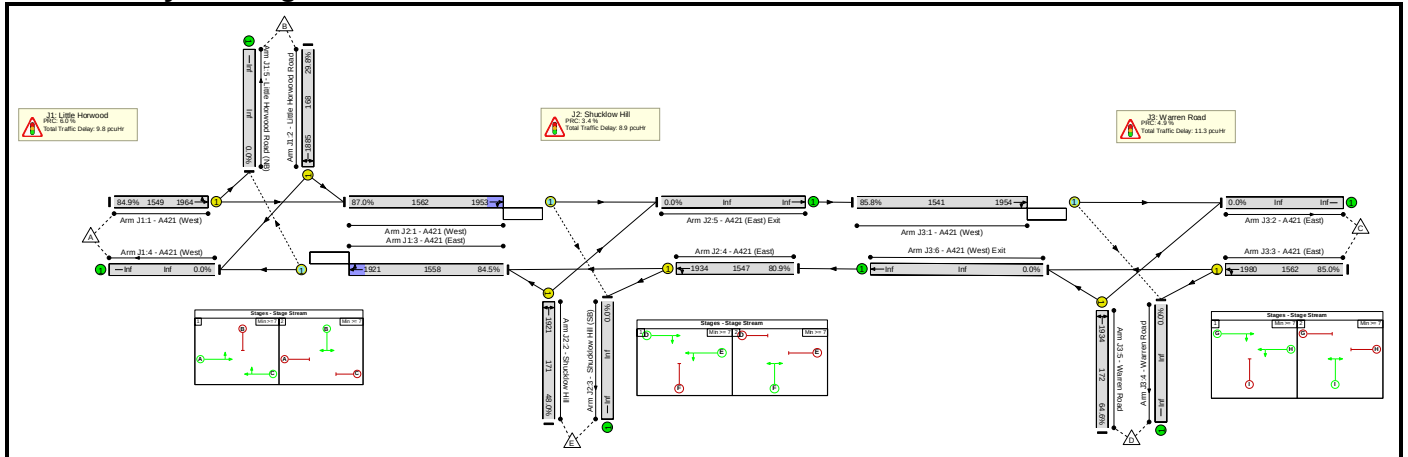
Network Results

Item	Lane Description	Lane Type	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Mean Max Queue (pcu)
Network: Signalisation of Little Horwood Junction	-	-	-		-	-	-	-	-	-	90.1%	6	0	64	30.4	-	-
J1: Little Horwood	-	-	-		-	-	-	-	-	-	85.3%	0	0	35	9.5	-	-
1/1	A421 (West) Ahead Left	U	A		1	70	-	1323	1965	1550	85.3%	-	-	-	5.1	13.9	24.2
2/1	Little Horwood Road Left Right	U	B		1	7	-	45	1885	168	26.9%	-	-	-	0.7	52.9	1.2
3/1	A421 (East) Ahead Right	O	C		1	72	-	1330	1925	1561	85.2%	0	0	35	3.8	10.2	6.1
J2: Shucklow Hill	-	-	-		-	-	-	-	-	-	87.3%	6	0	28	8.8	-	-
1/1	A421 (West) Right Ahead	O	D		1	71	-	1367	1957	1566	87.3%	6	0	28	4.6	12.1	8.5
2/1	Shucklow Hill Left Right	U	F		1	7	-	50	1918	170	29.3%	-	-	-	0.7	53.3	1.4
4/1	A421 (East) Ahead Left	U	E		1	71	-	1298	1934	1547	83.9%	-	-	-	3.5	9.7	13.9
J3: Warren Road	-	-	-		-	-	-	-	-	-	90.1%	0	0	1	12.0	-	-
1/1	A421 (West) Ahead Right	O	G		1	70	-	1345	1955	1542	87.2%	0	0	1	4.5	12.1	17.0
3/1	A421 (East) Left Ahead	U	H		1	70	-	1405	1976	1559	90.1%	-	-	-	7.0	18.0	29.7
5/1	Warren Road Right Left	U	I		1	7	-	35	1935	172	20.3%	-	-	-	0.5	51.2	0.9
		C1	Stream: 1 PRC for Signalled Lanes (%):				5.5	Total Delay for Signalled Lanes (pcuHr):				9.52	Cycle Time (s):		90		
		C1	Stream: 2 PRC for Signalled Lanes (%):				3.1	Total Delay for Signalled Lanes (pcuHr):				8.83	Cycle Time (s):		90		
		C1	Stream: 3 PRC for Signalled Lanes (%):				-0.1	Total Delay for Signalled Lanes (pcuHr):				12.04	Cycle Time (s):		90		
			PRC Over All Lanes (%):				-0.1	Total Delay Over All Lanes(pcuHr):				30.39					

Basic Results Summary

Scenario 3: '2033 Base + CD + D with TP AM' (FG9: '2033 Base + CD + Dev with TP AM', Plan 1: 'Network Control Plan 1')

Network Layout Diagram

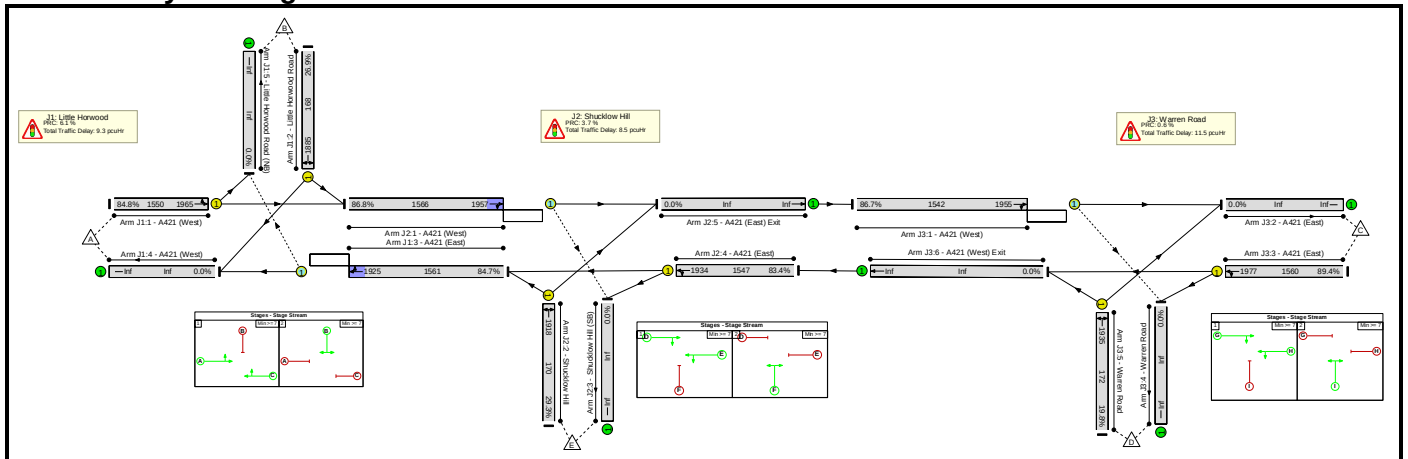


Basic Results Summary

Network Results

Item	Lane Description	Lane Type	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Mean Max Queue (pcu)
Network: Signalisation of Little Horwood Junction	-	-	-		-	-	-	-	-	-	87.0%	17	0	86	29.9	-	-
J1: Little Horwood	-	-	-		-	-	-	-	-	-	84.9%	2	0	46	9.8	-	-
1/1	A421 (West) Ahead Left	U	A		1	70	-	1315	1964	1549	84.9%	-	-	-	5.0	13.6	23.6
2/1	Little Horwood Road Left Right	U	B		1	7	-	50	1885	168	29.8%	-	-	-	0.7	53.7	1.4
3/1	A421 (East) Ahead Right	O	C		1	72	-	1316	1921	1558	84.5%	2	0	46	4.1	11.1	7.8
J2: Shucklow Hill	-	-	-		-	-	-	-	-	-	87.0%	15	0	36	8.9	-	-
1/1	A421 (West) Right Ahead	O	D		1	71	-	1360	1953	1562	87.0%	15	0	36	4.6	12.1	7.2
2/1	Shucklow Hill Left Right	U	F		1	7	-	82	1921	171	48.0%	-	-	-	1.3	59.1	2.4
4/1	A421 (East) Ahead Left	U	E		1	71	-	1252	1934	1547	80.9%	-	-	-	2.9	8.5	12.9
J3: Warren Road	-	-	-		-	-	-	-	-	-	85.8%	0	0	4	11.3	-	-
1/1	A421 (West) Ahead Right	O	G		1	70	-	1323	1954	1541	85.8%	0	0	4	4.1	11.2	16.1
3/1	A421 (East) Left Ahead	U	H		1	70	-	1328	1980	1562	85.0%	-	-	-	5.0	13.6	23.8
5/1	Warren Road Right Left	U	I		1	7	-	111	1934	172	64.6%	-	-	-	2.1	68.3	3.5
		C1	Stream: 1 PRC for Signalled Lanes (%):				6.0	Total Delay for Signalled Lanes (pcuHr):				9.76	Cycle Time (s):		90		
		C1	Stream: 2 PRC for Signalled Lanes (%):				3.4	Total Delay for Signalled Lanes (pcuHr):				8.85	Cycle Time (s):		90		
		C1	Stream: 3 PRC for Signalled Lanes (%):				4.9	Total Delay for Signalled Lanes (pcuHr):				11.26	Cycle Time (s):		90		
			PRC Over All Lanes (%):				3.4	Total Delay Over All Lanes(pcuHr):				29.87					

Network Layout Diagram

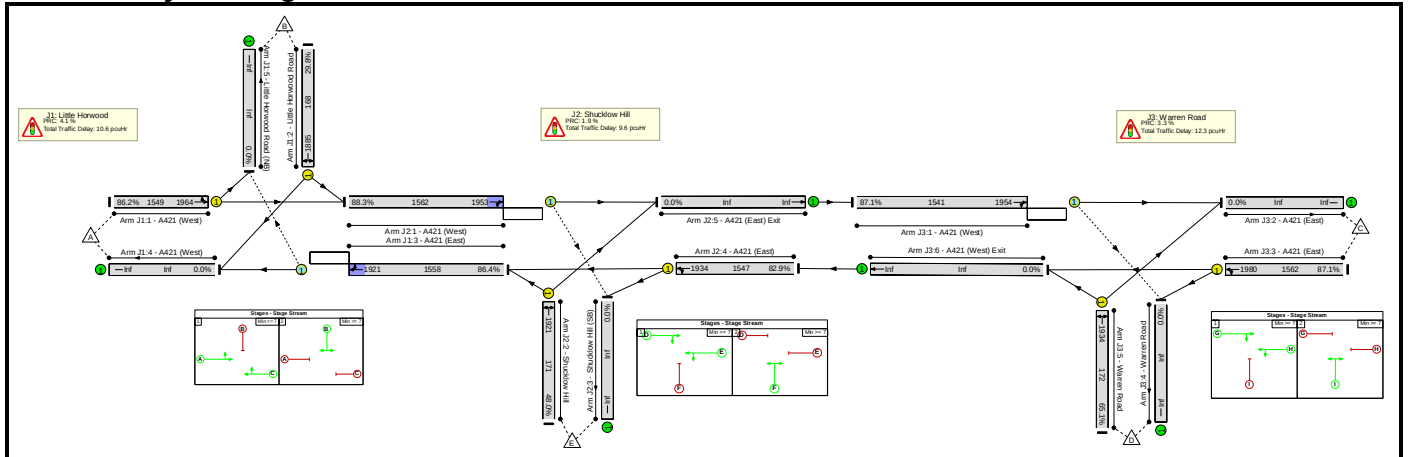


Network Results

Basic Results Summary

Scenario 5: '2033 Base + CD + D - ST AM' (FG11: '2033 Base + CD + Dev - ST AM', Plan 1: 'Network Control Plan 1')

Network Layout Diagram

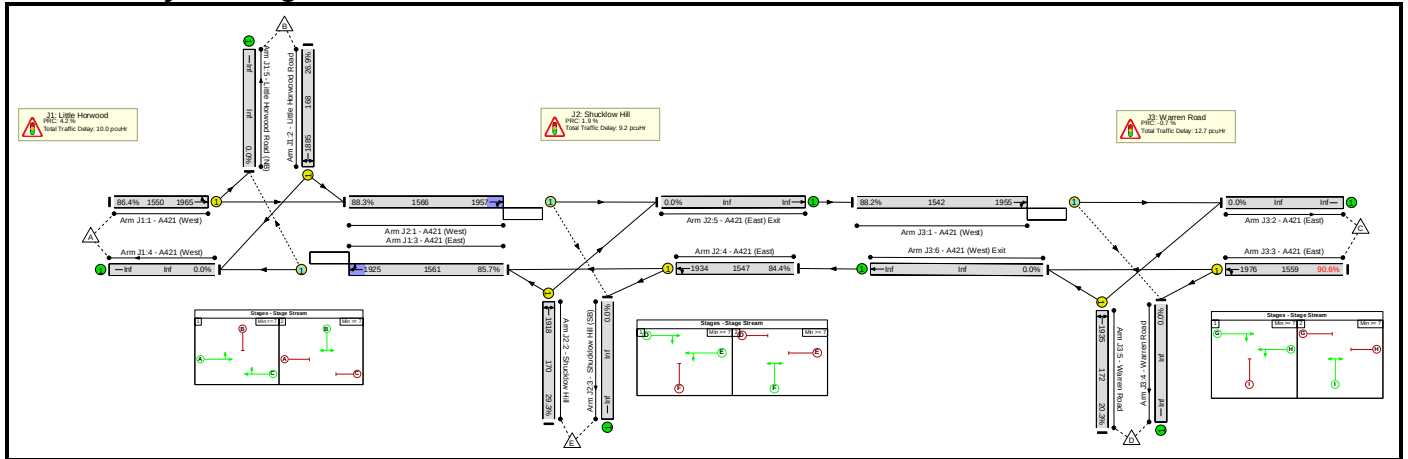


Network Results

Basic Results Summary

Scenario 6: '2033 Base + CD + D - ST PM' (FG12: '2033 Base + CD + Dev - ST PM', Plan 1: 'Network Control Plan 1')

Network Layout Diagram



Network Results

Junctions 9									
ARCADY 9 - Roundabout Module									
Version: 9.5.1.7462 © Copyright TRL Limited, 2019									
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Filename: J7 - Whaddon Crossroads.j9

Path: \\uk.wspgroup.com\central data\Projects\700694xx\70069442 - SWMK - 2020\03 WIP\TP Transport Planning\Incoming\iCRC\200821 - Junction and Mitigation Modelling BC Only\Miti\J7 - Whaddon Crossroads

Report generation date: 25/08/2020 16:53:10

- »2033 Base + CD + D, AM
- »2033 Base + CD + D, PM
- »2033 Base + CD + D with TP, AM
- »2033 Base + CD + D with TP, PM
- »2033 Base + CD + D - ST, AM
- »2033 Base + CD + D - ST, PM

Summary of junction performance

	AM					PM				
	Set ID	Queue (Veh)	Delay (s)	RFC	LOS	Set ID	Queue (Veh)	Delay (s)	RFC	LOS
	2033 Base + CD + D									
A - Coddimor Ln	D13	1.5	31.64	0.61	D	D14	1.2	23.30	0.55	C
B - A421 (East)		10.2	25.48	0.92	D		18.4	42.61	0.97	E
C - Whaddon Rd		74.4	608.54	1.49	F		63.4	612.45	1.52	F
D - A421 (West)		17.4	44.51	0.97	E		8.8	23.31	0.91	C
	2033 Base + CD + D with TP									
A - Coddimor Ln	D15	1.4	31.16	0.60	D	D16	1.2	22.71	0.54	C
B - A421 (East)		9.5	23.83	0.92	C		16.9	39.59	0.96	E
C - Whaddon Rd		71.5	581.12	1.46	F		59.8	575.54	1.48	F
D - A421 (West)		16.6	42.75	0.97	E		8.4	22.26	0.91	C
	2033 Base + CD + D - ST									
A - Coddimor Ln	D17	1.5	32.30	0.61	D	D18	1.2	24.51	0.56	C
B - A421 (East)		12.9	31.64	0.94	D		20.6	46.72	0.98	E
C - Whaddon Rd		82.9	691.07	1.57	F		69.3	670.68	1.57	F
D - A421 (West)		18.8	47.44	0.98	E		9.7	25.42	0.92	D

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	Whaddon Crossroads
Location	51°59'6.32"N, 0°49'39.55"W
Site number	7
Date	04/07/2020
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	fsuarez
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	Veh	perHour	s	-Min	perMin

Analysis Options

Vehicle length (m)	Calculate Queue Percentiles	Calculate detailed queueing delay	Calculate residual capacity	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)
5.75				0.85	36.00	20.00

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	2020 Base	AM	ONE HOUR	07:30	09:00	15	✓
D2	2020 Base	PM	ONE HOUR	16:45	18:15	15	✓
D3	2026 Base	AM	ONE HOUR	07:30	09:00	15	✓
D4	2026 Base	PM	ONE HOUR	16:45	18:15	15	✓
D5	2026 Base + CD + D	AM	ONE HOUR	07:30	09:00	15	✓
D6	2026 Base + CD + D	PM	ONE HOUR	16:45	18:15	15	✓
D7	2026 Base + CD + D with TP	AM	ONE HOUR	07:30	09:00	15	✓
D8	2026 Base + CD + D with TP	PM	ONE HOUR	16:45	18:15	15	✓
D9	2026 Base + CD + D - ST	AM	ONE HOUR	07:30	09:00	15	✓
D10	2026 Base + CD + D - ST	PM	ONE HOUR	16:45	18:15	15	✓
D11	2033 Base	AM	ONE HOUR	07:30	09:00	15	✓
D12	2033 Base	PM	ONE HOUR	16:45	18:15	15	✓
D13	2033 Base + CD + D	AM	ONE HOUR	07:30	09:00	15	✓
D14	2033 Base + CD + D	PM	ONE HOUR	16:45	18:15	15	✓
D15	2033 Base + CD + D with TP	AM	ONE HOUR	07:30	09:00	15	✓
D16	2033 Base + CD + D with TP	PM	ONE HOUR	16:45	18:15	15	✓
D17	2033 Base + CD + D - ST	AM	ONE HOUR	07:30	09:00	15	✓
D18	2033 Base + CD + D - ST	PM	ONE HOUR	16:45	18:15	15	✓

Analysis Set Details

ID	Include in report	Use specific Demand Set(s)	Specific Demand Set(s)	Network flow scaling factor (%)	Network capacity scaling factor (%)
A1	✓	✓	D13,D14,D15,D16,D17,D18	100.000	100.000

2033 Base + CD + D, 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
J7	Whaddon Crossroads	Standard Roundabout		A, B, C, D	103.89	F

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description
A	Coddemor Ln	
B	A421 (East)	
C	Whaddon Rd	
D	A421 (West)	

Roundabout Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	I' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Exit only
A - Coddemor Ln	2.80	6.70	8.5	21.5	50.6	40.0	
B - A421 (East)	2.60	9.80	23.7	33.0	50.6	45.0	
C - Whaddon Rd	2.90	6.10	9.0	19.7	50.6	17.0	
D - A421 (West)	3.20	8.80	18.3	31.6	50.6	42.0	

Slope / Intercept / Capacity

Arm Intercept Adjustments

Arm	Type	Reason	Direct intercept adjustment (PCU/hr)
A - Coddemor Ln	Direct		-100
B - A421 (East)	None		
C - Whaddon Rd	Direct		-300
D - A421 (West)	None		

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
A - Coddemor Ln	0.519	1187
B - A421 (East)	0.621	1832
C - Whaddon Rd	0.560	1091
D - A421 (West)	0.615	1784

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

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D13	2033 Base + CD + D	AM	ONE HOUR	07:30	09:00	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 - Coddemor Ln		ONE HOUR	✓	158	100.000
B - A421 (East)		ONE HOUR	✓	1393	100.000
C - Whaddon Rd		ONE HOUR	✓	402	100.000
D - A421 (West)		ONE HOUR	✓	1347	100.000

Origin-Destination Data

Demand (Veh/hr)

	To				
		A - Coddemor Ln	B - A421 (East)	C - Whaddon Rd	D - A421 (West)
	From				
	A - Coddemor Ln	0	53	55	50
	B - A421 (East)	32	0	238	1122
	C - Whaddon Rd	49	286	0	67
	D - A421 (West)	23	1305	19	0

Proportions

	To				
		A - Coddemor Ln	B - A421 (East)	C - Whaddon Rd	D - A421 (West)
	From				
	A - Coddemor Ln	0.00	0.33	0.35	0.32
	B - A421 (East)	0.02	0.00	0.17	0.81
	C - Whaddon Rd	0.12	0.71	0.00	0.17
	D - A421 (West)	0.02	0.97	0.01	0.00

Vehicle Mix

Heavy Vehicle Percentages

	To				
		A - Coddemor Ln	B - A421 (East)	C - Whaddon Rd	D - A421 (West)
	From				
	A - Coddemor Ln	0	0	0	2
	B - A421 (East)	0	0	1	6
	C - Whaddon Rd	2	3	0	5
	D - A421 (West)	5	4	12	0

Average PCU Per Veh

	To				
		A - Coddemor Ln	B - A421 (East)	C - Whaddon Rd	D - A421 (West)
	From				
	A - Coddemor Ln	1.000	1.000	1.000	1.023
	B - A421 (East)	1.000	1.000	1.011	1.060
	C - Whaddon Rd	1.023	1.033	1.000	1.052
	D - A421 (West)	1.050	1.045	1.118	1.000

Detailed Demand Data

Demand for each time segment

Time Segment	Arm	Demand (Veh/hr)	Demand in PCU (PCU/hr)
07:30-07:45	A - Coddemor Ln	119	120
	B - A421 (East)	1049	1101
	C - Whaddon Rd	302	313
	D - A421 (West)	1014	1061
07:45-08:00	A - Coddemor Ln	142	143
	B - A421 (East)	1252	1315
	C - Whaddon Rd	361	374
	D - A421 (West)	1211	1267
08:00-08:15	A - Coddemor Ln	174	176
	B - A421 (East)	1533	1610
	C - Whaddon Rd	442	458
	D - A421 (West)	1483	1551
08:15-08:30	A - Coddemor Ln	174	176
	B - A421 (East)	1533	1610
	C - Whaddon Rd	442	458
	D - A421 (West)	1483	1551
08:30-08:45	A - Coddemor Ln	142	143
	B - A421 (East)	1252	1315
	C - Whaddon Rd	361	374
	D - A421 (West)	1211	1267
08:45-09:00	A - Coddemor Ln	119	120
	B - A421 (East)	1049	1101
	C - Whaddon Rd	302	313
	D - A421 (West)	1014	1061

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
A - Coddemor Ln	0.61	31.64	1.5	D	145	218
B - A421 (East)	0.92	25.48	10.2	D	1278	1917
C - Whaddon Rd	1.49	608.54	74.4	F	369	553
D - A421 (West)	0.97	44.51	17.4	E	1236	1854

Main Results for each time segment

07:30 - 07:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - Coddemor Ln	119	30	1201	532	0.224	118	78	0.0	0.3	8.673	A
B - A421 (East)	1049	262	93	1688	0.621	1042	1226	0.0	1.6	5.520	A
C - Whaddon Rd	302	76	901	539	0.561	298	234	0.0	1.2	14.639	B
D - A421 (West)	1014	254	272	1541	0.658	1007	927	0.0	1.9	6.654	A

07:45 - 08:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - Coddemor Ln	142	36	1433	408	0.349	141	92	0.3	0.5	13.473	B
B - A421 (East)	1252	313	112	1677	0.747	1247	1462	1.6	2.8	8.278	A
C - Whaddon Rd	361	90	1079	437	0.826	351	280	1.2	3.8	37.833	E
D - A421 (West)	1211	303	321	1511	0.802	1203	1108	1.9	3.8	11.429	B

08:00 - 08:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - Coddemor Ln	174	44	1634	299	0.583	171	97	0.5	1.3	27.562	D
B - A421 (East)	1533	383	135	1663	0.922	1508	1670	2.8	9.1	20.605	C
C - Whaddon Rd	442	111	1305	308	1.436	305	339	3.8	38.2	274.467	F
D - A421 (West)	1483	371	289	1531	0.969	1442	1320	3.8	14.2	31.247	D

08:15 - 08:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - Coddemor Ln	174	44	1657	286	0.609	174	97	1.3	1.5	31.644	D
B - A421 (East)	1533	383	137	1661	0.923	1529	1694	9.1	10.2	25.484	D
C - Whaddon Rd	442	111	1323	298	1.485	298	343	38.2	74.4	608.539	F
D - A421 (West)	1483	371	284	1534	0.967	1470	1337	14.2	17.4	44.506	E

08:30 - 08:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - Coddemor Ln	142	36	1535	353	0.403	145	102	1.5	0.7	17.603	C
B - A421 (East)	1252	313	115	1675	0.748	1281	1565	10.2	3.1	9.745	A
C - Whaddon Rd	361	90	1108	421	0.858	415	288	74.4	60.9	550.787	F
D - A421 (West)	1211	303	376	1478	0.820	1261	1147	17.4	4.9	19.581	C

08:45 - 09:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - Coddemor Ln	119	30	1379	437	0.273	120	106	0.7	0.4	11.413	B
B - A421 (East)	1049	262	95	1687	0.622	1054	1405	3.1	1.7	5.737	A
C - Whaddon Rd	302	76	912	533	0.568	524	237	60.9	5.5	236.783	F
D - A421 (West)	1014	254	462	1426	0.711	1024	975	4.9	2.5	9.160	A

2033 Base + CD + D, 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
J7	Whaddon Crossroads	Standard Roundabout		A, B, C, D	91.09	F

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D14	2033 Base + CD + D	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 - Coddemor Ln		ONE HOUR	✓	171	100.000
B - A421 (East)		ONE HOUR	✓	1483	100.000
C - Whaddon Rd		ONE HOUR	✓	338	100.000
D - A421 (West)		ONE HOUR	✓	1308	100.000

Origin-Destination Data

Demand (Veh/hr)

	To				
From		A - Coddimor Ln	B - A421 (East)	C - Whaddon Rd	D - A421 (West)
	A - Coddimor Ln	0	32	53	85
	B - A421 (East)	24	1	210	1248
	C - Whaddon Rd	51	251	0	36
	D - A421 (West)	31	1244	32	0

Proportions

	To				
From		A - Coddimor Ln	B - A421 (East)	C - Whaddon Rd	D - A421 (West)
	A - Coddimor Ln	0.00	0.19	0.31	0.50
	B - A421 (East)	0.02	0.00	0.14	0.84
	C - Whaddon Rd	0.15	0.74	0.00	0.11
	D - A421 (West)	0.02	0.95	0.02	0.00

Vehicle Mix

Heavy Vehicle Percentages

From	To				
		A - Coddemor Ln	B - A421 (East)	C - Whaddon Rd	D - A421 (West)
	A - Coddemor Ln	0	0	0	0
	B - A421 (East)	5	0	1	2
	C - Whaddon Rd	0	0	0	0
	D - A421 (West)	0	3	4	0

Average PCU Per Veh

From	To				
		A - Coddemor Ln	B - A421 (East)	C - Whaddon Rd	D - A421 (West)
	A - Coddemor Ln	1.000	1.000	1.000	1.000
	B - A421 (East)	1.048	1.000	1.012	1.019
	C - Whaddon Rd	1.000	1.000	1.000	1.000
	D - A421 (West)	1.000	1.029	1.036	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 - Coddemor Ln	129	129
	B - A421 (East)	1117	1137
	C - Whaddon Rd	254	254
	D - A421 (West)	984	1013
17:00-17:15	A - Coddemor Ln	154	154
	B - A421 (East)	1333	1358
	C - Whaddon Rd	303	303
	D - A421 (West)	1175	1209
17:15-17:30	A - Coddemor Ln	188	188
	B - A421 (East)	1633	1663
	C - Whaddon Rd	372	372
	D - A421 (West)	1440	1481
17:30-17:45	A - Coddemor Ln	188	188
	B - A421 (East)	1633	1663
	C - Whaddon Rd	372	372
	D - A421 (West)	1440	1481
17:45-18:00	A - Coddemor Ln	154	154
	B - A421 (East)	1333	1358
	C - Whaddon Rd	303	303
	D - A421 (West)	1175	1209
18:00-18:15	A - Coddemor Ln	129	129
	B - A421 (East)	1117	1137
	C - Whaddon Rd	254	254
	D - A421 (West)	984	1013

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
A - Coddemor Ln	0.55	23.30	1.2	C	157	235
B - A421 (East)	0.97	42.61	18.4	E	1361	2041
C - Whaddon Rd	1.52	612.45	63.4	F	310	465
D - A421 (West)	0.91	23.31	8.8	C	1200	1800

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - Coddemor Ln	129	32	1142	579	0.222	127	79	0.0	0.3	7.945	A
B - A421 (East)	1117	279	128	1720	0.649	1109	1142	0.0	1.8	5.826	A
C - Whaddon Rd	254	64	1016	511	0.497	250	221	0.0	1.0	13.594	B
D - A421 (West)	984	246	243	1588	0.620	978	1024	0.0	1.6	5.841	A

17:00 - 17:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - Coddemor Ln	154	38	1364	461	0.333	153	94	0.3	0.5	11.630	B
B - A421 (East)	1333	333	153	1705	0.782	1327	1363	1.8	3.4	9.369	A
C - Whaddon Rd	303	76	1215	398	0.763	296	264	1.0	2.8	33.328	D
D - A421 (West)	1175	294	287	1561	0.753	1170	1224	1.6	2.9	9.080	A

17:15 - 17:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - Coddemor Ln	188	47	1576	347	0.542	186	98	0.5	1.1	21.930	C
B - A421 (East)	1633	408	185	1684	0.969	1588	1576	3.4	14.6	28.935	D
C - Whaddon Rd	372	93	1456	260	1.428	256	318	2.8	31.7	273.079	F
D - A421 (West)	1440	360	256	1580	0.911	1419	1456	2.9	8.2	20.078	C

17:30 - 17:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - Coddemor Ln	188	47	1586	342	0.550	188	98	1.1	1.2	23.304	C
B - A421 (East)	1633	408	188	1683	0.970	1618	1586	14.6	18.4	42.610	E
C - Whaddon Rd	372	93	1483	245	1.516	245	323	31.7	63.4	612.451	F
D - A421 (West)	1440	360	247	1586	0.908	1437	1481	8.2	8.8	23.306	C

17:45 - 18:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - Coddemor Ln	154	38	1436	423	0.363	156	105	1.2	0.6	13.585	B
B - A421 (East)	1333	333	156	1703	0.783	1392	1436	18.4	3.8	13.570	B
C - Whaddon Rd	303	76	1273	365	0.832	359	275	63.4	49.4	522.811	F
D - A421 (West)	1175	294	345	1527	0.770	1197	1287	8.8	3.5	11.534	B

18:00 - 18:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - Coddemor Ln	129	32	1300	497	0.259	129	109	0.6	0.4	9.820	A
B - A421 (East)	1117	279	129	1719	0.650	1124	1300	3.8	1.9	6.129	A
C - Whaddon Rd	254	64	1030	504	0.505	447	224	49.4	1.1	158.033	F
D - A421 (West)	984	246	419	1483	0.664	990	1058	3.5	2.0	7.396	A

2033 Base + CD + D with TP, 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
J7	Whaddon Crossroads	Standard Roundabout		A, B, C, D	99.31	F

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D15	2033 Base + CD + D with TP	AM	ONE HOUR	07:30	09:00	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 - Coddemor Ln		ONE HOUR	✓	158	100.000
B - A421 (East)		ONE HOUR	✓	1382	100.000
C - Whaddon Rd		ONE HOUR	✓	400	100.000
D - A421 (West)		ONE HOUR	✓	1341	100.000

Origin-Destination Data

Demand (Veh/hr)

	To				
From		A - Coddimor Ln	B - A421 (East)	C - Whaddon Rd	D - A421 (West)
	A - Coddimor Ln	0	53	55	50
	B - A421 (East)	32	0	236	1115
	C - Whaddon Rd	49	285	0	67
	D - A421 (West)	23	1298	19	0

Proportions

	To				
From		A - Coddimor Ln	B - A421 (East)	C - Whaddon Rd	D - A421 (West)
	A - Coddimor Ln	0.00	0.33	0.35	0.32
	B - A421 (East)	0.02	0.00	0.17	0.81
	C - Whaddon Rd	0.12	0.71	0.00	0.17
	D - A421 (West)	0.02	0.97	0.01	0.00

Vehicle Mix

Heavy Vehicle Percentages

From	To				
		A - Coddemor Ln	B - A421 (East)	C - Whaddon Rd	D - A421 (West)
	A - Coddemor Ln	0	0	0	2
	B - A421 (East)	0	0	1	6
	C - Whaddon Rd	2	3	0	5
	D - A421 (West)	5	4	12	0

Average PCU Per Veh

From	To				
		A - Coddemor Ln	B - A421 (East)	C - Whaddon Rd	D - A421 (West)
	A - Coddemor Ln	1.000	1.000	1.000	1.023
	B - A421 (East)	1.000	1.000	1.011	1.060
	C - Whaddon Rd	1.023	1.033	1.000	1.052
	D - A421 (West)	1.050	1.045	1.118	1.000

Detailed Demand Data

Demand for each time segment

Time Segment	Arm	Demand (Veh/hr)	Demand in PCU (PCU/hr)
07:30-07:45	A - Coddemor Ln	119	120
	B - A421 (East)	1041	1093
	C - Whaddon Rd	301	312
	D - A421 (West)	1009	1056
07:45-08:00	A - Coddemor Ln	142	143
	B - A421 (East)	1243	1305
	C - Whaddon Rd	360	373
	D - A421 (West)	1205	1261
08:00-08:15	A - Coddemor Ln	174	176
	B - A421 (East)	1522	1598
	C - Whaddon Rd	441	456
	D - A421 (West)	1476	1544
08:15-08:30	A - Coddemor Ln	174	176
	B - A421 (East)	1522	1598
	C - Whaddon Rd	441	456
	D - A421 (West)	1476	1544
08:30-08:45	A - Coddemor Ln	142	143
	B - A421 (East)	1243	1305
	C - Whaddon Rd	360	373
	D - A421 (West)	1205	1261
08:45-09:00	A - Coddemor Ln	119	120
	B - A421 (East)	1041	1093
	C - Whaddon Rd	301	312
	D - A421 (West)	1009	1056

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
A - Coddemor Ln	0.60	31.16	1.4	D	145	218
B - A421 (East)	0.92	23.83	9.5	C	1268	1902
C - Whaddon Rd	1.46	581.12	71.5	F	367	551
D - A421 (West)	0.97	42.75	16.6	E	1230	1845

Main Results for each time segment

07:30 - 07:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - Coddemor Ln	119	30	1195	535	0.223	118	78	0.0	0.3	8.608	A
B - A421 (East)	1041	260	93	1688	0.616	1034	1220	0.0	1.6	5.455	A
C - Whaddon Rd	301	75	896	542	0.556	297	232	0.0	1.2	14.404	B
D - A421 (West)	1009	252	271	1541	0.655	1002	921	0.0	1.9	6.588	A

07:45 - 08:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - Coddemor Ln	142	36	1426	411	0.346	141	92	0.3	0.5	13.302	B
B - A421 (East)	1243	311	112	1677	0.741	1238	1456	1.6	2.8	8.110	A
C - Whaddon Rd	360	90	1072	441	0.816	350	278	1.2	3.6	36.301	E
D - A421 (West)	1205	301	321	1511	0.797	1198	1101	1.9	3.7	11.219	B

08:00 - 08:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - Coddemor Ln	174	44	1631	301	0.580	171	97	0.5	1.3	27.206	D
B - A421 (East)	1522	380	135	1663	0.915	1499	1667	2.8	8.6	19.643	C
C - Whaddon Rd	441	110	1298	312	1.413	308	336	3.6	36.8	261.778	F
D - A421 (West)	1476	369	292	1529	0.965	1436	1314	3.7	13.6	30.389	D

08:15 - 08:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - Coddemor Ln	174	44	1654	288	0.605	174	98	1.3	1.4	31.158	D
B - A421 (East)	1522	380	137	1661	0.916	1518	1690	8.6	9.5	23.829	C
C - Whaddon Rd	441	110	1315	302	1.458	302	340	36.8	71.5	581.120	F
D - A421 (West)	1476	369	287	1532	0.964	1464	1330	13.6	16.6	42.754	E

08:30 - 08:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - Coddemor Ln	142	36	1529	356	0.400	145	103	1.4	0.7	17.333	C
B - A421 (East)	1243	311	115	1675	0.742	1269	1559	9.5	3.0	9.391	A
C - Whaddon Rd	360	90	1099	426	0.845	420	285	71.5	56.5	519.173	F
D - A421 (West)	1205	301	380	1475	0.817	1252	1139	16.6	4.8	18.806	C

08:45 - 09:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - Coddemor Ln	119	30	1371	442	0.270	120	106	0.7	0.4	11.252	B
B - A421 (East)	1041	260	95	1687	0.617	1046	1396	3.0	1.6	5.664	A
C - Whaddon Rd	301	75	906	536	0.562	520	235	56.5	1.8	204.157	F
D - A421 (West)	1009	252	458	1428	0.707	1019	968	4.8	2.5	8.990	A

2033 Base + CD + D with TP, 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
J7	Whaddon Crossroads	Standard Roundabout		A, B, C, D	85.38	F

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D16	2033 Base + CD + D with TP	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 - Coddemor Ln		ONE HOUR	✓	171	100.000
B - A421 (East)		ONE HOUR	✓	1474	100.000
C - Whaddon Rd		ONE HOUR	✓	334	100.000
D - A421 (West)		ONE HOUR	✓	1299	100.000

Origin-Destination Data

Demand (Veh/hr)

	To			
		A - Coddemor Ln	B - A421 (East)	C - Whaddon Rd
From	A - Coddemor Ln	0	32	53
	B - A421 (East)	24	1	208
	C - Whaddon Rd	51	248	0
	D - A421 (West)	31	1235	32

Proportions

	To			
		A - Coddemor Ln	B - A421 (East)	C - Whaddon Rd
From	A - Coddemor Ln	0.00	0.19	0.31
	B - A421 (East)	0.02	0.00	0.14
	C - Whaddon Rd	0.15	0.74	0.00
	D - A421 (West)	0.02	0.95	0.02

Vehicle Mix

Heavy Vehicle Percentages

From	To				
		A - Coddemor Ln	B - A421 (East)	C - Whaddon Rd	D - A421 (West)
	A - Coddemor Ln	0	0	0	0
	B - A421 (East)	5	0	1	2
	C - Whaddon Rd	0	0	0	0
	D - A421 (West)	0	3	4	0

Average PCU Per Veh

From	To				
		A - Coddemor Ln	B - A421 (East)	C - Whaddon Rd	D - A421 (West)
	A - Coddemor Ln	1.000	1.000	1.000	1.000
	B - A421 (East)	1.048	1.000	1.012	1.019
	C - Whaddon Rd	1.000	1.000	1.000	1.000
	D - A421 (West)	1.000	1.029	1.036	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 - Coddemor Ln	129	129
	B - A421 (East)	1109	1130
	C - Whaddon Rd	252	252
	D - A421 (West)	978	1006
17:00-17:15	A - Coddemor Ln	154	154
	B - A421 (East)	1325	1349
	C - Whaddon Rd	300	300
	D - A421 (West)	1167	1201
17:15-17:30	A - Coddemor Ln	188	188
	B - A421 (East)	1623	1653
	C - Whaddon Rd	368	368
	D - A421 (West)	1430	1471
17:30-17:45	A - Coddemor Ln	188	188
	B - A421 (East)	1623	1653
	C - Whaddon Rd	368	368
	D - A421 (West)	1430	1471
17:45-18:00	A - Coddemor Ln	154	154
	B - A421 (East)	1325	1349
	C - Whaddon Rd	300	300
	D - A421 (West)	1167	1201
18:00-18:15	A - Coddemor Ln	129	129
	B - A421 (East)	1109	1130
	C - Whaddon Rd	252	252
	D - A421 (West)	978	1006

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
A - Coddemor Ln	0.54	22.71	1.2	C	157	235
B - A421 (East)	0.96	39.59	16.9	E	1352	2028
C - Whaddon Rd	1.48	575.54	59.8	F	307	460
D - A421 (West)	0.91	22.26	8.4	C	1192	1788

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - Coddemor Ln	129	32	1133	584	0.220	127	79	0.0	0.3	7.863	A
B - A421 (East)	1109	277	128	1720	0.645	1102	1133	0.0	1.8	5.763	A
C - Whaddon Rd	252	63	1010	515	0.489	248	219	0.0	0.9	13.320	B
D - A421 (West)	978	244	240	1590	0.615	971	1018	0.0	1.6	5.767	A

17:00 - 17:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - Coddemor Ln	154	38	1353	467	0.329	153	94	0.3	0.5	11.428	B
B - A421 (East)	1325	331	153	1705	0.777	1319	1353	1.8	3.3	9.177	A
C - Whaddon Rd	300	75	1209	401	0.748	294	262	0.9	2.6	31.633	D
D - A421 (West)	1167	292	285	1563	0.747	1162	1218	1.6	2.8	8.876	A

17:15 - 17:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - Coddemor Ln	188	47	1569	351	0.535	186	99	0.5	1.1	21.426	C
B - A421 (East)	1623	406	186	1684	0.963	1581	1569	3.3	13.7	27.593	D
C - Whaddon Rd	368	92	1451	263	1.397	259	316	2.6	29.9	256.653	F
D - A421 (West)	1430	357	258	1579	0.906	1410	1451	2.8	7.8	19.358	C

17:30 - 17:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - Coddemor Ln	188	47	1579	346	0.544	188	98	1.1	1.2	22.710	C
B - A421 (East)	1623	406	188	1683	0.964	1610	1579	13.7	16.9	39.585	E
C - Whaddon Rd	368	92	1476	249	1.480	248	321	29.9	59.8	575.536	F
D - A421 (West)	1430	357	249	1584	0.903	1428	1475	7.8	8.4	22.257	C

17:45 - 18:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - Coddemor Ln	154	38	1431	426	0.360	156	107	1.2	0.6	13.420	B
B - A421 (East)	1325	331	156	1703	0.778	1378	1431	16.9	3.7	12.727	B
C - Whaddon Rd	300	75	1261	372	0.808	365	272	59.8	43.6	478.426	F
D - A421 (West)	1167	292	350	1524	0.766	1187	1277	8.4	3.4	11.266	B

18:00 - 18:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - Coddemor Ln	129	32	1273	511	0.252	130	106	0.6	0.3	9.459	A
B - A421 (East)	1109	277	129	1719	0.645	1117	1273	3.7	1.9	6.051	A
C - Whaddon Rd	252	63	1024	507	0.496	422	222	43.6	1.1	117.086	F
D - A421 (West)	978	244	396	1497	0.653	984	1050	3.4	1.9	7.096	A

2033 Base + CD + D - ST, 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
J7	Whaddon Crossroads	Standard Roundabout		A, B, C, D	117.36	F

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D17	2033 Base + CD + D - ST	AM	ONE HOUR	07:30	09:00	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 - Coddemor Ln		ONE HOUR	✓	158	100.000
B - A421 (East)		ONE HOUR	✓	1424	100.000
C - Whaddon Rd		ONE HOUR	✓	406	100.000
D - A421 (West)		ONE HOUR	✓	1360	100.000

Origin-Destination Data

Demand (Veh/hr)

	To			
		A - Coddemor Ln	B - A421 (East)	C - Whaddon Rd
From				
	A - Coddemor Ln	0	53	55
	B - A421 (East)	32	0	248
	C - Whaddon Rd	49	290	0
	D - A421 (West)	23	1317	19

Proportions

	To			
		A - Coddemor Ln	B - A421 (East)	C - Whaddon Rd
From				
	A - Coddemor Ln	0.00	0.33	0.35
	B - A421 (East)	0.02	0.00	0.17
	C - Whaddon Rd	0.12	0.71	0.00
	D - A421 (West)	0.02	0.97	0.01

Vehicle Mix

Heavy Vehicle Percentages

From	To				
		A - Coddemor Ln	B - A421 (East)	C - Whaddon Rd	D - A421 (West)
	A - Coddemor Ln	0	0	0	2
	B - A421 (East)	0	0	1	6
	C - Whaddon Rd	2	3	0	5
	D - A421 (West)	5	4	12	0

Average PCU Per Veh

From	To				
		A - Coddemor Ln	B - A421 (East)	C - Whaddon Rd	D - A421 (West)
	A - Coddemor Ln	1.000	1.000	1.000	1.023
	B - A421 (East)	1.000	1.000	1.011	1.060
	C - Whaddon Rd	1.023	1.033	1.000	1.052
	D - A421 (West)	1.050	1.045	1.118	1.000

Detailed Demand Data

Demand for each time segment

Time Segment	Arm	Demand (Veh/hr)	Demand in PCU (PCU/hr)
07:30-07:45	A - Coddemor Ln	119	120
	B - A421 (East)	1072	1126
	C - Whaddon Rd	306	316
	D - A421 (West)	1024	1071
07:45-08:00	A - Coddemor Ln	142	143
	B - A421 (East)	1280	1344
	C - Whaddon Rd	365	378
	D - A421 (West)	1222	1279
08:00-08:15	A - Coddemor Ln	174	176
	B - A421 (East)	1568	1646
	C - Whaddon Rd	447	463
	D - A421 (West)	1497	1566
08:15-08:30	A - Coddemor Ln	174	176
	B - A421 (East)	1568	1646
	C - Whaddon Rd	447	463
	D - A421 (West)	1497	1566
08:30-08:45	A - Coddemor Ln	142	143
	B - A421 (East)	1280	1344
	C - Whaddon Rd	365	378
	D - A421 (West)	1222	1279
08:45-09:00	A - Coddemor Ln	119	120
	B - A421 (East)	1072	1126
	C - Whaddon Rd	306	316
	D - A421 (West)	1024	1071

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
A - Coddemor Ln	0.61	32.30	1.5	D	145	218
B - A421 (East)	0.94	31.64	12.9	D	1307	1960
C - Whaddon Rd	1.57	691.07	82.9	F	373	559
D - A421 (West)	0.98	47.44	18.8	E	1248	1872

Main Results for each time segment

07:30 - 07:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - Coddemor Ln	119	30	1214	525	0.227	118	78	0.0	0.3	8.812	A
B - A421 (East)	1072	268	93	1688	0.635	1065	1238	0.0	1.7	5.719	A
C - Whaddon Rd	306	76	917	530	0.577	300	241	0.0	1.3	15.379	C
D - A421 (West)	1024	256	275	1539	0.665	1016	942	0.0	1.9	6.789	A

07:45 - 08:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - Coddemor Ln	142	36	1446	401	0.355	141	92	0.3	0.5	13.832	B
B - A421 (East)	1280	320	112	1677	0.763	1275	1475	1.7	3.1	8.823	A
C - Whaddon Rd	365	91	1098	427	0.856	353	289	1.3	4.4	42.972	E
D - A421 (West)	1222	306	324	1510	0.810	1214	1127	1.9	4.0	11.864	B

08:00 - 08:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - Coddemor Ln	174	44	1639	296	0.589	171	95	0.5	1.3	28.113	D
B - A421 (East)	1568	392	135	1663	0.943	1536	1675	3.1	11.1	23.918	C
C - Whaddon Rd	447	112	1323	298	1.502	295	348	4.4	42.4	313.484	F
D - A421 (West)	1497	374	281	1535	0.975	1453	1336	4.0	15.1	32.742	D

08:15 - 08:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - Coddemor Ln	174	44	1661	284	0.614	174	95	1.3	1.5	32.299	D
B - A421 (East)	1568	392	137	1662	0.944	1561	1698	11.1	12.9	31.639	D
C - Whaddon Rd	447	112	1344	286	1.565	285	354	42.4	82.9	691.068	F
D - A421 (West)	1497	374	274	1540	0.972	1482	1355	15.1	18.8	47.445	E

08:30 - 08:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - Coddemor Ln	142	36	1542	349	0.408	145	100	1.5	0.7	17.945	C
B - A421 (East)	1280	320	115	1675	0.764	1318	1572	12.9	3.4	11.096	B
C - Whaddon Rd	365	91	1135	405	0.901	400	299	82.9	74.0	645.650	F
D - A421 (West)	1222	306	364	1485	0.823	1277	1171	18.8	5.1	20.843	C

08:45 - 09:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - Coddemor Ln	119	30	1385	434	0.275	120	104	0.7	0.4	11.526	B
B - A421 (East)	1072	268	95	1687	0.636	1079	1410	3.4	1.8	5.976	A
C - Whaddon Rd	306	76	929	523	0.585	516	245	74.0	21.5	338.744	F
D - A421 (West)	1024	256	456	1429	0.716	1034	989	5.1	2.6	9.316	A

2033 Base + CD + D - ST, 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
J7	Whaddon Crossroads	Standard Roundabout		A, B, C, D	100.50	F

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D18	2033 Base + CD + D - ST	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 - Coddemor Ln		ONE HOUR	✓	171	100.000
B - A421 (East)		ONE HOUR	✓	1495	100.000
C - Whaddon Rd		ONE HOUR	✓	345	100.000
D - A421 (West)		ONE HOUR	✓	1322	100.000

Origin-Destination Data

Demand (Veh/hr)

	To			
		A - Coddemor Ln	B - A421 (East)	C - Whaddon Rd
From				
	A - Coddemor Ln	0	32	53
	B - A421 (East)	24	1	214
	C - Whaddon Rd	51	259	0
	D - A421 (West)	31	1258	32

Proportions

	To			
		A - Coddemor Ln	B - A421 (East)	C - Whaddon Rd
From				
	A - Coddemor Ln	0.00	0.19	0.31
	B - A421 (East)	0.02	0.00	0.14
	C - Whaddon Rd	0.15	0.75	0.00
	D - A421 (West)	0.02	0.95	0.02

Vehicle Mix

Heavy Vehicle Percentages

From	To				
		A - Coddemor Ln	B - A421 (East)	C - Whaddon Rd	D - A421 (West)
	A - Coddemor Ln	0	0	0	0
	B - A421 (East)	5	0	1	2
	C - Whaddon Rd	0	0	0	0
	D - A421 (West)	0	3	4	0

Average PCU Per Veh

From	To				
		A - Coddemor Ln	B - A421 (East)	C - Whaddon Rd	D - A421 (West)
	A - Coddemor Ln	1.000	1.000	1.000	1.000
	B - A421 (East)	1.048	1.000	1.012	1.019
	C - Whaddon Rd	1.000	1.000	1.000	1.000
	D - A421 (West)	1.000	1.029	1.036	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 - Coddemor Ln	129	129
	B - A421 (East)	1125	1146
	C - Whaddon Rd	260	260
	D - A421 (West)	995	1024
17:00-17:15	A - Coddemor Ln	154	154
	B - A421 (East)	1344	1369
	C - Whaddon Rd	311	311
	D - A421 (West)	1188	1223
17:15-17:30	A - Coddemor Ln	188	188
	B - A421 (East)	1646	1676
	C - Whaddon Rd	380	380
	D - A421 (West)	1455	1497
17:30-17:45	A - Coddemor Ln	188	188
	B - A421 (East)	1646	1676
	C - Whaddon Rd	380	380
	D - A421 (West)	1455	1497
17:45-18:00	A - Coddemor Ln	154	154
	B - A421 (East)	1344	1369
	C - Whaddon Rd	311	311
	D - A421 (West)	1188	1223
18:00-18:15	A - Coddemor Ln	129	129
	B - A421 (East)	1125	1146
	C - Whaddon Rd	260	260
	D - A421 (West)	995	1024

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
A - Coddemor Ln	0.56	24.51	1.2	C	157	235
B - A421 (East)	0.98	46.72	20.6	E	1372	2057
C - Whaddon Rd	1.57	670.68	69.3	F	317	476
D - A421 (West)	0.92	25.42	9.7	D	1213	1820

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - Coddemor Ln	129	32	1158	571	0.225	127	79	0.0	0.3	8.099	A
B - A421 (East)	1125	281	127	1720	0.654	1118	1158	0.0	1.9	5.907	A
C - Whaddon Rd	260	65	1022	508	0.512	256	224	0.0	1.0	14.062	B
D - A421 (West)	995	249	248	1585	0.628	989	1029	0.0	1.7	5.975	A

17:00 - 17:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - Coddemor Ln	154	38	1382	451	0.340	153	94	0.3	0.5	12.014	B
B - A421 (East)	1344	336	153	1705	0.788	1337	1382	1.9	3.6	9.615	A
C - Whaddon Rd	311	78	1222	394	0.789	302	268	1.0	3.1	36.364	E
D - A421 (West)	1188	297	294	1558	0.763	1183	1231	1.7	3.1	9.455	A

17:15 - 17:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - Coddemor Ln	188	47	1590	340	0.553	185	97	0.5	1.2	22.913	C
B - A421 (East)	1646	411	185	1685	0.977	1596	1590	3.6	15.9	30.690	D
C - Whaddon Rd	380	95	1461	258	1.476	254	321	3.1	34.7	299.620	F
D - A421 (West)	1455	364	255	1581	0.921	1432	1460	3.1	8.9	21.458	C

17:30 - 17:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - Coddemor Ln	188	47	1601	334	0.563	188	96	1.2	1.2	24.514	C
B - A421 (East)	1646	411	188	1683	0.978	1627	1601	15.9	20.6	46.724	E
C - Whaddon Rd	380	95	1488	242	1.572	242	327	34.7	69.3	670.676	F
D - A421 (West)	1455	364	244	1587	0.917	1452	1486	8.9	9.7	25.417	D

17:45 - 18:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - Coddemor Ln	154	38	1449	416	0.369	156	103	1.2	0.6	13.958	B
B - A421 (East)	1344	336	156	1702	0.789	1410	1449	20.6	4.0	14.852	B
C - Whaddon Rd	311	78	1286	357	0.870	352	280	69.3	59.0	592.203	F
D - A421 (West)	1188	297	339	1530	0.777	1213	1299	9.7	3.7	12.104	B

18:00 - 18:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - Coddemor Ln	129	32	1345	474	0.272	129	114	0.6	0.4	10.488	B
B - A421 (East)	1125	281	129	1719	0.655	1133	1345	4.0	1.9	6.231	A
C - Whaddon Rd	260	65	1036	500	0.520	489	227	59.0	1.7	230.032	F
D - A421 (West)	995	249	458	1460	0.682	1001	1067	3.7	2.2	7.950	A

Junctions 9									
ARCADY 9 - Roundabout Module									
Version: 9.5.1.7462 © Copyright TRL Limited, 2019									
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Filename: J10 - A421 Nash Rd Winslow Rd_ST.j9

Path: \\uk.wspgroup.com\central data\Projects\700694xx\70069442 - SWMK - 2020\03 WIP\TP Transport

Planning\Analysis\J10 - Nash Roundabout

Report generation date: 11/09/2020 16:08:00

- »2033 Base + CD + D, AM
- »2033 Base + CD + D, PM
- »2033 Base + CD + D with TP, AM
- »2033 Base + CD + D with TP, PM
- »2033 Base + CD + D - ST, AM
- »2033 Base + CD + D - ST, PM

Summary of junction performance

	AM					PM				
	Set ID	Queue (Veh)	Delay (s)	RFC	LOS	Set ID	Queue (Veh)	Delay (s)	RFC	LOS
	2033 Base + CD + D									
A - A421 (East)	D13	2.9	8.14	0.75	A	D14	3.2	8.51	0.77	A
B - B4033 Nash Road		24.6	188.10	1.08	F		3.0	36.38	0.77	E
C - A421 (West)		2.7	9.03	0.73	A		3.1	9.54	0.76	A
D - Winslow Rd		0.2	7.25	0.19	A		0.2	7.41	0.20	A
	2033 Base + CD + D with TP									
A - A421 (East)	D15	2.8	8.01	0.74	A	D16	3.2	8.38	0.76	A
B - B4033 Nash Road		22.8	175.98	1.07	F		2.9	34.86	0.76	D
C - A421 (West)		2.6	8.95	0.73	A		3.1	9.35	0.76	A
D - Winslow Rd		0.2	7.22	0.19	A		0.2	7.34	0.20	A
	2033 Base + CD + D - ST									
A - A421 (East)	D17	3.1	8.60	0.76	A	D18	3.3	8.69	0.77	A
B - B4033 Nash Road		30.4	227.09	1.12	F		3.2	38.56	0.78	E
C - A421 (West)		2.7	9.18	0.74	A		3.3	9.94	0.77	A
D - Winslow Rd		0.2	7.30	0.19	A		0.3	7.54	0.20	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	A421 Nash Road/ Windsor Road
Location	51°58'59.42"N, 0°52'6.64"W
Site number	10
Date	07/04/2020
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	fsuarez
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	Veh	perHour	s	-Min	perMin

Analysis Options

Vehicle length (m)	Calculate Queue Percentiles	Calculate detailed queueing delay	Calculate residual capacity	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)
5.75				0.85	36.00	20.00

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	2020 Base	AM	ONE HOUR	07:30	09:00	15	✓
D2	2020 Base	PM	ONE HOUR	16:45	18:15	15	✓
D3	2026 Base	AM	ONE HOUR	07:30	09:00	15	✓
D4	2026 Base	PM	ONE HOUR	16:45	18:15	15	✓
D5	2026 Base + CD + D	AM	ONE HOUR	07:30	09:00	15	✓
D6	2026 Base + CD + D	PM	ONE HOUR	16:45	18:15	15	✓
D7	2026 Base + CD + D with TP	AM	ONE HOUR	07:30	09:00	15	✓
D8	2026 Base + CD + D with TP	PM	ONE HOUR	16:45	18:15	15	✓
D9	2026 Base + CD + D - ST	AM	ONE HOUR	07:30	09:00	15	✓
D10	2026 Base + CD + D - ST	PM	ONE HOUR	16:45	18:15	15	✓
D11	2033 Base	AM	ONE HOUR	07:30	09:00	15	✓
D12	2033 Base	PM	ONE HOUR	16:45	18:15	15	✓
D13	2033 Base + CD + D	AM	ONE HOUR	07:30	09:00	15	✓
D14	2033 Base + CD + D	PM	ONE HOUR	16:45	18:15	15	✓
D15	2033 Base + CD + D with TP	AM	ONE HOUR	07:30	09:00	15	✓
D16	2033 Base + CD + D with TP	PM	ONE HOUR	16:45	18:15	15	✓
D17	2033 Base + CD + D - ST	AM	ONE HOUR	07:30	09:00	15	✓
D18	2033 Base + CD + D - ST	PM	ONE HOUR	16:45	18:15	15	✓

Analysis Set Details

ID	Include in report	Use specific Demand Set(s)	Specific Demand Set(s)	Network flow scaling factor (%)	Network capacity scaling factor (%)
A1	✓	✓	D13,D14,D15,D16,D17,D18	100.000	100.000

2033 Base + CD + D, 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
J10	A421 Nash Road/ Winslow Road	Standard Roundabout		A, B, C, D	34.92	D

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description
A	A421 (East)	
B	B4033 Nash Road	
C	A421 (West)	
D	Winslow Rd	

Roundabout Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	I' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Exit only
A - A421 (East)	4.00	9.90	15.9	34.8	50.1	49.0	
B - B4033 Nash Road	3.40	7.50	18.0	13.9	50.1	43.0	
C - A421 (West)	4.70	7.80	7.5	21.6	50.1	34.0	
D - Winslow Rd	3.40	7.20	6.7	20.1	50.1	42.0	

Slope / Intercept / Capacity

Arm Intercept Adjustments

Arm	Type	Reason	Direct intercept adjustment (PCU/hr)
A - A421 (East)	None		
B - B4033 Nash Road	Direct		-500
C - A421 (West)	None		
D - Winslow Rd	None		

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
A - A421 (East)	0.640	1938
B - B4033 Nash Road	0.576	1132
C - A421 (West)	0.626	1810
D - Winslow Rd	0.536	1380

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

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D13	2033 Base + CD + D	AM	ONE HOUR	07:30	09:00	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 - A421 (East)		ONE HOUR	✓	1178	100.000
B - B4033 Nash Road		ONE HOUR	✓	404	100.000
C - A421 (West)		ONE HOUR	✓	982	100.000
D - Winslow Rd		ONE HOUR	✓	104	100.000

Origin-Destination Data

Demand (Veh/hr)

	To				
From		A - A421 (East)	B - B4033 Nash Road	C - A421 (West)	D - Winslow Rd
	A - A421 (East)	2	156	1008	13
	B - B4033 Nash Road	242	0	57	106
	C - A421 (West)	934	30	1	17
	D - Winslow Rd	8	64	32	0

Proportions

	To				
From		A - A421 (East)	B - B4033 Nash Road	C - A421 (West)	D - Winslow Rd
	A - A421 (East)	0.00	0.13	0.86	0.01
	B - B4033 Nash Road	0.60	0.00	0.14	0.26
	C - A421 (West)	0.95	0.03	0.00	0.02
	D - Winslow Rd	0.08	0.62	0.31	0.00

Vehicle Mix

Heavy Vehicle Percentages

	To				
From		A - A421 (East)	B - B4033 Nash Road	C - A421 (West)	D - Winslow Rd
	A - A421 (East)	0	5	6	9
	B - B4033 Nash Road	2	0	4	2
	C - A421 (West)	7	8	0	0
	D - Winslow Rd	14	5	0	0

Average PCU Per Veh

	To				
From		A - A421 (East)	B - B4033 Nash Road	C - A421 (West)	D - Winslow Rd
	A - A421 (East)	1.000	1.054	1.061	1.091
	B - B4033 Nash Road	1.025	1.000	1.040	1.022
	C - A421 (West)	1.066	1.077	1.000	1.000
	D - Winslow Rd	1.143	1.054	1.000	1.000

Detailed Demand Data

Demand for each time segment

Time Segment	Arm	Demand (Veh/hr)	Demand in PCU (PCU/hr)
07:30-07:45	A - A421 (East)	887	941
	B - B4033 Nash Road	304	312
	C - A421 (West)	739	788
	D - Winslow Rd	79	82
07:45-08:00	A - A421 (East)	1059	1123
	B - B4033 Nash Road	364	373
	C - A421 (West)	883	941
	D - Winslow Rd	94	98
08:00-08:15	A - A421 (East)	1297	1376
	B - B4033 Nash Road	445	457
	C - A421 (West)	1081	1152
	D - Winslow Rd	115	120
08:15-08:30	A - A421 (East)	1297	1376
	B - B4033 Nash Road	445	457
	C - A421 (West)	1081	1152
	D - Winslow Rd	115	120
08:30-08:45	A - A421 (East)	1059	1123
	B - B4033 Nash Road	364	373
	C - A421 (West)	883	941
	D - Winslow Rd	94	98
08:45-09:00	A - A421 (East)	887	941
	B - B4033 Nash Road	304	312
	C - A421 (West)	739	788
	D - Winslow Rd	79	82

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
A - A421 (East)	0.75	8.14	2.9	A	1081	1622
B - B4033 Nash Road	1.08	188.10	24.6	F	371	557
C - A421 (West)	0.73	9.03	2.7	A	901	1352
D - Winslow Rd	0.19	7.25	0.2	A	96	144

Main Results for each time segment

07:30 - 07:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - A421 (East)	887	222	95	1767	0.502	883	887	0.0	1.0	4.055	A
B - B4033 Nash Road	304	76	791	633	0.481	301	187	0.0	0.9	10.732	B
C - A421 (West)	739	185	269	1536	0.481	736	823	0.0	0.9	4.475	A
D - Winslow Rd	79	20	904	831	0.095	78	101	0.0	0.1	4.782	A

07:45 - 08:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - A421 (East)	1059	265	114	1755	0.604	1057	1062	1.0	1.5	5.144	A
B - B4033 Nash Road	364	91	947	540	0.673	359	224	0.9	1.9	19.510	C
C - A421 (West)	883	221	322	1505	0.587	881	985	0.9	1.4	5.754	A
D - Winslow Rd	94	23	1082	734	0.128	94	121	0.1	0.1	5.620	A

08:00 - 08:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - A421 (East)	1297	324	140	1739	0.746	1292	1270	1.5	2.8	7.957	A
B - B4033 Nash Road	445	111	1158	415	1.074	394	274	1.9	14.8	98.364	F
C - A421 (West)	1081	270	354	1485	0.728	1077	1197	1.4	2.6	8.708	A
D - Winslow Rd	115	29	1295	618	0.186	115	135	0.1	0.2	7.149	A

08:15 - 08:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - A421 (East)	1297	324	140	1739	0.746	1297	1282	2.8	2.9	8.142	A
B - B4033 Nash Road	445	111	1162	412	1.081	406	275	14.8	24.6	188.103	F
C - A421 (West)	1081	270	365	1479	0.731	1081	1203	2.6	2.7	9.035	A
D - Winslow Rd	115	29	1307	612	0.188	115	139	0.2	0.2	7.247	A

08:30 - 08:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - A421 (East)	1059	265	115	1755	0.604	1065	1123	2.9	1.5	5.257	A
B - B4033 Nash Road	364	91	954	536	0.678	453	226	24.6	2.4	70.386	F
C - A421 (West)	883	221	402	1457	0.606	887	1005	2.7	1.6	6.373	A
D - Winslow Rd	94	23	1144	701	0.134	94	145	0.2	0.2	5.933	A

08:45 - 09:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - A421 (East)	887	222	96	1767	0.502	889	899	1.5	1.0	4.112	A
B - B4033 Nash Road	304	76	797	630	0.484	310	189	2.4	1.0	11.459	B
C - A421 (West)	739	185	277	1532	0.483	742	829	1.6	0.9	4.572	A
D - Winslow Rd	79	20	916	824	0.095	79	103	0.2	0.1	4.830	A

2033 Base + CD + D, 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
J10	A421 Nash Road/ Winslow Road	Standard Roundabout		A, B, C, D	11.75	B

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D14	2033 Base + CD + D	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 - A421 (East)		ONE HOUR	✓	1262	100.000
B - B4033 Nash Road		ONE HOUR	✓	287	100.000
C - A421 (West)		ONE HOUR	✓	1100	100.000
D - Winslow Rd		ONE HOUR	✓	110	100.000

Origin-Destination Data

Demand (Veh/hr)

	To				
From		A - A421 (East)	B - B4033 Nash Road	C - A421 (West)	D - Winslow Rd
	A - A421 (East)	2	190	1057	13
	B - B4033 Nash Road	178	0	57	52
	C - A421 (West)	1049	33	0	17
	D - Winslow Rd	13	65	32	0

Proportions

	To				
From		A - A421 (East)	B - B4033 Nash Road	C - A421 (West)	D - Winslow Rd
	A - A421 (East)	0.00	0.15	0.84	0.01
	B - B4033 Nash Road	0.62	0.00	0.20	0.18
	C - A421 (West)	0.95	0.03	0.00	0.02
	D - Winslow Rd	0.12	0.59	0.29	0.00

Vehicle Mix

Heavy Vehicle Percentages

	To				
		A - A421 (East)	B - B4033 Nash Road	C - A421 (West)	D - Winslow Rd
From	A - A421 (East)	0	0	2	0
	B - B4033 Nash Road	1	0	2	2
	C - A421 (West)	3	0	0	0
	D - Winslow Rd	9	0	0	0

Average PCU Per Veh

	To				
		A - A421 (East)	B - B4033 Nash Road	C - A421 (West)	D - Winslow Rd
From	A - A421 (East)	1.000	1.000	1.023	1.000
	B - B4033 Nash Road	1.007	1.000	1.020	1.022
	C - A421 (West)	1.035	1.000	1.000	1.000
	D - Winslow Rd	1.091	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 - A421 (East)	950	968
	B - B4033 Nash Road	216	218
	C - A421 (West)	828	856
	D - Winslow Rd	83	83
17:00-17:15	A - A421 (East)	1135	1156
	B - B4033 Nash Road	258	261
	C - A421 (West)	989	1022
	D - Winslow Rd	99	100
17:15-17:30	A - A421 (East)	1390	1416
	B - B4033 Nash Road	316	319
	C - A421 (West)	1211	1251
	D - Winslow Rd	121	122
17:30-17:45	A - A421 (East)	1390	1416
	B - B4033 Nash Road	316	319
	C - A421 (West)	1211	1251
	D - Winslow Rd	121	122
17:45-18:00	A - A421 (East)	1135	1156
	B - B4033 Nash Road	258	261
	C - A421 (West)	989	1022
	D - Winslow Rd	99	100
18:00-18:15	A - A421 (East)	950	968
	B - B4033 Nash Road	216	218
	C - A421 (West)	828	856
	D - Winslow Rd	83	83

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
A - A421 (East)	0.77	8.51	3.2	A	1158	1737
B - B4033 Nash Road	0.77	36.38	3.0	E	263	394
C - A421 (West)	0.76	9.54	3.1	A	1010	1514
D - Winslow Rd	0.20	7.41	0.2	A	101	151

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - A421 (East)	950	238	98	1840	0.516	946	930	0.0	1.1	4.007	A
B - B4033 Nash Road	216	54	828	637	0.339	214	216	0.0	0.5	8.476	A
C - A421 (West)	828	207	183	1640	0.505	824	859	0.0	1.0	4.392	A
D - Winslow Rd	83	21	946	849	0.097	82	61	0.0	0.1	4.692	A

17:00 - 17:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - A421 (East)	1135	284	117	1828	0.621	1132	1114	1.1	1.6	5.157	A
B - B4033 Nash Road	258	64	991	542	0.475	256	258	0.5	0.9	12.514	B
C - A421 (West)	989	247	219	1618	0.611	987	1028	1.0	1.5	5.685	A
D - Winslow Rd	99	25	1133	747	0.132	98	73	0.1	0.2	5.548	A

17:15 - 17:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - A421 (East)	1390	347	143	1812	0.767	1383	1357	1.6	3.2	8.281	A
B - B4033 Nash Road	316	79	1211	414	0.761	308	316	0.9	2.8	31.811	D
C - A421 (West)	1211	303	264	1591	0.762	1205	1255	1.5	3.1	9.197	A
D - Winslow Rd	121	30	1380	612	0.197	120	89	0.2	0.2	7.319	A

17:30 - 17:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - A421 (East)	1390	347	144	1812	0.767	1389	1367	3.2	3.2	8.512	A
B - B4033 Nash Road	316	79	1216	411	0.767	315	317	2.8	3.0	36.381	E
C - A421 (West)	1211	303	269	1587	0.763	1211	1262	3.1	3.1	9.545	A
D - Winslow Rd	121	30	1390	607	0.199	121	90	0.2	0.2	7.407	A

17:45 - 18:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - A421 (East)	1135	284	118	1828	0.621	1141	1128	3.2	1.7	5.289	A
B - B4033 Nash Road	258	64	998	538	0.479	266	260	3.0	0.9	13.614	B
C - A421 (West)	989	247	227	1613	0.613	995	1037	3.1	1.6	5.882	A
D - Winslow Rd	99	25	1147	739	0.133	99	75	0.2	0.2	5.623	A

18:00 - 18:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - A421 (East)	950	238	98	1840	0.516	952	939	1.7	1.1	4.067	A
B - B4033 Nash Road	216	54	834	634	0.340	217	217	0.9	0.5	8.681	A
C - A421 (West)	828	207	186	1638	0.506	831	865	1.6	1.0	4.469	A
D - Winslow Rd	83	21	954	844	0.098	83	62	0.2	0.1	4.729	A

2033 Base + CD + D with TP, 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
J10	A421 Nash Road/ Winslow Road	Standard Roundabout		A, B, C, D	33.09	D

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D15	2033 Base + CD + D with TP	AM	ONE HOUR	07:30	09:00	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 - A421 (East)		ONE HOUR	✓	1172	100.000
B - B4033 Nash Road		ONE HOUR	✓	403	100.000
C - A421 (West)		ONE HOUR	✓	978	100.000
D - Winslow Rd		ONE HOUR	✓	104	100.000

Origin-Destination Data

Demand (Veh/hr)

	To				
From		A - A421 (East)	B - B4033 Nash Road	C - A421 (West)	D - Winslow Rd
	A - A421 (East)	2	155	1002	13
	B - B4033 Nash Road	240	0	57	106
	C - A421 (West)	930	30	1	17
	D - Winslow Rd	8	64	32	0

Proportions

	To				
From		A - A421 (East)	B - B4033 Nash Road	C - A421 (West)	D - Winslow Rd
	A - A421 (East)	0.00	0.13	0.86	0.01
	B - B4033 Nash Road	0.60	0.00	0.14	0.26
	C - A421 (West)	0.95	0.03	0.00	0.02
	D - Winslow Rd	0.08	0.62	0.31	0.00

Vehicle Mix

Heavy Vehicle Percentages

From	To				
		A - A421 (East)	B - B4033 Nash Road	C - A421 (West)	D - Winslow Rd
	A - A421 (East)	0	5	6	9
	B - B4033 Nash Road	2	0	4	2
	C - A421 (West)	7	8	0	0
	D - Winslow Rd	14	5	0	0

Average PCU Per Veh

From	To				
		A - A421 (East)	B - B4033 Nash Road	C - A421 (West)	D - Winslow Rd
	A - A421 (East)	1.000	1.054	1.061	1.091
	B - B4033 Nash Road	1.025	1.000	1.040	1.022
	C - A421 (West)	1.066	1.077	1.000	1.000
	D - Winslow Rd	1.143	1.054	1.000	1.000

Detailed Demand Data

Demand for each time segment

Time Segment	Arm	Demand (Veh/hr)	Demand in PCU (PCU/hr)
07:30-07:45	A - A421 (East)	882	935
	B - B4033 Nash Road	304	311
	C - A421 (West)	736	784
	D - Winslow Rd	79	82
07:45-08:00	A - A421 (East)	1053	1117
	B - B4033 Nash Road	362	372
	C - A421 (West)	879	936
	D - Winslow Rd	94	98
08:00-08:15	A - A421 (East)	1290	1368
	B - B4033 Nash Road	444	456
	C - A421 (West)	1077	1147
	D - Winslow Rd	115	120
08:15-08:30	A - A421 (East)	1290	1368
	B - B4033 Nash Road	444	456
	C - A421 (West)	1077	1147
	D - Winslow Rd	115	120
08:30-08:45	A - A421 (East)	1053	1117
	B - B4033 Nash Road	362	372
	C - A421 (West)	879	936
	D - Winslow Rd	94	98
08:45-09:00	A - A421 (East)	882	935
	B - B4033 Nash Road	304	311
	C - A421 (West)	736	784
	D - Winslow Rd	79	82

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
A - A421 (East)	0.74	8.01	2.8	A	1075	1613
B - B4033 Nash Road	1.07	175.98	22.8	F	370	555
C - A421 (West)	0.73	8.95	2.6	A	897	1346
D - Winslow Rd	0.19	7.22	0.2	A	96	144

Main Results for each time segment

07:30 - 07:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - A421 (East)	882	221	95	1767	0.499	878	883	0.0	1.0	4.032	A
B - B4033 Nash Road	304	76	787	635	0.478	300	186	0.0	0.9	10.628	B
C - A421 (West)	736	184	268	1537	0.479	732	819	0.0	0.9	4.456	A
D - Winslow Rd	79	20	900	833	0.094	78	101	0.0	0.1	4.768	A

07:45 - 08:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - A421 (East)	1053	263	114	1755	0.600	1051	1057	1.0	1.5	5.100	A
B - B4033 Nash Road	362	91	942	543	0.668	359	223	0.9	1.9	19.112	C
C - A421 (West)	879	220	321	1505	0.584	877	980	0.9	1.4	5.713	A
D - Winslow Rd	94	23	1077	737	0.127	94	121	0.1	0.1	5.597	A

08:00 - 08:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - A421 (East)	1290	323	140	1739	0.742	1285	1266	1.5	2.8	7.834	A
B - B4033 Nash Road	444	111	1152	418	1.061	396	273	1.9	14.0	93.733	F
C - A421 (West)	1077	269	356	1484	0.725	1072	1192	1.4	2.6	8.629	A
D - Winslow Rd	115	29	1291	620	0.185	115	136	0.1	0.2	7.117	A

08:15 - 08:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - A421 (East)	1290	323	140	1739	0.742	1290	1278	2.8	2.8	8.009	A
B - B4033 Nash Road	444	111	1156	416	1.068	409	274	14.0	22.8	175.982	F
C - A421 (West)	1077	269	367	1478	0.729	1076	1198	2.6	2.6	8.954	A
D - Winslow Rd	115	29	1303	614	0.187	115	140	0.2	0.2	7.217	A

08:30 - 08:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - A421 (East)	1053	263	115	1755	0.600	1059	1114	2.8	1.5	5.209	A
B - B4033 Nash Road	362	91	949	539	0.672	445	225	22.8	2.3	60.881	F
C - A421 (West)	879	220	395	1461	0.602	883	998	2.6	1.5	6.279	A
D - Winslow Rd	94	23	1135	706	0.133	94	143	0.2	0.2	5.885	A

08:45 - 09:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - A421 (East)	882	221	96	1767	0.499	884	894	1.5	1.0	4.088	A
B - B4033 Nash Road	304	76	792	632	0.480	309	188	2.3	0.9	11.313	B
C - A421 (West)	736	184	276	1532	0.480	739	825	1.5	0.9	4.548	A
D - Winslow Rd	79	20	911	827	0.095	79	103	0.2	0.1	4.814	A

2033 Base + CD + D with TP, 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
J10	A421 Nash Road/ Winslow Road	Standard Roundabout		A, B, C, D	11.45	B

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D16	2033 Base + CD + D with TP	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 - A421 (East)		ONE HOUR	✓	1256	100.000
B - B4033 Nash Road		ONE HOUR	✓	285	100.000
C - A421 (West)		ONE HOUR	✓	1094	100.000
D - Winslow Rd		ONE HOUR	✓	110	100.000

Origin-Destination Data

Demand (Veh/hr)

	To				
From		A - A421 (East)	B - B4033 Nash Road	C - A421 (West)	D - Winslow Rd
	A - A421 (East)	2	188	1052	13
	B - B4033 Nash Road	177	0	57	52
	C - A421 (West)	1043	33	0	17
	D - Winslow Rd	13	65	32	0

Proportions

	To				
From		A - A421 (East)	B - B4033 Nash Road	C - A421 (West)	D - Winslow Rd
	A - A421 (East)	0.00	0.15	0.84	0.01
	B - B4033 Nash Road	0.62	0.00	0.20	0.18
	C - A421 (West)	0.95	0.03	0.00	0.02
	D - Winslow Rd	0.12	0.59	0.29	0.00

Vehicle Mix

Heavy Vehicle Percentages

	To				
		A - A421 (East)	B - B4033 Nash Road	C - A421 (West)	D - Winslow Rd
From	A - A421 (East)	0	0	2	0
	B - B4033 Nash Road	1	0	2	2
	C - A421 (West)	3	0	0	0
	D - Winslow Rd	9	0	0	0

Average PCU Per Veh

	To				
		A - A421 (East)	B - B4033 Nash Road	C - A421 (West)	D - Winslow Rd
From	A - A421 (East)	1.000	1.000	1.023	1.000
	B - B4033 Nash Road	1.007	1.000	1.020	1.022
	C - A421 (West)	1.035	1.000	1.000	1.000
	D - Winslow Rd	1.091	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 - A421 (East)	945	963
	B - B4033 Nash Road	215	217
	C - A421 (West)	823	850
	D - Winslow Rd	83	83
17:00-17:15	A - A421 (East)	1129	1150
	B - B4033 Nash Road	257	260
	C - A421 (West)	983	1016
	D - Winslow Rd	99	100
17:15-17:30	A - A421 (East)	1383	1409
	B - B4033 Nash Road	314	318
	C - A421 (West)	1204	1244
	D - Winslow Rd	121	122
17:30-17:45	A - A421 (East)	1383	1409
	B - B4033 Nash Road	314	318
	C - A421 (West)	1204	1244
	D - Winslow Rd	121	122
17:45-18:00	A - A421 (East)	1129	1150
	B - B4033 Nash Road	257	260
	C - A421 (West)	983	1016
	D - Winslow Rd	99	100
18:00-18:15	A - A421 (East)	945	963
	B - B4033 Nash Road	215	217
	C - A421 (West)	823	850
	D - Winslow Rd	83	83

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
A - A421 (East)	0.76	8.38	3.2	A	1152	1728
B - B4033 Nash Road	0.76	34.86	2.9	D	262	393
C - A421 (West)	0.76	9.35	3.1	A	1003	1505
D - Winslow Rd	0.20	7.34	0.2	A	101	151

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - A421 (East)	945	236	98	1840	0.514	941	924	0.0	1.0	3.986	A
B - B4033 Nash Road	215	54	824	639	0.336	213	215	0.0	0.5	8.402	A
C - A421 (West)	823	206	182	1641	0.502	819	855	0.0	1.0	4.362	A
D - Winslow Rd	83	21	940	852	0.097	82	61	0.0	0.1	4.673	A

17:00 - 17:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - A421 (East)	1129	282	117	1828	0.617	1127	1107	1.0	1.6	5.115	A
B - B4033 Nash Road	257	64	987	545	0.471	255	257	0.5	0.9	12.357	B
C - A421 (West)	983	246	218	1619	0.607	981	1024	1.0	1.5	5.626	A
D - Winslow Rd	99	25	1126	751	0.131	98	73	0.1	0.2	5.515	A

17:15 - 17:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - A421 (East)	1383	346	143	1812	0.763	1377	1349	1.6	3.1	8.156	A
B - B4033 Nash Road	314	79	1205	418	0.752	307	314	0.9	2.7	30.757	D
C - A421 (West)	1204	301	263	1591	0.757	1198	1250	1.5	3.0	9.023	A
D - Winslow Rd	121	30	1372	616	0.196	120	89	0.2	0.2	7.253	A

17:30 - 17:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - A421 (East)	1383	346	144	1812	0.763	1382	1359	3.1	3.2	8.375	A
B - B4033 Nash Road	314	79	1210	415	0.758	313	315	2.7	2.9	34.859	D
C - A421 (West)	1204	301	268	1588	0.758	1204	1256	3.0	3.1	9.346	A
D - Winslow Rd	121	30	1381	611	0.197	121	90	0.2	0.2	7.337	A

17:45 - 18:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - A421 (East)	1129	282	118	1828	0.618	1135	1120	3.2	1.6	5.240	A
B - B4033 Nash Road	257	64	994	541	0.474	264	259	2.9	0.9	13.377	B
C - A421 (West)	983	246	226	1614	0.609	989	1033	3.1	1.6	5.815	A
D - Winslow Rd	99	25	1139	743	0.133	99	75	0.2	0.2	5.589	A

18:00 - 18:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - A421 (East)	945	236	98	1840	0.514	948	933	1.6	1.1	4.044	A
B - B4033 Nash Road	215	54	830	636	0.338	216	216	0.9	0.5	8.612	A
C - A421 (West)	823	206	185	1639	0.502	826	861	1.6	1.0	4.438	A
D - Winslow Rd	83	21	948	848	0.097	83	62	0.2	0.1	4.708	A

2033 Base + CD + D - ST, 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
J10	A421 Nash Road/ Winslow Road	Standard Roundabout		A, B, C, D	40.70	E

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D17	2033 Base + CD + D - ST	AM	ONE HOUR	07:30	09:00	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 - A421 (East)		ONE HOUR	✓	1200	100.000
B - B4033 Nash Road		ONE HOUR	✓	407	100.000
C - A421 (West)		ONE HOUR	✓	992	100.000
D - Winslow Rd		ONE HOUR	✓	104	100.000

Origin-Destination Data

Demand (Veh/hr)

From	To			
		A - A421 (East)	B - B4033 Nash Road	C - A421 (West)
				D - Winslow Rd
	A - A421 (East)	2	159	1026
	B - B4033 Nash Road	244	0	57
	C - A421 (West)	944	30	1
	D - Winslow Rd	8	64	32

Proportions

From	To			
		A - A421 (East)	B - B4033 Nash Road	C - A421 (West)
				D - Winslow Rd
	A - A421 (East)	0.00	0.13	0.86
	B - B4033 Nash Road	0.60	0.00	0.14
	C - A421 (West)	0.95	0.03	0.00
	D - Winslow Rd	0.08	0.62	0.31

Vehicle Mix

Heavy Vehicle Percentages

	To				
		A - A421 (East)	B - B4033 Nash Road	C - A421 (West)	D - Winslow Rd
From	A - A421 (East)	0	5	6	9
	B - B4033 Nash Road	2	0	4	2
	C - A421 (West)	7	8	0	0
	D - Winslow Rd	14	5	0	0

Average PCU Per Veh

	To				
		A - A421 (East)	B - B4033 Nash Road	C - A421 (West)	D - Winslow Rd
From	A - A421 (East)	1.000	1.054	1.061	1.091
	B - B4033 Nash Road	1.025	1.000	1.040	1.022
	C - A421 (West)	1.066	1.077	1.000	1.000
	D - Winslow Rd	1.143	1.054	1.000	1.000

Detailed Demand Data

Demand for each time segment

Time Segment	Arm	Demand (Veh/hr)	Demand in PCU (PCU/hr)
07:30-07:45	A - A421 (East)	903	958
	B - B4033 Nash Road	306	314
	C - A421 (West)	747	796
	D - Winslow Rd	79	82
07:45-08:00	A - A421 (East)	1079	1144
	B - B4033 Nash Road	366	375
	C - A421 (West)	892	950
	D - Winslow Rd	94	98
08:00-08:15	A - A421 (East)	1321	1401
	B - B4033 Nash Road	448	460
	C - A421 (West)	1093	1164
	D - Winslow Rd	115	120
08:15-08:30	A - A421 (East)	1321	1401
	B - B4033 Nash Road	448	460
	C - A421 (West)	1093	1164
	D - Winslow Rd	115	120
08:30-08:45	A - A421 (East)	1079	1144
	B - B4033 Nash Road	366	375
	C - A421 (West)	892	950
	D - Winslow Rd	94	98
08:45-09:00	A - A421 (East)	903	958
	B - B4033 Nash Road	306	314
	C - A421 (West)	747	796
	D - Winslow Rd	79	82

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
A - A421 (East)	0.76	8.60	3.1	A	1101	1652
B - B4033 Nash Road	1.12	227.09	30.4	F	373	560
C - A421 (West)	0.74	9.18	2.7	A	911	1366
D - Winslow Rd	0.19	7.30	0.2	A	96	144

Main Results for each time segment

07:30 - 07:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - A421 (East)	903	226	95	1767	0.511	899	896	0.0	1.0	4.128	A
B - B4033 Nash Road	306	77	805	625	0.490	302	190	0.0	0.9	11.054	B
C - A421 (West)	747	187	271	1535	0.487	743	837	0.0	0.9	4.525	A
D - Winslow Rd	79	20	914	826	0.095	78	101	0.0	0.1	4.814	A

07:45 - 08:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - A421 (East)	1079	270	114	1755	0.615	1077	1073	1.0	1.6	5.287	A
B - B4033 Nash Road	366	91	964	530	0.690	361	227	0.9	2.1	20.767	C
C - A421 (West)	892	223	324	1504	0.593	890	1001	0.9	1.4	5.848	A
D - Winslow Rd	94	23	1093	728	0.129	94	120	0.1	0.1	5.673	A

08:00 - 08:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - A421 (East)	1321	330	140	1739	0.760	1315	1278	1.6	3.0	8.377	A
B - B4033 Nash Road	448	112	1178	403	1.112	386	277	2.1	17.5	113.301	F
C - A421 (West)	1093	273	348	1489	0.734	1088	1216	1.4	2.7	8.864	A
D - Winslow Rd	115	29	1303	614	0.187	115	133	0.1	0.2	7.209	A

08:15 - 08:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - A421 (East)	1321	330	140	1739	0.760	1321	1288	3.0	3.1	8.601	A
B - B4033 Nash Road	448	112	1183	400	1.120	396	278	17.5	30.4	227.086	F
C - A421 (West)	1093	273	357	1484	0.736	1092	1222	2.7	2.7	9.182	A
D - Winslow Rd	115	29	1313	608	0.189	115	136	0.2	0.2	7.299	A

08:30 - 08:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - A421 (East)	1079	270	115	1755	0.615	1085	1148	3.1	1.6	5.417	A
B - B4033 Nash Road	366	91	971	526	0.695	476	228	30.4	2.7	106.815	F
C - A421 (West)	892	223	423	1444	0.618	896	1025	2.7	1.6	6.623	A
D - Winslow Rd	94	23	1169	688	0.136	94	151	0.2	0.2	6.063	A

08:45 - 09:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - A421 (East)	903	226	96	1767	0.511	906	909	1.6	1.1	4.193	A
B - B4033 Nash Road	306	77	811	621	0.493	313	191	2.7	1.0	11.941	B
C - A421 (West)	747	187	280	1530	0.488	750	844	1.6	1.0	4.631	A
D - Winslow Rd	79	20	926	819	0.096	79	104	0.2	0.1	4.867	A

2033 Base + CD + D - ST, 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
J10	A421 Nash Road/ Winslow Road	Standard Roundabout		A, B, C, D	12.21	B

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D18	2033 Base + CD + D - ST	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 - A421 (East)		ONE HOUR	✓	1270	100.000
B - B4033 Nash Road		ONE HOUR	✓	288	100.000
C - A421 (West)		ONE HOUR	✓	1113	100.000
D - Winslow Rd		ONE HOUR	✓	110	100.000

Origin-Destination Data

Demand (Veh/hr)

	To				
From		A - A421 (East)	B - B4033 Nash Road	C - A421 (West)	D - Winslow Rd
	A - A421 (East)	2	191	1064	13
	B - B4033 Nash Road	180	0	57	52
	C - A421 (West)	1062	33	0	17
	D - Winslow Rd	13	65	32	0

Proportions

	To				
From		A - A421 (East)	B - B4033 Nash Road	C - A421 (West)	D - Winslow Rd
	A - A421 (East)	0.00	0.15	0.84	0.01
	B - B4033 Nash Road	0.62	0.00	0.20	0.18
	C - A421 (West)	0.95	0.03	0.00	0.02
	D - Winslow Rd	0.12	0.59	0.29	0.00

Vehicle Mix

Heavy Vehicle Percentages

	To				
		A - A421 (East)	B - B4033 Nash Road	C - A421 (West)	D - Winslow Rd
From	A - A421 (East)	0	0	2	0
	B - B4033 Nash Road	1	0	2	2
	C - A421 (West)	3	0	0	0
	D - Winslow Rd	9	0	0	0

Average PCU Per Veh

	To				
		A - A421 (East)	B - B4033 Nash Road	C - A421 (West)	D - Winslow Rd
From	A - A421 (East)	1.000	1.000	1.023	1.000
	B - B4033 Nash Road	1.007	1.000	1.020	1.022
	C - A421 (West)	1.035	1.000	1.000	1.000
	D - Winslow Rd	1.091	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 - A421 (East)	956	974
	B - B4033 Nash Road	217	220
	C - A421 (West)	838	866
	D - Winslow Rd	83	83
17:00-17:15	A - A421 (East)	1142	1163
	B - B4033 Nash Road	259	262
	C - A421 (West)	1001	1034
	D - Winslow Rd	99	100
17:15-17:30	A - A421 (East)	1398	1425
	B - B4033 Nash Road	317	321
	C - A421 (West)	1226	1266
	D - Winslow Rd	121	122
17:30-17:45	A - A421 (East)	1398	1425
	B - B4033 Nash Road	317	321
	C - A421 (West)	1226	1266
	D - Winslow Rd	121	122
17:45-18:00	A - A421 (East)	1142	1163
	B - B4033 Nash Road	259	262
	C - A421 (West)	1001	1034
	D - Winslow Rd	99	100
18:00-18:15	A - A421 (East)	956	974
	B - B4033 Nash Road	217	220
	C - A421 (West)	838	866
	D - Winslow Rd	83	83

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
A - A421 (East)	0.77	8.69	3.3	A	1165	1748
B - B4033 Nash Road	0.78	38.56	3.2	E	264	397
C - A421 (West)	0.77	9.94	3.3	A	1021	1532
D - Winslow Rd	0.20	7.54	0.3	A	101	151

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - A421 (East)	956	239	98	1840	0.519	952	941	0.0	1.1	4.032	A
B - B4033 Nash Road	217	54	833	634	0.342	215	216	0.0	0.5	8.543	A
C - A421 (West)	838	209	184	1639	0.511	834	864	0.0	1.0	4.448	A
D - Winslow Rd	83	21	957	843	0.098	82	61	0.0	0.1	4.728	A

17:00 - 17:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - A421 (East)	1142	285	117	1828	0.624	1139	1127	1.1	1.6	5.207	A
B - B4033 Nash Road	259	65	997	539	0.481	257	259	0.5	0.9	12.728	B
C - A421 (West)	1001	250	220	1617	0.619	998	1034	1.0	1.6	5.798	A
D - Winslow Rd	99	25	1145	740	0.133	98	73	0.1	0.2	5.608	A

17:15 - 17:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - A421 (East)	1398	350	143	1812	0.772	1392	1373	1.6	3.2	8.440	A
B - B4033 Nash Road	317	79	1218	410	0.773	309	317	0.9	2.9	33.288	D
C - A421 (West)	1226	306	265	1590	0.771	1219	1262	1.6	3.2	9.543	A
D - Winslow Rd	121	30	1395	604	0.200	120	89	0.2	0.2	7.437	A

17:30 - 17:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - A421 (East)	1398	350	144	1812	0.772	1398	1383	3.2	3.3	8.688	A
B - B4033 Nash Road	317	79	1224	407	0.779	316	318	2.9	3.2	38.564	E
C - A421 (West)	1226	306	271	1586	0.773	1225	1269	3.2	3.3	9.941	A
D - Winslow Rd	121	30	1406	598	0.202	121	90	0.2	0.3	7.541	A

17:45 - 18:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - A421 (East)	1142	285	118	1828	0.625	1148	1142	3.3	1.7	5.347	A
B - B4033 Nash Road	259	65	1005	534	0.485	268	261	3.2	1.0	13.943	B
C - A421 (West)	1001	250	229	1612	0.621	1007	1044	3.3	1.7	6.016	A
D - Winslow Rd	99	25	1161	732	0.135	99	75	0.3	0.2	5.693	A

18:00 - 18:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - A421 (East)	956	239	98	1840	0.520	958	950	1.7	1.1	4.094	A
B - B4033 Nash Road	217	54	839	631	0.344	219	218	1.0	0.5	8.769	A
C - A421 (West)	838	209	187	1637	0.512	840	870	1.7	1.1	4.531	A
D - Winslow Rd	83	21	965	838	0.098	83	62	0.2	0.1	4.766	A