

Junctions 9	
ARCADY 9 - Roundabout Module	
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-
- »Base 2023, AM
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 - »DS 2028, AM
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 - »FB 2036, AM
 - »FB 2036, PM
 - »DS 2036, AM
 - »DS 2036, PM

Summary of junction performance

	AM				PM			
	Queue (PCU)	Delay (s)	RFC	LOS	Queue (PCU)	Delay (s)	RFC	LOS
Base 2023								
1 - Wide Lane (NE)	0.5	6.89	0.32	A	0.7	7.68	0.41	A
4 - Wide Lane (NE)	3.7	22.43	0.77	C	11.2	56.75	0.95	F
2 - Wide Lane (S)	1.6	6.11	0.61	A	1.4	6.01	0.58	A
3 - A335 (NW)	5.6	14.79	0.85	B	2.3	6.56	0.69	A
FB 2025								
1 - Wide Lane (NE)	0.5	7.26	0.34	A	0.8	8.11	0.43	A
4 - Wide Lane (NE)	4.4	26.75	0.81	D	16.0	76.99	0.98	F
2 - Wide Lane (S)	1.8	6.70	0.64	A	1.6	6.63	0.61	A
3 - A335 (NW)	7.5	19.42	0.89	C	2.6	7.22	0.71	A
FB 2028								
1 - Wide Lane (NE)	0.6	8.14	0.39	A	0.9	9.21	0.48	A
4 - Wide Lane (NE)	6.2	37.17	0.86	E	27.8	122.26	1.04	F
2 - Wide Lane (S)	2.4	8.02	0.70	A	2.1	7.89	0.68	A
3 - A335 (NW)	14.4	36.05	0.95	E	3.2	8.74	0.76	A
DS 2028								
1 - Wide Lane (NE)	1.0	11.36	0.51	B	1.3	12.13	0.56	B
4 - Wide Lane (NE)	15.4	90.41	0.98	F	63.9	270.79	1.17	F
2 - Wide Lane (S)	4.3	12.81	0.81	B	4.9	14.50	0.83	B
3 - A335 (NW)	102.8	184.58	1.12	F	6.3	15.57	0.86	C
FB 2036								
1 - Wide Lane (NE)	0.8	9.40	0.45	A	1.2	10.85	0.54	B
4 - Wide Lane (NE)	11.8	67.12	0.95	F	63.4	254.55	1.16	F
2 - Wide Lane (S)	4.2	12.53	0.81	B	3.6	11.40	0.78	B
3 - A335 (NW)	73.2	139.51	1.08	F	5.4	13.81	0.85	B
DS 2036								
1 - Wide Lane (NE)	1.3	12.59	0.56	B	1.6	14.95	0.62	B
4 - Wide Lane (NE)	25.2	134.29	1.03	F	105.5	512.75	1.31	F
2 - Wide Lane (S)	9.4	25.51	0.91	D	10.7	28.86	0.93	D
3 - A335 (NW)	206.5	440.92	1.25	F	14.8	34.89	0.95	D

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	A335, Wide Ln Rbt
Location	50.950678, -1.364807
Site number	
Date	28/03/2019
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	CORP\INJV01568
Description	

Units

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

Analysis Options

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

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	Base 2023	AM	ONE HOUR	07:45	09:15	15	✓
D2	Base 2023	PM	ONE HOUR	16:45	18:15	15	✓
D3	FB 2025	AM	ONE HOUR	07:45	09:15	15	✓
D4	FB 2025	PM	ONE HOUR	16:45	18:15	15	✓
D5	FB 2028	AM	ONE HOUR	07:45	09:15	15	✓
D6	FB 2028	PM	ONE HOUR	16:45	18:15	15	✓
D7	DS 2028	AM	ONE HOUR	07:45	09:15	15	✓
D8	DS 2028	PM	ONE HOUR	16:45	18:15	15	✓
D9	FB 2036	AM	ONE HOUR	07:45	09:15	15	✓
D10	FB 2036	PM	ONE HOUR	16:45	18:15	15	✓
D11	DS 2036	AM	ONE HOUR	07:45	09:15	15	✓
D12	DS 2036	PM	ONE HOUR	16:45	18:15	15	✓

Analysis Set Details

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

Base 2023, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	3 - A335 (NW) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	A335, Wide Ln Rbt	Standard Roundabout		1, 4, 2, 3	13.06	B

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description
1	Wide Lane (NE)	
4	Wide Lane (NE)	
2	Wide Lane (S)	
3	A335 (NW)	

Roundabout Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	I' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Exit only
1 - Wide Lane (NE)	3.00	3.77	15.0	25.0	22.0	31.0	
4 - Wide Lane (NE)	3.00	3.68	11.0	155.0	22.0	31.0	
2 - Wide Lane (S)	3.72	9.60	19.0	69.0	22.0	42.0	
3 - A335 (NW)	3.80	8.10	31.0	45.9	22.0	38.5	

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
1 - Wide Lane (NE)	0.545	1116
4 - Wide Lane (NE)	0.557	1123
2 - Wide Lane (S)	0.725	2008
3 - A335 (NW)	0.735	2049

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

Arm Capacity Adjustments

Arm	Type	Reason	Direct capacity adjustment (PCU/hr)
2 - Wide Lane (S)	Direct		0

Traffic Demand

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	Base 2023	AM	ONE HOUR	07:45	09:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Wide Lane (NE)		ONE HOUR	✓	232	100.000
4 - Wide Lane (NE)		ONE HOUR	✓	558	100.000
2 - Wide Lane (S)		ONE HOUR	✓	864	100.000
3 - A335 (NW)		ONE HOUR	✓	1276	100.000

Origin-Destination Data

Demand (PCU/hr)

	To				
		1 - Wide Lane (NE)	4 - Wide Lane (NE)	2 - Wide Lane (S)	3 - A335 (NW)
From	1 - Wide Lane (NE)	0	232	0	0
	4 - Wide Lane (NE)	0	0	0	558
	2 - Wide Lane (S)	484	0	0	380
	3 - A335 (NW)	737	0	536	3

Vehicle Mix

Heavy Vehicle Percentages

	To				
		1 - Wide Lane (NE)	4 - Wide Lane (NE)	2 - Wide Lane (S)	3 - A335 (NW)
From	1 - Wide Lane (NE)	0	3	0	0
	4 - Wide Lane (NE)	0	0	0	13
	2 - Wide Lane (S)	1	0	0	7
	3 - A335 (NW)	4	0	7	50

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - Wide Lane (NE)	0.32	6.89	0.5	A	213	319
4 - Wide Lane (NE)	0.77	22.43	3.7	C	512	768
2 - Wide Lane (S)	0.61	6.11	1.6	A	793	1189
3 - A335 (NW)	0.85	14.79	5.6	B	1171	1756

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Wide Lane (NE)	175	44	404	896	0.195	174	915	0.0	0.2	5.125	A
4 - Wide Lane (NE)	420	105	404	899	0.468	416	174	0.0	1.0	8.369	A
2 - Wide Lane (S)	650	163	418	1705	0.382	648	401	0.0	0.6	3.517	A
3 - A335 (NW)	961	240	363	1783	0.539	956	703	0.0	1.2	4.559	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Wide Lane (NE)	209	52	483	853	0.245	208	1095	0.2	0.3	5.748	A
4 - Wide Lane (NE)	502	125	483	854	0.587	499	208	1.0	1.6	11.381	B
2 - Wide Lane (S)	777	194	502	1644	0.472	776	480	0.6	0.9	4.286	A
3 - A335 (NW)	1147	287	434	1730	0.663	1144	843	1.2	2.0	6.432	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Wide Lane (NE)	255	64	588	796	0.321	255	1335	0.3	0.5	6.846	A
4 - Wide Lane (NE)	614	154	588	796	0.772	607	255	1.6	3.5	20.686	C
2 - Wide Lane (S)	951	238	610	1566	0.607	949	585	0.9	1.6	6.013	A
3 - A335 (NW)	1405	351	531	1659	0.847	1392	1027	2.0	5.3	13.578	B

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Wide Lane (NE)	255	64	593	793	0.322	255	1344	0.5	0.5	6.895	A
4 - Wide Lane (NE)	614	154	593	793	0.775	614	255	3.5	3.7	22.429	C
2 - Wide Lane (S)	951	238	617	1561	0.609	951	590	1.6	1.6	6.110	A
3 - A335 (NW)	1405	351	533	1658	0.848	1404	1035	5.3	5.6	14.788	B

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Wide Lane (NE)	209	52	490	849	0.246	209	1107	0.5	0.3	5.801	A
4 - Wide Lane (NE)	502	125	490	850	0.590	510	209	3.7	1.7	12.205	B
2 - Wide Lane (S)	777	194	512	1637	0.475	779	488	1.6	0.9	4.360	A
3 - A335 (NW)	1147	287	437	1728	0.664	1161	855	5.6	2.1	6.833	A

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Wide Lane (NE)	175	44	407	894	0.195	175	922	0.3	0.3	5.158	A
4 - Wide Lane (NE)	420	105	407	897	0.469	423	175	1.7	1.0	8.634	A
2 - Wide Lane (S)	650	163	425	1700	0.383	652	405	0.9	0.6	3.558	A
3 - A335 (NW)	961	240	365	1781	0.539	964	712	2.1	1.2	4.660	A

Base 2023, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	3 - A335 (NW) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	A335, Wide Ln Rbt	Standard Roundabout		1, 4, 2, 3	18.50	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
D2	Base 2023	PM	ONE HOUR	16:45	18:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Wide Lane (NE)		ONE HOUR	✓	301	100.000
4 - Wide Lane (NE)		ONE HOUR	✓	689	100.000
2 - Wide Lane (S)		ONE HOUR	✓	762	100.000
3 - A335 (NW)		ONE HOUR	✓	1139	100.000

Origin-Destination Data

Demand (PCU/hr)

	To				
		1 - Wide Lane (NE)	4 - Wide Lane (NE)	2 - Wide Lane (S)	3 - A335 (NW)
From	1 - Wide Lane (NE)	4	297	0	0
	4 - Wide Lane (NE)	0	0	0	689
	2 - Wide Lane (S)	274	0	0	488
	3 - A335 (NW)	620	0	514	5

Vehicle Mix

Heavy Vehicle Percentages

	To				
From		1 - Wide Lane (NE)	4 - Wide Lane (NE)	2 - Wide Lane (S)	3 - A335 (NW)
	1 - Wide Lane (NE)	0	1	0	0
	4 - Wide Lane (NE)	0	0	0	1
	2 - Wide Lane (S)	2	0	0	4
	3 - A335 (NW)	5	0	3	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - Wide Lane (NE)	0.41	7.68	0.7	A	276	414
4 - Wide Lane (NE)	0.95	56.75	11.2	F	632	948
2 - Wide Lane (S)	0.58	6.01	1.4	A	699	1049
3 - A335 (NW)	0.69	6.56	2.3	A	1045	1568

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Wide Lane (NE)	227	57	389	904	0.251	225	673	0.0	0.3	5.342	A
4 - Wide Lane (NE)	519	130	392	905	0.573	513	222	0.0	1.3	9.169	A
2 - Wide Lane (S)	574	143	520	1631	0.352	571	385	0.0	0.6	3.501	A
3 - A335 (NW)	857	214	208	1896	0.452	854	883	0.0	0.9	3.583	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Wide Lane (NE)	271	68	466	862	0.314	270	806	0.3	0.5	6.132	A
4 - Wide Lane (NE)	619	155	469	862	0.719	615	267	1.3	2.4	14.455	B
2 - Wide Lane (S)	685	171	623	1557	0.440	684	461	0.6	0.8	4.256	A
3 - A335 (NW)	1024	256	250	1866	0.549	1022	1057	0.9	1.3	4.433	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Wide Lane (NE)	331	83	570	806	0.411	330	986	0.5	0.7	7.631	A
4 - Wide Lane (NE)	759	190	574	804	0.944	732	326	2.4	9.2	40.501	E
2 - Wide Lane (S)	839	210	742	1471	0.571	837	564	0.8	1.4	5.846	A
3 - A335 (NW)	1254	314	305	1825	0.687	1250	1273	1.3	2.2	6.473	A

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Wide Lane (NE)	331	83	571	805	0.412	331	989	0.7	0.7	7.676	A
4 - Wide Lane (NE)	759	190	576	803	0.945	750	327	9.2	11.2	56.755	F
2 - Wide Lane (S)	839	210	760	1457	0.576	839	566	1.4	1.4	6.011	A
3 - A335 (NW)	1254	314	306	1824	0.687	1254	1293	2.2	2.3	6.564	A

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Wide Lane (NE)	271	68	468	861	0.314	272	810	0.7	0.5	6.177	A
4 - Wide Lane (NE)	619	155	472	861	0.720	653	268	11.2	2.8	20.027	C
2 - Wide Lane (S)	685	171	661	1529	0.448	687	464	1.4	0.8	4.430	A
3 - A335 (NW)	1024	256	251	1865	0.549	1028	1098	2.3	1.3	4.496	A

18:00 - 18:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Wide Lane (NE)	227	57	391	903	0.251	227	677	0.5	0.3	5.384	A
4 - Wide Lane (NE)	519	130	395	904	0.574	524	224	2.8	1.4	9.713	A
2 - Wide Lane (S)	574	143	531	1623	0.353	575	388	0.8	0.6	3.548	A
3 - A335 (NW)	857	214	210	1895	0.452	859	896	1.3	0.9	3.623	A

FB 2025, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	3 - A335 (NW) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	A335, Wide Ln Rbt	Standard Roundabout		1, 4, 2, 3	16.03	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
D3	FB 2025	AM	ONE HOUR	07:45	09:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Wide Lane (NE)		ONE HOUR	✓	241	100.000
4 - Wide Lane (NE)		ONE HOUR	✓	570	100.000
2 - Wide Lane (S)		ONE HOUR	✓	908	100.000
3 - A335 (NW)		ONE HOUR	✓	1320	100.000

Origin-Destination Data

Demand (PCU/hr)

	To				
		1 - Wide Lane (NE)	4 - Wide Lane (NE)	2 - Wide Lane (S)	3 - A335 (NW)
From	1 - Wide Lane (NE)	0	241	0	0
	4 - Wide Lane (NE)	0	0	0	570
	2 - Wide Lane (S)	504	0	0	404
	3 - A335 (NW)	752	0	568	0

Vehicle Mix

Heavy Vehicle Percentages

	To				
From		1 - Wide Lane (NE)	4 - Wide Lane (NE)	2 - Wide Lane (S)	3 - A335 (NW)
	1 - Wide Lane (NE)	0	3	0	0
	4 - Wide Lane (NE)	0	0	0	13
	2 - Wide Lane (S)	1	0	0	6
	3 - A335 (NW)	4	0	7	50

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - Wide Lane (NE)	0.34	7.26	0.5	A	221	332
4 - Wide Lane (NE)	0.81	26.75	4.4	D	523	785
2 - Wide Lane (S)	0.64	6.70	1.8	A	833	1250
3 - A335 (NW)	0.89	19.42	7.5	C	1211	1817

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Wide Lane (NE)	181	45	425	885	0.205	180	941	0.0	0.3	5.258	A
4 - Wide Lane (NE)	429	107	425	886	0.484	425	180	0.0	1.0	8.739	A
2 - Wide Lane (S)	684	171	425	1700	0.402	681	425	0.0	0.7	3.635	A
3 - A335 (NW)	994	248	378	1772	0.561	988	728	0.0	1.3	4.806	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Wide Lane (NE)	217	54	509	839	0.258	216	1126	0.3	0.4	5.950	A
4 - Wide Lane (NE)	512	128	509	840	0.610	510	216	1.0	1.7	12.219	B
2 - Wide Lane (S)	816	204	510	1639	0.498	815	509	0.7	1.0	4.501	A
3 - A335 (NW)	1187	297	452	1717	0.691	1183	872	1.3	2.3	7.043	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Wide Lane (NE)	265	66	617	780	0.340	265	1371	0.4	0.5	7.189	A
4 - Wide Lane (NE)	628	157	617	780	0.805	618	265	1.7	4.1	23.851	C
2 - Wide Lane (S)	1000	250	618	1560	0.641	997	617	1.0	1.8	6.552	A
3 - A335 (NW)	1453	363	553	1643	0.885	1435	1061	2.3	6.9	16.897	C

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Wide Lane (NE)	265	66	624	776	0.342	265	1382	0.5	0.5	7.260	A
4 - Wide Lane (NE)	628	157	624	776	0.809	626	265	4.1	4.4	26.745	D
2 - Wide Lane (S)	1000	250	626	1554	0.643	1000	624	1.8	1.8	6.696	A
3 - A335 (NW)	1453	363	555	1642	0.885	1451	1071	6.9	7.5	19.423	C

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Wide Lane (NE)	217	54	519	833	0.260	217	1142	0.5	0.4	6.025	A
4 - Wide Lane (NE)	512	128	519	834	0.614	523	217	4.4	1.9	13.460	B
2 - Wide Lane (S)	816	204	523	1629	0.501	819	519	1.8	1.0	4.604	A
3 - A335 (NW)	1187	297	455	1715	0.692	1207	887	7.5	2.4	7.737	A

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Wide Lane (NE)	181	45	429	882	0.206	182	949	0.4	0.3	5.298	A
4 - Wide Lane (NE)	429	107	429	884	0.485	432	182	1.9	1.1	9.062	A
2 - Wide Lane (S)	684	171	432	1695	0.403	685	429	1.0	0.7	3.681	A
3 - A335 (NW)	994	248	380	1770	0.561	998	737	2.4	1.4	4.935	A

FB 2025, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	3 - A335 (NW) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	A335, Wide Ln Rbt	Standard Roundabout		1, 4, 2, 3	23.51	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
D4	FB 2025	PM	ONE HOUR	16:45	18:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Wide Lane (NE)		ONE HOUR	✓	312	100.000
4 - Wide Lane (NE)		ONE HOUR	✓	703	100.000
2 - Wide Lane (S)		ONE HOUR	✓	810	100.000
3 - A335 (NW)		ONE HOUR	✓	1174	100.000

Origin-Destination Data

Demand (PCU/hr)

	To				
		1 - Wide Lane (NE)	4 - Wide Lane (NE)	2 - Wide Lane (S)	3 - A335 (NW)
From	1 - Wide Lane (NE)	4	308	0	0
	4 - Wide Lane (NE)	0	0	0	703
	2 - Wide Lane (S)	291	0	0	519
	3 - A335 (NW)	633	0	536	5

Vehicle Mix

Heavy Vehicle Percentages

	To				
From		1 - Wide Lane (NE)	4 - Wide Lane (NE)	2 - Wide Lane (S)	3 - A335 (NW)
	1 - Wide Lane (NE)	0	1	0	0
	4 - Wide Lane (NE)	0	0	0	1
	2 - Wide Lane (S)	2	0	0	4
	3 - A335 (NW)	5	0	3	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - Wide Lane (NE)	0.43	8.11	0.8	A	286	429
4 - Wide Lane (NE)	0.98	76.99	16.0	F	645	968
2 - Wide Lane (S)	0.61	6.63	1.6	A	743	1115
3 - A335 (NW)	0.71	7.22	2.6	A	1077	1616

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Wide Lane (NE)	235	59	406	895	0.262	233	696	0.0	0.4	5.482	A
4 - Wide Lane (NE)	529	132	409	896	0.591	524	230	0.0	1.4	9.628	A
2 - Wide Lane (S)	610	152	530	1624	0.376	607	402	0.0	0.6	3.648	A
3 - A335 (NW)	884	221	221	1887	0.468	880	916	0.0	0.9	3.707	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Wide Lane (NE)	280	70	486	852	0.329	280	833	0.4	0.5	6.353	A
4 - Wide Lane (NE)	632	158	489	851	0.743	627	276	1.4	2.7	15.842	C
2 - Wide Lane (S)	728	182	635	1548	0.470	727	481	0.6	0.9	4.521	A
3 - A335 (NW)	1055	264	265	1855	0.569	1054	1097	0.9	1.4	4.665	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Wide Lane (NE)	344	86	594	793	0.433	342	1018	0.5	0.8	8.052	A
4 - Wide Lane (NE)	774	194	598	790	0.979	737	338	2.7	11.9	49.526	E
2 - Wide Lane (S)	892	223	747	1467	0.608	889	588	0.9	1.6	6.408	A
3 - A335 (NW)	1293	323	324	1811	0.714	1288	1312	1.4	2.5	7.093	A

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Wide Lane (NE)	344	86	596	792	0.434	343	1022	0.8	0.8	8.109	A
4 - Wide Lane (NE)	774	194	600	789	0.981	758	339	11.9	16.0	76.987	F
2 - Wide Lane (S)	892	223	768	1452	0.614	892	590	1.6	1.6	6.633	A
3 - A335 (NW)	1293	323	325	1811	0.714	1292	1334	2.5	2.6	7.223	A

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Wide Lane (NE)	280	70	489	850	0.330	282	838	0.8	0.5	6.405	A
4 - Wide Lane (NE)	632	158	492	849	0.744	683	278	16.0	3.2	27.398	D
2 - Wide Lane (S)	728	182	692	1507	0.483	731	484	1.6	1.0	4.807	A
3 - A335 (NW)	1055	264	266	1854	0.569	1060	1156	2.6	1.4	4.748	A

18:00 - 18:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Wide Lane (NE)	235	59	408	894	0.263	235	700	0.5	0.4	5.525	A
4 - Wide Lane (NE)	529	132	411	894	0.592	536	232	3.2	1.5	10.327	B
2 - Wide Lane (S)	610	152	543	1615	0.378	611	404	1.0	0.6	3.708	A
3 - A335 (NW)	884	221	223	1886	0.469	886	931	1.4	0.9	3.751	A

FB 2028, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	3 - A335 (NW) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	A335, Wide Ln Rbt	Standard Roundabout		1, 4, 2, 3	25.44	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
D5	FB 2028	AM	ONE HOUR	07:45	09:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Wide Lane (NE)		ONE HOUR	✓	259	100.000
4 - Wide Lane (NE)		ONE HOUR	✓	580	100.000
2 - Wide Lane (S)		ONE HOUR	✓	983	100.000
3 - A335 (NW)		ONE HOUR	✓	1395	100.000

Origin-Destination Data

Demand (PCU/hr)

	To				
		1 - Wide Lane (NE)	4 - Wide Lane (NE)	2 - Wide Lane (S)	3 - A335 (NW)
From	1 - Wide Lane (NE)	0	259	0	0
	4 - Wide Lane (NE)	0	0	0	580
	2 - Wide Lane (S)	535	0	0	448
	3 - A335 (NW)	765	0	627	3

Vehicle Mix

Heavy Vehicle Percentages

From	To				
		1 - Wide Lane (NE)	4 - Wide Lane (NE)	2 - Wide Lane (S)	3 - A335 (NW)
	1 - Wide Lane (NE)	0	3	0	0
	4 - Wide Lane (NE)	0	0	0	13
	2 - Wide Lane (S)	1	0	0	6
	3 - A335 (NW)	4	0	6	50

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - Wide Lane (NE)	0.39	8.14	0.6	A	238	356
4 - Wide Lane (NE)	0.86	37.17	6.2	E	532	798
2 - Wide Lane (S)	0.70	8.02	2.4	A	902	1353
3 - A335 (NW)	0.95	36.05	14.4	E	1280	1920

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Wide Lane (NE)	195	49	472	859	0.227	194	974	0.0	0.3	5.560	A
4 - Wide Lane (NE)	437	109	472	861	0.507	432	194	0.0	1.1	9.394	A
2 - Wide Lane (S)	740	185	434	1693	0.437	737	469	0.0	0.8	3.873	A
3 - A335 (NW)	1050	263	401	1755	0.599	1044	770	0.0	1.5	5.273	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Wide Lane (NE)	233	58	564	809	0.288	232	1165	0.3	0.4	6.425	A
4 - Wide Lane (NE)	521	130	564	809	0.644	518	232	1.1	2.0	13.809	B
2 - Wide Lane (S)	884	221	521	1631	0.542	882	561	0.8	1.2	4.952	A
3 - A335 (NW)	1254	314	480	1697	0.739	1249	923	1.5	2.9	8.339	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Wide Lane (NE)	285	71	677	747	0.382	284	1409	0.4	0.6	7.992	A
4 - Wide Lane (NE)	639	160	677	746	0.856	625	284	2.0	5.4	30.463	D
2 - Wide Lane (S)	1082	271	628	1553	0.697	1078	674	1.2	2.3	7.748	A
3 - A335 (NW)	1536	384	587	1618	0.949	1499	1119	2.9	12.1	26.110	D

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Wide Lane (NE)	285	71	689	741	0.385	285	1426	0.6	0.6	8.139	A
4 - Wide Lane (NE)	639	160	689	739	0.864	636	285	5.4	6.2	37.170	E
2 - Wide Lane (S)	1082	271	639	1545	0.700	1082	686	2.3	2.4	8.016	A
3 - A335 (NW)	1536	384	589	1616	0.950	1527	1132	12.1	14.4	36.048	E

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Wide Lane (NE)	233	58	587	797	0.292	234	1196	0.6	0.4	6.597	A
4 - Wide Lane (NE)	521	130	587	797	0.655	537	234	6.2	2.2	16.536	C
2 - Wide Lane (S)	884	221	540	1617	0.547	888	584	2.4	1.3	5.129	A
3 - A335 (NW)	1254	314	483	1694	0.740	1299	945	14.4	3.1	10.614	B

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Wide Lane (NE)	195	49	477	856	0.228	195	983	0.4	0.3	5.614	A
4 - Wide Lane (NE)	437	109	477	858	0.509	441	195	2.2	1.2	9.854	A
2 - Wide Lane (S)	740	185	443	1687	0.439	742	475	1.3	0.8	3.939	A
3 - A335 (NW)	1050	263	404	1753	0.599	1056	781	3.1	1.6	5.472	A

FB 2028, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	3 - A335 (NW) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	A335, Wide Ln Rbt	Standard Roundabout		1, 4, 2, 3	34.08	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
D6	FB 2028	PM	ONE HOUR	16:45	18:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Wide Lane (NE)		ONE HOUR	✓	335	100.000
4 - Wide Lane (NE)		ONE HOUR	✓	716	100.000
2 - Wide Lane (S)		ONE HOUR	✓	900	100.000
3 - A335 (NW)		ONE HOUR	✓	1232	100.000

Origin-Destination Data

Demand (PCU/hr)

	To				
		1 - Wide Lane (NE)	4 - Wide Lane (NE)	2 - Wide Lane (S)	3 - A335 (NW)
From	1 - Wide Lane (NE)	4	331	0	0
	4 - Wide Lane (NE)	0	0	0	716
	2 - Wide Lane (S)	324	0	0	576
	3 - A335 (NW)	644	0	583	5

Vehicle Mix

Heavy Vehicle Percentages

	To				
From		1 - Wide Lane (NE)	4 - Wide Lane (NE)	2 - Wide Lane (S)	3 - A335 (NW)
	1 - Wide Lane (NE)	0	1	0	0
	4 - Wide Lane (NE)	0	0	0	1
	2 - Wide Lane (S)	2	0	0	3
	3 - A335 (NW)	5	0	3	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - Wide Lane (NE)	0.48	9.21	0.9	A	307	461
4 - Wide Lane (NE)	1.04	122.26	27.8	F	657	986
2 - Wide Lane (S)	0.68	7.89	2.1	A	826	1239
3 - A335 (NW)	0.76	8.74	3.2	A	1131	1696

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Wide Lane (NE)	252	63	441	876	0.288	251	729	0.0	0.4	5.796	A
4 - Wide Lane (NE)	539	135	444	876	0.615	533	248	0.0	1.6	10.407	B
2 - Wide Lane (S)	678	169	540	1617	0.419	675	437	0.0	0.7	3.909	A
3 - A335 (NW)	928	232	246	1869	0.496	923	968	0.0	1.0	3.946	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Wide Lane (NE)	301	75	528	829	0.363	300	872	0.4	0.6	6.872	A
4 - Wide Lane (NE)	644	161	531	828	0.778	637	297	1.6	3.2	18.438	C
2 - Wide Lane (S)	809	202	645	1541	0.525	808	523	0.7	1.1	5.030	A
3 - A335 (NW)	1108	277	294	1833	0.604	1105	1158	1.0	1.6	5.130	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Wide Lane (NE)	369	92	644	765	0.482	367	1065	0.6	0.9	9.108	A
4 - Wide Lane (NE)	788	197	649	762	1.034	730	363	3.2	17.8	67.445	F
2 - Wide Lane (S)	991	248	740	1472	0.673	987	639	1.1	2.1	7.563	A
3 - A335 (NW)	1356	339	360	1785	0.760	1350	1367	1.6	3.2	8.486	A

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Wide Lane (NE)	369	92	647	764	0.483	369	1070	0.9	0.9	9.206	A
4 - Wide Lane (NE)	788	197	652	760	1.037	748	364	17.8	27.8	122.262	F
2 - Wide Lane (S)	991	248	758	1458	0.679	991	642	2.1	2.1	7.888	A
3 - A335 (NW)	1356	339	361	1784	0.760	1356	1388	3.2	3.2	8.739	A

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Wide Lane (NE)	301	75	532	827	0.364	303	878	0.9	0.6	6.955	A
4 - Wide Lane (NE)	644	161	535	825	0.780	738	299	27.8	4.2	59.804	F
2 - Wide Lane (S)	809	202	746	1467	0.551	813	527	2.1	1.3	5.674	A
3 - A335 (NW)	1108	277	296	1832	0.605	1114	1263	3.2	1.6	5.265	A

18:00 - 18:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Wide Lane (NE)	252	63	444	874	0.288	253	734	0.6	0.4	5.857	A
4 - Wide Lane (NE)	539	135	447	875	0.616	549	250	4.2	1.7	11.488	B
2 - Wide Lane (S)	678	169	556	1605	0.422	680	440	1.3	0.8	4.000	A
3 - A335 (NW)	928	232	248	1867	0.497	930	988	1.6	1.0	4.004	A

DS 2028, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	3 - A335 (NW) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	A335, Wide Ln Rbt	Standard Roundabout		1, 4, 2, 3	101.52	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
D7	DS 2028	AM	ONE HOUR	07:45	09:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Wide Lane (NE)		ONE HOUR	✓	302	100.000
4 - Wide Lane (NE)		ONE HOUR	✓	580	100.000
2 - Wide Lane (S)		ONE HOUR	✓	1140	100.000
3 - A335 (NW)		ONE HOUR	✓	1623	100.000

Origin-Destination Data

Demand (PCU/hr)

	To				
		1 - Wide Lane (NE)	4 - Wide Lane (NE)	2 - Wide Lane (S)	3 - A335 (NW)
From	1 - Wide Lane (NE)	0	302	0	0
	4 - Wide Lane (NE)	0	0	0	580
	2 - Wide Lane (S)	553	0	0	587
	3 - A335 (NW)	765	0	855	3

Vehicle Mix

Heavy Vehicle Percentages

From	To				
		1 - Wide Lane (NE)	4 - Wide Lane (NE)	2 - Wide Lane (S)	3 - A335 (NW)
	1 - Wide Lane (NE)	0	2	0	0
	4 - Wide Lane (NE)	0	0	0	13
	2 - Wide Lane (S)	1	0	0	15
	3 - A335 (NW)	4	0	8	50

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - Wide Lane (NE)	0.51	11.36	1.0	B	277	416
4 - Wide Lane (NE)	0.98	90.41	15.4	F	532	798
2 - Wide Lane (S)	0.81	12.81	4.3	B	1046	1569
3 - A335 (NW)	1.12	184.58	102.8	F	1489	2234

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Wide Lane (NE)	227	57	641	767	0.296	226	986	0.0	0.4	6.762	A
4 - Wide Lane (NE)	437	109	641	766	0.570	431	226	0.0	1.5	11.925	B
2 - Wide Lane (S)	858	215	433	1694	0.507	854	639	0.0	1.1	4.592	A
3 - A335 (NW)	1222	305	414	1745	0.700	1212	873	0.0	2.4	7.049	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Wide Lane (NE)	271	68	764	700	0.388	271	1177	0.4	0.6	8.531	A
4 - Wide Lane (NE)	521	130	764	698	0.747	515	271	1.5	3.1	21.474	C
2 - Wide Lane (S)	1025	256	518	1633	0.628	1022	761	1.1	1.8	6.320	A
3 - A335 (NW)	1459	365	496	1685	0.866	1444	1044	2.4	6.1	15.023	C

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Wide Lane (NE)	333	83	839	659	0.505	331	1353	0.6	1.0	11.143	B
4 - Wide Lane (NE)	639	160	839	656	0.973	606	331	3.1	11.3	58.597	F
2 - Wide Lane (S)	1255	314	608	1567	0.801	1246	836	1.8	4.1	11.763	B
3 - A335 (NW)	1787	447	604	1605	1.113	1587	1250	6.1	56.0	80.403	F

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Wide Lane (NE)	333	83	846	655	0.507	332	1362	1.0	1.0	11.363	B
4 - Wide Lane (NE)	639	160	846	652	0.979	622	332	11.3	15.4	90.412	F
2 - Wide Lane (S)	1255	314	625	1555	0.807	1254	843	4.1	4.3	12.809	B
3 - A335 (NW)	1787	447	608	1602	1.115	1600	1271	56.0	102.8	184.583	F

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Wide Lane (NE)	271	68	879	637	0.426	273	1286	1.0	0.8	10.103	B
4 - Wide Lane (NE)	521	130	879	634	0.823	558	273	15.4	6.3	61.268	F
2 - Wide Lane (S)	1025	256	561	1602	0.640	1034	876	4.3	2.0	6.944	A
3 - A335 (NW)	1459	365	502	1681	0.868	1663	1093	102.8	51.7	168.907	F

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Wide Lane (NE)	227	57	750	708	0.321	228	1086	0.8	0.5	7.680	A
4 - Wide Lane (NE)	437	109	750	706	0.619	454	228	6.3	1.9	17.209	C
2 - Wide Lane (S)	858	215	457	1677	0.512	861	747	2.0	1.1	4.777	A
3 - A335 (NW)	1222	305	418	1742	0.701	1418	901	51.7	2.6	21.196	C

DS 2028, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	3 - A335 (NW) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	A335, Wide Ln Rbt	Standard Roundabout		1, 4, 2, 3	66.00	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
D8	DS 2028	PM	ONE HOUR	16:45	18:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Wide Lane (NE)		ONE HOUR	✓	345	100.000
4 - Wide Lane (NE)		ONE HOUR	✓	716	100.000
2 - Wide Lane (S)		ONE HOUR	✓	1142	100.000
3 - A335 (NW)		ONE HOUR	✓	1373	100.000

Origin-Destination Data

Demand (PCU/hr)

	To				
		1 - Wide Lane (NE)	4 - Wide Lane (NE)	2 - Wide Lane (S)	3 - A335 (NW)
From	1 - Wide Lane (NE)	4	341	0	0
	4 - Wide Lane (NE)	0	0	0	716
	2 - Wide Lane (S)	359	0	0	783
	3 - A335 (NW)	644	0	724	5

Vehicle Mix

Heavy Vehicle Percentages

From	To				
		1 - Wide Lane (NE)	4 - Wide Lane (NE)	2 - Wide Lane (S)	3 - A335 (NW)
	1 - Wide Lane (NE)	0	1	0	0
	4 - Wide Lane (NE)	0	0	0	1
	2 - Wide Lane (S)	1	0	0	6
	3 - A335 (NW)	5	0	10	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - Wide Lane (NE)	0.56	12.13	1.3	B	317	475
4 - Wide Lane (NE)	1.17	270.79	63.9	F	657	986
2 - Wide Lane (S)	0.83	14.50	4.9	B	1048	1572
3 - A335 (NW)	0.86	15.57	6.3	C	1260	1890

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Wide Lane (NE)	260	65	546	819	0.317	258	754	0.0	0.5	6.461	A
4 - Wide Lane (NE)	539	135	549	818	0.659	532	255	0.0	1.9	12.407	B
2 - Wide Lane (S)	860	215	538	1618	0.531	855	542	0.0	1.2	4.896	A
3 - A335 (NW)	1034	258	272	1850	0.559	1028	1122	0.0	1.3	4.685	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Wide Lane (NE)	310	78	653	760	0.408	309	902	0.5	0.7	8.046	A
4 - Wide Lane (NE)	644	161	657	757	0.850	632	306	1.9	4.8	26.775	D
2 - Wide Lane (S)	1027	257	640	1544	0.665	1023	649	1.2	2.0	7.165	A
3 - A335 (NW)	1234	309	325	1810	0.682	1231	1338	1.3	2.3	6.637	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Wide Lane (NE)	380	95	795	683	0.556	378	1098	0.7	1.2	11.817	B
4 - Wide Lane (NE)	788	197	799	678	1.162	668	373	4.8	35.0	123.404	F
2 - Wide Lane (S)	1257	314	677	1517	0.829	1247	789	2.0	4.7	13.400	B
3 - A335 (NW)	1512	378	396	1758	0.860	1497	1528	2.3	5.9	14.091	B

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Wide Lane (NE)	380	95	802	679	0.559	380	1108	1.2	1.3	12.127	B
4 - Wide Lane (NE)	788	197	806	674	1.169	673	375	35.0	63.9	270.788	F
2 - Wide Lane (S)	1257	314	683	1513	0.831	1256	796	4.7	4.9	14.498	B
3 - A335 (NW)	1512	378	399	1756	0.861	1510	1540	5.9	6.3	15.568	C

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Wide Lane (NE)	310	78	664	755	0.411	312	916	1.3	0.7	8.258	A
4 - Wide Lane (NE)	644	161	667	752	0.856	740	309	63.9	39.8	252.663	F
2 - Wide Lane (S)	1027	257	748	1466	0.700	1036	659	4.9	2.5	8.930	A
3 - A335 (NW)	1234	309	329	1807	0.683	1250	1455	6.3	2.4	7.131	A

18:00 - 18:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Wide Lane (NE)	260	65	551	816	0.318	261	761	0.7	0.5	6.556	A
4 - Wide Lane (NE)	539	135	554	815	0.662	690	258	39.8	2.1	60.844	F
2 - Wide Lane (S)	860	215	696	1503	0.572	864	547	2.5	1.4	5.919	A
3 - A335 (NW)	1034	258	275	1847	0.560	1038	1286	2.4	1.4	4.805	A

FB 2036, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	3 - A335 (NW) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	A335, Wide Ln Rbt	Standard Roundabout		1, 4, 2, 3	76.43	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
D9	FB 2036	AM	ONE HOUR	07:45	09:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Wide Lane (NE)		ONE HOUR	✓	289	100.000
4 - Wide Lane (NE)		ONE HOUR	✓	611	100.000
2 - Wide Lane (S)		ONE HOUR	✓	1122	100.000
3 - A335 (NW)		ONE HOUR	✓	1534	100.000

Origin-Destination Data

Demand (PCU/hr)

	To				
		1 - Wide Lane (NE)	4 - Wide Lane (NE)	2 - Wide Lane (S)	3 - A335 (NW)
From	1 - Wide Lane (NE)	0	289	0	0
	4 - Wide Lane (NE)	0	0	0	611
	2 - Wide Lane (S)	597	0	0	525
	3 - A335 (NW)	806	0	728	0

Vehicle Mix

Heavy Vehicle Percentages

	To				
From		1 - Wide Lane (NE)	4 - Wide Lane (NE)	2 - Wide Lane (S)	3 - A335 (NW)
	1 - Wide Lane (NE)	0	3	0	0
	4 - Wide Lane (NE)	0	0	0	13
	2 - Wide Lane (S)	1	0	0	5
	3 - A335 (NW)	4	0	5	50

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - Wide Lane (NE)	0.45	9.40	0.8	A	265	398
4 - Wide Lane (NE)	0.95	67.12	11.8	F	561	841
2 - Wide Lane (S)	0.81	12.53	4.2	B	1030	1544
3 - A335 (NW)	1.08	139.51	73.2	F	1408	2111

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Wide Lane (NE)	218	54	544	820	0.265	216	1050	0.0	0.4	6.127	A
4 - Wide Lane (NE)	460	115	544	820	0.561	454	216	0.0	1.4	10.957	B
2 - Wide Lane (S)	845	211	454	1679	0.503	841	544	0.0	1.0	4.395	A
3 - A335 (NW)	1155	289	447	1721	0.671	1147	848	0.0	2.1	6.462	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Wide Lane (NE)	260	65	649	762	0.341	259	1254	0.4	0.5	7.358	A
4 - Wide Lane (NE)	549	137	649	762	0.721	544	259	1.4	2.7	18.233	C
2 - Wide Lane (S)	1009	252	544	1614	0.625	1006	649	1.0	1.7	6.063	A
3 - A335 (NW)	1379	345	535	1656	0.833	1368	1015	2.1	4.8	12.612	B

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Wide Lane (NE)	318	80	732	717	0.444	317	1463	0.5	0.8	9.237	A
4 - Wide Lane (NE)	673	168	732	716	0.940	647	317	2.7	9.3	46.929	E
2 - Wide Lane (S)	1235	309	647	1540	0.802	1226	732	1.7	3.9	11.503	B
3 - A335 (NW)	1689	422	653	1570	1.076	1543	1220	4.8	41.4	64.372	F

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Wide Lane (NE)	318	80	741	712	0.447	318	1477	0.8	0.8	9.401	A
4 - Wide Lane (NE)	673	168	741	711	0.947	663	318	9.3	11.8	67.124	F
2 - Wide Lane (S)	1235	309	663	1528	0.809	1234	741	3.9	4.2	12.532	B
3 - A335 (NW)	1689	422	657	1567	1.078	1562	1240	41.4	73.2	139.510	F

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Wide Lane (NE)	260	65	773	695	0.374	261	1397	0.8	0.6	8.546	A
4 - Wide Lane (NE)	549	137	773	693	0.792	577	261	11.8	4.9	39.891	E
2 - Wide Lane (S)	1009	252	577	1590	0.634	1018	773	4.2	1.8	6.575	A
3 - A335 (NW)	1379	345	542	1651	0.835	1628	1053	73.2	11.0	98.168	F

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Wide Lane (NE)	218	54	565	809	0.269	219	1076	0.6	0.4	6.294	A
4 - Wide Lane (NE)	460	115	565	809	0.569	473	219	4.9	1.5	12.586	B
2 - Wide Lane (S)	845	211	473	1665	0.507	848	565	1.8	1.1	4.547	A
3 - A335 (NW)	1155	289	451	1718	0.672	1190	870	11.0	2.2	7.590	A

FB 2036, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	3 - A335 (NW) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	A335, Wide Ln Rbt	Standard Roundabout		1, 4, 2, 3	64.71	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
D10	FB 2036	PM	ONE HOUR	16:45	18:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Wide Lane (NE)		ONE HOUR	✓	352	100.000
4 - Wide Lane (NE)		ONE HOUR	✓	754	100.000
2 - Wide Lane (S)		ONE HOUR	✓	1054	100.000
3 - A335 (NW)		ONE HOUR	✓	1336	100.000

Origin-Destination Data

Demand (PCU/hr)

	To				
		1 - Wide Lane (NE)	4 - Wide Lane (NE)	2 - Wide Lane (S)	3 - A335 (NW)
From	1 - Wide Lane (NE)	4	348	0	0
	4 - Wide Lane (NE)	0	0	0	754
	2 - Wide Lane (S)	380	0	0	674
	3 - A335 (NW)	679	0	652	5

Vehicle Mix

Heavy Vehicle Percentages

	To				
From		1 - Wide Lane (NE)	4 - Wide Lane (NE)	2 - Wide Lane (S)	3 - A335 (NW)
	1 - Wide Lane (NE)	0	1	0	0
	4 - Wide Lane (NE)	0	0	0	1
	2 - Wide Lane (S)	1	0	0	3
	3 - A335 (NW)	5	0	3	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - Wide Lane (NE)	0.54	10.85	1.2	B	323	485
4 - Wide Lane (NE)	1.16	254.55	63.4	F	692	1038
2 - Wide Lane (S)	0.78	11.40	3.6	B	967	1451
3 - A335 (NW)	0.85	13.81	5.4	B	1226	1839

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Wide Lane (NE)	265	66	492	848	0.312	263	796	0.0	0.5	6.197	A
4 - Wide Lane (NE)	568	142	495	848	0.670	560	260	0.0	2.0	12.322	B
2 - Wide Lane (S)	794	198	567	1598	0.497	790	488	0.0	1.0	4.535	A
3 - A335 (NW)	1006	251	288	1838	0.547	1001	1068	0.0	1.2	4.447	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Wide Lane (NE)	316	79	589	795	0.398	316	953	0.5	0.7	7.567	A
4 - Wide Lane (NE)	678	169	593	793	0.854	666	312	2.0	5.0	26.324	D
2 - Wide Lane (S)	948	237	674	1520	0.624	945	585	1.0	1.7	6.376	A
3 - A335 (NW)	1201	300	344	1796	0.669	1198	1275	1.2	2.1	6.221	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Wide Lane (NE)	388	97	717	725	0.534	386	1161	0.7	1.1	10.639	B
4 - Wide Lane (NE)	830	208	722	722	1.151	710	381	5.0	35.0	116.970	F
2 - Wide Lane (S)	1160	290	720	1486	0.781	1153	712	1.7	3.5	10.824	B
3 - A335 (NW)	1471	368	420	1741	0.845	1458	1453	2.1	5.2	12.732	B

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Wide Lane (NE)	388	97	723	722	0.537	387	1170	1.1	1.2	10.850	B
4 - Wide Lane (NE)	830	208	727	718	1.156	717	383	35.0	63.4	254.546	F
2 - Wide Lane (S)	1160	290	726	1482	0.783	1160	717	3.5	3.6	11.402	B
3 - A335 (NW)	1471	368	423	1739	0.846	1470	1464	5.2	5.4	13.808	B

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Wide Lane (NE)	316	79	597	791	0.400	318	965	1.2	0.7	7.722	A
4 - Wide Lane (NE)	678	169	601	789	0.859	776	315	63.4	38.7	237.902	F
2 - Wide Lane (S)	948	237	785	1439	0.658	954	593	3.6	2.0	7.675	A
3 - A335 (NW)	1201	300	347	1794	0.669	1214	1391	5.4	2.2	6.597	A

18:00 - 18:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Wide Lane (NE)	265	66	496	846	0.313	266	803	0.7	0.5	6.279	A
4 - Wide Lane (NE)	568	142	499	845	0.672	714	263	38.7	2.2	56.049	F
2 - Wide Lane (S)	794	198	720	1486	0.534	797	493	2.0	1.2	5.367	A
3 - A335 (NW)	1006	251	290	1836	0.548	1009	1227	2.2	1.3	4.549	A

DS 2036, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	3 - A335 (NW) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	A335, Wide Ln Rbt	Standard Roundabout		1, 4, 2, 3	224.89	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
D11	DS 2036	AM	ONE HOUR	07:45	09:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Wide Lane (NE)		ONE HOUR	✓	332	100.000
4 - Wide Lane (NE)		ONE HOUR	✓	611	100.000
2 - Wide Lane (S)		ONE HOUR	✓	1278	100.000
3 - A335 (NW)		ONE HOUR	✓	1762	100.000

Origin-Destination Data

Demand (PCU/hr)

	To				
		1 - Wide Lane (NE)	4 - Wide Lane (NE)	2 - Wide Lane (S)	3 - A335 (NW)
From	1 - Wide Lane (NE)	0	332	0	0
	4 - Wide Lane (NE)	0	0	0	611
	2 - Wide Lane (S)	614	0	0	664
	3 - A335 (NW)	806	0	956	0

Vehicle Mix

Heavy Vehicle Percentages

	To				
From		1 - Wide Lane (NE)	4 - Wide Lane (NE)	2 - Wide Lane (S)	3 - A335 (NW)
	1 - Wide Lane (NE)	0	2	0	0
	4 - Wide Lane (NE)	0	0	0	13
	2 - Wide Lane (S)	1	0	0	13
	3 - A335 (NW)	4	0	7	50

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - Wide Lane (NE)	0.56	12.59	1.3	B	305	457
4 - Wide Lane (NE)	1.03	134.29	25.2	F	561	841
2 - Wide Lane (S)	0.91	25.51	9.4	D	1173	1759
3 - A335 (NW)	1.25	440.92	206.5	F	1617	2425

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Wide Lane (NE)	250	62	712	728	0.343	248	1060	0.0	0.5	7.611	A
4 - Wide Lane (NE)	460	115	712	727	0.633	453	248	0.0	1.9	14.470	B
2 - Wide Lane (S)	962	241	453	1680	0.573	956	712	0.0	1.4	5.277	A
3 - A335 (NW)	1327	332	460	1712	0.775	1313	949	0.0	3.5	9.234	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Wide Lane (NE)	298	75	836	660	0.452	297	1255	0.5	0.8	10.079	B
4 - Wide Lane (NE)	549	137	836	658	0.835	538	297	1.9	4.8	31.285	D
2 - Wide Lane (S)	1149	287	538	1618	0.710	1144	836	1.4	2.5	8.041	A
3 - A335 (NW)	1584	396	550	1645	0.963	1542	1132	3.5	14.0	29.009	D

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Wide Lane (NE)	366	91	844	656	0.557	364	1377	0.8	1.2	12.488	B
4 - Wide Lane (NE)	673	168	844	653	1.030	624	364	4.8	17.0	80.657	F
2 - Wide Lane (S)	1407	352	624	1556	0.904	1385	844	2.5	8.1	20.236	C
3 - A335 (NW)	1940	485	665	1560	1.243	1556	1343	14.0	110.0	151.673	F

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Wide Lane (NE)	366	91	843	657	0.557	365	1384	1.2	1.3	12.594	B
4 - Wide Lane (NE)	673	168	843	654	1.029	640	365	17.0	25.2	134.285	F
2 - Wide Lane (S)	1407	352	640	1544	0.911	1402	843	8.1	9.4	25.506	D
3 - A335 (NW)	1940	485	674	1554	1.248	1554	1369	110.0	206.5	366.681	F

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Wide Lane (NE)	298	75	882	635	0.470	300	1308	1.3	0.9	10.989	B
4 - Wide Lane (NE)	549	137	882	632	0.869	606	300	25.2	11.1	115.991	F
2 - Wide Lane (S)	1149	287	606	1569	0.732	1174	882	9.4	3.0	10.321	B
3 - A335 (NW)	1584	396	564	1635	0.969	1626	1216	206.5	195.9	440.923	F

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Wide Lane (NE)	250	62	921	614	0.407	251	1242	0.9	0.7	10.130	B
4 - Wide Lane (NE)	460	115	921	610	0.754	489	251	11.1	3.9	38.714	E
2 - Wide Lane (S)	962	241	489	1654	0.582	968	921	3.0	1.5	5.660	A
3 - A335 (NW)	1327	332	465	1707	0.777	1698	992	195.9	103.0	318.024	F

DS 2036, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	3 - A335 (NW) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	A335, Wide Ln Rbt	Standard Roundabout		1, 4, 2, 3	123.70	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
D12	DS 2036	PM	ONE HOUR	16:45	18:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Wide Lane (NE)		ONE HOUR	✓	361	100.000
4 - Wide Lane (NE)		ONE HOUR	✓	754	100.000
2 - Wide Lane (S)		ONE HOUR	✓	1295	100.000
3 - A335 (NW)		ONE HOUR	✓	1478	100.000

Origin-Destination Data

Demand (PCU/hr)

	To				
		1 - Wide Lane (NE)	4 - Wide Lane (NE)	2 - Wide Lane (S)	3 - A335 (NW)
From	1 - Wide Lane (NE)	4	357	0	0
	4 - Wide Lane (NE)	0	0	0	754
	2 - Wide Lane (S)	414	0	0	881
	3 - A335 (NW)	679	0	794	5

Vehicle Mix

Heavy Vehicle Percentages

	To				
From		1 - Wide Lane (NE)	4 - Wide Lane (NE)	2 - Wide Lane (S)	3 - A335 (NW)
	1 - Wide Lane (NE)	0	1	0	0
	4 - Wide Lane (NE)	0	0	0	1
	2 - Wide Lane (S)	1	0	0	5
	3 - A335 (NW)	5	0	9	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - Wide Lane (NE)	0.62	14.95	1.6	B	331	497
4 - Wide Lane (NE)	1.31	512.75	105.5	F	692	1038
2 - Wide Lane (S)	0.93	28.86	10.7	D	1188	1782
3 - A335 (NW)	0.95	34.89	14.8	D	1356	2034

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Wide Lane (NE)	272	68	598	790	0.344	270	821	0.0	0.5	6.953	A
4 - Wide Lane (NE)	568	142	601	789	0.720	558	267	0.0	2.4	15.177	C
2 - Wide Lane (S)	975	244	565	1599	0.610	969	594	0.0	1.6	5.864	A
3 - A335 (NW)	1113	278	313	1820	0.612	1106	1221	0.0	1.7	5.355	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Wide Lane (NE)	325	81	715	727	0.447	323	982	0.5	0.8	8.994	A
4 - Wide Lane (NE)	678	169	719	723	0.937	654	320	2.4	8.5	42.396	E
2 - Wide Lane (S)	1164	291	662	1528	0.762	1158	711	1.6	3.2	9.904	A
3 - A335 (NW)	1329	332	374	1775	0.749	1323	1446	1.7	3.1	8.430	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Wide Lane (NE)	397	99	860	648	0.614	395	1183	0.8	1.5	14.191	B
4 - Wide Lane (NE)	830	208	864	642	1.293	638	390	8.5	56.4	198.270	F
2 - Wide Lane (S)	1426	356	648	1538	0.927	1400	854	3.2	9.6	23.463	C
3 - A335 (NW)	1627	407	452	1717	0.948	1590	1596	3.1	12.3	25.214	D

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Wide Lane (NE)	397	99	874	640	0.621	397	1202	1.5	1.6	14.950	B
4 - Wide Lane (NE)	830	208	879	634	1.309	634	393	56.4	105.5	454.220	F
2 - Wide Lane (S)	1426	356	644	1542	0.925	1421	869	9.6	10.7	28.859	D
3 - A335 (NW)	1627	407	459	1712	0.950	1617	1606	12.3	14.8	34.888	D

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Wide Lane (NE)	325	81	743	711	0.456	328	1016	1.6	0.9	9.545	A
4 - Wide Lane (NE)	678	169	747	708	0.958	701	324	105.5	99.8	512.752	F
2 - Wide Lane (S)	1164	291	709	1494	0.779	1192	738	10.7	3.9	13.326	B
3 - A335 (NW)	1329	332	385	1767	0.752	1374	1516	14.8	3.4	10.903	B

18:00 - 18:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Wide Lane (NE)	272	68	605	787	0.346	273	831	0.9	0.5	7.097	A
4 - Wide Lane (NE)	568	142	608	785	0.723	777	270	99.8	47.5	343.923	F
2 - Wide Lane (S)	975	244	784	1440	0.677	981	601	3.9	2.2	8.251	A
3 - A335 (NW)	1113	278	317	1817	0.613	1119	1448	3.4	1.7	5.580	A